1. CALL TO ORDER

2. ROLL CALL

3. PUBLIC COMMENT

4. CHAIRMAN'S REPORT
   A. 17-18-27 Resolution Acknowledging April 8-14, 2018 as National Public Safety Telecommunicators Week

5. MEMBERS' REMARKS

6. CONSENT AGENDA
   A. Monthly Staff Report
      1. 17-18-32 Monthly Report for April 10 Regular Meeting

   B. Revenue Report 911 Surcharge Funds
      1. 17-18-25 ETSB Revenue Report for April 10 Regular Meeting for Funds 5820/Equalization, 5810/Wireless and 5800/Wireline

   C. Minutes Approval
      1. Emergency Telephone System Board - Regular Meeting - Tuesday February 13th, 2018
      2. Emergency Telephone System Board - Regular Meeting - Tuesday March 6th, 2018

7. ACTION ITEMS
   A. Payment of Claims
      1. 17-18-28 Payment of Claims for April 10, 2018 for FY17 - Total Paylist: $1,385.96, Total for 4000-5800 (wireline): $0.00, Total for 4000-5810 (wireless): $0.00, Total for 4000-5820 (equalization): $1,385.96
2. 17-18-29 Payment of Claims for April 10, 2018 for FY18 - Total Paylist: $163,424.57, Total for 4000-5800 (wireline): $1,670.72, Total for 4000-5810 (wireless): $135,050.78, Total for 4000-5820 (equalization): $26,703.57. Total for Interdepartment transfers for 4000-5820: $25,000.00

B. Change Orders

1. ETS-CO-0010-18 Resolution approving Change Order #2 to PO 950891/1824-1 to decrease and close the amount of the AT&T, Inc. Purchase Order and release the remaining funds in the amount of $4,338.72

C. Purchase Resolutions

1. ETS-R-0019-18 Authorizing Resolution to DuPage County Department of Transportation PO 2877-1, on behalf of DuPage ETSB, to Meade to furnish and install inner-duct and indoor outdoor fiber for Customer Premise Equipment (CPE) network connectivity at the DU-COMM PSAP (Total Amount: $41,181.00)

2. ETS-R-0020-18 Awarding Resolution Approving Award of Purchase per Lowest Responsible Bid for RFP 16-167-RC to PURVIS Systems Incorporated for an IP-based Fire Station Alerting System to standardize the delivery of fire and EMS dispatch (Total ETSB Purchase Order Amount: $3,642,476.80)

D. Resolutions

1. ETS-R-0013-18 Resolution to Adopt Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS)

2. ETS-R-0014-18 Resolution to Adopt Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups

3. ETS-R-0015-18 Resolution to Adopt Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups

4. ETS-R-0016-18 Resolution to Adopt Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions

5. ETS-R-0017-18 Resolution to Adopt Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button
E. Budget Transfers

1. ETS-R-0012-18 Budget Transfer for the Emergency Telephone System Board of DuPage County for Fiscal Year 2018 from 5810-54110: Equipment and Machinery to 5810-54100: IT Equipment to move the capital portion of the CPE contract 2031-1 for payment (Total Budget Transfer: $2,176,999.33)

2. ETS-R-0018-18 Budget Transfer for the Emergency Telephone System Board of DuPage County for Fiscal Year 2018 from 5820-53828: Contingencies to 5820-53310 Repair & MTCE Infrastructure for payment of Meade inner-duct and fiber installation to the DU-COMM 420 PSAP (Total Budget Transfer: $41,181.00)

F. Travel and Training

1. 17-18-33 Four (4) Attendees from DuPage ETSB PSAPs ACDC and DU-COMM to attend National NENA's annual conference in Nashville, TN on June 17-21, 2018 (Total conference amount not to exceed $10,420.00)

8. THIRD TOUCH TEMPLATE APPROVAL

1. 17-18-31 Third Touch Template Approval

9. DUPAGE ETSB 911 SYSTEM DESIGN

10. DUPAGE JUSTICE INFORMATION SYSTEM PROJECT

11. OLD BUSINESS

12. NEW BUSINESS

13. EXECUTIVE SESSION

A. Minutes

B. Security procedures and the use of personnel and equipment; to 5 ILCS 120/2 (C) (8)

C. Personnel Matters Pursuant to 5 ILCS 120/2 (C) (1)

D. Pending Litigation Matters Pursuant to 5 ILCS 120/2 (C) (11)

14. MATTERS REFERRED FROM EXECUTIVE SESSION

A. Review Executive Session Minutes from April 9, 2009 Meeting

B. Review Executive Session Minutes from April 8, 2010 Meeting

15. ADJOURNMENT
A. Next Meeting: April 24 at 8:50am in Room 3-500B
RESOLUTION ACKNOWLEDGING APRIL 8-14, 2018, AS NATIONAL PUBLIC-SAFETY TELECOMMUNICATORS WEEK

WHEREAS, since 1991, the second week of April has been celebrated as National Public Safety Communicators Week, to recognize all Public Safety Communications Professionals who provide a central link to the Public Safety services on which our Citizens rely every day; and

WHEREAS, DUPAGE ETSB, has the oversight for three (3) Public Safety Answering Points ("PSAPs"), including:

Addison Consolidated Dispatch Center ("ACDC") PSAP
DuPage Public Safety Communications ("DU-COMM") PSAP
DuPage Sheriff’s Office PSAP

for the Enhanced 9-1-1 systems servicing more than 929,368 residents of the County of DuPage and portions of Cook, Kane and Will counties; and

WHEREAS, these 156 Public Safety Telecommunicators are first and most critical Enhanced 9-1-1 contact to the public our citizens have with emergency services; and

WHEREAS, these 156 Public Safety Telecommunicators engaged in the operation of emergency response systems have a duty to respond to over 2,000,000 10-digit dial and 9-1-1 telephone calls from the general public for police, fire, and emergency medical assistance; and

WHEREAS, these 156 Public Safety Telecommunicators dispatch said assistance to help save the lives and property of our citizens, contribute substantially to the apprehension of criminals, suppression of fires and treatment of patients; and

WHEREAS, these 156 Public Safety Telecommunicators are an integral connection to interoperability of the DuPage 9-1-1 System for communication with our first responders by expertly monitoring their activities, providing them information and ensuring their safety; and

WHEREAS, the ETS Board acknowledges these 156 Public Safety Telecommunicators for continued commitment to public safety dispatching, consistent quality in customer service, and the continued pursuit of our goal of protecting life and property, while maintaining the highest level of professionalism 24 hours a day, 365 days a year.

NOW, THEREFORE BE IT RESOLVED, that I, Gary Grasso, Chairman, on behalf of the members of the Emergency Telephone System Board of DuPage County, our citizens and first responders, acknowledge the week of April 8-14, 2018, as National Public Safety Telecommunications Week, and further express our gratitude to all the men and woman who serve as Telecommunicators.

Enacted and approved this 10th Day of April, 2018, at Wheaton, Illinois.

______________________________________________
Gary Grasso, Chairman

______________________________________________
Paul Hinds, Secretary
Submitted for your consideration is the DuPage ETSB monthly report for activity through March 31, 2018. This report highlights the activities of the DuPage ETSB as achieved by staff, work groups, committees and consultants.

**Administration** – Linda Zerwin

**911 Services Advisory Board (SAB) and 911 Legislation:**
The March 5th meeting was cancelled. The Advisory Board met on March 26. The Board continues to discuss the changes needed to the corresponding administrative codes as a result of changes in the statute. Work on the rules will continue through multiple meetings.

Dates for 2018 – All dates are Mondays
April 23
May 21
June 25
July 23
August 27
September 24
October 29
November 26
December 17

**PSAP Consolidation and Funding:**
Total Funds disbursed for consolidation since 2010: $4,261,435.45

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Pending: Consolidation costs for Addison (unknown) and Bensenville FPD (unknown).

**Executive Session Minutes:**
The executive session minutes from April 9, 2009 and April 8, 2010 are being provided to the Board for annual review to determine if these minutes should remain under rule of executive session or if they can be released to the public.

**Travel and Training:**
On the agenda this month is one training request:

National NENA, takes place this year from June 18-21, 2018 in Nashville, TN. Attending the national NENA conference allows participants the ability to see and hear about critical public safety issues. Attendees can also take part in training sessions allowing them to accumulate continuing education hours. This request for overnight travel is for four (4) participants from PSAPs ACDC and DU-COMM. Total amount not to exceed: $10,420.00.
Budget FY2018

Budget Transfers:
There are two budget transfer requests on this month’s agenda. The first request is to transfer funds from 4000-5820-54110 (Equipment and Machinery) to 4000-5820-54100 (IT Equipment) to move the capital portion of contract 2031-1 for Customer Premise Equipment for the PSAPs for payment. The total amount of the transfer is $2,176,999.33.

The second is to transfer funds from 4000-5820-53828 (Contingencies) to 4000-5820-53310 (Repair & MTCE Infrastructure) for payment to Meade using the DuPage County Department of Transportation PO 2877-1 for furnishing and installing inner-duct and indoor-outdoor fiber to the DU-COMM PSAP. The total amount of the transfer is $41,181.00. Please refer to Purchase Requests below.

Payment of Claims:
On the agenda this month, there is the Payment of Claims as listed below. The Bill’s list includes Chairman’s authorization letter, Detail listing of obligations vs. budget, DuPage County Auditor’s letter and Bank Account Payment History Report for Internal and External Payments for March FY17 and FY18.

Bills List FY17
External
Total for all invoices for three accounts in total amount of $1,385.96
Total for Fund 5800: $ 0.00
Total for Fund 5810: $ 0.00
Total for Fund 5820: $ 1,385.96

Bills List FY18
Internal
Total for Fund 5820: $25,000.00 to IT for County Network and Software System Support

External
Total for all invoices for three accounts in total amount of $163,424.57
Total for Fund 5800: $ 1,670.72
Total for Fund 5810: $ 135,050.78
Total for Fund 5820: $ 26,703.07

Change Orders:
There is one change order on the agenda this month.

AT&T Inc.: Purchase Order 950891/1824-1: Change Order #2 is to close the purchase order and release the remaining encumbered balance of $4,338.72. This purchase order expired September 30, 2017 and no further invoices will be applied towards the remaining funds.

Revenue and Expenditures
Revenue: Wireline, Wireless and Equalization Revenue Reports are on the consent agenda. In preparation for FY18 costs, agency Chiefs were asked to update their user list. Any changes, additions and deletions were submitted to rmssupport@dupageco.org by Friday, March 30. Final costs will be calculated based off user numbers and invoices will be generated mid-April.

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Procurement/Major Contracts

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<th>Year to Date</th>
<th>Remaining Balance</th>
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Purchase Requests:
On the agenda this month are two purchase order requests for board consideration.

The DuPage County Department of Transportation has been coordinating with Meade, with whom they hold Purchase Order 2877-1, to provide a quote to ETSB regarding infrastructure work that needs to be completed for the DU-COMM PSAP. This quote is to furnish and install inner-duct and indoor-outdoor fiber necessary for Customer Premise Equipment. This work was discussed with the Board at a previous ETS Board meeting. The estimated cost was not to exceed $50,000. The second requested budget transfer on this month’s agenda is to cover this cost. Total amount of request: $41,181.00.

The Fire Station Alerting contract is before the board this month for review and consideration. The board has received a summary memorandum regarding this project to consolidate multiple systems, some of which are end of life, into one unified system in the two PSAPs that dispatch fire and EMS, with supporting equipment to review the dispatch in 67 fire stations throughout the system. The capital portion of the contract is $3,095,032.54. There is a two-year warranty. The contract includes three years of maintenance for a total of $547,444.26. Total amount of request: $3,642,476.80.

Procurement/Sourcing Activities:

GPS for DEDIRs:
Staff is working with Motorola to determine the cost to implement GPS within the system for both police and fire. There is nothing additional to report from last month. Motorola has direction from this group which will allow them to formulate a proposal. It is estimated the report will take approximately 60 days (from March 6).

9-1-1 Core System Management – Matthew Theusch
Jerry Furmanski/Network, Kris Cieplinski/CAD, Mike DiGiannantonio/GIS

Customer Premise Equipment (CPE):
The remote equipment that can be moved prior to the building cutover has been installed and tested. On the day of the cutover AT&T will enable the equipment allowing ACDC staff to answer 9-1-1 calls at the new location. In conjunction with 9-1-1 calls being delivered to Jeffrey the administrative calls will be temporarily forwarded to the desk phones strategically located in the new building. Once the site is live, the AT&T techs will travel to Friendship to power down the servers and re-locate them to Jeffrey. After the server equipment is powered back up, AT&T translations will turn up the 9-1-1 trunks into Jeffrey and power down the remote equipment. Finally, the administrative lines will be ported into the new equipment and the desk phones will be disabled.

AT&T techs will redeploy the CPE positions from Friendship and Tri-State into Jeffrey. The plan is to have all the backup positions at 1471 Jeffrey completed by the end of the week. The following week AT&T, ETSB, and DU-COMM will begin planning the DU-COMM transition.

The IP/FLEX solution for administrative calls is nearing deployment at the Sheriff’s office. Last week the equipment was installed and tested. Sometime in April the network will be tested and the list completed which will allow the calls to be ported. Once the calls are ported to the IP/FLEX the old lines can be canceled.

9-1-1Net and 9-1-1 Data:
Staff and the PSAP Directors are in the process developing a comprehensive report utilizing the analytics of the new CPE system. There is no report for this month. Staff is hopeful that a report will be finalized and data for this
fiscal year will be provided through the internal systems next month. 9-1-1 Net data provided by West/Intrado for AT&T is still inaccurate and attributing all calls to ACDC.

**Network:**
All the Comcast remote sites are connected. ETSB staff is working with Comcast and Du-COMM to plan, test and move services there for the SONET end of life.

We are still experiencing bandwidth and speed issues with connectivity between the Sheriff and ACDC/DU-COMM. The connection is only around 100Mb/s on the LAN side and around 2GB on the WAN links. Comcast is working to resolve the issue.

**NetMotion:**
We continue to test the connections and MPS/FBR applications.

**SONET:**
There were no major connectivity problems during this reporting period. The new PMDC switch works fine. The Jeffrey drive location has been prepared and is connected to the network.

**Records Management System (NetRMS):**
The RMS Manager continues to provide NetRMS support and general NetRMS maintenance. ETSB Staff continue to assist, as needed. The new email for support tickets is rmssupport@dupageco.org. Users will continue to use the same phone number for emergency situations.

<table>
<thead>
<tr>
<th>NetRMS Service Requests</th>
<th>March</th>
<th>February</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of New Tickets</td>
<td>51</td>
<td>38</td>
</tr>
<tr>
<td>Number of Closed Tickets</td>
<td>47</td>
<td>33</td>
</tr>
<tr>
<td>Number of Open Tickets</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Average Age of Open Tickets</td>
<td>6 days</td>
<td>8 days</td>
</tr>
</tbody>
</table>

**DuPage Justice Information System (DuJIS)**

**DuJIS IGA and Costs:**
There is no additional information to report from the PRMS Oversight Committee.

One of the items discussed by the committee that is pertinent to ETSB was invoicing. The Committee determined that the first installment could be sent out to meet the requests of some municipalities. Invoices for the first capital installment were mailed out by the County IT department on Friday, March 2. To date, $262,369.14 has been remitted.

**DuJIS PRMS:**
See the RMS Manager’s Memorandum at the end of this report.

**DuJIS CAD:**
For most of March, ETSB staff have been configuring the CAD Paging interface and the Tow and Board up rotations. ETSB staff has begun to engage agency end users to develop the paging interface in CAD. The paging interface allows individuals to receive text message notifications for specific events. These are customizable for every CAD event type, and police and fire department. The plan for the month of April is to continue working on the groups as requests come through. April will also see the initial installation of the firehouse interface. Staff is working with Firehouse to test the field to ensure that they meet the needs of the fire department agencies.

During the March Hexagon onsite meeting ETSB, Hexagon, and DuJIS team leads reviewed the proposed final schedule. No known discrepancies were identified and the schedule will be considered final once the contract amendment is executed.
DuJIS Geographic Information Systems Data:
The Geographic Information Systems (GIS) Team has completed all data input that is required for the Hexagon CAD system. This includes address points, routing (speed limits, one-ways, street classes, and street levels), common places, and agency jurisdictions. Due to the delay in the roll out of the new CAD system, all data is being reviewed in depth and new data is being added.

The new map for the Hexagon CAD system has been developed and is continually being updated based on feedback. This map will be deployed at the PSAPs and on the mobile computers in the field.

The GIS Team continues to document any feedback and enhancements. This feedback is taken under advisement and will be decided if it can be implemented by go live or at a later date.

DuPage Interoperable Emergency Dispatch Radio System (DEDIRS)

DEDIRS Maintainer:
The monthly DEDIRS maintainer report is included at the end of this document.

Policy Advisory Committee (PAC):
The PAC met on March 6th as reported last month. The PAC did not meet again prior to this report being finalized. The PAC agenda has several policies which have been in process. These policies have been provided on the ETSB agenda. However, as of the date of this report, there has not been a recommendation to from the PAC for approval. A good portion of these policies submitted for consideration and approval comes from language of the original draft submitted by a subcommittee of the Radio Steering Committee. They have been reworked into the new ETSB Policy format. In some instances, draft language was combined. The heading of each policy will provide the previous policies or draft policy numbers of origin. ETSB staff, at the request of the PAC, distributed the policies to association membership. In addition, PAC members have been updating and working with their associations on these policies as well as change for third touch.

These policies include:
911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System. This update includes the combining of the other previous access policies into one unified policy. This is based on the types of requests that have been over time. There is also a simplification of the form.

911-005.3: Access to Encrypted Channels. This language was previous part of another policy and broken out as access to the secure talk groups of the system requires additional consideration and approval.

911-005.4: DEDIRS Subscriber Unit Programming and Use of Talk Groups. This policy combines draft language that has been assigned a new policy number. There is also an updated radio acknowledge form. It is the intent to have each agency submit new, updated forms during the third touch of the radios, if this policy is approved.

911-005.5: DEDIRS Terminology: This policy is the combination of several sections of the draft language developed by a subcommittee of the Radio Steering Committee. The only changes to this language from the draft are updates to definitions where appropriate.

911-005.6: Emergency Button: This policy language was separated from the terminology sections of the of the draft language developed by a subcommittee of the Radio Steering Committee because of its operational implications. The goal of this policy is to have a standard procedure for all PSAPs to follow in the event of an emergency button activation by any user of the system.

A third touch template will be reviewed on the April agenda by the DEDIRS Maintainer. The ETS Board has provided approval for each large update, or “touches,” of the system. There is an action item on the April agenda for this purpose.
Construction Projects

ACDC – Jeffrey Drive
As of 10:00am on April 3, 2018, the Jeffrey Drive PSAP is live!

DU-COMM / County Farm
Work continues on the DU-COMM building project. Finish work continues on the building. The pictures below include a view of the floor and ramp installation in progress in the emergency communications center, as well as consoles for the Telecommunicators. There is also a picture of the restroom sink area.
TO: PRMS Oversight Committee and ETS Board
FROM: David Jordan, RMS Manager
DATE: April 2, 2018
RE: DuJIS RMS Monthly Update – March 2018
CC: Linda Zerwin, ETSB Executive Director

Intergovernmental Agreement (IGA)/Oversight:
The next PRMS Oversight Committee meeting is scheduled for June 19, 2018, at 2:00 pm; however, a special call meeting may be held to discuss an expected Hexagon contract change order.

PRMS Module:
Hexagon delivered several important project related documents. Hexagon provided the County with status update document of the system improvements that are scheduled to be deployed in July system patch. The status update document is attached at the end of the memo. Additional County staff worked with Hexagon project management to develop and refine the project schedule. Hexagon delivered a revised project schedule the last week of the month. County staff is working to review the schedule for accuracy.

System Configuration:
System configuration continues in multiple areas. Work continued to develop system customizations that capture and produce specific county forms. These forms include Domestic Violence Report, Alcohol Influence Report, Juvenile Data Sheet, Pedestrian Stop form, Gang Contact form, Missing Person Report, and Impound/Tow Report. Once final design documentation is approved by the county, Hexagon developers will implement the customization.

The RMS Team worked to further define code fields in each WebRMS module. This task has been difficult for the RMS Team because of the additional functionality in the new RMS. To aid the RMS Team, Hexagon will be holding a two day workshop to review the WebRMS modules. During the workshop Hexagon will clarify all of the new fields and will provide the RMS Team with sample best practice codes.

RMS Test Plan and Test Case Creation and Consulting:
A Test Plan and Test Case workshop was held in the month March. The Test Plans and Test Cases will be used by the County to verify that the system meets all requirements outlined in the Configuration Control Document and Hexagon’s RFP response. The workshop was very productive. Test Plan and Test Case development is on schedule for completion by June 4th.
<table>
<thead>
<tr>
<th>Primary #</th>
<th>Secondary #</th>
<th>Identifier Type</th>
<th>Product</th>
<th>Customer Requested</th>
<th>Description of PCR/CR</th>
<th>Category</th>
<th>Build Number</th>
<th>Build # Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR-490</td>
<td>1-1INF2V2</td>
<td>PCR</td>
<td>RMS</td>
<td>DuPage</td>
<td>DuPage - Global 107 Ability to save user's data or session prior to automatically logging off the user. PCR-490</td>
<td>ADMIN</td>
<td>Q1 - 2018</td>
<td></td>
</tr>
<tr>
<td>PCR-509</td>
<td>1-1IZ0VIW</td>
<td>PCR</td>
<td>RMS</td>
<td>DuPage</td>
<td>DuPage - Field Reporting 294 Ability to generate a report/query of non-submitted reports by: Officer Field Reporting 295 Ability to generate a report/query of non-submitted reports by: Supervisor (e.g., all officers supervisor is responsible for on that shift) Field Reporting 296 Ability to generate a report/query of non-submitted reports by: Agency Field Reporting 297 Ability to generate a report/query of non-submitted reports by: Time range Field Reporting 298 Ability to generate a report/query of non-submitted reports by: Beat Responsibility Field Reporting 299 Ability to generate a report/query of non-submitted reports by: Any combination of the above Field Reporting 363 Ability to indicate reports that have not been approved, yet are available for viewing.</td>
<td>Approvals</td>
<td>Q1 - 2018</td>
<td></td>
</tr>
<tr>
<td>PCR-501</td>
<td>1-1INF2XP</td>
<td>PCR</td>
<td>RMS</td>
<td>DuPage</td>
<td>DuPage - Property/Evidence Inventory Management                                                                实质性内容。PCR 501</td>
<td>EVIDENCE</td>
<td>Q2 - 2018</td>
<td></td>
</tr>
</tbody>
</table>
| PCR-504 | 1-1INF2Q3 | PCR | RMS | DuPage | DuPage - RMS 1180 Case Monitoring: Ability for investigator supervisors to monitor case activity including, but not limited to: Pending activities
RMS 1181 Case Monitoring: Ability for investigator supervisors to monitor case activity including, but not limited to: Overdue activities
RMS 1182 Case Monitoring: Ability for investigator supervisors to monitor case activity including, but not limited to: Activities Accomplished (e.g., complainant contact)
RMS 1183 Case Monitoring: Ability for investigator supervisors to monitor investigator workloads (e.g., number of cases assigned)
(side note, it was mentioned date/time fields cannot be used for RMS alerts, but that these could possible be fulfilled by a custom report?)
| CASE | Q2 - 2018 |

| PCR-450 | 1-17NSB91 | PCR | RMS | DuPage | DuPage - The DuPage system is a multi-agency configuration. They currently have a product called NetRMS. This product allows the users to open and view reports that are “in process”, that is not approved and submitted to the server. Apparently, this is a highly used function in the agencies. In WebRMS, the reports can be in process for hours, and in some instances, days. We also have the issue that an officer did not submit for approval before leaving their shift and going on vacation for many days.
<p>| Approvals | Q1 - 2018 |</p>
<table>
<thead>
<tr>
<th>Case Number</th>
<th>SR/R</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2784944881 1-3117334571</td>
<td>SR/RMS</td>
<td>DuPage</td>
<td>Need the ability to create Regional Alerts in WebRMS. Customer has 30+ agencies, all agencies need the same trigger for an export. Currently, they have to duplicate the alert 30+ times (once for each agency) then monitor all of them. They need a single trigger to handle all agencies.</td>
</tr>
<tr>
<td>PCR-506 PCR-500</td>
<td>PCR/RMS</td>
<td>DuPage</td>
<td>DuPage - Alert on Dates (Offender Management / Certification) PCR 506 PCR 500</td>
</tr>
<tr>
<td>PCR-496</td>
<td>PCR/RMS</td>
<td>DuPage</td>
<td>Global 259 Ability to cancel a report at any time. RMS 10 Ability to link multiple incident reports across agencies (e.g., inter-agency case linking of associated cases).</td>
</tr>
<tr>
<td>1-3257442204 1-117RK31</td>
<td>SR/RMS</td>
<td>DuPage</td>
<td>Alerts that require date and times. At this time our system does not allow for alerts that the customer wants that are to be triggered by a date or time. Here are a few examples of what DuPage would like to be setup for them. Alert for required training needs to be retaken by a certain date Asset expiring or end is approaching end-of-life Asset warranty expiring</td>
</tr>
<tr>
<td>PCR-491</td>
<td>PCR/RMS</td>
<td>DuPage</td>
<td>DuPage - Global 137 Ability for the system to provide a “System Change log” (e.g., a listing of all changes to the systems such as a system update, a new field added).</td>
</tr>
</tbody>
</table>

**Notes:**
- PCR-506 and PCR-500 are related to alerting on dates for Offender Management/Certification.
- PCR-496 focuses on global and multi-agency capabilities.
- PCR-491 relates to system changes and logs.

**Q1 - 2018**

**Alerts**

**Multi-Agency**

**ADMIN**

**DuPage County**

**Packet Pg. 16**

**Attachment:** April 2018 Meeting Monthly Report (17-18-32 : Monthly Report for April 10 Regular Meeting)
<table>
<thead>
<tr>
<th>Ticket</th>
<th>Attachment Code</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR-674</td>
<td>1-12RE6Z3</td>
<td>Reporting</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>PCR-502</td>
<td>1-1INF2RY</td>
<td>CASE</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>PCR-503</td>
<td>1-1INF2QV</td>
<td>CASE</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>PCR-674</td>
<td>1-12RE6Z3</td>
<td>Reporting</td>
<td>Q3 - 2018</td>
</tr>
<tr>
<td>PCR-674</td>
<td>1-12RE6Z3</td>
<td>Reporting</td>
<td>Q3 - 2018</td>
</tr>
</tbody>
</table>

**PHASE 1 - INCIDENT REPORT**

PCR-674

DuPage - When printing the data sheet, all fields are printed even though there is no information in the field. The customer would like when printing the data sheet that it only show the fields that have data in them. The customer is using an excessive amount of material printing hard copies.

**PHASE 2 - FIELD INTERVIEW REPORT**

PCR-674

DuPage - When printing the data sheet, all fields are printed even though there is no information in the field. The customer would like when printing the data sheet that it only show the fields that have data in them. The customer is using an excessive amount of material printing hard copies.

**PHASE 3 - BOOKING REPORT**

PCR-674

DuPage - When printing the data sheet, all fields are printed even though there is no information in the field. The customer would like when printing the data sheet that it only show the fields that have data in them. The customer is using an excessive amount of material printing hard copies.
<table>
<thead>
<tr>
<th>PCR-674</th>
<th>1-12RE623</th>
<th>PCR</th>
<th>RMS</th>
<th>DuPage</th>
<th><strong>DuPage</strong> - When printing the data sheet, all fields are printed even though there is no information in the field. The customer would like when printing the data sheet that it only show the fields that have data in them. The customer is using an excessive amount of material printing hard copies.</th>
<th>Reporting</th>
<th>Q3 - 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2648179531</td>
<td>1-17TLGUM</td>
<td>SR</td>
<td>RMS</td>
<td>DuPage</td>
<td>Linking incidents across agencies to a Case Management record</td>
<td>Multi-Agency</td>
<td>Q3 - 2018</td>
</tr>
<tr>
<td>1-3283711127</td>
<td>1-1IB1M0Q</td>
<td>SR</td>
<td>FBR</td>
<td>DuPage</td>
<td>MPS/FBR person, location, and vehicle search screen order</td>
<td>INTEGRATION</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>1-2669023011</td>
<td>1-1853CPQ</td>
<td>SR</td>
<td>RMS</td>
<td>DuPage</td>
<td>Customer would like for incidents and other linked data associated with a Case Management record have the ability to be locked or we need the ability to lock it down manually like the CM record itself.</td>
<td>CASE</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>PCR-644</td>
<td>1-11Z0VGY (WebRMS Link) 1-11Z0V0DD (WebRMS API)</td>
<td>PCR</td>
<td>LINK</td>
<td>DuPage</td>
<td><strong>DuPage</strong> - 509 Ability to receive the following call for service data transferred from the CAD application: 519 Any information captured as part of the CAD CFS</td>
<td>INTEGRATION</td>
<td>Q2 - 2018</td>
</tr>
<tr>
<td>PCR-495</td>
<td>1-1INF2YH</td>
<td>PCR</td>
<td>RMS</td>
<td>DuPage</td>
<td><strong>DuPage</strong> - Re-order header column</td>
<td>GUI</td>
<td>Q3 - 2018</td>
</tr>
<tr>
<td>PCR-510</td>
<td>1-1J4YX87</td>
<td>PCR</td>
<td>RMS</td>
<td>DuPage</td>
<td></td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>DuPage - Field Reporting 345 Ability to maintain a history of corrective messages but not include those messages as part of the actual incident report.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[note, there was an internal follow-up conversation regarding item 345 which indicated the system does not work this way currently, and that we recommend not keeping this data. Including this requirement in the PCR just in case since it was marked as a comply and they may still want it against the recommendation.]</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Field Reporting 346 Ability to send recurring notifications to officers regarding reports needing corrections.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>[this was marked as comply, and in a follow-up internal conversation it was mentioned the In-box maintains these reports until complete, but no FBR messaging system exists for supervisors to send notifications]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2215594641</td>
<td>1-16C92CI</td>
<td>SR</td>
<td>FBR</td>
<td>DuPage</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>Make icons and title bars smaller</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GUI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2215220711</td>
<td>1-15Z1PU</td>
<td>SR</td>
<td>FBR</td>
<td>DuPage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3110399431</td>
<td>1-FGCFTM</td>
<td>SR</td>
<td>FBR</td>
<td>DuPage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3281353553</td>
<td>1-IBDJNQ</td>
<td>SR</td>
<td>LINK</td>
<td>DuPage</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 1-2215594641 | 1-16C92CI | SR | FBR | DuPage |
| 1-2215220711 | 1-15Z1PU | SR | FBR | DuPage |
| 1-3281353553 | 1-IBDJNQ | SR | LINK | DuPage |

<table>
<thead>
<tr>
<th>Alerts</th>
<th>Q3 - 2018</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>GUI</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>ADMIN</th>
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</table>

<table>
<thead>
<tr>
<th>Approvals</th>
<th>Q1 - 2018</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INTEGRATION</th>
<th>Q2 - 2019</th>
</tr>
</thead>
</table>

14
<table>
<thead>
<tr>
<th>ID</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2214445781</td>
<td>SR</td>
<td>We need the ability to identify which supervisor is responsible to review/approval reports without having to open each report to determine which officer submitted the report?</td>
</tr>
<tr>
<td>1-2894454351</td>
<td>SR</td>
<td>Need ability to view regional master codes and agency specific</td>
</tr>
</tbody>
</table>

**Legend:**
- Feature has been delivered
- Feature on track to be delivered in projected build #
- Feature at risk of being delivered in projected build #, Plan needed to get back on track. Notify BU feature at risk
- Feature will not be in projected build #, replan needed with BU.
To: Linda Zerwin, ETSB Executive Director  
From: Michael Galvin, Project Manager  
Date: March 30, 2018  
Re: DuJIS Project Monthly Summary

**CAD/RMS Replacement Project**

During the month of March, Hexagon conducted the Test Plan and Test Cases Consulting Workshop. The goal of the workshop was to continue work on the test plans that will be used to test the WebRMS and FBR applications. Overall, the meeting went very well and hit the intended goals of the workshop. Over the next several weeks, the RMS Build Team will continue to develop the test plans with assistance from Hexagon. Additionally, Hexagon is scheduling an on-site workshop in April to review the status of the code table builds and provide further assistance as needed (“Code Review Workshop”). Specific to the RMS, Hexagon has developed an updated FBR build (scheduled for release in April), continued development of additional forms FBR forms (Pedestrian Stop and Gang Contact), and continued development on numerous interfaces.

Regarding CAD/MPS, members of the CAD/MPS teams continue to refine the system. While there are no formal workshops planned, the teams have been meeting informally, continually adjusting, and testing the system. This will continue throughout the year until training begins later in the year. Specific to the CAD/MPS, Hexagon deployed the latest version (9.4), installed the Mobile Responder application, and continued interface development.

The bi-weekly reviews that were established in February have been a benefit to the project. These meetings (held every Thursday, with CAD/MPS and FBR/RMS alternating each week) have provided an additional layer of structure and oversight and increased communication between DuPage and Hexagon.

During the month of April, the CAD and Mobile build teams will continue their refinement of the CAD and Mobile applications, and Hexagon will be on-site to conduct the Code Review Workshop (final dates TBD) and provide a WebEX to review UCR consulting. Off-site, Hexagon will continue interface development, continue development of the application in response to DuPage service requests, continue configuration of the WebRMS, and continue development of FBR forms.
## Project Overview

<table>
<thead>
<tr>
<th>Budget</th>
<th>Schedule</th>
<th>Scope</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>On target</td>
<td>On target</td>
<td>On target</td>
<td>Poor</td>
</tr>
<tr>
<td>Below target</td>
<td>Behind</td>
<td>Behind</td>
<td>Average</td>
</tr>
<tr>
<td>Above target</td>
<td>Ahead</td>
<td>Ahead</td>
<td>Good</td>
</tr>
</tbody>
</table>

### Project Performance - Period ending March 29, 2018

- **GREEN**: Updated system to latest 9.4, Installed Mobile Responder
- **Yellow**: Completed the WebRMS workshop week of March 20. Began testing the latest FBR build. Gained access to the CJIS Environment for testing purposes.
- **Yellow**: Received Cogent and BEAST ICD and began development. Delivered the following interfaces for testing: Leader, DUCS (Court Case Update, Court Case Import, and Incident Export), SAO Case Prep Export.
- **GREEN**: Completed final schedule.

### Project Activities

#### Objectives Completed This Period

1. Completed the Test Plan and Test Cases workshop on March 23. Continue work with the team to complete Test Cases and Test Plans by June.
2. Added codes to all the blank fields in the Accident Module.
3. Received final signature on the Incident and Field Interview design changes to encompass both the Pedestrian Stop and Gland Contact Card.
4. DuPage has received a price quote for data conversion.
5. Started testing on the latest FBR Build
7. Schedule was completed and forward.
8. Hexagon has completed the deployment plan for FBR and WebRMS
9. Set WebEx meeting for April 4 at 1:30 PM CST to discuss the "Blank Page" Issue Ben V. will host.

#### Objectives NOT Completed This Period

- WebRMS - Acceptance Test Plan and Test Cases (Scheduled to be completed June 2018)

#### Objectives for Next Period

1. Testing between Hexagon and DuPage on Interfaces
2. Deliver final BEAST ICD to DuPage
3. Deliver COGENT Interface to DuPage
4. Deliver ITOUCH Interface to DuPage
5. Receive Motorola OffenderTrack specification from DuPage
6. Receive MorphoTrack information from DuPage
7. Receive final list of codes to be imported as local offences
8. Completed the issues from the 9.4 release
9. Finish splitting Police and Fire data
10. Finish moving all FireHouse Interfaces off primary COMM Server
11. George Chiow consult of UCR mapping
12. Hexagon to coordinate Smart 911 WebEx meeting with DuPage and vendor.

13. DuPage requested another Informer data base setup

<table>
<thead>
<tr>
<th>Change Orders</th>
<th>Date</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Order #2 rev. 1</td>
<td>1/30/17</td>
<td>Complete - 03/14/2017</td>
<td>Visual Studio 2012 change to 2015 version &amp; VMWare vCenter v5 to v6 version.</td>
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<tr>
<td>Change Order #3</td>
<td>5/26/17</td>
<td>Complete - 10/13/2017</td>
<td>Rename of custom interface, APS Virtual Partner to LEADER, and Visual Studio 2012 quantity.</td>
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<td>Change Order #4</td>
<td>11/27/17</td>
<td>Complete - 12/13/2017</td>
<td>Add Addison hardware move.</td>
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<tr>
<td>Change Order #5</td>
<td>TBD</td>
<td>Awaiting Management Decision</td>
<td>WebRMS methodology change, milestone realignment, etc.</td>
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<table>
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<tr>
<th>New Project Issues</th>
<th>Actions / Comments</th>
<th>Owner</th>
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<tr>
<td>Milestones will need to be relooked and scheduled</td>
<td>This will be discussed at the Executive Level and the Hexagon Team will make documentation changes once finalized.</td>
<td>Hexagon Executive Team and DuPage Executive Team</td>
<td>TBD</td>
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<thead>
<tr>
<th>Milestones / Deliverables</th>
<th>Baseline Date</th>
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<td>1 - Project Kickoff Meeting</td>
<td>Aug/16</td>
<td>Aug/16</td>
<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>2 - Server HW order</td>
<td>Aug/16</td>
<td>Aug/16</td>
<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>3 - Installation of base COTS I/CAD software in first environment</td>
<td>Nov/16</td>
<td>Dec/16</td>
<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>4 - Installation of base COTS WebRMS SW in first environment</td>
<td>Nov/16</td>
<td>Dec/16</td>
<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>5 - I/CAD Essentials for Core Team (IPS 2001)</td>
<td>Jan/17</td>
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<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>6 - WebRMS and FBR System Overview Training</td>
<td>Jan/17</td>
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<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>7 - CAD System Configure 3</td>
<td>Jul/17</td>
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<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>8 - WebRMS Configuration Workshop 3</td>
<td>Apr/17</td>
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<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>9 - Mobile for Public Safety Configuration Workshop 3 for Law</td>
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<td>Completed and acceptance form delivered, payment received</td>
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<td>10 - WebRMS Configuration Workshop 5</td>
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<td>Task realignment necessary. (CO #5)</td>
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<td>11 - Map Roll Consulting for I/CAD Systems (IPS8004)</td>
<td>Aug/17</td>
<td>Nov/17</td>
<td>Completed and acceptance form delivered, payment received</td>
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<tr>
<td>12 - CAD, MPS and CAD Integration Testing</td>
<td>Nov/17</td>
<td>Dec/17</td>
<td>Completed and acceptance form delivered</td>
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<tr>
<td>13 - WebRMS, FBR and WebRMS Integration Testing</td>
<td>Nov/17</td>
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<td>Task realignment necessary. (CO #5)</td>
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<td>14 - RMS Train-the-Trainer Training</td>
<td>Feb/18</td>
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<td>15 - CAD Train-the-Trainer Training</td>
<td>Mar/18</td>
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<td>16 - Cutover of WebRMS and FBR Subsystems to Production Use at the First PSAP</td>
<td>Jun/18</td>
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<tr>
<td>17 - Cutover of I/CAD and MPS Subsystems to Production Use at the First PSAP</td>
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<td>18 - Acceptance of 30 day Reliability Period for CAD</td>
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<tr>
<td>19 - 30 day Reliability Period for WebRMS</td>
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<td>20 - Cutover of Firehouse Interface in First Additional Agency</td>
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<td>21 - Cutover of Smart911 in First Additional Agency</td>
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<td>22 - Cutover of BEAST Interface in First Additional Agency</td>
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<td>23 - Cutover of LiveScan Interface in First Additional Agency</td>
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<tr>
<th>Vacation / Off Site</th>
<th>Resource</th>
<th>Purpose</th>
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Notes:

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<tr>
<th>Incident Number</th>
<th>NC Status</th>
<th>Priority</th>
<th>Site ID</th>
<th>Site</th>
<th>NC Create Date</th>
<th>Actual Resolution Date</th>
<th>Resolution</th>
<th>Detailed Description</th>
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<tbody>
<tr>
<td>INC000001029166</td>
<td>Closed</td>
<td>Medium</td>
<td>SZ01401D18</td>
<td>ADDISON PD DSP.CTR-DUPAGE COUNTY</td>
<td>3/7/2018 9:49</td>
<td>3/8/2018 21:44</td>
<td>Alarm cleared when the link was recovered.</td>
<td>Tech checked speakers at site, but could not replicate issue. Confirmed with customer that speakers are currently working normally.</td>
</tr>
<tr>
<td>INC000001039595</td>
<td>Resolved</td>
<td>Low</td>
<td>SZ01401D26</td>
<td>TRI-STATE FIRE PROTECTION DIST - DU PAGE COUNTY</td>
<td>3/12/2018 9:49</td>
<td>3/12/2018 12:23</td>
<td>UEM showed Site Link start bouncing at 1037am, clear at 1049pm. CCGW bounced as well. Monitoried until 1122pm and remained clear.</td>
<td>Repeatability Incident. Site Alias: SZ01401D26 Summary: DOWN, NO ACTIVITY RECEIVED - 10.1.233.100</td>
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<tr>
<td>INC000001029517</td>
<td>Pending</td>
<td>Low</td>
<td>SZ01401D19</td>
<td>NICE-DUPAGE CTY SHERIFF DSPCTR - DU PAGE COUNTY</td>
<td>3/4/2018 22:03</td>
<td>3/13/2018 10:02</td>
<td>Self restored. Alarm has remained stable during the monitoring period.</td>
<td>NICE TRI STATE FIRE DIST - SZ01401D26 (NICE) Unable to pull phone recording at Tri State from Addison (getting nothing recorded, blank)</td>
</tr>
<tr>
<td>INC000001051411</td>
<td>Resolved</td>
<td>Low</td>
<td>SZ01401D17</td>
<td>DU-COMM DISPATCH CTR-DUPAGE COUNTY</td>
<td>3/20/2018 9:21</td>
<td>3/20/2018 12:38</td>
<td>Routers rebooted.</td>
<td>Checked the UCM, C04 CCGW bounced and cleared at 1010am C04 and C07 bounced at the same time but cleared at 1012am</td>
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<tr>
<td>INC000001041554</td>
<td>In Progress</td>
<td>Low</td>
<td>SZ01401D26 (NICE)</td>
<td>NICE-TRI-STATE FIRE DIST. - DU PAGE COUNTY</td>
<td>3/14/2018 16:27</td>
<td>3/15/2018 10:02</td>
<td>Self restored. Alarm has remained stable during the monitoring period.</td>
<td>NICE TRI STATE FIRE DIST - SZ01401D26 (NICE) Unable to pull phone recording at Tri State from Addison (getting nothing recorded, blank)</td>
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<tr>
<td>INC000001066213</td>
<td>Closed</td>
<td>Medium</td>
<td>SZ01401D17</td>
<td>DU-COMM DISPATCH CTR-DUPAGE COUNTY</td>
<td>3/29/2018 7:43</td>
<td>3/29/2018 14:04</td>
<td>Completed the work.</td>
<td>Steve Licht - Requesting an investigation on an unknown radio ID NW-931100 accessing Channel ID 904721 at 4:30 pm (this morning). It was causing static on the channel.</td>
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<tr>
<td>INC000001066477</td>
<td>Closed</td>
<td>High</td>
<td>SZ01401D16 (NICE)</td>
<td>NICE-ADDISON PD DSP. CTR - DU PAGE COUNTY</td>
<td>3/30/2018 9:28</td>
<td>3/30/2018 10:19</td>
<td>Self resolve. Site remained clear during monitoring.</td>
<td>NICE TRI STATE FIRE DIST - 800 frequencies (old conventional channel 1) does not transmit from console out to mobile.</td>
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<tr>
<td>INC000001066372</td>
<td>Closed</td>
<td>High</td>
<td>SZ01401D18</td>
<td>ADDISON PD DSP.CTR-DU PAGE COUNTY</td>
<td>3/30/2018 10:24</td>
<td>3/30/2018 11:45</td>
<td>Self resolve. Site remained clear during monitoring.</td>
<td>NICE TRI STATE FIRE DIST - 800 frequencies (old conventional channel 1) does not transmit from console out to mobile.</td>
</tr>
<tr>
<td>Month</td>
<td>Total Number of Smart911 Accounts Created</td>
<td>Total Number of Individuals within those Accounts (Average 2.35 per profile)</td>
<td>Profile Increase</td>
<td>% of Population</td>
<td>Number of Profile Pops</td>
<td>Number of Chat Sessions</td>
<td>Number of Notes</td>
<td>New Facility Profiles Created</td>
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<td>15,454</td>
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<td>4.75%</td>
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2018 Totals: 15,545 36,531 415 4.77% 2,238 0 0 0 42

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<tr>
<th>Month</th>
<th>Total Number of Smart911 Accounts Created</th>
<th>Total Number of Individuals within those Accounts (Average 2.35 per profile)</th>
<th>Profile Increase</th>
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<th>Number of Notes</th>
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<tr>
<td>January</td>
<td>15,454</td>
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<td>824</td>
<td>4.75%</td>
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2018 Totals: 15,893 37,349 763 4.88% 3,236 0 0 0 60
## EQUALIZATION SURCHARGE AND REVENUE FOR FISCAL YEAR: FY2018

### Fiscal Year 2018

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### EQUALIZATION SURCHARGE HISTORY

#### FY2016

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<th>FEB</th>
<th>MAR</th>
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<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>PrePaid Back pay</td>
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<td>$542,517.55</td>
<td>$743,171.81</td>
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<td>$517,623.85</td>
<td>$620,047.11</td>
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<td>$599,721.32</td>
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<tr>
<td>Wireless Carrier xfer</td>
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#### FY2017

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<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
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<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>Supplemental Surcharge Disbursements</td>
<td>$722,868.38</td>
<td>$680,994.05</td>
<td>$649,029.93</td>
<td>$810,751.53</td>
<td>$695,361.11</td>
<td>$749,258.32</td>
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<td>Misc Payments</td>
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#### FY2018

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<th>Month of</th>
<th>DEC</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>PrePaid Back pay</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
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<td></td>
</tr>
<tr>
<td>Wireless Carrier xfer</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
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</tr>
<tr>
<td>Supplemental Surcharge Disbursements</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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</tr>
</tbody>
</table>

### Misc Revenue

<table>
<thead>
<tr>
<th>Month of</th>
<th>Dec 17</th>
<th>Jan 18</th>
<th>Feb 18</th>
<th>Mar 18</th>
<th>Apr 18</th>
<th>May 18</th>
<th>Jun 18</th>
<th>Jul 18</th>
<th>Aug 18</th>
<th>Sep 18</th>
<th>Oct 18</th>
<th>Nov 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Disbursement</td>
<td>$599,817.91</td>
<td>$566,629.95</td>
<td>$618,246.90</td>
<td>$614,108.20</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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</tr>
</tbody>
</table>

### Misc Payments

<table>
<thead>
<tr>
<th>Month of</th>
<th>Dec 17</th>
<th>Jan 18</th>
<th>Feb 18</th>
<th>Mar 18</th>
<th>Apr 18</th>
<th>May 18</th>
<th>Jun 18</th>
<th>Jul 18</th>
<th>Aug 18</th>
<th>Sep 18</th>
<th>Oct 18</th>
<th>Nov 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Disbursement</td>
<td>$599,817.91</td>
<td>$566,629.95</td>
<td>$618,246.90</td>
<td>$614,108.20</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
</tbody>
</table>
6.B.1.a

EMERGENCY TELEPHONE SYSTEM BOARD OF DU PAGE COUNTY
E9-1-1 WIRELESS REVENUE REPORT FY18

Month Received:

Dec 17

Jan 18

Feb 18

Mar 18

Apr 18

May 18

Jun 18

Jul 18

Aug 18

Sept 18

Oct 18

Nov 18

TOTALS

State Disbursement

$

‐

Surplus $ Disb.

$
$

‐
‐

Radio Reimbursement
**

Total
$
‐
$
‐
$
‐
$
** for additional equipment requested by agencies or insurance claims reimbursements
Wireless Revenue History ‐ Surcharge Remittance Only
Remitted for
Month of
JAN
FEB
2000
2001
$
187,770.50 $
189,484.81
2002
$
489,117.73 $
230,696.73
2003
$
233,274.57 $
223,053.14
2004
$
325,693.24 $
592,513.68
2005
$
275,260.16 $
259,209.83
2006
$
308,054.25 $
325,418.22
2007
$
335,138.87 $
307,665.92
2008
$
376,116.54 $
352,603.75
2008 Surplus
2009
$
255,754.98 $
375,532.75
2009 Surplus
2010
$
406,250.80 $
386,254.42
2010 Surplus
2011
$
301,903.35 $
485,069.49
2011 Surplus
2012
$
408,587.11 $
406,633.40
2012 Surplus
Radio Reimbur
2013
$
415,435.76 $
405,978.28
2013 Surplus
Radio Reimbur
$ 1,463,599.17
2014
$
430,659.26 $
410,771.01
2014 Surplus
Radio Reimbur
2015
$
477,726.36 $
455,340.00
2015 Surplus
Radio Reimbur
$
5,371.51
2016
2016 Surplus
Radio Reimbur
2017
Radio Reimbur
$
8,809.50 $
408.00
2018
$
‐
$
‐
Radio Reimbur
$
‐
$
‐
SUBTOTAL

$

6,704,523.66 $

MAR

‐

$

APR

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$

$

$

$

$

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$

259,645.00
220,787.31
253,909.55
271,487.11
286,881.13
315,149.22
330,641.51
386,712.54

$
$
$
$
$
$
$
$

198,089.00
208,633.34
209,509.38
268,087.75
246,664.04
313,689.36
325,927.81
434,532.85

$
$
$
$
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$
$

200,919.00 $
253,404.99 $
211,866.81 $
284,442.13 $
327,646.82 $
324,116.19 $
318,727.55 $
410,021.79 $

$

396,938.08

$

406,469.94

$

405,979.09

$

406,661.05

$

410,267.87

$

443,254.01

$

396,605.63
313,390.25
406,250.80

$

$

396,743.51 $
$
406,925.16 $

$

417,897.70

$

398,671.55

$

410,181.68

402,700.45

$

405,786.30

$

418,730.00

369,930.71

$

491,250.13

$

399,613.80

$

417,234.20

$

419,074.37

$

418,101.40

$

411,365.65

$

429,916.05

$

422,259.11

$

432,881.63

$

405,616.80

$
$

418,915.68
1,008,394.99

$

410,937.95

$

410,076.17

$

410,714.46

405,138.52
153,686.38
507,813.59
208,877.97
414,827.60

$

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427,298.65

$

414,601.72

$

428,091.44

$

443,877.94

$

426,492.43

$

431,283.60 $
$396,833.91

412,385.83

$

436,346.45

$

423,312.89

$

415,323.08

$

464,574.25

$

432,426.80

$
$

172,102.00
439,510.28

$

453,982.24 $

437,658.74 $

444,298.91 $

433,890.05 $

$
494,276.65 $

122,331.16 $
487,826.85 $

5,850.02
481,084.36 $

$
494,268.68 $

‐
461,366.07 $

518,063.05

$

524,728.58

481,763.16

$497,297.18 $

492,650.55

$

487,512.30

504,022.43

508,108.35

556,206.99

$

519,217.18

$
$

59,608.44
625,202.35

28,239.48 $

11,060.36

$

250.00

$

11,746.00

$
$

5,406,633.43 $

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6,012.71
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6,076,481.53 $

5,364,086.90

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7,066,337.60

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5,198,128.25

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$

OCT
197,980.00
208,669.00
220,072.56
235,647.83
316,891.78
289,666.80
332,497.69
327,658.27
400,138.94

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5,288.28

SEP
146,689.00
205,002.00
242,564.00
245,399.74
275,588.03
291,721.63
330,041.78
319,007.11
390,324.42

$

192,623.00
226,845.89
331,631.55
258,131.77
276,151.05
308,673.54
333,813.98
378,421.73

$

221,270.00
210,398.40
227,847.41
265,975.13
304,513.25
860,990.97
336,052.87
1,553,351.86

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AUG

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196,130.00
229,183.59
221,383.17
276,888.09
295,207.34
321,040.93
352,656.57
414,259.26
663,846.95
431,942.24

5,331.75 $

JUL

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JUN

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NOV
181,171.00 $
197,225.69 $
218,723.95 $
163,655.11 $
280,539.77 $
291,699.20 $
325,748.61 $
317,480.49 $
383,399.38 $
$
403,570.04 $

$

MAY

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$

5,149.30

$

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$

28,485.24
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8,791.44
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5,412,307.95

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7,176,810.59

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6,188.00
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$
$

5,953,708.63 $

5,702,093.41

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‐
5,438,273.36

$
$
$

DEC
181,883.00
155,701.49
224,972.00
171,448.10
287,975.19
312,083.91
350,020.94
1,009,645.90
210,717.94
1,165,982.79
425,498.91

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TOTAL
707,723.00
2,412,529.49
2,975,400.49
2,728,626.36
3,704,213.67
3,456,705.16
4,415,441.70
4,614,416.85
5,690,601.00
1,829,829.74
4,711,964.09
313,390.25
4,908,041.39
153,686.38
5,073,531.85
208,877.97
4,989,182.61
1,008,394.99
172,102.00
5,146,947.59
396,833.91
1,591,780.35
5,548,145.87
‐
59,608.44
6,129,775.43
‐
61,999.10
‐
‐
10,437.58
‐
58,694.89
‐
‐

7,579,496.84

$

73,078,882.15

7,579,496.84

$
$
$
$
$
$

(5,149,901.00)
(3,183,000.00)
(1,057,853.15)
(2,700,000.00)
(1,588,914.29)
59,399,213.71

less xfers to 950

$ (5,149,901.00)
$ (3,183,000.00)

Apr‐04
Apr‐07
PSIC Grant xfer FY11* $

(3,407,853.15)

$

2,350,000.00

Beta Test Equip
Other expend. [est]

TOTAL $

3,296,670.51 $

5,406,633.43 $

8,426,481.53

$ (2,700,000.00)
$ (1,588,914.29)
$ (7,257,728.39) $

7,066,337.60

$

5,198,128.25

$

5,412,307.95

$

7,176,810.59

$

5,953,708.63 $

5,702,093.41

$

5,438,273.36

$

Attachment: Revenue Report for April 10 (17-18-25 : Revenue Report for April 10 Regular Meeting)

WIRELESS SURCHARGE AND REVENUE FOR FISCAL YEAR: FY2018

* PSIC Grant for radio system transferred for 970 for grant, received grant reimbursement in March FY11

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## Wireline Surcharge and Revenue for Fiscal Year: FY2018

<table>
<thead>
<tr>
<th>Month Received</th>
<th>Dec 17</th>
<th>Jan 18</th>
<th>Feb 18</th>
<th>Mar 18</th>
<th>Apr 18</th>
<th>May 18</th>
<th>Jun 18</th>
<th>Jul 18</th>
<th>Aug 18</th>
<th>Sep 18</th>
<th>Oct 18</th>
<th>Nov 18</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue Received</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td>Other payments</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
<td>$ -</td>
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</tr>
<tr>
<td>NetRMS Reim.</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Month Received</th>
<th>Dec 17</th>
<th>Jan 18</th>
<th>Feb 18</th>
<th>Mar 18</th>
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<th>Jun 18</th>
<th>Jul 18</th>
<th>Aug 18</th>
<th>Sep 18</th>
<th>Oct 18</th>
<th>Nov 18</th>
<th>TOTALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Misc. and Refunds</td>
<td>$ 6,090.52</td>
<td>$ 4,120.00</td>
<td>$ 39.75</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 10,250.27</td>
</tr>
<tr>
<td>NetRMS Reim.</td>
<td>$ 25,064.57</td>
<td>$ 30,654.85</td>
<td>$ 22,851.80</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
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<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 8,259.07</td>
<td>$ 86,830.29</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 6,090.52</td>
<td>$ 4,120.00</td>
<td>$ 39.75</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 97,080.56</td>
</tr>
</tbody>
</table>
1. CALL TO ORDER

8:50 AM meeting was called to order by Chairman Gary Grasso at 8:50 AM.

2. ROLL CALL

PRESENT: Eckhoff (8:51 AM), Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz (9:00 AM), McGinnis, Kruger
ABSENT: Tillman

ETSB STAFF:
Linda Zerwin
Matt Theusch
Eve Kraus
Jerry Furmanski
Mike DiGiannantonio
Dave Jordan

COUNTY CLERK:
Paul Hinds, County Clerk

STATE’S ATTORNEY:
Brian Gorka

ATTENDEES:
Bill Srejma - ACDC
Brandon Hurd - ACDC
Tim Roberts - Bloomingdale PD
Geoffrey Pretkelis - Bartlett PD
Jan Barbeau - SAO
Matt Baarman - DU-COMM
Kathy King - County Clerk
Sheila Rutledge - Candidate
Dawn Dina - DMMC
John Buckley - Pleasantview FPD
Todd Carlson - Hanover Park PD
ROLL CALL
On roll call, Chairman Grasso, Members Block, Connolly, Eckhoff, Kruger, Kruse, McGinnis and Tegtmeyer were present. Members Franz and Tillman were not present at the time of roll call.

3. PUBLIC COMMENT
There was no Public comment.

4. CHAIRMAN'S REPORT
Chairman Grasso stated that he was impressed with the dispatch center at ACDC. He believes it is setting the gold standard.

Chairman Grasso announced that Ms. Zerwin was appointed to the PRMS Advisory Committee as his designee.

5. MEMBERS' REMARKS
There were no Members' remarks.

6. CONSENT AGENDA

A. Monthly Staff Report

1. Monthly Report for February 13 Regular Meeting

Member Tegtmeyer moved, seconded by Member Kruse, that the Consent Calendar be approved and adopted. On voice vote, motion carried.

B. Revenue Report 911 Surcharge Funds

1. 17-18-10 ETSB Revenue Report for February 13 Regular Meeting for Funds 5820/Equalization, 5810/Wireless and 5800/Wireline

Member Tegtmeyer moved, seconded by Member Kruse, that the Consent Calendar be approved and adopted. On voice vote, motion carried.

C. Minutes Approval

1. ETSB - Policy Advisory Committee - Regular Meeting - Dec 5, 2017 9:00 AM

Member Tegtmeyer moved, seconded by Member Kruse, that the Consent Calendar be approved and adopted. On voice vote, motion carried.
RESULT: ACCEPTED [UNANIMOUS]
MOVER: Brian Tegtmeyer, DU-COMM Rep
SECONDER: James Kruse, Chief
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

2. ETSB - Emergency Telephone System Board - Regular Meeting - Jan 9, 2018 8:50 AM

Member Tegtmeyer moved, seconded by Member Kruse, that the Consent Calendar be approved and adopted. On voice vote, motion carried.

RESULT: ACCEPTED [UNANIMOUS]
MOVER: Brian Tegtmeyer, DU-COMM Rep
SECONDER: James Kruse, Chief
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

D. ISP 9-1-1 Annual Financial Report


Member Tegtmeyer moved, seconded by Member Kruse, that the Consent Calendar be approved and adopted. On voice vote, motion carried.

7. ACTION ITEMS

A. Budget Transfers

1. ETS-R-0006-18 Budget Transfer for the Emergency Telephone System Board of DuPage County for Fiscal Year 2018 from 5820-50000:Regular Salaries to 5820-51050:Flexible Benefits to cover employee flex benefits (Total Budget Transfer: $3,000.00)

Member Kruger moved, seconded by Member Block, that Resolution #ETS-R-0006-18 be approved and adopted. On voice vote, motion carried.
RESULT: APPROVED [UNANIMOUS]
MOVER: James Kruger, Chiefs of Police Association Representative
SECONDER: Joe Block, Vice Chairman
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

B. Payment of Claims


Member Connolly moved, seconded by Member Eckhoff, to approve the Payment of Claims for February, 2018 FY17 Total for 4000-5800 (Wireline) $237.13, Total for 4000-5810 (Wireless) $65,041.92 and Total for 4000-5820 (Equalization) $881.74. On voice vote, motion carried.

2. 17-18-14 Payment of Claims FY18 February 13, 2018 - Total Paylist: $1,792,494.57, Total for 4000-5800 (wireline): $2,527.84, Total for 4000-5810 (wireless): $160,441.27, Total for 4000-5820 (equalization): $1,629,525.46

Member Tegtmeyer moved, seconded by Member Eckhoff, to approve the Payment of Claims for February, 2018 FY18 Total for 4000-5800 (Wireline) $2,527.84, Total for 4000-5810 (Wireless) $160,441.27 and Total for 4000-5820 (Equalization) $1,629,525.46.

Ms. Zerwin stated that this paylist included an ACDC payment of $1.2 million, a $350,000.00 reimbursement to Westmont for consolidation and the balance of payments are monthly reoccurring bills.

Member Tegtmeyer moved, seconded by Member Eckhoff, to approve the Payment of Claims for February, 2018 FY18 Total for 4000-5800 (Wireline) $2,527.84, Total for 4000-5810 (Wireless) $160,441.27 and Total for 4000-5820 (Equalization) $1,629,525.46. On voice vote, motion carried.

C. Change Orders

1. ETS-CO-0005-18 Affirming Resolution approving Change Order #2 to PO 917104/2183-1 to decrease and close the amount of the CDW Government LLC open purchase order and release the remaining funds in the amount of $59.61

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Member Block moved, seconded by Member Tegtmeyer, that Resolution #ETS-CO-0005-18, Affirming Resolution Approving Change Order #2 to PO 917104/2183-1 to Decrease and Close the Amount of the CDW Government LLC Open Purchase Order and Release the Remaining Funds in the Amount of $59.61, be approved and adopted.

Ms. Zerwin stated that this was an affirming Resolution, administratively closing these accounts.

Member Block moved, seconded by Member Tegtmeyer, that Resolution #ETS-CO-0005-18 be approved and adopted. On voice vote, motion carried.

RESULT: APPROVED [UNANIMOUS]
MOVER: Joe Block, Vice Chairman
SECONDER: Brian Tegtmeyer, DU-COMM Rep
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

2. ETS-CO-0006-18 Resolution approving Change Order #2 to PO 917105/2182-1 to decrease and close the amount of the Dell Inc. open purchase order and release the remaining funds in the amount of $1,079.40

Member Kruse moved, seconded by Member Tegtmeyer, that Resolution #ETS-CO-0006-18 be approved and adopted. On voice vote, motion carried.

RESULT: APPROVED [UNANIMOUS]
MOVER: James Kruse, Chief
SECONDER: Brian Tegtmeyer, DU-COMM Rep
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

3. ETS-CO-0007-18 Resolution approving Change Order #1 to PO 917118/2406-1 to decrease and close the amount of the Motorola Solutions, Inc. open purchase order and release the remaining funds in the amount of $69,263.05

Member Kruse moved, seconded by Member Tegtmeyer, that Resolution #ETS-CO-0007-18 be approved and adopted. On voice vote, motion carried.
RESULT: APPROVED [UNANIMOUS]
MOVER: James Kruse, Chief
SECONDER: Brian Tegtmeyer, DU-COMM Rep
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

4. ETS-CO-0008-18 Affirming Resolution approving a comprehensive Change Order to administratively close multiple Purchase Orders that have expired and have a $0 balance (Non-Monetary Change Order)

Member Kruse moved, seconded by Member Tegtmeyer, that Resolution #ETS-CO-0008-18 be approved and adopted. On voice vote, motion carried.

RESULT: APPROVED [UNANIMOUS]
MOVER: James Kruse, Chief
SECONDER: Brian Tegtmeyer, DU-COMM Rep
AYES: Eckhoff, Grasso, Block, Connolly, Tegtmeyer, Kruse, Franz, McGinnis, Kruger
ABSENT: Tillman

D. Travel and Training

1. 17-18-11 Two (2) PSAP Telecommunicators from ACDC to attend 2018 Rave Summit in Denver, CO on April 15-18, 2018 for an estimated cost of $1,430.00 per attendee (Total conference amount not to exceed: $2,860.00)

Member McGinnis moved, seconded by Member Tegtmeyer, that Two PSAP Telecommunicators from ACDC be authorized to attend 2018 RAVE Summit in Denver, Colorado, April 15-18, 2018 for an estimated cost of $1,430.00 per attendee, for a total conference amount not to exceed $2,860.00.

Ms. Zerwin remarked that RAVE will pay for one attendee and ETSB will pay for the second.

Chairman Grasso said that he would like a report from the people who attend.

Member McGinnis moved, seconded by Member Tegtmeyer, that Two PSAP Telecommunicators from ACDC be authorized to attend 2018 RAVE Summit in Denver, Colorado, April 15-18, 2018 for an estimated cost of $1,430.00 per attendee, for a total conference amount not to exceed $2,860.00. On voice vote, motion carried.
2. 17-18-12 Six (6) Attendees from DuPage ETSB PSAPs ACDC and DU-COMM to attend 2018 Navigator Conference in Las Vegas, NV on April 23-26, 2018 for an estimated cost of $1,970.00 per attendee (Total conference amount not to exceed: $11,820.00)

Member McGinnis moved, seconded by Member Tegtmeyer, that Six (6) Attendees from DuPage ETSB PSAPs ACDC and DU-COMM be authorized to attend the 2018 Navigator Conference in Las Vegas, Nevada on April 23-26, 2018 for an estimated cost of $1,970.00 per attendee, total conference amount not to exceed $11,820.00.

Member Kruse questioned why the Sheriff’s Department was not sending people. Ms. Zerwin stated that each PSAP is authorized to send 3 people. It is the choice of the PSAP Director as to who and what conferences their personnel should attend.

Chairman Grasso said that he would like a report from the people who attend.

Member Tegtmeyer remarked that this Navigator conference is one of the best training conferences from a Telecommunicator point of view.

Member McGinnis moved, seconded by Member Tegtmeyer, that Six (6) Attendees from DuPage ETSB PSAPs ACDC and DU-COMM be authorized to attend the 2018 Navigator Conference in Las Vegas, Nevada on April 23-26, 2018 for an estimated cost of $1,970.00 per attendee, total conference amount not to exceed $11,820.00. On voice vote, motion carried.

8. DUPAGE ETSB 911 SYSTEM DESIGN

Ms. Zerwin stated she had two items to update. The first is that Motorola indicated that a GPS report will take 60 days. It could delay the radio Third Touch.

Member Kruger remarked that the police chiefs have concerns of the work group role if this item appeared on the PAC agenda and should they keep working on the GPS.

Ms. Zerwin said that there are several work groups under Radio Steering. It was determined that all requests regarding DEDIRS are submitted through the PAC. The PAC will then make a recommendation to the Board.

Member Connolly questioned what the cost would be if Motorola doesn’t have the design. Ms. Zerwin replied that Motorola radio has already worked with Hexagon in other places and the current consensus is to run GPS off the CAD for unit status and location. She stated that she didn’t know if there would be additional costs at this point.

Ms. Zerwin stated that the second item concerns the CPE. She stated that AT&T normally only brings the service to the edge of the property. At the time of the contract, the location of the DU-COMM’s new PSAP was not known. Now that it is on the County campus, staff has been getting estimates to complete the routing for DU-COMM. There should be additional funds
remaining on the current change order for CPE that can be released to pay for bringing the service to DU-COMM. The cost should be less than $50,000.00.

Chairman Grasso questioned how this would affect the budget. Ms. Zerwin replied that it is built in under additional fees.

Member Kruse remarked that we have AT&T lines already in the building.

Ms. Zerwin said that the issue is diverse paths and the new feed would be coming in west of County Farm Road off of Manchester Road.

Member Tegtmeyer stated that the current lines are not diverse because AT&T would bring all the lines to one center location. That takes away the diversity. The goal is to have a second feed and that is the reason for the additional costs.

9. DUPAGE JUSTICE INFORMATION SYSTEM PROJECT

Ms. Zerwin stated that they are working through the changes to the contract based on the delay in RMS. At this time, there is not a final document.

Member Kruse said that there are milestones and asked if we are going to withhold money. Ms. Zerwin replied that the remaining milestones deal with acceptance and they have been advised that money will not be paid until the milestone is reached. The current balance of capital cost is $3.2 million. Additionally she is working with Paul Rafac, Chief Financial Officer at DuPage County, on how to do the invoicing for the first installment that is scheduled for FY17. The capital cost and employee reimbursement are owed to the County. Several agencies requested invoices now in order to make their payments in their FY17 budgets.

Member Franz questioned what caused the delay. Ms. Zerwin answered that CAD and MPS is still in good shape. RMS looked at the workflow, but does not meet our expectations. Hexagon asked for the extension to make enhancements to meet the users' expectations. For example, reports need to be improved and supervisor access in the work flow needs to be improved.

Member Connolly stated that until we go live with CAD, we don’t have backups or fire station alerting. He questioned the training time line. He would like to have staff work to compress the time line.

Ms. Zerwin said that all 1,800 employees will be trained on RMS. The training won’t be effective if you train the employees too early from go live. The training sessions listed in the time line are for train-the-trainer modules. After that, the trainers have to go back to their agencies and train their members.

Chairman Grasso questioned if the training was to learn something new. Ms. Zerwin replied that it was from the ground up.

Member Tegtmeyer remarked that you can’t train too far from the go live. Ms. Zerwin said that this gives time to add more items before going live.
Member Franz asked if the fire station alerting is on hold. Ms. Zerwin answered that she is working on the contract with Attorney Gorka and the vendor.

Member Tegtmeyer stated that the training was set to start in January for June and will be six months. The training will take 6 months no matter when we begin. The vendor has caused the delay, but there isn’t anything more staff could have done.

Chairman Grasso asked if a consultant can keep the vendor to the new schedule. Ms. Zerwin replied that she believed they can.

Chairman Grasso summed up that the Board is unhappy with the delay and that the vendor is wagging the dog.

10. OLD BUSINESS
There was no old business.

11. NEW BUSINESS
Under New Business, Ms. Zerwin stated that they made a job offer to the Administrative Specialist. She accepted for $35,500.00 per year.

12. EXECUTIVE SESSION
Member Kruse moved, seconded by Member Kruger, that pursuant to Section 5(c)(11) and (21), the Board enter into Executive Session to discuss pending litigation and the review of Executive Session minutes. On roll call, Chairman Grasso, Members Block, Connolly, Eckhoff, Franz, Kruger, Kruse, McGinnis and Tegtmeyer voted “aye.” Member Tillman was not present at the time of roll call. One vacancy. Motion carried.

   A. Minutes
   B. Security procedures and the use of personnel and equipment; to 5 ILCS 120/2 (C) (8)
   C. Personnel Matters Pursuant to 5 ILCS 120/2 (C) (1)
   D. Pending Litigation Matters Pursuant to 5 ILCS 120/2 (C) (11)

13. MATTERS REFERRED FROM EXECUTIVE SESSION
Meeting reconvened. Member Kruse moved, seconded by Member Tegtmeyer, that the Executive Session minutes of February 11, 2010 be approved and declassified. On voice vote, motion carried.

14. ADJOURNMENT

   A. Next Meeting: February 27 at 8:50am in Room 3-500B
   Member McGinnis moved, seconded by Member Tegtmeyer, that the meeting of the ETSB be adjourned. On voice vote, motion carried.
Respectfully submitted,

Paul Hinds
1. CALL TO ORDER

12:30 PM meeting was called to order by Chairman Timothy Hayden at 12:30 PM.

2. ROLL CALL

PRESENT: Baarman, Hayden, Buckley, Romanelli
ABSENT: Attendees: Baarman, Hayden, Buckley, Romanelli

Attendees:
Linda Zerwin, DuPage Emergency Telephone Systems Board, Director
Matt Theusch, DuPage Emergency Telephone Systems Board
John Lozar, DU-COMM
Michealeena Trakas, Addison Police Department, Secretary

On roll call, Chairman Hayden, Member Baarman, Member Buckley, and Member Romanelli were present, which constituted a quorum.

3. CHAIRMAN'S REPORT

Chairman Hayden had nothing to report.

4. PUBLIC COMMENT

There was no Public comment.

5. APPROVAL OF MINUTES

A. ETSB - Policy Advisory Committee - Regular Meeting - Feb 6, 2018 12:30 PM

A motion was made by Member Buckley, seconded by Member Romanelli, to forward the minutes to the Emergency Telephone Systems Board of DuPage County (DuPage ETSB) to receive and place on file. Motion passed unanimously.
RESULT: ACCEPTED [UNANIMOUS]
MOVER: John Buckley, Chief
SECONDER: Anthony Romanelli, Chief
AYES: Baarman, Hayden, Buckley, Romanelli

6. CONSENT ITEMS

A. Radio Maintainer Report

1. 17-18-15 DEDIRS Monthly Maintainer Report

   Member Baarman gave a brief overview of the DEDIRS reports for February.

   A motion was made by Member Romanelli, seconded by Member Buckley, to forward this item to the Emergency Telephone Systems Board of DuPage County (DuPage ETSB) to receive and place on file. Motion passed unanimously.

7. DEDIRS ACCESS REQUEST

A. ETS-R-0010-18 Resolution to Approve Access to the DuPage Emergency Dispatch Interoperable Radio System Talk Groups Pursuant to Policy Language Section 8.0.4: Adding Public Safety Agencies for the Purpose of Mutual Aid as Requested by the Drug Enforcement Administration

   Director Zerwin said that the Sherriff’s Office was working with the Drug Enforcement Administration (DEA) on the Heroin Task Force and were looking to move to a more formalized relationship. The DEA was requesting access to the system. The PAC discussed this, as well as additional talkgroups they may also need. The PAC was in favor of sharing those talkgroups and allowing the DEA to be on the system.

   Director Zerwin said the 14-day notice still needed to be done, but the application can still be sent to the ETS Board. If there were to be any problems, the application would come back to the PAC for further review.

   Member Baarman made a motion to recommend approval of the Resolution and forward to the ETS Board, seconded by Member Buckley. The motion passed unanimously.

RESULT: APPROVED [UNANIMOUS]
MOVER: Matt Baarman
SECONDER: John Buckley, Chief
AYES: Baarman, Hayden, Buckley, Romanelli
8. POLICIES

1. MEMORANDUM re DEDIRS Policies
   This is a cover memo to provide an overview to the ETS Board.

2. 17-18-17 911-005.2 Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) Draft
   This policy outlined access talkgroups that agencies could be patched into by dispatchers, as previously discussed by the PAC. The PAC likes the idea; however, testing would need to be done and PSAPs would need to be involved to put it into practice. The PAC discussed the process for testing and training, and Member Baarman said he believed it would be beneficial to have the policy in place prior to this process. The PAC discussed adding language that the ETS Board will give formal notice to agencies following a test period within DEDIRS.
   This policy also creates a new workflow where access requests would be discussed at the PSAP level in their agencies’ operations meetings first before coming to the PAC.
   Members of the PAC will send the policy to the DuPage fire chiefs, police chiefs, and PSAP managers for review and comment.

   The PAC discussed the importance of protecting the encryption key and knowing who has it. They also discussed the possibility of programming the radios to ensure that the encryption key is protected. The PAC suggested that having multiple encryption keys in the future, if that feature is purchased, would streamline the maintenance of the radios that have access to encrypted channels. The PAC agreed that this policy was ready for review and comment.

4. 17-18-19 911-005.4 DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups Draft
   Director Zerwin gave an overview of the changes to this policy. The PAC discussed Over the Air Programming (OTAP). Member Baarman suggested having the PAC review any changes made if OTAP is being used and stated that this would need to be addressed in policy in the future. The PAC agreed that Policy 5.4, as well as the memo and all other policies discussed this meeting, would be sent out by members for comment.

5. 17-18-20 911-005.5 DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) Terminology Draft
Director Zerwin gave an overview of the changes to the policy, including some cleanup of definitions and terminology.


The PAC discussed that this policy would need to go out for discussion and to PSAP directors as it is more of an operational issue. This policy would be sent out for review and comment, along with the other policies discussed this meeting.

9. THIRD TOUCH
Member Baarman said that the fire template was out for feedback with a deadline of March 1. A few agencies were still outstanding but would be completed shortly. On the police side, Chief Herron has gotten every agency to standard aliases, but they were still working on checking conventional frequencies and completing the template, which should finished within the next month. Member Baarman said that they can begin scheduling the fire agencies for radio programming.

A. PD and FD Standardization Templates

See discussion under Third Touch.

B. Alias Changes/Standardization and Due Dates

See discussion under Third Touch.

10. OLD BUSINESS
There was no old business.

11. NEW BUSINESS
There was no new business.

12. NEXT MEETING:

A. Tuesday, April 3 at 12:30pm in Room 3-500B

13. ADJOURNMENT
Member Romanelli made a motion to adjourn the meeting at 1:36 PM, seconded by Member Baarman. The next meeting of the Policy Advisory Committee was scheduled for Monday, April 9, 2018 at 12:30 PM.

Respectfully submitted,
Michealeena Trakas
TO: DuPage County Treasurer’s Office

FROM: Gary Grasso, Chairman
Emergency Telephone System Board of DuPage County

DATE: April 10, 2018

SUBJECT: ETSB Payment of Claims List FY17 – April 10, 2018

The payment of the below listed accounts has been approved by the ETS Board at a meeting held on April 10, 2018. You are hereby authorized to pay the invoices as listed on the attached DuPage County Payment Listing Transaction report dated March 30, 2018.

FY2017 Wireline Fund (4000-5800): $ 0.00
FY2017 Wireless Fund (4000-5810): $ 0.00
FY2017 Equalization Fund (4000-5820): $ 1,385.96

Total for all accounts: $ 1,385.96

APPROVED BY:

________________________________________________________________________
Gary Grasso, Chairman

ATTEST:

________________________________________________________________________
Secretary
### EMERGENCY TELEPHONE SYSTEM BOARD OF DU PAGE COUNTY

#### FY18 EXPENDITURE VS. BUDGET

**EXPENDITURES FOR PERIOD:** March 1-30, 2018

<table>
<thead>
<tr>
<th>COMP</th>
<th>AU</th>
<th>Account</th>
<th>Description</th>
<th>ANNUAL</th>
<th>YEAR TO DATE</th>
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<th>% YTD EXPENDED</th>
<th>% YTD REMAINING</th>
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<tbody>
<tr>
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<td>SB00</td>
<td>53250-0000</td>
<td>WIRED COMMUNICATION SERVICES</td>
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<tr>
<td>4000</td>
<td>SB00</td>
<td>53410-0000</td>
<td>RENTAL OF MACHINERY &amp; EQUIPMENT</td>
<td>$1,707.76</td>
<td>$426.69</td>
<td>$1,281.07</td>
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<tr>
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<td>OTHER CONTRACTUAL EXPENSES</td>
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<td>$1,065.75</td>
<td>$4,299.50</td>
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<td>19%</td>
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**SB00 Total**

$598,425.01  |  $572,827.96  |  $25,597.05  |  (0.00)  |  96%  |  0%  |

**EXPENDITURES FOR PERIOD:** March 1-30, 2018

$11,881,886.78 | $782,513.73 | $10,713,372.99 | $385,653.66 | 7% | 3% |

**SB10 Total**

$13,473,283.00 | $782,513.73 | $12,690,769.27 | $782,513.73 | 7% | 3% |

**EXPENDITURES FOR PERIOD:** March 1-30, 2018

$15,226,236.00 | $1,991,808.10 | $13,234,427.90 | $518,396.92 | 13% | 3% |

**SB20 Total**

$13,473,283.00 | $782,513.73 | $12,690,769.27 | $782,513.73 | 7% | 3% |

**EXHIBIT 2: STATE OF EXPENDITURES AS OF MARCH 30, 2018**

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**Attachment:** PoC Regular Meeting 4.10.18 FY17 (17-18-28 : Payment of Claims for April 10, 2018 FY17)
TO: DuPage County Finance Department

FROM: Gary Grasso, Chairman
Emergency Telephone System Board of DuPage County

DATE: April 10, 2018

SUBJECT: ETSB Inter-department Claims FY18 April 10, 2018

The Inter-fund transfer for Payment of Claims as detailed on the following page has been approved by the ETS Board at a meeting held on April 10, 2018

FY 2018 Total Inter-fund Payment of Claims: $25,000.00

APPROVED BY:

__________________________
Gary Grasso, Chairman

ATTEST:

__________________________
Secretary
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<tr>
<th>Object Code</th>
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<th>Department</th>
<th>Amount</th>
<th>PO/Resolution</th>
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<td>Network &amp; System Support</td>
<td>IT</td>
<td>$25,000</td>
<td>Invoice 032818</td>
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</table>
TO: DuPage County Treasurer’s Office

FROM: Gary Grasso, Chairman
       Emergency Telephone System Board of DuPage County

DATE: April 10, 2018

SUBJECT: ETSB Payment of Claims List FY18 – April 10, 2018

The payment of the below listed accounts has been approved by the ETS Board at a meeting held on April 10, 2018. You are hereby authorized to pay the invoices as listed on the attached DuPage County Payment Listing Transaction report dated March 30, 2018.

FY2018 Wireline Fund (4000-5800): $1,670.72
FY2018 Wireless Fund (4000-5810): $135,050.78
FY2018 Equalization Fund (4000-5820): $26,703.07

Total for all accounts: $163,424.57

APPROVED BY:

___________________________________
Gary Grasso, Chairman

ATTEST:

___________________________________
Secretary
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<td>4000</td>
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**EXPENDITURES FOR PERIOD: March 1-30, 2018**

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**EMERGENCY TELEPHONE SYSTEM BOARD OF DU PAGE COUNTY**

**FY18 EXPENDITURE VS. BUDGET**

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<th>REMAINING AVAILABLE</th>
<th>% YTD EXPENDED</th>
<th>% YTD REMAINING</th>
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**TOTAL:**

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To: Hon. Gary Grasso, Chairman  
DuPage County Emergency Telephone System Board (ETSB)  
ETSB Members

From: Bob Grogan, CPA, CFE  
County Auditor

Subject: Internal Audit of Accounts Payable  
#18-42

Date: March 30, 2018

The Office of the County Auditor has completed a limited scope internal audit of the transaction processing of ETSB invoices submitted for payment. The audit identified no invoices that required additional information or correction by the department.

Results

My Office has performed voucher pre-audit procedures for the invoices submitted for approval by the ETSB at the April 10, 2018 Board Meeting. The invoices listed on the Bank Account Payment History Report dated March 30, 2018 have been examined by the Office of the DuPage County Auditor and are recommended for payment:

- FY2017 Wireline Fund (4000-5800) $0.00
- FY2017 Wireless Fund (4000-5810) $0.00
- FY2017 Equalization Fund (4000-5820) $1,385.96
- FY2018 Wireline Fund (4000-5800) $1,670.72
- FY2018 Wireless Fund (4000-5810) $135,050.78
- FY2018 Equalization Fund (4000-5820) $26,703.07

Audit procedures identified no invoices that required additional information or correction.
Objective
The County Auditor will perform a series of procedures designed to evaluate the internal controls involved in the processing of transactions in the Enterprise Resource Planning (ERP) system and the MHC Image Express (MHC) system. The actual procedures performed will depend upon the County Auditor’s assessment of risks associated with the transactions.

Background/Audit Scope
Invoices and the related supporting documentation are initially prepared and submitted for payment processing by County departments to the centralized accounts payable function administered by the Finance Department. The implementation of the ERP system has resulted in significant changes to the processing and reporting of transactions compared to the accounting systems formerly used by the County. One of the many benefits of the ERP system is the ability to reduce duplicate payments to vendors by requiring unique vendor invoice numbers.

The County Auditor performs audit procedures on the payment documentation after the information has been entered into the ERP system by the Finance Department’s Accounts Payable staff. These procedures include reviewing the submitted documentation and comparing it to the information entered into the ERP system. Significant discrepancies noted between the supporting documentation and the information recorded in the ERP system are identified by County Auditor staff as exceptions. In these situations, the invoice recorded in the ERP system is transferred by the County Auditor to a non-processing batch until the exception is resolved. The hard-copy invoice and supporting documentation are returned to the Finance Department with an exception notice.

The County Auditor also performs audit procedures on the payment documentation after the information has been entered into the MHC system. These procedures include reviewing the scanned images of the invoice and supporting documentation and comparing it to the information entered into the MHC system. As is the case with transactions entered into the ERP system, significant discrepancies noted between the supporting documentation and the information recorded in the MHC system are identified by County Auditor staff as exceptions. In these situations, the invoice image scanned in the MHC system is disapproved by the County Auditor and forwarded to the Accounts Payable Division of the Finance Department for correction.

Additionally, after the Bank Account Payment History Report has been generated by the Accounts Payable Division of the Finance Department, the County Auditor verifies that each of the recommended payments was properly posted to the County’s General Ledger.

During the claims pre-audit process, the County Auditor reviewed 37 invoices scanned into the MHC system. No exceptions were noted.
Recommendations

No recommendations are being made to ETSB or the Finance Department for improvement of the process for payment of ETSB invoices at this time.

Thank you for your continued assistance.

cc: Linda Zerwin, Executive Director
    Tom Cuculich, County Administrator
    Paul Rafac, CFO
Bank Account Payment History

User Name: DP\ERP.FNMAW
Job Name: AP255-4000
Step Nbr: 1

Pay Group: 4000
Cash Code: 1414
Class C Accounts Payable

Payment Date: 033018 - 033018
Payment Numbers: -
Payment Code: -
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**Payment Total**

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**Payment Code ACH Total**

165.66  0.00  165.66

**Payment Count**

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# Bank Account Payment History

**AP255** Date 03/30/18  
**Time 13:23**  
**Pay Group** 4000 ETSB PAY GROUP  
**Bank Account Payment History**  
**USD**  
**Payment Date Range** 03/30/18 thru 03/30/18  
**Cash Code** 1414  
**Bank** 071923909  
**Payment Code** CHK  
**Due Date**  

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*** Payment Code CHK Total

**Payment Count**

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Attachment: PoC Regular Meeting 4.10.18 FY18 (17-18-29 : Payment of Claims for April 10, 2018 FY18)
RESOLUTION APPROVING CHANGE ORDER #2 TO PO 950891/1824-1 TO DECREASE AND CLOSE THE AMOUNT OF THE AT&T, INC. PURCHASE ORDER AND RELEASE THE REMAINING FUNDS IN THE AMOUNT OF $4,338.72

WHEREAS, the DuPage County Emergency Telephone System Board ("DU PAGE ETSB") is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 ("Act"); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB is authorized by law and local ordinance to make disbursements from the 9-1-1 surcharge funds it receives pursuant to law for costs related to products and services necessary for the implementation, upgrade and maintenance of the emergency telephone system; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval of Change Order #2 to PO 950891/1824-1 to decrease and close the existing AT&T, Inc. purchase order that expired September 30, 2017 and release the remaining funds in the amount of $4,338.72.

NOW, THEREFORE BE IT RESOLVED, that DU PAGE ETSB Change Order #2 to PO 950891/1824-1 dated March 23, 2018 covering said, to decrease and close the existing AT&T, Inc. purchase order that expired September 30, 2017 and release the remaining funds in the amount of $4,338.72 and it is hereby affirmed and approved by the DU PAGE ETS Board.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________

PAUL HINDS, COUNTY CLERK
### Request for Change Order

**Procurement Services Division**

**Attach copies of all prior Change Orders**

**Purchase Order #:** 950891/1824-1  **Original Purchase Order Date:** Jul 20, 2016  **Change Order #:**  2

**Vendor Name:** AT&T, Inc.  **Vendor #:** 10008

**Department:** ETSB  **Dept Contact:** Eve Kraus

**Background and/or Reason for Change Order Request:**
This change order #2 to PO 950891/1824-1 is needed to decrease the encumbrance and close out the contract, which expired on 9/30/17.

**IN ACCORDANCE WITH 720 ILCS 5/33E-9**

- (A) Were not reasonably foreseeable at the time the contract was signed.
- (B) The change is germane to the original contract as signed.
- (C) Is in the best interest for the County of DuPage and authorized by law.

#### INCREASE/DECREASE

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<td>Cumulative percent of all Change Orders (B+D/A); (60% maximum on construction contracts)</td>
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**DECISION MEMO NOT REQUIRED**

- [ ] Cancel entire order
- [ ] Close Contract
- [ ] Contract Extension (29 days)
- [ ] Consent Only

- [ ] Change budget code from: ____________ to: ____________
- [ ] Increase/Decrease quantity from: ____________ to: ____________
- [ ] Price shows: ____________ should be: ____________
- [ ] Decrease remaining encumbrance and close contract

**DECISION MEMO REQUIRED**

- [ ] Increase (greater than 29 days) contract expiration from: ____________ to: ____________
- [ ] Increase ≥ $2,500.00, or ≥ 10%, of current contract amount
- [ ] Funding Source: ____________
- [ ] OTHER - explain below: ____________

---

**EMK**  
Prepared By (Initials)  
(630) 550-7743  
Mar 23, 2018  
Phone Ext  
Date  
Recommended for Approval (Initials)  
(630) 878-2509  
Phone Ext  
Date  
(3/23/2018)

**REVIEWED BY (Initials Only)**

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<td>Chairman's Office (Decision Memos Over $25,000)</td>
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**FORM OPTIMIZED FOR ADOBE READER VERSION 9 OR LATER**
WHEREAS, the DuPage County Emergency Telephone System Board ("DU PAGE ETSB") is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 ("Act"); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB is authorized by law and local ordinance to make disbursements from the 9-1-1 surcharge funds it receives pursuant to law for costs related to products and services necessary for the implementation, upgrade and maintenance of the emergency telephone system; and

WHEREAS, the DU PAGE ETSB has previously signed intergovernmental agreements, contracts, and disbursed surcharge funds for the purpose of the Emergency 9-1-1 System at the new DU-COMM PSAP located on DuPage County property; and

WHEREAS, the DuPage County Department of Transportation also holds an existing contract, Purchase Order PO 2877-1 with Meade for work at the new DU-COMM PSAP located on DuPage County property; and

WHEREAS, the DU PAGE ETSB is in need of the furnishing and installation of inner-duct and indoor-outdoor fiber for Customer Premise Equipment (CPE) network connectivity to the DU-COMM PSAP; and

WHEREAS, Meade has the requisite knowledge, skill, and ability to perform the furnishing and installation of inner-duct and indoor-outdoor fiber for Customer Premise Equipment (CPE) network connectivity to the DU-COMM PSAP for the DuPage County Department of Transportation, said work is an improvement to County property to be reimbursed to the County by the DU PAGE ETSB; and

WHEREAS, the DuPage County Department of Transportation will negotiate a change order to the existing contract with Meade to perform the furnishing and installation of inner-duct and indoor-outdoor fiber for Customer Premise Equipment (CPE) network connectivity to the DU-COMM PSAP, on said work is an improvement to County property to be reimbursed to the County by the DU PAGE ETSB; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval authorizing DuPage County Department of Transportation PO 2877-1, said work is an improvement to County property to be reimbursed to the County by the DU PAGE ETSB, to
Meade, to furnish and install inner-duct and indoor outdoor fiber for Customer Premise Equipment (CPE) network connectivity to the DU-COMM PSAP. Total amount of $41,181.00.

NOW, THEREFORE BE IT RESOLVED, that DU PAGE ETSB authorizes DuPage County Department of Transportation, covering said, the furnishing and installation of inner-duct and indoor outdoor fiber for CPE network connectivity at the DU-COMM 420 PSAP, be, and is hereby affirmed and approved by the DU PAGE ETSB to Meade, 9550 W. 55th Street, McCook, IL 60525, for a total of $41,181.00.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Mark Thomas  
DuPage County  
Facilities Manager  

Re: DuPage County Fiber Install:  

Dear Mark:  

We are pleased to provide a lump sum proposal for the above-referenced project.  

Our pricing for the following proposal is:  

**Seventy-Four Thousand Eight Hundred Thirty-Six Dollars**.................................................. $74,836.00  

**Scope of Work**  
Proposal includes labor, supervision, materials, tools and equipment necessary to furnish and install the telecommunications scope of work per the provided drawings previously mentioned:  

1. Furnish and install (directional bore) 1000’ of 4” poly and 1200’ of pull rope.  
2. This includes all heavy equipment and materials needed for this install including the 4” poly, mule tape.  
3. Core and drill the tunnel at the North-East side.  

**Directional Bore Breakout Area #1**.......................................................... $27,520.00  

1. Furnish and install all required solid 2” inner-duct and all necessary Hoffman junction boxes (with required mounting and coupling materials).  
2. Furnish and install 500’ of corrugated 2” inner-duct that will connect to the solid at that point and furnish and install the 1800’ of rope required for the install.  

**Area #2 Fiber and Innerduct Breakout Cost** ............................................. $13,661.00  

1. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the 421 building to the 400 building (along with all LIUs and terminating hardware necessary for the completed fiber install).  
2. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the 400 building to the 420 building (along with all LIUs and terminating hardware necessary for the completed fiber install).  

**Area #3 Fiber and Innerduct Breakout Cost** ............................................. $20,245.00  

---  

**Chicago Office**  
6850 W. 62nd Street  
Chicago, IL 60638  
773-287-7600 (Office)  
773-287-4407 (Fax)  

**Hammond Office**  
1741 Summer Street  
Hammond, IN 46320  
219-939-4301 (Office)  
219-939-4306 (Fax)  

**Milwaukee Office**  
100 West Oklahoma Avenue  
Milwaukee, WI 53207  

**Indianapolis Office**  
6057 Churchman Bypass  
Indianapolis, IN 46203  
317-780-0322 (Office)  
317-780-0366 (Fax)
DuPage County Fiber Install  
March 14, 2018 (Revised March 30, 2018)  
Page 2 of 2

1. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the DuComm Shelter building to the 420 building (along with all LiUs and terminating hardware necessary for the completed fiber install).
2. Terminate and certify and newly installed fiber.

Area #4 Fiber and Innerduct Breakout Cost …………………………………………………………………………………$13,410.00

Clarifications

1. All new copper/fiber terminations will be tested on a Fluke DTX 1800.
2. As-built drawings will be issued in PDF format along with hard copies if required.
3. This proposal includes all boring and trenching required.

Exclusions

1. Overtime

General Qualifications

1. This proposal is valid for 30 calendar days from the date of this proposal.
2. This proposal contains a one-year warranty.
3. Permits, sales tax and bonds are not included.
4. Hazard waste handling and disposal is not included.
5. Survey and layout are not included.
6. Liquidated damages or penalties are not included.
7. Owner damages due to schedule delays are not included.

Thank you for the opportunity to prepare this proposal. If you have any questions, feel free to contact me at 708-588-6256 or jgagliardi@meade100.com.

Sincerely,

Jim Gagliardi

Project Executive Technology Division
Direct: 708-588-6256  
Mobile: 312-515-5776  
jgagliardi@meade100.com
AWARDING RESOLUTION
APPROVING AWARD OF PURCHASE PER LOWEST RESPONSIBLE BID
FOR RFP 16-167-RC
TO PURVIS SYSTEMS INCORPORATED
FOR AN IP-BASED FIRE STATION ALERTING SYSTEM TO STANDARDIZE THE
DELIVERY OF FIRE AND EMS DISPATCH
(TOTAL ETSB PURCHASE ORDER AMOUNT: $3,642,476.80)

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB is authorized by law and local ordinance to make disbursements from the 9-1-1 surcharge funds it receives pursuant to law for costs related to products and services necessary for the implementation, upgrade and maintenance of the emergency telephone system; and

WHEREAS, the agreement proposal has been received and evaluated in accordance with the DU PAGE ETSB ordinance and DuPage County procurement ordinance; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval and awarding of the purchase per lowest responsible bid for RFP 16-167-RC for IP-Based Fire Station Alerting System be awarded to PURIVS Systems Incorporated to standardize the delivery of fire and EMS dispatch and make the Emergency 9-1-1 system more efficient; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval of Procurement Purchase Order 918126 from RFP 16-167-RC be awarded to PURVIS Systems Incorporated, for the purchase IP-Based Fire Station Alerting System for a total purchase order amount of $3,642,476.80 as described in the Request for Proposal.

NOW, THEREFORE BE IT RESOLVED, that DU PAGE ETSB RFP 16-167-RC and Requisition 918126, dated March 29, 2018, covering said, for IP-Based Fire Station Alerting System, be, and is hereby affirmed and approved by the DU PAGE ETSB to PURVIS Systems Incorporated, 88 Silva Lane, Middletown, RI 02842.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

________________________________________
GARY GRASSO, CHAIRMAN

Attest: __________________________________
PAUL HINDS, COUNTY CLERK
Procurement Review Checklist
Procurement Services Division
This form must accompany all Purchase Order Requisitions
Attach Required Vendor Ethics Disclosure Statement

Vendor: PURVIS Systems Incorporated  Vendor #: 28678  Contract Term: Five Years  Contract Total: $3,642,476.80
Dept: ETSB  Contact: Eve Kraus  Phone: (630) 550-7743  Assigned Committee: ETSB

Description of Procurement/Scope of Work/Background
Procurement of a IP-Based Fire Station Alerting System as part of the direct dispatch of a 9-1-1 call to replace multiple existing and end of life equipment utilized in the 9-1-1 System. This system will be deployed in to Public Safety Answering Points (PSAPs) and 67 fire stations within the DuPage ETSB 9-1-1 System. See the Decision Memo for additional background.

Reason for Procurement
This procurement will create a unified, standardized alerting system for the dispatch of a 9-1-1 fire or EMS call for service.

FUNDING SOURCE
☐ Procurement budgeted for (FY and budget code(s)): FY18/FY19 $3,095,032.54 4000-5820-54100 FY21-FY24 $547,444.26 4000-5820-53807
☐ Budget Transfer (Date) Add’l Information This is a new install, capital costs could cross 2 fiscal years

DECISION MEMO NOT REQUIRED
☐ LOWEST RESPONSIBLE QUOTE # or BID # ____________ (QUOTE < $25,000, BID ≥ $25,000; attach Tabulation)
☐ RENEWAL, Enter Bid # ____________________ Intergovernmental Agreement
☐ SOLE SOURCE per DuPage County Purchasing Ordinance, Article 4-102(S) (attach Sole Source Justification form)
☐ PER 55 ILCS 5/5-1022 'Competitive Bids' (d) IT/Telecom purchases under $35,000.00 Public Utility
☐ PER 55 ILCS 5/5-1022 'Competitive Bids' (c) not suitable for competitive bidding. Explain below:

DECISION MEMO REQUIRED
☐ Cooperative Procurement (DPC4-107) or Government Joint Purchasing Act Procurement (30ILCS525)
☒ EXPLANATION OF REQUEST FOR PROPOSAL RFP #P16-167-RC ____________ (include Evaluation Summary if applicable)
☐ RENEWAL OF RFP # ____________________
☐ PROFESSIONAL SERVICES EXCLUDED per DuPage Ordinance (4-108) and 50 ILCS 510/2 (Architects, Engineers and Land Surveyors)
☐ OTHER PROFESSIONAL SERVICES (detail vetting process on Decision Memo)
☐ REQUEST WAIVER OF COUNTY BID RULES (only allowable to Statutory Limits)
☐ OTHER THAN LOWEST RESPONSIBLE, BID # ____________________

PREPARED BY AND APPROVAL(S) (Initials Only)

<table>
<thead>
<tr>
<th></th>
<th>Prepr By</th>
<th>Date</th>
<th>Recmd for Approval</th>
<th>Date</th>
<th>IA Approval, if required</th>
<th>Date</th>
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<tbody>
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<td></td>
<td>Mar 29, 2018</td>
<td></td>
<td>Mar 29, 2018</td>
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REVIEWED BY (Initials Only)

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<td>Buyer</td>
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<tr>
<td>Chief Financial Officer</td>
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</table>

Attachment: Purvis 918126 PO final_Redacted opt (ETSR-R-0020-18 : RFP 16-167-RC FSA PO 918126)
**Decision Memo**

**Procurement Services Division**

This form is required for all Professional Service Contracts over $25,000 and as otherwise required by the Procurement Review Checklist.

<table>
<thead>
<tr>
<th>Requesting Department: ETSB</th>
<th>Department Contact: Eve Kraus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Email: <a href="mailto:etsb911@dupageco.org">etsb911@dupageco.org</a></td>
<td>Contact Phone: (630) 550-7743</td>
</tr>
<tr>
<td>Vendor Name: PURVIS Systems Incorporated</td>
<td>Vendor #: 28678</td>
</tr>
</tbody>
</table>

**Date:** Mar 29, 2018

**MinuteTraq (IQM2) ID #:**

**Department Requisition #:**

---

**Action Requested** - Identify the action to be taken and the total cost; for instance, approval of new contract, renew contract, increase contract, etc.

Procurement of and approval for an IP-Based Fire Station Alerting System as part of the direct dispatch of a 9-1-1 call to replace multiple existing and end of life equipment utilized in the 9-1-1 System. This will be a new contract and a new service for ETSB. FSA exists in the system at the PSAP level under multiple systems from different vendors. Some equipment is end of life. The total contract for capital and maintenance will be: $3,642,476.80.

**Summary Explanation/Background** - Provide an executive summary of the action. Explain why it is necessary and what is to be accomplished.

This system will be deployed into two (2) Public Safety Answering Points (PSAPs) and 67 fire stations within the DuPage ETSB 9-1-1 System. This is the final piece of technology that is not part of the unified consolidated system for 9-1-1. A unified system will be redundant in both ACDC and DU-COMM, the two PSAPs that dispatch fire and EMS. Approval of this system now will allow its implementation to go-live with CAD and the new PSAPs.

**Strategic Impact**

Quality of Life  
Select one of the five strategic imperatives in the County's Strategic Plan this action will most impact and provide a brief explanation.

Modern FSA systems are documented to decrease the dispatch time of a 9-1-1 call. This is of benefit to people seeking emergency medical and fire event assistance. It will also standardize the delivery of the dispatch, making the system more efficient. One unified system is also more cost effective.

**Source Selection/Vetting Information** - Describe method used to select source.

RFP #16-167-RC was developed by various work groups, reviewed by County Procurement and the SAO. The RFP was led by Procurement. Four vendors participated in the pre-bid meeting and demo. Three vendors submitted proposals. Multiple evaluation teams (operational, technical and financial) were formed to review and score the proposals. A reference check of the successful bidder was performed by the Executive Director and Procurement Manager with overwhelming positive results from like systems.

**Recommendations/Alternatives** - Describe staff recommendation and provide justification. Identify at least 2 other options to accomplish this request.

1. Approve the proposed contract. The successful bidder was approximately $1M less than competitors. This system is consistent with the ETSB goal of interoperability, standardization and redundancy.
2. Deny the proposed contract.
3. Rebid the contract. This process will take at least 12 months during which time existing equipment could fail.

**Fiscal Impact/Cost Summary** - Include projected cost for each fiscal year, approved budget amount and account number, source of funds, and any future funding requirements along with any narrative.

Sufficient funds have been budgeted for this project to begin in FY18. The conclusion of the capital portion is not anticipated until FY19. Maintenance will begin after 2 years of warranty or approximately 2022. Estimated Capital outlay: in FY18/$2.5M, in FY19/$619,000.

---

Attachment: Purvis 918126 PO final_Redacted opt (ETS-R-0020-18 : RFP 16-167-RC FSA PO 918126)
Purchase Requisition
Procurement Services Division

Send Purchase Order To:
Vendor: PURVIS Systems Incorporated  Vendor #: 28678
Attn: Michelle Craft  Email: mcraft@purvis.com
Address: 88 Silva Lane
City: Middletown  State: RI  Zip: 02842
Phone: (401) 845-8401  Fax:

Send Payments To:
Vendor: PURVIS Systems Incorporated  Vendor #: 28678
Attn: Michelle Craft  Email: mcraft@purvis.com
Address: 88 Silva Lane
City: Middletown  State: RI  Zip: 02842
Phone: (401) 845-8401  Fax:

Send Invoices To:
Dept: DuPage ETSB  Division:
Attn: 9-1-1 Coordinator  Email: etsb911@dupageco.org
Address: 421 N. County Farm Road  Room:
City: Wheaton  State: IL  Zip: 60187
Phone: (630) 550-7743  Fax: (630) 221-0025

Send Invoices To:
Dept: DuPage ETSB  Division:
Attn: 9-1-1 Coordinator  Email: etsb911@dupageco.org
Address: 421 N. County Farm Road  Room:
City: Wheaton  State: IL  Zip: 60187
Phone: (630) 550-7743  Fax: (630) 221-0025

Payment Terms
F.O.B.
PO 20 Delivery Date
Requisitioner

PO 25 only

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<th>Item Detail (Product #)</th>
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<th>FY</th>
<th>Dept #</th>
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<td>54100</td>
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<td>53807</td>
<td>547,444.26</td>
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Requisition Total $3,642,476.80

Header Comments (these comments will appear on the PO20 and PO25 Purchase Order):

Special Instructions/Comments to Buyer or Approver (these comments will NOT appear on the Purchase Order):
The capital portion of the FSA System will span FY18-19. Maintenance costs span three (3) years with a two (2) year warranty.

User Department Internal Notes (these comments will NOT appear on the Purchase Order):

Date: Mar 29, 2018

Attachment: Purvis 918126 PO_final_Redacted_opt (ETS-R-0020-18 : RFP 16-167-RC FSA PO 918126)
### Ability to Meet Technical Specification

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<th>Criteria</th>
<th>Percentage</th>
<th>Possible</th>
<th>MOTOROLA</th>
<th>PURVIS</th>
<th>USDD</th>
<th>Possible</th>
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**Examples of factors to consider include:**
- Quality, relevance references; relevant operational system installations; financial stability and resources; years in the public safety software industry; did the project stay within budget; future strategic direction; and any other responses bearing on vendor experience and the resources it has to ensure a successful implementation and continued support.

---

**System Requirements**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>Possible</th>
<th>MOTOROLA</th>
<th>PURVIS</th>
<th>USDD</th>
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<th>MOTOROLA</th>
<th>PURVIS</th>
<th>USDD</th>
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<tbody>
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<tr>
<td>Training</td>
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**Examples of factors to include:**
- Did the vendor meet the specifications as stated in the RFP; in some instances the vendor will be in a yes/no or pass/fail position. Is the language for the technical requirements specific enough for implementation.

---

**Examples of factors to consider include:**
- The vendor's overall approach to system testing; testing components included; the vendor's proposed test plan; how the vendor resolves issues that arise during testing; the vendor's role in system testing; and any other responses bearing on the vendor's capacity and willingness to work toward an acceptable system testing approach. Is the testing plan reasonable based on the size of the system. Is the time allotted for the testing phase or bug fixes during testing sufficient.

---

**Examples of factors to consider include:**
- Levels of support and responsiveness provided; overall approach to customer support; long-term maintenance capabilities; new software release process; start of warranty period; and any other proposal responses that bear on the post-implementation support that the vendor will provide. Is proposed response times for maintenance sufficient for operational functionality both on-site and remote.
The DuPage County Procurement Ordinance requires the following written disclosures prior to award:

1. Every contractor, union, or vendor that is seeking or has previously obtained a contract, change orders to one (1) or more contracts, or two (2) or more individual contracts with the county resulting in an aggregate amount at or in excess of $25,000, shall provide to Procurement Services Division a written disclosure of all political campaign contributions made by such contractor, union, or vendor within the current and previous calendar year to any incumbent county board member, county board chairman, or countywide elected official whose office the contract to be awarded will benefit. The contractor, union or vendor shall update such disclosure annually during the term of a multiyear contract and prior to any change order or renewal requiring approval by the county board. For purposes of this disclosure requirement, "contractor or vendor" includes owners, officers, managers, lobbyists, agents, consultants, bond counsel and underwriters counsel, subcontractors and corporate entities under the control of the contracting person, and political action committees to which the contracting person has made contributions.

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Donor</th>
<th>Description (e.g. cash, type of item, in-kind services, etc.)</th>
<th>Amount/Value</th>
<th>Date Made</th>
</tr>
</thead>
</table>

2. All contractors and vendors who have obtained or are seeking contracts with the county shall disclose the names and contact information of their lobbyists, agents and representatives and all individuals who are or will be having contact with county officers or employees in relation to the contractor bid and shall update such disclosure with any changes that may occur.

<table>
<thead>
<tr>
<th>Lobbyists, Agents and Representatives and all individuals who are or will be having contact with county officers or employees in relation to the contract or bid</th>
<th>Telephone</th>
<th>Email</th>
</tr>
</thead>
</table>

A contractor or vendor that knowingly violates these disclosure requirements is subject to penalties which may include, but are not limited to, the immediate cancellation of the contract and possible disbarment from future county contracts.

Continuing disclosure is required, and agree to update this disclosure form as follows:
- If information changes, within five (5) days of change, or prior to county action, whichever is sooner
- 30 days prior to the optional renewal of any contract
- Annual disclosure for multi-year contracts on the anniversary of said contract
- With any request for change order except those issued by the county for administrative adjustments

The full text for the county's ethics and procurement policies and ordinances are available at:
http://www.dupageco.org/CountyBoard/Policies/

I hereby acknowledge that I have received, have read, and understand these requirements.

Authorized Signature

Printed Name: Susan Correia
Title: Senior Vice President, Corporate Administration/Human Resources
Date: Mar 30, 2018

Attach additional sheets if necessary. Sign each sheet and number each page. Page 1 of 1 (total number of pages)
Return to include, but are not limited to, the following:

- Amount reportable on an information return. Examples of information return with the IRS include obtaining your correct taxpayer identification number (TIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:
  - Form 1099-INT (interest earned or paid)
  - Form 1099-DIV (dividends, including those from stocks or mutual funds)
  - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
  - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
  - Form 1099-S (proceeds from real estate transactions)
  - Form 1099-R (retirement plan distributions, etc.)
  - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
  - Form 1099-C (canceled debt)
  - Form 1099-A (acquisition or abandonment of secured property)

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
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- Form 1099-R (retirement plan distributions, etc.)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.

---

Packet Pg. 69
We have enclosed your Illinois Business Authorization.

Welcome!

We have enclosed your Illinois Business Authorization. Verify that all of the information is correct. If any corrections are needed you must contact us immediately at the telephone number listed below.

If all of the information is correct, your authorization must be visibly displayed at the address listed.

Do not discard. Your Illinois Business Authorization is an important tax document that provides you the authorization to legally do business in Illinois.

If you wish to be registered for any other taxes or fees, you must complete a new application. For questions, visit our website at tax.illinois.gov or call us weekdays between 8:00 a.m. and 4:30 p.m. at the telephone number below.

CENTRAL REGISTRATION DIVISION
ILLINOIS DEPARTMENT OF REVENUE
PO BOX 19030
SPRINGFIELD IL 62794-9030
217 785-3707

Enclosure(s)
Verify that all of your Illinois Business Authorization information is correct.

- If not, contact us immediately.
- If yes, cut along the dotted line (fits a standard 5 x 7" frame). Your authorization must be visibly displayed at the address listed. Do not discard - your Illinois Business Authorization is an important tax document that provides you the authorization to legally do business in Illinois.

Illinois Business Authorization

PURVIS SYSTEMS INCORPORATED

88 SILVA LN
MIDDLETOWN RI 02842-7634

Expiration Date: 9/1/2020

Certificate of Registration
Sales Tax as a reseller only (4264-6073)

This person or business is authorized under the Retailers' Occupation Tax Act as a reseller in Illinois and is authorized to purchase items tax-free provided the items are purchased for resale and all sales are made by the reseller in a nontaxable manner.

DEPARTMENT OF REVENUE
Issued Date: 10/24/2017
CONTRACT AGREEMENT

AGREEMENT #918126

BETWEEN

EMERGENCY TELEPHONE SYSTEM BOARD OF DUPAGE COUNTY

AND

PURVIS SYSTEMS, INC.

THIS AGREEMENT is entered into this 10th day of April, 2018, between the Emergency Telephone System Board of DuPage County located at 421 North County Farm Road, Wheaton, Illinois 60187 (hereinafter ETSB) and Purvis Systems, Inc., licensed to do business in the State of Illinois, located at 88 Silva Lane, Middletown, Rhode Island 02842 (hereinafter referred to as PURVIS).

Recitals

Whereas the ETSB required the goods and/or services specified in Request for Proposal (RFP) #16-167-RC, as amended; and

Whereas, PURVIS is the vendor selected pursuant to the RFP process and is willing to perform under the terms of the Response and this Agreement; and

Now, therefore, in consideration of the premises and mutual covenants contained herein, the parties agree that:

1.0 Agreement Documents

1.1 This Agreement includes all of the following component parts, all of which are fully incorporated herein and made a part of the obligations undertaken by the parties:

1.1.1 Contract Agreement
1.1.2 Milestones
1.1.3 Request for Proposal, with Addenda
1.1.4 PURVIS Response to Request for Proposal
1.1.5 Project Milestone Sign-Off Form
1.1.6 PURVIS End User License Agreement

1.2 All documents are or will be on file at the DuPage County Procurement Office, 421 North County Farm Road, Wheaton, Illinois 60187.

1.3 In the event of a conflict between any of the above documents, the lower numbered document will control unless otherwise noted in this document. (Example: 1.1.1 controls over 1.1.2, etc.)
2.0 Agreement Duration

2.1 Unless terminated as provided in the RFP, the term of this Agreement shall commence upon execution of this contract and end on the final year of maintenance. The warranty and maintenance period shall not exceed five (5) years total.

2.2 The warranty period for the FSA system shall last for two (2) years after the FSA system is installed, accepted, and operational (ready for cut-over) in the two (2) ETSB public safety answering points (PSAPs); installed, accepted, and operational (ready for cut-over) in 50% of ETSB fire stations; and operate for thirty (30) consecutive days with no major problems or outages. Problems or outages that are considered “major” if it results in no service at one or more locations.

2.3 PURVIS shall provide three (3) additional years of maintenance after the conclusion of the initial two (2) year warranty.

2.4 See Section 3.0, 4.4, and 11.0 of 1.1.4 PURVIS’ Response to Request for Proposal for more information regarding the Warranty and Maintenance descriptions.

3.0 Prices and payment

3.1 The Contractor shall provide the required goods and / or services described in the Proposal Specifications for the prices quoted in the proposal.

3.2 The ETSB shall make payment pursuant to the Illinois Local Government Prompt Payment Act (50 ILCS 505/1 et. seq.).

3.3 Payment schedule shall be made by milestones, as listed in 1.1.4 Milestones, subject to the ETSB’s appropriate approval or acceptance of the milestone. An ETSB approval or acceptance of a milestone shall generate an invoice to be sent by PURVIS.

3.4 The contract shall have an option for additional on-site dispatcher training in the amount of $6,525.00. ETSB shall have the ability to add the additional training until the end of the warranty period. Payment for additional training will be invoiced upon completion and remitted according to Section 3.2 of this contract.

3.5 Included in the three (3) years of maintenance services described in this contract, PURVIS shall incorporate a technology refresh of the FSA. The technical refresh is planned in Year 4 of the Contract and consists of the removal and replacement of the two Central Servers at the two PSAPs, including system configuration, installation and setup to implement the new servers into the ETSB’s existing environment.

3.6 Maintenance shall be paid annually. Invoicing for the annual payment shall be received by the ETSB within forty-five (45) days of the expiration of the previous year’s maintenance. ETSB shall make payment pursuant to Section 3.2. The cost of maintenance for the core system is:

- First year of maintenance (Year 3 of Contract): $182,481.42
- Second year of maintenance (Year 4 of Contract): $182,481.42
- Third year of maintenance (Year 5 of Contract): $182,481.42
3.7 Pursuant to RFP # 16-167-RC, as amended, the ETSB negotiated a joint-purchasing program on behalf of itself and the various public safety member agencies to potentially purchase the goods sought. PURVIS' prices listed in 1.1.4 PURVIS Response to Request for Proposal shall be made available to the individual agencies.

3.7.1 The ETSB will facilitate one (1) change order for optional equipment for individual agencies within sixty (60) days of the contract acceptance to include any increase in maintenance.

3.7.2 All subsequent purchases (after the one (1) change order) made through this joint-purchasing program will be between PURVIS and the individual agency. The ETSB shall not make additional purchases on behalf of the individual agencies, unless by later mutually agreed upon amendment.

3.7.2.1 The parties agree PURVIS must have permission to connect additional purchased items to the ETSB controller and FSA system before installation.

3.7.3 Upon approval of the change order, PURVIS will complete the one (1) change order milestone payment schedule for the costs associated with the one (1) change order and a cost per participating fire agency. The implementation and milestones shall run concurrent with the core system implementation milestone and schedule. Milestone payments for the one (1) change order will be actual cost for and invoiced upon acceptance of installation of optional equipment purchased in the one (1) change order.

4.0 Amendments
4.1 This contract may be amended by mutual agreement
4.2 All amendments will conform to the State of Illinois Statutes and County of DuPage Ordinances and Procedures for Change Orders.
4.3 Illinois law requires that changes in excess of $10,000 or extensions greater than thirty (30) days must comply with the Criminal Code, 720 ILCS 5/33E-9. The ETSB shall issue PURVIS a written change order to this Agreement; such change orders shall be binding on the parties thereto and shall in no way invalidate or make void the terms of this Original Agreement not modified by such change order. ETSB shall provide one (1) change order within sixty (60) days of execution of this Agreement for optional equipment as detailed in Section 3.4. Additional changes orders will be by mutual agreement of the parties.
5.0 Confidential information

5.1 "Confidential Information" means any information that is disclosed in written, graphic, verbal, or machine recognizable form, and is marked, designated, or identified at the time of disclosure as being confidential or its equivalent; or if the information is in verbal form, it is identified as confidential at the time of disclosure and is confirmed in writing within thirty (30) days of the disclosure. Confidential Information does not include any information that: is or becomes publicly known through no wrongful act of the receiving Party; is already known to the receiving Party without restriction when it is disclosed; is or becomes, rightfully and without breach of this Agreement, in the receiving Party’s possession without any obligation restricting disclosure; is independently developed by the receiving Party without breach of this Agreement; or is explicitly approved for release by written authorization of the disclosing Party.

5.2 During the term of this Agreement, the parties may provide each other with Confidential Information. Each Party will: maintain the confidentiality of the other Party’s Confidential Information and not disclose it to any third party, except as authorized by the disclosing Party in writing or as required by a court of competent jurisdiction; or as required to comply with the Illinois Freedom of Information Act (5 ILCS 140/1 et. seq.); restrict disclosure of the Confidential Information to its employees who have a “need to know” and not copy or reproduce the Confidential Information; take necessary and appropriate precautions to guard the confidentiality of the Confidential Information, including informing its employees who handle the Confidential Information that it is confidential and is not to be disclosed to others, but these precautions will be at least the same degree of care that the receiving Party applies to its own confidential information and will not be less than reasonable care; and use the Confidential Information only in furtherance of the performance of this Agreement.

5.3 Confidential Information is and will at all times remain the property of the disclosing Party, and no grant of any proprietary rights in the Confidential Information is given or intended, including any express or implied license, other than the limited right of the recipient to use the Confidential Information in the manner and to the extent permitted by this Agreement.

5.4 The disclosing party owns and retains all of its Proprietary Rights in and to its Confidential Information, except the disclosing party hereby grants to the receiving party the limited right and license, on a non-exclusive, irrevocable, and royalty-free basis, to use the Confidential Information for any lawful business purpose in the manner and to the extent permitted by this Agreement.

6.0 Installation

6.1 Equipment and services shall be considered installed when PURVIS furnishes, positions, and sets in place the equipment and services agreed to in the contract.

6.2 Milestones numbers 1 through 11 on 1.1.2 Milestone shall be considered complete when installed.
7.0 Acceptance
7.1 The Acceptance Testing Plan shall be formulated and agreed upon as stated in Section 4.6: System Test and Acceptance Plan of 1.1.4 PURVIS Response to Request for Proposal.
7.2 After completing FSA Acceptance Testing, PURVIS shall prepare and deliver a form to the ETSB. The ETSB, the applicable PSAP, and applicable individual fire agency, via its fire chief or designee, shall each individually sign this form. The form formally accepts the work completed by PURVIS.
7.3 Milestones numbers 12 through 19 on 1.1.2 Milestone shall be considered complete when accepted.

8.0 Final project completion
8.1 Final project completion shall begin when the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. Problems or outages that are considered “major” if it results in no service at one or more locations. Milestones numbers 20 and 21 on 1.1.2 Milestone shall be considered components of final project completion.

9.0 Governing Law
9.1 This Agreement shall be governed by the laws of the State of Illinois both as to interpretation and enforcement. Venue for all disputes will be exclusively in the Circuit Court of the Eighteenth Judicial Circuit in DuPage County, Illinois or the U.S. District Court for the Northern District of Illinois and that Illinois law will control.

10.0 Entire Agreement
10.1 This Agreement, including the documents listed in 1.0, contains the entire agreement between the parties.
10.2 This Agreement, including all Exhibits, supersedes all previous agreements, proposals, and understandings, whether written or oral, relating to this subject matter. This Agreement may be executed in multiple counterparts, and shall have the same legal force and effect as if the Parties had executed it as a single document. The Parties may sign in writing, or by electronic signature, including by email. An electronic signature, or a facsimile copy or computer image, such as a PDF or tiff image, of a signature, shall be treated as and shall have the same effect as an original signature. In addition, an electronic signature, a true and correct facsimile copy or computer image of this Agreement shall be treated as and shall have the same effect as an original signed copy of this document. The preprinted terms and conditions found on any Customer purchase order, acknowledgment or other form will not be considered an amendment or modification of this Agreement, even if a representative of each Party signs that document.
11.0 Exchange
11.1 To the extent the ETSB and PURVIS execute a mutually agreeable change order prior to Project Completion that would result in the reduction in the amount of services or products to be provided hereunder, the ETSB will receive a credit from PURVIS for the amount commensurate with the products and services the Parties desire to remove from this agreement that may be used for the purchase of future PURVIS products, software, or maintenance. Notwithstanding the foregoing, the creation of the credit is subject to the Agreement value remaining at or exceeding the Agreement value immediately prior to the execution of the change order. The ETSB will not be entitled to a credit hereunder if it does not pay for the PURVIS products, software, or services that are being removed from the Agreement. Additionally, the ETSB will not be entitled to a credit for services that have already been performed.

12.0 Communications
12.1 All notices required hereunder shall be sent to the following via US Postal Service or overnight courier (UPS, FedEx, DHL, etc.):

For DuPage ETSB:

Linda Zerwin
Executive Director
DuPage ETSB
421 N. County Farm Road
Wheaton, Illinois 60187
630-550-7743
ETSB911@dupageco.org

For PURVIS:

Michelle Craft
Contracts Manager
PURVIS Systems Incorporated
88 Silva Lane
Middletown, RI 02842
401-845-8401
contracts@purvis.com
13.0 Title

13.1 Title to equipment shall pass from PURVIS upon acceptance by the ETSB.

In witness whereof, the parties set their hands and seals as of the date first written above.

DUPAGE ETSB

Gary Grasso
Chairman

PURVIS SYSTEMS, INC.

AUTHORIZED SIGNATURE

Paul Hinds
Clerk

TITLE
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<tr>
<th>MS (#)</th>
<th>Milestone Deliverable</th>
<th>MS (%)</th>
<th>MS ($)</th>
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<td>Upon contract execution (invoiced and paid within 60 days of execution)</td>
<td>10.00%</td>
<td>309,503.25</td>
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<td>2</td>
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<td>3</td>
<td>Upon Hardware Delivery Phase 2</td>
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<td>4</td>
<td>Upon Installation of core equipment for Phase 1 ACDC</td>
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<td>Upon Installation of core equipment for Phase 2 DU-COMM</td>
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<td>Upon Installation of core equipment for Phase 1 FDACDC1</td>
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<td>7</td>
<td>Upon Installation of core equipment for Phase 1 FDACDC2</td>
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<td>154,751.63</td>
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<td>8</td>
<td>Upon Installation of core equipment for Phase 2 Fire North agencies</td>
<td>5.00%</td>
<td>154,751.63</td>
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<tr>
<td>9</td>
<td>Upon Installation of core equipment for Phase 2 Fire South agencies</td>
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<td>11</td>
<td>Upon Installation of core equipment for Phase 2 Fire West agencies</td>
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<tr>
<td>12</td>
<td>Upon acceptance of core equipment for Phase 1 ACDC</td>
<td>2.50%</td>
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<td>13</td>
<td>Upon acceptance of core equipment for Phase 2 DU-COMM</td>
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<td>Upon completion of project 30 day reliability period Phase 2</td>
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<td>Final project completion</td>
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Contract Amount excluding maintenance 100.00%  $3,095,032.54
# PROJECT MILESTONE SIGN OFF FORM

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<td>Submitted To:</td>
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<td>Customer Contract #:</td>
<td>Customer Project #:</td>
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## DELIVERABLE INFORMATION

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<th>Amount of Payment:</th>
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<tbody>
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<td>Description:</td>
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</table>

With the deliverable described above complete, the Participant will either sign-off that the deliverable has been met or state in writing below the reason the deliverable has not been met.

Sign-off of the deliverable shall be based solely upon meeting the requirements stated in the Agreement between Purvis Systems and DuPage ETSB. The signature below acknowledges that the deliverable described in the Agreement and listed above meets all of the appropriate criteria and supersedes all prior requirements for this milestone.

With the authorizing signature below, customer acknowledges completion of this milestone according to the Contract Milestone Payment Schedule. Approval of this milestone will authorize Purvis Systems to invoice the amount listed on this form.

**Authorized PSAP Representative:**

<table>
<thead>
<tr>
<th>Signature:</th>
<th>Date;</th>
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<tbody>
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<td>(Print Name and Title)</td>
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**Fire Department or Fire Protection District Chief:**

<table>
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<th>Signature:</th>
<th>Date;</th>
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<tbody>
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<td>(Print Name and Title)</td>
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Check here if Deliverable has not been met

<table>
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<tr>
<th>Reason:</th>
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Attachment: Purvis 918126 PO final_Redacted opt (ETS-R-0020-18 : RFP 16-167-RC FSA PO 918126)
END-USER LICENSE AGREEMENT
PURVIS FIRE STATION ALERTING SYSTEM (FSAS)

This End-User License Agreement ("Agreement") is made and entered into on [DATE] between PURVIS Systems Incorporated, a New York Corporation, (hereinafter "PURVIS" or "Licensor"), located at 88 Silva Lane, Middletown, RI 02842 and Emergency Telephone Board of DuPage County ("Licensee"), located at 421 North County Farm Road, Wheaton, IL 60187.

RECITALS

WHEREAS, Licensor has developed the PURVIS Fire Station Alerting System™ ("PURVIS FSAS" or "FSAS") and desires to grant Licensee a license to use the Software;
WHEREAS, Licensee wishes to use the Software under the terms and conditions set forth in this Agreement;
WHEREAS, Licensor and Licensee have executed a Contract, Contract Number [CONTRACT #], dated [DATE OF CONTRACT] ("Contract") for the Licensee's procurement of the PURVIS FSAS;
NOW, THEREFORE, in consideration of the mutual promises set forth herein, Licensor and Licensee hereby agree as follows:

1. GRANT OF LICENSE

PURVIS grants Licensee a non-exclusive, perpetual license to use the Software only in connection with the PURVIS FSAS and solely for Licensee's internal business use. "Software" means all software, firmware, and databases created by PURVIS for the PURVIS FSAS. Refer to PURVIS' proposal and/or the Contract for the specific Software items licensed by Licensee under this Agreement.

2. RESTRICTIONS ON USE

No license or right is granted to license, sell, disclose or otherwise transfer the Software to others. Licensee shall not manufacture, modify, reproduce, copy, reverse engineer, decompile, disassemble or create derivative works of Software. Licensee acknowledges that any documentation delivered in connection with the software included in the FSAS is PURVIS' proprietary information, and Licensee may not disclose, assign or sublicense such documentation and information to anyone without PURVIS' prior written consent and then only on terms acceptable to PURVIS. Licensee represents and warrants that it is acquiring the Software and the FSAS for its own business use and purpose, without any intention to re-sell or transfer the Software or the FSAS to any third party.
3. MAINTENANCE AND SUPPORT

Warranty and Maintenance services shall be provided in accordance with PURVIS’ Warranty, Maintenance, and Service Agreement for the PURVIS FSAS, for the periods and prices set forth in the Contract.

4. TERM OF AGREEMENT

This Agreement shall commence on the effective date and shall continue in effect until terminated by PURVIS or Licensee.

5. TERMINATION

Except as expressly stated to the contrary in the Contract, if either party fails to comply with any terms and conditions of this Agreement, the other party may terminate this Agreement upon 30 days written notice, specifying such breach, unless within the period of such notice, all breaches specified therein have been cured. Licensee’s failure to pay PURVIS amounts due shall be considered a material breach of this Agreement.

Upon termination, PURVIS shall remove the Software from the Licensee’s equipment. Licensee shall allow PURVIS reasonable access to the equipment so that PURVIS can remove the Software. Licensee agrees that it has no right to, and hereby expressly releases and holds PURVIS harmless from any liability for any damages, equitable relief or indemnification of any kind, including but not limited to loss of profits, or any other cost, damage, liability, loss or expense incurred by Licensee due to any expiration or termination of this Agreement.

6. WARRANTY AND REMEDIES

PURVIS warrants that Software manufactured by PURVIS, under normal use and service as originally delivered to Licensee, will function substantially in accordance with the functional description in the PURVIS proposal or the Contract. PURVIS’ sole liability and Licensee’s sole remedy for breach of this Software warranty shall be, at PURVIS’ election, PURVIS’ good faith effort to rectify the nonconformity or replace the Software with Software that conforms. This warranty does not apply if Software failure is a result of accident, misuse, abuse, misapplication or unauthorized modification by Licensee.

7. INTELLECTUAL PROPERTY

(a) Ownership. PURVIS alone (and its licensors, where applicable) shall own all right, title and interest, including all related Intellectual Property Rights, in and to the licensed Software contained in the FSAS. “Intellectual Property Rights” means all exclusionary, proprietary or other rights existing from time to time under patent, copyright, trade secret, trademark, unfair competition or other laws. The PURVIS name, the PURVIS logo, and the product names associated with the FSAS are trademarks of PURVIS or third parties, and no right or license is granted to use them. In the course of the performance of this Agreement, PURVIS may disclose to Licensee certain confidential information regarding the design, computer code, specifications and other matters regarding the Software and the FSAS. Licensee agrees to hold all such information disclosed to Licensee regarding the Software and the FSAS confidential for a period of five (5) years after the termination of this Agreement and Licensee shall not during such period
disclose any confidential information regarding the Software or the FSAS to any third party, except as may be required pursuant to a valid court order or subpoena. Licensee shall promptly notify PURVIS of the receipt of any such court order or subpoena and afford PURVIS the opportunity to contest or limit any such court order or subpoena as the same may relate to the Software and the FSAS and any confidential information relating thereto.

(b) **PURVIS FSAS IP Indemnity.** Except as expressly provided in the Contract, PURVIS will defend and hold Licensee harmless against any claims, legal actions, and other expenses in connection with any claims that the FSAS or any Hardware or Software created by PURVIS within the FSAS infringes or violates intellectual property rights of any third party, on the condition that Licensee notifies PURVIS promptly of the claim and gives PURVIS sole control of the defense and negotiations for its settlement or compromise. If Licensee is, or may become, prohibited from use of the FSAS by reason of an actual or anticipated claim, PURVIS will use its reasonable efforts, at PURVIS' sole cost and expense, to either: (a) obtain for Licensee the right to use the FSAS, (b) replace or modify the FSAS so that it is no longer subject to a claim but performs the same functions in an equivalent manner, or (c) refund to Licensee the amount paid in respect to the FSAS. PURVIS shall not have any liability to Licensee if the infringement or other violation of a third party right is based in any way upon (i) the use of the FSAS in combination with other components, equipment or software not furnished by PURVIS, (ii) third party or off-the-shelf Hardware or Software used in conjunction with or incorporated into the FSAS, or (iii) any component of the FSAS which has been modified or altered by Licensee without authorization. EXCEPT AS EXPRESSLY PROVIDED IN THE CONTRACT, THIS SECTION STATES THE ENTIRE RESPONSIBILITY OF PURVIS CONCERNING INTELLECTUAL PROPERTY CLAIMS REGARDING THE FSAS AND PURVIS' HARDWARE AND SOFTWARE AND WILL SURVIVE TERMINATION OF THE AGREEMENT.

(c) **Third Party Hardware and Software IP Indemnity Pass-through.** Except as expressly provided in the Contract, with respect to any third party hardware or software contained in the FSAS, PURVIS agrees to pass on to Licensee, to the extent permissible under applicable agreements, any warranties or indemnities with regard to patent or copyright infringement provided to PURVIS by such vendors. PURVIS is not authorized to act as agent for any vendor in patent or copyright matters. PURVIS will, upon notification from Licensee of any allegation of patent or copyright infringement involving third party hardware or software, promptly notify the vendor(s) and assist (at Licensee's expense) in obtaining from vendor(s) such remedies as may be contained in PURVIS' agreement(s) with such vendor(s).

(d) **Improvements.** All rights, title and interest in and to any inventions, discoveries, improvements, methods, ideas, computer and other apparatus programs, derivatives and related documentation, other works of authorship fixed in any tangible medium of expression, or other forms of intellectual property, whether or not subject of statutory protection, which are made, created, developed, written, conceived or first reduced to practice by PURVIS solely, jointly or on its behalf, in the course of, arising out of, or as a result of work performed under this Agreement shall belong to and be the sole and exclusive property of PURVIS.

8. PERSONAL DATA CONTAINED WITHIN THE FSAS OR ANY HOSTED
SERVICES
PURVIS does not own any personal data, information or material that may be introduced into or contained within the FSAS in the course of Licensee's use of the FSAS, including, without limitation, cellular telephone numbers, names, email addresses or other information by which individuals are contacted or identified ("Personal Data"). Licensee, not PURVIS, shall have sole responsibility for the accuracy, quality, integrity, legality, reliability, appropriateness, and intellectual property ownership or right to use of all Personal Data. Licensee is responsible for the Personal Data and PURVIS shall not be responsible or liable for the deletion, correction, destruction, damage, loss or failure to store any Personal Data.

9. LIMITATION OF LIABILITY
EXCEPT FOR ANY EXPRESS HARDWARE OR SOFTWARE WARRANTIES PROVIDED IN THE AGREEMENT AND THE CONTRACT, PURVIS AND ITS LICENSORS MAKE NO REPRESENTATION, WARRANTY, OR GUARANTY AS TO THE RELIABILITY, TIMELINESS, QUALITY, SUITABILITY, TRUTH, AVAILABILITY, ACCURACY OR COMPLETENESS OF THE FSAS OR ANY HARDWARE, SOFTWARE OR SERVICES THEREIN. PURVIS AND ITS LICENSORS DO NOT REPRESENT OR WARRANT THAT (A) THE USE OF THE FSAS WILL BE SECURE, TIMELY, UNINTERRUPTED OR ERROR-FREE OR OPERATE IN COMBINATION WITH ANY OTHER HARDWARE, SOFTWARE, SYSTEM OR DATA, (B) THE FSAS WILL MEET LICENSEE'S REQUIREMENTS OR EXPECTATIONS, (C) ANY STORED DATA WILL BE ACCURATE OR RELIABLE, (D) THE EFFECTIVENESS OF THE FSAS IN CONVEYING EMERGENCY MESSAGES OR WARNINGS, OR THE USE TO WHICH ANY RESPONDER OR OTHER PARTY MAY PUT SUCH MESSAGES OR WARNINGS, (E) ERRORS OR DEFECTS WILL BE CORRECTED, OR (F) THE FSAS OR THE SERVER(S) THAT MAKE THE FSAS AVAILABLE ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS. THE FSAS AND ALL CONTENT IS PROVIDED TO LICENSEE STRICTLY ON AN "AS IS" BASIS. ALL CONDITIONS, REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD PARTY RIGHTS, ARE HEREBY DISCLAIMED TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW BY PURVIS AND ITS LICENSORS.

EXCEPT AS EXPRESSLY PROVIDED IN ANY OTHER CONTRACT OR AGREEMENT BETWEEN THE PARTIES RELATING TO THE FSAS SYSTEM, IN NO EVENT SHALL PURVIS'S AGGREGATE LIABILITY UNDER THE AGREEMENT EXCEED THE AMOUNTS ACTUALLY PAID BY AND/OR DUE FROM LICENSEE IN THE TWELVE (12) MONTH PERIOD IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO SUCH CLAIM. EXCEPT AS EXPRESSLY PROVIDED IN ANY OTHER CONTRACT OR AGREEMENT BETWEEN THE PARTIES RELATING TO THE FSAS SYSTEM, IN NO EVENT SHALL PURVIS AND/OR ITS LICENSORS BE LIABLE TO ANYONE FOR ANY INDIRECT, PUNITIVE, SPECIAL, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING LOSS OF DATA, REVENUE, PROFITS, USE OR OTHER ECONOMIC ADVANTAGE) ARISING OUT OF, OR IN ANY
WAY CONNECTED WITH THE FSAS, INCLUDING BUT NOT LIMITED TO THE USE OR INABILITY TO USE THE FSAS, OR FOR ANY CONTENT OBTAINED FROM OR THROUGH THE SERVICE, ANY INTERRUPTION, INACCURACY, ERROR OR OMISSION, REGARDLESS OF CAUSE IN THE CONTENT, EVEN IF PURVIS HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

10. INTERNET DELAYS
THE FSAS OR ANY HOSTED SERVICES MAY BE SUBJECT TO LIMITATIONS, DELAYS, AND OTHER PROBLEMS INHERENT IN THE USE OF THE INTERNET AND ELECTRONIC COMMUNICATIONS. PURVIS IS NOT RESPONSIBLE FOR ANY DELAYS, DELIVERY FAILURES, OR OTHER DAMAGE RESULTING FROM SUCH PROBLEMS. LICENSEE IS SOLELY RESPONSIBLE FOR ITS ACCESS TO THE INTERNET FOR PURPOSES OF USING THE FSAS AND ANY HOSTED SERVICES. PURVIS IS NOT AN INTERNET PROVIDER AND HAS NO RESPONSIBILITY WHATSOEVER IN ARRANGING FOR, OR MONITORING, THE LICENSEE'S ACCESS TO THE INTERNET IN ORDER TO USE THE FSAS OR ANY HOSTED SERVICES.

11. FORCE MAJEURE
Neither party shall be liable to the other for any failure to perform its obligations hereunder and shall have no liability whatsoever as a result of any cause beyond the reasonable control of such party, including without limitation any theft, riot, war, flood, fire, storm, natural disaster, work stoppage, national emergency, terrorism, delay or failure of any supplier or shipper, any product, labor or parts shortage or similar event.

12. SEVERABILITY
If any provision of this Agreement shall be held to be invalid, illegal, or unenforceable, the remaining provisions shall remain in force and full effect. Notwithstanding the provisions of the foregoing sentence, if such invalidity shall change the basic intent of the parties as set forth in this Agreement, the rights, duties, or obligations or either party hereunder shall be subject to good-faith renegotiations between the parties.

13. NON-WAIVER
The failure of either party to exercise any right provided in this Agreement shall not constitute a waiver of any right hereunder.

14. ASSIGNMENT
Neither party shall assign, sell, transfer, or in any way encumber its interest under this Agreement without first obtaining the written consent of the other party hereto.

15. NOTICES
All notices required hereunder shall be in writing and shall be delivered to the address indicated in the Agreement (or at such other address as shall be given pursuant to this provision by either of the parties to the other).
16. INDEPENDENT COMPANY

It is understood and agreed by and between the parties that PURVIS, in satisfying the conditions of this Agreement, is acting independently, and that Licensee assumes no responsibility or liabilities to any third party in connection with these actions. All services to be performed by PURVIS pursuant to this Agreement shall be in the capacity of an independent company, and not as an agent or employee of Licensee. PURVIS shall supervise the performance of its services and shall be entitled to control the manner and means by which its services are to be performed, subject to the terms of the Agreement.

17. COMPLIANCE WITH LAWS/LAWS GOVERNING

Each party shall comply with all applicable federal, state or local laws, regulations or ordinances in effect on the date of this Agreement or thereafter adopted. The parties shall conduct all of their activities associated with this Agreement consistent with these applicable regulations. This Agreement shall be governed by and construed in accordance with the laws of the State of Rhode Island.

18. CERTAIN LAWS

The PURVIS FSAS uses software and technology that may be subject to United States export controls administered by the U.S. Department of Commerce, the United States Department of Treasury Office of Foreign Assets Control, and other U.S. agencies and the export control regulations of Switzerland and the European Union. Licensee agrees to comply strictly with all U.S., Swiss and European Union export laws and assume sole responsibility for obtaining licenses to export or re-export as may be required. Licensee acknowledges and agrees that the Software shall not be used by, transferred or otherwise exported or re-exported to countries as to which the United States, Switzerland and/or the European Union maintains an embargo (collectively, "Embargoed Countries"), or to or by a national or resident thereof, or any person or entity on the U.S. Department of Treasury's List of Specially Designated Nationals or the U.S. Department of Commerce's Table of Denial Orders (collectively, "Designated Nationals"). The lists of Embargoed Countries and Designated Nationals are subject to change without notice. By using the Software, Licensee represents and warrants that Licensee is not located in, under the control of, or a national or resident of an Embargoed Country or Designated National.

19. AGREEMENT

This Agreement sets forth the entire understanding between the parties as to the subject matter herein, and supersedes all prior agreements, discussions and understandings, expressed or implied, between the parties. This Agreement may not be altered except by a written agreement signed by both parties.

20. COUNTERPARTS

This Agreement may be executed in counterparts, each of which will be deemed to be an original and such counterparts together will constitute one and the same agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by duly
authorized representatives on the day and year first above written.

PURVIS Systems Incorporated (Licensor)  Licensee

__________________________  ____________________________
Authorized Signature  Authorized Signature

__________________________  ____________________________
Print Name and Title  Print Name and Title

PROPOSAL DESCRIPTION: DuPage County Fire Station Alerting
The Emergency Telephone System Board of DuPage (ETSB of DuPage County) on behalf of and in cooperation with its 911 member agencies is requesting proposals for an IP based Fire Station Alerting System. All requirements are as per specifications enclosed herein. The selected vendor will provide and maintain the infrastructure for DuPage County.

PROPOSAL OPENING DATE: 1/17/2017  PROPOSAL OPENING TIME: 3:30
SUBMIT 1 ORIGINAL PLUS 2 Copies and 1 Flash Drive  BOND REQUIRED: Yes

PROPOSAL RESPONSES MUST BE RECEIVED AND TIME STAMPED NO LATER THAN THE PUBLIC PROPOSAL OPENING DATE AND TIME (LOCAL TIME) SPECIFIED ABOVE. PROPOSALS WILL BE RECEIVED AT THAT TIME IN THE PROCUREMENT SERVICES DIVISION. LATE PROPOSALS WILL NOT BE CONSIDERED.

TO ALL PROSPECTIVE PROPOSERS:
You are hereby invited to submit your proposal for the services to be furnished and delivered, shipped F.O.B. delivered, to the address specified herein.

A MANDATORY PRE-PROPOSAL CONFERENCE WILL BE HELD ON THURSDAY, DECEMBER 15, 2016 at 3:00PM. VENDORS WHO PLAN TO ATTEND MUST REGISTER (VIA EMAIL) WITH THE BUYER LISTED BELOW BY THURSDAY, DECEMBER 8, 2016.

The original proposal and the required number of copies must be received in a sealed envelope that has your name and address in the upper left corner and the attached label filled in and pasted on the lower left corner.

All proposals are subject to staff analysis. The ETSB of DuPage County reserves the right to accept or reject any and all proposals received and waive any and all technicalities.

Proposals must be delivered and time stamped, prior to the public proposal opening date and time, to:
DU PAGE COUNTY PROCUREMENT SERVICES DIVISION
421 NORTH COUNTY FARM ROAD, ROOM 3-400
WHEATON, IL 60187-3978

Any communication regarding this invitation between the date of issue and date of award is required to go through the Proposal Coordinator or the Buyer listed below (or, in the Buyers absence, the Procurement Services Supervisor).

Unauthorized contact with other DuPage County staff or officers is strictly forbidden.

BUYER: Becky Cussans  PHONE: (630) 407-6137
EMAIL: Rebecca.Cussans@DuPageCo.org

FULL NAME OF PROPOSER

PROPOSER CONTACT PERSON

TELEPHONE NUMBER
FACSIMILE AND/OR E-MAIL TRANSMITTED PROPOSALS WILL NOT BE ACCEPTED
PLEASE NOTE: Our proposal documents have changed; please review carefully.
PROJECT INFORMATION

PROJECT NAME: DUPAGE COUNTY FIRE STATION ALERTING
USER DEPARTMENT: EMERGENCY TELEPHONE SYSTEM BOARD (ETSB)

<table>
<thead>
<tr>
<th>EVENT</th>
<th>LOCATION</th>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline for Exceptions to Proposal Language and Specification Inquiries. MUST BE IN WRITING TO:</td>
<td>Must be submitted in writing to: <a href="mailto:Rebecca.Cussans@DuPageCo.Org">Rebecca.Cussans@DuPageCo.Org</a></td>
<td>12/22/2016</td>
<td>3:30</td>
</tr>
<tr>
<td>Response to Inquiries</td>
<td>Via E-mail</td>
<td>12/29/2016</td>
<td>3:30</td>
</tr>
<tr>
<td>Proposal Due</td>
<td>Procurement Services, Room 3-400</td>
<td>1/17/2017</td>
<td>3:30</td>
</tr>
</tbody>
</table>

√ SUBMITTAL CHECKLIST
(PROPOSAL PACKET SHOULD BE RETURNED IN ITS ENTIRETY)

ORIGINAL PROPOSAL
2 COPIES AND 1 FLASH DRIVE

PROPOSAL PRICING (INCLUDING UNIT PRICES, WHERE REQUIRED)

PROPOSAL NARRATIVE MUST INCLUDE:
• SYSTEM OVERVIEW
• DETAILED DESCRIPTION OF ALL MAJOR COMPONENTS OF THE SYSTEM
• TRAINING DESCRIPTION
• MAINTENANCE DESCRIPTION
• WARRANTY DESCRIPTION
• TIMELINE IMPLEMENTATION PLAN
• SYSTEM TEST AND ACCEPTANCE PLAN

ADDENDA NUMBER ACKNOWLEDGED, IF APPLICABLE

REFERENCES

BID SECURITY CHECK

SUBCONTRACTORS

CERTIFICATION/PROPOSAL SIGNATURE AFFIDAVIT PAGE, COMPLETED, WITH SEAL (IF CORPORATION) NOTARY PUBLIC AND AUTHORIZED SIGNATURE

JOINT PURCHASING SECTION, COMPLETED

WARRANTY INFORMATION

COMPLETED VENDOR ETHICS DISCLOSURE FORM (SIGNED)

COMPLETED IRS-Form W-9

AWARDED CONTRACTOR REQUIREMENTS

CERTIFICATE OF INSURANCE DUE WITHIN 15 DAYS OF NOTICE OF AWARD

PROFORMANCE BOND DUE WITHIN 15 DAYS OF NOTICE OF AWARD
ON-LINE NOTIFICATION OF SPECIFICATIONS:
This document is available over the Internet at www.DemandStar.com, as well as from the contact listed in this document. Adobe Acrobat® Reader is required to view electronic documents on-line. If you do not have Adobe Acrobat® Reader, you may download it for free from Adobe at www.adobe.com/products/acrobat/readstep.html.

Businesses without Internet access may contact the Procurement Services Division of the County at (630) 407-6190 for these documents.

Companies interested in doing business with the County are able to register and maintain their registration via the Internet at www.DemandStar.com. Registration is not required but if you choose to register you will receive automatic initial notification from DemandStar of relevant opportunities with the County of DuPage.

The ETSB of DuPage County is not responsible for errors and omissions occurring in the transmission or downloading of any specifications from this website. In the event of any discrepancy between information on this website and the hard copy specifications, the terms of the hard copy specification will control.

ON-LINE PROVIDER DISCLAIMER:
DemandStar.com has no affiliation with the ETSB of DuPage County other than as a service that facilitates communication between the County and its vendors. DemandStar.com is an independent entity and is not an agent or representative of the County. Communications to DemandStar.com do not constitute communications to the County.

PROPOSAL REQUIREMENTS:
All proposals must be submitted on the attached response form furnished with these contract documents and shall conform to the terms and conditions set forth in this Request for Proposal (the RFP). Please make and retain a copy of your Response (Proposal) for your records. The proposal must be enclosed in a sealed envelope bearing the proposal number and the printed title of the proposal. Proposers must sign, in ink, the proposal form where indicated and have the signature notarized. Unsigned proposals will not be read.

Proposer shall acknowledge receipt of each addendum issued in the space provided on the proposal form.

COMPETITION INTENDED:
It is the ETSB of DuPage County’s intent that this Request for Proposal (RFP) permits competition. It shall be the Proposer’s responsibility to advise the Buyer in writing if any language, requirement, specification, etc., or any combination thereof, inadvertently restricts or limits the requirements stated in this RFP to a single source. Such notification must be received by the Buyer not later than seven (7) days prior to the date set for proposals to close.

DEVATIONS:
The County of DuPage reserves the right to approve any services the Proposer proposes to furnish which contains deviations from specification requirements but which may substantially comply. If there is any deviation in the pack, source, quality, etc., of an item proposed, from that prescribed in the specifications, Proposer must rule out the appropriate line in the specifications and clearly indicate the correction. Prices will be converted by the County to accommodate accepted deviations.

EXCEPTIONS:
Exceptions will be considered up to the deadline listed in Project Information. Exceptions must be fully described, on the Proposer’s letterhead and signed; exceptions must reference the proposal number and the specification, contract term or other portion of the Request for Proposal which is being excepted. If the Proposer wishes to propose terms and conditions or alternative paperwork it must do so as an exception. In the absence of such statement, the proposal shall be considered as if submitted in strict compliance with all terms, conditions, and specifications; by its submission, the Proposer agrees that if selected, it will be bound by same. No exceptions or changes to contract terms will be accepted with the proposal.

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EXAMINATION BY PROPOSER:
The Proposer shall, before submitting his proposal, carefully examine the proposal and specifications. If his proposal is accepted, he will be responsible for all errors in his proposal resulting from his failure or neglect to comply with these instructions.

Unless otherwise provided in the SPECIAL CONDITIONS, when the specifications include information pertaining to preliminary investigations made by the ETSB of DuPage County, such information represents only the opinion of the ETSB of DuPage County as to the location, character or quantity of the materials encountered. That information is only included for the convenience of the Contractor. The ETSB of DuPage County does not warrant the accuracy or the sufficiency of the information and assumes no responsibility therefore.

ELECTRONIC TRANSMITTALS:
Facsimile and/or e-mail transmitted proposals will not be accepted by the ETSB of DuPage County. In addition, the ETSB of DuPage County will not transit facsimile proposal specifications to the Proposer.

INTERPRETATION OF CONTRACT DOCUMENTS:
If a potential Proposer is uncertain as to the meaning of any part of the specifications or this RFP, the Proposer is expected to contact the Procurement Services Division no less than seven (7) days prior to proposal opening date on date listed previously.

PREPARATION OF PROPOSALS:
The Proposer shall return his proposal on the attached proposal forms. It must be returned with all pages intact. Please make and retain a copy of the signed proposal for your records. Unless otherwise stated, all blank spaces on the proposal page or pages, applicable to the subject specification, shall be correctly filled in. Either a unit price or a lump sum price, or both as the case may be, shall be stated for each and every item, either typed in or printed in ink, in figures, and if required in words. Proposer shall acknowledge receipt of each addendum issued in the space provided on the proposal form.

When a proposal consists of a number of items, prices must be submitted for all items unless otherwise directed in the Special Conditions.

Where unit prices are to be proposed, and/or where proposals are to be made on more than one item, the Proposer shall extend the unit price(s) proposal in the places provided on the pricing pages for the approximate quantities, shall compute the total amount of the proposal and shall indicate the same on the proposal pricing page. The Proposer must propose in accordance with the unit(s) of measure called for unless deviation procedure is followed. All extensions and total sums are subject to verification by the ETSB of DuPage County and the correct extensions and sums will be used in the comparison of proposals. If a discrepancy exists between the unit prices and totals, the unit prices shall prevail. If a discrepancy exists between the total base proposal and the true sum of the individual proposal items, the true sum shall prevail.

Where unit prices are requested, the quantities stated are approximate only but will be used to determine proposal award. The quantities for all items on which proposals are to be received on a unit price basis, will not be used in establishing final payment due the Contractor. Proposals will be compared on the basis of number of units stated in the Proposal Pricing Section. Contract payment for unit price items will be based on the actual number of units delivered.

In certain cases, amounts are to be shown in both words and figures. When discrepancies occur between the "Written in Words" and the "In Figures" amounts for the total lump sum proposal amount, the "Written in Words" shall govern.

Proposers are warned against making any erasures or alterations of any kind, and proposals that contain omissions, erasures, conditions, or alterations may be rejected. The Proposer must fill in all blanks. Use "N/A" or "None" where applicable.

If the Proposer is a corporation, the President shall execute the proposal. In the event that the proposal is executed by other than the President, a certified copy of that section of the corporate bylaws or other authorization by the corporation, which permits the person to execute the offer for the corporation, shall be submitted.

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If the Proposer is a partnership, all partners shall execute the proposal, unless one partner has been authorized to sign for the partnership, in which case, evidence of such authority satisfactory to the Procurement Manager shall be submitted.

If the Proposer is a sole proprietor, the owner shall execute the proposal.

A “Partnership” or “Sole Proprietor” operating under an Assumed Name shall be registered with the Illinois County in which located, as provided in the Illinois Compiled Statutes, 805/ILCS 405/1 et seq.

**SUBMISSION OF PROPOSALS:**
The Proposer shall be responsible for delivery of proposals to the Procurement Services Division before the date and hour set for the opening of proposals. Late proposals will not be considered and will be returned unopened.

All proposals must be received in sealed envelopes that have your name and address in the UPPER left corner and the attached label filled in and pasted on the LOWER left corner.

Proposals mailed "EXPRESS MAIL" must have proposal number and due date on the outside of the EXPRESS MAIL envelope.

You must allow sufficient time for processing through the County’s internal mailroom system.

**PROPRIETARY INFORMATION:**
Under the Illinois Freedom of Information Act, all records in the possession of DuPage County are presumed to be open to inspection or copying, unless a specific exception applies. 5 ILCS 140/1.2 One exception is “[t]rade secrets and commercial or financial information obtained from a person or business where the trade secrets or commercial or financial information are furnished under a claim that they are proprietary, privileged or confidential, and that disclosure of the trade secrets or commercial or financial information would cause competitive harm to the person or business, and only insofar as the claim directly applies to the records requested.” 5 ILCS 140/7(1)(g). The county will assume that all information provided to us in a bid or proposal is open to inspection or copying by the public unless clearly marked with the appropriate exception that applies under the Freedom of Information Act. Additionally, if providing documents that you believe fall under an exception to the Freedom of Information Act, please submit both an un-redacted copy along with a redacted copy which has all portions redacted that you deem to fall under a Freedom of Information Act exception.

**CONTRACT AWARD INFORMATION:**
The successful Proposer will be asked to sign a contract agreement (sample attached).

If the Proposer wishes to propose terms and conditions or alternative paperwork he must do so as an exception (see EXCEPTIONS above).

Award notification will be sent to the vendor receiving the award via email. Award status can be viewed at www.DemandStar.com.

Response summaries will be available over the Internet at www.DemandStar.com. This summary information will include offers that were delivered by the required proposal opening date and time. This evaluation process may result in a shortlist of proposals. The Evaluation Committee, at its option, may request that all of the shortlisted proposers make a presentation, other customer testimonials, submit clarifications, schedule a site visit of their premises (as appropriate), provide a best and final offer, provide additional references, or respond to questions.

**BEST AND FINAL OFFER:**
The ETSB of DuPage County reserves the right to request a Best and Final Offer from finalist Proposer, if it deems such an approach necessary. In general, the Best and Final Offer will consist of updated costs, as well as, answers to specific questions that were identified during the evaluation of Proposals.

If the ETSB of DuPage County chooses to invoke this option, finalist Proposal will be re-evaluated by incorporating the information requested in the Best and Final Offer document, including costs, and answers to specific questions.
presented in the document. The specific format for the Best and Final Offer would be determined during evaluation discussions.

END OF INSTRUCTIONS TO PROPOSERS
ADDITIONAL AND SUPPLEMENT TO REQUEST FOR PROPOSAL:
If it becomes necessary or advisable to revise any part of this RFP or if additional data is necessary to enable the
exact interpretation of provisions of this RFP, revisions will be provided in the form of an Addendum. If revisions
are made after any mandatory Pre-Proposal conference, the revisions will be provided only to those Contractors
who will have attended the Pre-Proposal conference.

Addendum information is available over the Internet at www.DemandStar.com. Adobe Acrobat® Reader may be
required to view this document. We strongly suggest that you check for any addenda a minimum forty-eight hours
(48) in advance of the proposal deadline.

APPLICABLE CODES AND ORDINANCES:
Proposer hereby certifies that all materials used conform to all articles and sections of all current applicable
National Building Codes and other relevant construction-related codes. Workmanship and materials shall conform
to all local applicable codes and ordinances.

CHANGES:
The ETSB of DuPage County reserves the right to make any desired change in the specifications after the same
shall have been put under contract; but the change so made, with the price to be added or deducted from the
contract price, therefore, shall be agreed upon in advance between County of DuPage ETSB and the successful
Proposer.

Illinois law requires that changes in excess of $10,000 or extensions greater than thirty (30) days must comply
with the Criminal Code. The Procurement Services Division shall issue to the successful Proposer a written
change order to the original contract; such change orders shall be binding upon both parties thereto and shall in
no way invalidate or make void the terms of the original contract not modified by such change.

DRUG FREE WORKPLACE:
The Contractor (whether an individual or company) agrees to provide a drug free workplace as provided for in 30
ILCS 580/1 et seq.

COMMENCEMENT OF WORK:
The successful Proposer must not commence any billable work prior to the ETSB of DuPage County’s execution
of the contract or until any required documents have been submitted. Work done prior to these circumstances
shall be at the Proposer’s risk.

COMMUNICATIONS:
In an effort to create a more competitive and unbiased procurement process, the County desires to establish a
single point of contact throughout the procurement process. From the issue date of this solicitation, until a contract
has been awarded, all requests for clarification or additional information regarding this solicitation, or contact with
the ETSB and County personnel concerning this solicitation or the evaluation process must be solely to the contact
person listed on the cover page of this solicitation.

CONFIDENTIAL INFORMATION AND COUNTY PROPERTY:
It is agreed that any and all specifications, drawings, or data furnished by the ETSB of DuPage County shall (1)
remain the ETSB of DuPage County’s sole and exclusive property; (2) be considered and treated by Proposer as
the ETSB of DuPage County’s confidential information, and not be copied, reproduced or duplicated in any manner
or disclosed to any person or party, except as is necessary in the performance of this contract and (3) be returned
upon request.

PROPOSERS PERFORMANCE:
The Instructions to Proposers, Proposal Form, General Conditions, Special Conditions, contract specifications and
attached exhibits, together with the approved purchase order shall be incorporated in and become terms of the
Contract. All items shall be supplied in strict accordance with the specifications. The Proposer’s performance
under the terms of the Contract shall be to the satisfaction of the ETSB of DuPage County. Failure to comply with
any statutory requirements shall be deemed a performance breach.
ENDORSEMENTS:
Proposer shall not use the name, seal or images of the ETSB or the County of DuPage in any form of endorsement to any third-party without the County’s written permission.

FORCE MAJEURE:
The ETSB of DuPage County shall not hold Proposer liable for an extraordinary interruption of events, or damage of County property, by a natural cause that cannot be reasonably foreseen or prevented; i.e., droughts, floods, severe weather phenomena, et cetera.

HOLDING OF PROPOSALS:
Proposer may withdraw the bid at any time prior to the time specified as the closing time for the receipt of bids. However, no Proposer shall withdraw or cancel the proposal for a period of ninety (90) calendar days after said closing time for receipt of bids. Unauthorized withdrawal may result in forfeiture of bid bond, or if no bid bond is required, the withdrawing Proposer shall pay the sum of $500.00 as liquidated damages for the County’s loss in re-bidding.

INDEMNITY:
The Proposer shall, at all times, fully indemnify, hold harmless, and defend the ETSB of DuPage County and their officers, agents, and employees from and against any and all claims and demands, actions, causes of action, and cost and fees of any character whatsoever made by anyone whomsoever on account of or in any way growing out of the performance of this contract by the Proposer and its employees, or because of any act or omission, neglect or misconduct of the Proposer, its employees and agents or its subcontractors including, but not limited to, any claims that may be made by the employees themselves for injuries to their person or property or otherwise, and any claims that may be made by the employee themselves or by the Illinois Department of Labor for the Proposer’s violation of the Illinois Prevailing Wage Act (820 ILCS 130/1 et seq.).

Such indemnity shall not be limited by reason of the enumeration of any insurance coverage or bond herein provided.

Nothing contained herein shall be construed as prohibiting the ETSB of DuPage County and their officers, agents, or its employees, from defending through the selection and use of their own agents, attorneys and experts, any claims, actions or suits brought against them. The Proposer shall likewise be liable for the cost, fees and expenses incurred in the ETSB of DuPage County’s or the Proposer’s defense of any such claims, actions, or suits.

The Proposer shall be responsible for any damages incurred as a result of its errors, omissions or negligent acts and for any losses or costs to repair or remedy construction as a result of its errors, omissions or negligent acts.

The ETSB of DuPage County does not waive its defenses or immunities under the Local Governmental Employees Tort Immunity Act, 745 ILCS 10/1 et seq. by reason of indemnification or insurance.

LAW GOVERNING:
The RFP and resulting contract shall be governed by the laws of Illinois. Proposer agrees to comply with all applicable State and Federal laws.

LIENS, CLAIMS, AND ENCUMBRANCES:
Proposer warrants and represents that all the goods and materials ordered herein are free and clear of all liens, claims, or encumbrances of any kind.

LOBBYIST REGISTRATION:
Proposer shall comply with the provisions of Chapter 2, Article IX, Section 2-600, Lobbyist Registration of the Code of DuPage County, Illinois.

MISCELLANEOUS REQUIREMENTS:
The ETSB of DuPage County will not be responsible for any expenses incurred by the Proposer in preparing and submitting a Proposal. All Proposals shall provide a straightforward, concise delineation of your capabilities to satisfy the requirements of this request. Emphasis should be on completeness and clarity of content.
NON-DISCRIMINATING:
The Proposer, its employees and subcontractors, agree not to commit unlawful discrimination and agree to comply with applicable provisions of the Illinois Human Rights Act, the U.S. Civil Rights Act and Section 504 of the Federal Rehabilitation Act, and rules applicable to each.

PATENTS:
Proposer undertakes and agrees to defend at Proposer’s own expense, all suits, actions, or proceedings in which the County of DuPage, its Officers, agents or employees are made defendants for actual or alleged infringement of any U.S. or foreign letters patent resulting from the use or sale of the items purchased hereunder. Proposer shall inform the ETSB of DuPage County whenever infringement will result from Proposer’s adherence to specifications supplied by the ETSB of DuPage County or by an authorized County representative. Proposer further agrees to pay and discharge any and all judgments or decrees, which may be rendered in any such suit, action or proceedings against the ETSB of DuPage County, its Officers, agents or employees therein.

PAYMENT:
Original invoices must be presented for payment in accordance with instructions contained on the Purchase Order including reference to Purchase Order number and submitted to the correct address for processing. The ETSB of DuPage County shall pay all invoices pursuant to 50 I LCS 50 5, “Local Government Prompt Payment Act”. Invoices containing charges for work subject to the Illinois Prevailing Wage Act (820 ILCS 130/) are required to be accompanied by the applicable Certified Transcript of Payroll form(s) for acceptance. Payment will not be made on invoices submitted later than six-months (180 days) after delivery of goods and any statute of limitations to the contrary is hereby waived.

PERFORMANCE AND PAYMENT BONDS:
The awarded Proposer shall, within ten (10) working days of bid award, provide a Performance and Payment Bond a.) in the interest of the ETSB of DuPage County in the amount of 100% of the contract amount to insure a timely and acceptable completion of this agreement and to insure payment for all materials, supplies and equipment charge and to insure compliance with the Illinois Prevailing Wage Act (820 ILCS 130/0.01 et seq.). No work shall be started until receipt of performance and payment bond.

PROTEST:
No protest shall be based on a matter or issue which could have been raised as an exception prior to proposal opening.

Any protest concerning the award of a contract shall be decided by the Procurement Manager. Protests shall be made in writing to the Procurement Services Division and shall be filed within three (3) business days of final approval and acceptance of the proposal by the ETSB of DuPage County. A protest is considered filed when received by the Procurement Services Division. The written protest shall include the name and address of the protestor, the RFP number, a statement of the specific reasons for the protest and supporting exhibits. The Procurement Manager will respond to the written protest within seven (7) days. The Procurement Manager’s decision relative to the protest shall be final. Upon receipt of a protest the ETSB of DuPage County may, but is not required to, delay its order under the awarded contract.

RESERVATION OF RIGHTS:
The ETSB of DuPage County reserves the right to reject any or all proposals failing to meet the ETSB of DuPage County specifications or requirements and to waive technicalities. If in the ETSB’s opinion, the lowest proposal is not the most responsible proposal, considering value received for monies expended, the right is reserved to make awards as determined solely by the judgment of the ETSB of DuPage County. In determining the lowest responsible Proposer, the ETSB of DuPage County shall take into consideration the qualities of the articles supplied, their conformity with the specifications, and their suitability to the requirements of the ETSB and the delivery terms. Intangible factors, such as the Proposer’s reputation and past performance, will also be weighed.

The Proposer’s failure to meet the mandatory requirements of the RFP will result in the disqualification of the proposal from further consideration.

The ETSB of DuPage County further reserves the right to reject all proposals and obtain goods or services through intergovernmental or cooperative agreements, or to issue a new and revised RFP.

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Submission of a proposal confers no rights on the Proposer to a selection or to a subsequent contract. All decisions on compliance, evaluation, terms and conditions shall be made solely at the ETSB of DuPage County's discretion and shall be made in the best interest of the County.

TAX:
The ETSB of DuPage County does not pay Federal Excise Tax or Illinois Sales Tax. The tax exemption number is E9997-4551-06. A copy of the exemption letter is available upon written request.

TERMINATION, CANCELLATION AND DAMAGES:
Except as otherwise set forth in this AGREEMENT, either party shall have the right to terminate this AGREEMENT for any reason upon serving thirty (30) days’ prior written notice upon the other party. Upon such termination, the liabilities of the parties to this AGREEMENT shall cease, but they shall not be relieved of the duty to perform their obligations up to the date of termination. Insurance and indemnity obligations shall survive termination.

Either party may terminate this Agreement, effective immediately, if (i) such party determines, in its sole discretion, that continuation of the Agreement would jeopardize the health or welfare of employees or contractors, (ii) the other party fails to maintain such party’s licenses, insurances, or required certifications that are required to perform such party's duties or obligations under this Agreement, (iii) the other party breaches any representation, warranty or other term of this Agreement, (iv) the other party is convicted of any offense punishable as a felony, (v) the other party commits fraud, embezzlement, misappropriation or the like with respect to the other party or such party’s assets. Notwithstanding anything set forth in this Agreement to the contrary, if any of the terms of this Agreement are held to violate any law or regulation relating to the delivery of and/or reimbursement for health care services, including but not limited to, Medicare and/or Medicaid laws and regulations, either party may terminate this Agreement effective immediately upon written notice to the other party.

TRANSFER OF OWNERSHIP OR ASSIGNMENT:
The terms and conditions of this contract shall be binding upon and shall ensure to the benefit of the parties hereto and their respective successors and assigns. Prior to any sales or assignments the County of DuPage must be notified and approve same in writing.

VENUE:
By submitting a response, Proposer agrees that venue for all disputes arising out of the solicitation process, including but not limited to judicial review of any protest decision, will be exclusively in the Circuit Court for the Eighteenth Judicial Circuit in DuPage County, Illinois and that Illinois law will control.

WARRANTY:
Complete warranty information detailing period and coverage must be submitted.

END OF GENERAL CONDITIONS
SPECIAL CONDITIONS

ACCURACY DISCLAIMER:
The Proposer shall thoroughly acquaint himself with the services required for the proposal to fully understand the facilities, difficulties and restrictions attending to the execution of the proposal. The Proposer will be allowed no additional compensation for his failure to be so informed.

BID SECURITY/BID BOND:
A bid security of one thousand dollars ($1,000.00) in the form of a certified check, bid bond, or cashier’s check, all payable to the DuPage County Treasurer’s Office, must accompany vendor’s proposal. Bid security checks will be returned when the contract is awarded to the successful bidder. The successful bidder’s security may be held for a period not to exceed one hundred and twenty (120) days, to allow the ETSB of County measurement of Proposer performance. Failure to perform will result in security forfeiture as liquidated damages to cover the cost of Count of DuPage’s computer data base entry (placement of Proposer’s prices) and rebid costs.

DELIVERY REQUIREMENTS:
All purchases must be delivered to Buyer’s receiving dock, or as otherwise specified by Buyer.

DEMONSTRATION:
Pre-demonstration of unit may be required to determine suitability for our needs.

EXTENDED WARRANTY OPTIONS:
Attach additional information, if available

JOINT PURCHASING:
OTHER TAXING BODIES: Based on County Board Resolution IR-084-76.

Would your firm be willing to extend your proposal to other taxing bodies in DuPage County such as school districts, townships, cities and villages, etc.? The approximate quantity usage is unknown.

YES ___________ NO ___________

State any other requirements that they would have to meet beyond that of our Proposal invitation and specification.

NOTE: The ETSB of DuPage County would not be involved in purchasing by any other taxing body other than to receive a copy of their purchase order that would reference the ETSB of DuPage County contract number. The invoicing and payments would be entirely between the other taxing bodies and the Proposer. If the ETSB of DuPage County accepts this proposal, the procedure to handle joint purchases would be developed by the ETSB of DuPage County with the Proposer and distributed to the taxing bodies by the County of DuPage.

NON-EXCLUSIVITY:
Nothing herein is intended nor shall be construed as creating any exclusive arrangement with Vendor.

PROPOSER’S RESPONSIBILITY FOR SERVICES PROPOSED:
The Proposer must thoroughly examine and will be held to have thoroughly examined and read the entire RFP document. Failure of Proposers fully to acquaint themselves with existing conditions or the amount of work involved will not be a basis for requesting extra compensation after the award of a Contract.
PROPERTY FURNISHED TO PROPOSER BY THE ETSB OF DUPAGE COUNTY:
All property furnished to the Proposer by the ETSB of DuPage County or specifically paid for by the ETSB of DuPage County, for use in the performance of this contract, shall be and remain the property of the ETSB of DuPage County, shall be subject to removal upon the ETSB of DuPage County’s instruction, shall be used only in filling orders from the ETSB of DuPage County, shall be held at the Proposer’s risk, shall be kept insured by the Proposer at the Proposer’s expense while in its custody of control in an amount equal to the replacement cost thereof, with loss payable to ETSB of DuPage County, and upon recall by the ETSB of DuPage County shall be packaged at Proposer’s expense for shipment to the ETSB of DuPage County in accordance with ETSB of DuPage County’s instructions. Copies of policies or certificate of such insurance will be furnished to the ETSB of DuPage County on demand.

It is agreed that any and all specifications, drawings, or data furnished by the ETSB of DuPage County shall (1) remain the ETSB of DuPage County’s sole and exclusive property: (2) be considered and treated by Proposer as the ETSB of DuPage County’s confidential information, and not be copied, reproduced or duplicated in any manner or disclosed to any person or party, except as in necessary in the performance of this order/contract/ and (3) be returned upon request.

PERMITS, FEES, AND NOTICES:
The Awarded Contractor shall secure and pay for all Building Permits and Governmental Fees, licenses, and inspection necessary for the proper execution and completion of the work which are legally required, file all notices, comply with all laws, rules, regulations and lawful orders bearing on the performance of the work.

PROJECT SCHEDULES:
Bar graph schedules of contracted project work, broken down by trade and indicating material and equipment delivery, will be provided with bid. Schedule will be updated weekly during the course of the project to Facilities Management.

QUANTITIES:
The County of DuPage reserves the right to increase or decrease the quantities shown herein at any time during the life of the contract to correspond to the actual needs of the County of DuPage.

SUBCONTRACTORS:
All subcontractors shall be identified on the form contained herein. Contractor shall require that the subcontractor comply with all Prevailing Wage Act requirements. The County of DuPage reserves the right to reject any or all subcontractors.

TERMS AND CONDITIONS:
Proposer will be required to sign an agreement upon contract award. Sample attached.

VENDOR QUALIFICATIONS:
Vendor will provide a general history, description and status of their Company.

WORKING WITHIN SECURED AREAS:
A portion of the work will be performed within secured areas.

SECURITY:
Proposer shall, within ten (10) days of contractor execution, supply the completed Criminal History and Background information forms (sample attached) for all their employees and subcontractor employees who may be working at the jobsite. Any employee or subcontractor that does not meet security requirements will neither be allowed on premises nor access to any software or hardware via remote location. See Appendix F for the Background check form.

Proposer will be required to perform all work in keeping with County security procedures while on the Facilities’ grounds and shall be responsible for all personnel (including subcontractors) employed by their firm to ensure that Facilities’ dress codes and overall policies are followed.
NOTICE WARNING:
Any person who takes into, or out of, or attempts to take into, or out of a correctional facility or the grounds belonging to or adjacent to a correctional facility, any item not specifically authorized by the correctional facility, shall be prosecuted under the provisions thereof. All persons, including employee and visitors, entering upon these confines are subject to routine searches of their persons, vehicles, property or packages.

CONTRABAND:
Contraband means any dangerous drug, narcotic drug, intoxicating liquor of any kind, deadly weapon, dangerous instrument, explosive or any other article whose use of or possession would endanger the safety, security or preservation of order in a correctional facility or any person therein. (Any article includes any substance that could cause abnormal behavior, i.e., marijuana, nonprescription medication, etc.)

A person, not otherwise authorized by law, commits promoting contraband:

By knowingly taking contraband into a correctional facility or the grounds of such a facility; or
By knowingly conveying contraband to any persons confined in a correctional facility; or
By knowingly making, obtaining, or possessing contraband while being confined in a correctional facility.

The Proposer will provide the ETSB of DuPage County with a complete list of all persons duly authorized to work on this project. Only those persons will be allowed to work within secured areas. All Proposer's personnel authorized to work within secured areas may be subject to fingerprinting and a criminal security check performed by the County. The County may issue temporary identification cards, which will be kept by County's security personnel and issued and collected on a daily basis.

Law prohibits the import of contraband such as drugs, liquor, firearms, ammunition and other similar items into any areas of work. County's security personnel may conduct searches of Proposer's personnel, equipment, tools, and supplies at any time. Use of cameras and recording devices by Proposer's personnel is restricted. Such use must be approved on a case-by-case basis.

The County may require the Proposer to remove any worker who has been convicted of a felony, who is a family member of an inmate, or who violates any provision of this Article.

Work being performed within certain areas may require an escort provided by the County. These areas shall not be entered into without County's escort. Work within these areas may be restricted to spaces that can be observed by the County's escort.

All tools and equipment taken into a secured area shall be listed in a manifest with copies provided to County's security personnel. All tools and equipment shall be accounted for at the close of each day. All changes to the
inventory shall be addressed by changing the manifest Proposer is responsible for proper storage of tools and equipment when in a secured area. Report all broken tools and equipment to the Proposer's security personnel.

A designated area outside of the secured area will be arranged for parking of personal vehicles. Delivery trucks will be admitted to receiving areas only by the request of the Proposer, and may be under the supervision of Proposer's security personnel. Immediately load or unload trucks and remove from secured areas.

Workers shall not talk to, signal, whistle, or in any way attract the attention of any inmate, and shall restrict their movements to the project area. Nothing shall be taken from or given to an inmate. Inmates are not to help Workmen in any way. Workers shall promptly notify their supervisor or County's security personnel of all unusual happenings pertaining to the inmates.

Within secured areas, the County will designate washing and toilet facilities for Proposer's use.

END OF SPECIAL CONDITIONS
INSURANCE REQUIREMENTS

Upon notice of acceptance of proposal, the successful bidder shall, within fifteen (15) calendar days of said notice, furnish to the Purchasing Agent a certificate of Insurance and provide policy endorsements evidencing specific coverage of the types of insurance in the amounts specified below. Such coverage shall be placed with a responsible company acceptable to the ETSB of DuPage County licensed to do business in the State of Illinois, and with a minimum insurance rating of A:VII as found in the current edition of A M Best’s Key Rating Guide. Each policy shall bear an endorsement precluding the cancellation or reduction of said policies without providing the ETSB of DuPage County thirty (30) days prior notice thereof in writing. All required insurance shall be maintained by the contractor in full force and effect during the life of the contract, and until such time as all work has been approved and accepted by the ETSB of DuPage County. The Proposer is responsible for all insurance deductibles and Self-Insured Retentions.

<table>
<thead>
<tr>
<th>TYPE OF INSURANCE</th>
<th>MINIMUM ACCEPTABLE LIMITS OF LIABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workers Compensation</td>
<td>Statutory</td>
</tr>
<tr>
<td>2. Employers Liability</td>
<td></td>
</tr>
<tr>
<td>A. Each Accident</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>B. Each Employee-disease</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>C. Policy Aggregate-disease</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>3. <strong>Commercial General Liability</strong>**</td>
<td></td>
</tr>
<tr>
<td>A. Per Occurrence</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>B. General Aggregate</td>
<td></td>
</tr>
<tr>
<td>1. General Aggregate- Per project</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>2. General Aggregate - Products/</td>
<td></td>
</tr>
<tr>
<td>Completed Operations</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>4. Medical Expense (any one person)</td>
<td>$5,000</td>
</tr>
<tr>
<td>5. **Umbrella Excess Liability (over primary) Retention for Self-Insured Hazards (each occurrence)</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>6. <strong>Business Auto Liability</strong>**</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>7. Professional Errors and Omissions</td>
<td>$1m incident/</td>
</tr>
<tr>
<td></td>
<td>$2m aggregate</td>
</tr>
</tbody>
</table>

** An Additional Insured Endorsement as well as endorsements for Waiver of Subrogation and Insurance is Primary and Non-Contributory to additional insured insurance coverage in addition to a Certificate of Insurance

**** Garage Liability (combines standard GL & Auto Liability

If any policy or coverage is written as "claims made" then coverage must be maintained for 4 years after project completion.

At all times during the term of the contract, the Proposer and its independent contractors shall maintain, at their sole expense, insurance coverage for the Proposer, its employees, officers and its independent contractors, as follows:

NOTE:  
A) It is the responsibility of Proposer to provide a copy of this RFP to their insurance carrier.
B) It may also be required that the Proposer’s insurer and coverage be approved by the ETSB of DuPage County prior to execution of the Contract.
C) No work shall be started until receipt of Certificate of Insurance.

The County of DuPage shall be additionally insured on all certificates of insurance. Insurance certificates shall also reference project name and RFP NUMBER. Certificates should be faxed (and hard copy mailed) to:

DuPage County Procurement Services Division
Becky Cussans, Buyer
421 North County Farm Road

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The insurance carrier of the insured is required to notify the ETSB of DuPage County of termination of any or all of these coverage's, prior to the completion of any contract, at least 30 days prior to expiration.

a. **CHANGES IN, OR TERMINATION OF, INSURANCE COVERAGE:**
The insurance carrier of the insured is required to notify the ETSB of termination of any or all of these coverage's, prior to the completion of any contract, at least 30 days prior to expiration.

b. **INSURANCE RATING:**
All of the above-specified types of insurance shall be obtained from companies that have at least an A rating in Best's Guide or the equivalent.

c. **SURVIVAL OF INDEMNIFICATION:**
The indemnification described above shall not be limited by reason of the enumeration of any insurance coverage herein provided, and indemnification shall survive the termination of the Contract.

d. **NOTICE OF LAWSUIT:**
Within 60 days of service of process, the ETSB of DuPage County shall notify the Proposer of any lawsuit involving the indemnification provided for above. Failure to provide such notice shall not relieve the Proposer of its obligation to provide indemnification. However, the ETSB of DuPage County shall be responsible for any additional costs of defense incurred due to their failure to provide such notice within 60 days.

e. **CHOICE OF LEGAL COUNSEL:**
The Proposer shall provide coverage as provided in the contract and retains the right to choose legal counsel subject to the approval of the ETSB of DuPage County, and appointment by the State's Attorney.

f. **RIGHTS RETAINED:**
Notwithstanding the foregoing, nothing contained herein shall be deemed to constitute a waiver of any defenses or immunities otherwise available to the ETSB of DuPage County.

END OF INSURANCE REQUIREMENTS
ETSB OF DUPAGE COUNTY, ILLINOIS

SCOPE OF SERVICES / SPECIFICATIONS

RFP #P16-167-RC

Fire Station Alerting for DuPage County

PURPOSE:
ETSB of DuPage County Request for Proposal (RFP) is for an automated IP based Fire Station Alerting System. The system must integrate with the County’s new Intergraph Computer Aided Dispatch system (CAD), Starcom and VHF radio system, and Wide Area Network WAN. The proposed Fire Station Alerting System will be installed by proposer in the County’s 30+ departments operating out of 67 fire stations, and 3 dispatch centers. The Fire Stations are listed in Appendix A.

BACKGROUND:
The County’s current infrastructure consists of microwave, Ethernet, and dedicated phone circuits in a variety of configurations. Ownership and control of the infrastructure is also fragmented. The County is evaluating its overall infrastructure in light of new Intergraph CAD and Records Systems, Station Alerting System, Starcom and several radio systems. Almost all departments currently use analog or IP-based Zetron (Model 26/6) fire station alerting systems. These are not an integrated County fire station alerting system today and there is generally not offsite backup capability at other PSAPs.

DESCRIPTION OF FIRE STATION ALERTING SYSTEM:
Proposer should provide a graphical representation of the system overview along with a detailed description of all of the major components of the proposed solution. Identify the functional capability of each component as it pertains to this RFP and as well as any capability not covered within the scope of this RFP. Responses should also include as description of the systems operation, troubleshooting and reporting capabilities.

CURRENT PSAP LOCATIONS:
DuPage Public Safety Communications (DU-COMM): 600 Wall St, Glendale Heights, IL 60139
Addison Consolidated Dispatch Center (ACDC): 3 Friendship Plaza, Addison, IL 60101
DuPage Sheriff Office (DPSO): 501 N County Farm Road, Wheaton, IL, 60187

FUTURE PSAP LOCATIONS:
With the ETSB of DuPage County actively working on consolidation, a few of the PSAPs may change their location. ACDC will be opening a new dispatch center at 1471 W Jeffrey Dr., Addison, IL 60101 sometime in the fall of 2017. DU-COMM will also be moving to 418 N County Farm Rd, Wheaton, IL sometime in 2018. Depending on the roll out of Fire Station Alerting the equipment may need to be moved to these new sights. The Proposer shall include in the proposal how such moves would be handled.

TRAINING:
Describe how training is accomplished prior to cutover and post implementation.

WARRANTY:
Proposer shall provide a warranty for at least 2 years. The warranty shall include and labor and installation costs needed for any hardware or software repairs.

MAINTENANCE:
Describe in detail the maintenance program and what the maintenance and support includes and how they address the following:

- Help Desk Support
- Emergency Service Support
- Remote Access support
- Software and Hardware Upgrades- all upgrades shall be included as well as implemented/installed

Define how the proposer handles emergency and non-emergency requests.
Define how the proposer conducts on-site and remote support.

COST PROPOSAL:
Cost Proposal shall include all costs for delivery, labor, materials, and equipment required to fully implement the Fire Station Alerting Solution. Price must also, include all software licenses and a minimum warranty of two (2) years. The initial cost for hardware and software should be specified in Appendix B, along with the cost to move the FSA equipment to ACDC and DU-COMM’s new buildings if needed. Hardware refresh is required in the 4th year, cost should be specified in Appendix B. Maintenance cost should be specified in Appendix C. Training Cost are outlined in Appendix D. Proposal should include a guaranteed pricing list for additional equipment purchased by individual fire departments. Optional components cost sheet is located in Appendix E.

DEFINITIONS:
Below are definitions for terms used in this specification. If the Vendor defines any of the terms listed differently than the County, the Vendor must provide its definition of the terms.

Proprietary: a software or hardware product that can only be purchased through the FSA system Vendor

System Administrator: the FSA System Administrator. There may be one or more County personnel filling this role.

User: a person using the FSA computer system who works for a department within the County

Vendor/Proposer/Contractor: the FSA system Vendor/Proposer responding to this RFP. Requirements related to the Vendor/Proposer must be applicable to all subcontractors working for the Vendor/Proposer

State-of-the-Art: the latest technology that has been proven to work and proven to be reliable.

Capability: the system or component referenced must have the described function at the time the system is commissioned. It does NOT mean that the system or component has the “potential” to realize the function at some time in the future, after the system has been commissioned.

CAD System: the CAD system(s) used by the County (Intergraph).

Attention tone: Audible tone used to draw attention that an announcement is coming

Unit-type tone: Audible tone based on unit or event type. Currently this tone is generated by Zetron (generally Model 6) equipment in each station.

Station audio: Audio that broadcasts the dispatcher's announcement.

Pre-announcement: A system-generated abbreviated message developed by the FSA system Vendor which is based on data fields or audio files provided by the County. This announcement will come before the full dispatch message.

Video outputs: Any device that can receive video images and transfer those images to an alternate viewing device. Examples of video outputs are: computer monitors, dedicated television-type display units, input into television-type units, and LED display panels.

Grid area: Geographic sections of the County referred to as “grids”. These areas represent specific station response orders, and correlate to the specific order that apparatus will be dispatched to a specific call type.

PSAPs: Public Safety Answering Points – primary 911 call taking and dispatch centers.

AECC: Alternate Emergency Communications Center – back up dispatch center

APOC: Architectural proof of concept – the first Fire station installed will be the APOC used to assess procedure, system operations in a station and overall system performance prior to proceeding with the remaining Fire stations
### SYSTEM REQUIREMENT

<table>
<thead>
<tr>
<th>GENERAL REQUIREMENTS</th>
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<tbody>
<tr>
<td>Can you provide (Yes or No)</td>
</tr>
<tr>
<td>System must be specifically designed to operate as a Fire Station Alerting System</td>
</tr>
<tr>
<td>The FSA system selected by the County must be microprocessor based, modular in design, and provides expansion capability.</td>
</tr>
<tr>
<td>The FSA system must have the capacity to support at least 100 Fire stations, 300,000 calls for service per year and 1,000 simultaneous events.</td>
</tr>
<tr>
<td>The FSA system must have the capability to store and alert on the following quantities of data:</td>
</tr>
<tr>
<td>a. 50 apparatus types</td>
</tr>
<tr>
<td>b. 1,500 distinct unit names</td>
</tr>
<tr>
<td>c. 5,000 event types</td>
</tr>
<tr>
<td>d. 100,000 grid areas</td>
</tr>
<tr>
<td>e. 20,000 street names including street type</td>
</tr>
<tr>
<td>f. 50 city names</td>
</tr>
<tr>
<td>g. 6 County names</td>
</tr>
<tr>
<td>h. 50,000 common place names</td>
</tr>
<tr>
<td>The FSA system must allow new Fire stations to be added without impacting existing functionality at other Fire stations.</td>
</tr>
<tr>
<td>Any agency listed in the RFP as well as others not listed, up to 100, will have the opportunity to join at the guaranteed pricing for the first three (3) years. Not all agencies listed are obligated to join. The agencies will have 6 months from the time the contract is signed to decide to join.</td>
</tr>
<tr>
<td>The FSA system must be capable of alerting by categories defined by the CAD system including, but not limited to fire station, unit type, or event type.</td>
</tr>
<tr>
<td>The FSA system must be a turnkey system. If any piece of equipment is needed to make this a fully functional operating system and it is not listed in these RFP specifications, then it is up to the Proposer to note the item needed and list the price of the equipment in writing. If the Proposer fails to add any additional equipment requirements and additional equipment is required to make this a fully functional operating system, then it is up to the Proposer to supply the needed equipment to the County at no additional cost. This requirement does not preclude the County from purchasing, from its own sources, any COTS product that is part of the turnkey FSA system.</td>
</tr>
<tr>
<td>The FSA system as proposed must include sufficient licenses for concurrent use by three PSAPs, 30 fire dispatch positions and 75 fire stations. The cost of any additional licenses required shall be specified. Licenses shall be provided for software and systems required to operate the FSA whether provided by the vendor or other supplier.</td>
</tr>
<tr>
<td>In its proposal, the Proposer must document all IT infrastructure modifications and facility infrastructure modifications required by the FSA system. If Vendor fails to do this, the Proposer must reimburse the County for the cost of:</td>
</tr>
<tr>
<td>1) Additional infrastructure equipment (e.g. electrical systems, ceiling repairs…)</td>
</tr>
<tr>
<td>2) Staff hours used to install or configure new equipment</td>
</tr>
<tr>
<td>3) Staff hours used to reconfigure existing equipment</td>
</tr>
<tr>
<td>By “IT infrastructure”, the County is referring to the:</td>
</tr>
<tr>
<td>• The County’s fiber network</td>
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<tr>
<td>• The County’s radio networks (Starcom and 6-8 VHF networks)</td>
</tr>
<tr>
<td>• The County’s standard servers</td>
</tr>
<tr>
<td>• The County’s standard workstations</td>
</tr>
<tr>
<td>• The County’s standard software used for operating systems, user authorization, virus protection, scripts, reports, databases, and monitoring.</td>
</tr>
<tr>
<td>• The County’s standard procedures including upgrades and patching cycles for standard software</td>
</tr>
</tbody>
</table>
ETSB OF DUPAGE COUNTY, ILLINOIS

- The County’s IP/VLAN/Networking configuration


For the purposes of this proposal the Vendor must not reuse any existing hardware or cabling without the County’s permission. Any equipment or hardware removed must be returned to the County or the department if it is their equipment.

The FSA system must support simultaneous audible alerting, visual alerting, and printing at each fire station.

All audible and visual alerts must be on variable timers to return to the default setting.

Audible alerts must have the capability of being set to remain on for different durations than visual alerts.

The FSA system must be capable of function activation from more than one source including all PSAPs.

The FSA system must provide the ability to switch over to and run in a failover mode if either primary site were to fail with minimal or no operational loss. All system functions must continue to be available in this failover mode. The FSA must be operational from a backup site in 5 minutes or less should both primary systems fail.

The Vendor must provide an independent testing environment with one or more servers and equipment at one fire station for the purpose of testing new FSA system hardware and software throughout the life of the FSA system.

The system must be fully installed.

System must be TCP/IP based

System must be software-based and configurable

Identify the percentage of Commercially available Off The Shelf (COTS) hardware, components and devices associated with the system.

System must have a proven ability to handle a minimum of 100 individual Fire stations and facilities and provide for future expansion

System must be of modular design, allowing addition of Fire stations, vehicles and personnel as needed

System must be flexible and expandable to meet future changes required by the customer

System must be able to simultaneously transmit alerts over multiple communications paths, including IP, data, wireless and audio radio networks

System must be able to interface with Motorola ASTRO P25 and Harris Open Sky radio systems using standard P25 interfaces.

The system must be able to integrate with the County and PSAP computer networks and RF communications infrastructure

System must be able to send a notification to all Fire stations or selected Fire stations simultaneously

System must be able to alert by group, station, or unit

System must be able to send distinct tones for the different units and classes of equipment, such as chief officers, ambulances, engines, ladders, rescue and other vehicles

All tones must be configurable by the County through a web interface or similar system.

System must be able to process multiple distinct alert notifications that may be generated in very rapid succession due to multiple events occurring

System must be able to restrict access control using role based access controls (e.g. System Administrator, Fire Department Administrators, PSAP Supervisor…)

Operating system must be Windows 10 for station control units and dispatcher workstations. The FSA system must always support a Microsoft operating system that is at least 2 years from entering Extended Support in Microsoft’s Lifecycle Policy.

All user software must be designed for touch screen operations

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<table>
<thead>
<tr>
<th><strong>ETSB OF DUPAGE COUNTY, ILLINOIS</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>System must have the capability for customer personnel to update all software from a central location vs. having to travel to each location to install software updates.</strong></td>
</tr>
<tr>
<td><strong>System must be able to accept timing inputs from the County's existing network clock</strong></td>
</tr>
<tr>
<td><strong>System must be able to send incident and trouble notifications via e-mail, text messages and phone calls. Text message notifications must not be sent using an e-mail gateway.</strong></td>
</tr>
<tr>
<td><strong>System must offer a mobile application for Apple and Android devices that delivers incident information, displays the incident location on a map, and provides the ability to acknowledge receipt of the incident. The County might choose to provide this functionality from its new Intergraph CAD system.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Dispatch Requirements</strong></th>
</tr>
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<tbody>
<tr>
<td><strong>System must be able to seamlessly integrate with the County's new Intergraph Computer Aided Dispatch System (CAD) through a standard XML-based application programming interface (API) included with the FSAS.</strong></td>
</tr>
<tr>
<td><strong>System must have software that can reside at the dispatch center or any other location with network connectivity to monitor the system, generate reports and transmit manual dispatches and general announcement messages to one, multiple or all Fire stations simultaneously</strong></td>
</tr>
<tr>
<td><strong>The FSA should be fully operational from each of the three (3) PSAPs. The operational view should be able to be customized to that each PSAP only normally sees the fire stations it dispatches unless actively backing up another PSAP.</strong></td>
</tr>
<tr>
<td><strong>System must have the capability, for incidents, to create full automated voice dispatch alerts that announce simultaneously in multiple stations and over multiple radio system Talk groups and frequencies.</strong></td>
</tr>
<tr>
<td><strong>System must generate text-to-speech (TTS) announcements for incident information in real time. System must not be dependent on a database of pre-recorded street names and other incident data.</strong></td>
</tr>
<tr>
<td><strong>System must generate TTS announcements at both the dispatch location and at each fire station for redundancy and to minimize the bandwidth required for transmitting alerts to the stations.</strong></td>
</tr>
<tr>
<td><strong>Automated TTS voice announcements supported must include: full dispatch announcements, announcements of move-ups, and non-emergency messages in priority order. The vendor shall identify the maximum message length.</strong></td>
</tr>
<tr>
<td><strong>System must include a software tool that the County can use to modify automated TTS voice pronunciations and add new words (streets, names, etc.), without vendor involvement</strong></td>
</tr>
<tr>
<td><strong>System must have the ability to deliver each TTS dispatch announcement to landline and cellular phones, radios and fire station speakers. The announcement must be the same across all devices.</strong></td>
</tr>
<tr>
<td><strong>System must be able to monitor the network connectivity to each fire station and provide immediate visual and audible alerts/notifications if any connectivity problems are detected to both the dispatcher and the fire station(s) affected to meet NFPA 1221 requirements.</strong></td>
</tr>
<tr>
<td><strong>System must be able to monitor the status of each notification sent and provide immediate visual and audible alerts/notifications to the dispatcher in cases of any failed notifications</strong></td>
</tr>
<tr>
<td><strong>The servers must be able to be interfaced and operational at a second dispatch location running a fully operational version of Intergraph CAD in addition to a disaster recovery site</strong></td>
</tr>
<tr>
<td><strong>The system must also be operational from a remote or mobile location.</strong></td>
</tr>
<tr>
<td><strong>Dispatcher must be able to turn off automated voice dispatch for training and similar purposes.</strong></td>
</tr>
<tr>
<td><strong>Every dispatch position designated for fire dispatch (assume 30 positions) must be equipped with a screen to manually dispatch fire stations independent of CAD.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Fire Station Requirements</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System must utilize a Station Control Unit provided by the vendor</strong></td>
</tr>
<tr>
<td><strong>If there are components to be housed other than at the Fire Station Control Unit, the Vendor must supply a radio cabinet suitable to house the FSA station control unit, radio receiver, required UPS units, and any other required equipment. The cabinet shall be approved by the County.</strong></td>
</tr>
<tr>
<td><strong>The FSA must provide a minimum of 15 relay contacts/controls at each fire station. The FSA system must have the capability to control devices using remote device relays. The remote relays must:</strong></td>
</tr>
</tbody>
</table>

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| a. be able to be energized for a configurable period of time upon receipt of a CAD dispatch. |
| b. have the capability to be deactivated |
| c. have the capability for County personnel to manually activate |

### Audio Alerts

Attention tones - Must be a volume escalating alert. The FSA system must support a minimum of ten (10) attention tones.

The FSA system when used to manually dispatch must have the ability to group tones together to simplify dispatch.

### Unit-type tones

The FSA system must support a minimum of twenty (20) unit-type tones that clearly identify the type of unit (e.g. engine, ambulance, or other apparatus). This includes County-supplied tones.

### Pre-announcements

The FSA system must provide an audible pre-announcement that clearly identifies the units due, event type, and grid area, as defined by CAD or transmit County designated audio files.

Multi-unit pre-announcement messages must be capable of any and all combinations of unit responses required from a fire station.

Unit information must consist of unit type and unit number, not just unit type (e.g. "Engine 712" or "Truck 726").

### Automated Voice Dispatch

The automated voice dispatch generated by the FSA system may be a pre-announcement or a text-to-speech announcement containing the full dispatch information as defined by CAD.

The automated voice dispatch must be in a clear and consistent concatenated audio format and must be able to be edited.

The FSA system must have the capability of allowing pauses to be inserted in user designated places in the automated alert sequence.

### Dispatch Audio

The dispatch announcement must have the capability to be both fully automated, from the FSA system and come from the primary trunked dispatch talk group or a combination thereof.

The FSA system must be capable of using the existing County radio system as the source of audio to distribute the dispatcher's voiced audio in each station as a backup to IP based audio.

The FSA main server must send a visual notification instantly after the automated alert portion is complete to:

- a) FSA workstation located on the dispatch floor and to
- b) CAD server, notifying the dispatcher when he/she can start voicing the dispatch and which stations failed to receive the alert.

The FSA system must allow live dispatcher voice in addition to the automated voice announcement. Identify whether this is concurrent or if the automated voice must clear first.

### Audible alerts general information

The FSA system must be capable of sending an alert for all apparatus of the same type simultaneously to all fire stations that have that apparatus type dispatched to an event.

A unique distinct audible tone must be available for problem notifications (i.e. CAD down) to all fire stations and must be standard across all fire station control units.

The FSA system solution must be capable of providing non-emergency messages, preceded by a unique attention tone, to a fire station or group of fire stations.

The Vendor must provide a means to activate the FSA system, inside the fire station, within close proximity of the public entrance door.

All audible alerts must be able to be volume escalating.

### General speaker volume

The FSA system must comply with all local, state and national regulations, including, but not limited to OSHA/IDOL and NFPA as it applies to noise exposure.

In order to not exceed decibel level constraints (between zero (0) and 115 decibels, never greater than 140db) the Vendor will design the FSA system for each individual fire station and zone when new speakers are being installed to determine if more than one speaker is needed in each zone.

Final approval of the design will be by the County and the affected fire department.

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### Adjustable speaker volume

The scanning volume for the speakers in each enclosed room must be adjustable, up and down to a minimum and maximum, by station personnel. This will be done with a wall mounted volume controller in each room.

The FSA system must provide the ability to disable in-building paging from all sources during a system message.

The system speakers must have the ability to have separate automatic and configurable daytime and nighttime volume settings.

### Turning speakers on and off

In public assembly rooms, all speakers must have the capability to be turned on and off by fire station personnel.

### Audio Sources

The County requires audio announcements from different sources for in-station operations. The FSA must have a minimum of three audio inputs at the fire station level. The order of importance and priority to be determined by the County.

All radios associated with the FSA system will be furnished by the County and/or department. The Vendor must be responsible for directing audio from these radios to the correct speaker(s).

### Audio Source Examples

- Attention tone, Unit tones, Pre-Announcement, text to speech or voiced dispatch announcement
- Primary dispatch Starcom channel
- The primary VHF dispatch channel (two-tone paging) must be heard when dispatch announcements are not available
- The mutual aid dispatch channel (IFERN)
- The operations and tactical talk groups for bordering fire
- Station internal public address (PA) system (i.e., station paging)
- Doorbells
- NOAA All-Hazards Weather Radio stations

### Visual Alerts

All non-scrolling displays must be large enough to display all dispatch data at once. All vital event data must be displayed at the same time. Scrolling displays must be an available option.

The Vendor must propose the most applicable state-of-the-art video devices for use on this project. Final selection of specific devices, including the manufacturer, will be done by the County.

The proposal will include three (3) flat panel 42” with 1080p, LED video displays at each fire station. The proposal will include a minimum of two (2) LED reader boards in the apparatus bays of each worksite. More may be added if the size and configuration of the room dictates.

The FSA system must have a minimum of four (4) video outputs.

Every worksite will maintain one remote touch screen monitor, to operate the FSA system.

### Turnout timers

The system must include a configurable turnout timer that is activated with each dispatched event, to be installed in front of each bay in the apparatus room, positioned so that it is visible to the driver and officer of each responding unit.

### Lights

The FSA system must trigger designated fire station standard lighting in the apparatus bays, TV room/lounge and watch office to be turned on. The lighting will be automatically turned off after a designated amount of time. The amount of time the lighting stays on must be customizable by the FSA system administrator.

All FSA system lighting must be low voltage LED and comply with the National Electrical Code.

FSA system must be capable of producing night vision lighting in all sleeping areas, egress paths from the sleeping areas and the apparatus bays.

A red strobe light located in the apparatus bays, fire station exterior work areas and rooms where there is loud ambient noise or where headphones are used must be activated by the FSA system upon event dispatch and upon the ringing of the fire station phone. Examples of these rooms can include, but are not limited to, physical training rooms, compressor rooms and apparatus bays.

### Zone/Dorm Controllers

The FSA system must be able to support a minimum of ten (10) zones at each station.
Exterior speakers must be isolated in one (1) zone.

Dorm room controllers must be capable of controlling speakers, night vision lighting, and visual displays.

The SCU zone controller must control the speakers, strobes, night vision lighting, and standard work lights, if applicable.

The FSA system must be capable of displaying all zones that are activated by the dispatch center on a console.

Zone activation indication must be automatically cleared on the FSA system when the alerts are completed.

**Radios**

The FSA system must support the Motorola Call Alert feature on the 800 MHz Trunked System control channel to alert fire station receivers when needed.

The FSA system radio interface must be equipped to detect radio channel traffic and wait until the channel is free to begin automated dispatching.

The FSA system must support a redundant and diverse method of back-up communications, such as but not limited to an 800 MHz radio system, a 200 MHz radio system, an IP connection, cellular modem or a radio control station.

The FSA system at each fire station must accept relay closure from the County provided radio equipment for the purposes of: 1) failover and 2) manual activation of all Vendor-provided devices.

System must be able to allow fire station personnel to manually acknowledge that a notification was received.

System must be able to allow fire station personnel to use an emergency crew alert button by front door to alert crew to walk in emergencies.

System must be able to integrate with an existing doorbell.

System must be capable of integrating a camera into the system as an option.

System must be able to conduct a test of the equipment at a fire station through the use of a push button or similar device located in the fire station. When this button is activated a test automated dispatch will occur over the fire station's speaker system and visual displays.

System must offer ambient noise sensors to adjust speaker volume by speaker zone. The sensors must be able to be installed in any location in the fire station.

**Training Requirements**

Training must be provided for a complete functional understanding of the system.

Training shall be provided to dispatchers, administrators, fire personnel, and technical personnel. Training may be in the form of "Train-the-Trainer."

**Warranty and Maintenance Requirements**

Proposer must provide technical support on a 24/7/365 basis.

Proposer must offer both remote and on-site support.

Proposer must have the capability to provide technical support remotely to the system via a VPN or similar connection.

System must be able to automatically detect when a critical event or failure occurs within the system and automatically alert support personnel for Major, Minor, and Maintenance Needed events using all or a combination of the following methods: visually, audibly, email, pager, SNMP or phone call.

System must be able to push all software updates from a central location to all or selected fire stations and PSAPs without requiring visits to install the updates.

Proposer shall provide documentation of product warranty period and coverage provided.

System and all components shall be under warranty for a minimum of two years after placing the equipment in service.

**Installation Requirements**

System must be installed and implemented without any disruption or impact to the current alerting system.

System cutover at the fire station level shall be no more than two hours in duration.

**CAD Interface**

The FSA system must communicate with the County's new Intergraph CAD system. The Vendor must provide detailed written specifications for the CAD interface. The written specifications must contain sufficient detail for the CAD Vendor to write an interface to the FSA system. If CAD to FSA interface standards exist, the Vendor must provide them to the County and they must be followed by the FSA Vendor.
The FSA system interface to the CAD system must support the following messages from CAD:

a. Dispatches
b. Move-ups
c. Abort messages
d. Non-emergency alerts
e. Status queries
f. Unit status messages

Dispatch data sent from CAD to the FSA system via the CAD interface must include, but not be limited to, the following fields:

a. Stations that need to be alerted
b. Apparatus
   1. Unit type
   2. Unit number
c. Event type
d. Event grid area
e. Event location
   1. Address: street number, street name, city
   2. Cross streets
f. Location information (i.e. high rise, metro)
   1. Hazard information
g. Other CAD data fields as required

Each fire station must only receive apparatus data that is relevant to that fire station from CAD.

For each dispatch message received from CAD, the FSA system must send an automated acknowledgement over the IP network to the FSA servers and from there, to the FSA system console on the dispatch floor indicating the success or failure of each dispatched station for the given event. This acknowledgement must not involve any human intervention by fire station personnel.

**Communication Paths**

The FSA system must be controlled directly from the CAD system via the County's network as the primary means of communications.

The secondary communications path will be determined by each agency with County approval prior to installation.

The FSA system must automatically failover from the primary network path to the secondary network path when the primary fails and automatically failback from the secondary network path to the primary network path after the primary has returned to a state of being up and running for a specified period of time.

The FSA system must provide the ability to switch over to and run in a failover mode at either primary site with minimal or no operational loss. All system functions must continue to be available in this failover mode. The failover/backup system should become operational (live) immediately after the main system fails.

**Redundant servers**

The FSA system must support a redundant system in a separate physical location with minimal operations disruption and no loss of data integrity if one system fails.

Each server must have a redundant server provisioned with automated failover.

The FSA servers located at the two primary fire stations must be able to operate in parallel with the FSA servers located at the other primary site.

The FSA system in its entirety must be duplicated, having identical and independent alerting capabilities, at both primary fire stations and be integrated with the CAD system.

**Provisions in the event CAD is down**

The Vendor must provide equipment in each PSAP to manually operate alerting at each fire station. The manual alerting connection must not interface with CAD. The connection must be between the FSA main server and the FSA control unit located at the fire station using the active County network.

The same audio and visual alerts must be able to be triggered manually from the FSA main server without using the CAD interface as are triggered automatically via the CAD interface.

**Monitoring**

The FSA system must have the capability to detect the following types of problems and send out the corresponding notifications:
| a) | System-wide outage |
| b) | Communication between main FSA server and a given fire station is down due to network problem |
| c) | No alerts going off at a given fire station due to control unit failure |
| d) | Component failure at a given fire station |
| e) | Failure of the control unit to be able to talk to FSA components |
| f) | Failure of the control unit to be able to talk to peripheral devices |

**Problem notifications**

The FSA system must self-identify problems during internal integrity monitoring. The FSA system must automatically activate distinct audible (different from dispatch alerts) and visual alerts that will be immediately apparent to the staff in the PSAP, affected fire station, and support personnel defined by the FSA system administrator via multiple messaging methods.

The FSA system must notify designated County personnel immediately via a text message or pager message when there is a system-wide outage or fire station control unit outage.

The audible alert at the PSAPs and affected fire stations must have the ability to be silenced as long as the visual alert continues to be displayed until the problem with the FSA system is resolved. A silenced alarm must be overridden in the case of a second problem notification alert.

The FSA system must send a visual and audible alert to the fire station and to the FSA system administrator’s console when there is a change in power status as described below:

1. Electrical power supplied from power company is down/returns to normal status
2. UPS activated/deactivated
3. Generator activated/deactivated
4. A problem with external systems such as generators and fuel tanks.
5. When the fire alarm at a fire station gets triggered.

**FSA system monitoring utility**

The FSA system must provide a user-friendly monitoring utility using a GUI interface with drill down capability to display detailed information regarding problem notifications.

The FSA system monitoring utility must be displayed at each PSAP on a dedicated workstation.

The FSA system monitoring utility must be fully accessible from an IP client residing on the network and via a web interface.

Both the system administrator and dispatch supervisor must have permission to access information about the entire FSA system using the FSA system monitoring utility.

The FSA system must maintain and be able to export via Excel or similar files a log of:

a) Dispatches sent
b) acknowledgements received
c) actions taken by the system administrator
d) all devices activated or failed as a result of the dispatch.

Error and status logs must be available using the FSA system monitoring utility described above.

**Performance**

The FSA system must have no more than five minutes (cumulative) of system downtime per year; this includes planned maintenance. This requirement refers to system-wide outages only.

The FSA system must have no more than eight (8) hours (cumulative) of fire station downtime per year; this includes planned maintenance.

Sending data such as heartbeats and acknowledgements to CAD must not degrade CAD dispatch operations or the ability of the fire station FSA system to receive alerts.

The Vendor must provide network specifications so that the County can size the network appropriately for the amount of traffic predicted to be on the FSA system with latency of less than 20 milliseconds.

Sub-second latency must exist from the time the dispatcher hits the “dispatch” button in CAD until the time all fire station personnel hear the first FSA audio alert tone.

All visual alerts must activate at each worksite within a sub-second after the dispatcher hits the “dispatch” button.

The FSA system must prevent or detect false alerts at fire stations. The County is concerned about false alerts originating from entities that are not part of County, sent to purposely misdirect fire station apparatus.

**System Administration**
The FSA system must support a minimum of ten (10) uniquely identified roles for system administration.

All the FSA system functions must be configurable by software changes only, without requiring changes to the hardware units. The Vendor must describe any exceptions to this requirement and provide detailed procedures for these exceptions.

FSA system configuration changes must be able to be performed by the FSA system administrator, without Vendor assistance.

The fire station alerting administrator must be able to do the following:
- Configuring the alert template
- Modifying the alert template for each station, as needed
- Monitoring system performance
- Being notified of system and worksite problems
- Turn pre-announcements on and off, system-wide, and for each worksite
- Configure attention tones and unit-type tones
- Configure worksite visual alerts
- Easily insert and delete audio files into the database
- Adjust the alert tones and announcement volume, by zone, for day and night operations
- Set minimum/maximum or mute volume for each set of speakers in a given zone
- Provide the capability for individual speakers to be turned on and off by the station officer
- Configure the information sent and printed by the rip and run printer
- Disable some or all of the user-controlled capabilities of dorm and zone controllers
- Configure the timer for audible and visual alert reset
- The announcement and/or display of Radio Talk Groups
- Prioritize outputs for different audio sources
- Configure attention tones and unit-type tones

The FSA system Vendor must provide comprehensive system documentation in electronic format, indexed and book-marked. This documentation must contain all information, needed by the FSA system administrator to operate, maintain, program, configure, and troubleshoot the FSA system.

Implementation
The FSA system shall be operational for all PSAPs within a 30 day time frame. The ETSB of DuPage County must be able to implement the FSA system to the Fire Stations incrementally throughout the life of the contract. During installation of the new FSA system, the existing FSA system must remain operational with no interruptions in service.

The Vendor must use non-proprietary system components where available, provided they have the same functionality and reliability as proprietary components. The term "components" includes, but is not limited to, servers, speakers, lighting units, light bulbs, televisions, and monitors.

The FSA system must have the capability to add fire stations and alerting devices that can be supported by the system through a standard upgrade process that does not require replacement of the entire system or any of its major components.

The components of the FSA system located at the PSAP must be able to be upgraded without imposing a system-wide and/or a worksite outage.

The FSA system must provide a method to easily backup and recover all configuration data.

Testing
- Server upgrades must be tested prior to going live.
- Testing involving FSA servers must not impact the live system.
- Testing involving the test worksite must not impact the live system.
- Software licenses for the Test System must be free of charge.

The FSA system must be up and running successfully for fifteen (15) days before the system goes live. The FSA system must be up and running successfully for five (5) days at each worksite before that worksite goes live. The vendor will propose a method for testing that the FSA system is up and running successfully. The last fire station to be operational shall be no more than twelve (12) months from the first station going live.

Installation and Power
Installation of the FSA system including but not limited to speakers, lights and wiring must be performed by the FSA system Vendor or sub-contractor per the County specifications.

For new buildings, the Vendor must work with the County and the individual fire department on system installation design before the building is built.
Once the physical installation phase of this project has begun at a given worksite, the installation must be completed within 30 calendar days at the given worksite.

The County will manage and monitor the installation of this system. This must not void the warranty or affect the warranty in any way. The County technical personnel will be present at each installation, system activation, and cutover.

The County will reserve the right to select the specific FSA elements for each worksite prior to installation at each worksite. All fire stations may not require all FSA products.

The Vendor must supply all installation specifications for computer equipment that is to be located at the PSAPs. This includes but is not limited to connectivity, space, and power requirements.

The Vendor must convey all FSA system electrical requirements, including the need for any additional electrical circuits, to County as a part of the proposed FSA system configuration for any worksite selected for installation or upgrade.

All electrical cable shall be plenum rated unless otherwise approved by the Authority Having Jurisdiction over electrical installations.

All FSA system circuits must be able to run off the worksite emergency power source, such as a generator or UPS.

All R56 Installation Standards must be followed.

All applicable local and County electrical codes, building codes, and permitting requirements must be followed. The Vendor is responsible for obtaining all permits.

### Acceptance Testing

The Vendor must provide an Acceptance Test Plan (ATP) to the County no later than 30 calendar days after the system design is complete for the first worksite. The Vendor and the County must mutually agree in writing to the test plan. The original plan may be modified to meet the County’s requirements.

The ATP must provide an actual test of all functional requirements of the FSA system and not use simulation.

The Vendor will have no more than 30 calendar days after a defect is found during Acceptance Testing, to fix the defect. The 30-day period will start after the specific defect is found, not after the Acceptance Test is completed. The Vendor must provide daily updates to the County’s Contract Administrator as to the status of getting the defect fixed.

If a defect is not fixed within 30 calendar days after it is discovered, the Vendor may be subject to liquidated damages for each day it remains unresolved.

### Vendor Support

The Vendor must provide a single point of contact after the award of the contract and prior to contract negotiations.

For any off-site support provided by the Vendor, the FSA system is accessible only through the County’s VPN connection.

The Vendor must provide weekly reports describing FSA system and worksite problems.

The Vendor must be responsible for warranty and maintenance of the entire FSA system and all its components including hardware, software and all installed parts during the warranty period, excluding County supplied components.

The warranty period for the FSA system must begin the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. The warranty period must last for a minimum of two (2) years after the three PSAPs and a minimum of 50% of the fire stations are operational.

The maintenance agreement for the FSA system must begin immediately after the warranty period has expired. The Vendor must offer an annual maintenance agreement.

The Vendor must provide a maintenance agreement for all equipment which is purchased through the Contract between the County and the Vendor.

All warranty and maintenance support must be provided by the system manufacturer or a dealer who has been certified by the manufacturer.

The FSA system maintenance agreement must cover parts and service on a per year basis.

a. Service must be provided by a certified representative who is located within 50 miles of Wheaton, Illinois

b. The maintenance agreement must include the Vendor response times.

Whether purchased by the Vendor or the County, all the hardware and software must meet the Vendor’s minimum specifications.

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The Vendor must maintain a FSA system environment at its own location and expense that mimics the FSA system environment at the County for the purpose of testing new versions of software and hardware.

The Vendor must continue to support, maintain, and warrant all FSA system components (including software, hardware, middleware, and network) as the County applies patches, configuration changes, and version upgrades to the operating environment based on the Vendor’s recommendations of the infrastructure components.

The Vendor must continue to support, maintain and warrant all FSA system components purchased from the Vendor (including software, hardware, middleware, and network) if the County decides to upgrade hardware by purchasing it from a source other than the FSA Vendor.

The Vendor must provide a technical system drawing for approval by the ETSB of DuPage County.

**Problem Resolution**

**Definitions of Vendor response time:**

- **Software Problem Response Time** - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person logged into the system looking at the problem.

- **Hardware Problem Response Time** - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person on-site.

**Definitions of types of outages and required response time:**

- **System-wide Outage** - a problem that affects more than one worksite from being alerted, a problem that affects more than one worksite from being alerted in a timely fashion, or a problem that causes a false alerting indication at more than one worksite.

- **Worksite Outage** - a problem that affects only one worksite from being alerted, a problem that affects only one worksite from being alerted in a timely fashion or a problem that causes a false alerting indication at only one worksite.

- **Component Failure** - a problem with a component of FSA that does NOT prevent the entire worksite from being alerted. Examples of components are: speakers, volume controls, zone controllers, lighting units, and video displays.

The Vendor must provide pricing for the following Service Level Agreement (SLA) and pricing for other typical SLAs it offers.

The Vendor must respond to a system-wide outage 24/7/365. For software problems, a two (2) hour response time is required, for hardware problems a four (4) hour response time is required.

The Vendor must respond to a worksite outage 24/7/365. For software and hardware problems, a four (4) hour response time is required.

The Vendor must respond to component failures within 24 hours. If the time limit of 24 hours ends at a time other than 8 AM – 5 PM Central Time on a business day, the Vendor may respond on the next business day during normal business hours (8 AM-5 PM Central Time).

The Vendor must maintain a supply of critical and long lead time components as agreed to by the County.

**Training**

The Vendor must provide system administration, maintenance, programming and troubleshooting training to County technical staff at a location designated by the County.

The Vendor must provide Train the Trainer training for Fire at a location specified by the County in accordance with a schedule that is mutually agreed to by the County and the Vendor. The approximate number of trainees is 50. The schedule may include training during hours outside of normal business hours (evenings and weekends).

If any training is provided to a subcontractor, the County must be notified and permitted to attend these classes.

The Vendor must supply all system administrator training, dispatcher training prior to acceptance of the FSA system at the first worksite.

The Vendor must supply hands-on training for all system functions. This training must include sufficient information and experience so that personnel (operators and supervisors) feel confident with system features and operations for their particular assignments.

The Vendor must provide comprehensive manuals for all topics covered in training classes. These manuals must be provided in an electronic format that is searchable. The manuals must be provided in both HTML and PDF formats.

**Optional Features**

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The Vendor will provide pricing to supply the following options at every worksite. Option pricing will include time and materials and equipment in the cost.

| The FSA system shall display a map showing the event location as part of the video display. The map must have zoom capabilities |
| The ability to develop "canned" messages for manual station alerting. |
| A camera video feed to be installed at the front door of the fire stations with 2 way audio. The video and audio feed will be relayed to worksite and available to the PSAP |
| The ability of the FSA system to mute all televisions upon the start of a dispatch announcement |
| Apparatus sensors that record apparatus movement out of the engine bays recording response times. |
| Relay control of: |
| a. Garage/bay doors |
| b. Oven/stove |
| c. Outdoor grills |
| d. Traffic lights |
| e. Last man out button |
| Ambient noise sensors in noise heavy environments, including but not limited to the apparatus bays, front and rear apparatus ramps. Ambient noise level monitoring must be done by individual speakers or by zones created by slave speaker units connected to speaker units containing control circuitry. |
| Colored light indicator devices in each zone that illuminate upon receipt of command data from the dispatch center and contain a minimum of five (5) distinct colors that are used to designate different fire apparatus. The device must be programmable to activate any combination and must be mounted in the ceiling or walls of the worksite |
EVALUATION:
The evaluation factors reflect the totality of considerations represented in the requested proposal responses. While cost is important, other factors are also significant and the ETSB of DuPage County may not select the lowest cost proposal. The objective is to choose the proposal that offers the highest quality services and will achieve the project’s goals and objectives within a reasonable budget.

Upon receipt, the ETSB of DuPage County will perform an initial review to determine which proposals merit further consideration based on cost, the completeness and professionalism of the proposal, vendor experience and relative functionality provided by the proposed system. Proposals that merit further consideration will be evaluated based on the criteria listed below.

<table>
<thead>
<tr>
<th>ABILITY TO MEET THE TECHNICAL SPECIFICATION</th>
<th>40%</th>
</tr>
</thead>
<tbody>
<tr>
<td>COST</td>
<td>20%</td>
</tr>
<tr>
<td>MAINTENANCE AND CUSTOMER SUPPORT</td>
<td>20%</td>
</tr>
<tr>
<td>WARRANTY</td>
<td>10%</td>
</tr>
<tr>
<td>SYSTEM TEST AND ACCEPTANCE PLAN</td>
<td>5%</td>
</tr>
<tr>
<td>EXPERIENCE/REFERENCES</td>
<td>5%</td>
</tr>
</tbody>
</table>

PRE-AWARD:
Proposer may be required to attend a pre-award meeting for clarifications, demonstrations, and presentations.

ACCEPTANCE OF PROPOSALS:
The Procurement Officer reserves the right to reject any or all Proposals or any part thereof, to waive informalities, and to accept the Proposal deemed most favorable to the ETSB of DuPage County.

EVALUATION PROCESS:
An Evaluation Committee comprised of DuPage County Finance personnel will evaluate all responsive proposals in accordance with the evaluation criteria detailed below.

LENGTH OF CONTRACT:
The contract term shall be three (3) years with optional renewals for years four (4) and five (5). Year four will require a system refresh at the headend level. The contract term commences once the service is implemented, and passes acceptance testing. **In no event shall the term plus renewal exceed five (5) years.** Any contract shall include mutual opt-out provisions to be negotiated in good faith between the parties.

END OF SCOPE OF SERVICES
INCLUDE PROPOSAL HERE
PROPOSAL FORM

PROPOSAL #16-167-RC

(PLEASE TYPE OR PRINT THE FOLLOWING INFORMATION)

<table>
<thead>
<tr>
<th>Full Name of Proposer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Business Address</td>
<td></td>
</tr>
<tr>
<td>City, State, Zip Code</td>
<td></td>
</tr>
<tr>
<td>Telephone Number</td>
<td></td>
</tr>
<tr>
<td>Fax Number</td>
<td></td>
</tr>
<tr>
<td>Proposal Contact Person</td>
<td></td>
</tr>
<tr>
<td>Email Address</td>
<td></td>
</tr>
</tbody>
</table>

TO: The DuPage County Procurement Services Division

The undersigned certifies that he is:

☐ the Owner/Sole Proprietor
☐ a Member of the Partnership
☐ an Officer of the Corporation
☐ a Member of the Joint Venture

Herein after called the Proposer and that all of the Partners of the Partnership, Officers of the Corporation or Member of the Limited Liability are as follows:

(President, CEO, Partner or Member) __________________________ (Vice-President, Partner or Member) __________________________
(Secretary, Partner or Member) __________________________ (Treasurer, Partner or Member) __________________________

(If additional Officers, Partners, or Members, list on an attached sheet.)

Further, the undersigned declares that the only person or parties interested in this Proposal as principals are those named herein; that this Proposal is made without collusion with any other person, firm or corporation; that he has fully examined the proposed forms of agreement and the contract specifications for the above designated purchase, all of which are on file in the office of the Procurement Officer, DuPage Center, 421 North County Farm Road, Wheaton, Illinois 60187, and all other documents referred to or mentioned in the contract documents, specifications and attached exhibits, including Addenda No. ________, ________, and ___________ issued thereto;

Further, the undersigned proposes and agrees, if this Proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction, including transportation services necessary to furnish all the materials and equipment specified or referred to in the contract documents in the manner and time herein prescribed.

Further, the undersigned certifies and warrants that he is duly authorized to execute this certification/affidavit on behalf of the Proposer and in accordance with the Partnership Agreement or by-laws of the Corporation, and the laws of the State of Illinois and that this Certification is binding upon the Proposer and is true and accurate.

Proposal #P16-167-RC
34 of 52
Further, the undersigned certifies that the Proposer is not barred from proposing on this contract as a result of a violation of either 720 Illinois Compiled Statutes 5/33 E-3 or 5/33E-4, proposal rigging or proposal-rotating or as a result of a violation of 820 ILCS 130/1 et seq., the Illinois Prevailing Wage Act.

The undersigned certifies that he has examined and carefully prepared this proposal and has checked the same in detail before submitting this proposal, and that the statements contained herein are true and correct.

If a Corporation, the undersigned further certifies that the recitals and resolutions attached hereto and made a part hereof were properly adopted by the Board of Directors of the Corporation at a meeting of said Board of Directors duly called and held and have not been repealed, nor modified and that the same remain in full force and effect. (Proposer may be requested to provide a copy of the corporate resolution granting the individual executing the contract documents authority to do so.)

Further, the Proposer certifies that he has provided services comparable to the items specified in this contract to the parties listed in the reference section and authorizes the County to verify references of business and credit at its option.

**PROPOSAL AWARD CRITERIA:**
This proposal will be awarded to the most responsive, responsible Proposer meeting specifications based upon the highest score compiled during evaluation of the proposals outlined in the selection process. The Proposer agrees to provide the service described above and in the contract specifications under the conditions outlined in attached documents for the amount stated.

**TOTAL ALL-INCLUSIVE PRICE:**
The Proposal price shall contain all pricing information relative to performing the Specifications as described in this Request for Proposal.

**TOTAL PROPOSAL AMOUNT:** $________________________

Total (in figures)

__________________________________________ Dollars and _______________________ Cents.

(Print or Type)

X __________________________________________

(Signature and Title) CORPORATE SEAL (If available)

PROPOSAL MUST BE SIGNED AND NOTARIZED FOR CONSIDERATION

Subscribed and sworn to before me this _______day of ___________________________ AD, 2016

My Commission Expires: __________________________

(Notary Public)
REFERENCES

The Proposer must list four (4) references, listing firm name, address, telephone number and contact person to whom they have provided similar equipment, material or services for a period of not less than six (6) months. Additional references may be required. If Proposer is a new business, provide references that will enable the ETSB of DuPage County to determine if Proposer is responsible.

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>ADDRESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

CONTACT PERSON:  
TELEPHONE NUMBER:

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>ADDRESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

CONTACT PERSON:  
TELEPHONE NUMBER:

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>ADDRESS:</th>
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</table>

CONTACT PERSON:  
TELEPHONE NUMBER:

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>ADDRESS:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONTACT PERSON:  
TELEPHONE NUMBER:

STATE THE NUMBER OF YEARS IN BUSINESS:  
STATE THE CURRENT NUMBER OF PERSONNEL ON STAFF:
## PROPOSERS SUBCONTRACTORS

<table>
<thead>
<tr>
<th>Full Name of Bidder:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Person:</td>
<td></td>
</tr>
</tbody>
</table>

### SUBCONTRACTORS:

A. Will you employ subcontractors?  
   (YES)  ____  (NO)  ____

B. If “YES”, identify with each firm’s name, address, telephone number and work to be subcontracted:

<table>
<thead>
<tr>
<th>Company Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Contact Person:</td>
<td></td>
</tr>
<tr>
<td>Telephone Number:</td>
<td></td>
</tr>
<tr>
<td>Work to be Provided:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
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<tr>
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<td>Telephone Number:</td>
<td></td>
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<tr>
<td>Work to be Provided:</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Company Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td></td>
</tr>
</tbody>
</table>
The Contractor will not change or use subcontractors not identified in this bid without prior written approval from the County of DuPage.

A request for a change in subcontractors shall be made in writing and will include a description of any savings that may be realized in the execution of this contract, and must be passed on to the County of DuPage.

**FAILURE TO PROVIDE SUBCONTRACTORS MAY BE JUST CAUSE FOR REJECTION OF BIDDER’S PROPOSAL.**
THIS AGREEMENT is entered into this _____ day of __________, 2016, between the ETSB of DuPage County, Illinois a body corporate and political, located at 421 North County Farm Road, Illinois, 60187-3978 (hereinafter referred to as the COUNTY), and _______________________, licensed to do business in the State of Illinois, located at ____________, _____________, ___________ (hereinafter referred to as the CONTRACTOR).

RECITALS

WHEREAS, the COUNTY requires the goods and/or services specified in Proposal #16-083-RC for its County of DuPage, located at 421 North County Farm Road, Wheaton, Illinois 60187; and

WHEREAS, the CONTRACTOR is the vendor selected pursuant to the Proposal process and is willing to perform under the terms of the Proposal and this Contract.

NOW, THEREFORE, in consideration of the premises and mutual covenants contained herein, the parties agree that:

1.0 CONTRACT DOCUMENTS

1.1 This Contract includes all of the following component parts, all of which are fully incorporated herein and made a part of the obligations undertaken by the parties:

   1.1.a Proposal Invitation
   1.1.b Project Information
   1.1.c Instructions to Offerors
   1.1.d General Conditions
   1.1.e Special Conditions
   1.1.f Insurance/Bonding Requirements and Certificates
   1.1.g Proposal Form (including Certification/Proposal, Signature Affidavit including Proposal Pricing)
   1.1.h Specifications (including any addenda, interpretations and approved exceptions)
   1.1.i Exhibits
   1.1.j County Purchase Order

1.2 All documents are or will be on file in the office of the Procurement Services Division, DuPage Center, 421 North County Farm Road, Room 3-400, and Wheaton, Illinois 60187.

1.3 In the event of a conflict between any of the above documents, the documents control from top to bottom; i.e., “a” controls over “b”.

2.0 DURATION OF THIS CONTRACT

2.1 Unless terminated as provided in the Bid Invitation, the term of this Contract shall be a ___________ year period beginning on ________________, 20__ and continuing through ________________, 20__.  

2.2 The Contract term is subject to renewal according to the Bid Invitation Specifications.

2.3 In no event shall the term plus renewals exceed four (4) years.

3.0 PROPOSAL PRICES AND PAYMENT

3.1 The Contractor shall provide the required goods and or services described in the Proposal Specifications for the prices quoted on the Proposal Form.

Proposal #P16-167-RC
3.2 The County shall make payment pursuant to the Illinois Local Government Prompt Payment Act, except that no payment shall be approved where the Contractor has failed to comply with certified payroll requirements of the Illinois Prevailing Wage Act or Davis Bacon Act.

4.0 AMENDMENTS
4.1 This Contract may be amended by mutual agreement.
4.2 All amendments will conform to State of Illinois Statutes and County procedures for Change Orders.

5.0 CONTRACT ENFORCEMENT - ATTORNEY’S FEES
5.1 If the County is required to take legal action to enforce performance of any of the terms, provisions, covenants and conditions of this Contract, and by reason thereof, the County is required to use the services of an attorney, including the States Attorney, then the County shall be entitled to reasonable attorney’s fees and all expenses and costs incurred by the County pertaining thereto and in enforcement of any remedy, including costs and fees relating to any appeal.

6.0 SEVERABILITY CLAUSE
6.1 If any section, paragraph, clause, phrase or portion of this Contract is for any reason determined by a court of competent jurisdiction to be invalid and unenforceable, such portion shall be deemed separate, distinct and an independent provision, and the court’s determination shall not affect the validity or enforceability of the remaining portions of this Contract.

7.0 GOVERNING LAW
7.1 This Contract shall be governed by the laws of the State of Illinois both as to interpretation and enforcement. Venue for all disputes will be exclusively in the circuit court for the Eighteenth Judicial Circuit in DuPage County, Illinois and that Illinois law will control.

8.0 ENTIRE AGREEMENT
8.1 This Contract, including the documents listed in 1.0, contains the entire agreement between the parties.
8.2 There are no covenants, promises, conditions, or understandings; either oral or written, other than those contained herein.

IN WITNESS WHEREOF, the parties set their hands and seals as of the date first written above.

ETSB OF DUPAGE COUNTY, ILLINOIS

By: _____________________________
GARY GRASSO

[PROPOSER]

By: _____________________________
AUTHORIZED SIGNATURE

TITLE

Proposal #P16-167-RC
40 of 52
**Required Vendor Ethics Disclosure Statement**

**Company Name:**

**Company Contract:**

**Bid/Contract/ PO:**

**Contact Phone:**

**Contact Email:**

The DuPage County Procurement Ordinance requires the following written disclosures prior to award:

1. Every contractor, union, or vendor that is seeking or has previously obtained a contract, change orders to one (1) or more contracts, or two (2) or more individual contracts with the county resulting in an aggregate amount of or in excess of $25,000, shall provide to Procurement Services Division a written disclosure of all political campaign contributions made by such contractor, union, or vendor within the current and previous calendar year to any incumbent county board member, county board chairman, or countywide elected official whose office the contract to be awarded will benefit. The contractor, union or vendor shall update such disclosure annually during the term of a multi-year contract and prior to any change order or renewal requiring approval by the county board. For purposes of this disclosure requirement, “contractor or vendor” includes owners, officers, managers, lobbyists, agents, consultants, bond counsel and underwriters counsel, subcontractors and corporate entities under the control of the contracting person, and political action committees to which the contracting person has made contributions.

I have made the following campaign contributions within the current and previous calendar year:

<table>
<thead>
<tr>
<th>Recipient</th>
<th>Donor</th>
<th>Description (e.g., cash, type of item, in-kind service, etc.)</th>
<th>Amount/Value</th>
<th>Date Made</th>
</tr>
</thead>
</table>

Attach additional sheets if necessary. Sign each added sheet and number each page (#) of ___ (total pages).

2. All contractors and vendors who have obtained or are seeking contracts with the county shall disclose the names and contact information of their lobbyists, agents and representatives and all individuals who are or will be having contact with county officers or employees in relation to the contract or bid and shall update such disclosure with any changes that may occur.

<table>
<thead>
<tr>
<th>Lobbyists, Agents And Representatives And All Individuals Who Are Or Will Be Having Contact With County Officers Or Employees In Relation To The Contract Or Bid</th>
<th>Telephone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

A contractor or vendor that knowingly violates these disclosure requirements is subject to penalties which may include, but are not limited to, the immediate cancellation of the contract and possible disbarment from future county contracts. Continuing disclosure is required, and I agree to update this disclosure form as follows:

- If information changes, within five (5) days of change, or prior to county action, whichever is sooner.
- 30 days prior to the optional renewal of any contract.
- Annual disclosure for multi-year contracts on the anniversary of said contract.
- With any request for change order except those issued by the county for administrative adjustments.

The full text of the county’s ethics and procurement policies and ordinances are available at [http://www.dupageco.org/CountyBoard/Policies/](http://www.dupageco.org/CountyBoard/Policies/).

I hereby acknowledge that I have received, have read, and understand these requirements.

Authorized Signature: __________________________

Printed Name: __________________________

Title: __________________________

Date: __________________________
### Part I: Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see How to get a TIN on page 3.

Note: If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

#### General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

### Part II: Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest and dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have not received a TIN from a IRS agency that you are subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured debt, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 5.

**Signature**

**Date**

### General Instructions

An individual or entity (Box W-9 requestor) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- **Form 1098** (home mortgage interest), **1098-E** (student loan interest), **1098-T** (tuition)
- **Form 1099-C** (canceled debt)
- **Form 1099-A** (acquisition or abandonment of secured property)
  
  Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See What is FATCA reporting? on page 2 for further information.

---

**Form W-9 (Rev. 12-2014)**

**Cat. No. 10231X**

**Packet Pg. 129**
## Appendix A

<table>
<thead>
<tr>
<th>Fire Station Locations</th>
<th>Address</th>
<th>Location</th>
<th>Zip Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Addison Fire Station 71</td>
<td>10 S Addison Rd</td>
<td>Addison</td>
<td>60101</td>
</tr>
<tr>
<td>2 Addison Fire Station 72</td>
<td>666 Vista Av</td>
<td>Addison</td>
<td>60101</td>
</tr>
<tr>
<td>3 Addison Fire Station 73</td>
<td>100 N Rohlfing Rd</td>
<td>Addison</td>
<td>60101</td>
</tr>
<tr>
<td>4 Bartlett Fire Station 1</td>
<td>234 N Oak Av</td>
<td>Bartlett</td>
<td>60103</td>
</tr>
<tr>
<td>5 Bartlett Fire Station 2</td>
<td>501 Struckman Bl</td>
<td>Bartlett</td>
<td>60103</td>
</tr>
<tr>
<td>6 Bartlett Fire Station 3</td>
<td>1575 W Bartlett Rd</td>
<td>Bartlett</td>
<td>60103</td>
</tr>
<tr>
<td>7 Bensenville Fire Station 1</td>
<td>500 S York Rd</td>
<td>Bensenville</td>
<td>60106</td>
</tr>
<tr>
<td>8 Bensenville Fire Station 2</td>
<td>700 W Foster Av</td>
<td>Bensenville</td>
<td>60106</td>
</tr>
<tr>
<td>9 Bloomingdale Fire Station 21</td>
<td>179 S Bloomingdale Rd</td>
<td>Bloomingdale</td>
<td>60108</td>
</tr>
<tr>
<td>10 Bloomingdale Fire Station 22</td>
<td>6N480 Keeney Rd</td>
<td>Bloomingdale</td>
<td>60108</td>
</tr>
<tr>
<td>11 Carol Stream Fire Station 27</td>
<td>246 S Gary Av</td>
<td>Bloomingdale</td>
<td>60108</td>
</tr>
<tr>
<td>12 Carol Stream Fire Station 28</td>
<td>365 N Kuhn Rd</td>
<td>Carol Stream</td>
<td>60188</td>
</tr>
<tr>
<td>13 Carol Stream Fire Station 29</td>
<td>275 S Schmale Rd</td>
<td>Carol Stream</td>
<td>60188</td>
</tr>
<tr>
<td>15 Clarendon Hills Fire Station 1</td>
<td>316 Park Av</td>
<td>Clarendon Hills</td>
<td>60514</td>
</tr>
<tr>
<td>16 Darien-Woodridge Fire Station 88</td>
<td>5901 Belmont Rd</td>
<td>Downers Grove</td>
<td>60516</td>
</tr>
<tr>
<td>17 Darien-Woodridge Fire Station 89</td>
<td>7550 Lyman Av</td>
<td>Darien</td>
<td>60561</td>
</tr>
<tr>
<td>18 Darien-Woodridge Fire Station 90</td>
<td>8687 Lemont Rd</td>
<td>Downers Grove</td>
<td>60516</td>
</tr>
<tr>
<td>19 Downers Grove Fire Station 1</td>
<td>2560 Wisconsin Av</td>
<td>Downers Grove</td>
<td>60515</td>
</tr>
<tr>
<td>20 Downers Grove Fire Station 2</td>
<td>5420 Main St</td>
<td>Downers Grove</td>
<td>60515</td>
</tr>
<tr>
<td>21 Downers Grove Fire Station 3</td>
<td>3900 Highland Av</td>
<td>Downers Grove</td>
<td>60515</td>
</tr>
<tr>
<td>22 Downers Grove Fire Station 5</td>
<td>6701 Main St</td>
<td>Downers Grove</td>
<td>60515</td>
</tr>
<tr>
<td>23 Elmhurst Fire Station 1</td>
<td>404 N York St</td>
<td>Elmhurst</td>
<td>60126</td>
</tr>
<tr>
<td>24 Elmhurst Fire Station 2</td>
<td>601 S York St</td>
<td>Elmhurst</td>
<td>60126</td>
</tr>
<tr>
<td>25 Glen Ellyn Fire Station 61</td>
<td>524 Pennsylavania Av</td>
<td>Glen Ellyn</td>
<td>60137</td>
</tr>
<tr>
<td>26 Glen Ellyn Fire Station 62</td>
<td>681 Taft Av</td>
<td>Glen Ellyn</td>
<td>60137</td>
</tr>
<tr>
<td>27 Glenwood Fire Station 58</td>
<td>1608 N Bloomingdale Rd</td>
<td>Glenwood</td>
<td>60139</td>
</tr>
<tr>
<td>28 Hanover Park Fire Station 1</td>
<td>6850 Barrington Rd</td>
<td>Hanover Park</td>
<td>60133</td>
</tr>
<tr>
<td>29 Hanover Park Fire Station 2</td>
<td>3855 County Farm Rd</td>
<td>Hanover Park</td>
<td>60133</td>
</tr>
<tr>
<td>30 Hinsdale Fire Station 84</td>
<td>121 Symonds Dr</td>
<td>Hinsdale</td>
<td>60521</td>
</tr>
<tr>
<td>31 Itasca Fire Station 66</td>
<td>520 W Irving Park Rd</td>
<td>Itasca</td>
<td>60143</td>
</tr>
<tr>
<td>32 Lisle-Woodridge Fire Station 51</td>
<td>1005 School St</td>
<td>Lisle</td>
<td>60532</td>
</tr>
<tr>
<td>33 Lisle-Woodridge Fire Station 52</td>
<td>7393 Woodridge Dr</td>
<td>Woodridge</td>
<td>60517</td>
</tr>
<tr>
<td>34 Lisle-Woodridge Fire Station 53</td>
<td>3101 Woodridge Dr</td>
<td>Woodridge</td>
<td>60517</td>
</tr>
<tr>
<td>35 Lisle-Woodridge Fire Station 54</td>
<td>2505 Green Trails Dr</td>
<td>Lisle</td>
<td>60532</td>
</tr>
<tr>
<td>36 Lisle-Woodridge Fire Station 55</td>
<td>2005 Warrenville Rd</td>
<td>Lisle</td>
<td>60532</td>
</tr>
<tr>
<td>37 Lombard Fire Station 44</td>
<td>2020 S Highland Av</td>
<td>Lombard</td>
<td>60148</td>
</tr>
<tr>
<td>38 Lombard Fire Station 45</td>
<td>50 E St Charles Rd</td>
<td>Lombard</td>
<td>60148</td>
</tr>
<tr>
<td>39 Oak Brook Fire Station 93</td>
<td>725 Enterprise Dr</td>
<td>Oak Brook</td>
<td>60523</td>
</tr>
<tr>
<td></td>
<td>Fire Station</td>
<td>Address</td>
<td>City</td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
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<td>-----------</td>
</tr>
<tr>
<td>40</td>
<td>Oak Brook Fire Station 94</td>
<td>1200 Oak Brook Rd</td>
<td>Oak Brook</td>
</tr>
<tr>
<td>41</td>
<td>Oakbrook Terrace Fire Station 49</td>
<td>17W400 Butterfield Rd</td>
<td>Oakbrook Terrace</td>
</tr>
<tr>
<td>42</td>
<td>Pleasantview Fire Station 1</td>
<td>1970 Plainfield Rd</td>
<td>La Grange</td>
</tr>
<tr>
<td>43</td>
<td>Pleasantview Fire Station 2</td>
<td>7675 Wolf Rd</td>
<td>Burr Ridge</td>
</tr>
<tr>
<td>44</td>
<td>Pleasantview Fire Station 3</td>
<td>9096 Joliet Rd</td>
<td>Hodgkins</td>
</tr>
<tr>
<td>45</td>
<td>Roselle Fire Station 64</td>
<td>100 E Maple Av</td>
<td>Roselle</td>
</tr>
<tr>
<td>46</td>
<td>Tri-State Fire Station 1</td>
<td>236 Sunrise Av</td>
<td>Willowbrook</td>
</tr>
<tr>
<td>47</td>
<td>Tri-State Fire Station 2</td>
<td>419 Plainfield Rd</td>
<td>Darien</td>
</tr>
<tr>
<td>48</td>
<td>Tri-State Fire Station 3</td>
<td>10S110 Madison St</td>
<td>Burr Ridge</td>
</tr>
<tr>
<td>49</td>
<td>Tri-State Fire Station 4</td>
<td>6301 Western Av</td>
<td>Willow Springs</td>
</tr>
<tr>
<td>50</td>
<td>Villa Park Fire Station 81</td>
<td>1440 S Ardmore Av</td>
<td>Villa Park</td>
</tr>
<tr>
<td>51</td>
<td>Villa Park Fire Station 82</td>
<td>102 W Plymouth St</td>
<td>Villa Park</td>
</tr>
<tr>
<td>52</td>
<td>Warrenville Fire Station 11</td>
<td>3S472 Batavia Rd</td>
<td>Warrenville</td>
</tr>
<tr>
<td>53</td>
<td>Warrenville Fire Station 12</td>
<td>29W719 Butterfield Rd</td>
<td>Warrenville</td>
</tr>
<tr>
<td>54</td>
<td>West Chicago Fire Station 5</td>
<td>1651 Atlantic Dr</td>
<td>West Chicago</td>
</tr>
<tr>
<td>55</td>
<td>West Chicago Fire Station 6</td>
<td>200 Fremont St</td>
<td>West Chicago</td>
</tr>
<tr>
<td>56</td>
<td>West Chicago Fire Station 7</td>
<td>1080 Commerce Dr</td>
<td>West Chicago</td>
</tr>
<tr>
<td>57</td>
<td>West Chicago Fire Station 8</td>
<td>2705 International Dr</td>
<td>West Chicago</td>
</tr>
<tr>
<td>58</td>
<td>Westmont Fire Station 3</td>
<td>6015 S Cass Av</td>
<td>Westmont</td>
</tr>
<tr>
<td>59</td>
<td>Westmont Fire Station 2</td>
<td>500 N Cass Av</td>
<td>Westmont</td>
</tr>
<tr>
<td>60</td>
<td>Wheaton Fire Station 37</td>
<td>1700 N Main St</td>
<td>Wheaton</td>
</tr>
<tr>
<td>61</td>
<td>Wheaton Fire Station 38</td>
<td>1 S Fapp Cir</td>
<td>Wheaton</td>
</tr>
<tr>
<td>62</td>
<td>Wheaton Fire Station 39</td>
<td>1590 S President St</td>
<td>Wheaton</td>
</tr>
<tr>
<td>63</td>
<td>Winfield Fire Station 31</td>
<td>27W530 Highlake Rd</td>
<td>Winfield</td>
</tr>
<tr>
<td>64</td>
<td>Winfield Fire Station 32</td>
<td>0S763 Winfield Road</td>
<td>Winfield</td>
</tr>
<tr>
<td>65</td>
<td>Wood Dale Fire Station 68</td>
<td>589 N Wood Dale Rd</td>
<td>Wood Dale</td>
</tr>
<tr>
<td>66</td>
<td>Wood Dale Fire Station 69</td>
<td>411 W Park Ln</td>
<td>Wood Dale</td>
</tr>
<tr>
<td>67</td>
<td>York Center Fire Station 77</td>
<td>1517 Meyers Rd</td>
<td>Lombard</td>
</tr>
</tbody>
</table>

Proposal #P16-167-RC
44 of 52
Appendix B
Cost summary for Initial Purchase

Prices should include all costs including but not limited to; delivery, installation, configuration, testing, and cutover.
Use the spreadsheet provided, if there are additional costs use the option lines provided and describe.
If cost is not listed as an option it will be assumed to be part of the base price.

<table>
<thead>
<tr>
<th>PSAP Costs (Dispatch Center)</th>
<th>Price Per Location</th>
<th>3 Locations (Capacity to handle 70 workstations)</th>
<th>Total One Time Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAP Cost for Hardware</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSAP Cost for Software</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Option 1</td>
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<td>Option 2</td>
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<td>Option 3</td>
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<td>Option 4</td>
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<tr>
<td>Total One Time Cost for PSAPs</td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Station Costs</th>
<th>Price Per Location</th>
<th>67-100 locations</th>
<th>Total One Time Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station Cost for Hardware</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Station Cost for Software</td>
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<td>Option 4</td>
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<tr>
<td>Total One Time Cost for Fire stations</td>
<td></td>
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</tr>
</tbody>
</table>

With the ETSB of DuPage County actively working on consolidation, a few of the PSAPs may change their location. ACDC will be opening a new dispatch center at: 1471 W Jeffrey Dr., Addison, IL 60101 sometime in the fall of 2017. DU-COMM will also be moving to 418 N County Farm Rd, Wheaton, IL sometime in 2018. Depending on the roll out of Fire Station Alerting the equipment may need to be moved to these new sites. The Proposer shall include in the proposal how such moves would be handled.

<table>
<thead>
<tr>
<th>One time Moving and Installation Cost</th>
<th>Cost Per Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td></td>
</tr>
<tr>
<td>DU-COMM</td>
<td></td>
</tr>
<tr>
<td>Total One Time Moving Cost</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4th Year System Refresh Cost</th>
<th>Cost Per Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td></td>
</tr>
<tr>
<td>DU-COMM</td>
<td></td>
</tr>
<tr>
<td>Sheriff</td>
<td></td>
</tr>
<tr>
<td>Total Cost for System Refresh</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C
Cost Summary for Maintenance

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe.
If cost is not listed as an option it will be assumed to be part of the base price. The warranty period shall be two (2) years, the maintenance portion of the contract will begin after the warranty period is expired.

<table>
<thead>
<tr>
<th>PSAP Annual Maintenance Cost (After Warranty Expires)</th>
<th>Cost Per Location</th>
<th>3 Location (Capacity to handle 70 workstations)</th>
<th>Total PSAP Maintenance Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAP Annual Cost for Software Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSAP Annual Cost for Hardware Maintenance</td>
<td></td>
<td></td>
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<tr>
<td>Option 1</td>
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<td>Option 2</td>
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<td>Option 3</td>
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<tr>
<td>Option 4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total PSAP Maintenance Cost for 3 years (3rd, 4th, &amp; 5th Year)</strong></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Station Annual Maintenance Cost (After Warranty Expires)</th>
<th>Cost Per Location</th>
<th>67-100 locations</th>
<th>Total Fire Station Maintenance Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station Annual Cost for Software Maintenance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fire Station Annual Cost for Hardware Maintenance</td>
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<td>Option 1</td>
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<tr>
<td>Option 4</td>
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<td></td>
</tr>
<tr>
<td><strong>Total Fire Station Maintenance Cost for 3 Years (3rd, 4th, &amp; 5th Year)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Training

Proposers shall provide two training options for training the dispatch centers. (1) The cost to train each dispatcher, or (2) the cost for train the trainer. ETSB will choose which option they prefer.

Proposers shall provide a training cost for Train the Trainer for the Fire Stations.

<table>
<thead>
<tr>
<th>PSAP Training Cost (Dispatch Center)</th>
<th>Price Per Person</th>
<th>145 People</th>
<th>Total Training Cost for all dispatchers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PSAP Training Cost (Dispatch Center)</th>
<th>Price per Person</th>
<th>12 People</th>
<th>Total Training Cost for Train the Trainer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Station Training Cost</th>
<th>Price Per Person</th>
<th>50 People</th>
<th>Total Training Cost for Train the Trainer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
Appendix E
Cost for Optional Fire Station Components

There are a variety of fire station components that can be connected to the Fire Station Alerting System. Each fire station installation can be unique subject to cost and any system limitations. This is a sample list of typical fire station components for consideration:

<table>
<thead>
<tr>
<th>Optional Component Costs</th>
<th>Cost per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Touch Screen Station Control Units</td>
<td></td>
</tr>
<tr>
<td>Remote Monitoring Units (doors, gates, etc.)</td>
<td></td>
</tr>
<tr>
<td>Digital Light Panels and Bars (Barber Pole)</td>
<td></td>
</tr>
<tr>
<td>Strobe Lights</td>
<td></td>
</tr>
<tr>
<td>Night Vision Red Lights</td>
<td></td>
</tr>
<tr>
<td>Stairway Lighting</td>
<td></td>
</tr>
<tr>
<td>Indoor Speakers (with or without integrated LEDs)</td>
<td></td>
</tr>
<tr>
<td>Outdoor Speakers</td>
<td></td>
</tr>
<tr>
<td>Ambient Noise Sensors</td>
<td></td>
</tr>
<tr>
<td>Zoning Remote (selects alerting preference in an area)</td>
<td></td>
</tr>
<tr>
<td>Printers</td>
<td></td>
</tr>
<tr>
<td>Flat Panel Displays</td>
<td></td>
</tr>
<tr>
<td>LED Reader Boards</td>
<td></td>
</tr>
<tr>
<td>Turn-Out Timers</td>
<td></td>
</tr>
<tr>
<td>Apparatus Presence Detectors</td>
<td></td>
</tr>
<tr>
<td>Exterior Camera/Doorbell</td>
<td></td>
</tr>
<tr>
<td>Manual Pushbuttons (station emergency/local station alerting)</td>
<td></td>
</tr>
<tr>
<td>Option 1</td>
<td></td>
</tr>
<tr>
<td>Option 2</td>
<td></td>
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<td>Option 3</td>
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<td>Option 4</td>
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<td>Option 5</td>
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<td>Option 6</td>
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<td>Option 7</td>
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<td>Option 8</td>
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<tr>
<td>Option 9</td>
<td></td>
</tr>
<tr>
<td>Option 10</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F

APPROVAL FOR BACKGROUND INVESTIGATION,
CRIMINAL HISTORY AND DRIVERS LICENSE CHECK

I, the undersigned, hereby authorize the DuPage County Sheriff to submit my fingerprints and other necessary identifying information to the Illinois State Police and/or the Federal Bureau of Investigation for the purpose of obtaining the release of any/all criminal history record information provided to and held by the aforementioned entities regarding me.

I, the undersigned, further authorize the DuPage County Sheriff to release of any/all criminal history record information obtained regarding me to _____________________________.

I acknowledge that the criminal history record information obtained and/or released is to be used in the interest of and in the due administration of criminal laws or for the purpose of evaluating the qualifications and character of employees, prospective employees, licensure applicants, license holders, volunteers or prospective volunteers of units of local government, school districts and private organizations.

I, the undersigned, understand that the criminal history record information obtained by the DuPage County Sheriff shall be available to me for review and that I have the right to review and correct any criminal history record information the aforementioned entities may disseminate regarding me consistent with any applicable fees and rules and upon further verification of my identity.

List **ALL** names you have ever used (including maiden name) **beginning with the most recent:**

Name: ____________________________________________________________

(Print) Last First Middle

Name: ____________________________________________________________

(Print) Last First Middle

Name: ____________________________________________________________

(Print) Last First Middle

Address: __________________________________________________________

City: __________________________ State: __________ Zip: ______________

Proposal #P16-167-RC
49 of 52
LATE PROPOSALS CANNOT BE ACCEPTED!

SEALED PROPOSAL

INVITATION #: #P16-167-RC
OPENING DATE: Tuesday, January 17, 2017

OPENING TIME: 3:30 P.M.
DESCRIPTION: Fire Station Alerting

COMPANY NAME:

DATED MATERIAL-DELIVER IMMEDIATELY

PLEASE CUT OUT AND AFFIX THIS PROPOSAL LABEL (AB OVE) TO T HE O UTERMOST ENVELOPE O F YO UR P ROPOSAL T O H ELP ENSURE PROPER DELIVERY!

LATE PROPOSALS CANNOT BE ACCEPTED!

Proposal #P16-167-RC
52 of 52
To All Prospective Proposers:

This Addendum #1 consists of the following document which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

THE MANDATORY PRE-PROPOSAL CONFERENCE WILL BE HELD ON THURSDAY, DECEMBER 15, 2016 AT 3:00PM. 421 COUNTY FARM RD. WHEATON, IL 60187 3-500 B. IF VENDORS ARE NOT ABLE TO ATTEND IN PERSON THEY MAY CALL INTO THE FOLLOWING CONFERENCE LINE. (888) -222-0475 PARTICIPANT CODE 1350747. BE SURE TO REGISTER WITH BUYER BY DECEMBER 8TH.

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. This needs to be included or the proposal will not be accepted.

Thank you for your attention in this matter.

Sincerely,
Becky Cussans
Becky Cussans
ETSB Buyer, DuPage County
EMAIL TRANSMITTAL

ADDENDUM #2- PROPOSAL #16-167-RC
DU PAGE COUNTY FIRE STATION ALERTING
To All Prospective Proposers:

This Addendum #2 consists of the following document which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

**Remove:**
Pages 1 and 2

**Replace With:**
Revised Pages 1 and 2

The RFP Opening Date will be extended to **March 16, 2017 at 3:30 pm.** in Procurement Services, Room 3-400. Please attach the new proposal label when submitting your proposal.

The deadline for all major exceptions to the proposal language, technical specification exceptions and inquiries will also be extended to **January 17, 2017 by 3:30 p.m.**

Response to inquiries will be emailed by **Wednesday, January 31, 2017.**

SEALED REQUEST FOR BID

**INVITATION #:** 16-167-RC

**OPENING DATE:** 3/16/2017

**OPENING TIME:** 3:30 P.M.

**DESCRIPTION:** DuPage County Fire Station Alerting

**COMPANY NAME:**

DATED MATERIAL-DELIVER IMMEDIATELY

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. Failure to acknowledge the any Addendum will result in rejection of proposal.

Thank you for your attention in this matter

Sincerely,

Becky Cussans
**REQUEST FOR PROPOSAL:** P16-167-RC  **PROPOSAL ISSUE DATE:** 11/22/2016

**PROPOSAL DESCRIPTION:** DuPage County Fire Station Alerting
The Emergency Telephone System Board of DuPage (ETSB of DuPage County) on behalf of and in cooperation with its 911 member agencies is requesting proposals for an IP based Fire Station Alerting System. All requirements are as per specifications enclosed herein. The selected vendor will provide and maintain the infrastructure for DuPage County.

<table>
<thead>
<tr>
<th>PROPOSAL OPENING DATE:</th>
<th>3/16/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOND REQUIRED:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Proposals must be delivered and time stamped, prior to the public proposal opening date and time, to:

1. **DU PAGE COUNTY PROCUREMENT SERVICES DIVISION**
   421 NORTH COUNTY FARM ROAD, ROOM 3-400 WHEATON, IL 60187-3978

Any communication regarding this invitation between the date of issue and date of award is required to go through the Proposal Coordinator or the Buyer listed below (or, in the Buyers absence, the Procurement Services Supervisor).

**Unauthorized contact with other DuPage County staff or officers is strictly forbidden.**

**BUYER:** Becky Cussans  **PHONE:** (630) 407-6137

**EMAIL:** Rebecca.Cussans@DuPageCo.org
**PROJECT NAME:** DU PAGE COUNTY FIRE STATION ALERTING  
**USER DEPARTMENT:** EMERGENCY TELEPHONE SYSTEM BOARD (ETSB)

<table>
<thead>
<tr>
<th>EVENT:</th>
<th>LOCATION:</th>
<th>DATE:</th>
<th>TIME:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline for Major Exceptions to Proposal Language and Specification Inquiries.</td>
<td>Must be submitted in writing to: <a href="mailto:Rebecca.Cussans@DuPageCo.Org">Rebecca.Cussans@DuPageCo.Org</a></td>
<td>1/17/2017</td>
<td>3:30</td>
</tr>
<tr>
<td>Response to Inquiries</td>
<td>Via E-mail</td>
<td>1/31/2017</td>
<td>3:30</td>
</tr>
<tr>
<td>Proposal Due</td>
<td>Procurement Services, Room 3-400</td>
<td>3/16/2016</td>
<td>3:30</td>
</tr>
</tbody>
</table>

**SUBMITTAL CHECKLIST**  
(Proposal Packet should be returned in its entirety)

- ORIGINAL PROPOSAL
- 2 COPIES AND 1 FLASH DRIVE
- PROPOSAL PRICING (INCLUDING UNIT PRICES, WHERE REQUIRED)

**Proposal Narrative must include:**
- SYSTEM OVERVIEW
- DETAILED DESCRIPTION OF ALL MAJOR COMPONENTS OF THE SYSTEM
- TRAINING DESCRIPTION
- MAINTENANCE DESCRIPTION
- WARRANTY DESCRIPTION
- TIMELINE IMPLEMENTATION PLAN
- SYSTEM TEST AND ACCEPTANCE PLAN

**ADDENDA NUMBER ACKNOWLEDGED, IF APPLICABLE**

**REFERENCES**

**BID SECURITY** See page 12 of document for details

**SUBCONTRACTORS**

- CERTIFICATION/PROPOSAL SIGNATURE AFFIDAVIT PAGE, COMPLETED, WITH SEAL (IF CORPORATION) NOTARY PUBLIC AND AUTHORIZED SIGNATURE
- JOINT PURCHASING SECTION, COMPLETED
- WARRANTY INFORMATION
- COMPLETED VENDOR ETHICS DISCLOSURE FORM (SIGNED)
- COMPLETED IRS-Form W-9

**AWARDED CONTRACTOR REQUIREMENTS**

- CERTIFICATE OF INSURANCE DUE WITHIN 15 DAYS OF NOTICE OF AWARD
- PROFORMANCE BOND DUE WITHIN 15 DAYS OF NOTICE OF AWARD
Appendix B
Cost summary for Initial Purchase

Prices should include all costs including but not limited to; delivery, installation, configuration, testing, and cutover.

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe. If cost is not listed as an option it will be assumed to be part of the base price.

<table>
<thead>
<tr>
<th>PSAP Costs (Dispatch Center)</th>
<th>Price Per Location</th>
<th>2 Locations (Capacity to handle 70 workstations)</th>
<th>Total One Time Cost</th>
</tr>
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<tbody>
<tr>
<td>PSAP Cost for Hardware</td>
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</tbody>
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<table>
<thead>
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<th>Fire Station Costs</th>
<th>Price Per Location</th>
<th>67-100 locations</th>
<th>Total One Time Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station Cost for Hardware</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Fire Station Cost for Software</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Option 1</td>
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<td>Option 2</td>
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<td>Option 3</td>
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<tr>
<td>Option 4</td>
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<tr>
<td>Total One Time Cost for Fire stations</td>
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<table>
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<th>4th Year System Refresh Cost</th>
<th>Cost Per Location</th>
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<td>Addison</td>
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<tr>
<td>DU-COMM</td>
<td></td>
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<tr>
<td>Sheriff</td>
<td></td>
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<tr>
<td>Total Cost for System Refresh</td>
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</tbody>
</table>
### Appendix C

**Cost Summary for Maintenance**

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe.

If cost is not listed as an option it will be assumed to be part of the base price. The warranty period shall be two (2) years, the maintenance portion of the contract will begin after the warranty period is expired.

<table>
<thead>
<tr>
<th><strong>PSAP Annual Maintenance Cost (After Warranty Expires)</strong></th>
<th><strong>Cost Per Location</strong></th>
<th><strong>2 Location (Capacity to handle 70 workstations)</strong></th>
<th><strong>Total PSAP Maintenance Cost</strong></th>
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<tbody>
<tr>
<td>PSAP Annual Cost for Software Maintenance</td>
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<tr>
<td>PSAP Annual Cost for Hardware Maintenance</td>
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<tr>
<td>Option 4</td>
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<tr>
<td><strong>Total PSAP Maintenance Cost for 3 years (3rd, 4th, &amp; 5th Year)</strong></td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Fire Station Annual Maintenance Cost (After Warranty Expires)</strong></th>
<th><strong>Cost Per Location</strong></th>
<th><strong>67-100 locations</strong></th>
<th><strong>Total Fire Station Maintenance Cost</strong></th>
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</thead>
<tbody>
<tr>
<td>Fire Station Annual Cost for Software Maintenance</td>
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<tr>
<td>Option 4</td>
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<td></td>
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<tr>
<td><strong>Total Fire Station Maintenance Cost for 3 Years (3rd, 4th, &amp; 5th Year)</strong></td>
<td></td>
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</table>
There are a variety of fire station components that can be connected to the Fire Station Alerting System. Each fire station installation can be unique subject to cost and any system limitations. This is a sample list of typical fire station components for consideration:

<table>
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<th>Optional Component Costs</th>
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<tr>
<td>Touch Screen Station Control Units</td>
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<tr>
<td>Remote Monitoring Units (doors, gates, etc.)</td>
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<tr>
<td>Digital Light Panels and Bars (Barber Pole)</td>
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<td>Strobe Lights</td>
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<td>Night Vision Red Lights</td>
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<td>Stairway Lighting</td>
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<tr>
<td>Indoor Speakers (with or without integrated LEDs)</td>
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<tr>
<td>Outdoor Speakers</td>
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<tr>
<td>Ambient Noise Sensors</td>
<td></td>
</tr>
<tr>
<td>Zoning Remote (selects alerting preference in an area)</td>
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<tr>
<td>Printers</td>
<td></td>
</tr>
<tr>
<td>Flat Panel Displays</td>
<td></td>
</tr>
<tr>
<td>LED Reader Boards</td>
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<tr>
<td>Turn-Out Timers</td>
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<tr>
<td>Apparatus Presence Detectors</td>
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<tr>
<td>Exterior Camera/Doorbell</td>
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<tr>
<td>Manual Pushbuttons (station emergency/local station alerting)</td>
<td></td>
</tr>
<tr>
<td>Option 1</td>
<td></td>
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<tr>
<td>Option 2</td>
<td></td>
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<tr>
<td>Option 9</td>
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<tr>
<td>Option 10</td>
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</table>
EMAIL TRANSMITTAL

ADDENDUM #4- PROPOSAL #16-167-RC
DU PAGE COUNTY FIRE STATION ALERTING

To All Prospective Proposers:

This Addendum #4 consists of the following documents which describe changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

Attached are the floor plans we were able to obtain from the fire stations. Also, Attached is an updated schedule for site visits.

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. Failure to acknowledge the any Addendum will result in rejection of proposal.

Thank you for your attention in this matter

Sincerely,

Becky Cussans
To All Prospective Proposers:

This Addendum #5 consists of the following documents which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

Remove:
Pages 45, 46

Replace With:
Revised Pages 45, 46 Delete Sheriff location for system refresh. Changed the fire station locations to 66.

Clarifications to Proposal/Addendum #4:

Performance Bond: Addendum #4 question 25 states the following:

1. Page 10 of the RFP requires that the awarded Proposer provide a Performance and Payment Bond for 100% of the contract amount. We object to these requirements as this will unnecessarily increase the cost of the Project to the County. Please consider the following:

   • The costs of Performance Bonds are exorbitant and ultimately the cost of such bonds is passed down to the County in the form of higher product and service costs. This would be the case whether USDD or another contractor is awarded the contract.

   • We are the manufacturer of the fire station alerting system that will be proposed. We are not contractors. As such it is nearly impossible for us to obtain a Performance Bond. If a Performance Bond is required, we will be forced to use a third party integrator for this Project. The County will not be able to purchase products directly from USDD as the manufacturer. Typically, using a third party integrator will increase the cost of the project by at least 25%.

We have implemented over 1,500 fire station alerting system through North America and Australia. This includes over 60 stations in the State of Illinois. Several of these projects were similar in size and scope as the County’s project. We have never been required to post a Performance Bond. We understand that under a normal construction project (such as bridge, road or building contracts) where significant development and construction is necessary to complete a project, evidence of the primary contractor’s financial condition would be of great concern. However, for this Project, all materials are part of USDD’s core business. The commercial off the shelf products are 100% available and in Stock for shipment. As a zero—debt/cash forward organization, no significant investment is required to complete this Project. We encourage the County to contract a sampling of our clients regarding their reasons not to require performance bonds in connection with their fire station alerting project. We are confident they will confirm that requiring bonding adds extra layers of complexity and costs to a project Stock for shipment. As a zero—debt/cash forward organization, no significant investment is required to complete this Project. We encourage the County to contract a sampling of
our clients regarding their reasons not to require performance bonds in connection with their fire station alerting project. We are confident they will confirm that requiring bonding adds extra layers of complexity and costs to a project.

- There are several methods to ensure compliance and performance under a contract without the need for performance bonds. This may include structuring a payment schedule so that a substantial portion of work is completed prior to payments; or provision of a proof of concept. We will be happy to discuss any alternative to ensure that the Project is done correctly, cost effectively and to the satisfaction of the County.

- Likewise, being able to obtain a Payment Bond also poses problems for us since we are not contractors. We understand the need and purpose of the Payment Bond to ensure that suppliers and subcontractors are paid in a timely manner, and workers on the project are paid the prevailing wage. However, as stated above, we are providing 100% of the products for the project. The Dispatch Level equipment and services will be performed 100% by USDD. The majority of the work will be performed remotely from our Tempe Arizona offices. Requiring a Payment Bond to ensure that we make payment to ourselves is overkill. For the Fire Station level portion of the Project, again all of the equipment and a majority of the work will be performed by us, with only the cable and equipment and installation performed by a subcontractor. Again, overkill, and increasing the cost of the Project.

For the above reasons, we request that the requirements to provide Performance and Payment Bonds be waived.

A Performance Bond is required in the amount of 100% of the core equipment contract amount (the one time cost). This is to insure a timely and acceptable completion of the agreement.

A Bid Security/Bid Bond is required for $1000 and must accompany vendor’s proposal. Bid Security checks will be returned when the contract is awarded to the successful proposer. See page 12 of the document for further details.

Replace Performance Bond language in red from Addendum #4 from above with the following:

A Performance Bond is required in the amount of 50% of the total cost of labor and installation or 50% of the core equipment, whichever is greater. Below on page 3 of Addendum #5 is a Milestone payment schedule the ETSB requests the successful proposer to adhere to. Please fill out the Milestone Payment schedule and submit with your proposal pricing.
Additions to Proposal:

Item 1. Complete and Submit with proposal

<table>
<thead>
<tr>
<th>Milestone Payment Schedule</th>
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<tbody>
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<td><strong>Milestone Deliverable</strong></td>
<td><strong>MS (%)</strong></td>
<td><strong>MS ($)</strong></td>
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<td>1. Upon contract execution ( invoiced and paid within 60 days of execution)</td>
<td>10.00%</td>
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<tr>
<td>2. Upon Hardware Delivery Phase 1</td>
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</tr>
<tr>
<td>3. Upon Hardware Delivery Phase 2</td>
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<tr>
<td>5. Upon installation of core equipment for Phase 2 DU-COMM</td>
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<td>6. Upon installation of core equipment for Phase 1 FDACDC1</td>
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<td>7. Upon installation of core equipment for Phase 1 FDACDC2</td>
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</tr>
<tr>
<td>8. Upon installation of core equipment for Phase 2 Fire North agencies</td>
<td>5.00%</td>
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<tr>
<td>9. Upon installation of core equipment for Phase 2 Fire South agencies</td>
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<tr>
<td>10. Upon installation of core equipment for Phase 2 Fire East agencies</td>
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<td>11. Upon installation of core equipment for Phase 2 Fire West agencies</td>
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<tr>
<td>12. Upon acceptance of core equipment for Phase 1 ACDC</td>
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</tr>
<tr>
<td>13. Upon acceptance of core equipment for Phase 2 DU-COMM</td>
<td>2.50%</td>
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</tr>
<tr>
<td>14. Upon acceptance of core equipment for Phase 1 FDACDC1</td>
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<tr>
<td>15. Upon acceptance of core equipment for Phase 1 FDACDC2</td>
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<tr>
<td>16. Upon acceptance of core equipment for Phase 2 Fire North agencies</td>
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<td></td>
</tr>
<tr>
<td>17. Upon acceptance of core equipment for Phase 2 Fire South agencies</td>
<td>2.50%</td>
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<td>18. Upon installation of core equipment for Phase 2 Fire East agencies</td>
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<td>19. Upon installation of core equipment for Phase 2 Fire West agencies</td>
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<tr>
<td>20. Upon completion of project 30 day reliability period Phase 1</td>
<td>5.00%</td>
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<tr>
<td>21. Upon completion of project 30 day reliability period Phase 2</td>
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<tr>
<td>22. Final project completion</td>
<td>10.00%</td>
<td></td>
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</tbody>
</table>

**Contract Amount excluding maintenance** | 100.00%

What constitutes installation, acceptance and final project completion will be negotiated in the contract language.

Bidders should provide a performance bond equal to 50% of labor and installation or 50% of core equipment, whichever is greater.

| Performance Bond Total | $ |

**Required to complete and submit with proposal**

Addendum #5
Proposal#16-167-RC
Additions to the Proposal:

Item 2.

PREVAILING WAGE:

PREVAILING WAGE:
Not less than the prevailing rate of wages as determined by the County of DuPage or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work under this contract. State Statutes regarding Prevailing Wage and the current wage rates are available online at www.state.il.us/agency/idol/rates/rates. You must retain payroll records for 5 years and make those records available for inspection by the County or the Illinois Department of Labor. You must submit monthly certification of payroll records. Certified Transcript of Payroll forms may be downloaded from the Contractors Forms page of the DuPage County Procurement Services Division website at www.dupageco.org/purchasing or you may use your own format containing the same information with pre-approval by the Purchasing Officer (submit sample with bid).

A determination by the Illinois Department of Labor of debarment for violation of the Prevailing Wage Act shall result in the Contractor being automatically deemed non-responsible for the period of debarment without further proceedings by the County.

This contract calls for the construction of a "public work," within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seq. ("the Act"). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the "prevailing rate of wages" (hourly cash wages plus the amount for fringe benefits) in the county where the work is performed. The Illinois Department of Labor publishes the prevailing wage rates on its website at: http://www.state.il.us/agency/idol/rates/rates.HTM. The Department revises the prevailing wage rates and the contractor/subcontractor has an obligation to check the Department's website for revisions to prevailing wage rates. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor's website. All contractors and subcontractors rendering services under this contract must comply with all requirements of the Act, including but not limited to, all wage requirements and notice and recordkeeping duties.

PREVAILING WAGE PRICE ADJUSTMENT:
The contractor is required to pay the current prevailing wage, which may be adjusted during the term of the contract or renewal, with no adjustment in the contract price. In the event the parties agree to renew the contracted services for additional periods, the labor prices stated in the bid may be adjusted to the then-current prevailing wage, and such adjustment shall govern the contract price during the renewal period. No adjustment will be made to the amount of mark-up.

DuPage County Prevailing Wage for June 2016

(See explanation of column headings at bottom of wages)

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<thead>
<tr>
<th>Trade Name</th>
<th>RG</th>
<th>TYP</th>
<th>C Base</th>
<th>FRMAN</th>
<th>M-F&gt;8</th>
<th>OSA</th>
<th>OSH</th>
<th>H/W</th>
<th>Pensn</th>
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<td>Hours 13-14</td>
<td>Hours 15-16</td>
<td>Hours 17-18</td>
<td>Hours 18-20</td>
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Legend:
M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday)
OSA (Overtime is required for every hour worked on Saturday)
OSH (Overtime is required for every hour worked on Sunday and Holidays)
H/W (Health & Welfare Insurance)
Pensn (Pension)
Vac (Vacation)
Additions to Proposal:

Item 3. Required Presentations and Demonstrations

ETSB is requesting a demonstration of the core system functions listed in the RFP. The presentations will take place the week of April 19 through April 23. Specific dates and time slots to be determined. There will be time prior to the demo day for set up. The presentations should highlight the main functions of the fire station alerting system in conjunction the main functions of your product. Each proposer will have 50 minutes of demonstration time. At the conclusion of the individual demonstrations, there will 1.5 hours of open demonstration time for evaluators to move between the various presenters and ask questions and review features. All presenters will be in one main auditorium room during this period. Proposers may answer questions and demonstration options during this period. Please keep in mind that the evaluators will be scoring your products based on bid specifications so time should be utilized to provide the best overview of those core elements. There will be more detailed information with specific dates and times to follow.

Question Regarding Proposal:

1.1 GENERAL QUESTIONS

1.01 QUESTIONS:

1. Are permits needed and to be pulled for all 70 facilities for low voltage cabling (speaker and indicator cabling)?

a. Can you provide permit fees associated with low voltage additions; or at minimum, provide Addresses or contact information where permits must be obtained for each facility?

Proposer s hould as sume that a per mit c ould be r equired but should i nvestigate t he requirements on their own for the proposal.

Should removal of the existing FSA be included in this RFP proposal?

Removal is not required and can be coordinated with the agencies.

2. How often does DuPage County expect to send a Fire Station Alert within a given time period over the STARCOM21 radio system? (i.e. how many per hour, daily, monthly)

The Estimate is 300 alerts per day average.

3. The answer to Question 9 of Addendum 3 states “The Sheriff’s Office language can be taken out of the proposal documentation.” This appears to conflict with Appendix B of REVISED PAGE 45 of the RFP which under “4th Year System Refresh Cost” still has a space for pricing for “Sheriff”. If there is to be any hardware installed at the Sheriff’s Office please specify what hardware is to reside there.

There is no hardware installation at the Sheriff’s Office. Please see revised Appendix B.
1.2 SYSTEM REQUIREMENT QUESTIONS

1.02 GENERAL REQUIREMENTS

1.3 (Page 20) – The FSA system must have the capacity to support at least 100 Fire Stations, 300,000 calls for service per year and 1,000 simultaneous events.

QUESTION: Can the ETSB provide examples of simultaneous events?

There are times when a large scale incident or need to notify all fire stations, (i.e. a severe weather notification, tornado touch down or terrorist type event) may cause a need to notify numerous fire stations at the same time throughout the county from the two PSAP’s that dispatch fire agencies. The number may not add up to 1,000 alerts being made at the same time, but the intent was to make sure capacity exists to allow for a high volume of alerts can be activated at the same time.

1.03 DISPATCH REQUIREMENTS

2.1 (Page 22) - System must be able to seamlessly integrate with the County’s new Intergraph Computer Aided Dispatch System (CAD) through a standard XML-based application programming interface (API) included with the FSAS.

QUESTION: Can the ETSB clarify whose responsibility it will be to coordinate with Intergraph CAD to provision the Intergraph interface to the proposed FSA solution or is it the responsibility of the proposer to contact Intergraph and negotiate the interface fees and incorporate them into the proposed pricing?

If it is the proposer’s responsibility to include the Intergraph CAD interfacing into the proposal, can you please provide contact information for your Intergraph CAD representative?

Proposer should include the pricing for their side of the interface. If proposer has questions regarding the CAD interface they may join a conference call set up on February 22, 2017 at 9:00 am with County Procurement and Intergraph. Please submit questions in writing to Becky Cussans at Rebecca.cussans@dupageco.org before February 15, 2017. The call in number is 888-222-0475 code 1350747.

1.04 AUDIO SOURCE EXAMPLES

14.1 (Page 24) – h. NOAA All-Hazards Weather Radio stations

QUESTION: Please confirm that there are only three audio inputs required and DuPage will determine which audio inputs are required. All audio inputs must be a 600 Ohm impedance.

Yes, only three audio inputs are required. If 600 OHM impedance is a system requirement, please state the same in your response.

1.05 RADIO

19.10 (Page 25) – System must offer ambient noise sensors to adjust speaker volume by speaker zone. The sensors must be able to be installed in any location in the fire station.

QUESTION: Can the ETSB describe if the intent for the ambient noise sensor will be isolated to the apparatus “Zone” or are multiple ambient noise sensors required for each zone in each fire station?

This requirement is for the vendor to offer ambient noise sensors. The RFP does not require the sensors to be provided, only that they are an option. They could be used in apparatus bays or other zones.
31.5 (Page 28) – The FSA system Vendor must provide comprehensive system documentation in electronic format, indexed and book-marked. This documentation must contain all information needed by the FSA system administrator to operate, maintain, program, configure, and troubleshoot the FSA system.

**QUESTION:** Will the ETSB provide, upon award of contract, a detailed Network diagram of the WAN as it connects to each fire station and PSAP to enable successful bidder a basis for a detailed system network diagram for final documentation purposes?

Yes, a diagram will be provided prior to final documentation but not necessarily at award.

1.06 INSTALLATION AND POWER

33.11 (Page 29) – All applicable local and County electrical codes, building codes, and permitting requirements must be followed. The Vendor is responsible for obtaining all permits.

**QUESTION:** Please clarify permits required and can you provide contact information for each location. (i.e. County-wide? And/or for each individual community?)

See question 1.1 Response. Based on the firehouse address provided, you can identify the local community having jurisdiction and call or view website to determine permitting processes.

1.07 OPTIONAL FEATURES

38.6 (Page 31) – Apparatus sensors that record apparatus movement out of the engine bays recording response times.

**QUESTION:** Can the ETSB clarify if the intent is one sensor per station that will trigger on all exit bay doors or if individual sensors are required for each individual bay doors? Floor plans and/or number of sensors per fire station must be specified for hardware and labor considerations.

There is not a requirement to provide the sensors, just to provide a price them. However, the intent is to use the sensor to record vehicle movement in order to obtain more accurate response time data. The sensor might/might not be associated with the bay doors.

38.7 (Page 31) – Relay control of:

- a. Garage/bay doors
- b. Oven/stove
- c. Outdoor grills
- d. Traffic lights
- e. Last man out button

**QUESTION:** Can the ETSB provide a list of desired controls per fire station for hardware and labor?

The list of desired controls are optional. The fire stations will decide what is needed once the prices are listed in the proposal. Proposers invited to the next round will have an opportunity to amend pricing based on the interest in the number of options.
Appendix B
Cost summary for Initial Purchase

Prices should include all costs including but not limited to; delivery, installation, configuration, testing, and cutover.

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe. If cost is not listed as an option it will be assumed to be part of the base price.

Number of PSAP workstation and fire station locations may change and can be adjusted at the time of Best and Final Offer.

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<th>Price Per Location</th>
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Revamped on 4-5-2020
**Appendix C**

**Cost Summary for Maintenance**

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe.

If cost is not listed as an option it will be assumed to be part of the base price. The warranty period shall be two (2) years, the maintenance portion of the contract will begin after the warranty period is expired.

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EMAIL TRANSMITTAL

ADDENDUM #6- PROPOSAL #16-167-RC
DU PAGE COUNTY FIRE STATION ALERTING

To All Prospective Proposers:

This Addendum #6 consists of the following document which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

Remove:
Pages 1 and 2

Replace With:
Revised Pages 1 and 2

The RFP Opening Date will be extended to June 14, 2017 at 3:30 pm. in Procurement Services, Room 3-400. Please attach the new proposal label when submitting your proposal. Inquiries will also be extended to March 31, 2017 by 3:30 p.m. Response to inquiries will be emailed by April 12, 2017.

Note: The ETSB is in the process of collecting floor plans/evacuation plans with core equipment placement for each fire station. This information will be available in the form of an addendum in approximately a week.

SEALED REQUEST FOR BID

INVITATION #: 16-167-RC
OPENING DATE: 6/14/2017
OPENING TIME: 3:30 P.M.
DESCRIPTION: DuPage County Fire Station Alerting
COMPANY NAME: 
DATED MATERIAL-DELIVER IMMEDIATELY

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. Failure to acknowledge the any Addendum will result in rejection of proposal.

Thank you for your attention in this matter

Sincerely,
Becky Cussans

PROPOSAL DESCRIPTION: DuPage County Fire Station Alerting
The Emergency Telephone System Board of DuPage
(ETSB of DuPage County) on behalf of and in
cooperation with its 911 member agencies is requesting
proposals for an IP based Fire Station Alerting System.
All requirements are as per specifications enclosed
herein. The selected vendor will provide and maintain
the infrastructure for DuPage County.

PROPOSAL OPENING DATE: 6/14/2017  PROPOSAL OPENING TIME: 3:30
SUBMIT 1 ORIGINAL PLUS 2 Copies and 1 Flash Drive  BOND REQUIRED: Yes

You are hereby invited to submit your proposal for the services to be furnished and delivered, shipped F.O.B. delivered, to the address specified herein.

A MANDATORY PRE-PROPOSAL CONFERENCE WILL BE HELD ON THURSDAY, DECEMBER 15, 2016 at 3:00PM. VENDORS WHO PLAN TO ATTEND MUST REGISTER (VIA EMAIL) WITH THE BUYER LISTED BELOW BY THURSDAY, DECEMBER 8, 2016.

The original proposal and the required number of copies must be received in a sealed envelope that has your name and address in the upper left corner and the attached label filled in and pasted on the lower left corner.

All proposals are subject to staff analysis. The ETSB of DuPage County reserves the right to accept or reject any and all proposals received and waive any and all technicalities.

Proposals must be delivered and time stamped, prior to the public
proposal opening date and time, to:

1. DU PAGE COUNTY PROCUREMENT SERVICES DIVISION 421 NORTH COUNTY FARM ROAD, ROOM 3-400 WHEATON, IL 60187-3978

Any communication regarding this invitation between the date of issue and date of award is required to go through the Proposal Coordinator or the Buyer listed below (or, in the Buyers absence, the Procurement Services Supervisor).

Unauthorized contact with other DuPage County staff or officers is strictly forbidden.

BUYER: Becky Cussans  PHONE: (630) 407-6137
EMAIL: Rebecca.Cussans@DuPageCo.org

FULL NAME OF PROPOSER

PROPOSER CONTACT PERSON

TELEPHONE NUMBER
**PROJECT NAME:** DU PAGE COUNTY FIRE STATION ALERTING  
**USER DEPARTMENT:** EMERGENCY TELEPHONE SYSTEM BOARD (ETSB)

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<td>Must be submitted in writing to: <a href="mailto:Rebecca.Cussans@DuPageCo.Org">Rebecca.Cussans@DuPageCo.Org</a></td>
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**SUBMITTAL CHECKLIST**  
(Proposal Packet should be returned in its entirety)

- **ORIGINAL PROPOSAL**
- 2 COPIES AND 1 FLASH DRIVE
- PROPOSAL PRICING (INCLUDING UNIT PRICES, WHERE REQUIRED)

**PROPOSAL NARRATIVE MUST INCLUDE:**
- SYSTEM OVERVIEW
- DETAILED DESCRIPTION OF ALL MAJOR COMPONENTS OF THE SYSTEM
- TRAINING DESCRIPTION
- MAINTENANCE DESCRIPTION
- WARRANTY DESCRIPTION
- TIMELINE IMPLEMENTATION PLAN
- SYSTEM TEST AND ACCEPTANCE PLAN

ADDENDA NUMBER ACKNOWLEDGED, IF APPLICABLE

REFERENCES

**BID SECURITY** See page 12 of document for details

SUBCONTRACTORS

CERTIFICATION/PROPOSAL SIGNATURE AFFIDAVIT PAGE, COMPLETED, WITH SEAL (IF CORPORATION) NOTARY PUBLIC AND AUTHORIZED SIGNATURE

JOINT PURCHASING SECTION, COMPLETED

WARRANTY INFORMATION

COMPLETED VENDOR ETHICS DISCLOSURE FORM (SIGNED)

COMPLETED IRS-Form W-9

**AWARDED CONTRACTOR REQUIREMENTS**

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To All Prospective Proposers:

This Addendum #7 consists of the following documents which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

ETSB is requesting mandatory demonstrations from all vendors planning to submit proposals. Presentations/Demo will take place Wednesday, April 19, 2017 at 421 N. County Farm Rd. Wheaton, IL 60187, in the Auditorium. Vendors will be able to access the room between 12:00-4:00pm on Tuesday, April 18, 2017 to set up their displays and equipment. This room will be secure and the County has 24 hour security that will be advised of your equipment in the Auditorium. Presentations and demos will both take place in the Auditorium, therefore, you will only need to set up once. Please bring your own equipment to present. Each vendor will have 50 minutes to present to a selection panel. While each company is presenting the other companies will be waiting in the cafeteria on the second floor. Following the presentation period there will be a 1.5 hour open, hands-on floor demo time period for all vendors. At this time all vendors will be in the same room similar to a convention vendor floor.

Registration is mandatory and should be completed by March 10, 2017 by e-mailing Rebecca.Cussans@dupageco.org. When registering please communicate what you need for your set-up (# of tables, power needs-how many devices you plan to plug in, do you require access to the internet, etc.). The information you provide will be given to our facilities and IT departments to ensure you have the proper electrical and internet.

The presentations should highlight the main functions of the fire station alerting system in conjunction the main functions of your product. Please keep in mind that the evaluators will be scoring your products based on bid specifications so time should be utilized to provide the best overview of those core elements.

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. Failure to acknowledge the any Addendum will result in rejection of proposal.

Thank you for your attention in this matter

Sincerely,

Becky Cussans
EMAIL TRANSMITTAL

ADDENDUM #8- PROPOSAL #16-167-RC
DU PAGE COUNTY FIRE STATION ALERTING

To All Prospective Proposers:

This Addendum #8 consists of the following documents which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

Floor plans and core equipment placement for each fire station is available on disc. The information is too large to send via e-mail, therefore a copy of the disc can be mailed by request. If you wish to receive a copy contact Rebecca.Cussans@dupageco.org or a copy can be picked up in Dupage County Finance Department 421 N County Farm Rd. Wheaton, IL 60187.

Please be sure to acknowledge receipt of this Addendum on the Proposal Form, page 34 of the Proposal document. Failure to acknowledge any Addendum will result in rejection of proposal.

Thank you for your attention in this matter

Sincerely,

Becky Cussans
EVALUATION:
The evaluation factors reflect the totality of considerations represented in the requested proposal responses. While cost is important, other factors are also significant and the ETSB of DuPage County may not select the lowest cost proposal. The objective is to choose the proposal that offers the highest quality services and will achieve the project's goals and objectives within a reasonable budget.

Upon receipt, the ETSB of DuPage County will perform an initial review to determine which proposals merit further consideration based on cost, the completeness and professionalism of the proposal, vendor experience and relative functionality provided by the proposed system. Proposals that merit further consideration will be evaluated based on the criteria listed below.

<table>
<thead>
<tr>
<th>Vendor Experience and References</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to meet the technical specifications</td>
<td>15%</td>
</tr>
<tr>
<td>System Testing &amp; Acceptance</td>
<td>5%</td>
</tr>
<tr>
<td>System Requirements (General, Dispatch, Fire Station)</td>
<td>35%</td>
</tr>
<tr>
<td>Maintenance, Vendor Support and Warranty</td>
<td>20%</td>
</tr>
<tr>
<td>Cost</td>
<td>20%</td>
</tr>
</tbody>
</table>

PRE-AWARD:
Proposer may be required to attend a pre-award meeting for clarifications, demonstrations, and presentations.

ACCEPTANCE OF PROPOSALS:
The Procurement Officer reserves the right to reject any or all Proposals or any part thereof, to waive informalities, and to accept the Proposal deemed most favorable to the ETSB of DuPage County.

EVALUATION PROCESS:
An Evaluation Committee comprised of DuPage County Finance personnel will evaluate all responsive proposals in accordance with the evaluation criteria detailed below.

LENGTH OF CONTRACT:
The contract term shall be three (3) years with optional renewals for years four (4) and five (5). Year four will require a system refresh at the headend level. The contract term commences once the service is implemented, and passes acceptance testing. In no event shall the term plus renewal exceed five (5) years. Any contract shall include mutual opt-out provisions to be negotiated in good faith between the parties.

END OF SCOPE OF SERVICES
To All Prospective Proposers:

This Addendum #10 consists of the following documents which describes changes, modifications, clarifications and/or supplemental information for the above captioned proposal.

1. Notification of replacement of Buyer contact from Rebecca Cussans to Bruce Flowers. Contact information for Bruce Flowers is: Bruce.Flowers@dupageco.org; office telephone: 630-407-6166. All other rules of procurement remain intact.

2. Replace page 32 of 52 of Proposal #16-167-RC with the attached amended page 32.

3. Schedule and floor location for Presentations/Demo on Wednesday, April, 19, 2017 at 421 N. County Farm Rd., Wheaton, IL 60187, in the Auditorium. Vendors will be able to access the room between 12:00-4:00pm on Tuesday, April 18, 2017 to set up their displays and equipment. This room will be secure and the County has 24 hour security that will be advised of your equipment in the Auditorium. Presentations and demos will both take place in the Auditorium, therefore, you will only need to set up once. Please bring your own equipment to present. Each vendor will have 50 minutes to present to a selection panel. While each company is presenting the other companies will be waiting in the cafeteria on the second floor. Following the presentation period there will be a 1.5 hour open, hands-on floor demo time period for all vendors. At this time all vendors will be in the same room similar to a convention vendor floor.

Sincerely,
Bruce Flowers
EVALUATION:
The evaluation factors reflect the totality of considerations represented in the requested proposal responses. While cost is important, other factors are also significant and the ETSB of DuPage County may not select the lowest cost proposal. The objective is to choose the proposal that offers the highest quality services and will achieve the project’s goals and objectives within a reasonable budget.

Upon receipt, the ETSB of DuPage County will perform an initial review to determine which proposals merit further consideration based on cost, the completeness and professionalism of the proposal, vendor experience and relative functionality provided by the proposed system. Proposals that merit further consideration will be evaluated based on the criteria listed below.

<table>
<thead>
<tr>
<th>Vendor Experience and References</th>
<th>5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to meet the technical specifications</td>
<td>15%</td>
</tr>
<tr>
<td>System Testing &amp; Acceptance</td>
<td>5%</td>
</tr>
<tr>
<td>System Requirements (General, Dispatch, Fire Station)</td>
<td>35%</td>
</tr>
<tr>
<td>Maintenance, Vendor Support and Warranty</td>
<td>20%</td>
</tr>
<tr>
<td>Cost</td>
<td>20%</td>
</tr>
</tbody>
</table>

PRE-AWARD:
Proposer may be required to attend a pre-award meeting for clarifications, demonstrations, and presentations.

ACCEPTANCE OF PROPOSALS:
The Procurement Officer reserves the right to reject any or all Proposals or any part thereof, to waive informalities, and to accept the Proposal deemed most favorable to the ETSB of DuPage County.

EVALUATION PROCESS:
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LENGTH OF CONTRACT:
The contract term shall be three (3) years with optional renewals for years four (4) and five (5). Year four will require a system refresh at the headend level. The contract term commences once the service is implemented, and passes acceptance testing. In no event shall the term plus renewal exceed five (5) years. Any contract shall include mutual opt-out provisions to be negotiated in good faith between the parties.

END OF SCOPE OF SERVICES
### Vendor Experience and References

5.00%  25.00%

Examples of factors to consider include: quality, relevance references; relevant operational system installations; financial stability and resources; years in the public safety software industry; and any other responses bearing on vendor experience and the resources it has to ensure a successful implementation and continued support.

### Ability to Meet Technical Specification

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
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<th>MOTOROLA</th>
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<th>Total Possible</th>
</tr>
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</tr>
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</table>

### System Testing and Acceptance

5.00%  25.00%

Examples of factors to consider include: Did the vendor meet the specifications as stated in the RFP; in some instances the vendor will be in a yes/no or pass/fail position. Is the language for the implementation

### System Requirements

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>LOCUTION</th>
<th>MOTOROLA</th>
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<td>Fire Station Requirements</td>
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<td>Fire Agency Demo Participant Evaluations</td>
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</table>

### Maintenance, Vendor Support and Warranty

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>LOCUTION</th>
<th>MOTOROLA</th>
<th>PURVIS</th>
<th>USDD</th>
<th>Total Possible</th>
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<tr>
<td>Maintenance</td>
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<tr>
<td>Vendor Support</td>
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<td>0.00</td>
<td>0.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Warranty</td>
<td>4.00%</td>
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<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
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### Cost

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Percentage</th>
<th>LOCUTION</th>
<th>MOTOROLA</th>
<th>PURVIS</th>
<th>USDD</th>
<th>Total Possible</th>
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</thead>
<tbody>
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<td>0.00</td>
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<td>0.00</td>
<td>50.00</td>
</tr>
</tbody>
</table>

### TOTAL POINTS

100%  400.00

Examples of factors to consider include: levels of support and responsiveness provided; overall approach to customer support; long-term maintenance capabilities; new software release; proposal responses that bear on the post-implementation support that the vendor will provide. Is proposed response times for maintenance sufficient for operational functionality both as

<table>
<thead>
<tr>
<th>Key</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Very strong</td>
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<td>Strong</td>
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<td>3</td>
<td>Acceptable</td>
</tr>
<tr>
<td>2</td>
<td>Some Concerns</td>
</tr>
<tr>
<td>1</td>
<td>Weak</td>
</tr>
</tbody>
</table>
FSA Vendor Presentation & Demo Discussion
Wednesday, April 19, 2017
8:00 am-2:15 pm

AUDITORIUM - 1ST FLOOR
421 N. County Farm Rd.
Wheaton, IL 60187

- Vendor setup is scheduled for **12:00pm to 4:00pm on Tuesday, April 18th** in the Auditorium.

- Attached is the Auditorium floor plan with each vendor dedicated to a certain area. Each vendor will set up their display in their assigned quadrant.

- On **Wednesday, April 19th**, each vendor will have **1 hour to present** to a selection committee. While each vendor is presenting the other vendors will wait in the cafeteria or outer hallway.

- Additionally, from **12:45pm to 2:15pm**, vendors will be at their respective corners/tables to answer additional questions from the people in attendance.

<table>
<thead>
<tr>
<th>Morning Presentation Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURVIS    8:00-9:00 am</td>
</tr>
<tr>
<td>USDD      9:10-10:10 am</td>
</tr>
<tr>
<td>LOUCTION  10:20-11:20 am</td>
</tr>
<tr>
<td>MOTOROLA  11:30-12:30 pm</td>
</tr>
<tr>
<td>Open Floor Demonstrations 12:45-2:15 pm</td>
</tr>
</tbody>
</table>

Attendees from DuPage County will include the Executive Director of ETSB and staff, Purchasing buyers, PSAP Managers, IT and Technical staff, and Fire Chief representatives.

Thank You,

**Bruce Flowers**
DuPage County Procurement
Phone: 630-407-6137
Bruce.Flowers@dupageco.org
To All Prospective Proposers:

This Addendum #11 will allow all vendors to submit additional questions to Procurement, following the presentations conducted on April 19, 2017.

Please submit any additional questions to my office BEFORE 2:30pm on APRIL 28, 2017 via email at Bruce.Flowers@DuPageco.org.

Answers to all questions and any clarifications will be returned to each vendor via email by 4:30pm on MAY 5, 2017.

Please make sure to acknowledge receipt of this Addendum #11 in submission of your proposals.

Bruce Flowers
DuPage County Buyer
630-407-6166
DuPage County
Fire Station Alerting System
Request for Proposal No. P16-167-RC

PURVIS SYSTEMS

DuPage County Procurement Services Division
421 North County Farm Road, Room 3-400
Wheaton, IL 60187-3978

PURVIS AUTHORIZED NEGOTIATOR:
Ms. Michelle Craft
Contracts Manager
Telephone: (401) 845-8401
mcraft@purvis.com

PURVIS TECHNICAL POINT OF CONTACT:
Mr. Rick Foster
Vice President, Public Safety Division
Telephone: (401) 619-2469
rfoster@purvis.com

Submitted by: PURVIS Systems • 88 Silva Lane • Middletown, RI 02842 • 401-849-4750
DuPage County
Fire Station Alerting System
Request for Proposal No. P16-167-RC

DuPage County Procurement Services Division
421 North County Farm Road, Room 3-
Wheaton, IL 60187-3978

PURVIS AUTHORIZED NEGOTIATOR
Ms. Michelle Craft
Contracts Manager
Telephone: (401) 845-8401
mcraft@purvis.com

PURVIS TECHNICAL POINT OF CONTACT:
Mr. Rick Foster
Vice President, Public Safety Division
Telephone: (401) 619-2469
rfoster@purvis.com

PURVIS SYSTEMS
Submitted by: PURVIS Systems • 88 Silva Lane • Middletown, RI 02842 • 401-849-4750
14 June 2017

DuPage County Procurement Services Division
421 North County Farm Road, Room 3-400
Wheaton, IL 60187-3978

Attention: Bruce Flowers, Buyer

Subject: Proposal in Response to DuPage County's Request for Proposal, RFP #P16-167-RC, for an IP-Based Fire Station Alerting System

PURVIS Systems Incorporated (PURVIS) submits this proposal, PURVIS Proposal No. PC2017-58, in response to DuPage County's Request for Proposal, RFP #P16-167-RC, for an IP-Based Fire Station Alerting System. One (1) original plus two (2) copies and one (1) flash drive of the proposal are provided. PURVIS proposes Integrated Management Solutions (IMS) and Communication Zone Inc. as subcontractors for this effort.

PURVIS is extremely interested in this Fire Station Alerting project and we possess the capability and expertise that are necessary for successful performance. Founded in 1973, PURVIS has been installing and maintaining mission critical systems for fire departments and other public safety organizations for more than four decades. Our Fire Station Alerting System is installed at fire departments in New York City; Charleston County, SC; Montgomery County, MD; the City of Boston; Washington D.C.; Williamson County, TX; and Harris County, TX, among others. Given our longevity of service to public safety organizations and our experience providing Fire Station Alerting Systems, PURVIS is fully qualified to meet the County's needs.

Our proposal is valid for 90 days following the RFP's submission deadline.

Please be advised that PURVIS's proposal includes the following proprietary information: our Application Programming Interface (API) document, located in the Appendix, is marked proprietary, and is exempt from public disclosure under the Illinois Freedom of Information Act Section 7(1)(g). Release of this company proprietary information would cause PURVIS competitive harm, since it would reveal insights of the PURVIS FSAS design and architecture. As required, a redacted version of this proprietary document is also provided in the Appendix.

Michelle Craft, Contracts Manager, and Stephen Massed, President, are both authorized to negotiate/make representations on PURVIS' behalf. Ms. Craft may be reached at 401-845-8401 or mcraft@purvis.com; Mr. Massed may be reached at 401-845-8423 or smassed@purvis.com. Both may also be reached at the address identified on this cover letter. The technical point of contact for this proposal is Rick Foster, Vice President, Public Safety Division, who may be reached at 401-619-2469 or rfoster@purvis.com.
PURVIS appreciates the opportunity to submit this proposal and looks forward to the possibility of working with the County to implement our Fire Station Alerting System solution.

Sincerely,
PURVIS Systems Incorporated

[Redacted]

President

cc: PC2017-58

PROPOSAL DESCRIPTION: DuPage County Fire Station Alerting System
The Emergency Telephone System Board of DuPage County (ETSB of DuPage County) on behalf of and in cooperation with its 911 member agencies is requesting proposals for an IP based Fire Station Alerting System. All requirements are as per specifications enclosed herein. The selected vendor will provide and maintain the infrastructure for DuPage County.

PROPOSAL OPENING DATE: 6/14/2017  PROPOSAL OPENING TIME: 3:30
SUBMIT 1 ORIGINAL PLUS 2 Copies and 1 Flash Drive  BOND REQUIRED: Yes

PROPOSAL RESPONSES MUST BE RECEIVED AND TIME STAMPED NO LATER THAN THE PUBLIC PROPOSAL OPENING DATE AND TIME (LOCAL TIME) SPECIFIED ABOVE. PROPOSALS WILL BE RECEIVED AT THAT TIME IN THE PROCUREMENT SERVICES DIVISION. LATE PROPOSALS WILL NOT BE CONSIDERED.

You are hereby invited to submit your proposal for the services to be furnished and delivered, shipped F.O.B. delivered, to the address specified herein.

A MANDATORY PRE-PROPOSAL CONFERENCE WILL BE HELD ON THURSDAY, DECEMBER 15, 2016 at 3:00PM. VENDORS WHO PLAN TO ATTEND MUST REGISTER (VIA EMAIL) WITH THE BUYER LISTED BELOW BY THURSDAY, DECEMBER 8, 2016.

The original proposal and the required number of copies must be received in a sealed envelope that has your name and address in the upper left corner and the attached label filled in and posted on the lower left corner.

All proposals are subject to staff analysis. The ETSB of DuPage County reserves the right to accept or reject any and all proposals received and waive any and all technicalities.

Proposals must be delivered and time stamped, prior to the public proposal opening date and time, to:

1. DU PAGE COUNTY PROCUREMENT SERVICES DIVISION 421 NORTH COUNTY FARM ROAD, ROOM 3-400 WHEATON, IL 60187-3978

Any communication regarding this invitation between the date of issue and date of award is required to go through the Proposal Coordinator or the Buyer listed below (or, in the Buyers absence, the Procurement Services Supervisor).

Unauthorized contact with other DuPage County staff or officers is strictly forbidden.

BUYER: Becky Cussans  PHONE: (630) 407-6137
EMAIL: Rebecca.Cussans@DuPageCo.org

FULL NAME OF PROPOSER  PURVIS Systems Incorporated
PROPOSER CONTACT PERSON  Ms. Michelle Craft, Contracts Manager
TELEPHONE NUMBER  401-845-8401
**PROJECT NAME:** DU PAGE COUNTY FIRE STATION ALERTING  
**USER DEPARTMENT:** EMERGENCY TELEPHONE SYSTEM BOARD (ETSB)

<table>
<thead>
<tr>
<th>EVENT</th>
<th>LOCATION</th>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deadline for Questions regarding floor plans and site visits MUST BE IN WRITING TO:</td>
<td>Must be submitted in writing to: <a href="mailto:Rebecca.Cussans@DuPageCo.Org">Rebecca.Cussans@DuPageCo.Org</a></td>
<td>3/31/17</td>
<td>3:30</td>
</tr>
<tr>
<td>Response to Inquiries</td>
<td>Via E-mail</td>
<td>4/12/2017</td>
<td>3:30</td>
</tr>
<tr>
<td>Proposal Due</td>
<td>Procurement Services, Room 3-400</td>
<td>6/14/2017</td>
<td>3:30</td>
</tr>
</tbody>
</table>

**SUBMITTAL CHECKLIST**  
(Proposal Packet should be returned in its entirety)

- [x] ORIGINAL PROPOSAL  
- [x] 2 COPIES AND 1 FLASH DRIVE  
- [x] PROPOSAL PRICING (INCLUDING UNIT PRICES, WHERE REQUIRED)

Proposal Narrative must include:
- System Overview
- Detailed description of all major components of the system
- Training Description
- Maintenance Description
- Warranty Description
- Timeline Implementation Plan
- System Test and Acceptance Plan
- Addenda number acknowledged, if applicable
- References
- Bid Security See page 12 of document for details
- Subcontractors
  - Certification/Proposal Signature Affidavit Page, completed, with seal (if corporation) notary public and authorized signature
  - Joint Purchasing Section, completed
  - Warranty Information
  - Completed Vendor Ethics Disclosure Form (signed)
  - Completed IRS-Form W-9

**AWARDED CONTRACTOR REQUIREMENTS**

- Certificate of Insurance  
  Due within 15 days of notice of award
- Performance Bond  
  Due within 15 days of notice of award
# 1.0 Table of Contents:

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2.0 Executive Summary

DuPage County, IL, seeks an automated IP-based Fire Station Alerting System as part of an effort to update, upgrade, and standardize station alerting and equipment across the County. The new system will integrate with the new Intergraph CAD system and provide automated voice for more consistent messaging and notifications within the fire stations. The system will offer state-of-the-art technology affording superior reliability, security, and situational awareness while decreasing dispatch times. It is expected that this system will be installed within 2 dispatch centers and 66 stations throughout the County.

For over 40 years, PURVIS Systems Incorporated (PURVIS) has designed, developed, and delivered reliable communication solutions for clients with strict requirements for critical system operability, reliability, and security. Our state-of-the-art Fire Station Alerting System (FSAS) solution is currently streamlining dispatch and station operations for many large-scale cities, like Washington DC, New York City, and the City of Boston, as well as several counties similar in size and scope to DuPage County, like Charleston County, SC, and Montgomery County, MD.

At PURVIS, we know a successful solution is about more than just a product by itself. Unlike our competitors, PURVIS is unique in that our primary goal is to build and maintain long-term customer partnerships. We do not simply install a system and move on to the next project. Instead, we aim to fully understand all customer requirements, tailor a solution based on both current and anticipated future needs, and then maintain a partnership. It is our belief that this ongoing relationship offers clients the best-value for a long term station alerting solution.

With that in mind, our turn-key fire station alerting solution for DuPage County includes our state-of-the-art product that meets the County’s requirements, plus:

- Our well-established project management methodology with a repeatedly proven, well-defined, phased project approach.
- A highly detailed design, installation, and implementation schedule and documentation.
- Our standards-based test and cutover program that mitigates operational risks during system implementation.
- A comprehensive training program.
- A comprehensive warranty and maintenance program.
- Dependable support from a stable company that will be here for the long term.

Given the complexity of this project, and all the different elements/agencies involved, DuPage County needs a team with proven experience and a passion for customer partnerships. Our 43-year history of continuous service to the FDNY is a testament to how passionately we believe in supporting our partnerships. Our references are very strong and we encourage DuPage County to contact each of our references, or any of our customers, to hear first-hand their high level of satisfaction with our products and services.

The PURVIS FSAS™ Solution

The diagram on the next page provides an overview of the PURVIS FSAS for DuPage County:
DUPAGE COUNTY FIRE STATION ALERTING SYSTEM (FSAS) OVERVIEW

Figure 1: DuPage County FSAS Overview
The PURVIS FSAS was designed solely for use as a station alerting system, and it meets or exceeds the system requirements identified by the DuPage County ETSB in the RFP.

The following is a list of key characteristics:

- **Customizable, Modular Design**: Allows for incremental installation without disruption. The customizable nature of the PURVIS FSAS, along with the experience of our systems engineers, will allow us to keep the existing systems in DuPage County in place, and in use, while we install and integrate your new system incrementally.

- **Fully Scalable**: The number of stations the system can support is virtually *unlimited*, and future expansion of stations or of devices within stations can be done at any time as needs arise.

- **NFPA Compliant**: The PURVIS FSAS is fully compliant with the current edition of NFPA Standards 1221, 1710 and 1500 related to fire station alerting.

- **Reduced Dispatch and Turnout Times**: Automating the alerting process and providing clear and consistent audible alerts to stations and remote personnel help to reduce both dispatch and station turnout times.

- **Non-Proprietary Hardware**: With the exception of our aluminum rack mount enclosures, the PURVIS FSAS for DuPage County is 100% comprised of non-proprietary, commercially available off-the-shelf (COTS) hardware components and devices. This provides the County with a solution that is easily enhanced as new technologies become available, and it extends the life of the system by ensuring replacement parts are easily attainable from multiple sources.

- **Proven CAD Interface**: The PURVIS FSAS can interface seamlessly with the County’s new Intergraph CAD system through the standards-based PURVIS FSAS Application Programming Interface (API). No software changes are required to be made to the PURVIS FSAS in order to interface with the Intergraph CAD system. The PURVIS FSAS interfaces with the Intergraph CAD system in Boston and in Washington, D.C.

- **Proven Radio Interface**: The PURVIS FSAS has a proven radio interface solution that is fully capable of supporting the County’s requirements. The PURVIS FSAS transmits automated alerts over the radio networks in multiple counties which are similar to DuPage County, including Charleston County, SC where our system alerts over 14 unique radio channels, Williamson County, TX where our system transmits tones and automated voice over 12 unique radio channels and Harris County, TX where our system transmits tones and automated voice over 11 different radio channels.

- **Proactive Monitoring**: The system self-monitors 24/7/365. System failures are quickly detected and audible/visual alerts are sent automatically to system users, along with e-mail and SMS text messages sent to County administrators and other staff.
DuPage County Procurement Services, Proposal P16-167-RC

Fire Station Alerting System

PURVIS Proposal No. PC2017-58
14 June 2017

- **Capable of Managing High Call-Volume**: Our proposed FSAS has demonstrated the ability to successfully manage large call volumes. In support of FDNY, our systems handle a call volume of nearly 500,000/year, and growing.

- **High Reliability**: The PURVIS FSAS solution utilizes a highly available active/active server configuration. In this configuration, two servers are deployed and both servers continually operate in an active mode, eliminating the need for manual failover actions to be taken in the unlikely event of a server failure. All alerts and FSAS communications flow through each server to provide a true level of system redundancy versus relying on a manual server failover process the way other systems require. Our live systems with our active/active server design deployed in environments similar to DuPage County have a demonstrated uptime of at least 99.99% since cutover.

- **High Security**: The PURVIS FSAS is a highly-secure system designed with considerations for physical, network and software security. Unlike other systems, the PURVIS FSAS does not restrict the use of standard security tools such as anti-virus software, logging and port scanning solutions.

- **Mobile Alerting**: The PURVIS FSAS for DuPage County includes the ability to alert remote personnel via e-mail, SMS and the PURVIS FSAS Mobile Alerting Application that runs on iOS and Android smartphone and tablet devices. With our solution, County personnel will receive incident alerts whenever and wherever they may be located.

**A Distinguished Team**

PURVIS has been in the fire station alerting industry with related equipment and accessories for 27 years and we have been selling, installing, maintaining and enhancing the PURVIS FSAS for over 10 years. We have completed PURVIS FSAS implementations throughout the Country in locations similar and size and scope to DuPage County *with zero impact to operations*, including New York City, Charleston County, SC, Montgomery County, MD, the City of Boston, and Washington D.C., among others.

**Prime Contractor**

To best serve DuPage County, PURVIS will serve as Prime Contractor for all aspects of this project. PURVIS is Prime on most of our projects, and we feel this adds tremendous benefit to our clients in that no one knows the system as well as the people who developed it. Additionally, having the system provider serve as Prime Contractor reduces numerous project risks.

**Our Partners:**

Along with the engineering and integration expertise provided by PURVIS personnel, our frequent subcontracting partner, **Integrated Management Solutions (IMS)**, will provide project management, testing and training services for this project. Formed in 1997, IMS is comprised of senior-level project and technical managers, technical experts, and support personnel who are dedicated to the implementation and lifecycle management of mission-critical systems. PURVIS and IMS have worked together for over 18 years, with IMS responsible for project management and testing services for every PURVIS FSAS implementation. The PURVIS/IMS partnership is well established and irrefutable. IMS personnel have intimate knowledge of the proposed system and what is necessary to bring about all project goals and objectives.
Communication Zone, Inc. (Comm Zone) has been providing quality design, implementation and maintenance services for communication systems in the State of Illinois since May of 2002. The founders of Comm Zone came together in 1984 to provide quality craftsmanship and fair market prices. Today, numerous, long-standing customer relationships are a testament to their reputation for superior service. Comm Zone has firsthand, relevant experience around Illinois for projects that include fire stations (including fire station alerting devices and monitoring), office buildings, City/Village municipal police buildings, retail facilities, manufacturing, warehouse, educational, medical, hospitality, and residential sites.

For the purpose of best serving DuPage County, Comm Zone will provide all cabling, installation, and onsite maintenance necessary to fully support the PURVIS FSAS. Their local presence, along with their highly relevant experience, provides a significant resource that will offer ongoing support benefits to DuPage County.

**Added Value**

While our PURVIS FSAS solution is superior, we are confident it is our overall approach to a project of this size and scope that will ultimately provide the best value for DuPage County, now and in the long run. Also, there are a few points we would like to emphasize that we feel set us apart even further from our competition.

- **Company History & Size:** We have over 40 years of experience in fire station technologies and over 25 years in fire station alerting system design, development, and deployment. With over 125 employees, and annual revenues of approximately $25 million, we also have the financial resources to effectively manage any resulting contracts and best serve DuPage County. In our 44-year history of implementing mission-critical systems in complex federal, state and local government environments, PURVIS has never failed to complete a project and PURVIS has never been involved in any litigation for breach/default of contract.

- **Technical Resources & Anticipation of Future Needs:** We take pride in our ability to anticipate future needs and emerging trends for our clients. Our FSAS Product Manager is an active Fire Chief, and our Systems Engineering Manager, the senior systems engineer for our FSAS, is a principal member of the National Fire Protection Association (NFPA) committee responsible for standards associated with fire station alerting. It is a staff like this that ensures the PURVIS FSAS solution continues to meet client needs now, and into the future.

- **Warranty, Maintenance and Support:** We have a well-established history of maintaining mission-critical systems, in comparable environments, over extended timeframes of 10-20 years and beyond. We are proud of the fact that we have met or exceeded our PURVIS FSAS contractual Service Level Agreements (SLAs) 100% of the time.

- **Commitment to Customer Service:** Our unbroken record of continuous service to the FDNY and our history of receiving referrals and repeat projects from existing customers is a testament to how passionately we believe in supporting our partnerships.
Why PURVIS is the best fit.

We are confident that PURVIS is the best choice for DuPage County because our product and our services align perfectly with your requirements and expectations. Streamlining communications and standardizing approaches across an entire county is not a small undertaking, and DuPage County needs a solution provider who will do more than install a system and move on. You need a partnership with a company that has a solid history and an unquestionable future. You need a team with proven experience on similar projects. You need a company with an emphasis on high-level customer service and satisfaction. You also need a highly flexible solution designed by engineers with the skills to provide technology and services that will meet your needs, now and well into the future.

It is our experience, our system, our approach, and our level of service that will provide the best value with the lowest risk for DuPage County. Only PURVIS has the resources, the passion for partnership and the staying power to best ensure project success and system longevity. We look forward to the opportunity to support DuPage County in achieving its goals on this important project.
3.0 Proposal Pricing

- Appendix B Cost Summary for Initial Purchase
- Appendix C Cost Summary for Maintenance
- Appendix D Training
- Appendix E Cost for Optional Fire Station Components
- Milestones
Appendix B
Cost Summary for Initial Purchase

Prices should include all costs including but not limited to; delivery, installation, configuration, testing, and cutover.

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe. If cost is not listed as an option it will be assumed to be part of the base price.

Number of PSAP workstation and fire station locations may change and can be adjusted at the time of Best and Final Offer.

<table>
<thead>
<tr>
<th>PSAP Costs (Dispatch Center)</th>
<th>Price Per Location</th>
<th>2 Locations (Capacity to handle 70 workstations)</th>
<th>Total One Time Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAP Cost for Hardware</td>
<td>14,225.00</td>
<td>28,450.00</td>
<td>28,450.00</td>
</tr>
<tr>
<td>PSAP Cost for Software</td>
<td>25,445.00</td>
<td>50,890.00</td>
<td>50,890.00</td>
</tr>
<tr>
<td>Project Management</td>
<td>5,927.56</td>
<td>11,855.12</td>
<td>11,855.12</td>
</tr>
<tr>
<td>Installation</td>
<td>3,833.27</td>
<td>7,666.55</td>
<td>7,666.55</td>
</tr>
<tr>
<td>Integration, Test and Cutover</td>
<td>17,479.65</td>
<td>34,959.30</td>
<td>34,959.30</td>
</tr>
<tr>
<td>Configuration</td>
<td>22,222.30</td>
<td>44,444.60</td>
<td>44,444.60</td>
</tr>
<tr>
<td>Performance Bond</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shipping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total One Time Cost for PSAPs</strong></td>
<td></td>
<td></td>
<td>$190,525.64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Station Costs</th>
<th>Price Per Location</th>
<th>66 Locations</th>
<th>Total One Time Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station Cost for Hardware</td>
<td>27,301.83</td>
<td>1,801,920.83</td>
<td>1,801,920.83</td>
</tr>
<tr>
<td>Fire Station Cost for Software</td>
<td>1,710.00</td>
<td>112,860.00</td>
<td>112,860.00</td>
</tr>
<tr>
<td>Test System Hardware</td>
<td>38,870.83</td>
<td>38,870.83</td>
<td>38,870.83</td>
</tr>
<tr>
<td>Test System Software</td>
<td>10,355.00</td>
<td>10,355.00</td>
<td>10,355.00</td>
</tr>
<tr>
<td>Project Management</td>
<td>1,616.61</td>
<td>106,696.05</td>
<td>106,696.05</td>
</tr>
<tr>
<td>Installation</td>
<td>12,377.91</td>
<td>816,942.45</td>
<td>816,942.45</td>
</tr>
<tr>
<td>Integration, Test, and Cutover</td>
<td>1,235.93</td>
<td>81,571.70</td>
<td>81,571.70</td>
</tr>
<tr>
<td>Project Discount</td>
<td>(1,022.73)</td>
<td>(67,500.00)</td>
<td>(67,500.00)</td>
</tr>
<tr>
<td>Shipping</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total One Time Cost for Fire stations</strong></td>
<td>$92,333.34</td>
<td>$2,901,716.87</td>
<td></td>
</tr>
</tbody>
</table>
PURVIS recommends purchasing a swing system consisting of a server, DM Console and an RIU for use in the new facility. This approach allows the ability to fully build out and test the new facility prior to cutover to live operations and allows full parallel operations with both old and new facilities in the first weeks after cutover to live operations in the new facility. We have used this approach to great success in New York City during the build out, testing and cutover of the City's PSAC 1 and PSAC 2 with zero disruption to live dispatch operations.

<table>
<thead>
<tr>
<th>4th Year System Refresh Cost</th>
<th>Cost Per Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>16,065.95</td>
</tr>
<tr>
<td>DU-COMM</td>
<td>16,065.95</td>
</tr>
<tr>
<td><strong>Total Cost for System Refresh</strong></td>
<td><strong>$32,131.80</strong></td>
</tr>
</tbody>
</table>

Price is subject to change based on hardware and operating system cost at time of purchase. Provide new server and database engine, re-use Nuance license, include labor to install new, remove old.
Appendix C

Cost Summary for Maintenance

Use the spreadsheet provided, if there are additional costs use the option lines provided and describe.
If cost is not listed as an option it will be assumed to be part of the base price. The warranty period shall be two (2) years, the maintenance portion of the contract will begin after the warranty period is expired.

<table>
<thead>
<tr>
<th>PSAP Annual Maintenance Cost (After Warranty Expires)</th>
<th>Cost Per Location</th>
<th>2 Location (Capacity to handle 70 workstations)</th>
<th>Total PSAP Maintenance Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSAP Annual Cost for Software Maintenance</td>
<td>5,223.75</td>
<td>10,467.50</td>
<td>10,467.50</td>
</tr>
<tr>
<td>PSAP Annual Cost for Hardware Maintenance</td>
<td>640.13</td>
<td>1,280.26</td>
<td>1,280.26</td>
</tr>
<tr>
<td>PSAP Annual Text to Speech Software Maintenance</td>
<td>162.75</td>
<td>325.50</td>
<td>325.50</td>
</tr>
</tbody>
</table>

Total PSAP Maintenance Cost for 3 years (3rd, 4th, & 5th Year) $6,036.63 $12,073.26 $36,219.78

<table>
<thead>
<tr>
<th>Fire Station Annual Maintenance Cost (After Warranty)</th>
<th>Cost Per Location</th>
<th>Locations 66</th>
<th>Total Fire Station Maintenance Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Station Annual Cost for Software Maintenance</td>
<td>1,001.82</td>
<td>66,120.12</td>
<td>66,120.12</td>
</tr>
<tr>
<td>Fire Station Annual Cost for Hardware Maintenance</td>
<td>1,255.09</td>
<td>82,835.94</td>
<td>82,835.94</td>
</tr>
<tr>
<td>Fire Station Annual Text to Speech Software Maintenance</td>
<td>162.75</td>
<td>10,741.50</td>
<td>10,741.50</td>
</tr>
</tbody>
</table>

Total Fire Station Maintenance Cost for 3 Years (3rd, 4th, & 5th) $2,419.66 $159,697.56 $479,092.68
## Appendix D
### Training

Proposers shall provide two training options for training the dispatch centers. (1) The cost to train each dispatcher, or (2) the cost for train the trainer. ETSB will choose which option they prefer.

Proposers shall provide a training cost for Train the Trainer for the Fire Stations.

<table>
<thead>
<tr>
<th>PSAP Training Cost (Dispatch Center)</th>
<th>Price Per Person</th>
<th>145 People</th>
<th>Total Training Cost for all dispatchers</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site Dispatcher Training</td>
<td>$45.00</td>
<td>$6,525.00</td>
<td>$6,525.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PSAP Training Cost (Dispatch Center)</th>
<th>Price per Person</th>
<th>12 People</th>
<th>Total Training Cost for Train the Trainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site Train-the-Trainer Dispatcher Course</td>
<td>$45.00</td>
<td>$540.00</td>
<td>$540.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fire Station Training Cost</th>
<th>Price Per Person</th>
<th>50 People</th>
<th>Total Training Cost for Train the Trainer</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site Train-the-Trainer Station Course</td>
<td>$45.00</td>
<td>$2,250.00</td>
<td>$2,250.00</td>
</tr>
</tbody>
</table>
Cost for Optional Fire Station Components

There are a variety of fire station components that can be connected to the Fire Station Alerting System. Each fire station installation can be unique subject to cost and any system limitations. This is a sample list of typical fire station components for consideration:

<table>
<thead>
<tr>
<th>Optional Component Costs</th>
<th>Cost per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Control Units</td>
<td>$17,000.00</td>
</tr>
<tr>
<td>Remote Touch Screen for Station Control Unit 17&quot;</td>
<td>$400.00</td>
</tr>
<tr>
<td>Remote Monitoring Units (doors, gates, etc.) Relay Expansion 8 relays,</td>
<td>$2,460.00 Quantity discounts available</td>
</tr>
<tr>
<td>Digital Light Panels and Bars (Barber Pole)</td>
<td>$450.00</td>
</tr>
<tr>
<td>Strobe Lights</td>
<td>$80.00</td>
</tr>
<tr>
<td>Night Vision Red Lights</td>
<td>$80.00</td>
</tr>
<tr>
<td>Stairway Lighting</td>
<td>$80.00</td>
</tr>
<tr>
<td>Indoor Speakers (70v)</td>
<td>$60.00</td>
</tr>
<tr>
<td>Indoor Speakers (with integrated red lights)</td>
<td>$270.00</td>
</tr>
<tr>
<td>Indoor Speakers (with integrated red and white lights)</td>
<td>$285.00</td>
</tr>
<tr>
<td>Outdoor Speakers 15W (70v)</td>
<td>$160.00</td>
</tr>
<tr>
<td>Ambient Noise Sensors</td>
<td>$345.00</td>
</tr>
<tr>
<td>Zoning Remote (selects alerting preference in an area)</td>
<td>$80.00</td>
</tr>
<tr>
<td>Dorm Remote Gateway (DRG) 2 port (required when using zoning remote)</td>
<td>$385.00</td>
</tr>
<tr>
<td>Dorm Remote Gateway (DRG) 4 port (required when using zoning remote)</td>
<td>$705.00</td>
</tr>
<tr>
<td>Dorm Remote Gateway (DRG) 8 port (required when using zoning remote)</td>
<td>$1,410.00</td>
</tr>
<tr>
<td>Dorm Remote Gateway (DRG) 16 port (required when using zoning remote)</td>
<td>$1,935.00</td>
</tr>
<tr>
<td>Dorm Remote Gateway (DRG) 32 port (required when using zoning remote)</td>
<td>$2,920.00</td>
</tr>
<tr>
<td>Printers</td>
<td>$695.00</td>
</tr>
<tr>
<td>Flat Panel Displays 42&quot;</td>
<td>$815.00</td>
</tr>
<tr>
<td>LED Reader Boards 24&quot; one line</td>
<td>$341.00</td>
</tr>
<tr>
<td>Turn-Out Timers</td>
<td>$341.00</td>
</tr>
<tr>
<td>Apparatus Presence Detectors</td>
<td>$800.00</td>
</tr>
<tr>
<td>Exterior Camera/Doorbell</td>
<td>$1,530.00</td>
</tr>
<tr>
<td>Manual Pushbuttons (station emergency/local station alerting)</td>
<td>$45.00</td>
</tr>
<tr>
<td>Optional Component Costs</td>
<td>Cost per Unit</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Option 4</td>
<td></td>
</tr>
<tr>
<td>Option 5</td>
<td></td>
</tr>
<tr>
<td>Option 6</td>
<td></td>
</tr>
<tr>
<td>Option 7</td>
<td></td>
</tr>
<tr>
<td>Option 8</td>
<td></td>
</tr>
<tr>
<td>Option 9</td>
<td></td>
</tr>
<tr>
<td>Option 10</td>
<td></td>
</tr>
</tbody>
</table>
### Milestone Payment Schedule

<table>
<thead>
<tr>
<th>MS (#)</th>
<th>Milestone Deliverable</th>
<th>MS (%)</th>
<th>MS ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Upon contract execution (invoiced and paid within 60 days of execution)</td>
<td>10.00%</td>
<td>309,503.25</td>
</tr>
<tr>
<td>2</td>
<td>Upon Hardware Delivery Phase 1</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>3</td>
<td>Upon Hardware Delivery Phase 2</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>4</td>
<td>Upon installation of core equipment for Phase 1 ACDC</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>5</td>
<td>Upon installation of core equipment for Phase 2 DU-COMM</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>6</td>
<td>Upon installation of core equipment for Phase 1 FDACDC1</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>7</td>
<td>Upon installation of core equipment for Phase 1 FDACDC2</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>8</td>
<td>Upon installation of core equipment for Phase 2 Fire North agencies</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>9</td>
<td>Upon installation of core equipment for Phase 2 Fire South agencies</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>10</td>
<td>Upon installation of core equipment for Phase 2 Fire East agencies</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>11</td>
<td>Upon installation of core equipment for Phase 2 Fire West agencies</td>
<td>5.00%</td>
<td>154,751.63</td>
</tr>
<tr>
<td>12</td>
<td>Upon acceptance of core equipment for Phase 1 ACDC</td>
<td>2.50%</td>
<td>77,375.81</td>
</tr>
<tr>
<td>13</td>
<td>Upon acceptance of core equipment for Phase 2 DU-COMM</td>
<td>2.50%</td>
<td>77,375.81</td>
</tr>
<tr>
<td>14</td>
<td>Upon acceptance of core equipment for Phase 1 FDACDC1</td>
<td>2.50%</td>
<td>77,375.81</td>
</tr>
<tr>
<td>15</td>
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<td>77,375.81</td>
</tr>
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<td>Upon acceptance of core equipment for Phase 2 Fire North agencies</td>
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</tr>
<tr>
<td>17</td>
<td>Upon acceptance of core equipment for Phase 2 Fire South agencies</td>
<td>2.50%</td>
<td>77,375.81</td>
</tr>
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<td>18</td>
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<td>77,375.81</td>
</tr>
<tr>
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<td>Upon installation of core equipment for Phase 2 Fire West agencies</td>
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<tr>
<td>20</td>
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</tr>
<tr>
<td>21</td>
<td>Upon completion of project 30 day reliability period Phase 2</td>
<td>5.00%</td>
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<tr>
<td>22</td>
<td>Final project completion</td>
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<td>309,503.25</td>
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</table>

**Contract Amount excluding maintenance**: 100.00% $3,095,032.51
4.0 Proposal Narrative

Our turnkey fire station alerting solution for DuPage County includes our PURVIS Fire Station Alerting System product, plus:

- Our well-established project management methodology with a proven and well-defined phased project approach
- A comprehensive training program
- A comprehensive warranty and maintenance program
- A successful standards-based testing and cutover program that mitigates operational risks during system implementation
- Ongoing, dependable support with a stable company that will be here for the long term.

4.1 System Overview

The PURVIS Fire Station Alerting System (FSAS) is a state-of-the-art, IP-based system that fully automates the flow of incident data between the dispatch center and the fire stations, apparatus and fire personnel within the County. The PURVIS FSAS is designed specifically for use as a fire station alerting system and its primary purpose is to:

- Reduce response times and first responder stress
- Offer highly reliable, automated fire and EMS alerting to fire stations and remote personnel
- Streamline operating procedures and enhance communications
- Provide immediate and consistent access to CAD data

The PURVIS FSAS is fully compliant with existing National Fire Protection Association (NFPA) 1221, 1710, and 1500 standards related to fire station alerting. Our delivered solution to DuPage County meets the RFP requirements and it can be easily expanded to meet emerging and future needs.

The PURVIS FSAS is differentiated in the market because of key architectural elements of the system that were purpose-built for performance, system flexibility, scalability, and long-term cost efficiency. These elements include:

1. **Industry-standard hardware and devices.** With the exception of the aluminum rack mount enclosures used for the PURVIS FSAS Station Control Units, Radio Interface Units, and Audio Relay Expansion Modules, the delivered PURVIS FSAS for DuPage County is 100% comprised of commercially available off-the-shelf (COTS) hardware components and devices. By running PURVIS applications on standard off-the-shelf hardware, components and devices, DuPage County gains long-term system viability and avoids ‘lock-in’ to a single vendor. Moreover, exact replacement parts are readily available and similar parts that are equal to or better than the original parts can be utilized.

2. **Windows Operating System (OS).** Thanks to its enormous market share, Windows is a household name. In our experience, most people can identify it, work with it, and easily support software that runs on it. The PURVIS FSAS runs on a Windows platform and we have been delivering and maintaining highly reliable and secure mission critical Windows-based systems and applications for more than 15 years. Since most, if not all, major modern computer aided
dispatch (CAD) systems, including the Intergraph CAD, utilize a Windows-based platform, development environments and interface protocols are more compatible, thus reducing integration complexity and risk. Also by using a Windows platform we can easily integrate with a wide variety of devices and off-the-shelf software products that allow for ease of expandability.

The PURVIS FSAS Software utilizes the following operating systems:

- **Microsoft Windows 2012 r2**: Each Central Server runs one instance of Microsoft Windows Server 2012 r2
- **Microsoft SQL Server 2012**: Each Central Server runs one instance of Microsoft SQL Server 2012
- **Microsoft Windows 10**: Each Dispatch Management Console runs one instance of Microsoft Windows 10.
- **Microsoft Windows 10**: Each Station Control Unit runs one instance of Microsoft Windows 10.

All operating system licenses required for the proposed system in DuPage County are included the price of our system. Our proposal assumes that after PURVIS FSAS is installed and cutover, any required Windows updates will be performed by the County.

3. **Highly configurable hardware and software architecture.** We recognize there is no such thing as one size fits all when it comes to a Fire Station Alerting System, and for this project, we have carefully assessed the County’s needs and logistics in order to design the best possible solution. Our use of a flexible and modular hardware and software platform will allow us to configure the delivered system to meet DuPage County’s specifications.

4. **Redundant Server Architecture with High Performance Reliability:** The PURVIS FSAS was developed to operate in the 24x7x365 mission critical environment of busy fire departments. Each of our live systems deployed with an active/active server topology - identical to the server topology we’ve proposed for DuPage County - has a demonstrated uptime of at least 99.99%.

5. **Secure Design:** The PURVIS FSAS is a highly secure system designed with considerations for physical, network and software security. Unlike other systems, the PURVIS FSAS does not restrict the use of standard security tools such as anti-virus software, logging and port scanning solutions. Only authorized users on the dedicated DuPage County network, or those with authorized VPN connections to the network can manually dispatch, configure, gather reports, and monitor the system. Additionally, to prevent and detect a false/bad alert, the PURVIS FSAS utilizes a compression/decompression algorithm to generate and verify dispatch alerts and the system performs cyclic redundancy checks (CRCs) on all system alerts. An outside entity could not generate a false alert into the PURVIS FSAS without having access to the DuPage County network, possess the appropriate credentials to access the PURVIS FSAS, and know PURVIS’ proprietary CRC-generation and compression / decompression algorithms.

Figures 2, 3 and 4 below provide diagrams of the proposed PURVIS FSAS architecture. The diagrams include an overall representation of the system as well as the system components and their interface points for the production system at the dispatch centers and the fire stations.
DUPAGE COUNTY FIRE STATION ALERTING SYSTEM (FSAS) OVERVIEW

Figure 2: DuPage County FSAS Overview

Section 4: Proposal Narrative
DUPAGE COUNTY FIRE STATION ALERTING SYSTEM (FSAS) PSAP OVERVIEW

Representative of ACDC and DU-COMM. 1 of Each FSAS Device also located in Test Location.

[Diagram of DUPAGE COUNTY FIRE STATION ALERTING SYSTEM (FSAS) PSAP OVERVIEW]

PSAP Network With Routing to County's WAN

Figure 3: DuPage FSAS PSAP Overview

Section 4: Proposal Narrative
DUPAGE COUNTY FIRE STATION ALERTING SYSTEM (FSAS) STATION OVERVIEW

Representative of all 66 Fire Stations. 1 of each FSAS device also located in Test Location.

Figure 4: DuPage County FSAS Station Overview
4.2 Detailed Description of All Major System Components

The PURVIS Fire Station Alerting System is a state-of-the-art product that fully automates the flow of incident data between the dispatch center and the fire stations. All products associated with the PURVIS FSAS are new, unused, and reflect the most current product lines.

The table below identifies the primary components and modules of the PURVIS FSAS that will be installed in DuPage County. A description of each item follows the table:

<table>
<thead>
<tr>
<th>Dispatch Components</th>
<th>Fire Station Components</th>
<th>Mobile Alerting</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Central Server</td>
<td>• Station Control Unit (SCU)</td>
<td>• Mobile App</td>
</tr>
<tr>
<td>• CAD Interface</td>
<td>• SCU Remote Touch Screen</td>
<td>• E-mail</td>
</tr>
<tr>
<td>• Dispatch Management (DM) Console</td>
<td>• Audio Relay Expansion Module (ARXM)</td>
<td>• SMS</td>
</tr>
<tr>
<td>• PURVIS FSAS Portal</td>
<td>• Flat Panel 42&quot; 1080p LED Display</td>
<td></td>
</tr>
<tr>
<td>• Radio Interface Unit (6 Channel)</td>
<td>• Turnout Timer</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• LED Reader Board</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Red Strobe Light</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Manual Acknowledgement Push Button</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• System Test Push Button</td>
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</tr>
<tr>
<td></td>
<td>• Network Switch</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Radio Cabinet</td>
<td></td>
</tr>
</tbody>
</table>

4.2.1 Dispatch Components

The paragraphs below describe the types and quantities of PURVIS FSAS software and hardware that will be installed as part of the production system in the DUCOMM and ACDC dispatch centers. One of each of these hardware/software items will also be installed in the independent testing environment in one fire station selected by the County.

- **Central Server**: The core of the PURVIS FSAS is the Central Server. The Central Server is a rack mounted Dell Power Edge R330 Server with dual power supplies. The PURVIS FSAS Central Server maintains a central repository of all configuration and connection information.

  During operation, the PURVIS FSAS Central Server processes CAD data transmitted by the CAD Interfaces and provides dispatch data to the fire stations involved in the incident.

  All fire stations required for a specific event are alerted simultaneously. The PURVIS FSAS Central Server will simultaneously transmit the alert data to the required fire station(s) via the County’s IP network. The PURVIS FSAS Station Control Unit in each alerted fire station will translate the text to speech locally and then broadcast the audio over the station speakers. This design significantly reduces the size of data files transmitted over the network and also provides redundancy in the text-to-speech translations. The server application also delivers an automated text-to-speech announcement to the Radio Control Units for an audible broadcast over the County’s radio network.
A key feature of the PURVIS FSAS is the redundant and highly available active/active Central Server architecture designed to provide the maximum up time to ensure stable and "always available" communication. The delivered system includes two (2) PURVIS FSAS Central Servers - one (1) in DUCOMM and one (1) in ACDC. Both servers will be operational and live at all times. Each server operates in an active mode and continuously monitors system health and status information through active connections and communications with the other server, the PURVIS FSAS DM Consoles, the CAD systems, and the fire stations. All alerts and FSAS communications will flow through each Central Server to provide a true level of system redundancy. In a normal operating mode, each dispatched fire station will receive duplicate FSAS alerts over the primary and backup IP alerting paths. The PURVIS FSAS SCU will act on the first alert received. This ensures the fastest possible station alert. The system has logic built in to ensure that only one alert is announced within the station. In the unlikely event of a server failure, this design ensures no delay or loss in alerting communications.

If any system faults or failures are detected by the server application, failure notices are immediately sent to the DM Consoles and each affected fire station. Additionally, the server application automatically generates and transmits failure notice e-mails and optional SMS text messages to designated County personnel and the PURVIS maintenance team.

For additional redundancy of the system, two (2) additional servers, one (1) additional at DUCOMM and one (1) additional at ACDC, can easily be added to the system at any time as an option.

- **CAD Interface:** The PURVIS FSAS will seamlessly interface with DuPage County’s new Intergraph CAD system through the standards-based PURVIS FSAS Application Programming Interface (API). The CAD Interface fully automates the flow of incident data from the Intergraph CAD to the fire station without the need for human intervention. Our proposal includes the PURVIS FSAS API but assumes that DuPage County is responsible for providing the Intergraph side of the CAD interface to the PURVIS FSAS.

The PURVIS FSAS in Boston and Washington DC reliably interfaces with the Intergraph CAD system through the PURVIS FSAS API. The Intergraph interface in DC has been live and operational for 4.5 years and the Intergraph interface in Boston has been live and operational for more than 2.5 years. **With PURVIS, DuPage County mitigates risk associated with interfacing its new Intergraph CAD system with a new fire station alerting system because the PURVIS FSAS has a proven and reliable interface to the Intergraph CAD system in environments with similar volume and operational requirements as DuPage County.** PURVIS also has experience working with Intergraph in New York City, having developed an interface between the FDNY’s Starfire CAD system and the Intergraph CAD used by the NYPD.

The PURVIS FSAS API resides on each PURVIS FSAS Central Server and enables a seamless gateway for alert messaging transfer from the Intergraph CAD system to the stations and vice versa. **With this interface implemented, no additional dispatch steps will be required outside of the County’s Intergraph CAD system to alert responders.** Additionally, no software changes are required to be made to the PURVIS FSAS in order to interface with the County’s Intergraph CAD system.
The following list identifies the key PURVIS FSAS CAD interface bi-direction data handling capabilities:

- **Incident Data** - Information about the specific incident, including: time stamps; incident identifier; incident type; incident code; address; cross street; location coordinates; description; tactical radio channel; zone; etc.
- **Unit Data** - Information about unit status; including: unit identifier; unit type; location; status; and relocation or move-up information.
- **Messages** - Information about messages including: time; subject; message; and priority.
- **Equipment Status** - Information about FSAS components and devices including: time; source; destination; equipment type; equipment description; status; severity; error code; and error description.
- **System Events** - Information about FSAS system events, including: time; station; event type; sub-type; description; and value

- **Dispatch Management (DM) Console**: The PURVIS FSAS Dispatch Management (DM) Console is a Lenovo (or similar) all-in-one 23" LED desktop computer that hosts the DM Console software, a permissions-based application that provides the County user the ability to manage, control, test, monitor, and configure the PURVIS FSAS. The graphical user interface (GUI) of the PURVIS FSAS DM Console software is designed to be easy to use and manage. The large buttons and high contrast screens are designed to provide quick access to critical features in the PURVIS FSAS. Many of the system features and critical information can be viewed from a single screen.

Figure 5 on the next page, shows the graphical user interface for the PURVIS FSAS DM Console. Shown on the screen is the manual dispatch home screen.
Figure 5: DM Console Graphical User Interface
The PURVIS FSAS DM Console is a secure, password-protected application that includes a system administration utility for system configuration, monitoring, and reporting. Access to the DM Console application is based on role types, such as Dispatcher, Administrator, etc. The role types are configurable and are defined by the County.

The DM Console user interface is organized by a series of Tabs at the top of the screen. Tabs include:

- **Dispatch Tab**: Users can generate and send manual dispatch and general announcement messages, access individual station details (such as on-line and offline status of components and devices), and receive automated system trouble alerts, such as network or component failure notices.

- **Status Tab**: Users have the ability to access and monitor the health and status of the system, including the status of servers, network connections, station control units, etc.

- **Reporting Tab**: Users can access historical status reports and event logs on events that have occurred in the system. Additionally, the PURVIS FSAS allows DuPage County to use third-party reporting tools such as Crystal Reports and Pentaho to generate custom queries and reports against the FSAS SQL table data.

- **Configuration Tab**: Users have access to the PURVIS FSAS Portal where they have the ability to initiate software updates and modify system configuration settings, such as text-to-speech pronunciations, audio tones, units, event codes, etc.

Access to each Tab can be restricted based on the user's login role type. For instance, a Dispatcher may be granted access to the Dispatch and Status Tabs but restricted from accessing the Reporting and Configuration tabs. A system Administrator may have access to all Tabs in the system. Roles and associated access are defined by the County.

The delivered system in DuPage County includes two (2) Dispatch Management Consoles – one in the ACDC and one in DU-COMM. Optionally, additional DM Consoles and/or DM Console software licenses can be added to the system at any time. The DM Console software can run on any Windows-based computer that meets the minimum hardware requirements of the software. PURVIS will provide these minimum requirements to the County upon request.

- **PURVIS FSAS Portal**: Manual alerting and system administration can be performed through the secure, browser-based PURVIS FSAS Portal. The Portal can be accessed by users with appropriate login credentials from any computer with an Internet browser (Internet Explorer, Chrome, and FireFox) and network connectivity to the PURVIS FSAS Central Servers on the County network. The Portal can also be accessed from the PURVIS FSAS DM Console. The PURVIS FSAS Portal is included with the delivered PURVIS FSAS Central Server software licenses. The Portal will be concurrently accessible at the two (2) delivered PURVIS FSAS Dispatch Management Consoles as well as the County-supplied PC screens at the 30 County dispatch positions.

Figure 6, on the next page, shows an example of the user interface for the FSAS Portal. Shown on the screen in the station enable/disable configuration screen:
The PURVIS FSAS Portal is password-protected and it supports the County's requirement for 10 uniquely identified roles for system administration, including the following roles:

- Super Administrator (ETSB)
- Administrator (ETSB)
- Administrative Staff (ETSB)
- PSAP Administrator (only their agencies)
- PSAP Staff
- Fire Agency Administrator (only their stations)
- Fire Agency Staff
- Fire Station Administrator (only one station)

**Radio Interface Unit:** The delivered PURVIS FSAS includes two (2) Radio Interface Units (RIU) that will broadcast automated voice alerts over the County’s radio networks. One will be installed at each PSAP. With two RIUs deployed, failover operations occur automatically within the PURVIS FSAS, resulting in no loss of service should a failure occur with one or more of the County’s radios or with one of the delivered PURVIS FSAS RIUs.

The FSAS will automatically determine which talk group(s) or channel(s) should be alerted based on pre-defined incident criteria specified by the County and configured by PURVIS on the PURVIS FSAS Central Servers.

The PURVIS FSAS RIU is rack-mountable device that connects the PURVIS FSAS Central Server with the radio system. The RIU can connect to VHF, UHF, 700MHz, 800MHz, and P25.
radio systems. Each RIU is in a 3U rack mounted enclosure and can support up to six radio channels/talkgroups.

The PURVIS FSAS will interface with the radio system through a County supplied dedicated radio for each channel or talk group that the system will alert over. The RIU must be installed within 25 feet of the radio that it connects with. The radio must have an auxiliary microphone input, an auxiliary speaker output, and an auxiliary PTT input that supports dry contact closure. For the PURVIS FSAS to detect that the radio channel/talk group is busy, the radio must have a dry contact closure output which indicates the radio is busy. We prefer radios that also have a separate dry contact closure that provides confirmation to the PURVIS FSAS that the FSAS has control of the channel/talk group when transmitting.

Optionally, additional RIUs and radios can be added to the delivered system to broadcast alerts over additional channels or talk groups on the County’s radio networks. Unlike some other systems that can only support a small handful of radio channels or talk groups, the PURVIS FSAS can broadcast alerts over at least three dozen unique radio channels or talk groups. The PURVIS FSAS in Charleston County, SC is interfaced with Motorola APX7500 and XTL5000 Consolette radios to transmit automated voice announcements over 14 unique radio channels on the County’s Motorola P25 network. The PURVIS FSAS in Williamson County, TX is interfaced with Motorola APX7500 Consolette radios to transmit automated voice over 12 unique radio channels on the County’s P25 radio network and automated tones and voice over the County’s VHF network. The PURVIS FSAS in Harris County, TX is broadcasting tone alerts followed by automated voice announcements over 11 different radio channels on the County’s radio system. The PURVIS FSAS in Boston, MA is interfaced with a Motorola Conventional Channel Gateway (CCGW) to transmit automated voice announcements over 10 unique radio channels/talkgroups.

4.2.2 Fire Station Components

The paragraphs below describe the types and quantities of PURVIS FSAS software and hardware that will be installed as part of the production system in the DuPage County fire stations. One of each of these hardware/software items will also be installed in the independent testing environment in one fire station selected by the County.

- **Station Control Unit (SCU):** The PURVIS FSAS SCU is installed in each fire station in a PURVIS-supplied radio cabinet and is responsible for receiving the incidents (or alerts) and then activating/updating all of the appropriate station electronics. Additionally, the PURVIS FSAS SCU is responsible for playing tones and messages over the station speakers.

The PURVIS FSAS SCU in each DuPage County fire station will seamlessly interface with the County’s existing PA system via an audio cable, which will be connected to an audio output on the PURVIS FSAS SCU. The PURVIS FSAS SCU supports Balanced or Unbalanced Line Level, 25V, 70V, and 100V PA systems. The PURVIS FSAS will also connect to the County-supplied radio in each station via a standard analog output on the radio connected to an audio input on the SCU. The radio must be located within 25 feet of the SCU. The PURVIS-supplied radio cabinet in each fire station has 10U of space available for the County to install the radio and a UPS in the cabinet.
The PURVIS FSAS SCU provides multiple inputs, outputs and dry contact relays as detailed below. All inputs and outputs are available on the rear panel of the SCU. The delivered PURVIS FSAS SCU includes the following:

<table>
<thead>
<tr>
<th>PURVIS FSAS SCU Inputs/Outputs</th>
<th>Details</th>
<th>In-Use With the Delivered System</th>
<th>Included in the SCU but Not In-Use With the Delivered System</th>
</tr>
</thead>
</table>
| Audio Inputs:                  | Quantity: 3 unbalanced line level inputs  
- One input can be balanced line level based on jumper configuration.  
- One input can be 25, 70, or 100v. | 1 | 2 |
| Relay Outputs:                 | Quantity: 8  
- 10 Amp @ 250VAC / 8 Amp @ 30VDC relays, normally open and normally closed contacts available for each relay. | 3 | 5 |
| General Purpose Inputs:        | Quantity: 24 Contact closure inputs  
- Used to monitor various station inputs or to support external) switches such as individual zone acknowledgement switches. A +5VDC source through a pull-up resistor on the positive input shorted to the ground input indicates activation. | 3 | 21 |
| Microphone Input:              | 2 connectors are provided for connecting a microphone, an XLR connector on the front panel and terminals on the real panel. | 0 | 2 |
| USB Ports:                     | Quantity: 5  
- 2 front and 3 rear mounted USB ports are provided for connection to a remote touch screen, keyboards or mice. | 1 | 4 |
| Ethernet:                      | Quantity: 2  
- Ethernet connectors are provided on the rear panel for connection to a customer WAN for communication to the central servers. | 1 WAN | 1 WAN |

- **SCU Remote Touch Screen:** The delivered system in each fire station includes one 17” SCU Remote Touch Screen. The Remote Touch Screen can be wall or desk mounted. The touch screen provides a simple, user friendly, GUI specifically designed to allow for efficient fire station operations. It displays critical FSAS related information to station personnel, including detailed incident information (including call type, priority, units assigned and location), general announcement messages, PURVIS FSAS system status (including equipment health, network status and CAD interface status), date/time and historical logs. The touch screen display can also serve as a local module in the fire station to allow crew
members to acknowledge incidents, manually test the system, and manually activate or deactivate relays connected to the system. Optionally, incident mapping can be displayed on the touch screen when an incident is received at the station. Mapping is not included with the delivered system but the PURVIS FSAS is capable of displaying maps that support Internet Explorer browser based access. This includes ESRI maps. Figure 7, below, shows the sample GUI for the SCU:

Figure 7: Graphic User Interface for SCU

- **Audio Relay Expansion Module (ARXM):** The delivered system includes one (1) Audio Relay Expansion Module per station, which will be installed in the PURVIS supplied Radio Cabinet. The ARXM expands the capabilities of the PURVIS FSAS SCU by providing additional audio zones and dry contact relays in a single module. The delivered PURVIS FSAS ARXM provides 8 relays and supports 12 audio zones. This is in addition to the 8 relays included in the delivered PURVIS FSAS SCU in each station. This provides the County with a total of 16 relays and 12 audio zones within each station, which meets the RFP requirement for 15 relays and 10 audio zones in each station. No modifications to the existing PA or speakers to support zoning in the station is included in our proposal.

- **Flat Panel 42” 1080p LED Display:** The delivered system in each fire station includes three (3) Flat Panel 42” 1080p LED Displays. The display is wall mounted and configured to display incident alert information including but not limited to address, cross street, responding units, incident type and turn-out time. Incident alert information can be configured based
on available CAD data. Alert information is provided on four lines and does not require scrolling. Figure 8 below portrays the Flat Panel 1080p LED Display:

- **Turnout Timer**: The delivered system in each fire station includes one (1) Turnout Timer that will be installed in a location easily visible by apparatus drivers and officers. The Turnout Timer is a 24" LED display. The Turnout Timer immediately begins counting upward in one-second increments when the incident is received at the fire station. The timer continues to count upward each second until user-defined criteria has been met. Optionally Unit Presence Detectors can be added in each drive bay to track and report turnout time on a unit-by-unit basis.
- **LED Reader Board:** The delivered system in each fire station includes two (2) 24” single line LED Reader Boards. These LED reader boards are easily readable at great distances making them ideally suited for installation in drive bays or other large spaces where high visibility is required. The Reader Boards will typically show the incident address, cross street, common name, responding units, incident type and turnout time. Incident alert information can be configured based on available CAD data.

- **Red Strobe Light:** The delivered system in each fire station includes six (6) Red Strobe Lights per fire station. The Red Strobe Light is a Whelen 3.5” low profile LED that provides 450 lumens of a single pattern, flashing visual alert.

- **Manual Acknowledgement Push Buttons:** The delivered system in each fire station includes two (2) Manual Acknowledgement Push Buttons. The Manual Acknowledgement Push Button provides fire station personnel the capability to quickly acknowledge receipt of the dispatches. The acknowledgement will send a notice back to the Intergraph CAD system (assuming the DuPage County CAD system supports the receipt of this data) and to the PURVIS FSAS Dispatch Management Consoles.

- **System Test Push Button:** The delivered system includes one (1) System Test Push Button per fire station. The System Test Button initiates a local activation in the fire station. All devices connected to the system are activated during a test.

- **Network Switch:** The delivered system includes one (1) network switch per fire station. The Network Switch is a 16-port switch that provides Local Area Network (LAN) connectivity for fire station devices, including video displays. The delivered system has 4 available network ports available for connection to video displays. The Network Switch in each station will be installed in the PURVIS supplied Radio Cabinet.

**Radio Cabinet:** In compliance with the RFP requirements, the PURVIS supplied Radio Cabinet will house the following equipment in each fire station: PURVIS FSAS Station Control Unit, PURVIS FSAS Audio Relay Expansion Module, PURVIS-supplied Network Switch, County supplied radio, and County-supplied UPS. Our proposal assumes that the County will install the radio and UPS in the cabinet and the PURVIS team will install the PURVIS-supplied equipment. The proposed cabinet is a MidAtlantic CWR-12-26PD wall-mount radio cabinet. PURVIS acknowledges that the County must approve the cabinet. A spec sheet for this cabinet is included in the Appendix of our proposal for the County’s review. The selection of a different cabinet by the County may result in a change to our price proposal.

PURVIS offers various other Commercially Available Off-the-Shelf audible and visual alerting devices to provide relevant incident information to the Fire Station staff. Each Fire Station can be tailored to include the device types and device quantities required. Devices can be added initially or at any time after system installation. A list of available options can be found in the "Catalog of Parts and Services" in the Appendix.

### 4.2.3 Mobile Alerting

The delivered system includes the following three approaches to delivering notifications to mobile devices for remote personnel:

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**PURVIS SYSTEMS INCORPORATED**

7.C.2.a

Packet Pg. 219
1. PURVIS FSAS Mobile Alerting App
2. E-mail
3. SMS Messages

- The PURVIS FSAS Mobile Alerting App interfaces with the PURVIS FSAS and allows alerts to be delivered to iOS and Android smartphones and tablets. Mobile users are assigned to notification groups (such as units or stations) and are notified via an audible tone, a visual banner, and then they can click to access additional details. The app offers incident information, mapping, the ability to acknowledge, incident chat/messaging sessions, user picture uploads, pre-defined location data with documentation (i.e. pre-plans and MSDS sheets) that display in the app during an incident, and SOS calls back to the command center. The delivered system includes licenses for 600 PURVIS FSAS Mobile Alerting App users and 10 Mobile Alerting App Administrators. Licenses are renewed annually and are included as part of the proposed PURVIS FSAS annual maintenance program. Additional annual user licenses can be purchased at any time in increments of 200 users. Additional Mobile App administrator licenses can be individually.

- Dispatch alerts can be transmitted to County personnel via e-mail through the County's e-mail system.

- The delivered system also includes the capability to transmit SMS text messages. Unlike other station alerting systems, the PURVIS FSAS sends out true SMS text messages versus using an e-mail gateway to deliver these messages. While we have the capability of using an e-mail gateway to send out text messages, we don’t recommend it. Our approach of sending true SMS messages significantly increases the likely-hood that messages will be delivered to the intended recipients and reduces the risk of cell carriers tagging messages as SPAM and blocking them from delivery. The PURVIS FSAS sends all SMS messages through a text message aggregator that has relationships with all major cell carriers. The aggregator then delivers the messages to the cellular carriers who then ultimately deliver the messages to the recipients’ devices. There are no additional costs assessed by PURVIS for the use of the SMS texting option in the PURVIS FSAS. However, if the County elects to use this option, the County will need to establish an account with a text message aggregator approved by PURVIS and purchase and maintain SMS credits directly through the aggregator.

### 4.2.4 System Operation, Troubleshooting & Reporting

#### System Operation

The high-level functions and processes of the PURVIS FSAS include:

1) Interface with CAD          6) System Administration
2) System Alerting            7) Monitoring Utility & Problem Notifications
3) Text to Speech Conversion  8) Day/Night Hours of Operation
4) Situational Awareness      9) System Maintenance
5) Zoning/Zone Management     10) Fault Tolerance
The high level functions and processes for each of these items are defined below:

1. Interface with CAD:

**Function:** The delivered system will interface with the County’s Intergraph CAD system to provide an automated and seamless transfer of data to/from the CAD and the PURVIS FSAS.

**Process:** The FSAS will communicate with the Intergraph CAD system through the FSAS Application Programming Interface (API), a modern XML web service-based interface. This API enables a seamless gateway for alert messaging transfer from the CAD system to the stations and vice versa. With the PURVIS FSAS API in place and the Intergraph-supplied interface implemented, no additional dispatch steps will be required outside of the DuPage County CAD system to alert responders, validate alert receipts, monitor activities, and monitor system faults. The FSAS API will be hosted on the FSAS Central Servers that are provided as part of the delivered system.

2. System Alerting

**Automated Alerting**

**Function:** The PURVIS FSAS will alert DuPage County personnel by Group, Station, Unit, or Incident based on output of the CAD system. The system will provide distinct visual and volume escalating audible alerts for various apparatus types, incidents and station personnel. This includes configurable alert and pre-alert tones, text-to-speech announcements, red lighting, visual displays, and turnout timers. The system will be configured to automatically alert the appropriate personnel via IP and voice radio based on the County’s desired system configuration.

**Process:** When an incident is dispatched through the CAD system, the PURVIS FSAS automatically receives predefined incident data from the CAD and transmits it to the applicable fire station(s) where personnel are alerted via existing speakers, flat panel displays, LED reader boards, lights, turnout timer, and other optional devices that may be connected to the system. The FSAS will provide an audible pre-announcement that clearly identifies the units due, event type, and box area, as defined by CAD or transmit County designated audio files. If multiple apparatus are dispatched, the FSAS will send an alert for all apparatus of the same type simultaneously to all fire stations that have that apparatus type dispatched to an event. The FSAS will send a status messages to the CAD and to the PURVIS FSAS Dispatch Manager (DM) Console software indicating the success and failure of each dispatched station, unit or group for the given alert.

At the same time the data is sent to the fire station(s), the audio radio interface sends automated (TTS) announcements over the County’s radio network and an alert is sent to the PURVIS FSAS Mobile Alerting App.

On the radio network, the FSAS plays audio over the appropriate channel (or talk group). If more than one channel or talk group is required, each channel or talk group is alerted simultaneously. If multiple calls occur on the same channel or talk group, the system will play the first call and wait until the call is complete before the next call is announced over the same channel or talk group.
On the Mobile App, all users assigned to any groups (such as units or stations) associated with the dispatch will be notified on their iOS or Android device via an audible tone, a visual banner, and then they can click to access additional details.

**Manual Alerting:**

**Function:** The system provides multiple ways to manually alert personnel for dispatch alerts, general announcement messages and local alerting. These manual alerting functions can be used in the event of a CAD failure, in the event of a station “walkup” that requires local alerting and to transmit non-emergency messages to DuPage County personnel.

**Process:** The PURVIS FSAS Dispatch Management Console and the PURVIS FSAS Portal both provide the ability to manually enter and transmit incident information or non-emergency/general announcement messages, such as weather alerts, road closures, move-ups, etc. to individual or groups of stations. Incident information sent via the DM Console or Portal results in stations and personnel being alerted just as they get alerted from automated CAD incident alerts. Additionally, station personnel have the ability to manually activate the system in their station in the event of a walk up or local emergency using the System Test Push Button. A Manual Activation button can also be included on the PURVIS FSAS SCU Touch Screen so that station personnel can initiate a pre-defined alert within the station. This alert will include a pre-defined tone, automated text-to-speech announcement, and a visual alert on the remote SCU touch screen, flat panel monitors and LED displays. The lights connected to the system can also be activated in this scenario. A notification is automatically sent to the DM Console in the dispatch center to indicate that a manual activate has occurred within that particular fire station.

### 3. Text to Speech Conversion

**Function:** The PURVIS FSAS automatically converts dispatch text to speech and broadcasts the automated voice within the stations(s) being alerted and centrally over the designated radio channel(s).

**Process:** The PURVIS FSAS employs Nuance Vocalizer, a market leading, commercially available text-to-speech application that uses proven technology to provide natural sounding speech that is clear and easily understood. This powerful tool has been used by many well-known and respected commercial brands, such as Garmin, Samsung, Apple and OnStar.

All fire stations required for a specific event are voice alerted simultaneously. The FSAS Central Server will translate the text to speech and automatically broadcast the audio over the designated radio channel through the PURVIS FSAS audio radio interface. At the same time, the Central Server will transmit the alert data to the required fire station(s) via the County’s IP network. The PURVIS FSAS SCU in each alerted station will locally translate the data from text to speech and then broadcast the audio over the station speakers. This design significantly reduces the size of data files transmitted over the network and provides an additional layer of system redundancy.

Additionally, Automated Voice can be male or female, and the speed of the voice can be adjusted faster or slower, as desired.
4. Situational Awareness

**Function:** The PURVIS FSAS provides situational awareness for County personnel in multiple forms, including station audio, station visual displays and the PURVIS FSAS Mobile Alerting platform.

**Process:** The PURVIS FSAS provides situational awareness within the fire stations by accepting multiple audio inputs so that multiple audio sources can be tied into the system and all audio streams can be played simultaneously. Priorities can be assigned to the audio sources to ensure the County’s highest priority audio is always heard. In addition to the County-supplied radio in each fire station that will be connected to the PURVIS FSAS SCU, the County may optionally connect other audio sources (such as scanners and additional radios) to monitor weather alerts, mutual aid channels and more. Buttons can be added to the PURVIS FSAS SCU Touch Screen to allow stations personnel to turn on/off audio sources as desired.

An active list of all countywide incidents can be displayed on the PURVIS FSAS SCU Touch Screen and the PURVIS FSAS Flat Panel Monitors to provide station personnel visibility of incidents throughout the County. As incidents are dispatched from the Intergraph CAD, they will appear at the top of the incident list. The Incident List can be made accessible on the SCU Touch Screen through a soft button on the screen. On the Flat Panel Displays, the Incident List can be designated as the default view, which will always display unless an alert is received in the fire station. When an alert is received, the Incident List will automatically clear and the details of the station alert will appear on the Flat Panel Display. After the alert has cleared in the station, the Incident List will again be displayed on the monitor.

The PURVIS FSAS Mobile Alerting Platform provides situational awareness for in station and remote personnel. The PURVIS Mobile Alerting App integrates with a web-based Mobile Alerting interface. Through this interface, supervisors, fire chiefs, dispatchers and other authorized users can gain situational awareness of incidents with just a few clicks on the screen. They can:

- View all incidents and the location of each incident on a map
- View the location of mobile app users based on GPS location of their device (this feature can be turned on/off as desired)
- Drill into incident or user details
- Pull up a detailed list view of incidents across a district
- Generate dashboard reports based on historical and real-time information to determine utilization, response times and other metrics that can drive department improvement

5. Zoning/Zone Management

**Function:** The delivered PURVIS FSAS allows for 12 zones within a station. Optionally, additional zones can be added to the system at any time. No modifications to the existing PA or speakers to support zoning in the station is included in our proposal.

**Process:** A zone can be activated independently of other zones based upon unit or incident type. Zones are established by rooms or areas of the fire station. Examples of two possible
zones are a common zone and a dorm room zone. The common zone would include common areas of the station such as the day room, kitchen, bathrooms, etc. It may be desirable for all alerts to be received in the common zone. In the dorm room zone, it may be desirable to only receive alerts for the specific unit(s) assigned to that room.

Speakers and lights can be zoned in the PURVIS FSAS. The system does not zone displays. The speaker volume for each zone is configurable. Optional PURVIS FSAS Dorm Remotes provide station personnel the ability to dynamically configure each dorm room zone based on the unit(s) assigned to the dorm room at any given time. During an actual call for service, the dorm room will activate based upon the settings on the Dorm Remote.

6. System Administration:

Function: The PURVIS FSAS is configurable to meet the needs of each customer. DuPage County system administrators will have secure access to modify configuration settings at any time via secure login credentials on the Dispatch Management Console application.

Process: The PURVIS FSAS is centrally managed through the PURVIS FSAS Portal. The Portal provides is a permission-based interface for system configuration and manual system activation. Current configuration items that can be configured by the County include:

- Configure audio tones
- Configure flat panel displays
- Configure text-to-speech, intonations
- Add/delete/edit:
  - Unit Types
  - Units (apparatus, such as new vehicles)
  - Unit Status
  - Event Codes (Incident Codes)
  - TAC Channels
  - Agencies
  - Stations
- Configure Incident Priority by managing Incident Types and event codes
- Configure Dispatch on Unit Status
- Manage users and notification rules to alert those users via SMS and email
- Manage paging tones, pagers, and radio channels
- Manage radio alert template
- Generate Incident Reports for historical lookups
- Software Management (including management of software updates)
- Configure the alert template
- Modify the alert template for each station, as needed
- Turn pre-announcements on and off, system-wide, and for each station
- Centrally adjust time settings for day and night operations
- Disable some or all of the user-controlled capabilities of dorm remotes
- Configure the timer for audible and visual alert reset
- Configure printed tickets
- Configure the amount of time the PURVIS FSAS controlled house lights remain on
• Prioritize audio outputs of the SCU

As part of the PURVIS provided training, County administration staff will be trained on performing configuration changes.

The PURVIS FSAS configuration tool is continually being enhanced to expand the configuration capabilities available to County system administrators. These enhancements will be made available to DuPage County when they are released as part of the System Maintenance program.

7. Monitoring Utility & Problem Notifications:

**Function:** The PURVIS FSAS continually self-monitors and tests the health of the system for online and offline status. Any faults or failures in the system are immediately and automatically reported.

**Process:** The PURVIS FSAS self-monitors in real time. All IP connections between the Central Servers, the CAD system, the DM Consoles, the Radio Interface Units and the Station Control Units are continually monitored by the system. Dispatch components monitored include the Central Servers, the DM Consoles and the Radio Interface Units. Within the fire stations, all Station Control Units and Audio Relay Expansion Modules are monitored, as are all intelligent components and devices, such as the turnout timers and LED reader board displays. Dispatchers can monitor the health of the system components and connections through the PURVIS FSAS DM Console.

System failures are quickly detected and automatically communicated to dispatch, station and support personnel. Faults or failures are reported to the Intergraph CAD system through the PURVIS FSAS API, assuming the County's Intergraph CAD system supports it. Visual and audible alerts for system failures are also delivered to the DM Console and to the SCU Remote Touch Screen and all flat panel monitors in any affected stations. E-mail notices and SMS text messages are automatically sent to designated County personnel.

8. Day/Night Hours of Operation

**Function:** Based on the hours of operation (typically day or night type operations), the PURVIS FSAS SCU is able to change the way in which the worksite is alerted.

**Process:** System configurations allow the County to determine how the system should alert in the fire stations based on hours of operation. For example, the PURVIS FSAS SCU is able lower the volume levels on specific zones based on the time of day. Lowering the audio levels is particularly useful at night, when there is less background noise, to help reduce stress levels of response personnel. This feature can also be used to control speaker zones. For example, the system can be configured so that the dorm room speakers are on for every alert during the daytime. At night they can be changed to be apparatus specific or off for every alert. The same type of day/night time based logic can be applied to PURVIS FSAS SCU alert lighting and other FSAS devices. All day/night alerting is controlled through software configuration settings.
9. System Maintenance

**Function:** Authorized personnel are able to maintain the PURVIS FSAS solution. This includes monitoring system activities and updating system settings, features and components.

**Process:** Users with appropriate credentials are able to access the system remotely using Remote Desktop and locally via the PURVIS FSAS DM console to perform system maintenance. Remote Support access is accomplished through the use of secure VPN and Windows Remote Desktop access to the FSAS Central Servers. From the Central Servers, PURVIS support personnel are able to update system software, make configuration changes, and monitor system activities. Remote Access is intended for PURVIS support personnel. A local user with appropriate credentials can monitor the system via the PURVIS FSAS DM Console and make configurations changes using the PURVIS FSAS Portal.

10. Fault Tolerance

**Function:** The PURVIS FSAS was designed specifically as a fire station alerting system that operates with constant uptime in mission critical environments. Therefore, redundancy was a key consideration in the development of the system and there are several automatic failover processes in place to ensure system uptime.

**Process:** The failover processes of the PURVIS FSAS include:

- **Server Fault Tolerance:** PURVIS FSAS includes a highly available active/active server configuration. The system will include two (2) identical and primary Central Servers, one located at the County's Primary Communications Center (PCC) and the other located in the Alternate Emergency Communications Center (AECC). Both servers will continually operate in an active mode, eliminating the need for failover actions to be taken in the unlikely event of a server failure. All alerts and FSAS communications will flow through each server to provide a true level of system redundancy. In a normal operating mode, each dispatched worksite will receive duplicate FSAS alerts and the system has logic built in to ensure that only one alert is announced within the station.

- **CAD Fault Tolerance:** In the event of a CAD server failure at a single dispatch center, the PURVIS FSAS can still receive and process dispatch alerts from a secondary dispatch Intergraph CAD server if one is connected with the system. This failover would be seamless and automatic with no loss in service, as both Central Servers will always communicate with the two Intergraph CAD servers. If the CAD system fails in both dispatch locations, the PURVIS FSAS provides dispatchers and designated personnel the ability to manually dispatch from any DM Console or through the PURVIS FSAS Portal.

- **Network Fault Tolerance:** If a network failure occurs at a dispatch center, the Central Server at the secondary dispatch center will receive, process, and alert from that location's CAD server. In the event that the County's IT network completely fails, the PURVIS FSAS Station Control Units will detect the loss of communication between the fire stations and Central Servers and the Station Control Unit in the affected stations will default into Radio Bypass Mode. Since all dispatch alerts are sent over all IP network and audio over radio paths simultaneously, the automated text to speech (TTS) announcements will be fed from the fire station's station radio, through the Station Control Unit to the fire station speakers. This process occurs automatically, without delay or DuPage County personnel action.
Optionally, DuPage can utilize IP data over radio or another IP path such as cellular, as a secondary IP alerting path. Utilizing a secondary IP path, the FSAS can send dispatch alerts via data over the second path to the required fire stations. The PURVIS FSAS doesn’t treat multiple IP alerting paths as “primary” or “secondary.” If two IP connections exist to a single location, the PURVIS FSAS will send all alerts over both paths. Whichever path delivers the alert fastest is the one that is acted upon. In the event that one path fails, there is no delay, manual intervention or failover actions required for the alert to be delivered over the second path.

- **Radio Fault Tolerance:** The Radio Interface Units at both DU COMM and ACDC will send automated text-to-speech (TTS) audio alerts over radio. The FSAS is configured so that that one of the RIUs acts as a primary and the other as a secondary device. The secondary RIU has a configurable failover delay so that both RIUs are not sending alerts over the same designated radio channel. The secondary RIU will wait for a confirmation that the primary RIU has successfully sent the TTS audio over radio alert. If the RIU does not receive the confirmation, it will send the audio over radio announcement.

- **Power Fault Tolerance:** The delivered system will connect with a County-supplied UPS in each fire station. In the event of a power loss from normal sources, the SCU will detect the loss of power and automatically failover to the UPS power source.

**System Troubleshooting & Reporting**

*Troubleshooting*

The PURVIS FSAS continuously and automatically monitors and records system status information for troubleshooting and reporting purposes.

The PURVIS FSAS maintains active TCP/IP connections to CAD, Central Servers, Radio Interface Units and Station Control Units and intelligent worksite components and devices. The status of each connection is monitored in real-time using FSAS heartbeats. The Central Servers send heartbeats at regular intervals. We recommend a heartbeat interval of every three (3) seconds however the interval is configurable to meet the County’s requirements. Each corresponding device responds immediately to the heartbeat request. This back and forth communication allows the FSAS to verify connectivity.

If the Central Servers does not receive a heartbeat within a specified time period and after a specific number of allowable failed heartbeats, the connection is marked down. When a connection is marked down, the failed connection is automatically communicated to dispatch, station and support personnel. Faults or failures are reported to the CAD system through the PURVIS FSAS API, assuming the CAD system supports it. Visual and audible alerts for system failures are also delivered to the DM Console and to the SCU Remote Touch Screen and all flat panel monitors in any affected stations. Additionally, support emails indicating a loss of service are automatically generated and sent to designated DuPage County and PURVIS personnel.

Polling of CAD will be done with an agreed-upon mechanism, such as querying data to determine whether the CAD is offline or online.

There are also several options for leveraging third-party network monitoring tools with the PURVIS FSAS. PRTG Network Monitor and Kaseya Network Monitor (KNM) are tools used with the PURVIS FSAS in other customer environments. Additionally, the PURVIS FSAS automatically posts to the
Microsoft Windows event log. Many network monitoring tools, including HP OpenView, have the ability to read directly from Windows Event Log.

**Reporting**

County personnel can perform system inquiries and transactions via the PURVIS FSAS Dispatch Management Console software.

System error and status log reports include date/time stamps on all system events, including details on all traffic between the CAD system and any PURVIS FSAS controllers, between any controllers and the fire stations, and between all network components in the fire stations. The following predefined reports are included with the delivered system:

- System Events – A list of all events that occur in the system
- Incidents – This is a list of incident (alerts)
- Faults – This report shows system faults or troubles

Reports can be used to monitor the activities and health of the system. All reports are maintained in the PURVIS FSAS SQL Server Database on the PURVIS FSAS Central Server. The reports are accessible on the permission-based Reporting Screen of the PURVIS FSAS DM Console. They can be viewed from a global perspective or filtered down to the fire station level. Reports can be saved, exported and printed from the PURVIS FSAS DM Console.

Additionally, PURVIS can provide County personnel with access to the system log files, which are delivered in SQL table format and can be exported to Excel as CSV files through the PURVIS FSAS DM Console. Statements and queries can be run by County personnel against the SQL table data. The County may use third party reporting tools that can read SQL tables and/or CSV files. Third party reporting tools may include Crystal Reports and Pentaho.

### 4.2.5 DuPage County System Requirements

The PURVIS FSAS solution complies or partial complies with 100% of the RFP requirements.

As shown in the table below, the PURVIS FSAS solution fully complies with 98% of the requirements defined by the County in the RFP. The PURVIS FSAS solution partially complies with 2% of the County’s requirements. There are no requirements that the PURVIS FSAS does not comply with.

An additional table of requirements with narrative responses for each item can be found in the Appendix section of this proposal.

<table>
<thead>
<tr>
<th>#</th>
<th>GENERAL REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you provide (Yes or No)</td>
<td>Yes</td>
</tr>
<tr>
<td>1.1</td>
<td>System must be specifically designed to operate as a Fire Station Alerting System</td>
</tr>
<tr>
<td>1.2</td>
<td>The FSA system selected by the County must be microprocessor based, modular in design, and provides expansion capability.</td>
</tr>
<tr>
<td>1.3</td>
<td>The FSA system must have the capacity to support at least 100 Fire stations, 300,000 calls for service per year and 1,000 simultaneous events.</td>
</tr>
</tbody>
</table>
1.4 The FSA system must have the capability to store and alert on the following quantities of data:
   a. 50 apparatus types
   b. 1,500 distinct unit names
   c. 5,000 event types
   d. 100,000 grid areas
   e. 20,000 street names including street type
   f. 50 city names
   g. 6 County names
   h. 50,000 common place names

1.5 The FSA system must allow new Fire stations to be added without impacting existing functionality at other Fire stations.

1.6 Any agency listed in the RFP as well as others not listed, up to 100, will have the opportunity to join at the guaranteed pricing for the first three (3) years. Not all agencies listed are obligated to join. The agencies will have 6 months from the time the contract is signed to decide to join.

1.7 The FSA system must be capable of alerting by categories defined by the CAD system including, but not limited to fire station, unit type, or event type.

1.8 The FSA system must be a turnkey system. If any piece of equipment is needed to make this a fully functional operating system and it is not listed in these RFP specifications, then it is up to the Proposer to note the item needed and list the price of the equipment in writing. If the Proposer fails to add any additional equipment requirements and additional equipment is required to make this a fully functional operating system, then it is up to the Proposer to supply the needed equipment to the County at no additional cost. This requirement does not preclude the County from purchasing, from its own sources, any COTS product that is part of the turnkey FSA system.

The FSA system as proposed must include sufficient licenses for concurrent use by three PSAPs, 30 fire dispatch positions and 75 fire stations. The cost of any additional licenses required shall be specified. Licenses shall be provided for software and systems required to operate the FSA whether provided by the vendor or other supplier.

In its proposal, the Proposer must document all IT infrastructure modifications and facility infrastructure modifications required by the FSA system. If Vendor fails to do this, the Proposer must reimburse the County for the cost of:
1) Additional infrastructure equipment (e.g. electrical systems, ceiling repairs...)
2) staff hours used to install or configure new equipment
3) staff hours used to reconfigure existing equipment
   By "IT infrastructure", the County is referring to the:
   • The County's fiber network
   • The County's radio networks (Starcom and 6-8 VHF networks)
   • The County's standard servers
   • The County's standard workstations
   • The County's standard software used for operating systems, user authorization, virus protection, scripts, reports, databases, and monitoring.
   • The County's standard procedures including upgrades and patching cycles for standard software
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| 1.11 | At the time of installation, the FSA system must be compliant with the 2016 edition of National Fire Protection Association (NFPA) 1221, Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems, 2016 Edition of NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, and the 2013 edition of NFPA 1500, Standard on Fire Department Safety and Health Program. In addition any applicable OSHA/IDOL standards will be complied with. Yes |

| 1.12 | For the purposes of this proposal the Vendor must not reuse any existing hardware or cabling without the County’s permission. Any equipment or hardware removed must be returned to the County or the department if it is their equipment. Yes |

| 1.13 | The FSA system must support simultaneous audible alerting, visual alerting, and printing at each fire station. Yes |

| 1.14 | All audible and visual alerts must be on variable timers to return to the default setting. Yes |

| 1.15 | Audible alerts must have the capability of being set to remain on for different durations than visual alerts. Yes |

| 1.16 | The FSA system must be capable of function activation from more than one source including all PSAPs. Yes |

| 1.17 | The FSA system must provide the ability to switch over to and run in a failover mode if either primary site were to fail with minimal or no operational loss. All system functions must continue to be available in this failover mode. The FSA must be operational from a backup site in 5 minutes or less should both primary systems fail. Yes |

| 1.18 | The Vendor must provide an independent testing environment with one or more servers and equipment at one fire station for the purpose of testing new FSA system hardware and software throughout the life of the FSA system. Yes |

| 1.19 | System must be fully installed. Yes |

| 1.20 | System must be TCP/IP based Yes |

| 1.21 | System must be software-based and configurable Yes |

| 1.22 | Identify the percentage of Commercially available Off The Shelf (COTS) hardware, components and devices associated with the system. 100% |

| 1.23 | System must have a proven ability to handle a minimum of 100 individual Fire stations and facilities and provide for future expansion Yes |

| 1.24 | System must be of modular design, allowing addition of Fire stations, vehicles and personnel as needed Yes |

| 1.25 | System must be flexible and expandable to meet future changes required by the customer Yes |

| 1.26 | System must be able to simultaneously transmit alerts over multiple communications paths, including IP, data, wireless and audio radio networks Yes |

| 1.27 | System must be able to interface with Motorola ASTRO P25 and Harris Open Sky radio systems using standard P25 interfaces. Yes |

| 1.28 | The system must be able to integrate with the County and PSAP computer networks and RF communications infrastructure Yes |

| 1.29 | System must be able to send a notification to all Fire stations or selected Fire stations simultaneously Yes |

| 1.30 | System must be able to alert by group, station, or unit Yes |

| 1.31 | System must be able to send distinct tones for the different units and classes of equipment, such as chief officers, ambulances, engines, ladders, rescue and other vehicles Yes |

| 1.32 | All tones must be configurable by the County through a web interface or similar system. Yes |

<p>| 1.33 | System must be able to process multiple distinct alert notifications that may be generated in Yes |</p>
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.34</td>
<td>System must be able to restrict access control using role based access controls (e.g. System Administrator, Fire Department Administrators, PSAP Supervisor…)</td>
</tr>
<tr>
<td>1.35</td>
<td>Operating system must be Windows 10 for station control units and dispatcher workstations. The FSA system must always support a Microsoft operating system that is at least 2 years from entering Extended Support in Microsoft's Lifecycle Policy.</td>
</tr>
<tr>
<td>1.36</td>
<td>All user software must be designed for touch screen operations</td>
</tr>
<tr>
<td>1.37</td>
<td>System must have the capability for customer personnel to update all software from a central location vs. having to travel to each location to install software updates.</td>
</tr>
<tr>
<td>1.38</td>
<td>System must have the capability for customer personnel to update all software from a central location vs. having to travel to each location to install software updates.</td>
</tr>
<tr>
<td>1.39</td>
<td>System must be able to accept timing inputs from the County’s existing network clock</td>
</tr>
<tr>
<td>1.40</td>
<td>System must be able to send incident and trouble notifications via e-mail, text messages and phone calls. Text message notifications must not be sent using an e-mail gateway.</td>
</tr>
<tr>
<td>2.1</td>
<td>System must be able to seamlessly integrate with the County's new Intergraph Computer Aided Dispatch System (CAD) through a standard XML-based application programming interface (API) included with the FSAS.</td>
</tr>
<tr>
<td>2.2</td>
<td>System must have software that can reside at the dispatch center or any other location with network connectivity to monitor the system, generate reports and transmit manual dispatches and general announcement messages to one, multiple or all Fire stations simultaneously</td>
</tr>
<tr>
<td>2.3</td>
<td>The FSA should be fully operational from each of the three (3) PSAPs. The operational view should be able to be customized to that each PSAP only normally sees the fire stations it dispatches unless actively backing up another PSAP.</td>
</tr>
<tr>
<td>2.4</td>
<td>System must have the capability, for incidents, to create full automated voice dispatch alerts that announce simultaneously in multiple stations and over multiple radio system Talk groups and frequencies.</td>
</tr>
<tr>
<td>2.5</td>
<td>System must generate text-to-speech (TTS) announcements for incident information in real time. System must not be dependent on a database of pre-recorded street names and other incident data.</td>
</tr>
<tr>
<td>2.6</td>
<td>System must generate TTS announcements at both the dispatch location and at each fire station for redundancy and to minimize the bandwidth required for transmitting alerts to the stations.</td>
</tr>
<tr>
<td>2.7</td>
<td>Automated TTS voice announcements supported must include: full dispatch announcements, announcements of move-ups, and non-emergency messages in priority</td>
</tr>
<tr>
<td>Section</td>
<td>Requirement</td>
</tr>
<tr>
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<tr>
<td>2.8</td>
<td>System must include a software tool that the County can use to modify automated TTS voice pronunciations and add new words (streets, names, etc.), without vendor involvement.</td>
</tr>
<tr>
<td>2.9</td>
<td>System must have the ability to deliver each TTS dispatch announcement to landline and cellular phones, radios and fire station speakers. The announcement must be the same across all devices.</td>
</tr>
<tr>
<td>2.10</td>
<td>System must be able to monitor the network connectivity to each fire station and provide immediate visual and audible alerts/notifications if any connectivity problems are detected to both the dispatcher and the fire station(s) affected to meet NFPA 1221 requirements.</td>
</tr>
<tr>
<td>2.11</td>
<td>System must be able to monitor the status of each notification sent and provide immediate visual and audible alerts/notifications to the dispatcher in cases of any failed notifications.</td>
</tr>
<tr>
<td>2.12</td>
<td>The servers must be able to be interfaced and operational at a second dispatch location running a fully operational version of Intergraph CAD in addition to a disaster recovery site.</td>
</tr>
<tr>
<td>2.13</td>
<td>The system must also be operational from a remote or mobile location.</td>
</tr>
<tr>
<td>2.14</td>
<td>Dispatcher must be able to turn off automated voice dispatch for training and similar purposes.</td>
</tr>
<tr>
<td>2.15</td>
<td>Every dispatch position designated for fire dispatch (assume 30 positions) must be equipped with a screen to manually dispatch fire stations independent of CAD.</td>
</tr>
<tr>
<td>3.0</td>
<td>Fire Station Requirements</td>
</tr>
<tr>
<td>3.1</td>
<td>System must utilize a Station Control Unit provided by the vendor.</td>
</tr>
<tr>
<td>3.2</td>
<td>If there are components to be housed other than at the Fire Station Control Unit, the Vendor must supply a radio cabinet suitable to house the FSA station control unit, radio receiver, required UPS units, and any other required equipment. The cabinet shall be approved by the County.</td>
</tr>
<tr>
<td>3.3</td>
<td>The FSA must provide a minimum of 15 relay contacts/controls at each fire station. The FSA system must have the capability to control devices using remote device relays. The remote relays must: a. be able to be energized for a configurable period of time upon receipt of a CAD dispatch. b. have the capability to be deactivated c. have the capability for County personnel to manually activate.</td>
</tr>
<tr>
<td>4.0</td>
<td>Audio Alerts</td>
</tr>
<tr>
<td>4.1</td>
<td>Attention tones - Must be a volume escalating alert. The FSA system must support a minimum of ten (10) attention tones.</td>
</tr>
<tr>
<td>4.2</td>
<td>The FSA system when used to manually dispatch must have the ability to group tones together to simplify dispatch.</td>
</tr>
<tr>
<td>5.0</td>
<td>Unit-type tones</td>
</tr>
<tr>
<td>5.1</td>
<td>The FSA system must support a minimum of twenty (20) unit-type tones that clearly identify the type of unit (e.g. engine, ambulance, or other apparatus). This includes County-supplied tones.</td>
</tr>
<tr>
<td>6.0</td>
<td>Pre-announcements</td>
</tr>
<tr>
<td>6.1</td>
<td>The FSA system must provide an audible pre-announcement that clearly identifies the units due, event type, and grid area, as defined by CAD or transmit County designated audio files.</td>
</tr>
<tr>
<td>6.2</td>
<td>Multi-unit pre-announcement messages must be capable of any and all combinations of unit responses required from a fire station.</td>
</tr>
<tr>
<td>6.3</td>
<td>Unit information must consist of unit type and unit number, not just unit type (e.g. &quot;Engine 712&quot;)</td>
</tr>
<tr>
<td>Section</td>
<td>Content</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>7.0</td>
<td><strong>Automated Voice Dispatch</strong>&lt;br&gt;<strong>Yes</strong>&lt;br&gt;7.1 The automated voice dispatch generated by the FSA system may be a pre-announcement or a text-to-speech announcement containing the full dispatch information as defined by CAD.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;7.2 The automated voice dispatch must be in a clear and consistent concatenated audio format and must be able to be edited.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;7.3 The FSA system must have the capability of allowing pauses to be inserted in user-designated places in the automated alert sequence.</td>
</tr>
<tr>
<td>8.0</td>
<td><strong>Dispatch Audio</strong>&lt;br&gt;<strong>Yes</strong>&lt;br&gt;8.1 The dispatch announcement must have the capability to be both fully automated, from the FSA system and come from the primary trunked dispatch talk group or a combination thereof.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;8.2 The FSA system must be capable of using the existing County radio system as the source of audio to distribute the dispatcher's voiced audio in each station as a backup to IP-based audio.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;8.3 The FSA main server must send a visual notification instantly after the automated alert portion is complete to:&lt;br&gt;a) FSA workstation located on the dispatch floor and to&lt;br&gt;b) CAD server, notifying the dispatcher when he/she can start voicing the dispatch and which stations failed to receive the alert.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;8.4 The FSA system must allow live dispatcher voice in addition to the automated voice announcement. Identify whether this is concurrent or if the automated voice must clear first.</td>
</tr>
<tr>
<td>9.0</td>
<td><strong>Audible alerts general information</strong>&lt;br&gt;<strong>Yes</strong>&lt;br&gt;9.1 The FSA system must be capable of sending an alert for all apparatus of the same type simultaneously to all fire stations that have that apparatus type dispatched to an event.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;9.2 A unique distinct audible tone must be available for problem notifications (i.e. CAD down) to all fire stations and must be standard across all fire station control units.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;9.3 The FSA system solution must be capable of providing non-emergency messages, preceded by a unique attention tone, to a fire station or group of fire stations.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;9.4 The Vendor must provide a means to activate the FSA system, inside the fire station, within close proximity of the public entrance door.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;9.5 All audible alerts must be able to be volume escalating</td>
</tr>
<tr>
<td>10.0</td>
<td><strong>General speaker volume</strong>&lt;br&gt;<strong>Yes</strong>&lt;br&gt;10.1 The FSA system must comply with all local, state and national regulations, including, but not limited to OSHA/IDOL and NFPA as it applies to noise exposure.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;10.2 In order to not exceed decibel level constraints (between zero (0) and 115 decibels, never greater than 140db) the Vendor will design the FSA system for each individual fire station and zone when new speakers are being installed to determine if more than one speaker is needed in each zone. Final approval of the design will be by the County and the affected fire department.</td>
</tr>
<tr>
<td>11.0</td>
<td><strong>Adjustable speaker volume</strong>&lt;br&gt;<strong>Yes</strong>&lt;br&gt;11.1 The scanning volume for the speakers in each enclosed room must be adjustable, up and down to a minimum and maximum, by station personnel. This will be done with a wall-mounted volume controller in each room.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;11.2 The FSA system must provide the ability to disable in-building paging from all sources during a system message.&lt;br&gt;<strong>Yes</strong>&lt;br&gt;11.3 The system speakers must have the ability to have separate automatic and configurable daytime and nighttime volume settings.</td>
</tr>
</tbody>
</table>
| 12.0    | **Turning speakers on and off**<br>**Yes**<br>12.1 In public assembly rooms, all speakers must have the capability to be turned on and off by fire station personnel.
### Audio Sources

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.0</td>
<td>Yes</td>
<td>The County requires audio announcements from different sources for in-station operations. The FSA must have a minimum of three audio inputs at the fire station level. The order of importance and priority to be determined by the County.</td>
</tr>
<tr>
<td>13.1</td>
<td>Yes</td>
<td>All radios associated with the FSA system will be furnished by the County and/or department. The Vendor must be responsible for directing audio from these radios to the correct speaker(s).</td>
</tr>
</tbody>
</table>

#### Audio Source Examples

- Attention tone, Unit tones, Pre-Announcement, text to speech or voiced dispatch announcement
- Primary dispatch Starcom channel
- The primary VHF dispatch channel (two-tone paging) must be heard when dispatch announcements are not available
- The mutual aid dispatch channel (IFERN)
- The operations and tactical talk groups for bordering fire
- Station internal public address (PA) system (i.e., station paging)
- Doorbells
- NOAA All-Hazards Weather Radio stations

### Visual Alerts

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.0</td>
<td>Yes</td>
<td>All non-scrolling displays must be large enough to display all dispatch data at once. All vital event data must be displayed at the same time. Scrolling displays must be an available option.</td>
</tr>
<tr>
<td>15.1</td>
<td>Yes</td>
<td>The Vendor must propose the most applicable state-of-the-art video devices for use on this project. Final selection of specific devices, including the manufacturer, will be done by the County.</td>
</tr>
<tr>
<td>15.2</td>
<td>Yes</td>
<td>The proposal will include three (3) flat panel 42&quot; with 1080p, LED video displays at each fire station. The proposal will include a minimum of two (2) LED reader boards in the apparatus bays of each worksite. More may be added if the size and configuration of the room dictates.</td>
</tr>
<tr>
<td>15.3</td>
<td>Yes</td>
<td>The FSA system must have a minimum of four (4) video outputs.</td>
</tr>
<tr>
<td>15.4</td>
<td>Yes</td>
<td>Every worksite will maintain one remote touch screen monitor, to operate the FSA system</td>
</tr>
<tr>
<td>15.5</td>
<td>Yes</td>
<td>All FSA system lighting must be low voltage LED and comply with the National Electrical Code.</td>
</tr>
<tr>
<td>15.6</td>
<td>Yes</td>
<td>The FSA system must be capable of producing night vision lighting in all sleeping areas, egress paths from the sleeping areas and the apparatus bays.</td>
</tr>
<tr>
<td>15.7</td>
<td>Yes</td>
<td>A red strobe light located in the apparatus bays, fire station exterior work areas and rooms where there is loud ambient noise or where headphones are used must be activated by the FSA system upon event dispatch and upon the ringing of the fire station phone. Examples of these rooms can include, but are not limited to, physical training rooms, compressor rooms and apparatus bays.</td>
</tr>
</tbody>
</table>

### Turnout timers

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.0</td>
<td>Yes</td>
<td>The system must include a configurable turnout timer that is activated with each dispatched event, to be installed in front of each bay in the apparatus room, positioned so that it is visible to the driver and officer of each responding unit</td>
</tr>
</tbody>
</table>

### Lights

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.0</td>
<td>Yes</td>
<td>The FSA system must trigger designated fire station standard lighting in the apparatus bays, TV room/lounge and watch office to be turned on. The lighting will be automatically turned off after a designated amount of time. The amount of time the lighting stays on must be customizable by the FSA system administrator.</td>
</tr>
<tr>
<td>17.1</td>
<td>Yes</td>
<td>All FSA system lighting must be low voltage LED and comply with the National Electrical Code.</td>
</tr>
<tr>
<td>17.2</td>
<td>Yes</td>
<td>FSA system must be capable of producing night vision lighting in all sleeping areas, egress paths from the sleeping areas and the apparatus bays.</td>
</tr>
<tr>
<td>17.3</td>
<td>Yes</td>
<td>A red strobe light located in the apparatus bays, fire station exterior work areas and rooms where there is loud ambient noise or where headphones are used must be activated by the FSA system upon event dispatch and upon the ringing of the fire station phone. Examples of these rooms can include, but are not limited to, physical training rooms, compressor rooms and apparatus bays.</td>
</tr>
</tbody>
</table>

### Zone/Dorm Controllers

<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.0</td>
<td>Yes</td>
<td>The FSA system must be able to support a minimum of ten (10) zones at each station</td>
</tr>
<tr>
<td>18.1</td>
<td>Yes</td>
<td>Exterior speakers must be isolated in one (1) zone.</td>
</tr>
<tr>
<td>18.2</td>
<td>Yes</td>
<td>Dorm room controllers must be capable of controlling speakers, night vision lighting, and visual</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Section</th>
<th>Requirement</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.4</td>
<td>The SCU zone controller must control the speakers, strobes, night vision lighting, and standard work lights, if applicable.</td>
<td>Yes</td>
</tr>
<tr>
<td>18.5</td>
<td>The PURVIS FSAS displays all stations that are activated on a console at dispatch but it does not display at dispatch the specific zones that are activated within a station.</td>
<td>Partial</td>
</tr>
<tr>
<td>18.6</td>
<td>Zone activation indication must be automatically cleared on the FSA system when the alerts are completed.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.0</td>
<td>Radios</td>
<td></td>
</tr>
<tr>
<td>19.1</td>
<td>The FSA system must support the Motorola Call Alert feature on the 800 MHz Trunked System control channel to alert fire station receivers when needed.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.2</td>
<td>The FSA system radio interface must be equipped to detect radio channel traffic and wait until the channel is free to begin automated dispatching.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.3</td>
<td>The FSA system must support a redundant and diverse method of back-up communications, such as but not limited to an 800 MHz radio system, a 200 MHz radio system, an IP connection, cellular modem or a radio control station.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.4</td>
<td>The FSA system at each fire station must accept relay closure from the County provided radio equipment for the purposes of: 1) failover and 2) manual activation of all Vendor-provided devices.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.5</td>
<td>System must be able to allow fire station personnel to manually acknowledge that a notification was received</td>
<td>Yes</td>
</tr>
<tr>
<td>19.6</td>
<td>System must be able to allow fire station personnel to use an emergency crew alert button by front door to alert crew to walk in emergencies</td>
<td>Yes</td>
</tr>
<tr>
<td>19.7</td>
<td>System must be able to integrate with an existing doorbell</td>
<td>Yes</td>
</tr>
<tr>
<td>19.8</td>
<td>System must be capable of integrating a camera into the system as an option.</td>
<td>Yes</td>
</tr>
<tr>
<td>19.9</td>
<td>System must be able to conduct a test of the equipment at a fire station through the use of a push button or similar device located in the fire station. When this button is activated a test automated dispatch will occur over the fire station's speaker system and visual displays</td>
<td>Yes</td>
</tr>
<tr>
<td>19.10</td>
<td>System must offer ambient noise sensors to adjust speaker volume by speaker zone. The sensors must be able to be installed in any location in the fire station.</td>
<td>Yes</td>
</tr>
<tr>
<td>20.0</td>
<td>Training Requirements</td>
<td></td>
</tr>
<tr>
<td>20.1</td>
<td>Training must be provided for a complete functional understanding of the system</td>
<td>Yes</td>
</tr>
<tr>
<td>20.2</td>
<td>Training shall be provided to dispatchers, administrators, fire personnel, and technical personnel. Training may be in the form of &quot;Train-the-Trainer.&quot;</td>
<td>Yes</td>
</tr>
<tr>
<td>21.0</td>
<td>Warranty and Maintenance Requirements</td>
<td></td>
</tr>
<tr>
<td>21.1</td>
<td>Proposer must provide technical support on a 24/7/365 basis</td>
<td>Yes</td>
</tr>
<tr>
<td>Yes</td>
<td>21.2</td>
<td>Proposer must offer both remote and on-site support</td>
</tr>
<tr>
<td>Yes</td>
<td>21.3</td>
<td>Proposer must have the capability to provide technical support remotely to the system via a VPN or similar connection</td>
</tr>
<tr>
<td>Yes, though the PURVIS FSAS does not alert via telephone calls</td>
<td>21.4</td>
<td>System must be able to automatically detect when a critical event or failure occurs within the system and automatically alert support personnel for Major, Minor, and Maintenance Needed events using all or a combination of the following methods; visually, audibly, email, pager, SNMP or phone call</td>
</tr>
<tr>
<td>Yes</td>
<td>21.5</td>
<td>System must be able to push all software updates from a central location to all or selected fire stations and PSAPs without requiring visits to install the updates</td>
</tr>
<tr>
<td>Yes</td>
<td>21.6</td>
<td>Proposer shall provide documentation of product warranty period and coverage provided</td>
</tr>
<tr>
<td>Yes</td>
<td>21.7</td>
<td>System and all components shall be under warranty for a minimum of two years after placing the equipment in service</td>
</tr>
<tr>
<td>22.0</td>
<td>Installation Requirements</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>22.1</td>
<td>System must be installed and implemented without any disruption or impact to the current alerting system.</td>
</tr>
<tr>
<td>Yes</td>
<td>22.2</td>
<td>System cutover at the fire station level shall be no more than two hours in duration</td>
</tr>
<tr>
<td>23.0</td>
<td>CAD Interface</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>23.1</td>
<td>The FSA system must communicate with the County's new Intergraph CAD system. The Vendor must provide detailed written specifications for the CAD interface. The written specifications must contain sufficient detail for the CAD Vendor to write an interface to the FSA system. If CAD to FSA interface standards exist, the Vendor must provide them to the County and they must be followed by the FSA Vendor.</td>
</tr>
<tr>
<td>Yes</td>
<td>23.2</td>
<td>The FSA system interface to the CAD system must support the following messages from CAD. a. Dispatches b. Move-ups c. Abort messages d. Non-emergency alerts e. Status queries f. Unit status messages</td>
</tr>
<tr>
<td>Yes</td>
<td>23.3</td>
<td>Dispatch data sent from CAD to the FSA system via the CAD interface must include, but not be limited to, the following fields. a. Stations that need to be alerted b. Apparatus 1. Unit type 2. Unit number c. Event type d. Event grid area e. Event location 1. Address: street number, street name, city 2. Cross streets f. Location information (i.e., high rise, metro) 1. Hazard information g. Other CAD data fields as required</td>
</tr>
<tr>
<td>Yes</td>
<td>23.4</td>
<td>Each fire station must only receive apparatus data that is relevant to that fire station from CAD</td>
</tr>
<tr>
<td>Yes</td>
<td>23.5</td>
<td>For each dispatch message received from CAD, the FSA system must send an automated acknowledgement over the IP network to the FSA servers and from there, to the FSA system console on the dispatch floor indicating the success or failure of each dispatched station for the given event. This acknowledgement must not involve any human intervention by fire station</td>
</tr>
</tbody>
</table>

Section 4: Proposal Narrative
24.0 Communication Paths

24.1 The FSA system must be controlled directly from the CAD system via the County's network as the primary means of communications.

24.2 The secondary communications path will be determined by each agency with County approval prior to installation.

24.3 The FSA system must automatically failover from the primary network path to the secondary network path when the primary fails and automatically fallback from the second network path to the primary network path after the primary has returned to a state of being up and running for a specified period of time.

24.4 The FSA system must provide the ability to switch over to and run in a failover mode at either primary site with minimal or no operational loss. All system functions must continue to be available in this failover mode. The failover/backup system should become operational (live) immediately after the main system fails.

25.0 Redundant servers

25.1 The FSA system must support a redundant system in a separate physical location with minimal operations disruption and no loss of data integrity if one system fails. Each server must have a redundant server provisioned with automated failover.

25.2 The FSA servers located at the two primary fire stations must be able to operate in parallel with the FSA servers located at the other primary site.

25.3 The FSA system in its entirety must be duplicated, having identical and independent alerting capabilities, at both primary fire stations and be integrated with the CAD system.

26.0 Provisions in the event CAD is down

26.1 The Vendor must provide equipment in each PSAP to manually operate alerting at each fire station. The manual alerting connection must not interface with CAD. The connection must be between the FSA main server and the FSA control unit located at the fire station using the active County network.

26.2 The same audio and visual alerts must be able to be triggered manually from the FSA main server without using the CAD interface as are triggered automatically via the CAD interface.

27.0 Monitoring

27.1 The FSA system must have the capability to detect the following types of problems and send out the corresponding notifications:
   a) System-wide outage
   b) Communication between main FSA server and a given fire station is down due to network problem
   c) No alerts going off at a given fire station due to control unit failure
   d) Component failure at a given fire station
   e) Failure of the control unit to be able to talk to FSA components
   f) Failure of the control unit to be able to talk to peripheral devices

28.0 Problem notifications

28.1 The FSA system must self-identify problems during internal integrity monitoring. The FSA system must automatically activate distinct audible (different from dispatch alerts) and visual alerts that will be immediately apparent to the staff in the PSAP, affected fire station, and support personnel defined by the FSA system administrator via multiple messaging methods.

28.2 The FSA system must notify designated County personnel immediately via a text message or pager message when there is a system-wide outage or fire station control unit outage.

28.3 The audible alert at the PSAPs and affected fire stations must have the ability to be silenced as long as the visual alert continues to be displayed until the problem with the FSA system is resolved. A silenced alarm must be overridden in the case of a second problem notification alert.
<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Override</td>
<td>The PURVIS FSAS does not currently offer the ability to override silenced alarms in the PSAPs or the fire stations when a second problem notification alert is received.</td>
</tr>
<tr>
<td>FSA system monitoring utility</td>
<td>The FSA system must send a visual and audible alert to the fire station and to the FSA system administrator's console when there is a change in power status as described below: 1. Electrical power supplied from power company is down/returns to normal status 2. UPS activated/deactivated 3. Generator activated/deactivated 4. A problem with external systems such as generators and fuel tanks. 5. When the fire alarm at a fire station gets triggered.</td>
</tr>
<tr>
<td>Performance</td>
<td>The FSA system must have no more than five minutes (cumulative) of system downtime per year; this includes planned maintenance. This requirement refers to system-wide outages only.</td>
</tr>
<tr>
<td>Sending data</td>
<td>Sending data such as heartbeats and acknowledgements to CAD must not degrade CAD dispatch operations or the ability of the fire station FSA system to receive alerts.</td>
</tr>
<tr>
<td>Requirement</td>
<td>Details</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>30.5</td>
<td>Sub-second latency must exist from the time the dispatcher hits the “dispatch” button in CAD until the time all fire station personnel hear the first FSA audio alert tone.</td>
</tr>
<tr>
<td>30.6</td>
<td>All visual alerts must activate at each worksite within a sub-second after the dispatcher hits the “dispatch” button.</td>
</tr>
<tr>
<td>30.7</td>
<td>The FSA system must prevent or detect false alerts at fire stations. The County is concerned about false alerts originating from entities that are not part of County, sent to purposely misdirect fire station apparatus.</td>
</tr>
<tr>
<td>31.1</td>
<td>The FSA system must support a minimum of ten (10) uniquely identified roles for system administration.</td>
</tr>
<tr>
<td>31.2</td>
<td>All the FSA system functions must be configurable by software changes only, without requiring changes to the hardware units. The Vendor must describe any exceptions to this requirement and provide detailed procedures for these exceptions.</td>
</tr>
<tr>
<td>31.3</td>
<td>FSA system configuration changes must be able to be performed by the FSA system administrator, without Vendor assistance.</td>
</tr>
<tr>
<td>31.4</td>
<td>The fire station alerting administrator must be able to do the following:</td>
</tr>
<tr>
<td></td>
<td>a. Configuring the alert template</td>
</tr>
<tr>
<td></td>
<td>b. Modifying the alert template for each station, as needed</td>
</tr>
<tr>
<td></td>
<td>c. Monitoring system performance</td>
</tr>
<tr>
<td></td>
<td>d. Being notified of system and worksite problems</td>
</tr>
<tr>
<td></td>
<td>e. Turn pre-announcements on and off, system-wide, and for each worksite</td>
</tr>
<tr>
<td></td>
<td>f. Configure attention tones and unit-type tones</td>
</tr>
<tr>
<td></td>
<td>g. Configure worksite visual alerts</td>
</tr>
<tr>
<td></td>
<td>h. Easily insert and delete audio files into the database</td>
</tr>
<tr>
<td></td>
<td>i. Adjust the alert tones and announcement volume, by zone, for day and night operations</td>
</tr>
<tr>
<td></td>
<td>j. Set minimum/maximum or mute volume for each set of speakers in a given zone</td>
</tr>
<tr>
<td></td>
<td>k. Provide the capability for individual speakers to be turned on and off by the station officer</td>
</tr>
<tr>
<td></td>
<td>l. Configure the information sent and printed by the rip and run printer</td>
</tr>
<tr>
<td></td>
<td>m. Disable some or all of the user-controlled capabilities of dorm and zone controllers</td>
</tr>
<tr>
<td></td>
<td>n. Configure the timer for audible and visual alert reset</td>
</tr>
<tr>
<td></td>
<td>o. The announcement and/or display of Radio Talk Groups</td>
</tr>
<tr>
<td></td>
<td>p. Prioritize outputs for different audio sources</td>
</tr>
<tr>
<td>31.5</td>
<td>The FSA system Vendor must provide comprehensive system documentation in electronic format, indexed and book-marked. This documentation must contain all information, needed by the FSA system administrator to operate, maintain, program, configure, and troubleshoot the FSA system.</td>
</tr>
</tbody>
</table>
| 32.1        | The FSA system shall be operational for all PSAPs within a 30 day time frame. The ETSB of
DuPage County must be able to implement the FSA system to the Fire Stations incrementally throughout the life of the contract. During installation of the new FSA system, the existing FSA system must remain operational with no interruptions in service.

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>32.2</td>
<td>Yes, the Vendor must use non-proprietary system components where available, provided they have the same functionality and reliability as proprietary components. The term &quot;components&quot; includes, but is not limited to, servers, speakers, lighting units, light bulbs, televisions, and monitors.</td>
</tr>
<tr>
<td>32.3</td>
<td>Yes, the FSA system must have the capability to add fire stations and alerting devices that can be supported by the system through a standard upgrade process that does not require replacement of the entire system or any of its major components.</td>
</tr>
<tr>
<td>32.4</td>
<td>Yes, the components of the FSA system located at the PSAP must be able to be upgraded without imposing a system-wide and/or a worksite outage.</td>
</tr>
<tr>
<td>32.5</td>
<td>Yes, the FSA system must provide a method to easily backup and recover all configuration data.</td>
</tr>
<tr>
<td>32.6</td>
<td>Testing a. Server upgrades must be tested prior to going live. b. Testing involving FSA servers must not impact the live system. c. Testing involving the test worksite must not impact the live system. d. Software licenses for the Test System must be free of charge.</td>
</tr>
<tr>
<td>32.7</td>
<td>This requirement was changed in RFP Addendum #3. PURVIS fully complies with the revised requirement.</td>
</tr>
<tr>
<td></td>
<td>The FSA system must be up and running successfully for fifteen (15) days before the system goes live. The FSA system must be up and running successfully for five (5) days at each worksite before that worksite goes live. The vendor will propose a method for testing that the FSA system is up and running successfully. The last fire station to be operational shall be no more than twelve (12) months from the first station going live.</td>
</tr>
</tbody>
</table>

**Installation and Power**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.1</td>
<td>Yes, installation of the FSA system including but not limited to speakers, lights and wiring must be performed by the FSA system Vendor or sub-contractor per the County specifications.</td>
</tr>
<tr>
<td>33.2</td>
<td>Yes, for new buildings, the Vendor must work with the County and the individual fire department on system installation design before the building is built.</td>
</tr>
<tr>
<td>33.3</td>
<td>Yes, once the physical installation phase of this project has begun at a given worksite, the installation must be completed within 30 calendar days at the given worksite.</td>
</tr>
<tr>
<td>33.4</td>
<td>Yes, the County will manage and monitor the installation of this system. This must not void the warranty or affect the warranty in any way. The County technical personnel will be present at each installation, system activation, and cutover.</td>
</tr>
<tr>
<td>33.5</td>
<td>Yes, the County will reserve the right to select the specific FSA elements for each worksite prior to installation at each worksite. All fire stations may not require all FSA products.</td>
</tr>
<tr>
<td>33.6</td>
<td>Yes, the Vendor must supply all installation specifications for computer equipment that is to be located at the PSAPs. This includes but is not limited to connectivity, space, and power requirements.</td>
</tr>
<tr>
<td>33.7</td>
<td>Yes, the Vendor must convey all FSA system electrical requirements, including the need for any additional electrical circuits, to County as a part of the proposed FSA system configuration for any worksite selected for installation or upgrade.</td>
</tr>
<tr>
<td>33.8</td>
<td>Yes, all electrical cable shall be plenum rated unless otherwise approved by the Authority Having Jurisdiction over electrical installations.</td>
</tr>
</tbody>
</table>
| 33.9        | Yes, all FSA system circuits must be able to run off the worksite emergency power source, such as...
### Section 4: Proposal Narrative

#### 33.10 Acceptance Testing

- **Yes**

  All RS6 Installation Standards must be followed.

#### 33.11 Acceptance Testing

- **Yes**

  All applicable local and County electrical codes, building codes, and permitting requirements must be followed. The Vendor is responsible for obtaining all permits.

#### 34.0 Acceptance Testing

- **Yes**

  The Vendor must provide an Acceptance Test Plan (ATP) to the County no later than 30 calendar days after the system design is complete for the first worksite. The Vendor and the County must mutually agree in writing to the test plan. The original plan may be modified to meet the County's requirements.

- **Yes**

  The ATP must provide an actual test of all functional requirements of the FSA system and not use simulation.

- **Yes**

  The Vendor will have no more than 30 calendar days after a defect is found during Acceptance Testing, to fix the defect. The 30-day period will start after the specific defect is found, not after the Acceptance Test is completed. The Vendor must provide daily updates to the County's Contract Administrator as to the status of getting the defect fixed.

- **Yes**

  If a defect is not fixed within 30 calendar days after it is discovered, the Vendor may be subject to liquidated damages for each day it remains unresolved.

#### 35.0 Vendor Support

- **Yes**

  The Vendor must provide a single point of contact after the award of the contract and prior to contract negotiations.

- **Yes**

  For any off-site support provided by the Vendor, the FSA system is accessible only through the County's VPN connection.

- **Yes**

  The Vendor must provide weekly reports describing FSA system and worksite problems.

- **Yes**

  The Vendor must be responsible for warranty and maintenance of the entire FSA system and all its components including hardware, software and all installed parts during the warranty period, excluding County supplied components.

- **Yes**

  The warranty period for the FSA system must begin the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. The warranty period must last for a minimum of two (2) years after the three PSAPs and a minimum of 50% of the fire stations are operational.

- **Yes**

  The maintenance agreement for the FSA system must begin immediately after the warranty period has expired. The Vendor must offer an annual maintenance agreement.

- **Yes**

  The Vendor must provide a maintenance agreement for all equipment which is purchased through the Contract between the County and the Vendor.

- **Yes**

  All warranty and maintenance support must be provided by the system manufacturer or a dealer who has been certified by the manufacturer.

- **Yes**

  The FSA system maintenance agreement must cover parts and service on a per year basis.

  - **a.** Service must be provided by a certified representative who is located within 50 miles of Wheaton, Illinois
  - **b.** The maintenance agreement must include the Vendor response times.

- **Yes**

  Whether purchased by the Vendor or the County, all the hardware and software must meet the Vendor's minimum specifications.

- **Yes**

  The Vendor must maintain a FSA system environment at its own location and expense that...
<table>
<thead>
<tr>
<th>Section</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>35.12</td>
<td>The Vendor must continue to support, maintain, and warrant all FSA system components (including software, hardware, middleware, and network) as the County applies patches, configuration changes, and version upgrades to the operating environment based on the Vendor's recommendations of the infrastructure components.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>35.13</td>
<td>The Vendor must continue to support, maintain and warrant all FSA system components purchased from the Vendor (including software, hardware, middleware, and network) if the County decides to upgrade hardware by purchasing it from a source other than the FSA Vendor.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>35.14</td>
<td>The Vendor must provide a technical system drawing for approval by the ETSB of DuPage County.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.0</td>
<td><strong>Problem Resolution</strong></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.1</td>
<td>Definitions of Vendor response time:</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.2</td>
<td>Software Problem Response Time - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person logged into the system looking at the problem.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.3</td>
<td>Hardware Problem Response Time - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person on-site.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.4</td>
<td>Definitions of types of outages and required response time:</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.5</td>
<td>System-wide Outage - a problem that affects more than one worksite from being alerted, a problem that affects more than one worksite from being alerted in a timely fashion, or a problem that causes a false alerting indication at more than one worksite.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.6</td>
<td>Worksite Outage - a problem that affects only one worksite from being alerted, a problem that affects only one worksite from being alerted in a timely fashion or a problem that causes a false alerting indication at only one worksite.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.7</td>
<td>Component Failure - a problem with a component of FSA that does NOT prevent the entire worksite from being alerted. Examples of components are: speakers, volume controls, zone controllers, lighting units, and video displays.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.8</td>
<td>The Vendor must provide pricing for the following Service Level Agreement (SLA) and pricing for other typical SLAs it offers.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.9</td>
<td>The Vendor must respond to a system-wide outage 24/7/365. For software problems, a two (2) hour response time is required, for hardware problems a four (4) hour response time is required.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.10</td>
<td>The Vendor must respond to a worksite outage 24/7/365. For software and hardware problems, a four (4) hour response time is required.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.11</td>
<td>The Vendor must respond to component failures within 24 hours. If the time limit of 24 hours ends at a time other than 8 AM – 5 PM Central Time on a business day, the Vendor may respond on the next business day during normal business hours (8 AM-5 PM Central Time).</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>36.12</td>
<td>The Vendor must maintain a supply of critical and long lead time components as agreed to by the County.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>37.0</td>
<td><strong>Training</strong></td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>37.1</td>
<td>The Vendor must provide system administration, maintenance, programming and troubleshooting training to County technical staff at a location designated by the County.</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>37.2</td>
<td>The Vendor must provide Train the Trainer training for Fire at a location specified by the County in accordance with a schedule that is mutually agreed to by the County and the Vendor. The approximate number of trainees is 50. The schedule may include training during hours outside of normal business hours (evenings and weekends).</td>
</tr>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>37.3</td>
<td>If any training is provided to a subcontractor, the County must be notified and permitted to</td>
</tr>
</tbody>
</table>
The PURVIS Team recognizes the importance of performing a thorough and timely transfer of knowledge from our key technical and operation staff members to the County’s staff members that will be using and maintaining this system. A successful solution implementation is directly dependent on the quality, thoroughness and timeliness of the training provided to the end-users of the solution and to those responsible for maintaining the solution. The FSAS is a critical component of the DuPage County’s dispatch process and the training program proposed must ensure that the required personnel are trained and ready to effectively use the system.

Our training approach includes the preparation and delivery of a Training Plan that will detail the training process and classes to be conducted for DuPage County and provide a detailed training schedule. All training activities will be conducted prior to the acceptance of the FSAS at the first worksite and will be conducted on-site and in-person.
The PURVIS Team has the experience, methodology, and products to ensure DuPage County personnel are thoroughly trained in FSAS operation and maintenance. Over the last three years, the PURVIS Team has trained over 400 dispatch and field personnel in the operation of alerting systems, and over 60 technical personnel in maintenance and administration of these systems.

The PURVIS Team’s training methodology involves the on-site conduct of training classes that are tailored to the County’s delivered FSAS solution. Training materials and the training presentation will be tailored around the delivered solution, configuration items and equipment. The County will have the opportunity to review and comment on all training materials prior to the conduct of the courses. PURVIS will tailor the training classes to the needs of the County. Courses will also include a “hands-on” portion using the delivered solution. All system functions will be addressed during the “hands-on” training. The objective of the training classes is to provide the students a complete functional understanding of the system.

System manuals will be provided as part of the training class. These manuals will be provided in electronic format (HTML and PDF) and be searchable.

All training will be completed on-site at a location designated by the County. PURVIS recognizes that the training schedule will need to be flexible in order to train personnel on differing shifts. PURVIS will accommodate night and weekend training if requested by the County.

The PURVIS Team will conduct the following training classes:

- FSAS Dispatcher / Administrator / Fire Personnel Training Class
- FSAS Technical Training

Multiple iterations of each class can be taught in order to accommodate the number of Dispatch and Fire personnel identified in Appendix D. A “Train the Trainer” format will be used. Training approach will be based on the training option selected by the County. The classes will be taught prior to acceptance testing of the first work site (station). Training will be conducted using actual FSAS equipment.

The following pages provide an overview of each of the classes:
# PURVIS FSAS Dispatcher/Administrator/Fire Personnel Training Class (DRAFT)

**Appropriate Audience:**
- Dispatch staff
- Administrators
- Fire personnel
- Staff responsible for maintaining system configurations (i.e. unit changes; station assignments; event code changes)

**Length of class:** Approximately 1 hour

**Maximum Class Size:** 18 Students

## Class Syllabus:

**PURVIS FSAS Dispatcher/Administrative Training Class**

- Welcome to Students
  - Introduction of instructor and students
  - Request students ask questions as they come up

- System Engineering Overview
  - Discuss the purpose and capabilities of the PURVIS FSAS
    - Central Servers
    - Dispatch Management Console software
    - Station Control Unit (SCU)
    - Fire station control and peripheral equipment
  - Connection to external systems (power, CAD, relays, audio radio, etc.)

- Walk-thru of alerting scenarios using the FSAS equipment (as available)
  - DM Console Dispatch Screen
  - SCU

- FSAS Portal
  - Manual alerting
  - Adding, editing, and deleting Units
  - Adding, editing, and deleting Incident Codes
  - Updating SCU applications and configurations

- Informal part of Class
  - Students are invited to, “Push the Buttons” on the DM Console and ask questions.

- Closing Remarks
PURVIS FSAS Technical Training Class (DRAFT)

| Appropriate Audience: | • County IT Staff  
|                      | • Staff responsible for monitoring system |
| Length of class:     | Approximately 2 hours |
| Maximum Class Size:  | 18 Students |

Class Syllabus:

**PURVIS FSAS Dispatcher/Administrative Training Class**

- **Welcome to Students**
  - Introduction of instructor and students
  - Request students ask questions as they come up

- **System Engineering Overview**
  - Discuss the purpose and capabilities of the PURVIS FSAS
    - Central Servers
    - Dispatch Management (DM) Console
    - Station Control Unit (SCU)
    - Fire station control and peripheral equipment
  - Connection to external systems (power, CAD, relays, audio radio, etc.)

- **Mastering the Hardware**
  - Detailed SCU operation
  - Detailed DM Console operation, including the FSAS Portal maintenance functions
  - System monitoring
  - Technical training and troubleshooting

- **Walk-thru of alerting scenarios using the FSAS equipment (as available)**
  - DM Console Dispatch Screen
  - SCU

- **FSAS Portal**
  - Manual alerting
  - Adding, editing, and deleting Units
  - Adding, editing, and deleting Incident Codes
  - Updating SCU applications and configurations

- **Informal part of Class**
  - Students are invited to “Push the Buttons” on the DM Console and ask questions.

- **Closing Remarks**

In support of the proposed on-site training program, PURVIS requires that DuPage County provide the following:

- **Provide a training environment that meets the following specifications:**
  - Space, tables and chairs for up to 18 students
  - Approximately 400 square feet of space
o Digital projector with ability to display on a wall or a large screen monitor(s) that allows all students to view the training material.

o Access to FSAS network in order to demonstrate FSAS functionality

- Schedule training classes to occur within the same calendar week.
- Ensure all personnel scheduled for training are present at schedule time(s).

If there are any training classes provided to PURVIS subcontractors on this project, the County staff will be invited to attend.

### 4.4 Warranty & Maintenance Descriptions

Providing comprehensive post-installation support is a critical element of the proposed solution. With that in mind, our delivered solution for DuPage County includes a comprehensive Warranty that provides:

- Software Warranty
- Hardware Warranty
- 24x7x365 Help Desk (Zendesk Ticket Management System)
- 24x7x365 Emergency Service Support
- Remote Software Support (VPN Access)
- FSAS Software Version Upgrades
- On-Site Hardware Maintenance

The PURVIS Team’s proposed Warranty and Post Warranty approach is one that we currently utilize for nearly all of our PURVIS FSAS clients. It is an approach that has continuously received positive feedback from our clients. While the number of outages our clients have experienced has been minimal, when an outage has occurred we have met our contractual SLAs 100% of the time. Our average PURVIS FSAS problem resolution time is less than two hours.

The Warranty begins the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. The warranty period lasts for two (2) years after the system is installed and operational in the two (2) PSAPs and in 50% of the fire stations. Our proposal also includes an interim Warranty on installed PURVIS FSAS hardware and software that begins as each dispatch center and fire station is brought on-line and continues until the primary Warranty begins.

Annual Maintenance on the delivered system begins immediately after the warranty period has expired. We propose that the same Service Level Agreement is utilized for the Warranty and Post Warranty Maintenance periods. A PURVIS FSAS Warranty, Maintenance and Support Agreement, which includes details on the coverage provided, is included in Section 11 of our proposal.

Problems that occur during the Warranty and Maintenance period will be handled via PURVIS’ documented Warranty and Maintenance Support Policies and Procedures. The PURVIS Team will deliver an FSAS System Support Manual (SSM) to DuPage County prior to the start of the Warranty period. This document provides the procedures for reporting, tracking, documenting and resolving hardware and software warranty issues.
The following paragraphs detail our proposed Service Level Agreement (SLA) for Warranty and Maintenance Support:

**PURVIS' SLA:**

| Hardware Warranty | PURVIS warrants that during the Warranty and Maintenance Periods, the Hardware provided by PURVIS will be free of defects in materials and workmanship, and conform to specifications set forth in the Contract and any FSAS user manuals/documentation provided to Customer. PURVIS' sole liability and responsibility under this warranty is to repair or replace, at PURVIS' option, any Hardware provided by PURVIS which PURVIS determines does not conform to the warranty. This warranty does not cover Hardware that requires replacement due to normal wear and tear (such as UPS battery), is damaged as a result of vandalism, misuse, force majeure or other act of God (such as flood, lightning strike, etc.), is disassembled, modified or tampered with, or is otherwise negligently or improperly installed or maintained by Customer. |
| Software Warranty | "Software" means all software, firmware, and databases created by PURVIS for the PURVIS FSAS. Refer to PURVIS' proposal and/or the Contract for the specific Software items licensed by Licensee under this Agreement. **Software License.** PURVIS grants Customer a non-exclusive, perpetual license to use the Software only in connection with the FSAS and solely for Customer's internal business use. No license or right is granted to license, sell, disclose or otherwise transfer the Software to others. Customer shall not manufacture, modify, reproduce, copy, reverse engineer, decompile, disassemble or create derivative works of Software. Customer acknowledges that any documentation delivered in connection with the software included in the FSAS is PURVIS' proprietary information, and Customer may not disclose, assign or sublicense such documentation and information to anyone without PURVIS' prior written consent and then only on terms acceptable to PURVIS. Customer represents and warrants that it is acquiring the Software and the FSAS for its own business use and purpose, without any intention to re-sell or transfer the Software or the FSAS to any third party. PURVIS warrants that Software manufactured by PURVIS, under normal use and service as originally delivered to Customer, will function substantially in accordance with the functional description in the PURVIS proposal during the Warranty and Maintenance Period. PURVIS' sole liability and Customer's sole remedy for breach of this Software warranty shall be, at PURVIS' election, PURVIS' good faith effort to rectify the nonconformity or replace the Software with Software that conforms. This warranty does not apply if Software failure is a result of accident, misuse, abuse, misapplication or unauthorized modification by Customer. |
During the Warranty and Maintenance periods, it is expected that Customer shall perform any configuration updates/changes to the system for which training was provided.

| Help Desk Support | All requests for support must be initiated through the PURVIS Help Desk. The PURVIS Help Desk receives and logs all customer support calls and creates trouble tickets for all calls received. The Help Desk is staffed to receive calls 24x7x365.

**Emergency Requests:** Contact the Help Desk by phone.

All Emergency Requests will be confirmed by return phone call: a PURVIS Support Engineer shall acknowledge Customer’s request within two (2) hours of receipt, and will solicit specific details regarding the service request if needed. Following this initial response, PURVIS will classify the event by priority level: Emergency Service Request or Non-Emergency Service Request.

**Non-Emergency Requests:** Contact the Help Desk online or via e-mail.

For Online or Email requests: a PURVIS Support Engineer shall acknowledge Customer’s request within two (2) hours of receipt during normal business hours, Monday through Friday, between the hours of 8 AM and 5 PM Eastern Time, excluding federal holidays. PURVIS will solicit specific details regarding the service request if needed.

**Emergency Service Request** is defined as a major failure of FSAS software or hardware that results in no service at one or more locations. Response to an Emergency Service Request is provided within two hours following request. PURVIS will troubleshoot, diagnose and repair emergency system failures 24/7/365, including holidays, until resolved.

**Non-Emergency Service Request** is defined as a failure or incident in which the service continues to operate, but a non-critical feature, such as a speaker, is not available or does not function as it should. Service for non-emergency failures is provided during normal business hours, Monday through Friday, between the hours of 8 AM and 5 PM Eastern Time, excluding federal holidays. Response to a Non-Emergency Service Request is provided within the next business day, and will typically be resolved within two business days.

| Emergency Svc. Support | Emergency Service Support is provided 24x7x365 to address system failures that result in no service at one or more locations.

| Remote Access Support | PURVIS FSAS support engineers provide remote support through VPN and Windows Remote Desktop access to the system. PURVIS FSAS Central Servers, Station Control Units and Dispatch Management Consoles will be factory configured to support remote access. If remote troubleshooting is required by the PURVIS engineering staff, the engineer assigned to the trouble call will VPN into the system. Using a remote desktop to access the PURVIS FSAS Central Server(s), the Station Control Unit(s), or the Dispatch/Management Console(s), the engineer will investigate the
reported issue by reviewing system logs which are all written to disk and saved in the PURVIS FSAS Database. Through the remote desktop session, the engineer will also have the ability to view and use the graphic user interfaces (GUI) on the PURVIS FSAS DM Console(s) and Station Control Unit(s).

<table>
<thead>
<tr>
<th>On-Site Technical Assistance</th>
<th>On-Site Technical Assistance is available to support service requests that cannot be resolved remotely.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preventive Maintenance</td>
<td>Preventive maintenance visits will be scheduled at each station during the normal business hours of Monday – Friday between the hours of 8 AM and 5 PM local time. Preventive maintenance is performed with the objectives of prolonging the life of equipment and preventing the need for corrective and emergency repairs. All major components of the system are cleaned and tested, and any unreported equipment failure is identified and repaired. One (1) Preventive Maintenance visit will be performed at each station during the initial Warranty Period, and annually thereafter.</td>
</tr>
<tr>
<td>Software and Hardware Upgrades</td>
<td>PURVIS operates on a bi-annual build/release cycle for normal FSAS hardware and software maintenance builds. Major software version upgrades are planned for rollout on an 18-month cycle. PURVIS FSAS software version upgrades are always backwards compatible with existing PURVIS FSAS hardware installed in a customer location. Newly released PURVIS FSAS hardware devices or upgrades are made available to customers to purchase as they become available. General availability PURVIS FSAS software version upgrades for critical issue patches and scheduled major version upgrades are included as part of the proposed Warranty and Maintenance Program. Any critical software issues that may arise will be addressed and patches will be released in General Availability as soon as they are completed and successfully pass a rigorous regression test cycle. PURVIS FSAS software updates can be performed centrally through the PURVIS FSAS DM Console. County personnel will have access to the software update function, however we recommend that a PURVIS FSAS support engineer, via a County approved remote access to the system, perform the updates so that system performance can be closely monitored during the update process. All software updates and planned maintenance to the system will be coordinated with the County. PURVIS FSAS SCU updates take approximately 30 seconds. During the PURVIS FSAS SCU update, the PURVIS FSAS in the station will automatically failover to Radio Bypass Mode and stations will be alerted over radio. The audio from the radio in the station will broadcast over the station PA system even if the PURVIS FSAS SCU is off-line or not operational. The PURVIS FSAS SCU will automatically resume normal operations as soon as the update is complete.</td>
</tr>
</tbody>
</table>
TICKET TRACKING AND MANAGEMENT

PURVIS utilizes the Zendesk Customer Service and Help Desk software product to track and manage all service tickets. When a DuPage County individual contacts the Help Desk, a service ticket will be immediately generated and assigned to the PURVIS Support Engineer. This ticket will automatically be emailed to all PURVIS FSAS Tier 1 and Tier 2 support staff; PURVIS Engineering Management; the appropriate PURVIS Project Manager, the PURVIS Account manager, and County identified personnel. As PURVIS support staff investigate and resolve the problem, they will continually update the service ticket. If the ticket is re-assigned to a different support staff individual, the ticket will be updated accordingly. Each time the ticket is updated, email updates will be sent to everyone that was on the original distribution. This tool and process ensure that the County and all team members are kept current on the status of a problem resolution.

4.5 Timeline Implementation Plan

The PURVIS Team has decomposed the RFP requirements and developed a detailed Work Breakdown Structure (WBS). Then utilizing our in-depth experience in designing, installing and implementing the PURVIS FSAS we developed a detailed schedule for the project. This schedule goes from Notice to Proceed through to the Final System Acceptance and the County's required 30 day system reliability period. Our schedule details the tasks, start and end dates, dependencies, deliverables and County dependencies for each phase of the project. The completion date for each Milestone defined by the County in RFP Addendum # 5 is highlighted in our schedule.

Our implementation schedule was developed by our proposed Project Manager, Mr. Joe Drago, with significant input from the PURVIS Vice President of Engineering and FSAS Technical Architect, Mr. Paul Livingston. Only personnel with significant experience and knowledge of the PURVIS FSAS developed the schedule, and they will fully own the responsibility of FSAS implementation. DuPage County should have a high level of confidence in our Team's ability to successfully meet this schedule.

The PURVIS Team's proposed schedule offers several benefits to DuPage County, including:

- A realistic schedule developed by a team with in-depth experience in FSAS implementation results in low schedule risk.
- A schedule that allows the County to experience the benefits of the system within the timeframe it expected because the schedule aligns with the following required timeframes defined in RFP Addendum # 3:
  - CAD System live in August 2018
  - A ninety (90) day notice will be given to vendor as to when they will have access to new dispatch center building to begin installation
  - Vendor shall have 30 days for the installation from the point they begin installation until the system is operationally ready for cutover
  - All participating fire stations cutover within six (6) months from the time their primary PSAP headend is available
- A project team that is ready to commence project activities on the day of Notice to Proceed.
• Clear definition of the responsibilities of DuPage County and when these responsibilities need to be performed, allowing the County project team to schedule their time well in advance.

The following pages present the PURVIS Team’s detailed timeline implementation plan. Our implementation schedule uses 8/1/2017 as a start date. If the Notice to Proceed is earlier or later than this date, the schedule will be adjusted but the project duration will remain the same.

During project performance, this schedule will become a part of the overall Project Plan. It will be baseline at the completion of the Requirements Phase and will be updated on either a weekly basis or other interval as agreed to with the County’s Project Manager.

<table>
<thead>
<tr>
<th>WBS</th>
<th>Task Name</th>
<th>Duration</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dupage County FSAS</td>
<td>397 days</td>
<td>Tue 8/1/17</td>
<td>Wed 2/6/19</td>
</tr>
<tr>
<td>1.1</td>
<td>Planned Project Start Date</td>
<td>0 days</td>
<td>Tue 8/1/17</td>
<td>Tue 8/1/17</td>
</tr>
<tr>
<td>1.2</td>
<td>Milestone #1 Complete</td>
<td>0 days</td>
<td>Tue 8/1/17</td>
<td>Tue 8/1/17</td>
</tr>
<tr>
<td>1.3</td>
<td>External Milestone Dependencies</td>
<td>195 days</td>
<td>Wed 11/1/17</td>
<td>Wed 8/1/18</td>
</tr>
<tr>
<td>1.3.1</td>
<td>Addison Move-In to new location</td>
<td>0 days</td>
<td>Wed 11/1/17</td>
<td>Wed 11/1/17</td>
</tr>
<tr>
<td>1.3.2</td>
<td>Intergraph CAD Go Live</td>
<td>0 days</td>
<td>Wed 8/1/18</td>
<td>Wed 8/1/18</td>
</tr>
<tr>
<td>1.3.3</td>
<td>DuComm Move-in to new location</td>
<td>0 days</td>
<td>Wed 8/1/18</td>
<td>Wed 8/1/18</td>
</tr>
<tr>
<td>1.4</td>
<td>Constraint Dates</td>
<td>385 days</td>
<td>Wed 8/9/17</td>
<td>Tue 1/29/19</td>
</tr>
<tr>
<td>1.4.1</td>
<td>Phase 1 ACDC Stations Cutover Complete</td>
<td>0 days</td>
<td>Tue 1/29/19</td>
<td>Tue 1/29/19</td>
</tr>
<tr>
<td>1.4.2</td>
<td>Phase 2 DuComm Stations Cutover Complete</td>
<td>0 days</td>
<td>Tue 1/29/19</td>
<td>Tue 1/29/19</td>
</tr>
<tr>
<td>1.4.3</td>
<td>90 day Notice - ACDC Ready for Install</td>
<td>12 wks</td>
<td>Wed 8/9/17</td>
<td>Tue 10/31/17</td>
</tr>
<tr>
<td>1.4.4</td>
<td>90 Day Notice - DuComm ready for Install</td>
<td>3 mons</td>
<td>Wed 5/9/18</td>
<td>Tue 7/31/18</td>
</tr>
<tr>
<td>1.5</td>
<td>Project Management</td>
<td>397 days</td>
<td>Tue 8/1/17</td>
<td>Wed 2/6/19</td>
</tr>
<tr>
<td>1.5.1</td>
<td>Lead Project Activities</td>
<td>79.4 wks</td>
<td>Tue 8/1/17</td>
<td>Wed 2/6/19</td>
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<tr>
<td>1.6</td>
<td>Requirements and Configuration Phase</td>
<td>46 days</td>
<td>Tue 8/1/17</td>
<td>Tue 10/3/17</td>
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<tr>
<td>1.6.1</td>
<td>Network Configuration</td>
<td>46 days</td>
<td>Tue 8/1/17</td>
<td>Tue 10/3/17</td>
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<tr>
<td>1.6.1.1</td>
<td>PURVIS Provide DuPage with Network Configuration Spreadsheet</td>
<td>2 days</td>
<td>Tue 8/1/17</td>
<td>Wed 8/2/17</td>
</tr>
<tr>
<td>1.6.1.2</td>
<td>DuPage complete Network Configuration Spreadsheet</td>
<td>4 wks</td>
<td>Tue 8/1/17</td>
<td>Mon 8/28/17</td>
</tr>
<tr>
<td>1.6.1.3</td>
<td>DuPage and PURVIS jointly conduct review of spreadsheet and resolve open items</td>
<td>1 day</td>
<td>Tue 8/29/17</td>
<td>Tue 8/29/17</td>
</tr>
<tr>
<td>1.6.1.4</td>
<td>DuPage configure network for FSAS</td>
<td>3 wks</td>
<td>Wed 8/30/17</td>
<td>Tue 9/19/17</td>
</tr>
</tbody>
</table>
### 1.6.1.5 DuPage provide PURVIS remote secured access to the network
- **Duration:** 0 days
- **Dates:**
  - Tuesday, September 19, 2017
  - Tuesday, September 19, 2017

### 1.6.1.6 DuPage test network connectivity from FSAS Server IP to FSAS Station IP at each station
- **Duration:** 0 days
- **Dates:**
  - Tuesday, October 3, 2017
  - Tuesday, October 3, 2017

### 1.6.2 System Configuration
#### 1.6.2.1 Configuration Data Collection
- **Duration:** 21 days
- **Dates:**
  - Tuesday, August 1, 2017
  - Tuesday, August 29, 2017

- **Tasks**
  - **1.6.2.1.1** PURVIS Provide DuPage with System Configuration Spreadsheet and CAD data requests
    - **Duration:** 13 days
    - **Dates:**
      - Tuesday, August 1, 2017
      - Thursday, August 17, 2017

  - **1.6.2.1.2** DuPage Complete Spreadsheet
    - **Duration:** 10 days
    - **Dates:**
      - Thursday, August 3, 2017
      - Wednesday, August 16, 2017

  - **1.6.2.1.3** DuPage and PURVIS jointly conduct review of spreadsheet and resolve open items
    - **Duration:** 1 day
    - **Dates:**
      - Thursday, August 17, 2017
      - Thursday, August 17, 2017

#### 1.6.2.2 System Configuration Definition
- **Duration:** 8 days
- **Dates:**
  - Friday, August 18, 2017
  - Tuesday, August 29, 2017

- **Tasks**
  - **1.6.2.2.1** Conduct technical meeting to finalize system configuration
    - **Duration:** 1 day
    - **Dates:**
      - Friday, August 18, 2017
      - Friday, August 18, 2017

  - **1.6.2.2.2** Update System Configuration Document
    - **Duration:** 2 days
    - **Dates:**
      - Monday, August 21, 2017
      - Tuesday, August 22, 2017

  - **1.6.2.2.3** DuPage review and approve System Configuration Document
    - **Duration:** 5 days
    - **Dates:**
      - Wednesday, August 23, 2017
      - Tuesday, August 29, 2017

### 1.6.3 Station Design
- **Duration:** 22 days
- **Dates:**
  - Tuesday, August 1, 2017
  - Wednesday, August 30, 2017

- **Tasks**
  - **1.6.3.1** PURVIS provide Controller and Device specifications
    - **Duration:** 2 days
    - **Dates:**
      - Tuesday, August 1, 2017
      - Wednesday, August 2, 2017

  - **1.6.3.2** DuPage define and document location of controllers and devices in each station.
    - **Duration:** 20 days
    - **Dates:**
      - Thursday, August 3, 2017
      - Wednesday, August 30, 2017

### 1.7 System Construction / Integration Phase
- **Duration:** 246 days
- **Dates:**
  - Tuesday, August 15, 2017
  - Tuesday, July 24, 2018

- **Tasks**
  - **1.7.1 Production**
    - **Duration:** 176 days
    - **Dates:**
      - Tuesday, November 21, 2017
      - Tuesday, July 24, 2018

    - **Sub-tasks**
      - **1.7.1.1** Metal Fabrication and Purchase Controller Material
        - **Duration:** 8 weeks
        - **Dates:**
          - Tuesday, November 21, 2017
          - Monday, January 15, 2018

      - **1.7.1.2** Produce Controllers
        - **Duration:** 5 months
        - **Dates:**
          - Tuesday, January 16, 2018
          - Monday, June 4, 2018

      - **1.7.1.3** Procure Devices
        - **Duration:** 4 weeks
        - **Dates:**
          - Tuesday, December 19, 2017
          - Monday, January 15, 2018

      - **1.7.1.4** Procure & Configure Servers
        - **Duration:** 3 weeks
        - **Dates:**
          - Wednesday, May 9, 2018
          - Tuesday, May 29, 2018

      - **1.7.1.5** Phase 1 Ship ACDC Core hardware
        - **Duration:** 5 days
        - **Dates:**
          - Wednesday, June 20, 2018
          - Tuesday, June 26, 2018

      - **1.7.1.6** Phase 1 Ship FDACDC 1 Station Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Tuesday, March 20, 2018
          - Monday, March 26, 2018

      - **1.7.1.7** Phase 1 Ship FDACDC 2 Station Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Tuesday, March 6, 2018
          - Monday, March 12, 2018

      - **1.7.1.8** Milestone #2 Complete
        - **Duration:** 0 days
        - **Dates:**
          - Monday, March 12, 2018
          - Monday, March 12, 2018

      - **1.7.1.9** Phase 2 Ship DuComm Core Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Wednesday, July 18, 2018
          - Tuesday, July 24, 2018

      - **1.7.1.10** Phase 2 Ship Fire North Station Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Tuesday, June 26, 2018
          - Monday, July 2, 2018

      - **1.7.1.11** Phase 2 Ship Fire South Station Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Tuesday, June 26, 2018
          - Monday, July 2, 2018

      - **1.7.1.12** Phase 2 Ship Fire East Station Hardware
        - **Duration:** 5 days
        - **Dates:**
          - Tuesday, June 26, 2018
          - Monday, July 2, 2018
<table>
<thead>
<tr>
<th>Task Description</th>
<th>Duration</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Milestone #3 Complete</strong> Phase 2 Ship Fire West Station Hardware</td>
<td>5 days</td>
<td>Tue 6/26/18</td>
<td>Mon 7/2/18</td>
</tr>
<tr>
<td><strong>Phase 2 Ship Fire West Station Hardware</strong> Milestone #3 Complete</td>
<td>0 days</td>
<td>Mon 7/2/18</td>
<td>Mon 7/2/18</td>
</tr>
<tr>
<td><strong>Software Configuration</strong></td>
<td>20 days</td>
<td>Wed 8/30/17</td>
<td>Tue 9/26/17</td>
</tr>
<tr>
<td><strong>Build Configurations</strong></td>
<td>3 wks</td>
<td>Wed 8/30/17</td>
<td>Tue 9/19/17</td>
</tr>
<tr>
<td><strong>Engineering Test</strong></td>
<td>1 wk</td>
<td>Wed 9/20/17</td>
<td>Tue 9/26/17</td>
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<tr>
<td><strong>System Integration Phase</strong></td>
<td>49 days</td>
<td>Thu 9/21/17</td>
<td>Tue 11/28/17</td>
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<tr>
<td><strong>Network Integration</strong></td>
<td>8 wks</td>
<td>Wed 10/4/17</td>
<td>Tue 11/28/17</td>
</tr>
<tr>
<td><strong>Radio Integration</strong></td>
<td>2 wks</td>
<td>Wed 9/27/17</td>
<td>Tue 10/10/17</td>
</tr>
<tr>
<td><strong>Configure PURVIS Test Lab</strong></td>
<td>5 days</td>
<td>Thu 9/27/17</td>
<td>Wed 9/27/17</td>
</tr>
<tr>
<td><strong>Conduct Integration Testing</strong></td>
<td>2 wks</td>
<td>Thu 9/28/17</td>
<td>Wed 10/11/17</td>
</tr>
<tr>
<td><strong>CAD Integration Testing (Remote to PURVIS Facility)</strong></td>
<td>4 days</td>
<td>Thu 10/12/17</td>
<td>Tue 10/17/17</td>
</tr>
<tr>
<td><strong>ACDC</strong></td>
<td>2 days</td>
<td>Thu 10/12/17</td>
<td>Fri 10/13/17</td>
</tr>
<tr>
<td><strong>DU-COMM</strong></td>
<td>2 days</td>
<td>Mon 10/16/17</td>
<td>Tue 10/17/17</td>
</tr>
<tr>
<td><strong>Software Development</strong></td>
<td>10 days</td>
<td>Tue 8/15/17</td>
<td>Mon 8/28/17</td>
</tr>
<tr>
<td><strong>TTS Enable/Disable per station</strong></td>
<td>2 wks</td>
<td>Tue 8/15/17</td>
<td>Mon 8/28/17</td>
</tr>
<tr>
<td><strong>Test and Evaluation Phase</strong></td>
<td>233 days</td>
<td>Wed 8/9/17</td>
<td>Fri 6/29/18</td>
</tr>
<tr>
<td><strong>Test Planning</strong></td>
<td>40 days</td>
<td>Wed 8/9/17</td>
<td>Tue 10/3/17</td>
</tr>
<tr>
<td><strong>Prepare Acceptance Test Plan</strong></td>
<td>30 days</td>
<td>Wed 8/9/17</td>
<td>Tue 9/19/17</td>
</tr>
<tr>
<td><strong>DuPage review and approve Acceptance Test Plan</strong></td>
<td>5 days</td>
<td>Wed 9/20/17</td>
<td>Tue 9/26/17</td>
</tr>
<tr>
<td><strong>Update Test Procedures</strong></td>
<td>5 days</td>
<td>Wed 9/27/17</td>
<td>Tue 10/3/17</td>
</tr>
<tr>
<td><strong>Test Conduct</strong></td>
<td>187 days</td>
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<td>Fri 6/29/18</td>
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<tr>
<td><strong>Conduct Software Validation Testing (PURVIS Test Lab)</strong></td>
<td>8 wks</td>
<td>Thu 10/12/17</td>
<td>Wed 12/6/17</td>
</tr>
<tr>
<td><strong>Conduct Software Validation Testing (DuPage Test Site)</strong></td>
<td>4 days</td>
<td>Wed 6/20/18</td>
<td>Mon 6/25/18</td>
</tr>
<tr>
<td><strong>DuPage Conduct Acceptance Testing</strong></td>
<td>2 days</td>
<td>Tue 6/26/18</td>
<td>Wed 6/27/18</td>
</tr>
<tr>
<td><strong>Prepare and deliver Test report</strong></td>
<td>2 days</td>
<td>Thu 6/28/18</td>
<td>Fri 6/29/18</td>
</tr>
<tr>
<td><strong>Training Phase</strong></td>
<td>243 days</td>
<td>Wed 8/30/17</td>
<td>Fri 8/3/18</td>
</tr>
<tr>
<td><strong>Prepare Training Plan</strong></td>
<td>5 days</td>
<td>Wed 8/30/17</td>
<td>Tue 9/5/17</td>
</tr>
<tr>
<td><strong>DuPage review and approve Training Plan</strong></td>
<td>5 days</td>
<td>Wed 9/6/17</td>
<td>Tue 9/12/17</td>
</tr>
<tr>
<td><strong>Prepare Training Materials</strong></td>
<td>3 wks</td>
<td>Wed 9/13/17</td>
<td>Tue 10/3/17</td>
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<tr>
<td><strong>DuPage provide training logistics</strong></td>
<td>0 days</td>
<td>Tue 10/3/17</td>
<td>Tue 10/3/17</td>
</tr>
<tr>
<td><strong>Conduct On-site Training Classes (2 classes; total 5 sessions)</strong></td>
<td>2 days</td>
<td>Thu 8/2/18</td>
<td>Fri 8/3/18</td>
</tr>
<tr>
<td><strong>Installation and Cutover Phase</strong></td>
<td>351 days</td>
<td>Wed 10/4/17</td>
<td>Wed 2/6/19</td>
</tr>
<tr>
<td><strong>Installation Planning</strong></td>
<td>213 days</td>
<td>Wed 10/4/17</td>
<td>Fri 7/27/18</td>
</tr>
<tr>
<td><strong>Prepare Installation Plan</strong></td>
<td>5 days</td>
<td>Wed 10/4/17</td>
<td>Tue 10/10/17</td>
</tr>
<tr>
<td>Task ID</td>
<td>Task Description</td>
<td>Duration</td>
<td>Start Date</td>
</tr>
<tr>
<td>---------</td>
<td>------------------</td>
<td>----------</td>
<td>------------</td>
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<tr>
<td>1.10.1.2</td>
<td>DuPage review and approve Installation Plan</td>
<td>5 days</td>
<td>Wed 10/11/17</td>
</tr>
<tr>
<td>1.10.1.3</td>
<td>Prepare Device Cut Sheet and Wire List Package for Installation Team</td>
<td>5 days</td>
<td>Wed 7/18/18</td>
</tr>
<tr>
<td>1.10.1.4</td>
<td>PURVIS Train Installation Team</td>
<td>3 days</td>
<td>Wed 7/25/18</td>
</tr>
<tr>
<td>1.10.2</td>
<td>Installation</td>
<td>232 days</td>
<td>Tue 3/20/18</td>
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<tr>
<td>1.10.2.1</td>
<td>DuPage provide and configure all central and station radios for FSAS</td>
<td>0 days</td>
<td>Fri 7/27/18</td>
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<tr>
<td>1.10.2.2</td>
<td>Core Equipment Installation/Cutover/Acceptance</td>
<td>39 days</td>
<td>Wed 7/4/18</td>
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<td>Phase 1 ACDC</td>
<td>24 days</td>
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<tr>
<td>1.10.2.2.1.1</td>
<td>Phase 1 ACDC Server/RIU/DM Installation</td>
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<td>Wed 7/4/18</td>
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<td>1.10.2.2.1.2</td>
<td>Milestone #4 Complete</td>
<td>2 days</td>
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<td>Phase 1 On-Site CAD/Network/Radio Integration Testing</td>
<td>4 wks</td>
<td>Fri 7/6/18</td>
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<tr>
<td>1.10.2.2.1.4</td>
<td>Phase 1 Core System Cutover and Acceptance</td>
<td>2 days</td>
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<td>Milestone #12 Complete</td>
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<td>Phase 2 DuComm</td>
<td>19 days</td>
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<td>1.10.2.2.2.1</td>
<td>Phase 2 DuComm Server/RIU/DM Installation</td>
<td>2 days</td>
<td>Wed 8/1/18</td>
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<tr>
<td>1.10.2.2.2.2</td>
<td>Milestone #5 Complete</td>
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<tr>
<td>1.10.2.2.2.3</td>
<td>Phase 2 On-Site CAD/Network/Radio Integration Testing</td>
<td>3 wks</td>
<td>Fri 8/3/18</td>
</tr>
<tr>
<td>1.10.2.2.2.4</td>
<td>Phase 2 Core System Cutover and Acceptance</td>
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<td>Fri 8/24/18</td>
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<tr>
<td>1.10.2.2.2.5</td>
<td>Milestone #13 Complete</td>
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<td>Mon 8/27/18</td>
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<tr>
<td>1.10.2.3</td>
<td>Station Installation/Cutover/Acceptance</td>
<td>210 days</td>
<td>Tue 3/20/18</td>
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<tr>
<td>1.10.2.3.1</td>
<td>Phase 1 Installation</td>
<td>80 days</td>
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<tr>
<td>1.10.2.3.1.1</td>
<td>Phase 1 FDACDC 1</td>
<td>14 wks</td>
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<td>0 days</td>
<td>Mon 7/9/18</td>
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<tr>
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<td>Phase 1 FDACDC 2</td>
<td>16 wks</td>
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<td>Milestone #7 Complete</td>
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</tr>
<tr>
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<td>Phase 2 Installation</td>
<td>130 days</td>
<td>Tue 7/10/18</td>
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<td>Phase 2 Fire North</td>
<td>26 wks</td>
<td>Tue 7/10/18</td>
</tr>
<tr>
<td>1.10.2.3.2.2</td>
<td>Milestone #8 Complete</td>
<td>0 days</td>
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</tr>
<tr>
<td>1.10.2.3.2.3</td>
<td>Phase 2 Fire South</td>
<td>26 wks</td>
<td>Tue 7/10/18</td>
</tr>
<tr>
<td>1.10.2.3.2.4</td>
<td>Milestone #9 Complete</td>
<td>0 days</td>
<td>Mon 1/7/19</td>
</tr>
</tbody>
</table>
4.6 System Test and Acceptance Plan

The PURVIS Team has significant experience in the design, development, integration and testing of large complex mission critical systems for public safety agencies. This experience includes the successful deployment of all current FSAS in New York, Boston, DC and Charleston and Montgomery Counties. Our experience has led to the establishment of a formal System Test and Evaluation approach that will be applied to all efforts under this contract. This approach will ensure that DuPage County receives a high quality product and that the FSAS installation is performed correctly.

4.6.1 PURVIS Team Testing Approach

The following table illustrates the PURVIS Team’s structured approach to completing system test and evaluation.
<table>
<thead>
<tr>
<th>Test Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requirements and Configuration Review</td>
<td>Review / documentation of the County defined FSAS requirements.</td>
</tr>
<tr>
<td>Acceptance Test Plan Preparation</td>
<td>Preparation of an Acceptance Test Plan to define the entry criteria planned testing, exit criteria, test logistics and personnel responsibilities associated for all testing phases of the DuPage County FSAS implementation. This will include overall System and Station Acceptance. The Acceptance Test Plan will be provided to DuPage County within 30 calendar days after the system design is complete for the first worksite. The County will review the plan and provide comments. The PURVIS Team will incorporate comments and deliver to the County for final review and approval. The County approved Acceptance Test Plan will drive all testing activities.</td>
</tr>
</tbody>
</table>
| Configuration and Integration Testing at PURVIS | Activities during this phase include:  
  - Setup of PURVIS lab facilities to emulate DuPage County Central and Station Systems  
  - Completing integration and testing with CAD systems using VPN to established FSAS “Sandbox” System  
  - Completing radio integration and testing; verification of VHF tones  
  - Tailoring of existing PURVIS FSAS Integration Test Script to meet specific DuPage County requirements. Script covers FSAS Functional, Configuration, Failover, Manual Alerting and CAD Interface testing.  
An FSAS environment that mimics the DuPage County environment will be maintained at the PURVIS RI facility for the purposes of this test phase; System Verification Testing; overall testing and problem resolution support and on-going maintenance testing for new versions of software and hardware. |
| System Verification Testing at PURVIS | Verification testing conducted by the PURVIS test engineers using standardized test script and test lab environment; Focus on:  
  - End to end functional testing  
  - Station specific configuration testing  
  - Operational testing using simulated CAD interface and CAD system test interfaces (if available)  
Test issues are documented using bug tracking tools; configuration management of hardware and software is used to provide traceability. |
<table>
<thead>
<tr>
<th>Test Process</th>
<th>Description</th>
</tr>
</thead>
</table>
| System Integration at DuPage County | Multiple integration and testing activities include:  
- Network Integration - Integration and testing of Central Servers, DM Consoles and RIU’s that are installed, and operational on the County LAN and WAN  
- CAD Integration - Integration and testing with all CAD test and production servers; gather and review operational log files to verify operational CAD data from each Dispatch Center (CAD site)  
- Radio Integration - Integration and test of RIU’s with attached radios; verify two tones to remote receivers; generate live dispatch audio on designated test channels for customer review and acceptance  
- Station Integration - Integration and testing to verify each station’s connectivity, software status and dispatch functionality  

Note: Some activities will be completed remotely using VPN access from PURVIS to the installed Central Servers. When onsite, multiple integration activities will be completed during scheduled test periods. |
| Acceptance Test Procedure Development | Tailoring of existing PURVIS FSAS Acceptance Test Procedures to meet specific DuPage County requirements. Test procedures will encompass all functional requirements identified in the RFP. DuPage County will review and comment on all Acceptance Test Procedures. The PURVIS Team will incorporate all comments. |
| System Verification Testing at DuPage County | End to end testing conducted by the PURVIS test engineers using selected station environments (first article sites), the installed central system production environment and multiple Dispatch Centers and CAD Systems. Preparation for Acceptance Testing. |
| Acceptance Testing | Conduct Acceptance Testing efforts jointly with the County using selected station environments (first article sites) and installed central system production environment. Acceptance testing will focus on customer requirements and encompass:  
- Functional Testing  
- Configuration Testing  
- Failover Testing  
- CAD Interface Testing  
- Manual Alerting |


### Test Process

<table>
<thead>
<tr>
<th>Test Process</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>All testing will be conducted using FSAS equipment and the CAD interface and will not be done using simulation.</td>
<td></td>
</tr>
<tr>
<td>Cutover Preparation &amp; Execution</td>
<td>Preparation and review of cutover / migration and back out process. Generation of station checklists to validate successful cutover.</td>
</tr>
<tr>
<td>Test Reporting</td>
<td>Formal test documentation provided to the County to document completion of Acceptance Testing and Station Cutover.</td>
</tr>
</tbody>
</table>

### 4.6.2 Included Components

The scope of PURVIS’ testing (verification, integration and acceptance) will include the following components:

- CAD Interface
- FSAS Central Servers
- FSAS Radio Interface Units (RIU)
- Radios (integration to RIU)
- Dispatch Management Consoles (DM)
- FSAS Station Control Unit
- Station devices (relays, audio, UPS, etc)
- Any “Advanced” Optional Equipment selected by the County or individual departments

### 4.6.3 Proposed Test Plan

A preliminary Acceptance Test and Cutover Plan (section 3 of the plan only) for DuPage County FSAS implementation has been provided in the Appendix. Upon contract award PURVIS’ Lead Test Engineer, Mr. Dennis Kamerzel, will meet with DuPage County project personnel to review this plan and incorporate any changes required based on the finalized project requirements. The Acceptance Test Plan will be provided to DuPage County within 30 calendar days after the system design is complete for the first worksite. The County will have approval authority over the Test Plan. Any updates to the plan will be reviewed and approved by DuPage County. Once approved the Test Plan will become the guide for all project FSAS testing.

As delivered to DuPage County, the completed Test Plan prepared by PURVIS as part of the contract will be structured as follows:

1. Overview
   1.1 Introduction
   1.2 Objective
2. Test Preparation
   2.1 System Requirements
   2.2 System Configuration
2.3 System Overview

3. Acceptance Test Program

4. Test Performance
   4.1 System Readiness
   4.2 Test Scripts
   4.3 Problem Tracking
   4.4 Final Reports

In response to this RFP, PURVIS is providing a preliminary test plan that has been developed for DuPage County. This preliminary plan consists only of Section 3 (Acceptance Test Program) in recognition that project details for other sections will need to be confirmed as part of the final contract.

4.6.4 Issue Resolution

As testing proceeds through the configuration and integration phase, issues are generally fixed as the software engineers find them. As the program enters the system integration and verification phases where formal test scripts and procedures are utilized, it is critical to employ a structured approach to tracking issues and documenting discrepancies. At this point, the formal problem tracking process developed by PURVIS will be implemented and followed throughout all remaining test phases including final acceptance testing.

The problem tracking process enforces that all discrepancies are reported on a standard Problem Trouble Report (PTR) form, tracked through a PTR database, reviewed on a consistent basis until resolved and finally closed out by documenting the resulting action. PURVIS presently uses the software application "JIRA" to perform these functions.

All FSAS system problems will be reported starting with system verification testing in the PURVIS test facilities and continuing through the remaining integration, verification and acceptance testing activities including initial live operations. Each issue will be assigned a priority that is reviewed with Project Management and modified if necessary. Priority levels will be high, medium and low. This data along with current status will be maintained in the PTR database until resolution is reached and verified. Problem status will be reported at scheduled project meetings with DuPage County.

During Acceptance Testing the PURVIS Team will resolve each defect found within 30 calendar days of the day the defect was found. The PURVIS Team will provide daily updates on defect resolution progress to the County during the Acceptance Testing period.
5.0 Addenda Number Acknowledged

PURVIS has received a total of 11 Addenda, Q&A dated 4-11-207 and Q&A dated 5-5-17. This is also noted on the Proposal Form provided as part of our response as required.
6.0 References

Provided on the following pages are four references for similar projects that PURVIS has provided similar equipment, material or services for a period of not less than six (6) months. It may also be of interest to the County to know that PURVIS is currently finalizing a contract with the City of Naperville, IL for the implementation of the PURVIS FSAS in all City fire stations. Contact information for City of Naperville personnel or for any other PURVIS customers not identified below will be provided upon request.
# 6.1 DuPage County Reference Form

**ETSB OF DUPAGE COUNTY, ILLINOIS**

## REFERENCES

The Proposer must list four (4) references, listing firm name, address, telephone number and contact person to whom they have provided similar equipment, material or services for a period of not less than six (6) months. Additional references may be required. If Proposer is a new business, provide references that will enable the ETSB of DuPage County to determine if Proposer is responsible.

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>City of Boston</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>9 Fenway</td>
</tr>
<tr>
<td></td>
<td>Boston, MA 02115</td>
</tr>
<tr>
<td>CONTACT PERSON:</td>
<td>Mr. Joseph Brooks, Radio Supervisor</td>
</tr>
<tr>
<td>TELEPHONE NUMBER:</td>
<td>617-343-2875 or email: <a href="mailto:joeb.bfd@cityofboston.gov">joeb.bfd@cityofboston.gov</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>District of Columbia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>District of Columbia Office of Unified Communications</td>
</tr>
<tr>
<td></td>
<td>2720 Martin Luther King Jr. Avenue, S.E.</td>
</tr>
<tr>
<td></td>
<td>Washington, DC 20032</td>
</tr>
<tr>
<td>CONTACT PERSON:</td>
<td>Mr. Teddy Kavaleri, Chief Information Officer</td>
</tr>
<tr>
<td>TELEPHONE NUMBER:</td>
<td>202-715-7557 or email: <a href="mailto:teddy.kavaleri@dc.gov">teddy.kavaleri@dc.gov</a></td>
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</tbody>
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<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>County of Charleston, S.C.</th>
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<tbody>
<tr>
<td>ADDRESS:</td>
<td>Charleston County Consolidated 9-1-1 Center</td>
</tr>
<tr>
<td></td>
<td>8500 Palmetto Commerce Parkway</td>
</tr>
<tr>
<td></td>
<td>North Charleston, SC 29456</td>
</tr>
<tr>
<td>CONTACT PERSON:</td>
<td>Mr. James Lake, Director</td>
</tr>
<tr>
<td>TELEPHONE NUMBER:</td>
<td>843-529-3701 or email: <a href="mailto:JLake@charlestoncounty.org">JLake@charlestoncounty.org</a></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>City of New York Fire Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS:</td>
<td>9 MetroTech Center</td>
</tr>
<tr>
<td></td>
<td>Brooklyn, NY 11201-3858</td>
</tr>
<tr>
<td>CONTACT PERSON:</td>
<td>Mr. Kevin Jones, Director, Computer Aided Dispatch, Programming &amp; Operations</td>
</tr>
<tr>
<td>TELEPHONE NUMBER:</td>
<td>718-999-2866 or email: <a href="mailto:kevin.jones@fdny.nyc.gov">kevin.jones@fdny.nyc.gov</a></td>
</tr>
</tbody>
</table>
6.2 Reference Descriptions

Reference 1: City of Boston

<table>
<thead>
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<tbody>
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<td></td>
<td><a href="mailto:joeb.bfd@cityofboston.gov">joeb.bfd@cityofboston.gov</a></td>
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</table>

Project Description:

3/2013 – 06/2014

PURVIS implemented its Fire Station Alerting System (FSAS) in the City of Boston. Deployment of the system is city-wide consisting of all 35 fire stations, a fire training room, and the Fire Communications Center. The FSAS automates the alerting process between the Dispatch Center and the fire stations through an interface to the City’s newly implemented Intergraph computer aided dispatch (CAD) system. It utilizes Boston’s Optical Network (BONET) infrastructure for Internet Protocol (IP) connectivity to all fire department facilities.

The project included the delivery of hardware, software, and services. Hardware provided by PURVIS included a PURVIS FSAS Central Server and Dispatch Management Consoles in the Dispatch Center and a redundant FSAS Central Server in the Boston Fire IT backup site, and a PURVIS FSAS Station Control Unit, a wall mounted UPS and a PURVIS FSAS printer in each fire station. PURVIS interfaced the FSAS with several of the City’s existing systems and devices already installed in each fire station, including public address/speaker systems, Federal Alert Receivers and trip lights.

Services provided by PURVIS included project management, system integration, configuration, testing, training, documentation, cutover, and maintenance/support.

The FSAS went live in conjunction with the City’s cutover of the Intergraph CAD system in June, 2014. In August, 2015 the City implemented a second phase of the project to include the broadcast automated voice dispatch announcements through the PURVIS FSAS over the City’s radio network. The City plans to implement a third phase of the project which will include the installation and integration of additional station alerting devices such as lights, visual displays, etc.
In 2016 PURVIS developed a deployed a Personnel Accountability Report (PAR) Status Monitor Application for the Boston Fire Department. The PAR application is designed to aid the department in quickly and easily accounting for personnel on-scene at an incident. The PAR Status Monitor Application provides the following benefits:

- Intuitive so that data can be input with as few steps as possible and status information can be accessed quickly and easily
- Interfaces with the Department's Intergraph CAD System for the purpose of automatically capturing Roster, Unit Status and Special Comments data in the CAD
- Provides near real-time data updates automatically from CAD and through manual updates entered by PAR Application Status Monitor Application users
- Integrated with the PURVIS FSAS Dispatch Management Consoles at Boston Fire Alarm for the purpose of dispatch personnel viewing and utilizing the application
- User interface at Boston Fire Alarm supports both touch screen and mouse/keyboard controls
- Capable of being displayed on one or more 50” monitors at Boston Fire Alarm
- Accessible from any web-connected computer or mobile device for Incident
- Commanders and other personnel to quickly and easily access accountability information on-scene at an incident
Reference 2: District of Columbia

<table>
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<td>202-715-7557 <a href="mailto:teddy.kavaleri@dc.gov">teddy.kavaleri@dc.gov</a></td>
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</tbody>
</table>

Project Description:

07/2011 – 12/2012

This contract includes the configuration, installation, project management, training and ongoing maintenance of a fire station alerting system for the District of Columbia. The system is installed in 36 locations throughout the District, including the Public Safety Command Center (PSCC), the Unified Communication Center (UCC), 32 Fire Stations, the Fire Boat and the District’s Radio Shop.

The FSAS interfaces with the District’s computer aided dispatch (CAD) and radio systems to fully automate the dispatching of fire and EMS calls. Alerting devices installed with the system include flat panel displays, multi-colored incident lights, speakers, and printers. Ramped audio tones and low intensity lighting help reduce stress on fire and EMS personnel.

Cameras installed with the FSAS help to enhance the safety of both station personnel and the DC community. The cameras, which have an integrated microphone, are installed with a doorbell at the front door of each fire station. When the doorbell is depressed, station personnel have the ability to see and have a two-way dialog with the person(s) standing outside. If station personnel do not respond to the doorbell alert within a designated period of time, dispatchers are alerted to the camera activation via visual and audible alerts. Dispatchers have the same camera and audio communications capabilities provided at the fire station.
Reference 3: County of Charleston, SC

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>Charleston County, SC</th>
</tr>
</thead>
</table>
| ADDRESS:              | Charleston County Consolidated 9-1-1 Center  
8500 Palmetto Commerce Parkway  
North Charleston, SC 29456 |
| CONTACT PERSON:       | Mr. James Lake, Director |
| TELEPHONE NUMBER:     | 843-529-3701  
JLake@charlestoncounty.org |

Project Description:

05/2013 – 07/2014

PURVIS implemented a turnkey Fire Station Alerting System (FSAS) in the County of Charleston, SC to automate the fire and EMS alerting process between the dispatch centers and the fire station(s). The project included the hardware, software, installation, training and engineering services necessary to implement a fully functional, automated system. Deployment of the system consists of the County’s Consolidated 911 Center, the Backup Consolidated Dispatch Center, 75 fire stations, and a testing/training room.

At each dispatch location, the station alerting solution consists of an interface to the County’s TriTech Computer Aided Dispatch system, data and audio interfaces to the County’s radio network, a Central Server (located in each facility for geographic redundancy) and FSAS Dispatch Management Software for system monitoring, reporting, configuration, and manual alerting if needed. Equipment installed in each fire station consists of a Station Control Unit with a touch screen display, self-amplified speakers with new wiring, an Uninterruptible Power Supply (UPS), and a radio interface. In addition, 24 fire stations elected to have FSAS printers installed. Audio zones provide the County the ability to alert by zone and ramped audio and day/night audio controls provide greater flexibility in how alerts are delivered within the station.

The FSAS transmits automated alerts to the fire stations over multiple data communications paths, including the County’s existing IP networks and a Verizon cellular network. Automated Text-To-Speech (TTS) audio announcements are also broadcast on 14 radio channels to deliver announcements to handheld radios in the field and to each fire station for alert redundancy. Additionally, alerts and system trouble notices are automatically sent to designated personnel via e-mail and SMS text messages.
Reference 4: City of New York

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<td>Programming and Operations</td>
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<td>718-999-2366</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:kevin.jones@fdny.nyc.gov">kevin.jones@fdny.nyc.gov</a></td>
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</table>

Project Description:

03/2005 – 09/2011

PURVIS Systems’ initial Fire Station Alerting System offering is deployed as the "modernized Voice Alerting System" in all 243 firehouses throughout all 5 boroughs of New York City. The modernized VA System is an independent alerting system that was designed and developed by PURVIS. The system is the foundation of the PURVIS FSAS solution implemented by PURVIS in DC, Boston, Charleston County and in several other locations and it was also recently implemented by PURVIS across all 243 firehouses in NYC.

PURVIS performed the design, fabrication, installation, testing and associated maintenance of the digital Voice Alerting (VA) System. We provided systems for five Communications/Dispatch Offices (COs), system installation in each CO, training and documentation. The VA System provides communications between each of five borough Communications Offices and the firehouses within the borough. Under emergency operating conditions, the VA System in each borough is capable of communicating to firehouses and EMS stations in other boroughs, and under extreme conditions, to all firehouses and EMS stations within the City of New York.

The modernized VA System includes the following functionality:

- Provide voice and alert tones to each firehouse
- Broadcast to predefined groups or to all firehouses
- Broadcast to a selected group of firehouses
- Simulate two-way simplex voice communications
- Provide visual indication of unit status and firehouse located
- Utilize built-in test and status indicators
7.0 Bid Security Check
KNOW ALL MEN BY THESE PRESENTS, that we PURVIS SYSTEMS INCORPORATED, of 88 Silva Lane, Middletown, Rhode Island as Principal, hereinafter called the Principal, and TRAVLERS CASUALTY AND SURETY COMPANY OF AMERICA a corporation duly organized under the laws of the State of Connecticut as Surety, hereinafter called the Surety, are held and firmly bound unto DUPAGE COUNTY TREASURER'S OFFICE as Obligee, hereinafter called the Obligee, in the sum of ONE THOUSAND AND NO/100THS Dollars ($1,000.00),

for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for DuPage County Fire Station Alerting

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

Signed and sealed this 14th day of June, 2017.
8.0 PURVIS & Subcontractor Company Information

Founded in 1973, PURVIS is a privately held company with a 44-year track record of stability and success. We are wholly owned and operated with no parent companies or subsidiaries. Our purpose is to develop, integrate and modernize reliable technology and communications solutions that support the life-critical missions of Public Safety organizations, and we having been doing it for more than four decades.

With over 125 employees today, our company is big enough to successfully manage large-scale projects. However, we are not so large that our clients get lost in the shuffle. PURVIS is financially sound and has a national presence, with clients including the Counties of Charleston, SC, Montgomery, MD, Williamson, TX, and Harris, TX, and the cities of New York, Boston, DC, Gainesville, and Plano, the National Institutes of Health (NIH), and the U.S. Navy, among others. PURVIS also provides services to support the City of Chicago's 911 Emergency Communications Center.

8.1 PURVIS Qualifications

Our unbroken history of 40+ years of providing support and service to the FDNY is a testament to our commitment in supporting our partnerships.

PURVIS has been installing and maintaining mission critical systems for fire departments and other public safety organizations for more than four decades. We have been in the fire station alerting industry with related equipment and accessories for 27 years and we have been selling, installing, maintaining and enhancing the PURVIS FSAS for over 10 years. We have completed PURVIS FSAS implementations throughout the Country including in many locations similar and size and scope to DuPage County with zero impact to operations, including New York City, Charleston County, SC, Montgomery County, MD, the City of Boston and Washington D.C., among others. There are over 70 fire and rescue organizations with over 550 stations that are currently alerted or will soon be alerted through the PURVIS FSAS.

Among PURVIS' fire industry experience is a 43-year history of uninterrupted service to the Fire Department of New York City (FDNY). This 43-year history of support to FDNY involves the development, installation and maintenance of dispatching, alerting and communications systems. We strive for building and maintaining long-term partnerships with our customers. Customer satisfaction is paramount, and our growth is carefully managed to ensure we maintain our ability to meet our clients’ needs and expectations. Our ongoing history of service to the FDNY is a testament to our commitment to supporting our partnerships.

With annual revenues of approximately $25 million, PURVIS has the necessary financial strength and stability to effectively support DuPage County through the implementation of this project and over the long-term during the warranty and extended maintenance periods. With over 125 employees, we have the size and resources available to properly support a project of this size and scope. In our 44-year history of implementing mission-critical systems in complex federal,
state and local government environments, PURVIS has never failed to complete a project and PURVIS has never been involved in any litigation for breach/default of contract.

Technical Expertise

PURVIS is a public safety systems engineering firm with deep technical expertise in the areas of fire station alerting, systems integration, software and hardware development, network engineering, test and evaluation, and maintenance and support.

In the more than four decades of partnership between PURVIS and the FDNY, PURVIS has continually served as an extension of the FDNY's team. Some relevant highlights of our experience with the FDNY and NYC include:

- Modernization of the Voice Alerting (VA) System currently installed in 243 firehouses.
- Modernization of the Emergency Reporting System (ERS), supporting 15,000 street call boxes.
- Installation and maintenance of a Patient Tracking System (PTS).
- Installation and maintenance of an Electronic Command Board (ECB) for command vehicles.
- Implementation and consolidation of Dispatch Office for Fire, Police and Emergency Medical System (EMS) into Public Safety Answering Centers (PSAC).
- Development and installation of custom CAD interfaces that allow for the exchange of data between New York City's disparate Fire, EMS and Police CAD systems to support the City's Universal Call Taker initiative.
- Software and hardware development, installation and ongoing maintenance of the FDNY's modernized STARFIRE Computer Aided Dispatch (CAD) system. Development of a custom middleware application for the FDNY to route dispatch/alarm messages to/from their central CAD system, the FDNY operation center, City-Wide Emergency Operations Center (EOC), five borough dispatch centers and 243 firehouses throughout the City of New York.
- 30+ years of 24/7/265 hardware and software maintenance services on FDNY Communications and IT equipment, including providing around-the-clock support in all five NYC boroughs during the 9/11 tragedy, the August 2003 blackout and Superstorm Sandy in 2012.

8.2 Subcontractor Information

PURVIS, the product developer of the proposed PURVIS FSAS solution, will serve as prime contractor and systems integrator responsible for ALL aspects of this project.

PURVIS has been in business for more than 40 years and we currently employ over 125 full-time, part-time and on-call employees. Of this employee count, 95 are engineering, analytical and technical in nature. This depth of resources ensures that the PURVIS Team can meet any surge workload requirements presented under this contract. To best serve DuPage County, we will
utilize a team of personnel with first-hand experience in successful large-scale PURVIS FSAS installations.

**Our Subcontractors**

For the performance of this contract, PURVIS is partnering proudly with two companies:

- **Integrated Management Solutions (IMS)** will provide project management, training and testing services. Formed in 1997, IMS is comprised of senior-level project and technical managers, technical experts, and support personnel who are dedicated to the implementation and life cycle management of mission-critical systems. IMS has developed deep expertise from their 19-year history of delivering services to a diverse base of customers across commercial and government sectors.

IMS is not just a team member selected for this response, but an important strategic partner with PURVIS. IMS and PURVIS have worked together for 18 years, with IMS responsible for project management, training and testing services for every PURVIS FSAS implementation and all of PURVIS’s public safety projects. IMS personnel have intimate knowledge of the proposed system, and what is necessary to bring about all project goals and objectives. IMS’ President, Mr. Joe Drago, is a member of the PURVIS Board of Directors, further evidence of the strategic partnership between the two companies.

- **Communication Zone, Inc.** (Comm Zone) has been providing quality design, implementation and maintenance services for communication systems in the State of Illinois since May of 2002. The founders of Comm Zone came together in 1984 to provide quality craftsmanship and fair market prices. Today, numerous, long-standing customer relationships are a testament to their reputation for superior service. Comm Zone has firsthand, relevant experience around Illinois for projects that include office buildings, City/Village municipal police buildings, fire installations (including fire station alerting devices and monitoring), retail facilities, manufacturing, warehouse, educational, medical, hospitality, and residential sites.

For the purpose of best serving DuPage County, Comm Zone will provide all cabling, installation, and onsite maintenance necessary to fully support the PURVIS FSAS. Their local presence, along with their highly relevant experience, provides a significant resource that will offer ongoing support benefits to DuPage County.

Communications Zone is already familiar with the PURVIS FSAS equipment and installation procedures associated with the proposed system for DuPage County. The PURVIS/IMS/Communication Zone Team will soon be installing the PURVIS FSAS in Naperville, IL.

PURVIS frequently serves as Prime Contractor on our projects, partnering with a local subcontractor for cabling, installation, and on-site maintenance. In our experience, this adds tremendous value to our clients because we serve as the single-point of contact for all aspects of the project. Since we are the developers of the solution, questions and issues that arise during the project can be resolved quickly. Partnering with a local company for cabling and installation streamlines the process even further by offering in depth knowledge of local ordinances and codes.
The fact that PURVIS personnel have successfully implemented our FSAS in other applications similar in size and scope to DuPage County, with zero impact to operations, means we don't just talk a good talk about our system and our abilities. Our entire approach draws upon our deep experience with fire departments, and the PURVIS/IMS team members we plan to utilize in DuPage County are the same people who successfully implemented this system in Boston, DC, New York, Charleston County, SC, Montgomery County, MD, and in many other locations.
## Full Name of Bidder:

**PURVIS Systems Incorporated**

## Contact Person:

**Ms. Michelle Craft, Contracts Manager**

### Subcontractors:

#### A. Will you employ subcontractors? **YES**

#### B. If “YES”, identify with each firm’s name, address, telephone number and work to be subcontracted:

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>Integrated Management Solutions (IMS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS</td>
<td>88 Silva Lane</td>
</tr>
<tr>
<td></td>
<td>Middletown RI 02842</td>
</tr>
<tr>
<td>CONTACT PERSON</td>
<td>Mr. Joe Drago, President</td>
</tr>
<tr>
<td>TELEPHONE NUMBER</td>
<td>(401) 423-3216</td>
</tr>
<tr>
<td>WORK TO BE PROVIDED</td>
<td>IMS will provide project management, training and testing services</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COMPANY NAME</th>
<th>Communication Zone, Inc. (Comm Zone)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADDRESS</td>
<td>735 Lunt Avenue</td>
</tr>
<tr>
<td></td>
<td>Schaumburg, IL 60193</td>
</tr>
<tr>
<td>CONTACT PERSON</td>
<td>Dave Everett, Senior Project Manager</td>
</tr>
<tr>
<td>TELEPHONE NUMBER</td>
<td>(630) 994-5040</td>
</tr>
<tr>
<td>WORK TO BE PROVIDED</td>
<td></td>
</tr>
</tbody>
</table>
The Contractor will not change or use subcontractors not identified in this bid without prior written approval from the County of DuPage.

A request for a change in subcontractors shall be made in writing and will include a description of any savings that may be realized in the execution of this contract, and must be passed on to the County of DuPage.

**FAILURE TO PROVIDE SUBCONTRACTORS MAY BE JUST CAUSE FOR REJECTION OF BIDDER'S PROPOSAL.**
Our signed and notarized Proposal Form follows.
# Proposal Form

#### Proposal #16-167-RC

## (PLEASE TYPE OR PRINT THE FOLLOWING INFORMATION)

<table>
<thead>
<tr>
<th>Full Name of Proposer</th>
<th>PURVIS Systems Incorporated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Business Address</td>
<td>88 Silva Lane</td>
</tr>
<tr>
<td>City, State, Zip Code</td>
<td>Middletown, RI 02842</td>
</tr>
<tr>
<td>Telephone Number</td>
<td>401-849-4750</td>
</tr>
<tr>
<td>Fax Number</td>
<td>401-849-0121</td>
</tr>
<tr>
<td>Proposal Contact Person</td>
<td>Ms. Michelle Craft, Contracts Manager-Authorized Negotiator, OR Mr. Rick Foster, Vice President Public Safety Division - Technical Contact</td>
</tr>
<tr>
<td>Email Address</td>
<td><a href="mailto:mcraft@purvis.com">mcraft@purvis.com</a>, <a href="mailto:rfoster@purvis.com">rfoster@purvis.com</a></td>
</tr>
</tbody>
</table>

## TO: The DuPage County Procurement Services Division

The undersigned certifies that he is:

- [ ] the Owner/Sole Proprietor
- [x] an Officer of the Corporation
- [ ] a Member of the Partnership
- [ ] a Member of the Joint Venture

Herein after called the Proposer and that all of the Partners of the Partnership, Officers of the Corporation or Member of the Limited Liability are as follows:

- Stephen P. Massed, President (President, CEO, Partner or Member)
- [ ] (Vice-President, Partner or Member)
- [ ] (Secretary, Partner or Member)
- [ ] (Treasurer, Partner or Member)

(If additional Officers, Partners, or Members, list on an attached sheet.)

Further, the undersigned declares that the only person or parties interested in this Proposal as principals are those named herein, that this Proposal is made without collusion with any other person, firm or corporation; that he has fully examined the proposed forms of agreement and the contract specifications for the above designated purchase, all of which are on file in the office of the Procurement Officer, DuPage Center, 421 North County Farm Road, Wheaton, Illinois 60187, and all other documents referred to or mentioned in the contract documents, specifications and attached exhibits, including Addenda No. 1-11, QA dated 5-5-17 and QA dated 4-11-2017, issued thereto;

Further, the undersigned proposes and agrees, if this Proposal is accepted, to provide all necessary machinery, tools, apparatus and other means of construction, including transportation services necessary to furnish all the materials and equipment specified or referred to in the contract documents in the manner and time therein prescribed.

Further, the undersigned certifies and warrants that he is duly authorized to execute this certification/affidavit on behalf of the Proposer and in accordance with the Partnership Agreement or by-laws of the Corporation, and the laws of the State of Illinois and that this Certification is binding upon the Proposer and is true and accurate.
Further, the undersigned certifies that the Proposer is not barred from proposing on this contract as a result of a violation of either 720 Illinois Compiled Statutes 5/33 E-3 or 5/33E-4, proposal rigging or proposal-rotating or as a result of a violation of 820 ILCS 130/1 et seq., the Illinois Prevailing Wage Act.

The undersigned certifies that he has examined and carefully prepared this proposal and has checked the same in detail before submitting this proposal, and that the statements contained herein are true and correct.

If a Corporation, the undersigned further certifies that the recitals and resolutions attached hereto and made a part hereof were properly adopted by the Board of Directors of the Corporation at a meeting of said Board of Directors duly called and held and have not been repealed, nor modified and that the same remain in full force and effect. (Proposer may be requested to provide a copy of the corporate resolution granting the individual executing the contract documents authority to do so.)

Further, the Proposer certifies that he has provided services comparable to the items specified in this contract to the parties listed in the reference section and authorizes the County to verify references of business and credit at its option.

PROPOSAL AWARD CRITERIA:
This proposal will be awarded to the most responsive, responsible Proposer meeting specifications based upon the highest score compiled during evaluation of the proposals outlined in the selection process. The Proposer agrees to provide the service described above and in the contract specifications under the conditions outlined in attached documents for the amount stated.

TOTAL ALL-INCLUSIVE PRICE:
The Proposal price shall contain all pricing information relative to performing the Specifications as described in this Request for Proposal.

TOTAL PROPOSAL AMOUNT: $3,096,032.51
Total (in figures)
Three million, ninety five thousand and thirty two Dollars and fifty one Cents.
(Print or Type)
10.0 Joint Purchasing Section

**JOINT PURCHASING:**
OTHER TAXING BODIES: Based on County Board Resolution IR-084-76.

Would your firm be willing to extend your proposal to other taxing bodies in DuPage County such as school districts, townships, cities and villages, etc.? The approximate quantity usage is unknown.

YES ✔ NO ___

State any other requirements that they would have to meet beyond that of our Proposal invitation and specification.

________________________________________________________________________

________________________________________________________________________

NOTE: The ETSB of DuPage County would not be involved in purchasing by any other taxing body other than to receive a copy of their purchase order that would reference the ETSB of DuPage County contract number. The invoicing and payments would be entirely between the other taxing bodies and the Proposer. If the ETSB of DuPage County accepts this proposal, the procedure to handle joint purchases would be developed by the ETSB of DuPage County with the Proposer and distributed to the taxing bodies by the County of DuPage.
11.0 Warranty Information

In addition to our Warranty and Maintenance descriptions included in proposal Section 4.4, the pages that follow contain a PURVIS FSAS Warranty Agreement for the proposed system warranty.
WARRANTY, MAINTENANCE, AND SERVICE AGREEMENT
PURVIS FIRE STATION ALERTING SYSTEM (FSAS)
CUSTOMER: DUPAGE COUNTY, ILLINOIS

Note: This Agreement is tailored to the specific requirements of DuPage County.

I. INTRODUCTION

This Warranty, Maintenance, and Service Agreement ("Agreement") is effective for a period of two years in accordance with the Customer's contract requirements. This Agreement may be renewed for additional one-year periods by mutual written agreement of the parties at the prices set forth in the Price Schedule.

The services provided under this Agreement cover all PURVIS-provided hardware and software identified in the PURVIS FSAS Contract with Customer. Failures must be caused by PURVIS-provided FSAS hardware and/or software in order to be covered by this Agreement.


ALL CUSTOMER REQUESTS FOR SUPPORT ARE INITIATED BY CONTACTING THE PURVIS HELP DESK:

FOR EMERGENCY SUPPORT:
PHONE: 866-841-2824

FOR NON-EMERGENCY SUPPORT:
ONLINE: HTTPS://SUPPORT.PURVIS.COM or
E-MAIL: FSAS-SUPPORT@PURVIS.COM

Services shall be performed by trained, experienced and qualified personnel and with due care, skill and diligence in accordance with applicable industry standards and the terms of this Agreement.
II. DESCRIPTION OF SERVICES

The Warranty, Maintenance and Support Services under this Agreement include the following:

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<th>Hardware</th>
<th>Warranty</th>
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<tr>
<td>PURVIS warrants that during the Warranty and Maintenance Periods, the Hardware provided by PURVIS will be free of defects in materials and workmanship, and conform to specifications set forth in the Contract and any FSAS user manuals/documentation provided to Customer. PURVIS' sole liability and responsibility under this warranty is to repair or replace, at PURVIS' option, any Hardware provided by PURVIS which PURVIS determines does not conform to the warranty. This warranty does not cover Hardware that requires replacement due to normal wear and tear (such as UPS battery), is damaged as a result of vandalism, misuse, force majeure or other act of God (such as flood, lightning strike, etc), is disassembled, modified or tampered with, or is otherwise negligently or improperly installed or maintained by Customer.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Software</th>
<th>Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Software” means all software, firmware, and databases created by PURVIS for the PURVIS FSAS. Refer to PURVIS' proposal and/or the Contract for the specific Software items licensed by Licensee under this Agreement.</td>
<td></td>
</tr>
</tbody>
</table>

**Software License.** PURVIS grants Customer a non-exclusive, perpetual license to use the Software only in connection with the FSAS and solely for Customer’s internal business use. No license or right is granted to license, sell, disclose or otherwise transfer the Software to others. Customer shall not manufacture, modify, reproduce, copy, reverse engineer, decompile, disassemble or create derivative works of Software. Customer acknowledges that any documentation delivered in connection with the software included in the FSAS is PURVIS' proprietary information, and Customer may not disclose, assign or sublicense such documentation and information to anyone without PURVIS' prior written consent and then only on terms acceptable to PURVIS. Customer represents and warrants that it is acquiring the Software and the FSAS for its own business use and purpose, without any intention to re-sell or transfer the Software or the FSAS to any third party.

PURVIS warrants that Software manufactured by PURVIS, under normal use and service as originally delivered to Customer, will function substantially in accordance with the functional description in the PURVIS proposal during the Warranty and Maintenance Period. PURVIS' sole liability and Customer’s sole remedy for breach of this Software warranty shall be, at PURVIS’ election, PURVIS’ good faith effort to rectify the nonconformity or replace the Software with Software that conforms. This warranty does not apply if Software failure is a result of accident, misuse, abuse, misapplication or unauthorized modification by Customer.
During the Warranty and Maintenance periods, it is expected that Customer shall perform any configuration updates/changes to the system for which training was provided, except as indicated below:

- During the first year of the Warranty Period, PURVIS will provide up to 50 text-to-speech pronunciation configuration changes if requested by Customer.

| Help Desk Support | All requests for support must be initiated through the PURVIS Help Desk. The PURVIS Help Desk receives and logs all customer support calls and creates trouble tickets for all calls received. The Help Desk is staffed to receive calls 24x7x365.

**Emergency Requests:** Contact the Help Desk by phone at 866-841-2824.

All Emergency Requests will be confirmed by return phone call: a PURVIS Support Engineer shall acknowledge Customer’s request within two (2) hours of receipt, and will solicit specific details regarding the service request if needed. Following this initial response, PURVIS will classify the event by priority level: Emergency Service Request or Non-Emergency Service Request.

**Non-Emergency Requests:** Contact the Help Desk online at https://support.purvis.com, or email at FSAS-support@purvis.com.

For Online or Email requests: a PURVIS Support Engineer shall acknowledge Customer’s request within two (2) hours of receipt during normal business hours, Monday through Friday, between the hours of 8 AM and 5 PM Eastern Time, excluding federal holidays. PURVIS will solicit specific details regarding the service request if needed.

**Emergency Service Request** is defined as a major failure of FSAS software or hardware that results in no service at one or more locations. Response to an Emergency Service Request is provided within two hours following request. PURVIS will troubleshoot, diagnose and repair emergency system failures 24/7/365, including holidays, until resolved.

**Non-Emergency Service Request** is defined as a failure or incident in which the service continues to operate, but a non-critical feature, such as a speaker or LED light, is not available or does not function as it should. Service for non-emergency failures is provided during normal business hours, Monday through Friday, between the hours of 8 AM and 5 PM Eastern Time, excluding federal holidays. Response to a Non-Emergency Service Request is provided within the next business day, and will typically be resolved within two business days.

| Emergency Svc. Support | Emergency Service Support is provided 24x7x365 to address system failures that result in no service at one or more locations.

### On-Site Technical Assistance

On-Site Technical Assistance is available to support service requests that cannot be resolved remotely.

### Preventive Maintenance

Preventive maintenance visits are scheduled at each station during the normal business hours of Monday – Friday, between the hours of 8 AM and 5 PM local time. Preventive maintenance is performed with the objectives of prolonging the life of equipment and preventing the need for corrective and emergency repairs. All major system components are cleaned and tested, and any unreported equipment failures are identified and repaired. One (1) preventive maintenance visit is performed at each station during the initial 2-year Warranty Period, and annually thereafter.

### Software Version Upgrades

General availability software version upgrades for critical issue patches and scheduled major version upgrades are included as part of this Agreement. PURVIS operates on a bi-annual build/release cycle for normal FSAS maintenance builds. Major version upgrades are planned for rollout on an 18 month cycle. Any critical software issues that may arise are addressed, and patches are released in General Availability as soon as they are completed and successfully pass a rigorous regression test cycle.

New builds are distributed via email, DVD, CD, or web download, at the customer's discretion. Depending on customer preference, either the customer or a PURVIS engineer will load the update into the customer’s system using the Software Update feature on the PURVIS FSAS DM Console. Newly installed updates can be automatically pushed to PURVIS FSAS Station Control Units and the Central Servers at any time.

### III. FSAS GENERAL TERMS AND CONDITIONS

The following terms and conditions are applicable to all agreements between PURVIS Systems Incorporated and PURVIS’ customers with regard to PURVIS' Fire Station Alerting System (“FSAS”).

1) INTELLECTUAL PROPERTY

(a) Ownership. PURVIS alone (and its licensors, where applicable) shall own all right, title and interest, including all related Intellectual Property Rights, in and to the licensed Software contained in the FSAS. “Intellectual Property Rights” means all exclusionary, proprietary or other rights existing from time to time under patent, copyright, trade secret, trademark, unfair competition or other laws. The PURVIS name, the PURVIS logo, and the product names associated with the FSAS are trademarks of PURVIS or third parties, and no right or license is granted to use them. In the course of the performance of this Agreement, PURVIS may disclose to Customer certain confidential information regarding the design, computer code, specifications and other matters regarding the Software and the FSAS. Customer agrees to hold all such information disclosed to Customer regarding the Software and the FSAS confidential for a period of five (5) years after the termination of this Agreement and Customer shall not during such period disclose any confidential information regarding the Software or the FSAS to any...
third party, except as may be required pursuant to a valid court order or subpoena. Customer shall promptly notify PURVIS of the receipt of any such court order or subpoena and afford PURVIS the opportunity to contest or limit any such court order or subpoena as the same may relate to the Software and the FSAS and any confidential information relating thereto.

(b) PURVIS FSAS IP Indemnity. PURVIS will defend and hold Customer harmless against any claims, legal actions, and other expenses in connection with any claims that the FSAS or any Hardware or Software created by PURVIS within the FSAS infringes or violates intellectual property rights of any third party, on the condition that Customer notifies PURVIS promptly of the claim and gives PURVIS sole control of the defense and negotiations for its settlement or compromise. If Customer is, or may become, prohibited from use of the FSAS by reason of an actual or anticipated claim, PURVIS will use its reasonable efforts, at PURVIS’ sole cost and expense, to either: (a) obtain for Customer the right to use the FSAS, (b) replace or modify the FSAS so that it is no longer subject to a claim but performs the same functions in an equivalent manner, or (c) refund to Customer the amount paid in respect to the FSAS. PURVIS shall not have any liability to Customer if the infringement or other violation of a third party right is based in any way upon (i) the use of the FSAS in combination with other components, equipment or software not furnished by PURVIS, (ii) third party or off-the-shelf Hardware or Software used in conjunction with or incorporated into the FSAS; or (iii) any component of the FSAS which has been modified or altered by Customer without authorization. THIS SECTION STATES THE ENTIRE RESPONSIBILITY OF PURVIS CONCERNING INTELLECTUAL PROPERTY CLAIMS REGARDING THE FSAS AND PURVIS’ HARDWARE AND SOFTWARE AND WILL SURVIVE TERMINATION OF THE AGREEMENT.

(c) Third Party Hardware and Software IP Indemnity Pass-through. With respect to any third party hardware or software contained in the FSAS, PURVIS agrees to pass on to Customer, to the extent permissible under applicable agreements, any warranties or indemnities with regard to patent or copyright infringement provided to PURVIS by such vendors. PURVIS is not authorized to act as agent for any vendor in patent or copyright matters. PURVIS will, upon notification from Customer of any allegation of patent or copyright infringement involving third party hardware or software, promptly notify the vendor(s) and assist (at Customer’s expense) in obtaining from vendor(s) such remedies as may be contained in PURVIS’ agreement(s) with such vendor(s).

(d) Improvements. All rights, title and interest in and to any inventions, discoveries, improvements, methods, ideas, computer and other apparatus programs, derivatives and related documentation, other works of authorship fixed in any tangible medium of expression, or other forms of intellectual property, whether or not subject of statutory protection, which are made, created, developed, written, conceived or first reduced to practice by PURVIS solely, jointly or on its behalf, in the course of, arising out of, or as a result of work performed under this Agreement shall belong to and be the sole and exclusive property of PURVIS.

2) PERSONAL DATA CONTAINED WITHIN THE FSAS OR ANY HOSTED SERVICES

PURVIS does not own any personal data, information or material that may be introduced into or contained within the FSAS in the course of Customer’s use of the FSAS, including, without limitation, cellular telephone numbers, names, email addresses or other information by which individuals are contacted or identified (“Personal Data”). Customer, not PURVIS, shall have sole responsibility for the accuracy, quality, integrity, legality, reliability, appropriateness, and intellectual property ownership or right to use of all Personal Data. Customer is responsible for the Personal Data and PURVIS shall
not be responsible or liable for the deletion, correction, destruction, damage, loss or failure to store any Personal Data.

3) LIMITATION OF LIABILITY

EXCEPT FOR ANY EXPRESS HARDWARE OR SOFTWARE WARRANTIES PROVIDED IN THE AGREEMENT, PURVIS AND ITS LICENSORS MAKE NO REPRESENTATION, WARRANTY, OR GUARANTY AS TO THE RELIABILITY, TIMELINESS, QUALITY, SUITABILITY, TRUTH, AVAILABILITY, ACCURACY OR COMPLETENESS OF THE FSAS OR ANY HARDWARE, SOFTWARE OR SERVICES THEREIN. PURVIS AND ITS LICENSORS DO NOT REPRESENT OR WARRANT THAT (A) THE USE OF THE FSAS WILL BE SECURE, TIMELY, UNINTERRUPTED OR ERROR-FREE OR OPERATE IN COMBINATION WITH ANY OTHER HARDWARE, SOFTWARE, SYSTEM OR DATA, (B) THE FSAS WILL MEET CUSTOMER'S REQUIREMENTS OR EXPECTATIONS, (C) ANY STORED DATA WILL BE ACCURATE OR RELIABLE, (D) THE EFFECTIVENESS OF THE FSAS IN CONVEYING EMERGENCY MESSAGES OR WARNINGS, OR THE USE TO WHICH ANY RESPONDER OR OTHER PARTY MAY PUT SUCH MESSAGES OR WARNINGS, (E) ERRORS OR DEFECTS WILL BE CORRECTED, OR (F) THE FSAS OR THE SERVER(S) THAT MAKE THE FSAS AVAILABLE ARE FREE OF VIRUSES OR OTHER HARMFUL COMPONENTS. THE FSAS AND ALL CONTENT IS PROVIDED TO CUSTOMER STRICTLY ON AN "AS IS" BASIS. ALL CONDITIONS, REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT OF THIRD PARTY RIGHTS, ARE HEREBY DISCLAIMED TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW BY PURVIS AND ITS LICENSORS.

EXCEPT AS EXPRESSLY PROVIDED IN ANY OTHER CONTRACT OR AGREEMENT BETWEEN THE PARTIES RELATING TO THE FSAS SYSTEM, IN NO EVENT SHALL PURVIS'S AGGREGATE LIABILITY UNDER THE AGREEMENT EXCEED THE AMOUNTS ACTUALLY PAID BY AND/OR DUE FROM CUSTOMER IN THE TWELVE (12) MONTH PERIOD IMMEDIATELY PRECEDING THE EVENT GIVING RISE TO SUCH CLAIM. EXCEPT AS EXPRESSLY PROVIDED IN ANY OTHER CONTRACT OR AGREEMENT BETWEEN THE PARTIES RELATING TO THE FSAS SYSTEM, IN NO EVENT SHALL PURVIS AND/OR ITS LICENSORS BE LIABLE TO ANYONE FOR ANY INDIRECT, PUNITIVE, SPECIAL, EXEMPLARY, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES OF ANY TYPE OR KIND (INCLUDING LOSS OF DATA, REVENUE, PROFITS, USE OR OTHER ECONOMIC ADVANTAGE) ARISING OUT OF, OR IN ANY WAY CONNECTED WITH THE FSAS, INCLUDING BUT NOT LIMITED TO THE USE OR INABILITY TO USE THE FSAS, OR FOR ANY CONTENT OBTAINED FROM OR THROUGH THE SERVICE, ANY INTERRUPTION, INACCURACY, ERROR OR OMISSION, REGARDLESS OF CAUSE IN THE CONTENT, EVEN IF PURVIS HAS BEEN PREVIOUSLY ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

4) INTERNET DELAYS

THE FSAS OR ANY HOSTED SERVICES MAY BE SUBJECT TO LIMITATIONS, DELAYS, AND OTHER PROBLEMS INHERENT IN THE USE OF THE INTERNET AND ELECTRONIC COMMUNICATIONS. PURVIS IS NOT RESPONSIBLE FOR ANY DELAYS, DELIVERY FAILURES, OR OTHER DAMAGE RESULTING FROM SUCH PROBLEMS. CUSTOMER IS SOLELY RESPONSIBLE FOR ITS ACCESS TO THE INTERNET FOR PURPOSES OF USING THE
FSAS AND ANY HOSTED SERVICES. PURVIS IS NOT AN INTERNET PROVIDER AND HAS NO RESPONSIBILITY WHATSOEVER IN ARRANGING FOR, OR MONITORING, THE CUSTOMER’S ACCESS TO THE INTERNET IN ORDER TO USE THE FSAS OR ANY HOSTED SERVICES.

5) FORCE MAJEURE

Neither party shall be liable to the other for any failure to perform its obligations hereunder and shall have no liability whatsoever as a result of any cause beyond the reasonable control of such party, including without limitation any theft, riot, war, flood, fire, storm, natural disaster, work stoppage, national emergency, terrorism, delay or failure of any supplier or shipper, any product, labor or parts shortage or similar event.

6) GENERAL PROVISIONS

(a) Assignment. Neither party shall assign, sell, transfer, or in any way encumber its interest under this Agreement without first obtaining the written consent of the other party hereto.

(b) Amendment. The Agreement may be amended only by mutual written agreement of the parties.

(c) Notices. All notices required hereunder shall be in writing and shall be delivered to the address indicated in the Agreement (or at such other address as shall be given pursuant to this provision by either of the parties to the other).

(d) Independent Company. It is understood and agreed by and between the parties that PURVIS, in satisfying the conditions of this Agreement, is acting independently, and that Customer assumes no responsibility or liabilities to any third party in connection with these actions. All services to be performed by PURVIS pursuant to this Agreement shall be in the capacity of an independent company, and not as an agent or employee of Customer. PURVIS shall supervise the performance of its services and shall be entitled to control the manner and means by which its services are to be performed, subject to the terms of the Agreement.
12.0 Completed Vendor Ethics Disclosure Form
**Required Vendor Ethics Disclosure Statement**

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>PURVIS Systems Incorporated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Contact:</td>
<td>Ms. Susan Correia</td>
</tr>
<tr>
<td>Bid/Contract/ PO:</td>
<td>Proposal #P16-167-RC</td>
</tr>
</tbody>
</table>

The DuPage County Procurement Ordinance requires the following written disclosures prior to award:

1. Every contractor, union, or vendor that is seeking or has previously obtained a contract, change orders to one (1) or more contracts, or two (2) or more individual contracts with the county resulting in an aggregate amount at or in excess $25,000, shall provide to Procurement Services Division a written disclosure of all political campaign contributions made by such contractor, union, or vendor within the current and previous calendar year to any incumbent county board member, county board chairman, or countywide elected official whose office the contract to be awarded will benefit. The contractor, union or vendor shall update such disclosure annually during the term of a multi-year contract and prior to any change order or renewal requiring approval by the county board. For purposes of this disclosure requirement, "contractor or vendor" includes owners, officers, managers, lobbyists, agents, consultants, bond counsel and underwriters counsel, subcontractors and corporate entities under the control of the contracting person, and political action committees to which the contracting person has made contributions.

I have made the following campaign contributions within the current and previous calendar year:

<table>
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<tr>
<th>Recipient</th>
<th>Donor</th>
<th>Description (e.g., cash, type of item, in-kind service, etc.)</th>
<th>Amount/Value</th>
<th>Date Made</th>
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If no contributions have been made, enter "NONE" below.

Attach additional sheets if necessary. Sign each added sheet and number each page (_#_ of _#_ total pages).

2. All contractors and vendors who have obtained or are seeking contracts with the county shall disclose the names and contact information of their lobbyists, agents and representatives and all individuals who are or will be having contact with county officers or employees in relation to the contract or bid and shall update such disclosure with any changes that may occur.

<table>
<thead>
<tr>
<th>Lobbyists, Agents And Representatives And All Individuals Who Are Or Will Be Having Contact With County Officers Or Employees In Relation To The Contract Or Bid</th>
<th>Telephone</th>
<th>Email</th>
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A contractor or vendor that knowingly violates these disclosure requirements is subject to penalties which may include, but are not limited to, the immediate cancellation of the contract and possible disbarment from future county contracts. Continuing disclosure is required, and I agree to update this disclosure form as follows:

- If information changes, within five (5) days of change, or prior to county action, whichever is sooner
- 30 days prior to the optional renewal of any contract
- Annual disclosure for multi-year contracts on the anniversary of said contract
- With any request for change order except those issued by the county for administrative adjustments.

The full text of the county's ethics and procurement policies and ordinances are available at [http://www.dupageco.org/CountyBoard/Policies/](http://www.dupageco.org/CountyBoard/Policies/)

I hereby acknowledge that I have received, have read, and understand these requirements.
13.0 Completed IRS-Form W-9
**Request for Taxpayer Identification Number and Certification**

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<thead>
<tr>
<th>Name for single-member owner</th>
<th>Social security number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name shown on your income tax return</td>
<td></td>
</tr>
</tbody>
</table>

**Give Form to the requester. Do not send to the IRS.**

**Form W-9**

**Department of the Treasury**

**Internal Revenue Service**

**Purvis Systems Incorporated**

1. **Name:**
   - Name is required on this line; do not leave this line blank.
   - **Purvis Systems Incorporated**

2. **Business name/description:**
   - *Du Page County Proposal #P16-167-RC Fire Station Alerting System* (Rev. December 2014)

3. **Print or type:**
   - *Form W-9 (Rev. June 2017)*
   - *Use Form W-9 only if you are a U.S. person (including a resident alien) to provide your correct TIN.*

4. **Print or type:**
   - *Page 1 of 3*

5. **Social security number:**
   - *Social security number (SSN), individual taxpayer identification number (ITIN), or employer identification number (EIN)*

6. **TIN (Taxpayer Identification Number):**
   - *TIN, you might be subject to backup withholding because you have failed to report all interest and dividends on your tax return.*

7. **Certification:**
   - *I certify that:*
   - *Form 1099-MISC (acquisition or abandonment of property)*
   - *Form 1099-C (canceled debt)*
   - *Certify that you are not subject to backup withholding.*

---

**Purpose of Form**

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amounts reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (miscellaneous income, prizes, awards, or gross proceeds)
- Form 1099-B (sales of capital assets and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant cash and third party network transactions)
- Form 1098-C (canceled debt)
- Form 1098-T (acquisition or abandonment of property)

Use Form W-9 only if you are a U.S. person (including a resident alien) to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct; you are not subject to backup withholding.
2. Certify that You are not subject to backup withholding.
3. Declare that You are not subject to backup withholding.
4. Certify that FATCA code(s) entered on this form, if any, indicating that you are exempt from FATCA reporting, is correct. See What is FATCA reporting? on page 2 for further information.

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**Cat. No. 10231X**

**Form W-9 (Rev. 12-2016)**
14.0 Appendix

- Catalog of Parts and Services
- System Requirements Table with Narrative Responses
- Preliminary Acceptance Test and Cutover Plan
- Project Assumptions
- Fire Station Alerting System Application Program Interface
- Proposed Radio Cabinet at Fire Station
PURVIS FSAS Fire Station Hardware Descriptions

- **Station Control Unit (SCU):** The PURVIS FSAS SCU is responsible for receiving the incidents (or alerts) at the fire stations and then activating/updating all of the appropriate fire station electronics. Additionally, the PURVIS FSAS SCU is responsible for playing tones and messages over the fire station speakers. The PURVIS FSAS SCU is available with or without a touch screen display that allows user interaction with the system. If a touch screen display is required, the display can be integrated with the PURVIS FSAS SCU or installed in some other location within the fire station.

- **Remote PURVIS FSAS SCU Touch Screen:** The Remote PURVIS FSAS SCU Touch Screen is a 22-inch, open-frame, wall mounted touch monitor that displays the PURVIS FSAS SCU interface and allows fire station personnel to interact with the system. The Touch Screen is a ruggedized device designed for commercial applications, such as photo kiosks, gaming, and guest/hospitality environments.

- **Audio Expansion Module (AXM):** The AXM expands the number of audio zones that the PURVIS FSAS can support in each fire station. The AXM is available in four (4) and eight (8) audio zone models and can be configured to activate those zones based on hours of operation (day/night), incident type, and the apparatus (units) being dispatched. An example of this operation is that speaker zones for the outside speakers will not be activated or will operate on lower volume levels during overnight hours. Additional AXM’s can be added to support the required number of audio zones in each fire station.

- **Relay Expansion Module (RXM):** The PURVIS FSAS RXM provides additional dry contact relays for opening/closing station doors, shutting down appliances, adjusting lighting, and controlling additional auxiliary devices as needed. The PURVIS FSAS RXM is available in eight (8), sixteen (16), twenty-four (24) and thirty-two (32) dry contact relay models. More expansion modules can be added as needed.

- **Audio/Relay Expansion Module (ARXM):** The PURVIS FSAS ARXM is a hybrid of the AXM and RXM. The ARXM provides additional audio zones and dry contact relays in a single module. The PURVIS FSAS ARXM is available in four (4) and eight (8) audio zone models, and eight (8) and sixteen (16) dry contact relay models or a combination thereof. More expansion modules can be added as needed.

- **Dorm Remote Gateway (DRG):** The PURVIS FSAS DRG provides the communication pathway between the PURVIS FSAS SCU and the Dorm Remotes installed in the station. All zone activations are managed through the PURVIS FSAS SCU software.

- **Wall/Ceiling Speaker:** These speakers are 8” self-amplified or 25/70v interior speakers. The speaker can be wall mounted in a 12” x 12” enclosure or recessed in a ceiling, depending on parameters in each fire station.

- **Ceiling Speaker with Red and/or White LED Lights:** These speakers are 8” self-amplified or 25/70v interior speakers with an integrated Red LED light ring, White LED light ring, or
Appendix-Catalog of Parts and Services

- Exterior/Drive Bay Speaker: These speakers are self-amplified or 25/70v exterior grade speakers for both exterior and drive bay applications. The exterior grade surface mount speaker allows for installation in both indoor and outdoor environments without sacrificing sound quality.

- Wall Mounted Volume Control: The wall mounted volume control is a signal level controller that is capable of remotely controlling the volume of a single or multiple self-amplified or 25/70v speakers. The wall mounted volume control fits into a single gang electrical box.

- Ambient Noise Sensor: The Ambient Noise Level Sensors detect the ambient background noise and amplify the audio being played to the associated speakers. In areas of the fire station where noise levels can be high, such as the drive bays, the PURVIS FSAS uses these sensors to ensure that critical audio alerts are audible. The minimum and maximum audio levels for the system are configured during implementation to ensure that the levels are within the agency’s requirements.

- Flat Panel Message Board: The Flat Panel Message Board is a 1080p LED display available in sizes ranging from 24” to more than 60”. The display is wall mounted and configured to display incident alert information including but not limited to address, cross street, responding units, incident type and turn-out time.

- LED Reader Board: The Reader Board provides incident information on a high contrast and bright LED display available in 24” and 60” sizes. The LED displays are easily readable at great distances making them ideally suited for installation in drive bays or other large spaces where high visibility is required. These displays will typically show the fire station personnel the incident address, cross street, common name, responding units, incident type and turn-out time.

- Turnout Timer: The Turnout Timer is a dedicated wall mounted LED timer display. The Turnout Timer begins counting upward in one-second increments when the incident is received at the fire station. The timer continues to count upward each second until the responding apparatus have acknowledged the incident, the optional Unit Presence Detector has detected the apparatus has left the drive bay, or when user-defined criteria has been met. Timer data is logged in the database, and can be accessed to perform Turn-Out Time data analysis.

- Unit Presence Detector: The Unit Presence Detector provides detection of apparatus in drive bay locations. This information is used to automatically record turn-out time on a unit by unit basis.

- Printer: The FSAS Printer is a Zebra thermal style printer. This printer type decreases the likelihood of failures associated with ribbons, toner, ink cartridges, and paper. Incidents received at the fire station are sent immediately to the printer. The information printed...
typically includes the incident type, the address, the apparatus dispatched, and other comments that can be configured to the agency’s specific needs.

- **Multicolored Tower Light:** The Multicolored Tower Light is an LED light bar with 5 individual color segments. Colors include white, blue, green, amber and red. Colors can be used to indicate unit types or incident types.

- **Red Strobe Light:** The LED Red Strobe Light is a 3.5” low profile light that provides 450 lumens of a single pattern, flashing visual alert.

- **Red/White LED Light:** The Red/White LED Light is available a standalone 3.5” low intensity light that will illuminate bunkrooms and hallways to provide safe egress at night. The red light can be used for safe egress at night and to reduce the startling effect of nighttime alerts.

- **Single Color Trip Light:** The Single Color Trip Lights allow the station staff to easily see when an alert is received. The lights are available in stationary, rotating or flashing form factors. Available colors include red, amber, blue and green.

- **Dorm Remote:** The Dorm Remote is a wall-mounted device that has 8 push buttons configured to correspond with the unit types assigned to the station. For instance, buttons may be configured for Engine, Ladder, Rescue, Hazmat, etc. Using the Dorm Remote, users can select the unit or units that must be activated in the dorm. When a unit is selected, a green LED light above the button for that unit type will light, indicating that the dorm is configured to activate for that particular unit type.

- **Manual Push Button:** The Manual Push Button can be configured for a variety of operations, including manually activating the system if connectivity to dispatch is lost or if an incident (such as a walk up) occurs at the fire station requiring immediate response. The PURVIS FSAS Station Control Unit will activate all configured devices at the fire station and send a notification back to the Dispatch Center indicating that a manual activation occurred. The Manual Push Button can also be configured for incident acknowledgements, system tests, and more.

- **Doorbell:** The doorbell is installed in a weatherproof housing at the fire station’s public entrance and connected to the PURVIS FSAS Station Control Unit. Upon activation, the PURVIS FSAS SCU will alert the fire station via a configurable audible announcement.

- **Camera/Doorbell:** PURVIS can install a camera at the front-door of the fire station with a doorbell that has an integrated microphone and speaker for 2-way audio communications. This provides a video and audio feed into the station and also back to the dispatch center. Any visitor to the fire station can get immediate assistance, either from station personnel who can get a “visual” on the visitor, or from the dispatch center if station personnel may be away or unavailable.

- **Uninterruptible Power Supply (UPS):** The UPS provides backup power to the PURVIS FSAS equipment in the event of a power outage. Various UPS options are available to provide backup power from 30-120 minutes or more, based on customer requirements.
Additional Responses to General Requirements

1.0 General Requirements

1.1. System must be specifically designed to operate as a Fire Station alerting System.

The PURVIS FSAS was designed specifically for use as a fire station alerting system by listening to the ongoing needs and wants of active fire and dispatch personnel.

1.2 The FSA system selected by the County must be microprocessor based, modular in design, and provides expansion capability.

The PURVIS FSAS is a microprocessor-based system that is modular in design and configurable to meet each customer’s environment. As customers’ needs grow the modular design and configurable nature of PURVIS FSAS allows for expansion by easily allowing the addition of entirely new stations and/or the addition of new devices to existing stations.

1.3 The FSA system must have the capacity to support at least 100 Fire stations, 300,000 calls for service per year and 1,000 simultaneous events.

The PURVIS FSAS has the capacity to support the County’s requirements. A single PURVIS FSAS Central Server can support simultaneous communication to 500 fire stations. The system can also support more than 300,000 annual calls for service and it is capable of managing over 1,000 simultaneous events. Our system in New York City currently supports 243 fire stations and approximately 475,000 annual calls for service.

1.4 The FSA system must have the capability to store and alert on the following quantities of data:

a. 50 apparatus types  
b. 1,500 distinct unit names  
c. 5,000 event types  
d. 100,000 grid areas  
e. 20,000 street names including street type  
f. 50 city names  
g. 6 County names  
h. 50,000 common place names

The PURVIS FSAS’ has the capability to store and alert on the quantities of data specified above. Additionally, the PURVIS FSAS is capable of acting upon cross street, tactical radio channel(s), location information, time stamp, and more as defined by the CAD data supplied in the Dispatch.

1.5 The FSA system must allow new Fire stations to be added without impacting existing functionality at other Fire stations.

The PURVIS FSAS was designed to be a scalable solution capable of meeting the current, emerging, and future needs of our customers. Additional stations and devices and be added to the system at any time, as the need may arise, without impacting existing functionality at other stations. Since going live with the PURVIS FSAS in Charleston County, SC, the County and PURVIS have added multiple new fire stations across several departments and PURVIS added new alert lighting throughout the fire stations of one department. All of these were incorporated with no impact to existing operations at other stations and no system downtime.
1.6 Any agency listed in the RFP as well as others not listed, up to 100, will have the opportunity to join at the guaranteed pricing for the first three (3) years. Not all agencies listed are obligated to join. The agencies will have 6 months from the time the contract is signed to decide to join.

Acknowledged. PURVIS agrees to this requirement.

1.7 The FSA system must be capable of alerting by categories defined by the CAD system including, but not limited to fire station, unit type, or event type.

*The PURVIS FSAS is capable of alerting by categories defined by the CAD system, including fire station, unit type and event type.*

1.8 The FSA system must be a turnkey system. If any piece of equipment is needed to make this a fully functional operating system and it is not listed in these RFP specifications, then it is up to the Proposer to note the item needed and list the price of the equipment in writing. If the Proposer fails to add any additional equipment requirements and additional equipment is required to make this a fully functional operating system, then it is up to the Proposer to supply the needed equipment to the County at no additional cost. This requirement does not preclude the County from purchasing, from its own sources, any COTS product that is part of the turnkey FSA system.

*Acknowledged. Every PURVIS FSAS installation is fully customized to the needs and wants of our clients, but delivered as a turnkey system, fully configured to meet all requirements as provisioned in the RFP. The delivered system in DuPage County will be fully operational upon delivery. PURVIS will provide all necessary components to meet the solution defined in the RFP.*

*All of the Commercial Off-The-Shelf (COTS) components or devices provided in our solution are available through multiple sources. The County is not bound to a single source, including PURVIS, for any of the COTS products proposed as part of the turnkey solution.*

1.9 The FSA system as proposed must include sufficient licenses for concurrent use by three PSAPs, 30 fire dispatch positions and 75 fire stations. The cost of any additional licenses required shall be specified. Licenses shall be provided for software and systems required to operate the FSA whether provided by the vendor or other supplier.

*The delivered system includes sufficient software licenses for concurrent use by two PSAPs (as clarified in RFP Addendum 3), 30 fire dispatch positions (via the PURVIS FSAS Portal), 66 fire stations and the test environment in one County fire station. Licenses required for the delivered system to operate are included, whether provided by PURVIS or a third party such as Microsoft. PURVIS FSAS software license fees are identified in our cost proposal.*

1.10 In its proposal, the Proposer must document all IT infrastructure modifications and facility infrastructure modifications required by the FSA system. If Vendor fails to do this, the Proposer must reimburse the County for the cost of:

1) infrastructure equipment (e.g. electrical systems, ceiling repairs...)
2) staff hours used to install or configure new equipment
3) staff hours used to reconfigure existing equipment

By “IT infrastructure”, the County is referring to the:

- The County’s fiber network
- The County’s radio networks (Starcom and 6-8 VHF networks)
- The County’s standard servers
- The County’s standard workstations
- The County’s standard software used for operating systems, user authorization, virus protection, scripts, reports, databases, and monitoring.
The County’s standard procedures including upgrades and patching cycles for standard software

The County’s IP/VLAN/Networking configuration

This requirement was changed in RFP Addendum 3 to the following: “Please provide a system diagram with the response to the proposal. The ESB of DuPage County has the right to review and ask questions.” Diagrams of the proposed PURVIS FSAS are provided in proposal section 4.1: System Overview.

1.11 At the time of installation, the FSA system must be compliant with the 2016 edition of National Fire Protection Association (NFPA) 1221, Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems, 2016 Edition of NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, and the 2013 edition of NFPA 1500, Standard on Fire Department Safety and Health Program. In addition any applicable OSHA/IDOL standards will be complied with.

The PURVIS FSAS complies with the applicable NFPA 1221, NFPA 1710, NFPA 1500 and OSHA/IDOL standards as they relate to Fire Station Alerting.

The senior architect for the PURVIS FSAS, our Systems Engineering Manager, is a principal member of the NFPA 1221 committee responsible for standards associated with fire station alerting. Our Product Manager is an active firefighter and former Deputy Fire Chief. It is staff like these that ensure our system maintains compliance will all applicable standards and stays current.

1.12 For the purposes of this proposal the Vendor must not reuse any existing hardware or cabling without the County’s permission. Any equipment or hardware removed must be returned to the County or the department if it is their equipment.

Acknowledged. The PURVIS FSAS will be delivered as a turn-key solution and it will consist of new hardware and cabling. The delivered system will interface with existing County supplied audio amplifier, speakers and speaker cabling as well as the existing doorbell at each station. The system will also be cabled to existing device relays (up to 15) in each station as specified by the County in the RFP. PURVIS will not use reuse any other existing hardware or cabling unless approved by the County. Our proposal does not include the removal of any existing County equipment or hardware.

1.13 The FSA system must support simultaneous audible alerting, visual alerting, and printing at each fire station.

Yes. The PURVIS FSAS supports simultaneous audible alerting, visual alerting, and printing at each fire station.

1.14 All audible and visual alerts must be on variable timers to return to the default setting.

Yes. All audible and visual alerts return to their predefined, default setting after a configurable, County-determined amount of time.

1.15 Audible alerts must have the capability of being set to remain on for different durations than visual alerts.

The durations of audible and visual alerts are configurable and can operate independent of one another.

1.16 The FSA system must be capable of function activation from more than one source including all PSAPs.
Yes. The delivered PURVIS FSAS solution is capable of function activation from more than one source, including all PSAPs. From each PSAP location, the system can activate automatically through the interface to the CAD system. Also in each PSAP, the system can be manually activated through the included PURVIS FSAS Dispatch Management Consoles. From any computer with an Internet browser (Internet Explorer, Chrome, and FireFox) and network connectivity to the PURVIS FSAS Central Servers on the County network, the system can be manually activated via the included PURVIS FSAS Portal.

1.17 The FSA system must provide the ability to switch over to and run in a failover mode if either primary site were to fail with minimal or no operational loss. All system functions must continue to be available in this failover mode. The FSA must be operational from a backup site in 5 minutes or less should both primary systems fail.

The delivered PURVIS FSAS includes a highly available active/active server configuration. The delivered system includes two identical and primary Central Servers, one located at the County's ACDC and one at DU-COMM. Both servers will continually operate in an active mode, eliminating the need for failover actions to be taken in the unlikely event of a server failure. Each server maintains a central repository of all configuration and connection information. Additionally, the Central Servers are responsible for maintaining communication with all critical PURVIS FSAS software and hardware components. As such, the servers continuously communicate with each other, with CAD servers via the PURVIS API, with the DM Consoles, with the Radio Interface Units, and with the Station Control Units.

All alerts and FSAS communications will flow through each Central Server to provide a true level of system redundancy. In a normal operating mode, each dispatched station will receive duplicate FSAS alerts and the system has logic built in to ensure that only one alert is announced within the station.

This active/active server configuration design ensures that in the event of a failover at one site the other site will continue to send dispatches to the stations. There is no downtime and no operational impact.

1.18 The Vendor must provide an independent testing environment with one or more servers and equipment at one fire station for the purpose of testing new FSA system hardware and software throughout the life of the FSA system.

Yes. For the purpose of maintaining a testing and training environment within DuPage County, a duplicate system (a test system) will be installed in one fire station in the County. The test system will be independent of the live system environment. The delivered test system includes one of each PURVIS FSAS device type included with the delivered production system in DuPage County. Our proposal assumes that in the test site, the County will provide the same devices, power and connectivity that it is supplying for the live environment, including the radio, PA system (including speakers), UPS, power, relays and relay controlled devices. The PURVIS FSAS in Washington, D.C. includes a test system with one of each PURVIS FSAS device type installed throughout the District.
1.19 System must be fully installed.

The PURVIS FSAS will be delivered, and fully installed, as a turn-key system. Installation will include all proposed devices, servers and wiring.

1.20 System must be TCP/IP based.

The PURVIS FSAS is TCP/IP based. The delivered system will utilize a DuPage County supplied IP network as the primary communications path to alert the stations that have installed the FSAS. The PURVIS FSAS maintains active TCP/IP connections to CAD, Central Servers, Radio Interface Units and Station Control Units and intelligent fire station components and devices.

1.21 System must be software-based and configurable.

The PURVIS FSAS is software-based and configurable. The PURVIS FSAS Portal provides a browser-based interface for system configuration.

1.22 Identify the percentage of Commercially available Off The Shelf (COTS) hardware, components and devices associated with the system.

With the exception of the aluminum rack mount enclosures used for the PURVIS FSAS Station Control Units, Radio Interface Units, and Audio Relay Expansion Modules, the delivered PURVIS FSAS for DuPage County is 100% comprised of commercially available off-the-shelf (COTS) hardware components and devices.

1.23 System must have a proven ability to handle a minimum of 100 individual Fire stations and facilities and provide for future expansion.

The PURVIS FSAS has a proven ability to handle over 100 individual fire stations. The PURVIS FSAS in New York City is currently handling 243 sites and approximately 475,000 annual calls per service with no reduction in system response speed. No additional FSAS server hardware will be required if the County expands the number of stations and/or departments it currently has.

1.24 System must be of modular design, allowing addition of Fire stations, vehicles and personnel as needed.

The PURVIS FSAS is completely modular. Additional stations, vehicles, devices, and personnel can be added to the system at any time, as the need may arise. The additions of these stations will have no operational or performance impacts to other FSAS stations.

1.25 System must be flexible and expandable to meet future changes required by the customer.

The PURVIS FSAS utilizes a modular design that allows for incremental installation without disruption. It also allows for the addition of stations, vehicles, and personnel as needed down the road. Expansion possibilities are virtually limitless. Examples of system expansion include the addition of new departments and new stations as well as the addition of new devices (such as printers, lights, monitors, etc.) within existing stations.

1.26 System must be able to simultaneously transmit alerts over multiple communications paths, including IP, data, wireless and audio radio networks.

The FSAS Central Server is designed with the capability to send notifications to all stations simultaneously via multiple paths. While other systems might designate a primary and a secondary network path to each location, the PURVIS FSAS can utilize two data paths to a single location in parallel, typically TCP/IP and radio or cellular. Alerts go out over both mediums simultaneously. The data that is received first is acted on immediately. This provides fault tolerance and high availability without sacrificing time. The delivered system for DuPage County will connect with one County-
supplied IP connection with each station. Optionally, a second network path to each station can be connected to the system.

1.27 System must be able to interface with Motorola ASTRO P25 and Harris Open Sky radio systems using standard P25 interfaces.

The delivered PURVIS FSAS Radio Interface Unit (RIU) is a rack-mountable device that connects the PURVIS FSAS Central Server with the County’s Motorola radio system, and Harris Open Sky radio system. Each RIU is in a 1U rack mounted enclosure and can support up to two audio channels. The RIU can connect to VHF, UHF, 700MHz, 800MHz, and P25 radio systems. The RIU must be installed within 25 feet of the radio it that connects with.

1.28 The system must be able to integrate with the County and PSAP computer networks and RF communications infrastructure.

Yes. The delivered PURVIS FSAS will integrate seamlessly with the County and PSAP computer networks and RF communications infrastructure.

1.29 System must be able to send a notification to all Fire stations or selected Fire stations simultaneously.

In a multi-unit, multi-station alert scenario, the PURVIS FSAS sends the alert to all affected stations simultaneously and all dispatched units within each alerted station are alerted simultaneously. The process remains the same, regardless of the number of stations or units managed, and all alerts are communicated simultaneously. Alerts are then announced at each station independent of the other stations.

1.30 System must be able to alert by group, station, or unit.

The PURVIS FSAS will alert personnel by Group, Station, Unit, or Incident based on output of the CAD system. The system will provide distinct alerts for various apparatus types, incidents and station personnel. The system will be configured to automatically alert the appropriate personnel via IP and voice radio based on DuPage County desired system configurations.

1.31 System must be able to send distinct tones for the different units and classes of equipment, such as chief officers, ambulances, engines, ladders, rescue and other vehicles.

The PURVIS FSAS provides configurable, distinct audible alerts for various apparatus types, incidents, and station personnel. This includes configurable alert and pre-alert tones and text-to-speech announcements. Audible alerts in the station can ramp in volume if desired by the County.

1.32 All tones must be configurable by the County through a web interface or similar system.

The PURVIS FSAS is centrally managed through the PURVIS FSAS browser-based Portal. The PURVIS FSAS Portal provides a permission-based interface for system configuration by authorized County users. All tones are configurable by the County through the PURVIS FSAS Portal.

1.33 System must be able to process multiple distinct alert notifications that may be generated in very rapid succession due to multiple events occurring.

The PURVIS FSAS will process all distinct alerts received through the CAD Interface and the DM Console. If multiple alerts are received in very rapid succession, each alert will be numbered to clearly identify each alert as unique and alerts will be played in rapid succession in the order in which they are received.

1.34 System must be able to restrict access control using role based access controls (e.g. System Administrator, Fire Department Administrators, PSAP Supervisor...)

Requirements Narrative
The PURVIS FSAS provides a permission-based interface that restricts administration and management functionality of the system to authorized users. Permissions can be role-based and managed by system administration personnel.

1.35 Operating system must be Windows 10 for station control units and dispatcher workstations. The FSA system must always support a Microsoft operating system that is at least 2 years from entering Extended Support in Microsoft’s Lifecycle Policy.

The PURVIS FSAS runs on a Windows platform and we have been delivering and maintaining highly reliable and secure mission critical Windows-based systems and applications for more than 15 years. Since most, if not all, major modern computer aided dispatch (CAD) systems utilize a Windows-based platform, including the Intergraph CAD system in DuPage County, development environments and interface protocols are more compatible. This significantly reduces integration complexity and risk.

The operating system for the delivered PURVIS FSAS Station Control Units and the PURVIS FSAS DM Console dispatcher workstations is Windows 10.

Due to the critical nature of station alerting, PURVIS typically waits for a new operating system to be in full release, and used in industry for a period of one year to ensure the operating system is stable, widely adopted and reliable. PURVIS will support a new operating system within two years prior to the beginning of extended maintenance of the previous operating system. The only exception to this is if the new operating system is found to have issues within industry that may cause it to not be stable enough for deploying on the PURVIS FSAS in a live environment.

1.36 All user software must be designed for touch screen operations.

All application software associated with the system, including the station control unit application and the DM Console application, are designed for touch screen operations. The PURVIS FSAS Portal is a browser-based tool that is designed for use across multiple platforms for maximum access. While the Portal is not designed specifically for operations on a touchscreen, it does function on touchscreen devices.

1.37 System must have the capability for customer personnel to update all software from a central location vs. having to travel to each location to install software updates.

PURVIS FSAS software updates can be applied through the PURVIS FSAS DM Console located at the dispatch center. Depending on customer preference, either the customer or a PURVIS engineer will load the update into the customer’s system using the Software Update feature on the PURVIS FSAS DM Console. Newly installed updates can be automatically pushed to PURVIS FSAS Station Control Units and the Central Servers at any time. This approach results in there being no need for County or PURVIS personnel to have to travel to a station in order to perform a software download.

1.38 System must be able to accept timing inputs from the County’s existing network clock.

The PURVIS FSAS Central Server can be configured to synchronize system time from a Network Time Protocol (NTP) time source, such as the County’s existing network clock. All time stamps, including error and notification logs as well as notification and server/workstation display times, will be synchronized with the PURVIS FSAS Central Server time.

The PURVIS FSAS is synced with the Time Clocks in all other implementations.

1.39 System must be able to send incident and trouble notifications via e-mail, text messages and phone calls. Text message notifications must not be sent using an e-mail gateway.

The delivered PURVIS FSAS will automatically transmit system incident and system trouble notices via e-mail to designated County personnel.
Optionally, the system can also transmit dispatch alerts and system trouble notices via SMS text message to designated personnel. Unlike other station alerting systems, the PURVIS FSAS sends out true SMS text messages versus using an e-mail gateway to deliver these messages. Our approach significantly increases the likelihood that messages will be delivered to the intended recipients and reduces the risk of cell carriers tagging messages as SPAM and blocking them from delivery. The PURVIS FSAS sends all texts messages through a text message aggregator that has relationships with all major cell carriers. The aggregator then delivers the messages to the cellular carriers who then ultimately deliver the messages to the recipients' devices. There is no utilization of an e-mail gateway for texting.

The PURVIS FSAS does not currently send notifications via phone calls.

1.40 System must offer a mobile application for Apple and Android devices that delivers incident information, displays the incident location on a map, and provides the ability to acknowledge receipt of the incident. The County might choose to provide this functionality from its new Intergraph CAD system.

PURVIS offers a mobile application that allows alerts to be delivered to iOS (including Apple) and Android smartphones and tablets. Mobile users are notified via an audible tone, a visual banner, and then they can click to access additional details. The app offers incident information, mapping, the ability to acknowledge, incident chat/messaging sessions, user picture uploads, and SOS calls back to the command center. The delivered system includes licenses for 600 PURVIS FSAS Mobile Alerting App users and 10 Mobile Alerting App Administrators. Licenses are renewed annually and are included as part of the proposed PURVIS FSAS annual maintenance program. Additional annual user licenses can be purchased at any time in increments of 200 users.

2.0 Dispatch Requirements

2.1 System must be able to seamlessly integrate with the County’s new Intergraph Computer Aided Dispatch System (CAD) through a standard XML-based application programming interface (API) included with the FSAS.

The delivered PURVIS FSAS communicate seamlessly with the Intergraph CAD system. Our standards-based Application Programming Interface (API), a modern XML web service-based interface, enables a seamless gateway for alert messaging transfer from the CAD system to the stations. This standard PURVIS FSAS interface is provided as part of our solution. The PURVIS FSAS interfaces with the Intergraph CAD System in Boston and Washington DC and PURVIS developed an interface between the FDNY’s STARFIRE CAD system and the Intergraph CAD system used by the police department in New York City.

2.2 System must have software that can reside at the dispatch center or any other location with network connectivity to monitor the system, generate reports and transmit manual dispatches and general announcement messages to one, multiple or all Fire stations simultaneously.

The PURVIS FSAS DM Console software will reside on all-in-one touch screen PCs located in the County’s Dispatch Centers and it can also reside on a Windows’ PC in any other location with network connectivity to the PURVIS FSAS Central Servers. The PURVIS FSAS Dispatch Management (DM) Console Software is a permissions-based application that continually communicates with the Central Servers and provides the ability for the County to manage, control, test, monitor, and configure the PURVIS FSAS. The graphical user interface (GUI) of the DM Console Software is designed to be easy to use and manage. The large buttons and high-contrast screens are designed to provide quick access to critical features in the PURVIS FSAS. Many of the system features and critical information can be viewed from a single screen.
The PURVIS FSAS DM Console Software incorporates the following key elements:

- **Dispatch Screen**: The Dispatch Screen provides the PURVIS FSAS DM console user real-time control, manual alerting and a status overview of the PURVIS FSAS solution. From this screen the user can select one, several or all stations and simultaneous send Manual Dispatch or Non-Emergency General Announcement messages to those stations. The status information available on this screen includes PURVIS FSAS Station Control Unit (SCU) health, infrastructure health and real-time alerting status. Additionally, the browser-based PURVIS FSAS Portal provides the ability to generate manual alerts and general announcement messages from a browser on any PC connected to the PURVIS FSAS Central Servers through the County network.

- **Status Screen**: The Status Screen provides real-time detailed information about all system components and devices. From this screen, users can easily view any system faults or device failures. Additionally, users can view detailed information about the station apparatus and current alerting status.

- **Configuration Screen**: The Configuration Screen provides a permission-based interface to the PURVIS FSAS Portal for system configuration and management.

- **Reporting Screen**: The Reporting Screen provides access to various system reports designed to aid in monitoring and/or troubleshooting various aspects of the system's performance.

### 2.3 The FSA should be fully operational from each of the three (3) PSAPs. The operational view should be able to be customized to that each PSAP only normally sees the fire stations it dispatches unless actively backing up another PSAP.

This requirement was changed in RFP Addendum 3 to two (2) PSAPs. The PURVIS FSAS will be fully operational from each of the two (2) County PSAPs. The operational view of the PURVIS FSAS DM Consoles in each Dispatch Center is configurable through filters to display only the fire stations being dispatched by that Center or to display all stations within the County. Filters can easily be modified by County personnel at any time to accommodate for backup dispatching scenarios.

### 2.4 System must have the capability, for incidents, to create full automated voice dispatch alerts that announce simultaneously in multiple stations and over multiple radio system Talk groups and frequencies.

When an incident is dispatched through the CAD system, the PURVIS FSAS automatically receives predefined incident data from the CAD and transmits it to the station(s) where personnel are alerted via speakers, flat panel displays, LED reader boards, lights, printers, and other devices that may be connected to the system. At the same time the data is sent to the worksite(s), the audio radio interface sends automated (TTS) announcements over the County’s radio network. The FSAS plays audio over the appropriate channel (or talk group). If more than one channel or talk group is required, each channel or talk group is alerted simultaneously. If multiple calls occur on the same channel or talk group, the system will play the first call and wait until the call is complete before the next call is announced over the same channel or talk group.

The PURVIS FSAS converts incident information received from the CAD system into automated text-to-speech voice alerts. Text to speech translations for radio alerts are performed on the PURVIS FSAS Central Servers while text-to-speech translations in the fire stations are performed on the SCU in each alerted station. This design significantly reduces network bandwidth requirements because it minimizes the size of data files transmitted for PURVIS FSAS alerts.

Since the PURVIS FSAS sends all dispatch alerts over all IP data networks and audio over radio paths simultaneously, the automated text to speech alerts are simultaneously broadcast over multiple talk...
groups and frequencies on the radio system and IP alerts are sent to multiple stations all at the same time. This process occurs automatically, without delay or DuPage personnel action.

2.5 System must generate text-to-speech (TTS) announcements for incident information in real time. System must not be dependent on a database of pre-recorded street names and other incident data.

The PURVIS FSAS solution does not use pre-recorded street names or other incident data.

Immediately after the audio zones have been activated, the FSAS SCU begins to play the volume escalating pre-announcement immediately followed by an automated audio sequence of alert tones and text-to-speech (TTS) audio messages to the location public announcement speakers as defined by the County. This sequence may include items such as incident specific tones (audio files), incident types, responding apparatus specific tones (audio files), responding apparatus types, address and cross street, common name, tactical radio channel, dispatcher notes, location information, TTS time stamp, and more as defined by the data supplied in the Dispatch. The data items to be announced will be defined during the System Design Phase and documented in the Detailed System Design Document (DSDD).

2.6 System must generate TTS announcements at both the dispatch location and at each fire station for redundancy and to minimize the bandwidth required for transmitting alerts to the stations.

The PURVIS FSAS generates TTS announcements at the dispatch locations and at each required fire station simultaneously. The PURVIS Central Server at the dispatch center generates the TTS announcement locally and broadcasts the alert over the County’s radio network. At the same time, the PURVIS FSAS Central Server transmits a data packet to the required fire station(s) via the DuPage IP network(s). The PURVIS FSAS SCU in each alerted station receives the data packet and translates the data from text to speech locally. The text to speech announcement is broadcast over the station speakers. This design significantly reduces the size of data files transmitted over the network and provides an additional layer of system redundancy.

2.7 Automated TTS voice announcements supported must include: full dispatch announcements, announcements of move-ups, and non-emergency messages in priority order. The vendor shall identify the maximum message length.

Automated text to speech (TTS) voice dispatch announcements, move-ups, and non-emergency messages are all supported. The maximum message length for TTS announcements is 2,048 characters. Message types can be prioritized; this ensures that a non-emergency message is of lower priority than a dispatch alert.

2.8 System must include a software tool that the County can use to modify automated TTS voice pronunciations and add new words (streets, names, etc.), without vendor involvement.

The PURVIS FSAS Dispatch Management (DM) Console software and browser-based Portal allows authorized DuPage system administrators to modify the pronunciation of data elements to ensure proper pronunciation and phonetically pronounced speech. All pronunciation changes can be tested locally by the County prior to saving the changes to the PURVIS FSAS database.

The process used to modify pronunciations is user-friendly and intuitive via button navigation on the display screen. A user with sufficient login credentials is able to add, edit or delete translations. A translation consists of an original field and a replacement field. Each of these fields can be a character, word, phrase, or series of words. To add a new translation, the user simply selects “Add”. At this point a new entry is created within the list of current translations. The user is then required to fill in the original and replacement fields. These fields are free-form text fields. After the data is entered, the user need only save the translation to commit the change to the database. Editing and deleting are
much the same except they operate on the currently selected translation. As with new entries, Edit and Delete entries both require a save to commit the change to the database.

Once the County has been trained in the use of this function, no PURVIS involvement is needed in order to correct pronunciations.

2.9 System must have the ability to deliver each TTS dispatch announcement to landline and cellular phones, radios and fire station speakers. The announcement must be the same across all devices.

The system has the ability to deliver each TTS dispatch announcement to radios and fire station speakers, and the announcement can be the same or configured by the county to have differing announcement formats. The PURVIS FSAS does not deliver TTS to landline or cell phones.

2.10 System must be able to monitor the network connectivity to each fire station and provide immediate visual and audible alerts/notifications if any connectivity problems are detected to both the dispatcher and the fire station(s) affected to meet NFPA 1221 requirements.

The PURVIS FSAS self-monitors in real time. All IP connections between the Central Servers, the CAD system, the DM Consoles, the Radio Interface Units and the Station Control Units are continually monitored by the system. Dispatch components monitored include the Central Servers, the DM Consoles and the Radio Interface Units. Fire station components monitored include all Station Control Units, Audio Relay Expansion Modules, turnout timers, and LED reader board displays. Dispatchers can monitor the health of the system components and connections through the PURVIS FSAS DM Console.

System failures are quickly detected and automatically communicated to dispatch, station and support personnel. Faults or failures are reported to the CAD system through the PURVIS FSAS API, assuming the CAD system supports it. Visual and audible alerts for system failures are also delivered to the DM Console and to the SCU Remote Touch Screen and all flat panel monitors in any affected stations. E-mail notices and optional SMS text messages are automatically sent to designated County personnel.

2.11 System must be able to monitor the status of each notification sent and provide immediate visual and audible alerts/notifications to the dispatcher in cases of any failed notifications.

As stated in our response to Requirement 2,10 above, the PURVIS FSAS self-monitors in real time. System failures, including failed notifications, are quickly detected via system heartbeats and failures are automatically communicated to dispatch, station and support personnel. Faults or failures are reported to the CAD system through the PURVIS FSAS API, assuming the CAD system supports it. Visual and audible alerts for system failures are also delivered to the DM Console and to the SCU Remote Touch Screen and all flat panel monitors in any affected stations. E-mail notices and optional SMS text messages are automatically sent to designated County personnel.

2.12 The servers must be able to be interfaced and operational at a second dispatch location running a fully operational version of Intergraph CAD in addition to a disaster recovery site.

Each of the two DuPage County dispatch locations will have fully operational PURVIS FSAS Central Servers all interfaced with the Intergaph CAD system via the PURVIS FSAS API. This provides redundancy in the event of a disaster.

2.13 The system must also be operational from a remote or mobile location.

As clarified in RFP Addendum 3, the County requires the ability to remotely dispatch from a mobile device as part of a disaster recovery solution where dispatchers are moving or a mobile vehicle is being used to temporarily house dispatchers. If dispatchers in a remote location dispatch through the CAD system, the PURVIS FSAS will automatically alert from the CAD as it typically does as long as network...
connectivity between the CAD server and the PURVIS FSAS server is in place. If network connectivity between the CAD and FSAS servers is unavailable or if the CAD system is unavailable, dispatchers can dispatch fire stations and fire personnel through the PURVIS FSAS Portal. The PURVIS FSAS Portal can be used, by an authorized County user, from any location on any computer with an Internet browser (Internet Explorer, Chrome, and FireFox) connected to the PURVIS Central Servers on the County network.

2.14 Dispatcher must be able to turn off automated voice dispatch for training and similar purposes.

Through the PURVIS FSAS configuration settings, dispatchers have the ability to enable/disable the PURVIS FSAS’s connection to the CAD system in order to turn off/on automated voice dispatching. The CAD connection can be enabled/disabled for each individual PURVIS FSAS Central Server to support training and other purposes in designated locations without impacting overall system operations. For instance, the CAD connection to the PURVIS FSAS Central Server at the County’s ACDC PSAP can be disabled for training at that location while the CAD connection to the PURVIS FSAS Central Server in the DU-COMM PSAP remains active. The CAD connection to both Central Servers can also be disabled if at any time the County desires to turn off automated dispatching system-wide. If desired, County personnel can continue to manual alert the fire stations through the PURVIS FSAS software while the CAD connection is disabled.

2.15 Every dispatch position designated for fire dispatch (assume 30 positions) must be equipped with a screen to manually dispatch fire stations independent of CAD.

PURVIS FSAS Portal, a browser-based tool, provides Manual Alerting capabilities from any computer with an Internet browser (Internet Explorer, Chrome, and FireFox) connected to the PURVIS Central Servers on the County network. The can be utilized at the 30 County dispatch positions and in other County locations to manually dispatch independent of the CAD system.

Alternatively, manual dispatching can be accomplished through the PURVIS FSAS DM Console. This would require that each dispatch position have a physical DM Console screen.

3.0 Fire Station Requirements

3.1 System must utilize a Station Control Unit provided by the vendor.

The PURVIS FSAS Station Control Unit will be installed in each fire station and is responsible for receiving the incidents (or alerts) and then activating/updating all of the appropriate station devices and relays. Additionally, the SCU is responsible for playing tones and messages over the station speakers.

3.2 If there are components to be housed other than at the Fire Station Control Unit, the Vendor must supply a radio cabinet suitable to house the FSA station control unit, radio receiver, required UPS units, and any other required equipment. The cabinet shall be approved by the County.

The delivered system in each fire station includes one (1) Radio Cabinet that will house the PURVIS FSAS Station Control Unit, the Audio / Relay Expansion Module (ARXM), the County-supplied radio receiver, the County-supplied UPS and other County supplied equipment that may be required. The proposed cabinet is a MidAtlantic CWR-12-26PD wall-mount radio cabinet. PURVIS acknowledges that the County must approve the cabinet. A spec sheet for this cabinet is included in the Appendix of our proposal for the County’s review. The selection of a different cabinet by the County may result in a change to our price proposal.
3.3 The FSA must provide a minimum of 15 relay contacts/controls at each fire station. The FSA system must have the capability to control devices using remote device relays. The remote relays must:

a. be able to be energized for a configurable period of time upon receipt of a CAD dispatch.
b. have the capability to be deactivated
c. have the capability for County personnel to manually activate

The delivered system in each fire station has 16 closed contact relays that can be used to control various devices, such as doors, lights, appliances, etc., using remote device relays. Our proposal includes PURVIS cabling (up to 100 feet per relay) from 15 of the included PURVIS FSAS closed contact relays to existing County supplied relays in each fire station – 1 existing relay per PURVIS FSAS closed contact relay. It is our understanding that the scope of this contract does not include configuration of the County's existing relays themselves.

The PURVIS FSAS relay is capable of activating and deactivating any switchable device rated at 10 amps or less. The criteria associated with each relay are as follows:

- The relay cannot control any device with a load greater than 10 amps.
- The device that the relay is connected to must have an accessible control connection point

Each PURVIS FSAS closed contact relay can be energized for a configurable period of time upon receipt of a CAD dispatch and then deactivated after that timeframe has expired. The system has the capability to manually activate each closed contact relay using optional push buttons that can be installed throughout the fire station. The push buttons and the installation of these optional buttons are not included as part of our proposal.

4.0 Audio Alerts

4.1 Attention tones - Must be a volume escalating alert. The FSA system must support a minimum of ten (10) attention tones.

The delivered system will provide distinct volume escalating, configurable audible alert and pre-alert tones for various apparatus types, incident types and station announcements.

The delivered system will support a minimum of ten (10) attention tones. There is virtually no limit to the number of attention tones supported by the PURVIS FSAS.

4.2 The FSA system when used to manually dispatch must have the ability to group tones together to simplify dispatch.

During a manual dispatch where multiple tones are to be used to alert different units or groups, the tones are grouped together prior to any announcements. To simplify dispatch, tones are automatically associated with the unit so that the dispatcher does not have to manually identify the tone for each unit.

5.0 Unit-type Tones

5.1 The FSA system must support a minimum of twenty (20) unit-type tones that clearly identify the type of unit (e.g. engine, ambulance, or other apparatus). This includes County-supplied tones.

The delivered system will support specific unit-type tones that clearly identify the type of unit. The delivered system will support a minimum of twenty (20) unit-type tones. There is virtually no limit to the number of unit-type tones supported by the PURVIS FSAS.

6.0 Pre-announcements
6.1 The FSA system must provide an audible pre-announcement that clearly identifies the units due, event type, and grid area, as defined by CAD or transmit County designated audio files.

The FSAS will provide an audible pre-announcement that clearly identifies the units due, event type, and box area, as defined by CAD, or transmit County designated audio files. If multiple apparatus are dispatched, the FSAS will send an alert for all apparatus of the same type simultaneously to all worksites that have that apparatus type dispatched to an event. The FSAS will send a status messages to the CAD and to the PURVIS FSAS Dispatch Manager (DM) Console software indicating the success and failure of each dispatched station, unit or group for the given alert.

6.2 Multi-unit pre-announcement messages must be capable of any and all combinations of unit responses required from a fire station.

If the alert is a multi-unit, multi-station alert, the alert is sent to all affected stations simultaneously and all dispatched units within each alerted station are alerted simultaneously. The process remains the same, regardless of the number of stations or units managed, and all alerts are communicated simultaneously.

6.3 Unit information must consist of unit type and unit number, not just unit type (e.g. "Engine 712" or "Truck 726").

Unit information delivered through the PURVIS FSAS consists of the unity type and the unit number. Displays and audio announcement will include unit type and number.

7.0 Automated Voice Dispatch

7.1 The automated voice dispatch generated by the FSA system may be a pre-announcement or a text to-speech announcement containing the full dispatch information as defined by CAD.

Based on the County’s requirements, the delivered PURVIS FSAS provides a fully configurable automated voice pre-announcement or a full text-to-speech dispatch announcement that contains the full dispatch information as defined by CAD.

7.2 The automated voice dispatch must be in a clear and consistent concatenated audio format and must be able to be edited.

The PURVIS FSAS employs Nuance Vocalizer, a market leading, commercially available text-to-speech application that uses proven technology to provide natural sounding speech that is clear and easily understood. This powerful tool has been used by many well-known and respected commercial brands, such as Garmin, Samsung, Apple and OnStar.

The delivered PURVIS FSAS Dispatch Management (DM) Console software and the delivered PURVIS FSAS browser-based Portal allow DuPage County system administrators to modify the pronunciation of data transmitted through the PURVIS FSAS to ensure proper pronunciation and phonetically pronounced speech. All pronunciation changes can be tested locally prior to saving the changes to the PURVIS FSAS database. The delivered PURVIS FSAS includes a set of translations that have been amassed through all of our FSAS implementations.

The process used to modify pronunciations is user-friendly and intuitive via button navigation on the display screen. A user with sufficient login credentials is able to add, edit or delete translations. A translation consists of an original field and a replacement field. Each of these fields can be a character, word, phrase, or series of words. To add a new translation, the user simply selects “Add”. At this point a new entry is created within the list of current translations. The user is then required to fill in the original and replacement fields. These fields are free-form text fields. After the data is entered, the user need only save the translation to commit the change to the database. Editing and deleting are much the same except they operate on the currently selected translation. As with new entries, Edit
and Delete entries both require a save to commit the change to the database. The table below provides examples of translations.

<table>
<thead>
<tr>
<th>Original Text</th>
<th>New Text for User-Desired Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>S South</td>
<td></td>
</tr>
<tr>
<td>ST Street</td>
<td></td>
</tr>
<tr>
<td>DR Drive</td>
<td></td>
</tr>
<tr>
<td>Interstate 95</td>
<td>I Ninety Five</td>
</tr>
</tbody>
</table>

Table 1 Examples of Potential FSAS Translation Changes

7.3 The FSA system must have the capability of allowing pauses to be inserted in user designated places in the automated alert sequence.

The delivered PURVIS FSAS allows pauses to be inserted in County-designated places in the automated alert sequence.

8.0 Dispatch Audio

8.1 The dispatch announcement must have the capability to be both fully automated, from the FSA system and come from the primary trunked dispatch talk group or a combination thereof.

The delivered PURVIS FSAS is capable of sending fully automated “text-to-speech” dispatch alerts over both the County's IP Networks and the primary trunked dispatch talk group audio network, or a combination thereof simultaneously. Additionally, dispatchers can manually voice dispatch announcements over the primary trunked dispatch talk group.

8.2 The FSA system must be capable of using the existing County radio system as the source of audio to distribute the dispatcher's voiced audio in each station as a backup to IP based audio.

The PURVIS FSAS is capable of utilizing the County radio system as the source of audio. If the County's IP networks fail, the PURVIS FSAS Station Control Unit at each affected fire station will detect the loss of communication with the Central Servers and automatically default into Radio Bypass Mode giving dispatchers the ability to voice dispatch announcements over the station speakers.

8.3 The FSA main server must send a visual notification instantly after the automated alert portion is complete to:

a. FSA workstation located on the dispatch floor and to
b. CAD server, notifying the dispatcher when he/she can start voicing the dispatch and which stations failed to receive the alert.

Once the automated alert is complete, the PURVIS FSAS Central Servers instantly sends a visual notification to the PURVIS FSAS Dispatch Management (DM) Console(s) located on the dispatch floor and to the CAD server, if supported by CAD. This provides the dispatcher with an indication as to when he/she can start speaking over the dispatch radio channel. The visual notification on the DM Console(s) will also indicate which stations failed to receive the alert.

8.4 The FSA system must allow live dispatcher voice in addition to the automated voice announcement. Identify whether this is concurrent or if the automated voice must clear first.

Live dispatcher voice can be broadcast through the system in the same way that dispatchers operate the radio today, with no additional steps needed. At the fire station, the PURVIS FSAS Station Control Unit will broadcast the audio through the speakers, provided the County supplied radio at each station is configured by the County to receive the broadcast channel. If the live dispatcher voice is broadcast
on the same radio channel that the automated FSAS announcements are broadcast over, the automated voice announcement must clear first before live dispatcher audio can begin. If the live dispatcher voice is broadcast on a separate radio channel from the automated FSAS announcements, a separate radio for each channel can be installed by the County in each fire station and the PURVIS FSAS Station Control Unit in each station can be configured to give priority to either of the two radios. If audio is broadcast on both radios at the same time, the radio with priority will play over the station speakers until the announcement is complete and then any audio being broadcast on the second radio will play. Alternately, the County can optionally install a second set of speakers dedicated to playing audio from one of the radio sources. In this configuration, both radio announcements can be played at the same time - one on the main speakers and one on the second set of speakers. This is similar to a speaker configuration that we recently installed in Montgomery County, MD to accommodate multiple audio sources playing within the fire station at the same time.

9.0 Audible Alerts General Information

9.1 The FSA system must be capable of sending an alert for all apparatus of the same type simultaneously to all fire stations that have that apparatus type dispatched to an event.

If multiple apparatus are dispatched, the PURVIS FSAS will send an alert for all apparatus of the same type simultaneously to all fire stations that have that apparatus type dispatched to an event. The PURVIS FSAS will send a status messages to the CAD (if supported by the CAD) and to the PURVIS FSAS Dispatch Manager (DM) Console software indicating the success and failure of each dispatched station, unit or group for the given alert.

9.2 A unique distinct audible tone must be available for problem notifications (i.e. CAD down) to all fire stations and must be standard across all fire station control units.

The PURVIS FSAS is capable of sounding various trouble alerts, incident and/or unit tones that can be standard across all PURVIS FSAS Station Control Units. Alert tones may include unique tones to distinguish between problem notifications in addition to incidents, general announcement messages, system tests, or doorbells. All tones can be customized and configured by authorized system administrators.

9.3 The FSA system solution must be capable of providing non-emergency messages, preceded by a unique attention tone, to a fire station or group of fire stations.

The PURVIS FSAS Dispatch Management Console(s) and the PURVIS FSAS Portal provide the ability for users to manually enter and transmit incident information or non-emergency/general announcement messages, such as weather alerts, road closures, move-ups, etc. to individual or groups of stations. Incident information sent via the PURVIS FSAS DM Console and/or Portal results in stations and personnel being alerted by a unique attention tone prior to the announcement being played.

9.4 The Vendor must provide a means to activate the FSA system, inside the fire station, within close proximity of the public entrance door.

The delivered system in each fire station includes one System Test Button that can be installed with close proximity to the public entrance door and used to test the system and/or manually activate the system in the station. In-station manual activation is commonly used if connectivity to dispatch is lost or if an incident (such as a walk up) occurs at the fire station requiring immediate response. When a manual activation occurs, the PURVIS FSAS Station Control Unit will activate all configured devices at the fire station, play a pre-configured alert tone and automated message over the station speakers, and send a notification back to the PURVIS FSAS Central Servers, displaying a notification on the PURVIS DM Console(s) indicating that a manual activation has occurred at that station.
Optionally, dedicated Manual Activation Buttons can be installed in each fire station and pre-configured automated announcements can be assigned to each button. For instance; “There is an emergency at the front door. All units respond.” or “There is an emergency in the gym. All personnel respond.”

9.5 All audible alerts must be able to be volume escalating.

The PURVIS FSAS generated audible alerts provide distinct notifications at the fire stations for various apparatus types, incidents and station personnel. This includes configurable alert and pre-alarm tones, and automated text-to-speech announcements. Audible alerts in the fire station can escalate in volume. The escalation timeframe is configurable by the County.

10.0 General Speaker Volume

10.1 The FSA system must comply with all local, state and national regulations, including, but not limited to OSHA/IDOL and NFPA as it applies to noise exposure.

The delivered PURVIS FSAS complies with all local, state, and national regulations.

10.2 In order to not exceed decibel level constraints (between zero (0) and 115 decibels, never greater than 140db) the Vendor will design the FSA system for each individual fire station and zone when new speakers are being installed to determine if more than one speaker is needed in each zone. Final approval of the design will be by the County and the affected fire department.

Acknowledged. The delivered system will interface with the existing speaker system in each fire station. No new speakers are included with the delivered system. In the event that the county requests new speakers a design for each requested location will be done by PURVIS and will be done in accordance with decibel level constraints.

11.0 Adjustable Speaker Volume

11.1 The scanning volume for the speakers in each enclosed room must be adjustable, up and down to a minimum and maximum, by station personnel. This will be done with a wall mounted volume controller in each room.

The PURVIS FSAS supports the use of wall mounted volume controls in each enclosed room to allow station personnel to adjust scanning volume up and down to a minimum and maximum level. The delivered system in DuPage County does not include any wall mounted volume control devices but they can optionally, and at an additional cost, be added to the system at any time. The PURVIS FSAS in Montgomery County, MD is installed with volume controls throughout the fire stations so that station personnel can control audio volume in each area of the station.

11.2 The FSA system must provide the ability to disable in-building paging from all sources during a system message.

The delivered PURVIS FSAS includes the capability to prioritize audio inputs into each PURVIS FSAS Station Control Unit, including disabling any in-building paging sources, during system messages or incident alerts at the fire station(s). Audio inputs into the PURVIS FSAS SCU are prioritized based on the County’s requirements.

11.3 The system speakers must have the ability to have separate automatic and configurable daytime and nighttime volume settings.

The delivered system in each fire station supports up to twelve (12) audio zones. Additional audio zones can be supported with the addition of optional expansion hardware.
No new speakers or speaker cabling is included with the delivered system. Audio zoning will be based on the existing speaker cabling/zoning in each station.

Eight (8) of the delivered audio zones will support separate and configurable day/night audio settings, allowing different volume levels in each of the 8 zones based on the time of day. Lowering the audio levels is particularly useful at night, when there is less background noise, to help reduce stress levels of response personnel. This feature can also be used to control speaker zones. For example, the system can be configured so that outdoor speaker are automatically turned off at a specific time each night and back on at a specific time each morning.

12.0 Turning Speakers on and off

12.1 In public assembly rooms, all speakers must have the capability to be turned on and off by fire station personnel.

The PURVIS FSAS supports the use of wall mounted volume controls in public assembly rooms to allow station personnel to control the volume and mute the speakers in these rooms. The delivered system in DuPage County does not include any wall mounted volume control devices but they can optionally, and at an additional cost, be added to the system at any time.

13.0 Audio Sources

13.1 The County requires audio announcements from different sources for in-station operations. The FSA must have a minimum of three audio inputs at the fire station level. The order of importance and priority to be determined by the County.

The PURVIS FSAS provides situational awareness within the fire station by accepting multiple audio inputs so that multiple dispatch and operational talkgroups and other audio sources can be tied into the system. The delivered system in each fire station will support a minimum of three different audio inputs and each input will be prioritized based on the County’s requirements.

13.2 All radios associated with the FSA system will be furnished by the County and/or department. The Vendor must be responsible for directing audio from these radios to the correct speaker(s).

Acknowledged. All radios will be supplied by the County. PURVIS will install an audio cable from the radio to the PURVIS FSAS SCU in each station to direct audio from the radio to the correct fire station speakers. No modifications to the existing PA or speakers to support zoning in the station is included in our proposal.

14.0 Audio Source Examples

a. 14.1 Attention tone, Unit tones, Pre-Announcement, text to speech or voiced dispatch announcement
b. Primary dispatch Starcom channel
c. The primary VHF dispatch channel (two-tone paging) must be heard when dispatch announcements are not available
d. The mutual aid dispatch channel (IFERN)
e. The operations and tactical talk groups for bordering fire
f. Station internal public address (PA) system (i.e., station paging)
g. Doorbells
h. NOAA All-Hazards Weather Radio stations

As stated in our response to Requirement 13.1 above, the PURVIS FSAS provides situational awareness within the fire station by accepting multiple audio inputs so that multiple dispatch and operational talkgroups and multiple other audio sources can be tied into the system. The delivered system in each fire station will support a minimum of three different audio inputs from County-supplied devices and...
15.0 Visual Alerts

15.1 All non-scrolling displays must be large enough to display all dispatch data at once. All vital event data must be displayed at the same time. Scrolling displays must be an available option.

The delivered system in each fire station includes three (3) 42” 1080p LED Flat Panel Message Board Displays. These displays will be wall mounted and configured to display all vital dispatch data at once in a non-scrolling format. Displayed dispatch data typically includes incident information, including but not limited to address, cross street, responding units, incident type and turn-out time. The Message Board Display is also optionally available in 24”, 27”, 32” and 60” sizes.

The delivered system in each fire station also includes two (2) 24” single line, red LED Reader Boards. These devices provide the same incident information that is displayed on the 42” Flat Panel Displays but in a high contrast, bright LED display and in a scrolling format. The LED Reader Board is also optionally available in 24” and 60” sizes with four (4) multi-colored lines to display incident information in a scrolling or non-scrolling format, depending on the amount of information required to be displayed.

15.2 The Vendor must propose the most applicable state-of-the-art video devices for use on this project. Final selection of specific devices, including the manufacturer, will be done by the County.

The proposed PURVIS FSAS solution for DuPage is comprised of the most applicable, state of the art and commercially available off-the-shelf video devices for use on this project. The video devices include:

- Samsung (or similar) 42” 1080p LED Flat Panel Display
- Adaptive BetaBrite (or similar) 24” single line, red LED Reader Board

It is understood that the final selection of specific video devices, including the manufacturer, will be done by the County. PURVIS reserves the right to modify our price proposal based on the final devices selected by the County.

15.3 The proposal will include three (3) flat panel 42” with 1080p, LED video displays at each fire station. The proposal will include a minimum of two (2) LED reader boards in the apparatus bays of each worksite. More may be added if the size and configuration of the room dictates.

The delivered system in each fire station includes three (3) 42” 1080p LED Flat Panel Message Board Displays and two (2) 24” single line, red LED reader boards. Please refer to our responses to Requirements 15.1 and 15.2 above for more detail.

Optionally, additional Flat Panel Message Board Displays and LED Reader Boards can be added to the system initially or at any time after system cutover.

15.4 The FSA system must have a minimum of four (4) video outputs.

The delivered system in each fire station includes four (4) video outputs.

15.5 Every worksite will maintain one remote touch screen monitor to operate the FSA system.

The delivered system in each fire station includes one 17” SCU Remote Touch Screen. The Remote Touch Screen can be wall or desk mounted. The touch screen provides a simple, user friendly, GUI specifically designed to allow for efficient fire station operations. It displays FSAS related information to station personnel, including detailed incident information (including call type, priority, units assigned and location), general announcement messages, PURVIS FSAS system status (including equipment health, network status and CAD interface status), date/time and historical logs. The touch
screen display can also serve as a local module in the fire station to allow crew members to acknowledge incidents, manually test the system, and manually activate or deactivate relays connected to the system. The Remote Touch Screen is not critical for dispatches to be received in the station. The PURVIS FSAS does not need any intervention by station personnel to operate in the station.

16.0 Turnout Timers

16.1 The system must include a configurable turnout timer that is activated with each dispatched event, to be installed in front of each bay in the apparatus room, positioned so that it is visible to the driver and officer of each responding unit.

The delivered system in each fire station includes one (1) wall-mounted LED Turnout Timer display installed in the apparatus room. The Turnout Timer will be installed in a location easily visible by apparatus drivers and officers. The Turnout Timer begins counting upward in one-second increments when the incident is received at the fire station. The timer continues to count upward each second until a pre-configured timeframe has expired or County-defined criteria has been met.

17.0 Lights

17.1 The FSA system must trigger designated fire station standard lighting in the apparatus bays, TV room/lounge and watch office to be turned on. The lighting will be automatically turned off after a designated amount of time. The amount of time the lighting stays on must be customizable by the FSA system administrator.

The delivered system in each fire station has 16 closed contact relays that can be used to control various devices, such as lighting, using remote device relays. Our proposal includes cabling (up to 100 feet per relay) from 15 of the included PURVIS FSAS closed contact relays to an existing County supplied relay in each fire station – 1 existing relay per PURVIS FSAS closed contact relay. The PURVIS FSAS will trigger the existing County-supplied relays to activate fire station lighting. It is our understanding that the scope of this contract does not include configuration of the County's existing relays themselves.

The PURVIS FSAS relay is capable of activating and deactivating any switchable device rated at 10 amps or less. The limitations associated with each relays are as follows:

- The relay cannot control any device with a load greater than 10 amps.
- The device that the relay is connected to must have an accessible control connection point

Each PURVIS FSAS closed contact relay can be energized for a configurable period of time upon receipt of a CAD dispatch and then deactivated after that timeframe has expired.

The amount of time that audible and visual alerts (including lighting) remain active in a station before the system resets itself is configurable by the County's FSA system administrator.

17.2 All FSA system lighting must be low voltage LED and comply with the National Electric Code.

The delivered system in each fire station includes six (6) Red Strobe Lights. The Strobe Lights are energy efficient, low voltage LED and they comply with the National Electrical Code. No other lights are included with the delivered system.

Optional PURVIS FSAS lighting devices, including multi-colored tower lights and red LED lights, are also low voltage and comply with the National Electric Code.
17.3 **FSA system must be capable of producing night vision lighting in all sleeping areas, egress paths from the sleeping areas and the apparatus bays.**

The delivered system in each fire station has the capability of producing night vision lighting in all sleeping areas, egress paths from the sleeping areas and the apparatus bays. However, the delivered system does not include night vision lights. **PURVIS** offers two forms of optional lights to produce low intensity red lighting for ease of vision at night. These lights soften the wakening experience for station personnel and illuminate areas of the station, such as sleeping areas and hallways, for safe egress at night.

The **PURVIS FSAS** red disc light is a 3.5" round low intensity LED light. This light is available as a standalone device that can be installed in any area of the station where lighting is required. Additionally, **PURVIS** offers an optional red LED light ring that is integrated with the **PURVIS FSAS** ceiling speaker. These lights have the ability to ramp in intensity over a designated period of time.

17.4 **A red strobe light located in the apparatus bays, fire station exterior work areas and rooms where there is loud ambient noise or where headphones are used must be activated by the FSA system upon event dispatch and upon the ringing of the fire station phone. Examples of these rooms can include, but are not limited to, physical training rooms, compressor rooms and apparatus bays.**

The delivered system in each fire station includes six (6) Red Strobe Lights that will be installed in the apparatus bay, exterior work areas and County-defined rooms with ambient noise. The Strobe Lights will be activated by the system when a dispatch is received and when the fire station phone rings, as long as the phone system is a standard analog system.

18.0 **Zone/Dorm Controllers**

18.1 **The FSA system must be able to support a minimum of ten (10) zones at each station.**

The delivered system in each fire station supports twelve (12) zones.

18.2 **Exterior speakers must be isolated in one (1) zone.**

Audio zoning will be based on the existing speaker cabling/zoning in each station. If existing exterior speakers are isolated in one zone, the delivered **PURVIS** FSAS will support the alerting of those speakers as a speared zone within the station. No new speakers or speaker cabling is included with the delivered system.

18.3 **Dorm room controllers must be capable of controlling speakers, night vision lighting, and visual displays.**

The optional **PURVIS** FSAS Dorm Remote (Controller) is a wall-mounted device with 8 push buttons that are configured to correspond with the unit types assigned to the station. For instance, buttons may be configured for Engine, Ladder, Rescue, Hazmat, etc. Using the Dorm Remote, users can select the unit or units that will be activated in the dorm. When a unit is selected, a green LED light above the button for that unit type will light, indicating that the dorm is configured to activate for that particular unit type. Only the units selected will be alerted via speakers and lighting in that dorm area. Users can change selections at any time. The **PURVIS** FSAS Dorm Remote does not control visual displays.

The delivered system in each fire station does not include **PURVIS** FSAS Dorm Remotes.

18.4 **The SCU zone controller must control the speakers, strobes, night vision lighting, and standard work lights if applicable.**
Zones can be controlled by the PURVIS FSAS using pre-defined settings without the use of optional PURVIS FSAS Dorm Remotes. A particular area of the station can be assigned a zone and the speakers and lights in that zone will always be activated when County-defined criteria is met. For instance, a dorm room can be assigned as an Engine dorm room. The speakers and lights in that room will always activate when the Engine is dispatched. No new cabling of existing speakers or lights to support zoning within the station is included with the delivered system.

The optional PURVIS FSAS Dorm Remote is capable of dynamically controlling strobes and standard work lights in addition to speakers and night vision lighting in a particular zone. Only the units selected on the Dorm Remote will be alerted in that zone or area. Dorm Remote selections can be modified at any time by station personnel.

18.5 The FSA system must be capable of displaying all zones that are activated by the dispatch center on a console.

The PURVIS FSAS will display all stations that are activated by the dispatch center on the PURVIS FSAS Dispatch Management Console located at the ACDC and at DU-COMM. The system does not display the specific zones that are activated within a station.

18.6 Zone activation indication must be automatically cleared on the FSA system when the alerts are completed.

Once the alerts are complete, the delivered PURVIS FSAS will automatically clear all system functions, including audio, displays and relays, and return the system to its original state. The duration of the alerts are configurable and defined by the County. Optionally, a manual reset button can be installed to manually reset the PURVIS FSAS by station personnel.

19.0 Radios

19.1 The FSA system must support the Motorola Call Alert feature on the 800 MHz Trunked System control channel to alert fire station receivers when needed.

The PURVIS FSAS can be activated through Motorola Call Alert tones manually generated by the County at the dispatch center. If County personnel utilize the Call Alert function, The PURVIS FSAS Station Control Unit will receive a dry contact output from the Motorola radio in the fire station and alert the station based on a predetermined alerting configuration.

The Motorola station radio can be configured by the County to receive the Call Alert and activate the dry contact outputs on the radio when alerted. The PURVIS FSAS SCU digital inputs will be connected to the Motorola station radio relay outputs. When the dry contact relay output is activated, the PURVIS FSAS SCU will activate the fire station alerting devices and broadcast audio over the fire station speakers. Any radio traffic on the dispatch channel can also be announced over the speakers. No intervention in the fire station is required for this feature to activate. The PURVIS FSAS in Montgomery County, MD is activated through the Motorola Call Alert feature as a backup form of alerting in each fire station.

Optionally, if the fire station Motorola radio is configured to accept multiple types of Call Alerts and activate the individual dry contact relay outputs based on unit type dispatched, the PURVIS FSAS SCU can be configured to associate each radio output as a separate PURVIS FSAS SCU input and activate pre-configured alerting within the station based on the unit type received.

19.2 The FSA system radio interface must be equipped to detect radio channel traffic and wait until the channel is free to begin automated dispatching.

The PURVIS FSAS Radio Interface is equipped to detect channel traffic and designed to wait until the channel is free in order to begin automated dispatching.
19.3 The FSA system must support a redundant and diverse method of back-up communications, such as but not limited to an 800 MHz radio system, a 200 MHz radio system, an IP connection, cellular modem or a radio control station.

The primary FSAS communication path between the Dispatch Centers and the fire stations will be the IP network. In addition to communicating over this IP network, the system will provide automated voice over radio announcements over the 800MHz and 200 MHz radio systems as a backup communication path.

The PURVIS FSAS can also communicate over other paths for the purpose of delivering automated alerts to the fire stations. Since the PURVIS FSAS doesn’t have to treat multiple IP alerting paths as “primary” or “secondary,” our system can send alerts over multiple paths simultaneously. Whichever path delivers the alert fastest is the one that is acted upon. Some additional options include:

- **Data Radio:** The PURVIS FSAS can transmit data over a radio network. Alerts can be sent via data radio in the same way that they can be sent over the primary IP network. This can be achieved through an analog modem connected to the radio system or through digital data transmissions over a P25 IV&amp;D (integrated voice and data) network. The PURVIS FSAS has been validated by Motorola to transmit data over the Motorola Astro P25 radio network. This validation occurred in 2014 at Motorola’s laboratory facility in Schaumburg, IL where we staged our system for testing and validation purposes. Our understating is that PURVIS is the only station-alerting vendor outside of Motorola to receive this validation.

- **Data communication** can also be supported over other transmission mediums such as EVDO (cellular) wireless communications. Our FSAS in Charleston County, SC utilizes Verizon cellular modems in several stations for FSAS communications.

Additionally, the system will interface with the radio in each fire station. In the event of complete network failure between the dispatch centers and the fire station, the PURVIS FSAS Station Control Units will detect the loss of communication between the stations and the Central Servers and each affected PURVIS FSAS SCU will automatically default into Radio Bypass Mode. Since all dispatch alerts are sent over all IP network and audio over radio paths simultaneously, the automated text to speech (TTS) announcements will be fed from the station’s station radio, through the Station Control Unit to the fire station speakers. This process occurs automatically, without delay or DuPage County personnel action. Charleston County, SC utilizes this feature as its form of backup alerting in each fire station.

The interface to the radio in each fire station can also support system activation through tones manually generated by the County at the dispatch center. Optionally, the PURVIS FSAS can automatically generate these tones. If DuPage County personnel utilize the two-tone paging, or Quick Call, on a VHF network or Call Alert on the 800 MHz network, the Station Control Unit will receive and alert the fire station based on a predetermined alerting configuration. The station radio can be configured to receive the Quick Call or Call Alert and activate a designated corresponding open collector output. The PURVIS FSAS SCU will take that output from the radio and activate the fire station alerting devices and broadcast audio over the worksite speakers. Since the Station Control Unit will already be in Radio Bypass Mode at that time, having detected a loss in IP network connectivity, any radio traffic on the dispatch channel would also be announced over the speakers. No intervention is required for this feature to activate.

If the fire station radio is configured to accept multiple types of Quick Call or Call Alerts and activates the additional open collector outputs based on unit type dispatched, the PURVIS FSAS SCU can be configured to associate each radio output as a separate PURVIS FSAS SCU input and activate zoned alerting within the station based on the unit type received.
19.4 The FSA system at each fire station must accept relay closure from the County provided radio equipment for the purposes of: 1) failover and 2) manual activation of all Vendor-provided devices.

The PURVIS FSAS Station Control Unit can be activated from the County supplied radio equipment via a dry contact relay from the station radio for purposes of 1) failover and 2) manual activation of all PURVIS FSAS devices. The station radio can be configured by the County to receive and activate the dry contact outputs on the radio when alerted.

The delivered PURVIS FSAS SCU digital inputs will be connected to the station radio relay outputs on the radio. When the dry contact relay output is activated, the PURVIS FSAS SCU will activate the fire station alerting devices and broadcast audio over the fire station speakers. Any radio traffic on the dispatch channel can also be announced over the speakers. No intervention in the fire station is required for this feature to activate.

Optionally, if the fire station radio is configured to accept multiple types of unit tones and activate the individual dry contact relay outputs based on unit type dispatched, the SCU can be configured to associate each radio output as a separate SCU input and activate pre-configured alerting within the station based on the unit type received.

19.5 System must be able to allow fire station personnel to manually acknowledge that a notification was received.

The delivered system in each fire station includes two manual Acknowledgement Buttons. The Acknowledgement Button is a Schurter (or similar) button that provides fire station personnel the capability to acknowledge receipt of the dispatches.

Personnel can also have the ability to acknowledge receipt of the incident via the remote SCU touch screen. The screen can be configured to allow acknowledgements on a unit by unit basis or an All Acknowledge button can be used to acknowledge the receipt of the incident for the entire fire station.

Acknowledgement messages are sent back to the dispatch via the DM Console and can also be sent back to the CAD system if supported by the CAD. If an acknowledgment is not received within a configurable period of time, an audible and visual warning notice is sent to the dispatch center on the DM Console and the failed acknowledgement message can also be sent to the CAD system, if the CAD supports it. The figure below shows a failed acknowledgement warning notice on the DM console application:
19.6 System must be able to allow fire station personnel to use an emergency crew alert button by front door to alert crew to walk in emergencies.

The delivered system in each fire station includes one System Test push button that can be installed with close proximity to the public entrance door and used to test the system and/or manually activate the system in the station. In-station manual activation is commonly used if connectivity to dispatch is lost or if an incident (such as a walk up) occurs at the fire station requiring immediate response. When a manual activation occurs, the PURVIS FSAS Station Control Unit will activate all configured devices at the fire station, play a pre-configured alert tone and automated message over the station speakers, and send a notification back to the PURVIS FSAS Central Servers, displaying a notification on the PURVIS DM Console(s) indicating that a manual activation has occurred at that station.

Optionally, dedicated Manual Activation Buttons can be installed in each fire station and pre-configured automated announcements can be assigned to each button. For instance; “There is an emergency at the front door. All units respond.” or “There is an emergency in the gym. All personnel respond.”

19.7 System must be able to integrate with an existing doorbell.

The delivered system in each fire station will be cabled to one existing County-supplied doorbell. The system will be configured to alert the station with a County defined tone and/or automated voice announcement when the doorbell is activated.

19.8 System must be capable of integrating a camera into the system as an option.

The PURVIS FSAS is fully capable of integrating a camera into the system as an option.
PURVIS can install a camera at a door of the fire station with a doorbell that has an integrated microphone and speaker for 2-way audio communications. This provides a video and audio feed into the station and also back to the dispatch centers. Any visitor to the fire station can get immediate assistance, either from station personnel who can get a “visual” on the visitor, or from the dispatch center if station personnel may be away or unavailable.

The camera/doorbell functionality requires one (1) PURVIS FSAS Remote Touch Screen (included with the system) and one (1) microphone in each fire station where the camera/doorbell is installed. For camera audio/video communications between the fire station and the dispatch centers, a streaming bandwidth in the range of 120 kbps to 4 Mbps is required. The higher the bit rate, the higher the picture quality will be.

The doorbell/camera capability with two-way communications between the station and the dispatch center is a capability that PURVIS offers today and it is currently integrated with our FSAS in the District of Columbia and in Montgomery County, MD.

19.9 System must be able to conduct a test of the equipment at a fire station through the use of a push button or similar device located in the fire station. When this button is activated a test automated dispatch will occur over the fire station’s speaker system and visual displays.

The delivered system in each fire station includes one System Test button. The System Test button is a Schurter (or similar) push button. When the System Test button is activated, a pre-configured, County-defined message such as “Test” will play over the station speakers and appear on the visual displays.

19.10 System must offer ambient noise sensors to adjust speaker volume by speaker zone. The sensors must be able to be installed in any location in the fire station.

The PURVIS FSAS allows for the use of Ambient Noise Sensors in drive bays and other noise heavy areas of the fire station to raise and lower speaker volume levels based on the current ambient noise level, making it easier for station personnel to hear alerts in noisy areas. Ambient noise level monitoring is achieved through the use of microphone sensors that can be associated with individual speakers or with individual zones within a station. The sensors are configurable with a minimum and a maximum level so that the speaker volume level is never raised or lowered beyond the limits defined by the fire department during system implementation. Ambient Noise Sensors are installed and in use as part of our FSAS in Washington D.C. Ambient Noise Sensors are not included are part of the delivered system for DuPage County.

20.0 Training Requirements

20.1 Training must be provided for a complete functional understanding of the system.

The PURVIS Team has the experience, methodology, and products to ensure DuPage County personnel are thoroughly trained in PURVIS FSAS operation and maintenance. Over the last three years, the PURVIS Team has trained over 325 dispatch and field personnel in the operation of alerting systems, and over 40 technical personnel in maintenance and administration of these systems.

The PURVIS Team’s training methodology involves the on-site conduct of training classes that are tailored to the County’s delivered FSAS solution. Training materials and the training presentation will be tailored around the delivered solution configuration items and equipment. The County will have the opportunity to review and comment on all training materials prior to the conduct of the courses.

Sessions will have defined agendas and the instructor will ensure that sessions are conducted in accordance with the agenda, while at the same time ensuring that the needs of the students are met. All sessions will also include a “hands-on” portion using the delivered solution. All system functions will
be addressed during the “hands-on” training to provide a complete functional understanding of the system.

20.2 Training shall be provided to dispatchers, administrators, fire personnel, and technical personnel. Training may be in the form of “Train-the-Trainer.”

All training will be provided in a “Train-the-Trainer” format on-site at a location designated by the County. PURVIS recognizes that the training schedule will need to be flexible in order to train personnel on differing shifts. PURVIS will accommodate night and weekend training if required.

The PURVIS Team will conduct the following training classes:

1. PURVIS FSAS Dispatcher/Administrator/Fire Personnel Training Class
2. PURVIS FSAS Technical Training

The syllabus for each of these classes is provided in our responses to requirements 37.1 and 37.2 further in this proposal.

21.0 Warranty and Maintenance Requirements

21.1 Proposer must provide technical support on a 24/7/365 basis.

PURVIS provides 24x7x365 technical support. All requests for support are initiated through the PURVIS Help Desk, which receives and logs all customer support calls and creates trouble tickets for all calls received. The Help Desk is staffed to receive calls 24x7x365. When a system/subsystem/component failure occurs, the Customer will contact the PURVIS Help Desk by phone (for emergency and non-emergency requests), or online/e-mail (for non-emergency requests only).

When a service request is received, a PURVIS Support Engineer acknowledges the Customer's request within two (2) hours of receipt, and will solicit specific details regarding the service request if needed. Following this initial response, PURVIS will classify the event by priority level: Emergency Service Request or Non-Emergency Service Request.

PURVIS defines Service Requests as follows:

- Emergency Service Request (critical operational failures) is defined as a major failure caused by a FSAS software and/or hardware fault that results in no service at one or more locations. Response to an Emergency Service Request is provided within two hours following receipt of the request. PURVIS will troubleshoot, diagnose and repair emergency system failures 24/7/365, including holidays, until resolved.

- Non-Emergency Service Request (non-critical operational failures) is defined as a failure or incident in which the service continues to operate, but a non-critical feature, such as a speaker is not available or does not function as it should. Service for minor failures is provided during normal business hours, Monday through Friday, between the hours of 8 AM and 5 PM Eastern Time, excluding federal holidays. Response to a Non-Emergency Service Request is provided within the next business day from receipt of the request, and will typically be resolved within two business days.

21.2 Proposer must offer both remote and on-site support.

PURVIS technical support personnel with appropriate credentials are able to access the PURVIS FSAS remotely using Remote Desktop to perform system maintenance. Remote Support access is accomplished through the use of secure VPN and Windows Remote Desktop access to the PURVIS FSAS Central Server. From the Central Server, PURVIS technical support personnel are able update system
software, make configuration changes, and monitor system activities. PURVIS will work with the City to define and document the remote access process that will be utilized.

On-site support will be provided by Communication Zone, our local partner for cabling, installation, and on-site maintenance. PURVIS will always be the County’s primary point of contact for warranty and support requests. PURVIS support engineers will work in conjunction with Communication Zone for any on-site support issues that may arise.

21.3 Proposer must have the capability to provide technical support remotely to the system via a VPN or similar connection.

PURVIS FSAS support engineers provide remote support through VPN and Windows Remote Desktop access to the system. PURVIS FSAS Central Servers, Station Control Units and Dispatch Management Consoles will be factory configured to support remote access. If remote troubleshooting is required by the PURVIS engineering staff, the engineer assigned to the trouble call will VPN into the system. Using a remote desktop to access the PURVIS FSAS Central Server(s), the Station Control Unit(s), or the Dispatch/Management Console(s), the engineer will investigate the reported issue by reviewing system logs which are all written to disk and saved in the PURVIS FSAS Database. Through the remote desktop session, the engineer will also have the ability to view and use the graphic user interfaces (GUI) on the PURVIS FSAS DM Console(s) and Station Control Unit(s).

21.4 System must be able to automatically detect when a critical event or failure occurs within the system and automatically alert support personnel for Major, Minor, and Maintenance Needed events using all or a combination of the following methods; visually, audibly, email, pager, SNMP or phone call.

The PURVIS FSAS continually self-monitors and tests the health of the system for online and offline status. Any faults or failures in the system are immediately and automatically reported.

The PURVIS FSAS self-monitors in real time. All IP connections between the Central Servers, the CAD system, the DM Consoles, the Radio Interface Units and the Station Control Units are continually monitored by the system. Dispatch components monitored include the Central Servers, the DM Consoles and the Radio Interface Units. Fire station components monitored include all Station Control Units, Audio Relay Expansion Modules, turnout timers, and LED reader board displays. Dispatchers can monitor the health of the system components and connections through the PURVIS FSAS DM Console.

System failures are quickly detected and automatically communicated to dispatch, station and support personnel. Faults or failures are reported to the CAD system through the PURVIS FSAS API, assuming the CAD system supports it. Visual and audible alerts for system failures are also delivered to the DM Console and to the SCU and all flat panel monitors in any affected stations. E-mail notices and SMS text messages are automatically sent to designated County and PURVIS support personnel. The PURVIS FSAS can also be configured to provide SNMP data to the County’s logging systems. The PURVIS FSAS does alert personnel via telephone calls.

21.5 System must be able to push all software updates from a central location to all or selected fire stations and PSAPs without requiring visits to install the updates.

Software updates are performed by PURVIS support engineers who access the system through VPN and Windows Remote Desktop. The support engineer will load the update into the County's system using the Software Update feature on the PURVIS FSAS DM Console. Newly installed updates can be automatically pushed to PURVIS FSAS Station Control Units and the Central Servers remotely at any time without the need to visit each individual station or PSAP. Software updates can be sent to selected stations and PSAPs or to all stations and PSAP.
21.6 Proposer shall provide documentation of product warranty period and coverage provided.

Our delivered solution for DuPage County includes a comprehensive warranty that provides:

- Software Warranty
- Hardware Warranty
- 24x7x365 Help Desk (Zendesk Ticket Management System)
- 24x7x365 Emergency Service Support
- Remote Software Support (VPN Access)
- FSAS Software Version Upgrades
- On-Site Hardware Maintenance

Our Service Level Agreement (SLA) for Warranty and Maintenance Support defines the coverage provided by PURVIS. Our SLA is included in Section 11.0 of this proposal.

21.7 System and all components shall be under warranty for a minimum of two years after placing the equipment in service.

The delivered system and all components are covered under our comprehensive Warranty that begins the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. The warranty period lasts for two (2) years after the system is installed and operational in the two (2) PSAPs and in 50% of the fire stations. Our proposal also includes an interim Warranty on installed PURVIS FSAS hardware and software that begins as each dispatch center and fire station is brought on-line and continues until the primary Warranty begins.

22.0 Installation Requirements

22.1 System must be installed and implemented without any disruption or impact to the current alerting system.

PURVIS personnel have repeatedly and successfully implemented the PURVIS FSAS in other applications of similar size and scope to that of DuPage County with zero impact to operations and to the current alerting process. Our entire approach draws upon our deep experience with fire departments, and the PURVIS personnel we would utilize for DuPage are the same experts who successfully (and recently) implemented this system in Montgomery County, MD, Charleston County, SC, New York City, Washington, D.C., and Boston. Additionally, PURVIS has teamed with Communication Zone, our local subcontractor in Illinois, for system installation and maintenance.

The PURVIS Team has a rich body of experience conducting and supporting cutover and migration activities for multiple clients. These cutovers have varied from simple software upgrades, to complete system migrations.

A key component to successful deployments has been our Team’s planning, testing, and documentation methodology, which includes full and thoughtful coordination with the customer. Our Team understands the criticality of making smooth and seamless transitions to new software, hardware, and system interfaces, and knows that success is rooted in careful planning and coordination with all associated County agencies and vendors. We strive to minimize the impact to operational systems during deployment activities.

To ensure deployment success, the PURVIS Team will develop a comprehensive cutover/test plan, preparation and operational checklists, and customized test scripts that take into account live system operations. Our extensive experience with mission critical system cutover experience allows the PURVIS Team to prepare customized approach that guarantees a smooth transition to new or upgraded hardware or software. Our plans and procedures will be documented via a System and

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Worksite Implementation Plan. This document combined with the System Acceptance Test Plan will drive our activities in this phase.

At time of cutover, our Project Manager will work in conjunction with the County's Project Manager, the relevant dispatch supervisors, and firehouse duty officers to coordinate the timing of all relevant activities. Approval to proceed is required from all three parties, because active incidents in the County might dictate delaying or postponing the cutover. If approval to proceed is not given, the PURVIS Team will wait a designated period of time or will reschedule the cutover for another period.

A pre-test stage will occur prior to system cutover. Once pre-testing is satisfactory, the system will be cutover and deployed as scheduled. Migrations will occur fire station by fire station over a number of days. The PURVIS Team will work with DuPage County to define the cutover schedule. All cutover activities will be subject to the same cutover and test process and will remain live based on approvals given by the County.

The end result of this process consists of documenting cutover and test results and a worksite that has been successfully migrated to the new FSAS. While this cutover and migration method might seem complex and conservative, it has evolved over decades of learned experiences and constant process improvement. It is through an intimate knowledge of various fire department personnel, systems, and operations that our Team can provide a consistent, repeatable process to provide the highest quality and lowest possible risk when operating in a live environment.

PURVIS recently employed this cutover process successfully for 34 FSAS Fire Station migrations in Boston and 72 in Charleston County. We have also implemented the same method on several large-scale firehouse cutovers for FDNY.

22.2 System cutover at the fire station level shall be no more than two hours in duration.

System cutover in each fire station will be less than two hours in duration and typically takes 30 minutes or less.

23.0 CAD Interface

23.1 The FSA system must communicate with the County’s new Intergraph CAD system. The Vendor must provide detailed written specifications for the CAD interface. The written specifications must contain sufficient detail for the CAD Vendor to write an interface to the FSA system. If CAD to FSA interface standards exist, the Vendor must provide them to the County and they must be followed by the FSA Vendor.

The PURVIS FSAS Application Programming Interface (API) is a software module tailored to communicate with CAD systems, including the Intergraph CAD. The PURVIS FSAS in Washington DC and the City of Boston currently communicates with the Intergraph CAD system through the PURVIS API.

The following list identifies the key PURVIS FSAS API bi-direction data handling capabilities:

- **Incident Data** - Information about the specific incident, including: time stamps; incident identifier; incident type; incident code; address; cross street; location coordinates; description; tactical radio channel; zone; etc.
- **Unit Data** - Information about unit; including: station, unit identifier; unit type; location; status; and relocation or move-up information.
- **Messages** - Information about messages including: time; subject; message; and priority.
- **Equipment Status** - Information about PURVIS FSAS components and devices including: time; source; destination; equipment type; equipment description; status; severity; error code; and error description.
• **System Events - Information about PURVIS FSAS system**

The PURVIS FSAS API Specification document is included in the Appendix of this proposal. This document fully defines the required interface between the PURVIS FSAS and the Intergraph CAD System. As stated above this document has been utilized previously between PURVIS and Intergraph for FSAS implementations in Washington DC and the city of Boston. The PURVIS FSAS API documentation is proprietary and marked as such within the document.

23.2 The FSA system interface to the CAD system must support the following messages from CAD.

a. Dispatches
b. Move-ups
c. Abort messages
d. Non-emergency alerts
e. Status queries
f. Unit status messages

Unlike some other station alerting system providers, PURVIS has a live and fully functional Intergraph interface that supports all of the CAD message types (a. through f.) identified above. These have all been proven in our Washington, DC and City of Boston integrations with Intergraph.

23.3 Dispatch data sent from CAD to the FSA system via the CAD interface must include, but not be limited to, the following fields.

a. Stations that need to be alerted
b. Apparatus
   1. Unit type
   2. Unit number
c. Event type
d. Event grid area
e. Event location
   1. Address: street number, street name, city
   2. Cross streets
f. Location information (i.e. high rise, metro)
   1. Hazard information
g. Other CAD data fields as required

The PURVIS FSAS fully supports the receipt of the dispatch data identified above (a. through g.) from the Intergraph CAD system through the PURVIS FSAS API. This data will be sent to the PURVIS FSAS through the CAD interface, assuming the data exists in the CAD and the CAD is able to make the data available to our interface. These have all been proven in our Washington, DC and City of Boston integrations with Intergraph.

23.4 Each fire station must only receive apparatus data that is relevant to that fire station from CAD.

PURVIS FSAS alerts are only sent to the fire station(s) relevant to the apparatus dispatched, based on the data received from the CAD system.

23.5 For each dispatch message received from CAD, the FSA system must send an automated acknowledgement over the IP network to the FSA servers and from there, to the FSA system console on the dispatch floor indicating the success or failure of each dispatched station for the given event. This acknowledgement must not involve any human intervention by fire station personnel.
For each dispatch message received from the CAD system, the PURVIS FSAS sends an automated acknowledgement to the FSAS Central Servers. The DM Consoles on the dispatch floor are automatically notified by the Servers of success or failure for each dispatched station for the given event. This acknowledgement does not involve any human intervention by fire station personnel.

### 24.0 Communications Paths

#### 24.1 The FSA system must be controlled directly from the CAD system via the County's network as the primary means of communications.

Once the CAD interface is implemented, no additional dispatch steps will be required outside of the CAD system to alert responders. When a call is dispatched, the PURVIS FSAS will automatically receive incident data from the CAD system and deliver IP dispatch alerts to all of the stations through the County’s IP network. At the same time, automated text to speech announcements will be broadcast over the County’s voice radio network.

#### 24.2 The secondary communications path will be determined by each agency with County approval prior to installation.

The delivered PURVIS FSAS in DuPage County will support a secondary IP connection to each agency, including a County-supplied landline or cellular IP connection.

Optionally, the PURVIS FSAS can support other network paths, including:

- The PURVIS FSAS can transmit data over a radio network. Alerts can be sent via data radio in the same way that they can be sent over the primary IP network. This can be achieved through an analog modem connected to the radio system or through digital data transmissions over a P25 IV&D (integrated voice and data) network.
- DuPage County dispatchers can utilize two-tone paging, or Quick Call, on a VHF network or Call Alert on an 800 MHz network. The Station Control Unit at the designated worksite will receive the alert via an agency supplied radio with a relay output. The SCU will take the output from the radio and activate the worksite alerting devices and broadcast audio over the worksite speakers. Since the Station Control Unit will already be in Radio Bypass Mode at that time, having detected a loss in IP network connectivity, any radio traffic on the dispatch channel would also be announced over the speakers. No intervention is required for this feature to activate.

#### 24.3 The FSA system must automatically failover from the primary network path to the secondary network path when the primary fails and automatically failback from the second network path to the primary network path after the primary has returned to a state of being up and running for a specified period of time.

If more than one IP path exists between the PURVIS FSAS Central Server and the fire station(s), the PURVIS FSAS will send alerting data over all paths simultaneously. Unlike other systems that wait for one path to fail before data is transmitted over a secondary path, the PURVIS FSAS treats all paths as primary and the data is sent over both paths at the same time, every time to mitigate the risk of network failures.

In the event that all IP network connections to a station completely fail, the Station Control Unit will detect the loss of communication between the station and PURVIS FSAS Central Servers and the PURVIS FSAS Station Control Unit in the affected station will default into Radio Bypass Mode. Since all dispatch alerts are sent over all IP network and audio over radio paths simultaneously, the automated text to speech (TTS) announcements will be fed from a County supplied radio in the station, through the Station Control Unit to the station speakers. This process occurs automatically, without delay or DuPage County personnel action.
Optionally, if DuPage County dispatchers utilize two-tone paging, or Quick Call, on a VHF network or Call Alert on an 800 MHz network, the Station Control Unit at the designated station will receive the alert via an agency supplied radio with a relay output. The SCU will take the output from the radio and activate the station alerting devices and broadcast audio over the station speakers. Since the Station Control Unit will already be in Radio Bypass Mode at that time, having detected a loss in IP network connectivity, any radio traffic on the dispatch channel would also be announced over the speakers. No intervention is required for this feature to activate.

24.4 The FSA system must provide the ability to switch over to and run in a failover mode at either primary site with minimal or no operational loss. All system functions must continue to be available in this failover mode. The failover/backup system should become operational (live) immediately after the main system fails.

Because of the PURVIS FSAS active/active server design, if a network failure occurs at a primary dispatch center, the Central Server at the second primary dispatch center will immediately receive, process, and alert from that location’s CAD server. All system functions will continue to be available in this mode. In the event that the DuPage County network completely fails, the Station Control Units will detect the loss of communication between the worksites and the dispatch centers and the Station Control Unit in the affected stations will default into Radio Bypass Mode. Since all dispatch alerts are sent over all IP network and audio over radio paths simultaneously, the automated text to speech (TTS) announcements will be fed from the worksite’s station radio, through the Station Control Unit to the worksite speakers. This process occurs automatically, without delay or personnel action. There is no operational loss during the failover.

25.0 Redundant Servers

25.1 The FSA system must support a redundant system in a separate physical location with minimal operations disruption and no loss of data integrity if one system fails. Each server must have a redundant server provisioned with automated failover.

The PURVIS FSAS includes a highly available active/active server configuration. The delivered system includes two (2) identical and primary Central Servers, one located at the County’s ACDC and the other located at DU-COMM providing geographical redundancy. Both servers will continually operate in an active mode, eliminating the need for failover or failback actions to be taken in the unlikely event of a server failure. The servers continuously communicate with each other, with both CAD servers via the PURVIS API, with the DM Consoles, with the Radio Interface Units, and with the Station Control Units at the worksites.

All alerts and FSAS communications will flow through each Central Server to provide a true level of system redundancy. Dispatch alerts sent to the redundant Radio Interface Units provide automated text to speech announcements to the radios in the field and serve as a backup communication path to the County’s IP network in the worksites.

25.2 The FSA servers located at the two primary fire stations must be able to operate in parallel with the FSA servers located at the other primary site.

Because of the active/active configuration of the PURVIS FSAS Central Servers, both delivered servers operate in parallel with no failover actions needed to maintain full system operation in the unlikely event of a server failure.

25.3 The FSA system in its entirety must be duplicated, having identical and independent alerting capabilities, at both primary fire stations and be integrated with the CAD system.
The two delivered PURVIS FSAS Central Servers and Radio Interface Units are identical. Each server maintains a live interface to the CAD system and each server and each RIU has independent alerting capabilities at each dispatch center.

26.0 Provisions in the event CAD is down

26.1 The Vendor must provide equipment in each PSAP to manually operate alerting at each fire station. The manual alerting connection must not interface with CAD. The connection must be between the FSA main server and the FSA control unit located at the fire station using the active County network.

*The PURVIS FSAS Dispatch Management Console software and the PURVIS FSAS Portal provide the ability to manually trigger and transmit alerts or non-emergency/general announcement messages, such as weather alerts, road closures, move-ups, etc., from the dispatch centers to individual or groups of stations without using the CAD interface. Alerts sent via the DM Console or Portal result in stations and personnel being notified from the PURVIS FSAS Central Servers to the PURVIS FSAS Station Control Units using the active County network. Manually triggered alerts provide in-station audio and visual alerts just as they are alerted from automated CAD incident alerts.*

*The delivered PURVIS FSAS solution includes a Dispatch Management Console at each PSAP.*

26.2 The same audio and visual alerts must be able to be triggered manually from the FSA main server without using the CAD interface as are triggered automatically via the CAD interface.

*Manual alerts triggered from the PURVIS FSAS Dispatch Management Console and PURVIS FSAS Portal are sent from the PURVIS FSAS Central Servers and do not use the CAD interface. The manual alerts contain the same audio and visual alerts.*

27.0 Monitoring

27.1 The FSA system must have the capability to detect the following types of problems and send out the corresponding notifications:

a) System-wide outage  
b) Communication between main FSA server and a given fire station is down due to network problem  
c) No alerts going off at a given fire station due to control unit failure  
d) Component failure at a given fire station  
e) Failure of the control unit to be able to talk to FSA components  
f) Failure of the control unit to be able to talk to peripheral devices

*The PURVIS FSAS monitoring utility meets and exceeds all of the monitoring and reporting requirements defined by the County above.*

*The table below summarizes the types of failures the system can detect as well as the personnel that the system can notify and the types of notifications that the delivered system can automatically generate.*
28.0 Problem Notifications

28.1 The FSA system must self-identify problems during internal integrity monitoring. The FSA system must automatically activate distinct audible (different from dispatch alerts) and visual alerts that will be immediately apparent to the staff in the PSAP, affected fire station, and support personnel defined by the FSA system administrator via multiple messaging methods.

For each dispatch message received from the CAD system, the PURVIS FSAS sends an automated acknowledgement to the FSAS Central Servers. The DM Consoles on the dispatch floor are automatically notified by the Servers of success or failure for each dispatched station for the given event.

Additionally, the system self-monitors system functionality 24/7/365 to ensure any system failures are immediately detected. Dispatch, worksite and administrative staff are immediately notified of any in-operability. Distinct audible and visual alerts of system faults are delivered to the PURVIS FSAS DM Console software at the dispatch centers and to the speakers, the included 17” touch screen monitor, and all flat panel displays in each affected fire station. System trouble notices are automatically sent to designated County personnel via e-mail and via SMS text messages. A response is provided back to the CAD system of all issues through the PURVIS FSAS Application Programming Interface (API), assuming the CAD system supports it.

The figure below shows network failure and device warnings displayed on the DM Console application. Network failure notices appear in the red bar at the top of the screen and the affected stations are
highlighted in red. The device failure notice also appears in the status bar at the top of the screen and the affected station is highlighted in yellow.
Figure 2 Network and device failure notices on DM Console application
The figure below shows an example of an auto-generated e-mail notification indicating that a network failure has occurred between the Dispatch Center and a fire station.

![Auto-generated email notification example](image)

**Figure 3 Auto-generated email notification example**

28.2 The FSA system must notify designated County personnel immediately via a text message or pager message when there is a system-wide outage or fire station control unit outage.

System trouble notices, including a system-wide outage or fire station control unit outage, are automatically sent to designated County personnel via e-mail and via optional SMS text messages. An alert is provided back to the CAD system through the PURVIS FSAS Application Programming Interface (API), assuming the CAD system supports it.

28.3 The audible alert at the PSAPs and affected fire stations must have the ability to be silenced as long as the visual alert continues to be displayed until the problem with the FSA system is resolved. A silenced alarm must be overridden in the case of a second problem notification alert.

Audible alerts for system trouble notices on the PURVIS FSAS Dispatch Management Console at the PSAPs can be silenced via a "Silence Alarm" button on the screen. Audible alerts for system troubles in any affected fire stations can be silenced through the use of a "Mute" button on the included 17" SCU Remote Touch Screen. The Mute button in a fire station is overridden when a dispatch is received in the station. The PURVIS FSAS does not currently offer the ability to override silenced alarms in the PSAPs or the fire stations when a second problem notification alert is received.

Visual alerts for system trouble notices remain on the displays at the PSAPs and the Fire Stations until the problem is resolved.

28.4 The FSA system must send a visual and audible alert to the fire station and to the FSA system administrator’s console when there is a change in power status as described below:

1. Electrical power supplied from power company is down/returns to normal status
2. UPS activated/deactivated
3. Generator activated/deactivated
4. A problem with external systems such as generators and fuel tanks.
5. When the fire alarm at a fire station gets triggered.

The PURVIS FSAS has the ability to monitor changes in power status as described above. To achieve this, the PURVIS FSAS requires a County-supplied dry contact closed output from each
7.C.2.a

DuPage County Procurement Services, Proposal P16‐167‐RC
Fire Station Alerting System

PURVIS Proposal No. PC2017‐58
14 June 2017

If/when the devices identified above are cabled to the PURVIS FSAS SCU and configured in the
system, the PURVIS FSAS will send a visual and audible alert to the fire station and to the FSA system
administrator’s Dispatch Management Console when there is a change in power status.
29.0 FSA system monitoring utility
29.1 The FSA system must provide a user‐friendly monitoring utility using a GUI interface with drill
down capability to display detailed information regarding problem notifications.
The PURVIS FSAS includes a monitoring utility with a variety of reports designed to aid in monitoring
and/or troubleshooting various aspects of the system’s performance. All reports are maintained in the
PURVIS FSAS SQL Server Database on the PURVIS FSAS Central Server. The reports are accessible on
the user friendly, permission‐based graphical user interface (GUI) of the PURVIS FSAS DM Console.
They can be viewed from a global perspective or filtered down to the fire station level. Reports can be
saved, exported and printed from the PURVIS FSAS DM Console.
System error and status log reports include date/time stamps on all system events, including details on
all traffic between the CAD system and any PURVIS FSAS controllers, between any controllers and the
fire stations, and between all network components in the fire stations. The following pre‐defined reports
are included with the delivered system:
 System Events – A list of all events that occur in the system
 Incidents – This is a list of incident (alerts)
 Faults – This report shows system faults or troubles
29.2 The FSA system monitoring utility must be displayed at each PSAP on a dedicated workstation.
The PURVIS FSAS monitoring is accessible through the PURVIS FSAS Dispatch Management Console, a
client application running on a dedicated workstation located at the dispatch center. The delivered
system in each PSAP includes one (1) PURVIS FSAS DM Console. Optionally, additional DM Consoles
and/ or DM Console software licenses can be added to the system at any time. The DM Console software
can run on any Windows‐based computer that meets the minimum hardware requirements of the
software. PURVIS will provide these minimum requirements to the County upon request.
29.3 The FSA system monitoring utility must be fully accessible from a IP client residing on the
network and via a web interface.
The PURVIS FSAS monitoring utility is accessible through the PURVIS FSAS Dispatch Management
Console, an IP client residing on the County’s network. Authorized County personnel can access the DM
Console software remotely via a County VPN connection. The PURVIS FSAS monitoring utility is not
currently available via a web interface due to security concerns associated with providing web‐based
access to the PURVIS FSAS given the mission‐critical nature of the system.
29.4 Both the system administrator and dispatch supervisor must have permission to access
information about the entire FSA system using the FSA system monitoring utility.

Attachment: Purvis 918126 PO final_Redacted opt (ETS-R-0020-18 : RFP 16-167-RC FSA PO 918126)

device that the system will monitor. The PURVIS FSAS will need to be cabled from each County‐
supplied dry contact closed output to an available input on the PURVIS FSAS SCU (1 input per dry
contact output). The delivered system in each station has 24 digital inputs. Cabling from the
County‐supplied closed contact outputs on the devices identified above to the PURVIS FSAS digital
inputs is not included in our proposal.

County personnel with necessary permissions, such as the system administrators and the dispatch
supervisors, can access information about the PURVIS FSAS using the system monitoring utility on the
PURVIS FSAS Dispatch Management Console.

Requirements Narrative

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29.5 The FSA system must maintain and be able to export via Excel or similar files a log of:

a) Dispatches sent
b) acknowledgements received
c) actions taken by the system administrator
d) all devices activated or failed as a result of the dispatch.

PURVIS can provide County personnel with access to the PURVIS FSAS log files, which include data on dispatches sent, acknowledgements received, actions taken by the system administrator, activations of major system components and failures of monitored system components and devices. Log files are delivered in SQL table format and can be exported to Excel as CSV files through the PURVIS FSAS DM Console. Statements and queries can be run by County personnel against the SQL table data. The County may use third party reporting tools that can read SQL tables and/or CSV files. Third party reporting tools may include Crystal Reports and Pentaho.

Error and status logs must be available using the FSA system monitoring utility described above

System error and status log reports, including date/time stamps, on all system events are maintained in the PURVIS FSAS Database. County personnel with necessary permissions can access all error and status log reports through the PURVIS FSAS DM Console Software. Reports can be saved, exported and printed from the PURVIS FSAS DM Console.

The figure below shows the Status Log Screen on the DM Console application. This screen can be accessed by County users that have the correct assigned access privileges:
30.0 Performance

30.1 The FSA system must have no more than five minutes (cumulative) of system downtime per year; this includes planned maintenance. This requirement refers to system-wide outages only.

To ensure the County will achieve no more than five minutes of system downtime per year with the PURVIS FSAS, PURVIS employs an active/active server configuration that minimizes the chance of a system-wide disruption, even during planned maintenance. Additionally, two Radio Interface Units (RIU) are installed to ensure no loss of automated radio broadcast in the event of an RIU failure or during planned RIU maintenance.

The system is designed so that if a Central Server or Radio Interface Unit fails, the other Central Server and/or RIU will continue processing dispatch data and alerting as normal. Designated personnel are notified of the problem immediately via text messages and e-mail notifications. During planned maintenance, one of the Central Servers and/or Radio Interface Units is disabled, updated, and is re-enabled as the other Central Server and/or Radio Interface Unit continues processing dispatch data and alerting as normal. Once complete, the other Central Server and/or Radio Interface Unit will go through the same process. PURVIS will provide dedicated help desk support and remote access support to ensure updates occur as planned.

30.2 The FSA system must have no more than eight (8) hours (cumulative) of fire station downtime per year; this includes planned maintenance.
DuPage County will achieve no more than eight (8) hours of (cumulative) worksite downtime per year through the following steps to be taken by PURVIS and by the County:

- **PURVIS employs an active/active server configuration.** During system maintenance, PURVIS will not take both Central Servers offline at the same time. When updates to a server are needed, PURVIS will perform them to one server while the second server remains completely operational.
- Planned software maintenance to the fire station SCUs will be coordinated with DuPage County. PURVIS FSAS software updates are be pushed to the PURVIS FSAS SCU from the FSAS DM Console. The SCU software updates download in the background of the SCU while the SCU remains fully operational. Once the download is complete, the SCU software can either update automatically or the software update can be manually applied from the DM Console – depending on the County’s preference. PURVIS FSAS SCU software updates take approximately thirty (30) seconds from the time the downloaded update is applied to the time the SCU is back on-line in a ready state. If an alert occurs during the PURVIS FSAS SCU update, the PURVIS FSAS will automatically failover to Radio Bypass Mode and alert the worksite via audio over radio automated TTS announcements on the fire station speakers.
- The same process occurs in the unlikely event of a Station Control Unit failure. The system at the affected worksite will automatically failover into Radio Bypass Mode and the Central Server will immediately initiate notifications to designated personnel via text messages and e-mails.
- Two PURVIS FSAS Radio Interface Units (RIU) are installed to ensure no loss of automated radio broadcast in the event of an RIU failure or during planned RIU maintenance. If a Radio Interface Unit fails, the other RIU will continue processing dispatch data and alerting as normal. During planned maintenance, one of the Radio Interface Units is disabled, updated, and is re-enabled as the other Radio Interface Unit continues processing dispatch data and alerting as normal. Once complete, the other Radio Interface Unit will go through the same process.
- System uptime is not impacted by planned annual preventative hardware maintenance in the fire stations. The system in each station will remain on-line and fully functional during planned preventative hardware maintenance.
- Through the proposed maintenance agreement, PURVIS will provide 24x7x365 support services to address any software or on-site hardware failures that may occur. We will utilize a local vendor, Communication Zone, to ensure that failures are addressed quickly and downtime is minimized.

**30.3 Sending data such as heartbeats and acknowledgements to CAD must not degrade CAD dispatch operations or the ability of the fire station FSA system to receive alerts.**

The status of each connection is monitored in real-time using PURVIS FSAS heartbeats. The PURVIS FSAS Central Servers send heartbeats at regular intervals. We recommend a heartbeat interval of every three (3) seconds however the interval is configurable to meet the County’s requirements. Each corresponding device responds immediately to the heartbeat request. This back and forth communication allows the PURVIS FSAS to verify connectivity. If the PURVIS FSAS Central Servers do not receive a heartbeat within a specified time period and after a specific number of allowable failed heartbeats, the connection is marked down. Heartbeats and acknowledgements to CAD do not degrade CAD dispatch operations or the ability of the fire stations to receive alerts. PURVIS has evaluated the impact of heartbeats and acknowledgements to CAD on our implementations in Washington, D.C. and in the City of Boston (both running the Intergraph CAD) and we have proven no impact to the performance of the CAD or to the PURVIS FSAS.
30.4 The Vendor must provide network specifications so that the County can size the network appropriately for the amount of traffic predicted to be on the FSA system with latency of less than 20 milliseconds.

The bandwidth required for communications from the PURVIS FSAS Central Server to each FSAS Station Control Unit (SCU) will vary from station to station. The requirement is minimal with a compressed incident message size of 300-400 bytes. A network connection in excess of 1 to 2KB/s will be more than sufficient for normal day-to-day operations. For software updates and maintenance over the network, a bandwidth in excess of 1Mb/s is preferred, but not required.

The minimum bandwidth required is 1KB/s. The optimal bandwidth required is in excess of 1Mb/s.

The PURVIS FSAS software is configurable to handle network latencies from milliseconds to minutes. Most hardwired IP networks are in the 1 to 100ms range. The PURVIS FSAS allows a much larger range to account for non-hardwired IP networks like radio and cellular.

Latency is configurable within the system. The maximum latency for IP operations is up to 5 minutes. The optimal latency for successful IP operations is less than 100 milliseconds.

The delivered PURVIS FSAS for DuPage County will be configured for a latency of less than 20 milliseconds.

The PURVIS FSAS uses Transmission Control Protocol (TCP) as a transport layer. In addition to standard and custom TCP FSAS ports, the PURVIS FSAS also uses HTTP/HTTPs as an application layer protocol.

30.5 Sub-second latency must exist from the time the dispatcher hits the “dispatch” button in CAD until the time all fire station personnel hear the first FSA audio alert tone.

The PURVIS FSAS is fully capable of delivering alerts to the fire stations with a sub-second latency from the time the dispatcher hits the “dispatch” button in CAD until the time all fire station personnel hear the first audio alert tone. Transactional alerting response times are dependent on the City’s network availability, available bandwidth and network performance. PURVIS will provide network specifications to the County, thereby allowing the County to design the network to meet sub-second latency.

30.6 All visual alerts must activate at each worksite within a sub-second after the dispatcher hits the “dispatch” button

The PURVIS FSAS is fully capable of activating visual alerts at each worksite within a sub-second after the dispatcher hits the “dispatch” button. Transactional alerting response times are dependent on the City’s network availability, available bandwidth and network performance. PURVIS will provide network specifications to the County, thereby allowing the County to design the network to meet sub-second latency.

30.7 The FSA system must prevent or detect false alerts at fire stations. The County is concerned about false alerts originating from entities that are not part of County, sent to purposely misdirect fire station apparatus.

The PURVIS FSAS is designed to provide public safety agencies with the most advanced IP-based fire station alerting technology available. While there are numerous advantages of utilizing IP networks for alerting, there are also risks with that technology that require precautions to be built into the system in order to prevent/minimize malicious entities from purposely misdirecting an apparatus.

One of the key security features of the PURVIS FSAS is that it operates on a dedicated network with a permissions-based alerting capability. Having the capability to use a web-based device on a public
network adds convenience, but it would make the entire system extremely vulnerable to anyone or any group with malicious intent. Therefore, with the PURVIS FSAS, only designated personnel using a PURVIS FSAS DM Console or the PURVIS FSAS Portal on the County’s network have the ability to manually dispatch DuPage County units.

For security purposes, and to avoid false alerting, PURVIS keeps everything locked on the network. Only authorized users on the dedicated DuPage County network, or those with authorized VPN connections to the network can manually dispatch, configure, gather reports, and monitor.

To prevent and detect a false/bad alert, the PURVIS FSAS performs cyclic redundancy checks (CRCs). For each dispatched alert, a CRC numerical value is generated by the Central Server and verified by each PURVIS FSAS SCU. An outside entity cannot generate a message into the PURVIS FSAS without knowing PURVIS’ CRC-generation algorithm. If the CRC is invalid, the system will reject the message. Additionally, the system utilizes a compression/decompression algorithm to generate and verify dispatch alerts. Only validated CRC generated and compressed/decompressed alerts would be acted upon. Any rejected alerts would prompt the system to send a Delivery Failure notification. In other words, in order to send a false alert, the entity would need to access the DuPage network, possess the appropriate credentials to access the PURVIS FSAS, and know PURVIS’ CRC-generation and compression/decompression algorithms.

The County can take additional measures to prevent false alerts from entities not part of the County, including:

- Change network-access and PURVIS FSAS DM Console passwords regularly.
- Use a dedicated network or subnet for PURVIS FSAS and ensure that the network/subnet is not used by others, except for PURVIS FSAS-specific traffic only.
- Set firewall restrictions on the network level to restrict to ports the PURVIS FSAS uses. PURVIS provides firewall rules for ports that should be locked down.

### 31.0 Performance

### 31.1 The FSA system must support a minimum of ten (10) uniquely identified roles for system administration.

Access to the PURVIS FSAS DM Console application and the PURVIS FSAS Portal is based on role types, such as Dispatcher, Administrator, etc. The role types are configurable and are defined by the County. The system supports the use of a minimum of 10 unique login credentials.

### 31.2 All the FSA system functions must be configurable by software changes only, without requiring changes to the hardware units. The Vendor must describe any exceptions to this requirement and provide detailed procedures for these exceptions.

All PURVIS FSAS functions, with the exception of night time audio volume settings, are configurable by software changes in the delivered system. The settings for night time audio volume in each zone are configurable through hardware volume controls in the delivered Audio Relay Expansion Module in each fire station. The night time volume levels are set during system installation. The volume level for all night time alerts will be based on these settings. The settings can be changed at any time by the County’s system administrator(s) or any other personnel with authorized access to the system in each fire station. The procedure for changing the night time audio volume level for a specific zone is to access the volume control knob for that zone on the PURVIS FSAS ARXM and to turn the volume control knob up or down based on the desired night time audio volume level.

### 31.3 FSA system configuration changes must be able to be performed by the FSA system administrator, without Vendor assistance.
PURVIS FSAS configuration changes can be performed by the FSAS system administrator without PURVIS assistance. In addition to meeting all of the configuration requirements listed in RFP Requirement 31.4 below, the PURVIS FSAS also allows FSAS administrators to perform the following configurations changes:

- Add/Delete Unit Types
- Add/Delete Units (apparatus, such as new vehicles)
- Add/Delete Unit Status
- Add/Delete Event Codes (Incident Codes)
- Add/Delete/Edit TAC Channels
- Add/Delete/Edit Agencies
- Add/Delete/Edit Stations
- Set Day/Night Time Settings
- Software Management (including management of software updates)
- Update Software Version
- Configure Text-to-Speech Translations

The PURVIS FSAS is configurable to meet the County’s requirements. In addition to the items listed, there are many other administrative features that can be configured within the system. These additional items will be reviewed with the County during the Requirements and Configuration Definition Phase of the project and configured by PURVIS during the System Configuration Design Phase.

31.4 The fire station alerting administrator must be able to do the following:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Can be performed by PURVIS FSAS administrator</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Configuring the alert template</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>b. Monitoring system performance</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>c. Modifying the alert template for each station, as needed</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>d. Being notified of system and worksite problems</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>e. Turn pre-announcements on and off, system-wide, and for each worksite</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>f. Configure attention tones and unit-type tones</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>g. Configure worksite visual alerts</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
<tr>
<td>h. Easily insert and delete audio files into the database</td>
<td>✓</td>
<td>Through the PURVIS FSAS Portal and DM Console</td>
</tr>
</tbody>
</table>
31.5 The FSA system Vendor must provide comprehensive system documentation in electronic format, indexed and book-marked. This documentation must contain all information, needed by the FSA system administrator to operate, maintain, program, configure, and troubleshoot the FSA system.

Acknowledged. Prior to final system acceptance by the County, a User Document will be provided to the County in electronic format, indexed and book-marked. This document will contain all information needed by the FSAS administrator to operate, maintain, program, configure and troubleshoot the delivered PURVIS FSAS as defined within our proposal.

32.0 Implementation

32.1 The FSA system shall be operational for all PSAPs within a 30 day time frame. The ETSB of DuPage County must be able to implement the FSA system to the Fire Stations incrementally throughout the life of the contract. During installation of the new FSA system, the existing FSA system must remain operational with no interruptions in service.

As stated in RFP Addendum #3, "A ninety (90) day notice will be given to vendor as to when they will have access to the new buildings to begin installation. The vendor shall have 30 days for the installation from the point they begin installation until the system is operationally ready for cutover." The proposed PURVIS project schedule fully complies with these requirements.

During installation of the PURVIS FSAS, the County's existing FSA system will remain operational with no interruptions in service. Once the PURVIS FSAS is installed and ready for cutover in a station,
connections between the County's existing system and existing devices that will be repurposed for use with the PURVIS FSAS (such as speakers) will be moved from the existing system to the PURVIS FSAS. We estimate this cutover process will take less than 30 minutes. There may be some temporary loss of existing alerting functionality within the fire station during this cutover process.

32.2 The Vendor must use non-proprietary system components where available, provided they have the same functionality and reliability as proprietary components. The term "components" includes, but is not limited to, servers, speakers, lighting units, light bulbs, televisions, and monitors.

With the exception of the aluminum rack mount enclosures used for the PURVIS FSAS Station Control Units, Radio Interface Units, and Audio Relay Expansion Modules, the delivered PURVIS FSAS for DuPage County is 100% comprised of commercially available off-the-shelf (COTS) hardware components and devices. These components and devices have the same or better functionality and reliability as comparable proprietary components and our use of non-proprietary hardware extends the life of the system by significantly increasing the availability of components and devices. Any failed or damaged components or devices can be replaced with a part that is equal to or better than the original item at the time of replacement.

32.3 The FSA system must have the capability to add fire stations and alerting devices that can be supported by the system through a standard upgrade process that does not require replacement of the entire system or any of its major components

The PURVIS FSAS is a completely modular design that allows for incremental installation, as well as the addition or stations and devices at any time without requiring replacement of the entire system or any of its major components.

32.4 The components of the FSA system located at the PSAP must be able to be upgraded without imposing a system-wide and/or a worksite outage.

The dispatch components of the PURVIS FSAS will be duplicated in each of the two County PSAPs (one set of components located at the County's ACDC and one at DU-COMM). Because of the active/active server configuration of our system, components in one location can be upgraded without impacting system operations or imposing a system-wide and/or a worksite outage. Additionally, two Radio Interface Units (RIU) are installed to ensure no loss of automated radio broadcast in the event of an RIU failure or during planned RIU maintenance.

The system is designed so that if a Central Server or Radio Interface Unit fails or is taken off-line for maintenance or upgrade, the other Central Server and/or RIU will continue processing dispatch data and alerting as normal. Designated personnel are notified of the problem immediately via text messages and e-mail notifications. During planned maintenance or upgrades, one of the Central Servers and/or Radio Interface Units is disabled, updated, and is re-enabled as the other Central Server and/or Radio Interface Unit continues processing dispatch data and alerting as normal. Once complete, the other Central Server and/or Radio Interface Unit will go through the same process. PURVIS will provide dedicated help desk support and remote access support to ensure updates occur as planned.

32.5 The FSA system must provide a method to easily backup and recover all configuration data

All PURVIS FSAS configuration data is saved on the PURVIS FSAS Central Servers. The PURVIS FSAS Central Servers run in an active/active state meaning that each server is identical and if one server fails the other server can process our software. Each server has certain built in redundancy features such as mirrored hard drives, dual power supplies, and teamed separate network interface cards. Configuration data is stored on both servers and is maintained on both servers in real-time using replication. In the unlikely event that one server fails, configuration data is readily available on the
second server. When the failed server is restored, the most current version of the configuration data is automatically downloaded from the live server to the restored server.

Our systems have been successfully tested with multiple vendors in terms of backup software. If the County desires to utilize a County-supplied third-party backup software tool, PURVIS will work with the County to test the backup software against our system.

32.6 Testing

- **Server upgrades must be tested prior to going live.**
- **Testing involving FSA servers must not impact the live system.**
- **Testing involving the test worksite must not impact the live system.**
- **Software licenses for the Test System must be free of charge.**

During the course of the FSAS contract there will be the need to deploy software upgrades whether as a result of County requested enhancements, new PURVIS FSAS product releases or resolutions to production system bugs that were identified. There may also be the need to deploy hardware upgrades or new PURVIS FSAS devices in order to meet County requested enhancements. The PURVIS Team has a documented method to thoroughly test these upgrades without impacting the production system, product data or live operations.

Our method includes the following key steps:

- Upon identification of a new release occurring, the PURVIS Team Test Group will review all release documentation to determine the scope of testing (new and regression) required and update our standard PURVIS FSAS Test Scripts accordingly.
- For the life of the contract, the PURVIS Team will maintain a representative DuPage County PURVIS FSAS Test System in our Test Lab in our Rhode Island facility. This test system will consist of DuPage County’s production version of software, a CAD simulator of the County’s production CAD system interface, and all County FSAS device types. The Test Group will utilize this test system to thoroughly test out the new upgrade.
- Each new software release will go through formal testing by our Test Group. Testing will be conducted using PURVIS FSAS Test Scripts. All results will be documented. Any issues will be logged into the PURVIS Problem Tracking Database ad addressed by the PURVIS Team software engineers. Resolved issues will be retest by the Test Group. Once all priority issues have been resolved and the requirements for the new release met, the Test Group will produce a final Test Report and recommend the release be deployed into production.

The above process is one that PURVIS currently uses to support all of its PURVIS FSAS clients. Our experience has been that this process continually results in releases that have a high level of quality.

Additionally, another step is included in this process. This step may be selected in cases where DuPage County desires to conduct testing themselves, or witness testing or in the case that there is an interface not available in the PURVIS Test Lab.

- The RFP identifies requirements for the installation of a Test System being installed in a fire station within DuPage County. This Test System will be identical to the production system and includes one of each PURVIS FSAS device type installed included with the production system in the County. The Test System will be interfaced to an Intergraph CAD server that is not live in production. The County and/or the PURVIS Team could utilize this as a final test phase prior to releasing a software upgrade into production.

In summary, the PURVIS Team has the tools and the documented processes to thoroughly test FSAS software releases to a high level of confidence without impacting the live PURVIS FSAS. This is the
process that that will also be used to test RFP Optional Features if so selected by the County after FSAS is in production.

All PURVIS FSAS software licenses required for the delivered test system are provided to the County free of charge. Third party Microsoft and Nuance licenses required for the delivered Test system are priced in our Cost Proposal.

32.7 The FSA system must be up and running successfully for fifteen (15) days before the system goes live. The FSA system must be up and running successfully for five (5) days at each worksite before that worksite goes live. The vendor will propose a method for testing that the FSA system is up and running successfully.

The implementation schedule provided by PURVIS includes a 15-day period of FSAS system operation before the system goes live. WBS 1.10.2.2.1.3 ACDC On-site CAD/Network/Radio Integration Testing, and WBS 1.10.2.2.2.3 DuComm On-site CAD/Network/ Radio Integration Testing both include 15 days for 15 days of operation pre-go live for the ACDC and DuComm sites respectively.

This implementation schedule also includes 5 days of successful running at each worksite before the worksite goes live.

The PURVIS Team’s testing approach includes a set of test procedures specifically for worksite testing and confirmation of worksite ready to go live. As part of the test planning process the PURVIS Team will review the testing method and procedures with the County and incorporate specific County comments.

The last fire station to be operational shall be no more than twelve (12) months from the first station going live.

Acknowledged based on the revised requirements published by the County in RFP Addendum #3.

33.0 Installation and Power

33.1 Installation of the FSA system including but not limited to speakers, lights and wiring must be performed by the FSA system Vendor or sub-contractor per the County specifications.

PURVIS will serve as the prime contractor responsible for the FSAS system installation. Installation will be performed by Communication Zone, Inc., our local subcontractor in Illinois. Communication Zone has been providing quality design, implementation and maintenance services for communication systems in the State of Illinois since May of 2002. All delivered system hardware and wiring will meet County specifications, along with local/state/national codes.

33.2 For new buildings, the Vendor must work with the County and the individual fire department on system installation design before the building is built.

Whether we are installing our system in an existing or historic building, or a new, yet-to-be-built building, PURVIS will develop a Fire Station Design Document. This document defines the devices to be installed at each fire station, the location of each device, and all wiring requirements. This document will be provided to the County to review and approve prior to any installation.

For any new buildings that may be associated with this project, at the request of the County PURVIS will work with the County and the applicable individual fire department on the system installation design before the building is built. This assumes that the construction of the building has not started prior to award of this contract and that the County requests PURVIS’s involvement prior to building construction beginning.

33.3 Once the physical installation phase of this project has begun at a given worksite, the installation must be completed within 30 calendar days at the given worksite.
Acknowledged. Our project schedule complies with this requirement.

33.4 The County will manage and monitor the installation of this system. This must not void the warranty or affect the warranty in any way. The County technical personnel will be present at each installation, system activation, and cutover.

PURVIS welcomes the presence of County personnel technical personnel during each installation, activation, and cutover. County management and monitoring of the system installation does not void the warranty or affect it in any way.

33.5 The County will reserve the right to select the specific FSA elements for each worksite prior to installation at each worksite. All fire stations may not require all FSA products.

The ability to customize each installation to meet the specific needs of a given fire station is one of the key benefits to the PURVIS FSAS. PURVIS acknowledges that the County may select specific elements for each worksite prior to installation at each worksite. Our proposal assumes that the County will define and document device types and installation locations. PURVIS will work with the County to review selections and make recommendations. Modifications to the types and quantities of proposed equipment in each worksite may impact our installation assumptions and result in a change (either up or down depending on the changes) to our proposed installation price.

33.6 The Vendor must supply all installation specifications for computer equipment that is to be located at the PSAPs. This includes but is not limited to connectivity, space, and power requirements.

Installation specifications and details for all equipment located at the PSAPs are provided in our Project Assumptions in the Appendix of this proposal.

33.7 The Vendor must convey all FSA system electrical requirements, including the need for any additional electrical circuits, to County as a part of the proposed FSA system configuration for any worksite selected for installation or upgrade.

Our proposal assumes that the County will:

- Provide two dedicated 115V, 20AMP circuits and a minimum of four outlets for the Central Server, Radio Interface Unit and DM Consoles at each dispatch center and in the FSAS Testing Room at a fire station. Outlets will be on a County-supplied UPS. Outlets will be located within 6 feet of the location of the FSAS hardware install location.
- Provide a single dedicated 115V, 20AMP circuit for the PURVIS FSAS SCU at each worksite and in the FSAS Testing Room with a minimum of one outlet in each location. Power termination shall be located within 6 feet of the radio cabinet in the worksite.
- Provide one (1) 115V, 15 AMP duplex outlet for each Flat Panel 42” 1080p LED Display, SCU Remote Touchscreen, Reader Board, and Turnout Timer in each worksite. Outlets will be located within 3 feet of the device install location.

The amount of power available at each fire station is unknown at this time. The PURVIS Team will conduct physical Site Surveys at each fire station during the System Design Phase. During this survey the PURVIS Team will identify the fire station available power and the power required by the FSAS. This will be documented in the Worksite Design Document (WDD) and any concerns communicated in writing immediately to the County Project Manager. Any power or electrical panel upgrades required at the fire stations to support the electrical requirements of the proposed FSAS system are not included in our proposal.
33.8 All electrical cable shall be plenum rated unless otherwise approved by the Authority Having Jurisdiction over electrical installations.

Acknowledged.

33.9 All FSA system circuits must be able to run off the worksite emergency power source, such as a generator or UPS.

The PURVIS FSAS in each fire station is able to run off a worksite emergency power source. Our proposal does not include electrical installation in the fire stations so any electrical wiring or circuits in the stations will be provided by the County.

PURVIS will provide the County with power requirements for each station. Our proposal assumes that the County will determine if the existing generator or UPS and its current load in each station is suitable for providing sufficient emergency power to the PURVIS FSAS.

33.10 All R56 Installation Standards must be followed.

Acknowledged.

33.11 All applicable local and County electrical codes, building codes, and permitting requirements must be followed. The Vendor is responsible for obtaining all permits.

Acknowledged.

### 34.0 Installation and Power

34.1 The Vendor must provide an Acceptance Test Plan (ATP) to the County no later than 30 calendar days after the system design is complete for the first worksite. The Vendor and the County must mutually agree in writing to the test plan. The original plan may be modified to meet the County’s requirements.

Upon contract award the PURVIS Team’s Lead Test Engineer, Dennis Kamerzel, will meet with the County’s project team to review our Draft Acceptance Test Plan and approach. Based on the functional requirements incorporated into the final contract and the plan and approach review meeting with the County, Mr. Kamerzel will finalize the Acceptance Test Plan and provide to the County for review and approval. The Acceptance Test Plan will be provided to DuPage County within 30 calendar days after the system design is complete for the first worksite.

34.2 The ATP must provide an actual test of all functional requirements of the FSA system and not use simulation.

As part of the PURVIS Team’s approach to Test and Evaluation we will tailor existing PURVIS FSAS Acceptance Test Procedures to meet the specific DuPage County functional requirements. Test procedures will encompass all functional requirements identified in the RFP. DuPage County will review and comment on all Acceptance Test Procedures. The PURVIS Team will incorporate all comments.

All acceptance testing will be conducted using FSAS equipment and the CAD interface and will not be done using simulation.

34.3 The Vendor will have no more than 30 calendar days after a defect is found during Acceptance Testing, to fix the defect. The 30-day period will start after the specific defect is found, not after the Acceptance Test is completed. The Vendor must provide daily updates to the County’s Contract Administrator as to the status of getting the defect fixed.

All FSAS system problems will be reported starting with system verification testing in the PURVIS test facilities and continuing through the remaining integration, verification and acceptance testing.
activities including initial live operations. Each issue will be assigned a priority that is reviewed with Project Management and modified if necessary. Priority levels will be high, medium and low. This data along with current status will be maintained in the PTR database until resolution is reached and verified. Problem status will be reported at scheduled project meetings with DuPage County.

During Acceptance Testing the PURVIS Team will resolve each defect found within 30 colander days of the day the defect was found. The PURVIS Team will provide daily updates on defect resolution progress to the County’s Contract Administrator and project team during the Acceptance Testing period.

34.4 If a defect is not fixed within 30 calendar days after it is discovered, the Vendor may be subject to liquidated damages for each day it remains unresolved.

This requirement was removed in RFP Addendum #3. Please refer to our attached Service Level Agreement, which includes failure categories and levels for alerts.

35.0 Vendor Support

35.1 The Vendor must provide a single point of contact after the award of the contract and prior to contract negotiations.

PURVIS’ approach to a successful FSAS implementation revolves around assigning an experienced Project Manager to lead our implementation team and serve as the day-to-day contact for DuPage County Project Manager. After contract award and prior to contract negotiations, PURVIS will assign either Mr. Joe Drago or Mr. Art Ladd as the Project Manager for this Contract.

Mr. Drago has over 25 years of experience in managing the design, development, implementation, and maintenance of electronic systems. He has been the overall Program Manager for PURVIS Public Safety Development and Implementation Projects since 1998. During this time, Mr. Drago has managed over 25 PURVIS projects, including the Montgomery County, MD; City of Gainesville, FL; City of Northampton, MA; City of Boston; Charleston County, SC; City of Plano TX; Williamson County, TX and Harris County Emergency Corporation FSAS implementations.

Mr. Ladd has over 22 years of experience in managing the design, development implementation and maintenance of IT System based projects. He has been the overall Project Manager for Public Safety Development and Implementation Projects since 2001. During this time Mr. Ladd has managed over 10 PURVIS projects, including PURVIS FSAS implementations in FDNY; Washington DC and Pearland, TX; and multiple other implementation projects for FDNY.

The PURVIS Project Manager is responsible for overseeing all PURVIS and subcontractor efforts under this contract. He will be responsible for the following:

- Establishing and conducting regular communications with the DuPage County Project Manager
- Establishing and conducting regular communications within the PURVIS project team
- Maintaining the project schedule
- Review of all project deliverables prior to submission to DuPage County
- Ensuring establish quality practices are adhered to in each phase of the project
- Resolving any PURVIS internal project issues and risks and working jointly with DuPage County to resolve any external project issues and risks
- Ensuring all project activities remain on schedule
- Providing project status documentation (project reports, schedule updates, action item database updates) to the DuPage County Project Manager
After the system has been cutover and accepted, PURVIS will assign a single point of contact for DuPage County warranty and maintenance requests.

35.2 For any off-site support provided by the Vendor, the FSA system is accessible only through the County’s VPN connection.

Remote Support access is accomplished through the use of the County's secure VPN connection to the PURVIS FSAS Central Server. From the Central Server, PURVIS technical support personnel are able to update system software, make configuration changes, and monitor system activities. PURVIS will work with the City to define and document the remote access process that will be utilized.

35.3 The Vendor must provide weekly reports describing FSA system and worksite problems.

PURVIS utilizes the Zendesk Customer Service and Help Desk software product to track and manage all service tickets. When a DuPage County individual contacts the Help Desk, a service ticket will be immediately generated and assigned to the PURVIS Support Engineer. This ticket will automatically be emailed to all County identified personnel; PURVIS FSAS Tier 1 and Tier 2 support staff; PURVIS Engineering Management; and the appropriate PURVIS Project Manager. As PURVIS support staff investigate and resolve the problem, they will continually update the service ticket. If the ticket is reassigned to a different support staff individual, the ticket will be updated accordingly. Each time the ticket is updated, email updates will be sent to everyone that was on the original distribution. This tool and process ensure that all team members are kept current on the status of a problem resolution.

DuPage County Administrators can login to the Zendesk System to view information on tickets being worked and tickets that have been resolved. Additionally, the ticketing system can email periodic reports (we recommend monthly) on a variety of statistics within the system. Frequently used data include items such as:

- Graphical view indicating number of tickets opened per month
- Graphical view representing ticket resolution times
- Text list of open tickets and current status
- Text list of the root cause failure (used for failure analysis to identify common failure items)
- Graphical representation of when tickets are opened by time of day, shift, or day of the week

The PURVIS Team will work with the County during project implementation to develop a Zendesk report that includes the data elements that are of most interest to the County. The report will be distributed weekly, or another frequency that is agreeable to both parties.

Additionally, County personnel can utilize the PURVIS FSAS Dispatch Management Console software to monitor system troubles. The PURVIS FSAS self-monitors 24/7/365. System failures are quickly detected and audible/visual alerts are sent automatically to system users and simultaneously sent via e-mail and SMS to County administrators and other staff in real-time.

The PURVIS FSAS DM Console provides real-time detailed information about system components and devices. Users can quickly view system faults or device failures. Additionally, the user can view detailed information about the station apparatus and current alerting status.

Standard system error and status log reports available on the PURVIS FSAS DM Console include date/time stamps on all system events, including details on all traffic between the CAD system and any PURVIS FSAS controllers, between any controllers and the fire stations, and between all network components in the fire stations. The following pre-defined reports are included with the delivered system:

- System Events – A list of all events that occur in the system
- Incidents – This is a list of incident (alerts)
35.4 The Vendor must be responsible for warranty and maintenance of the entire FSA system and all its components including hardware, software and all installed parts during the warranty period, excluding County supplied components.

PURVIS will be responsible for warranty and maintenance of the entire delivered PURVIS FSAS and all its components including hardware, software and all installed parts during the 2 year warranty period. Our proposed warranty and maintenance agreement is included in Section 11.0 of this proposal.

35.5 The warranty period for the FSA system must begin the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages. The warranty period must last for a minimum of two (2) years after the three PSAPs and a minimum of 50% of the fire stations are operational.

PURVIS will warrant the delivered PURVIS FSAS for a period of 2 years that will begin the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages and it will end 2 years after the two PSAPs and a minimum of 50% of the fire stations are operational.

35.6 The maintenance agreement for the FSA system must begin immediately after the warranty period has expired. The Vendor must offer an annual maintenance agreement.

The proposed PURVIS FSAS annual maintenance agreement will begin immediately after the warranty period expires. Please refer to the PURVIS FSAS Warranty and Maintenance Agreement in Section 11.0 of this proposal for details on the proposed annual maintenance services.

35.7 The Vendor must provide a maintenance agreement for all equipment which is purchased through the Contract between the County and the Vendor.

PURVIS will provide a maintenance agreement for all equipment which is purchased through the Contract between the County and PURVIS Systems. We recommend that all equipment be added to the proposed maintenance agreement for the delivered system. For each item added to the maintenance agreement, additional costs would apply. These costs would be determined based on the types and quantities of devices added to the agreement.

35.8 All warranty and maintenance support must be provided by the system manufacturer or a dealer who has been certified by the manufacturer.

All warranty, maintenance and service requests will be made through the PURVIS Help Desk. Remote support will be provided by PURVIS FSAS technical support staff. If on-site support is required, PURVIS will dispatch technicians from Communication Zone, our local partner for system installation and on-site support. Prior to the installation of the system in DuPage County, Communication Zone staff will be fully trained and certified by PURVIS on the installation and maintenance of the delivered PURVIS FSAS for DuPage County.

35.9 The FSA system maintenance agreement must cover parts and service on a per year basis.
a. Service must be provided by a certified representative who is located within 50 miles of Wheaton, Illinois

b. The maintenance agreement must include the Vendor response times.

The proposed PURVIS FSAS annual Warranty, Maintenance and Service agreement (SLA) covers all delivered hardware and software. On-site service will be provided by PURVIS through Communication Zone, our local partner for system installation and on-site support. Communication Zone, Inc. is based in Schaumburg, IL which is less than 15 miles from Wheaton, IL.

Our proposed Warranty, Maintenance and Service agreement can be found in Section 11.0 of this proposal and the agreement includes PURVIS response times.

35.10 Whether purchased by the Vendor or the County, all the hardware and software must meet the Vendor’s minimum specifications.

All delivered hardware and software supplied by PURVIS under this contract meets or exceeds PURVIS’ minimum specifications. If the County elects to purchase any FSAS hardware from a third-party source, the County will consult with PURVIS prior to making any purchases. PURVIS will provide the minimum specifications for the hardware types being purchased by the County. Any hardware purchased by the County will be delivered to the PURVIS Team’s warehouse facility for this project in accordance with the project schedule.

35.11 The Vendor must maintain a FSA system environment at its own location and expense that mimics the FSA system environment at the County for the purpose of testing new versions of software and hardware.

For the life of the contract, the PURVIS Team will maintain a representative DuPage County PURVIS FSAS Test System in our Test Lab in our Rhode Island facility. This test system will consist of DuPage County’s production version of software, a CAD simulator of the County’s production CAD system interface, and all County FSAS device types. The Test Group will utilize this test system to thoroughly test the new upgrade. There will be no cost to the County for this system or the maintenance of the system located at the PURVIS facility.

35.12 The Vendor must continue to support, maintain, and warrant all FSA system components (including software, hardware, middleware, and network) as the County applies patches, configuration changes, and version upgrades to the operating environment based on the Vendor’s recommendations of the infrastructure components.

Under an active warranty and maintenance agreement, PURVIS will continually support, maintain and warrant all PURVIS FSAS components as the County applies patches, configuration changes, and version upgrades to the operating environment. PURVIS will review and provide recommendations prior to County applying. In our 44-year history, PURVIS has continually offered support on any PURVIS solution delivered.

35.13 The Vendor must continue to support, maintain and warrant all FSA system components purchased from the Vendor (including software, hardware, middleware, and network) if the County decides to upgrade hardware by purchasing it from a source other than the FSA Vendor.

We will warrant all system components purchased from PURVIS for a period of 2 years that will begin the day after the complete system has been up and running for thirty (30) consecutive days with no major problems or outages and it will end 2 years after the two PSAPs and a minimum of 50% of the fire stations are operational. If during the warranty period the County decides to upgrade hardware by purchasing it from a source other than PURVIS we will continue to warrant all FSAS system components
purchased from PURVIS as long as the County's upgraded hardware meets PURVIS's minimum hardware requirements.

PURVIS will continually support and maintain all system components purchased from PURVIS under an active maintenance and support agreement. If during the post-warranty support and maintenance period the County decides to upgrade hardware by purchasing it from a source other than PURVIS we will continue to support and maintain all FSAS system components purchased from PURVIS as long as the County’s upgraded hardware meets PURVIS’s minimum hardware requirements.

In our 44-year history, PURVIS has continually offered support on any PURVIS solution delivered.

35.14 The Vendor must provide a technical system drawing for approval by the ETSB of DuPage County.

Technical system drawings of the proposed PURVIS FSAS are provided in proposal section 4.1: System Overview.

36.0 Problem Resolution

36.1 Definitions of Vendor response time:

36.2 Software Problem Response Time - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person logged into the system looking at the problem.

36.3 Hardware Problem Response Time - the amount of time that passes between the time the County contacts the Vendor and the time when the Vendor has an appropriate technical person on-site.

36.4 Definitions of types of outages and required response time:

36.5 System-wide Outage - a problem that affects more than one worksite from being alerted, a problem that affects more than one worksite from being alerted in a timely fashion, or a problem that causes a false alerting indication at more than one worksite.

36.6 Worksite Outage - a problem that affects only one worksite from being alerted, a problem that affects only one worksite from being alerted in a timely fashion or a problem that causes a false alerting indication at only one worksite.

36.7 Component Failure - a problem with a component of FSA that does NOT prevent the entire worksite from being alerted. Examples of components are: speakers, volume controls, zone controllers, lighting units, and video displays.

PURVIS acknowledges and accepts all the above definitions.

36.8 The Vendor must provide pricing for the following Service Level Agreement (SLA) and pricing for other typical SLAs it offers.

36.9 The Vendor must respond to a system-wide outage 24/7/365. For software problems, a two (2) hour response time is required, for hardware problems a four (4) hour response time is required.

36.10 The Vendor must respond to a worksite outage 24/7/365. For software and hardware problems, a four (4) hour response time is required.

36.11 The Vendor must respond to component failures within 24 hours. If the time limit of 24 hours ends at a time other than 8 AM – 5 PM Central Time on a business day, the Vendor may respond on the next business day during normal business hours (8 AM-5 PM Central Time).
36.12 The Vendor must maintain a supply of critical and long lead time components as agreed to by the County.

PURVIS’ proposed SLA for warranty and annual maintenance fully complies with RFP Requirements 36.8 - 36.12 above. Our proposed SLA is included in Section 11.0 of our proposal. Pricing for this SLA, as well as alternate SLAs, are included in the Cost Section of our proposal.

37.0 Training

37.1 The Vendor must provide system administration, maintenance, programming and troubleshooting training to County technical staff at a location designated by the County.

PURVIS fully complies with this requirement. Details of our proposed system administration, maintenance, programming and troubleshooting training is provided in Section 4.3 of our proposal.

37.2 The Vendor must provide Train the Trainer training for Fire at a location specified by the County in accordance with a schedule that is mutually agreed to by the County and the Vendor. The approximate number of trainees is 50. The schedule may include training during hours outside of normal business hours (evenings and weekends).

PURVIS fully complies with this requirement. Details of our proposed fire personnel training is provided in Section 4.3 of our proposal. PURVIS recognizes that the training schedule will need to be flexible in order to train personnel on differing shifts. PURVIS will accommodate night and weekend training if requested by the County.

37.3 If any training is provided to a subcontractor, the County must be notified and permitted to attend these classes.

PURVIS will ensure that Communication Zone, our local subcontractor for installation and maintenance, is thoroughly trained in order to effectively install and support the PURVIS FSAS in DuPage County. Communications Zone is already familiar with the PURVIS FSAS equipment and installation procedures associated with the proposed system for DuPage County. The PURVIS/IMS/Communication Zone Team will soon be installing the PURVIS FSAS in Naperville, IL.

Prior to the start of installation in DuPage County, the PURVIS Team will prepare and deliver a complete documentation package to Communication Zone. This package will include the following

- System level block diagram that identifies all of the major components of FSAS and the connectivity between each component
- System level Pull Schedule document that shows how each major component is wired and type of cabling used
- Equipment cut sheets for each FSAS device that is included in the delivered system. The cut sheets would include a description of the device; physical mounting instructions and wiring instructions.
- Basic workmanship procedures to follow during installation

Additionally, prior to start of installations, the PURVIS Team will provide Communication Zone an installation training session. DuPage County will be notified and permitted to attend this training.

37.4 The Vendor must supply all system administrator training, dispatcher training prior to acceptance of the FSA system at the first worksite.
The PURVIS FSAS system administrator and dispatcher training defined above in our response to questions 37.1 and 37.2 will be provided prior to acceptance of the PURVIS FSAS at the first worksite.

37.5 The Vendor must supply hands-on training for all system functions. This training must include sufficient information and experience so that personnel (operators and supervisors) feel confident with system features and operations for their particular assignments.

The delivered PURVIS FSAS training will include sufficient information and experience so that DuPage county personnel (operators and supervisors) feel confident with system features and operations for their particular assignments. Training materials and the training presentation will be tailored around the delivered solution configuration items and equipment. The County will have the opportunity to review and comment on all training materials prior to the conduct of the courses. Courses include a “hands-on” portion using the delivered solution. All system functions will be addressed during the “hands-on” training.

37.6 The Vendor must provide comprehensive manuals for all topics covered in training classes. These manuals must be provided in an electronic format that is searchable. The manuals must be provided in both HTML and PDF formats.

PURVIS will provide comprehensive training manuals for each of the courses offered. All manuals will be made available in searchable HTML and PDF electronic format.

38.0 Optional Features

38.1 The Vendor will provide pricing to supply the following options at every worksite. Option pricing will include time and materials and equipment in the cost.

Acknowledged. Pricing for all optional items can be found in the Cost Section of our proposal.

38.2 The FSA system shall display a map showing the event location as part of the video display. The map must have zoom capabilities

The PURVIS FSAS can support the display of most web-based maps on the SCU. The map must support viewing in a general web browser and must support the use of address information sent in the URL from the PURVIS FSAS to the map. Map layers can also be displayed on the SCU. PURVIS has interfaced the FSAS with the City of Boston’s ESRI-based maps. When a dispatch is received in the station, the location of the incident and hydrants are displayed on a map on the PURVIS FSAS SCU touch screen.

38.3 The ability to develop “canned” messages for manual station alerting.

The ability to develop “canned” messages for manual station alerting is available with the delivered system at no additional cost to the County.

The delivered PURVIS FSAS has the ability to play “canned” messages when a manual alert is activated in the fire station. Manual activation within a station can be generated from configurable soft buttons on the PURVIS FSAS SCU Remote Touch Screen or physical buttons that can be installed throughout the station.

The delivered system in each fire station includes one (1) System Test Button. This button is a physical push button that will be configured to activate a “canned” message in the station when pressed. Optionally, additional physical buttons can be installed throughout the station for system activation. Examples of “canned” messages that can be triggered from a manual in-station alert are: “This is a test of the fire station alerting system, “There is an emergency at the front door, all units respond” and “There is an emergency in the gym, all units respond.”
The delivered PURVIS FSAS also provides dispatch personnel the ability to generate and transmit manual alerts to the fire station via the PURVIS FSAS DM Console and the PURVIS FSAS Portal. “Canned” messages can be saved in the system and activated through the Portal at any time.

38.4 A camera video feed to be installed at the front door of the fire stations with 2 way audio. The video and audio feed will be relayed to worksite and available to the PSAP

Optionally, PURVIS can install a camera at the front-door of the fire station with a doorbell that has an integrated microphone and speaker for 2-way audio communications. This provides a video and audio feed into the station and also back to the dispatch center. Any visitor to the fire station can get immediate assistance, either from station personnel who can get a “visual” on the visitor, or from the dispatch center if station personnel may be away or unavailable.

The camera requires streaming bandwidth in the range of 120 kbps to 4 Mbps. The higher the bit rate, the higher the picture quality will be. This doorbell/camera capability with an integrated microphone and two way communications between the station and the dispatch center is a capability that PURVIS offers today and it is currently in use and integrated with our FSAS in the District of Columbia and Montgomery County, MD.

38.5 The ability of the FSA system to mute all televisions upon the start of a dispatch announcement.

To achieve this, the TVs must support infrared signal, meaning they must have infrared receptors and support the codes that PURVIS sends to the televisions. Based on our experience, we do not recommend that the County implement this option. We previously implemented this capability for an existing customer but it has since been removed at their request. Station personnel did not like the TV muting functionality in the station. As an alternative approach, we recommend that the County install a small flat panel display, next to or near the television that is dedicated to FSAS alerts.

38.6 Apparatus sensors that record apparatus movement out of the engine bays recording response times.

Apparatus presence detectors are installed and in use as part of our FSAS implementations in New York City as well as the City of Plano, TX. The Apparatus Presence Detector detects when the apparatus has left the drive bay, or when other user-defined criteria has been met. Timer data is logged in the database, and can be accessed to perform Turn-Out Time data analysis. Apparatus Presence Detectors can also be used by the system to determine if relay controlled devices, such as drive bay doors and appliance shutoff switches, should or should not be activated when an alert is received in the station.

38.7 Relay control of:

a. Garage/bay doors
b. Oven/stove
c. Outdoor grills
d. Traffic lights
e. Last man out button

The delivered system in each fire station has 16 closed contact relays that can be used to control various devices, such as the items identified in RFP Requirement 38.7, using remote device relays. Our proposal includes cabling (up to 100 feet per relay) from 15 of the included PURVIS FSAS closed contact relays to an existing County supplied relay in each fire station – 1 existing relay per PURVIS FSAS closed contact relay. Our proposal does not include configuration of the County’s existing relays themselves. Pricing for optional additional relays is included in our cost proposal.
The PURVIS FSAS relay is capable of activating and deactivating any switchable device rated at 10 amps or less. The limitations associated with each relays are as follows:

- The relay cannot control any device with a load greater than 10 amps.
- The device that the relay is connected to must have an accessible control connection point.

Each PURVIS FSAS closed contact relay can be energized for a configurable period of time upon receipt of a CAD dispatch and then deactivated after that timeframe has expired.

38.8 Ambient noise sensors in noise heavy environments, including but not limited to the apparatus bays, front and rear apparatus ramps. Ambient noise level monitoring must be done by individual speakers or by zones created by slave speaker units connected to speaker units containing control circuitry.

The PURVIS FSAS allows for the use of optional Ambient Noise Sensors in drive bays and other noise heavy areas of the fire station to raise and lower speaker volume levels based on the current ambient noise level, making it easier for station personnel to hear alerts in noisy areas. Ambient noise level monitoring is achieved through the use of microphone sensors that can be associated with individual speakers or with individual zones within a station. The sensors are configurable with a minimum and a maximum level so that the speaker volume level is never raised or lowered beyond the limits defined by the fire department during system implementation. Ambient Noise Sensors are installed and in use as part of our FSAS in Washington D.C and Atascocita, TX.

38.9 Colored light indicator devices in each zone that illuminate upon receipt of command data from the dispatch center and contain a minimum of five (5) distinct colors that are used to designate different fire apparatus. The device must be programmable to activate any combination and must be mounted in the ceiling or walls of the worksite.

The delivered system in each fire station can support the use of optional Colored Light Indicators. The PURVIS multi-colored LED Incident Lights are wall-mounted colored tower lights with up to five (5) individual color segments: white, blue, green, amber, and red. Colors are programmable to indicate the unit or incident type dispatched. The quantity of Colored Light Indicators that each PURVIS FSAS SCU can support is scalable to meet the County’s requirements. These Colored Light indicators are currently installed in our FDNY and Montgomery County MD. FSAS implementations.
D u p a g e County FSAS Test Plan (Preliminary); Section 3 Only

PURVIS Systems Incorporated
Fire Station Alerting System (FSAS)

Acceptance Test and Cutover Plan
For
DuPage County

Revision 0.0 (Preliminary)
May 24, 2017

Prepared by:
PURVIS Systems Incorporated
88 Silva Lane
Middletown, RI 02842
(401) 849-4750 / fax (401) 849-0121
3 ACCEPTANCE TEST PROGRAM STRUCTURE

Testing will be the primary method used on this project for Verification and Validation (V&V) of full DuPage County FSAS system functionality. The level and type of testing will vary according to the phase of the project. Further descriptions of entry criteria, planned testing and exit criteria are provided in the following tables which summarize the test phases and logistics required to complete the DuPage County FSAS test program.

<table>
<thead>
<tr>
<th>Table 3-1</th>
<th>Configuration and Integration at PURVIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase / Test</td>
<td>Personnel Required</td>
</tr>
<tr>
<td>Configuration &amp; Integration at PURVIS</td>
<td>PURVIS Software Engineer</td>
</tr>
<tr>
<td></td>
<td>PURVIS Test Engineer</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Considerations and Requirements:
- Intergraph CAD interface to be initially qualified using VPN between DuPage County Test CAD and PURVIS FSAS “Sandbox” system.
- DuPage County to provide a Test CAD Dispatcher interface to generate operational scenarios for FSAS testing.
- Complete integration and document configuration and interface requirements for Station radio provided by DuPage County.

Testing Goals:
- Complete DuPage County System Configuration.
- Place software under configuration control.
- Generate Integration Test Script.
- Preparation for PURVIS SVT is complete.
Table 3-2
System Verification at PURVIS

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Verification Testing at PURVIS</td>
<td>PURVIS Software Engineer</td>
<td>No</td>
<td>Local Area Network, Central Servers, RIU, DM Console, CAD Interface, 3 SCU’s configured for Stations TBD</td>
<td>PURVIS CAD Simulator, DuPage County Test CAD, VPN to DuPage County, Frequency Counter</td>
</tr>
<tr>
<td></td>
<td>PURVIS Test Engineer</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Test Considerations and Requirements:

- Utilize Test CAD Dispatcher interface (and CAD Simulator) to generate County operational scenarios for full end-to-end FSAS testing.
- VOR and tone testing completed using RIU audio interface only (No live radio interface available); Note: final radio integration and testing is completed onsite during later test phase.
- SVT testing phase at PURVIS runs until the final software configuration is verified and is installed and tested in DuPage County.

Testing Goals:

- Successfully complete full FSAS Integration Test Script (Functional, Configuration, Failover and Manual Alerting).
- Qualify Intergraph CAD interfaces.
- Qualify final application revisions.
- Complete preparation for onsite integration and verification testing.
Table 3-3
Network Integration at DuPage County

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Integration at DuPage County</td>
<td>- PURVIS Tech - PURVIS Network Engineer - DuPage County Network Support</td>
<td>No</td>
<td>- DuPage County Local Area and Wide Area Networks - Central Servers - RIU’s - DuPage County Email Server - DM Consoles</td>
<td>- VPN to DuPage County</td>
</tr>
</tbody>
</table>

Test Considerations and Requirements:
- DuPage County LAN/WAN Firewall Rules are complete.
- Initial configuration and testing is completed remotely by PURVIS using the VPN from PURVIS to DuPage County.
  *** DuPage County technical support may be required ***
- All central site system components must be installed, powered up and active on LAN and WAN.
  Note: Stations are not required to complete central site integration.

Testing Goals:
- Complete Operating System configurations.
- Complete required application installations and configurations to all central system components.
- Complete network integration and communications tests between all installed FSAS components.
- Complete preparation for CAD integration and final FSAS applications.
### Table 3-4
**CAD Integration at DuPage County**

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAD Integration at DuPage County</td>
<td>- PURVIS Tech</td>
<td>No</td>
<td>- DuPage County</td>
<td>- Test / Production CAD</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Software Engineer</td>
<td></td>
<td>- Local Area and Wide Area Networks</td>
<td>- VPN from PURVIS to DuPage County</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Test Engineer</td>
<td></td>
<td>- Central Servers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Intergraph Technical Support</td>
<td></td>
<td>- DM Consoles</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DuPage County Operations Support</td>
<td></td>
<td>- CAD Interface Server (Test / Production CAD)</td>
<td></td>
</tr>
</tbody>
</table>

**Test Considerations and Requirements:**
- Central site network integration and testing at DuPage County is completed. Note: Stations are not required to complete CAD integration.
- Some testing is completed remotely by PURVIS using the VPN from PURVIS to DuPage County.
  
  ***DuPage County and CAD Vendor technical support may be required***
- Intergraph software update for FSAS interface is installed and configured on DuPage County’s Test and Production CAD Servers and Interface Servers.

**Testing Goals:**
- Complete network integration and communications tests between FSAS Central Servers and CAD Interface server.
- Complete required application installations and configurations to enable web service to each CAD interface server.
- Connect to Test CAD (if available) at each Dispatch Center; Process and verify all required CAD Data from each DuPage County Dispatch Center.
  
  ***Will require CAD Operator if remote dispatch terminal cannot be configured at PURVIS***
- Connect to Production CAD at each Dispatch Center; Monitor live dispatch data captured in FSAS log files to verify all required CAD Data from DuPage County Dispatch Centers.
Table 3-5
Radio Integration at DuPage County

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio Integration at DuPage County</td>
<td>- PURVIS Tech</td>
<td>Yes</td>
<td>- DuPage County Local Area and Wide Area Networks</td>
<td>- Assigned Radio Test Channels on</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Software Engineer</td>
<td></td>
<td>- Central Servers</td>
<td>- Handheld Radios</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Test Engineer</td>
<td></td>
<td>- DM Consoles</td>
<td>- Pre-Selected Test Sites / Pagers</td>
</tr>
<tr>
<td></td>
<td>- DuPage County Operations Support</td>
<td></td>
<td>- CAD Server (Test / Prod. CAD)</td>
<td>- VPN from PURVIS to DuPage County</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- RIU’s at Dispatch Centers</td>
<td>- DM Console run remotely on Central Server</td>
</tr>
</tbody>
</table>

Test Considerations and Requirements:
- Central site network integration and testing at DuPage County is completed; CAD integration with each Dispatch Center is completed.
  Note: Stations are not required to complete Radio integration.
- FSAS Production CAD interface at each Dispatch Center is temporarily disabled for Tone Testing; RIU interface to each master radio is completed; VHF radio configured and initially tuned to dispatch channel for each Dispatch Center.
- Handheld Radios tuned to test channels used to monitor live dispatch announcements.
- Network access to System opened (required for data back-up).

Testing Goals:
- Verify radio interface to each RIU is active and stable (Channel busy and Transmit Active).
- At each Dispatch Site, complete toning tests using PURVIS DM Console; verify all DuPage County two tones to stations and pagers; adjust transmit levels as required.
  *** Requires DuPage County operational support to verify receipt of tones and test audio ***
- With P25 and/or VHF master radios tuned to assigned test channels, re-enable CAD interface and connect to Production CAD at each Dispatch site; DuPage County to monitor live dispatch announcements using handheld radios for a minimum of 1 week.
  Note: This technique has been used extensively by PURVIS as it allows a period to verify the stability of the production CAD interface and proper processing of live dispatch data by DuPage County.
- Verify Dispatch Data transfer to P25 System.
### Table 3-6
**Station Integration at DuPage County**

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Integration at DuPage County</td>
<td>- PURVIS Installation Tech</td>
<td>Yes (limited to test runs at each station)</td>
<td>- DuPage County Local Area and Wide Area Networks</td>
<td>- VPN from PURVIS to DuPage County</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Software Engineer</td>
<td></td>
<td>- Central Servers</td>
<td>- DM Console run remotely on Central Server</td>
</tr>
<tr>
<td></td>
<td>- DuPage County Operations Support</td>
<td></td>
<td>- Installed SCU’s and FSAS devices in Stations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Station Radio</td>
<td></td>
</tr>
</tbody>
</table>

**Test Considerations and Requirements:**

- DuPage County LAN/WAN Firewall Rules are complete.
- Central site integration is complete.
- Testing is completed remotely by PURVIS using the VPN from PURVIS to DuPage County network.

**DuPage County technical support may be required**

- Station SCU’s must be installed, powered up and active on WAN; Installation of FSAS devices at each station is complete.
- All stations remain online but have CAD interface disabled at end of testing.

**Testing Goals:**

- Complete network integration and communications tests between FSAS Central System and SCU at each station.
- Complete required application and configuration update to each station.
- All stations report good connection and component status to DM.
- Complete test runs from DM to each station to verify station functionality.

Note: All testing at each Station will be done in a manner to minimize interference with ongoing Fire operations and station personnel will be kept updated on the testing throughout the process.

**Requires onsite PURVIS Installation Representative**
Table 3-7
System Verification at DuPage County

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
</table>
| System Verification Testing at DuPage County | – PURVIS Test Director
– DuPage County Test Director
– PURVIS Engineering Support
– PURVIS PM
– DuPage County PM
– DuPage County Operations Support | Yes (limited to test runs at First Article Station) | – DuPage County Local Area and Wide Area Networks
– Central Servers
– DM Consoles
– Completed Station installs at preselected (First Article) Station
– RIU’s and Master P25/VHF Radios
– Station radio provided by DuPage County.P25 System Interface (Data) | – Test / Production CAD
– Radio Network (test channels)
– Handheld Radios
– VPN from PURVIS to DuPage County |

Test Considerations and Requirements:
- Central site, CAD and radio integration is complete; system fully operational.
- First Article Station integration and check-out is complete.
- FSAS Production CAD interface is temporarily disabled; Test CAD is enabled (if available); CAD interface enabled to station under test.
  *** CAD Dispatcher will need to be available to generate test runs from Test CAD***
- VOR Dispatch audio operational on test channels.
- Radio System Network Integration completed.

Testing Goals:
- Verify Central System Status.
- Verify Station Status (First Article).
- Complete Dispatcher training (DM Console).
  Note: Requires location with active DM Console (Or PC with Remote Access Program to DM Console).
- Complete end-to-end FSAS System Functional, Configuration and Failover testing using selected stations and Dispatch (CAD) sites.
  Note: All testing at selected stations will be done in a manner to minimize interference with on-going Fire operations and station personnel will be kept updated on the testing throughout the process.
- Review readiness for acceptance testing.
Table 3-8
Acceptance Testing at DuPage County

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Acceptance Testing at DuPage County</td>
<td>- PURVIS Test Director</td>
<td>Yes (limited to test runs at First Article Station)</td>
<td>- DuPage County Local Area and Wide Area Networks</td>
<td>- Test / Production CAD</td>
</tr>
<tr>
<td></td>
<td>- DuPage County Test Director</td>
<td></td>
<td>- Central Servers</td>
<td>- Radio Network (test channel)</td>
</tr>
<tr>
<td></td>
<td>- PURVIS Engineering Support</td>
<td></td>
<td>- DM Consoles</td>
<td>- Handheld Radios</td>
</tr>
<tr>
<td></td>
<td>- PURVIS PM</td>
<td></td>
<td>- Completed Station installs at preselected (First Article Stations)</td>
<td>- VPN from PURVIS to DuPage County</td>
</tr>
<tr>
<td></td>
<td>- DuPage County PM</td>
<td></td>
<td>- RIU’s and Master Radios</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- DuPage County Operations Support</td>
<td></td>
<td>- Station radio</td>
<td></td>
</tr>
</tbody>
</table>

Test Considerations and Requirements:
- Acceptance Test Script to be provided as addendum to this test plan prior to testing.
- Central site, CAD and radio integration is complete; system fully operational; System Verification Test complete at First Article Station.
- FSAS Production CAD interface at each Dispatch site is temporarily disabled; Test CAD is enabled (if available); CAD interface enabled to each station under test.
  *** CAD Dispatcher will need to be available to generate test runs from Test CAD***
- Complete Dispatcher training (DM Console).
  Note: Requires location with active DM Console (Or PC with Remote Access Program to DM Console)
- Acceptance testing to be authorized by DuPage County.
- No simulation will be used as part of the testing.

Testing Goals:
- Verify Central System Status.
- Verify Station Status (First Article).
- Complete Acceptance Test Script for VOR (Functional, CAD Interface).
- Complete Acceptance Test Script for Stations (Functional, Configuration, Failover, CAD Interface).
- Identify and successfully regression test any defects within 30 days
  Note: All testing at First Article stations will be done in a manner to minimize interference with on-going Fire operations and station personnel will be kept updated on the testing throughout the process.
- Review cutover readiness.
### Table 3-9

#### System Cutover at DuPage County

<table>
<thead>
<tr>
<th>Phase / Test</th>
<th>Personnel Required</th>
<th>Live Ops Impact</th>
<th>Systems / Interfaces Required</th>
<th>Special Test Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutover and Final Acceptance at DuPage County</td>
<td>PURVIS Test Director, DuPage County Test Director, PURVIS Engineering Support, PURVIS PM, DuPage County PM, DuPage County Operations Support</td>
<td>Yes</td>
<td>DuPage County Local Area and Wide Area Networks, Central Servers, DM Consoles, Completed Station installs all Stations, RIU’s and Master P25/VHF Radios, Station radio provided by DuPage County, P25 System Interface (Data)</td>
<td>Production CAD for Central, East Central, Glendale, Kirkwood and University City, P25 and VHF Radio Networks, Handheld Radios, VPN from PURVIS to DuPage County</td>
</tr>
</tbody>
</table>

#### Test Considerations and Requirements:
- Cutover Checklist to be provided as addendum to this test plan prior to cutover.
- System operational.
- Dispatcher training is complete.
- Acceptance Testing (Functional, Configuration, Failover and CAD Interface) completed.
- Cutover to be authorized by DuPage County.

#### Testing Goals:
- Complete Cutover Checklist
  - Verify System and Station Status
  - Enable Live P25 and VHF Dispatch Radio
    - Note: PURVIS feels this will cause less logistical issues with Dispatch Operations as they will know that FSAS is handling all radio dispatches
  - Cutover and test each station; CAD is enabled to each station one at a time
- Monitor System performance
- Conduct Reliability / Performance Acceptance Testing
DuPage County FSAS Project Assumptions

The project schedule and pricing are based on the following project assumptions.

**PURVIS FSAS Hardware**

<table>
<thead>
<tr>
<th>Hardware Item</th>
<th>Installed</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DUCOMM</td>
<td>ACDC</td>
</tr>
<tr>
<td>Central Server</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Dispatch Management (DM) Console</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Radio Interface Unit (6 Channel)</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Station Control Unit (SCU)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SCU Remote Touch Screen</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Remote Touch Screen Video Distribution - VGA TX/RX</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>USB Extender, 1-Port, 150'</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Audio Relay Expansion Module (ARXM) 12/8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Flat Panel 42&quot; LED Display</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Message Board HDMI Video Receiver</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Wall Mounting Bracket, Tilt, 32&quot; to 42&quot; Monitor</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Turnout Timer</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LED Reader Board</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Red Strobe Light</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Manual Acknowledgement Push Button</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>System Test Push Button</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>16 Port Network Switch</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**PURVIS FSAS Software Licenses**

The following FSAS software licenses will be granted to the County:

- Dispatch Centers
  - Non-exclusive, perpetual Server License for the Central Server (2)
  - Non-exclusive, perpetual Database License for the Central Server (2)
• Non-exclusive perpetual Dispatch/Management Software Seat License (2)
• Perpetual PURVIS FSAS Application Programming Interface (API) (2)
• Perpetual Text-to-Speech (TTS) Voice Module Software License (2)
• PURVIS FSAS Portal (Installed on each Central Server and accessible on the 3 PURVIS FSAS DM Consoles as well as through Internet Explorer, Chrome, or Firefox web browsers on the County-supplied dispatch terminals, or on any other computer with network connectivity to the PURVIS FSAS Central Servers).

• Test System
  • Non-exclusive, perpetual Server License for the Central Server (1)
  • Non-exclusive, perpetual Database License for the Central Server (1)
  • Non-exclusive perpetual Dispatch/Management Software Seat License (1)
  • Perpetual PURVIS FSAS Application Programming Interface (API) (1)
  • Perpetual Text-to-Speech (TTS) Voice Module Software License (1)
  • Non-exclusive, perpetual Station Control Unit (SCU) Software Seat License (1)
  • Perpetual Text-to-Speech (TTS) Voice Module Software License (1)

• Fire Stations
  • Non-exclusive, perpetual Station Control Unit (SCU) Software Seat License (66)
  • Perpetual Text-to-Speech (TTS) Voice Module Software License (66)

**County of DuPage’s Role**

In order for PURVIS to fulfill project requirements and avoid delays, the County of DuPage’s role must include the following:

**County Personnel**

- Assign a primary County of DuPage point of contact for the project.
- Participation of key project team members in regularly scheduled project meetings.
- Ensure PURVIS has timely access to all necessary physical locations during the project. Communicate installation planning activities to station personnel.
- Make dispatch and fire operational personnel available to provide operational data necessary for system configuration.
- Make personnel available to approve recommended acceptance test procedures and to participate in the execution of these procedures.
- Provide review/comment/approval of all PURVIS documentation within 10 working days of delivery.

**Hardware Requirements**

- Provide 1U of server rack space for each Central Server
- Provide 3U of rack space for each Radio Interface Unit
- Provide UPS backup power and surge protected circuits to the Central Servers and Radio Interface Units
- Provide the required dedicated wall space in each fire station for the delivered PURVIS FSAS Radio Cabinet:
  - Wall Mounted - 25”H x 26”W x 28”D
- The following FSAS hardware will be installed in the Radio Cabinet:

<table>
<thead>
<tr>
<th>Item</th>
<th>Power Requirements</th>
<th>Environment Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Control Unit</td>
<td>Each SCU requires a single dedicated 115V, 20AMP circuit in the fire station with a minimum of one outlet. Power termination shall be located within 10 feet of the PURVIS FSAS SCU in the station.</td>
<td>Rack Mounted - 3U of 19” rack space in the PURVIS supplied Radio Cabinet</td>
</tr>
<tr>
<td>Audio/Relay Expansion Module (ARXM)</td>
<td>Input: 120VAC, 15 Amp circuit</td>
<td>Rack Mounted - 2U of 19” rack space in the PURVIS supplied Radio Cabinet</td>
</tr>
</tbody>
</table>

- To ensure system longevity and reliability, the SCU operating temperature is 32°F to 100°F
- County to provide an existing/working County supplied PA System in each Fire Station, including an audio amplifier and speakers that the PURVIS FSAS will interface with for audio broadcasts within the stations.
- Each audio amplifier must have an available line level or 600 ohm input.
- PURVIS assumes no responsibility for the functionality, maintenance or repair of the existing PA, wiring or speakers.
- PURVIS is not responsible for moving any equipment or wiring in order to free up the space.

Power Requirements

- Our proposal assumes that power will be provided by the County.
- Provide two dedicated 115V, 20AMP circuits and a minimum of four outlets for the Central Server, Radio Interface Unit and D M Consoles at each dispatch center and in the FSAS Testing Room at a fire station. Outlets will be on a County-supplied UPS. Outlets will be located within 6 feet of the location of the FSAS hardware install location.
- Provide a single dedicated 115V, 20AMP circuit for the PURVIS FSAS SCU at each worksite and in the FSAS Testing Room with a minimum of one outlet in each location. Power termination shall be located within 6 feet of the radio cabinet in the worksite.
- Provide one (1) 115V, 15 AMP duplex outlet for each Flat Panel 42” 1080p LED Display, SCU Remote Touchscreen, Reader Board and Turnout Timer in each worksite. Outlets will be located within 3 feet of the device install location.

IP Network

- Will make the following firewall changes/additions in accordance with the Overall Project Plan (OPP):
  - Configure firewall ports on the County’s IP network where the PURVIS FSAS Central Servers are installed. These include the following ports:
    - 20100-20150
    - 50100-50150
    - 21,22,23,80,443,445,3389,25,587,465,110,995,1433,5038
- Configure remote access to Central Servers and Station Control Units and provide PURVIS with remote access to FSAS. Provide a process, within County IT security policies and procedures, to all PURVIS remote access to the FSAS network to facilitate deployment of software and testing prior to cutover and to facilitate system troubleshooting and software problem resolution during the warranty period.

- Provide routing on the data center network to the CAD Interface Servers and the FSAS Central Servers.

- Provide network path between the Central Servers at the data center and all outlying stations.

- Provide the static WAN (FSAS Network) IP addresses as required for each FSAS Central Server, FSAS Station Control Unit and FSAS DM Console.

- Provide an Ethernet TCP/IP based physical connection for each FSAS Central Server, FSAS Station Control Unit and FSAS DM Console.

- Provide a point of contact available 24/7/365 for WAN support.

- Provide an Ethernet network switch connection port at each fire station for FSAS SCU network access.

**Central Server**

- Create and provide domain user accounts with administrator privileges in accordance with Task Names, Durations and Resource Assignments defined in the Overall Project Plan (OPP).

- Install County security software and policies in accordance with Task Names, Durations and Resource Assignments defined in the Overall Project Plan (OPP).

- Setup e-mail configurations/accounts for FSAS in accordance with Task Names, Durations and Resource Assignments defined in the Overall Project Plan (OPP).

- Provide redundant switches to accommodate server teamed network connections.

- Provide time sync across domain or ability to add time sync server information to Central Servers.

**DM Consoles and Station Control Units**

- Create domain user accounts (if required) in accordance with Task Names, Durations and Resource Assignments defined in the Overall Project Plan (OPP).

- Install County security software and policies (in accordance with Task Names, Durations and Resource Assignments defined in the Overall Project Plan (OPP).

- Provide a switch to accommodate DM Console/SCU to Central Server network connections at each location.
IP Network Configuration

- Provide the static WAN (the WAN is the FSAS Central Server to FSAS DM Console, FSAS SCU network) IP addresses as required for each FSAS Central Server, FSAS Station Control Unit, FSAS DM Console and FSAS Radio Interface Unit.
- Provide an Ethernet TCP/IP based physical connection for each FSAS Central Server, FSAS Station Control Unit, FSAS DM Console and FSAS Radio Interface Unit.
- Provide network routes as required to each fire station and dispatch center.
- Implement firewalls as required for FSAS.
- Provide PURVIS with VPN remote access to FSAS.
- Provide a point of contact available 24/7/365 for WAN support
- Provide port at each fire station for network access.
- Provide a valid email user account and access to an email server to allow support emails to be generated.

CAD Interfaces

- Provide the CAD interface from Intergraph.
- Provide electronic copy of CAD and Unit Incident Data on day of Notice to Proceed.
- Provide access to a test / training CAD for the purposes of PURVIS integration testing.
- Use FSAS management tools to adjust text to speech pronunciation of addresses.
- Due to the tight integration between the CAD System and the PURVIS FSAS, during implementation and during the lifecycle of systems, the County will coordinate modifications of the CAD system with PURVIS.

PURVIS Assumptions:
  a. PURVIS assumes that Intergraph will provide a CAD interface that the PURVIS FSAS can interface with.
  b. No modifications to the PURVIS FSAS will be required to support the Intergraph CAD interface. Any agreed to modifications requests will be performed at an additional cost.
  c. For all data that the FSAS is required to send back to the Intergraph CAD system through the FSAS interface, the CAD system must be able to support the receipt of the required data. PURVIS assumes no responsibility for the CAD systems’ ability to accept data.

Radio:

- Provide 3U of rack space for each RIU installation.
- Provide access to radio equipment maintenance and support personnel to ensure quick and seamless integration efforts within 10 working days of contract award.
- Provide one dedicated radio for each talk group or channel that the system will alert over. The radios must be within 25 feet of the RU. The radio must have an auxiliary microphone.
input, an auxiliary speaker output, and an auxiliary PTT input that supports dry contact closure. For the PURVIS FSAS to detect that the radio channel/talk group is busy, the radio must have a dry contact closure output. PURVIS prefers radios that also have a separate dry contact closure that provides confirmation to the PURVIS FSAS that the FSAS has control of the channel/talk group when transmitting.

- Perform all radio or console programming changes required to support the FSAS. This includes channel/talk group and any other custom configurations. PURVIS will provide guidance in programming.
- Maintain all radio equipment required for FSAS communications. This includes preventive maintenance, signal strength, issues resolution, software updates and other support.
- Provide a single point of contact for all radio related issues.
- PURVIS is not responsible for resolving any radio reception/coverage issues.

**Notification Feature**

- Supply the contact information for the individuals to be contacted via auto-generated e-mail notifications.
- Manage and maintain the individual contacts and contact groups that will be notified via the FSAS and the FSAS Mobile App based on specific criteria.

**Training**

- Provide a training environment that meets the following specifications:
  - Space, tables and chairs for up to 18 students.
  - Approximately 400 square feet of space.
  - Digital projector with ability to display on a wall or a large screen monitor(s) that allows all students to view the training material.
  - Access to FSAS network in order to demonstrate FSAS functionality.
- Schedule training classes to occur within the same day.
- Ensure all personnel scheduled for training are present at schedule time(s).

**Fire Station Installation**

- PURVIS assumes that, for each installation at each location, the PURVIS Team will have full and timely access to the installation site on the date(s) specified in the Project Schedule. Access on each date will be all day (7:00am – 5:00pm ET).
- Existing Equipment
  - Provide an existing/working County supplied PA System in each Fire Station, including an audio amplifier and speakers that the PURVIS FSAS will interface with for audio broadcasts within the stations. Each audio amplifier must have an available line level or 600 ohm input. PURVIS assumes no responsibility for the functionality, maintenance or repair of the existing PA, wiring or speakers.
b. Provide a line level (balanced or unbalanced) audio output feed from the existing station radio to the FSAS SCU. This audio feed will allow the SCU to arbitrate station audio.

c. The PURVIS Team is not responsible for the removal or disposal of any existing equipment or the repair of any facility walls, ceilings etc. as a result of existing equipment removal.

- Fire Station Repair
  a. Any ceiling tiles damaged during installation will be replaced with similar tiles but exact color and type match cannot be guaranteed.
  b. Any damaged paint / drywall will be repaired with similar colors but exact color match cannot be guaranteed.

Warranty/Maintenance:

- Provide timely on-site access to all locations to necessary PURVIS maintenance personnel as needed.
- Provide PURVIS with remote access to the FSAS via VPN tunnel.
- The County will designate a single point of contact as the person to contact the PURVIS help desk to request service and to request County personnel for troubleshooting or on-site repair services.

Optional Components/Services:

- Any components/services identified as optional throughout this proposal are not included in the proposed solution but are available at an additional cost. PURVIS is willing to discuss any optional components/services and identify the scope of work and their associated costs.
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<td>5.8.5 FSASDataAcknowledgement Example</td>
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1 Introduction

The PURVIS Fire Station Alerting System™ (FSAS) is a communication and alerting system that provides city and countywide mission critical communications between Emergency Operation Center Dispatcher personnel and Fire and EMS first responders for efficient and immediate emergency response. The Fire Station Alerting System alerts Fire and EMS personnel at stations as well as over radio using end-user devices such as video displays, touch-screen terminals, printers, relay controllers for lights, doors, and appliances, along with data and voice radio systems. The Fire Station Alerting System uses Computer Aided Dispatch (CAD) interfaces utilizing the FSAS API to fully automate the alerting process for all relevant dispatch operations.

2 Purpose

The purpose of this document is to describe and define the FSAS CAD Application Programming Interface structure used for dispatch communication and operations.

3 CAD Interface

The Fire Station Alerting System communicates with CAD through multiple interfaces and network protocols. Currently, are supported. The Fire Station Alerting System can be configured are available and support receiving inbound data from third-party consumption calls and generating outbound data to.
4 System Architecture

The Fire Station Alerting System utilizes Active-Active architecture to achieve system redundancy and minimize downtime for critical dispatch operations. Redundant, duplicate servers are installed and are fully operational at all times. The FSAS CAD interfaces are deployed on these servers and serve as endpoints for all CAD data destined for FSAS alerting equipment. When developing against the FSAS CAD interface, multiple destinations for all CAD to FSAS messaging must be supported. Additionally, outbound FSAS messages to CAD, described in this document, must be supported from multiple FSAS CAD interface sources.
5 System Messaging

The Fire Station Alerting System supports inbound messages used for incident data, general announcements, unit status updates, and other relevant information from the CAD system. This data is used for alerting and dispatching fire stations, general announcements, informational displays, system status updates, and unit status updates. Outbound messages are used to report system equipment status, alerting status, unit status, report requests and other user driven information that is relevant for dispatch operations and system maintenance. All inbound and outbound messages result in a synchronous FSASDataAcknowledgment message, indicating the message has been received.
5.1 Message Formatting

The Fire Station Alerting System uses the Extensible Markup Language (XML) message format for inbound and outbound messaging. All messages adhere to the provided message schemas explained in this document. All inbound and outbound messages contain a message header (FSASDataHeader) and an accompanying message body. The FSASDataHeader contains specific information that defines and describes the accompanying message body data. The message body contains the relevant data to the specific system operation the message is looking to achieve.

5.2 FSASDataHeader

The FSASDataHeader is included in all Fire Station Alerting System messaging. It is used to determine the type of message and how it should be treated within the system.

5.2.1 FSASDataHeader Property Definitions
5.2.2 FSASDataHeader Schema
5.3 FSASEventIncidentData Message

The FSASEventIncidentData messages are used by the Fire Station Alerting System to alert, dispatch, and update all alerting systems, such as Fire Station Control Units, Radio Controllers, and Emergency Notification System interfaces. The data contained in the FSASEventIncidentData message is used to automate announcing and displaying incident information on various peripheral components including Station Control Terminals, Video Displays, LED Displays, Printers, Tower Lights, Dispatch Radios, and Station PA Systems.
5.3.1 FSASEventIncidentData Property Definitions

<table>
<thead>
<tr>
<th>Property Definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
</tbody>
</table>

5.3.2 FSASEventIncidentData Inbound/Outbound Message Types

<table>
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<tr>
<th>Message Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
</tbody>
</table>

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5.3.3 FSASEventIncidentData Schema
### 5.3.4 FSASEventIncidentData Example

<table>
<thead>
<tr>
<th>Event ID</th>
<th>Incident Date</th>
<th>Incident Time</th>
<th>Location</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>2023-01-01</td>
<td>12:00</td>
<td>New York</td>
<td>Abnormal</td>
</tr>
<tr>
<td>002</td>
<td>2023-01-02</td>
<td>08:00</td>
<td>Los Angeles</td>
<td>Maintenance</td>
</tr>
<tr>
<td>003</td>
<td>2023-01-03</td>
<td>16:00</td>
<td>Chicago</td>
<td>Security</td>
</tr>
</tbody>
</table>

#### Additional Information:
- Event 001 occurred due to a hardware failure.
- Event 002 was initiated for routine maintenance.
- Event 003 was triggered by a security breach attempt.

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**Source:** Purvis 918126 PO final Redacted opt (ETS-R-0020-18: RFP 16-167-RC FSA PO 918126)
5.4 FSASEventUnitData Message

The FSASEventUnitData bidirectional messages are used by the Fire Station Alerting System to change unit status initiated either by fire station personnel, dispatcher floor personnel, internal equipment, or CAD. FSASEventUnitData messages are used to relocate units between fire stations, change unit status, and re-designate units between incidents, among other things.
5.4.1 FSASEventUnitData Property Definitions

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property 1</td>
<td>Value 1</td>
</tr>
<tr>
<td>Property 2</td>
<td>Value 2</td>
</tr>
<tr>
<td>Property 3</td>
<td>Value 3</td>
</tr>
<tr>
<td>Property 4</td>
<td>Value 4</td>
</tr>
</tbody>
</table>

5.4.2 FSASEventUnitData Inbound/Outbound Message Types

<table>
<thead>
<tr>
<th>Message Type</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Message Type 1</td>
<td>Description 1</td>
</tr>
<tr>
<td>Message Type 2</td>
<td>Description 2</td>
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<tr>
<td>Message Type 3</td>
<td>Description 3</td>
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<td>Message Type 4</td>
<td>Description 4</td>
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</table>

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5.4.3 FSASEventUnitData Schema

5.4.4 FSASEventUnitData Example

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5.5 FSASEventMessage Message

The FSASEventMessage message is used for general audio announcements and device specific informational display. The Fire Station Alerting System is capable of announcing, printing, visually displaying, and archiving, among other tasks, incoming CAD messages issued by dispatch and/or CAD.
### 5.5.1 FSASEventMessage Property Definitions

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
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</tbody>
</table>

### 5.5.2 FSASEventMessage Inbound/Outbound Message Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
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Attachment: Purvis 918126 PO final_redacted opt (ETS-R-0020-18 : RFP 16-167-RC FSA PO 918126)
5.6 **FSASEventEquipmentStatus Message**

The *FSASEventEquipmentStatus* message is used by the Fire Station Alerting System to report system and equipment status. The system supports reporting specific equipment status events. The Fire Station Alerting System supports outbound and inbound *FSASEventEquipmentStatus* reporting and is capable of announcing, displaying, and archiving all equipment status events.
5.6.1 FSASEventEquipmentStatus Property Definitions

5.6.2 FSASEventEquipmentStatus Inbound/Outbound Message Types

5.6.3 FSASEventEquipmentStatus Equipment Status Types

5.6.4 FSASEventEquipmentStatus Equipment Types
5.6.5 FSASEventEquipmentStatus Schema

5.6.6 FSASEventEquipmentStatus Example
5.7 FSASEventSystemEvent Message

The FSASEventSystemEvent message is used by the Fire Station Alerting System to report system events to CAD as well as receive system events from CAD. Events such as alerting progress, station door bell activations, configuration changes, and other various user and system driven events are generated as outgoing messages. Incoming messages can be used to control specific devices. A CAD terminal button press system event could, for instance, control a relay activation within FSAS that is responsible for activating drive bay doors.

5.7.1 FSASEventSystemEvent Property Definitions

5.7.2 FSASEventSystemEvent Inbound/Outbound Message Types
### 5.7.3 FSASEventSystemEvent EventTypes

The following is a list of EventTypes that will be generated and by FSAS. Each EventType has a corresponding list of SubEventTypes which details the information of event that is generated.

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<thead>
<tr>
<th>EventTypes</th>
<th>SubEventTypes</th>
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</thead>
<tbody>
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<td>SubEventType 2</td>
</tr>
<tr>
<td>EventType 3</td>
<td>SubEventType 3</td>
</tr>
<tr>
<td>EventType 4</td>
<td>SubEventType 4</td>
</tr>
</tbody>
</table>

### 5.7.4 FSASEventSystemEvent SubEventTypes

<table>
<thead>
<tr>
<th>SubEventTypes</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>SubEventType 1</td>
<td>Description of event details</td>
</tr>
<tr>
<td>SubEventType 2</td>
<td>Description of event details</td>
</tr>
<tr>
<td>SubEventType 3</td>
<td>Description of event details</td>
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<tr>
<td>SubEventType 4</td>
<td>Description of event details</td>
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<tr>
<td>SubEventType 5</td>
<td>Description of event details</td>
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<tr>
<td>SubEventType 6</td>
<td>Description of event details</td>
</tr>
<tr>
<td>SubEventType 7</td>
<td>Description of event details</td>
</tr>
<tr>
<td>SubEventType 8</td>
<td>Description of event details</td>
</tr>
</tbody>
</table>

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5.8 FSASDataAcknowledgement Message

All inbound messages will result in an FSASDataAcknowledgement message response that indicates that the message has been successfully received and processed. The MsgID contained in the FSASDataHeader inbound message will be referenced in the FSASDataAcknowledgement message. This message is

5.8.1 FSASDataAcknowledgement Property Definitions

5.8.2 FSASDataAcknowledgement Inbound/Outbound Message Types
### 5.8.3 FSASDataAcknowledgement Error Codes

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Error 1</td>
</tr>
<tr>
<td>2</td>
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<td>3</td>
<td>Error 3</td>
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<tr>
<td>4</td>
<td>Error 4</td>
</tr>
<tr>
<td>5</td>
<td>Error 5</td>
</tr>
</tbody>
</table>

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5.8.4 FSAS Data Acknowledgement Schema
5.9 FSASHeartbeatData Message

Heartbeat messaging is supported by the Fire Station Alerting System in order to ensure system integrity. The messaging is based on the Fire Station Alerting System can be configured to either . By default, the Fire Station Alerting System will

5.9.1 FSASHeartbeatData Property Definitions

5.9.2 FSASHeartbeatData Inbound/Outbound Message Types
5.9.3 FSASHearthbeatData Message Diagram

![Heartbeat Message Flow Diagram]

5.9.4 FSASHearthbeatData Schema

![Schema Diagram]
5.9.5 FSASHeartbeatData Example

[Redacted content]
5.10 Location Data

Location data is used with incidents, units, and other appropriate data messages to identify proper location of the assets involved.
5.10.1 Location Property Definitions

<table>
<thead>
<tr>
<th>Property Definition</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property 1</td>
<td>Value A</td>
<td>Value B</td>
<td>Value C</td>
<td>Value D</td>
</tr>
<tr>
<td>Property 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Property 4</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Property 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.10.2 Location Schema

Diagram showing location schema with various properties and values.
5.11 Expansion Data

The expansion data structure is used to allow for specific FSAS API messages. This is included as part of specific FSAS API messages.

5.11.1 ExpansionData Property Definitions

5.11.2 ExpansionData Schema

5.11.3 Expansion Data Types
5.12 FSASDataUser

The FSASDataUser structure is used to populate relevant user information that relates to alerting operations.

5.12.1 FSASDataUser Property Definitions

5.12.2 FSASDataUser UserTypeIDs
The Fire Station Alerting System supports various web methods available through the published \textit{FSASIFService}. All methods take the previously defined \textit{FSAS}.. All methods return either an appropriate message response specific to the invoked method, or the \textit{FSASDataAcknowledgement} message which contains information about whether the input message has been accepted or rejected.

The following is a list of published \textit{FSASIFService} methods and the appropriate message types accepted as inputs.

<table>
<thead>
<tr>
<th>Method</th>
<th>Message Type Accepted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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CWR Series
CableSafe™ cabling wall mount rack

EIA compliant 19° cabling wall mount rack shall be Middle Atlantic Products model # CWR-__-__-__-__ (refer to chart). Overall dimensions shall be 26" W x ___" H x ___" D, with a useable depth of ___ (refer to chart). Weight capacity shall be 250 lbs. Center section and back pan shall be 16-gauge steel, phosphated pre-treated and finished in a black textured powder coat. Rackrail shall be constructed of 11-gauge steel with tapped 12-24 mounting holes in universal EIA spacing with black powder coat finish. Rack shall include ___ D-Rings for enhanced cable management (refer to chart). Rack shall have 1/2", 2" and 3" electrical knockouts on the top and bottom of the back pan. Rack shall be constructed to swing open for complete cabling access, center section shall pivot for either left or right opening. Large opening on back pan shall have a 12-1/2" x 12-1/2" cut out for electrical pull-box. Top and bottom side vents will accommodate CWR-FKIT cooling kit. Rack shall be UL Listed in the US and Canada to the UL-2416 (NWIN) Category when used with optional bonding kit, model # PET-K-CWR. CWR shall be GREENGUARD Gold Certified. CWR shall be RoHS EU Directive 2002/95/EC compliant. CWR shall be manufactured by an ISO 9001 and ISO 14001 registered company. Rack shall be warranted to be free from defects in materials or workmanship under normal use and conditions for the lifetime of the rack.

Customizable specification clips available at middleatlantic.com

features:
- 26" width cabinet to allow for much needed space for patching. Comes standard with wide-face rackrail on left and right of cabinet.
- Four useable depths available: 15", 20", 24" and 30"
- Ships with front rackrail at 4" setback position to accommodate cable managers. Also accommodates rear rackrail for rear support and cable management.
- Swing open center section allows for easy front and rear access to equipment and cabling
- Includes an easily reversible left or right handswing locking / latching Plexi front door for added security and aesthetics. Solid and vented front doors also available.
- Engineered to facilitate passive thermal management-optional fan kit available when additional heat dissipation is required
- Ships fully assembled as left or right hand hinged to save installation time
- UL Listed in the US and Canada

specifications:

options:
- Fan kit shall be CWR-FKIT and shall feature 2 fans and displace 95 CFM of free air.
- Rear rail kit, 11-gauge, 12-24 threaded, sold in pair hardware included, shall be model # CWR-RRX (XX= # of rackspaces).
- Off-set rail kit with D-Rings, 12-24 threaded, sold in pairs, hardware included, shall be model # CWR-OFXX (XX= # of rackspaces).
- Optional bonding kit for UL-2416 (NWIN) compliance shall be Middle Atlantic Products PET-K-CWR.

specifically designed for structured cabling, the CWR is a versatile system for mounting multiple patch panels and other voice/data equipment, where floor and wall space are at a premium.
CWR Series
basic dimensions

all dimensions in inches unless otherwise noted [all dimensions in brackets are in millimeters]

<table>
<thead>
<tr>
<th>Part #</th>
<th>Overall Height</th>
<th>Racking Height</th>
<th>Depth (w/o door)</th>
<th>Useable Depth</th>
<th>Useable Height</th>
<th>D-Ring Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CWR-12-17XX</td>
<td>24.88 (632)</td>
<td>21.00 (533)</td>
<td>17.00 (432)</td>
<td>15.00 (381)</td>
<td>12 RU</td>
<td>4</td>
</tr>
<tr>
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<td>24.88 (632)</td>
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<td>21.00 (533)</td>
<td>20.00 (508)</td>
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<td>4</td>
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<tr>
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<td>32.00 (813)</td>
<td>30.00 (762)</td>
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</tr>
<tr>
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<td>24.88 (632)</td>
<td>21.00 (533)</td>
<td>32.00 (813)</td>
<td>30.00 (762)</td>
<td>12 RU</td>
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</tr>
<tr>
<td>CWR-18-17XX</td>
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<td>31.50 (800)</td>
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<td>15.00 (381)</td>
<td>18 RU</td>
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<td>CWR-18-22XX</td>
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<tr>
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<td>31.50 (800)</td>
<td>32.00 (813)</td>
<td>30.00 (762)</td>
<td>18 RU</td>
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</tr>
<tr>
<td>CWR-18-32XX</td>
<td>35.38 (899)</td>
<td>31.50 (800)</td>
<td>32.00 (813)</td>
<td>30.00 (762)</td>
<td>18 RU</td>
<td>6</td>
</tr>
<tr>
<td>CWR-26-17XX</td>
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<td>15.00 (381)</td>
<td>26 RU</td>
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<td>CWR-26-21XX</td>
<td>49.38 (1254)</td>
<td>45.50 (1156)</td>
<td>21.00 (533)</td>
<td>20.00 (508)</td>
<td>26 RU</td>
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<td>CWR-26-22XX</td>
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<td>32.00 (813)</td>
<td>30.00 (762)</td>
<td>26 RU</td>
<td>8</td>
</tr>
</tbody>
</table>

Notes:
1. Replace ‘XX’ suffix with desired front door: PD- Plexi front door, SD- Solid front door, VD- Vented front door
2. Racks configured with standard front doors add .67” (17 mm) to overall depth. Racks configured with deep front doors (‘XX4’ suffix) add 4.06” (103mm) to overall depth. 
RESOLUTION TO ADOPT POLICY 911-005.2: ACCESS TO THE DU PAGE EMERGENCY DISPATCH INTEROPERABLE RADIO SYSTEM (DEDIRS)

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, DU PAGE ETSB Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) shall supersede policy ETS-13-001P, sections 8.0.2, 8.0.3 and 8.0.4 approved under resolutions ETS-044-13, ETS-045-13 and ETS-046-13 regarding access to DEDIRS; and

WHEREAS, DU PAGE ETSB Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) has been created in draft form to facilitate such use so long as it is not detrimental to the DU PAGE ETSB 9-1-1 mission and operations; and

WHEREAS, Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) has been approved by the DU PAGE ETSB Policy Advisory Committee (“PAC”) as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS) which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.2: Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS), be, and it is hereby adopted.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

__________________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Emergency Telephone System Board
Of DuPage County
Policy and Procedures

Policy #: 911-005.2
Previous Policy(s): ETS-13-001P, Sections 8.0.2, 8.0.3, 8.0.4
Effective Date: May 7, 2013
Revised: April 10, 2018

Access to the DuPage Emergency Dispatch Interoperable Radio System (DEDIRS)

Purpose:
The purpose of this policy is to ensure compliance with State of Illinois STARCOM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications.

Additional Authority:
Public Act 100-002
50 ILCS 750 Emergency Telephone System Act
50 ILCS 751 Wireless Emergency Telephone Safety Act
83 Illinois Administrative Code Part 725
83 Illinois Administrative Code Part 1325.415(m)
OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Goal:
It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies.

Scope:
This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

I. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

Effective with the Third Touch reprogramming of subscriber units, DEDIRS will create eight (8) or more multi-use talk groups for the purpose of interoperability with outside agencies who meet the access requirements, herein referred to as "Access Talk Groups."

The Access Talk Groups will be patched by PSAP Telecommunicators during an event in which interoperability is required. Once the event is completed, the patch will be disabled.
Any agency that has been granted access to main channel talk groups in applications prior to Third Touch, shall be asked to reprogram their subscriber units to the Access Talk Groups at their next reprogramming or within a year of notice, whichever occurs first. If an agency is unable to meet this request, they should seek an extension from the PAC in writing, no later than ninety (90) days prior to the year deadline. Notice shall be in the form of a certified letter to the agency head. Notification shall not be given until a satisfactory test period has been completed.

II. Application Procedure

Any agency that determines it has a need to communicate with an existing DEDIRS member for public safety purposes may apply to DuPage ETSB for use of Access Talk Groups 1-8.

Special Use:
DuPage ETSB will consider applications for specific operational talk groups on a case by case basis for agencies that have daily operational assignments with DEDIRS users (mutual aid, auto aide, task force assignments etc.).

Existing Non-Member users who wish to have access to a main talk group for purposes of communication may continue to have access to that talk group unless that permission is revoked by the ETSB when access to the “Access Talk Groups” is established or access to the main talk groups is proven unnecessary for daily operational needs.

Applicant Responsibilities

Application: The applicant must make application to the ETSB and supply the following documents with the application:

1. A completed DuPage ETSB DEDIRS Access Application;
2. A brief cover letter/email explaining the need for interoperability. If requesting additional talk groups, provide an explanation as to the need and type of anticipated use (daily, mutual aid, auto aid, task force etc.) and any other pertinent information including which DEDIRS members the requestor will mostly likely communicate;
3. A completed and executed DuPage Emergency Dispatch Interoperable Radio System Access Talk Group Agreement;

Understand and accept that any fees or cost incurred will be the responsibility of the Applicant.

The Applicant will agree to provide access to STARCOM21 talk groups to DEDIRS members which they currently have direct access for the purpose of interoperability for mutual aid and emergency communications and according to their own policies. Such access will be reviewed by the PAC for use and distribution.

The rights of the Applicant and the ability to utilize the DEDIRS system will rest with the Applicant and DuPage ETSB and is neither transferable nor can it be expanded upon without permission.

The Applicant will have authority to program only the approved talk groups on its own subscriber units. The Applicant may not program any other DEDIRS member subscriber units owned by DuPage ETSB. The Applicant may not program any other STARCOM21 user subscriber unit with
DEDIRS talk groups unless a contractual arrangement is in place between the Applicant and the third party and the third party has DuPage ETSB permission to use certain talk groups.

Application Modification: If an Applicant acquires additional subscriber units and desires interoperability for the new units, the Applicant must request authorization to expand the number of subscriber units utilizing the Access Talk Groups beyond its initial application. An approved application is not blanket permission for any Applicant which may expand its own fleet in the future. If additional subscriber units are added without prior approval, DuPage ETSB has the right to disable the unit.

An application modification must be submitted to PAC. The PAC shall have the authority to allow additional units without bringing the modification to the ETS Board so long as the additions do not impact DEDIRS functionality. The Applicant should submit a Form A and check modification.

Each Applicant will be responsible for those fees incurred on its behalf. All subscriber fees charged by Motorola for an Applicant's radio maintenance or operations are the responsibility of the Applicant. The PAC, DuPage ETSB or any of its member agencies are not responsible for any equipment or losses directly or indirectly associated with this system or agreement.

DuPage ETSB Responsibilities

Before an Applicant is approved for use of any DEDIRS talk groups, all member police and fire agencies shall be notified with a fourteen (14) day notification window. The process of notification will be outlined below.

Only subscriber units and accessories which the ETSB has previously authorized for such use on the DEDIRS may be utilized on the system. Those subscriber units or accessories or information may be obtained from the ETSB or from an ETSB authorized radio vendor.

The ETSB or its authorized vendor shall provide the hexadecimal ID and program all subscriber units which operate on the DEDIRS. The public safety agency shall supply the serial number, radio identification number, and STARCOM21 identifier to the ETSB prior to the radio becoming operative on the DEDIRS.

DuPage ETSB and/or Motorola may disable a subscriber unit or units at any time with or without notice to the requesting agency. DuPage ETSB may disable any subscriber unit or units which adversely impact the performance of the DEDIRS or suspend or revoke the agreement with the Applicant if, in DuPage ETSB’s opinion, the Applicant’s continued usage on DEDIRS adversely impacts the system or safety of the public safety personnel.

Application Process: The application shall be processed as follows:

- The application, including the four items listed previously, shall be submitted to DuPage ETSB.
- DuPage ETSB shall review the application with the ETSB-approved radio vendor to assess the type of equipment the Applicant proposes to use with DEDIRS, its load potential on the system and other technical items associated with the application, including the code plug development. The approved vendor will provide a recommendation whether to approve or
deny the application based solely on operational issues. If the vendor believes that the application should be denied, the vendor shall provide a brief written explanation for PAC and ETS Board consideration.

- DuPage ETSB staff will provide copies of the application to the PSAP Directors. The date that the application is distributed to the PSAPs will start the fourteen (14) day notification window for member review.
- The PSAP Directors will advise their member agencies of the application request. This can be accomplished through their own internal operational process for disseminating information to their agencies (email, committee meetings etc.). PSAPs are encouraged to bring this information through internal committees to promote discussion and consensus.
- The PSAP Directors will advise DuPage ETSB staff via email if there are no objections or of any objections to the application or recommendations within fourteen (14) days of receipt of the application. The objection must be filed in writing by return receipt email to ETSB911@dupageco.org within the allotted fourteen (14) calendar days. A nonresponse shall be deemed an affirmation of the application.
- DuPage ETSB staff shall prepare the application paperwork for the next PAC and ETS Board agendas.

The PAC shall review any application for access. During that review process the PAC shall:

- Assure that all associated paperwork is complete;
- Shall hear a report from DuPage ETSB staff and maintainer on the status of the fourteen (14) day notification, approvals/objections/recommendations from members and vendor recommendations for the application;
- Shall discuss the application and vote to make a recommendation to the ETS Board to either approve or deny the application and forward the application and recommendation to the ETS Board for its next regular meeting.

In the event the PAC denies the application, the application and brief written explanation by the PAC Chairman, or his designee, shall be forwarded to the ETS Board for their information and discussion. In the event the PAC cannot reach a consensus vote, that fact shall be reported to the ETS Board in writing for their information and discussion.

III. Implementation

The Applicant will be notified of the DuPage ETSB decision. If approved, the Applicant may then proceed to program its subscriber units with Access Talk Groups and access to other talk groups, as specified by the ETSB.

Policy adopted: _______________________________

_____________________________________________

Gary Grasso, Chairman
RESOLUTION TO ADOPT POLICY 911-005.3: ACCESS TO THE DU PAGE EMERGENCY DISPATCH INTEROPERABLE SUBSCRIBER UNIT SYSTEM (DEDIRS) ENCRYPTED TALK GROUPS

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, DU PAGE ETSB Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups shall supersede policy ETS-13-001P, sections 8.0.2, 8.0.3 and 8.0.4 approved under resolutions ETS-044-13, ETS-045-13 and ETS-046-13 regarding access to DEDIRS; and

WHEREAS, DU PAGE ETSB Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups has been created in draft form to facilitate such use so long as it is not detrimental to the DU PAGE ETSB 9-1-1 mission and operations; and

WHEREAS, DU PAGE ETSB Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups has been approved by the DU PAGE ETSB Policy Advisory Committee (“PAC”) as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.3: Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Encrypted Talk Groups, be, and it is hereby adopted.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

__________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Access to the DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS)
Encrypted Talk Groups

Purpose:
The purpose of this policy is to ensure compliance with State of Illinois STARCOM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications.

Additional Authority:
Public Act 100-002
OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Goal:
It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies.

Scope:
This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

I. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

DuPage ETSB acknowledges that there may be legitimate reasons that non-sworn personnel may need access to encrypted talk groups on the DEDIRS subscriber unit system. Some of these reasons may include membership on a task force by non-sworn personnel, or membership on a task force by members of an agency that are not a participating member of DEDIRS.

This application for access to DEDIRS encrypted talk groups should be completed and submitted to the PAC for consideration and approval. DuPage ETSB is not responsible for any fees for programming of the subscriber unit, and monthly airtime fees will be the responsibility of the requestor or the sponsoring agency or task force that is requesting access or the non-member agency.
II. Application Procedure

Any agency that determines it has a need to provide a non-sworn member with access to an encrypted talk group may apply to DuPage ETSB for access.

Applicant Responsibilities

Application: The applicant must make application to the ETSB and supply the following documents with the application:

1. A brief cover letter/email explaining the need for access, type of anticipated use (daily, mutual aid, auto aid, task force etc.) and any other pertinent information including which DEDIRS members the requestor will mostly likely communicate;
2. A completed DuPage ETSB DEDIRS Access Application, unless this is a subscriber unit already active on DEDIRS;
3. A completed DuPage ETSB Application for Access to DEDIRS Encrypted Talk Groups for Non-Sworn Personnel form;

The rights of the Applicant and the ability to utilize the DEDIRS system will rest with the Applicant and DuPage ETSB and is neither transferable nor can it be expanded upon without permission.

Each Applicant will be responsible for those fees incurred on its behalf. All subscriber fees charged by Motorola for an Applicant’s subscriber unit maintenance or operations are the responsibility of the Applicant. The PAC, DuPage ETSB or any of its member agencies are not responsible for any equipment or losses directly or indirectly associated with this system or agreement.

DuPage ETSB Responsibilities

Before an Applicant is approved for use of encrypted talk groups, all member police and fire agencies shall be notified with a fourteen (14) notification window. The process of notification will be outlined below.

DuPage ETSB and/or Motorola may disable a subscriber unit or units at any time with or without notice to the requesting agency. DuPage ETSB may disable any subscriber unit or units which adversely impact the performance of the DEDIRS or suspend or revoke the agreement with the Applicant if, in DuPage ETSB’s opinion, the Applicant’s continued usage on DEDIRS adversely impacts the system or safety of the public safety personnel.

Application Process: The application shall be processed as follows:

- The application, including the four items listed previously, shall be submitted to DuPage ETSB.
- If this application includes a new subscriber unit to the DEDIRS, DuPage ETSB shall review the application with the ETSB-approved subscriber unit vendor to assess the type of equipment the Applicant proposes to use with DEDIRS, its load potential on the system and other technical items associated with the application, including the code plug development. The approved vendor will provide a recommendation whether to approve or deny the application based solely on operational...
issues. If the vendor believes that the application should be denied, the vendor shall provide a brief written explanation for PAC and ETS Board consideration.

- DuPage ETSB staff will provide copies of the application to the PSAP Directors. The date that the application is distributed to the PSAPs will start the fourteen (14) day notification window for member review.

- The PSAP Directors will advise their member agencies of the application request. This can be accomplished through their own internal operational process for disseminating information to their agencies (email, committee meetings etc.). PSAPs are encouraged to bring this information through internal committees to promote discussion and consensus.

- The PSAP Directors will advise DuPage ETSB staff via email if there are no objections or of any objections to the application or recommendations within fourteen (14) days of receipt of the application. The objection must be filed in writing by return receipt email to ETSB911@dupageco.org within the allotted fourteen (14) calendar days.

- DuPage ETSB staff shall prepare the application paperwork for the next PAC and ETS Board agendas.

The PAC shall review any application for access. During that review process the PAC shall:

- Assure that all associated paperwork is complete;

- Shall hear a report from DuPage ETSB staff on the status of the fourteen (14) day notification, approvals/objections/recommendations from members and vendor recommendations for the application;

- Shall discuss the application and vote to make a recommendation to the ETS Board to either approve or deny the application and forward the application and recommendation to the ETS Board for its next regular meeting.

In the event the PAC denies the application, the application and brief written explanation by the PAC Chairman, or his designee, shall be forwarded to the ETS Board for their information and discussion. In the event the PAC cannot reach a consensus vote that fact shall be reported to the ETS Board in writing for their information and discussion.

III. Implementation

The Applicant will be notified of the DuPage ETSB decision. If approved, the Applicant may then proceed to program its subscriber unit with the designated encrypted talk groups.

Policy adopted: ________________________________

_____________________________________________

Gary Grasso, Chairman
DUPAGE ETSB
APPLICATION FOR ACCESS TO DEDIRS ENCRYPTED TALK GROUPS
FOR NON-SWORN PERSONNEL

DuPage ETSB acknowledges that there may be legitimate reasons that non-sworn personnel may need access to encrypted talk groups on the DEDIRS subscriber unit system. Some of these reasons may include membership on a task force by non-sworn personnel, or membership on a task force by members of an agency that are not a participating member of DEDIRS.

This application for access to DEDIRS encrypted talk groups should be completed and submitted to the PAC for consideration and approval. DuPage ETSB is not responsible for any fees for programming of the subscriber unit, and monthly airtime fees will be the responsibility of the requestor or the sponsoring agency or task force that is requesting access or the non-member agency.

Name of operator that will be given access: __________________________________________________________

Agency of operator: __________________________________________________________

Reason for access: __________________________________________________________

Sponsoring Agency or Task Force: __________________________________________________________

Was a background check completed on the operator: (circle one) Yes No

Did the operator sign a confidentiality agreement: (circle one) Yes No

The sponsoring agency or task force acknowledges that they have conducted the appropriate screening of the operator requesting access and will make that background check available to the PAC or ETSB upon request from one of those agencies.

Name of sponsoring agency supervisor: __________________________________________________________

Signature of sponsoring agency supervisor: __________________________________________________________

Date: ___________________________
DUPAGE ETSB
CONFIDENTIALITY AGREEMENT
USE OF STARCOM 21 SUBSCRIBER UNIT SYSTEM

As a member of the __________________________ (name of task force or sponsoring agency), I understand that I may learn of or have access to information over encrypted talk groups of the DEDIRS subscriber unit system which is of personal, safety-sensitive, or otherwise confidential in nature. Such information includes, but is not limited to incident report information, NCIC/LEADS information, Computer Aided Dispatch/RMS information, and other law enforcement or police related information.

I agree to maintain the confidentiality of such information and will not divulge it to anyone for any purpose without the express consent or approval of the task force or sponsoring agency.

I further understand and agree that I am prohibited from using any of this information for my personal use or benefit or for any other non-Police business related purposes.

I understand and agree that my failure to comply with the confidentiality requirement set forth in this Confidentiality Agreement is grounds for discipline, up to and including termination of access to encrypted talk groups.

The restrictions of the Confidentiality Agreement regarding disclosure and use of information shall continue to apply after termination of my relationship with the task force or sponsoring agency.

I have read and understand this agreement and agree to comply with it in every respect.

Dated this _________________ day of ______________________, 20_______

_________________________________________________________________
Signature

_________________________________________________________________
Printed Full Name

_________________________________________________________________
Agency
RESOLUTION TO ADOPT POLICY 911-005.4: DU PAGE EMERGENCY DISPATCH INTEROPERABLE SUBSCRIBER UNIT SYSTEM (DEDIRS) SUBSCRIBER UNIT PROGRAMMING AND USE OF TALK GROUPS

WHEREAS, the DuPage County Emergency Telephone System Board ("DU PAGE ETSB") is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 ("Act"); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, DU PAGE ETSB Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups shall supersede policy ETS-13-001P, sections 8.0.2, 8.0.3 and 8.0.4 approved under resolutions ETS-044-13, ETS-045-13 and ETS-046-13 regarding access to DEDIRS; and

WHEREAS, DU PAGE ETSB Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups has been created in draft form to facilitate such use so long as it is not detrimental to the DU PAGE ETSB 9-1-1 mission and operations; and

WHEREAS, DU PAGE ETSB Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups has been approved by the DU PAGE ETSB Policy Advisory Committee ("PAC") as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.4: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Subscriber Unit Programming and Use of Talk Groups, be, and it is hereby adopted.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Purpose:
The purpose of this policy is to ensure compliance with State of Illinois STARCOMM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications.

Additional Authority:
Public Act 100-002
50 ILCS 750 Emergency Telephone System Act
50 ILCS 751 Wireless Emergency Telephone Safety Act
83 Illinois Administrative Code Part 725
83 Illinois Administrative Code Part 1325.415(m)
OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Goal:
It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies.

Scope:
This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

I. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOMM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

To achieve seamless interoperable communication, standardization of operation and naming conventions are required to ensure that first responders can effectively operate subscriber units while on duty but especially during critical, active incidents when speed and accuracy are critical. Likewise, standardization of operation and naming conventions lessens the need for re-programming of subscriber units in the event of change of assignment, new hire, etc. and ensures the accuracy of the system.
As defined in Policy #: 911-005.5, a “Talk group” is the term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. The control channel then coordinates the system so talk groups can share these frequencies seamlessly. The purpose is to dramatically increase bandwidth.

II. Equipment
The DEDIRS will be able to utilize any equipment authorized by State of Illinois STARCOMM21 Committee.

Only persons designated by DuPage ETSB and who have completed certified training for the programming of the radios owned or operated on this system, and have executed confidentiality agreement(s) and other agreements required by Motorola, STARCOMM21 and/or DuPage ETSB will be authorized to program radios on this system.

Those individuals programming the radio(s) will be responsible for adhering to Radio ID and alias policy, updating alias master database, serial number list, inventory list, and other logs of requirements of ETSB and/or Motorola. All master lists shall be forwarded to and maintained by ETSB or its designee.

III. User Agency Acknowledgement of Radio Programming
Each agency head must complete “APPENDIX THREE” Radio programming Acknowledgement form and return it to DuPage ETSB, who will retain the document. This document acknowledges the receipt of DuPage ETSB owned radios, acknowledges compliance with ETSB policies as well compliance with all established STARCOMM21 and all applicable FCC rules.

IV. Over the Air Programming
Over the air programming (OTAP) is a process that permits Motorola to program a subscriber unit through a RF interface using the STARCOMM21 system network and customer-approved programming templates. OTAP also permits Motorola to remotely “read” the status of a subscriber unit.

V. Template Management
DuPage ETSB (or its designee) will be responsible for developing and approving all the programming templates of the DuPage STARCOMM21 radio system. When DuPage ETSB approves the creation or modification of a template, it shall provide a copy to Motorola’s STARCOMM21 Manage Services Team for proper inclusion in a master template repository.

In order to reduce the possibility of programming errors due to the use of incorrect templates, all templates used for programming via OTAP must be included in this repository so that only version-controlled copies are used. All templates should have a unique name and date field and be easily discerned as to who the customer is based upon the name. Old versions of the templates will be stored in an archive file for emergency use if a customer needs to revert to a previous version of a template. Only the active and last version of the template will be stored. All other previous versions of a template will be deleted.
VI. OTAP Process for DEDIRS STARCOMM21 Users

This process is for the end user of a DuPage County STARCOMM21 mobile/portable subscriber when his or her radio is to be programmed via OTAP (Over the air programming).

Motorola will perform the OTAP process for multiple radios sequentially. Efficient programming thus requires effective coordination and scheduling between DuPage ETSB, Motorola, and the end user and his or her agency. DuPage ETSB (or its designee) will publish an OTAP schedule so as to provide ample notice of planned programming activity. In general, the programming process will be conducted as set forth as follows:

1) During normal working hours, DuPage ETSB will direct the user to switch his or her radio to a designated STARCOMM21 talk group (e.g. Unified2) at a designated time and await further instructions on that talk group from a Motorola programmer.

2) At all other times, DuPage ETSB will direct the user to switch his or her radio to a designated STARCOMM21 talk group (e.g. Unified2) and leave the radio powered-up in order for Motorola to reprogram the radio in time for the user’s next shift.

During OTAP updates, the user must turn off his or her scan feature on the radio to ensure minimal disruption to the radio while OTAP is in progress. A Motorola technician will read the radio over the air, apply the new template changes and then program the changes. This process will cause a flashing icon to appear in the upper right corner of the APEX 7000 radio’s display and the transmit light to flash indicating that data is being transmitted and received.

The OTAP feature of the DuPage STARCOMM21 radio will ordinarily take between 60 and 120 minutes to complete which includes reprogramming the radio and verifying the changes. Based on testing, most updates will average approximately 90 minutes.

Upon completion of the programming, the radio will beep every 30 seconds to indicate that it needs to be turned off then turned back on. After the user/operator turns the radio back on, he or she will see the message “prg done” or “program done” and the radio will reset one last time. When the radio turns back on, the OTAP is completed.

A user who notices any errors or other issues involving the programming should contact DuPage ETSB, Motorola, or his or her department’s Radio Engineer (who arranged for the OTAP) to resolve the issue.

Policy adopted: ________________________________

                                                                                     Gary Grasso, Chairman
Policy #: 911-005.4: Radio Programming Acknowledgement

As the senior officer/department for my agency, I hereby acknowledge that I am in receipt of subscriber units from DuPage ETSB and/or will own subscriber units that will be allowed on the DuPage Emergency Dispatch Interoperable Radio System (“DEDIRS”) and that my agency will comply with the following conditions:

1. All subscriber units that are allowed access to STARCOMM21 through DEDIRS are to be used in accordance with the DEDIRS Policy Manual at all times. Failure to comply with these policies may result in disciplinary action up to and including return of ETSB purchased subscriber units and denial of access to the system.

2. Subscriber units on DEDIRS have been programmed with numerous DuPage ETSB STARCOMM21 Talk groups. Usage shall comply with policies developed by DuPage ETSB and/or their designee (e.g. Policy Advisory Committee, STARCOMM21 Committees or Board).

3. Subscriber units on DEDIRS have been programmed with conventional radio frequencies (i.e. UHF and VHF). Operations on these frequencies shall comply with applicable FCC regulations, radio licenses and agreements among the parties utilizing the frequencies (e.g. ILEAS and MABAS).

4. If an agency does not have a current license to operate on a conventional frequency programmed in their radio, the use of those frequencies will be limited to:
   a. mutual activities or
   b. radio communications related to imminent safety-of-life or property. (see FCC rules 90.427 and 90.417).
   c. Each agency will individually or as a member of a group attempt to obtain written permission from the license holder to operate on their frequency and provide DuPage ETSB with a copy of this documentation.

5. My agency will not attempt to physically modify or reprogram subscriber units operating on DEDIRS. We will only use a technician authorized by DuPage ETSB to make such modifications through the use of a service ticket in DuPage ETSB service system using ETSB911@ducomm.org.

6. My agency will not attempt to physically modify or reprogram agency owned subscriber units operating on DEDIRS without approval from DuPage ETSB and through the use of an authorized technician.

I understand that the conditions set forth above have been implemented to ensure FCC compliance and DEDIRS standardization. I further understand that the use of the service system for all changes, even agency owned equipment, will ensure that any issues within the DEDIRS system will be more quickly identified and resolved with complete historical documentation.

Acknowledged and agreed to this __________ day of ____________________, 20____

Signature: __________________________________________________________

Printed Name and Title: ______________________________________________

Agency: ____________________________________________________________
RESOLUTION TO ADOPT POLICY 911-005.5: DU PAGE EMERGENCY DISPATCH INTEROPERABLE SUBSCRIBER UNIT SYSTEM (DEDIRS) TERMINOLOGY AND DEFINITIONS

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, DU PAGE ETSB Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions shall supersede policy ETS-13-001P, sections 8.0.2, 8.0.3 and 8.0.4 approved under resolutions ETS-044-13, ETS-045-13 and ETS-046-13 regarding access to DEDIRS; and

WHEREAS, DU PAGE ETSB Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions has been created in draft form to facilitate such use so long as it is not detrimental to the DU PAGE ETSB 9-1-1 mission and operations; and

WHEREAS, DU PAGE ETSB Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions has been approved by the DU PAGE ETSB Policy Advisory Committee (“PAC”) as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.5: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Terminology and Definitions, be, and it is hereby adopted.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

__________________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Emergency Telephone System Board
Of DuPage County
Policy and Procedures

Policy #: 911-005.5
Previous Policy(s): ETS-13-001P, Sections 4.2.1, 4.2.2, 4.2.3
Effective Date: March 13, 2018
Revised: April 10, 2018

DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS)
Terminology and Definitions

Purpose:
The purpose of this policy is to ensure compliance with State of Illinois STARCOMM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications by acknowledging industry standards for definitions, terminology

Additional Authority:
Public Act 100-002
Act
OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Goal:
It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies. This section shall provide acronyms and definitions commonly used in the 9-1-1 profession both in the use of the radio and delivery of emergency services. These lists are not all inclusive.

Scope:
This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

1. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOMM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

To achieve seamless interoperable communication, standardization of operation and naming conventions are required to ensure that first responders can effectively operate subscriber units while on duty but especially during critical, active incidents when speed and accuracy are critical.

A “Talk group” is the term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. The control channel then coordinates the system so talk groups can share these frequencies seamlessly. The purpose is to dramatically increase bandwidth.

2. Terminology

This section consists of three areas: Acronyms and Definitions
2.1 Acronyms

The following acronyms are acceptable for day to day radio usage although plain language is the preferred method.

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<th>ACRONYM</th>
<th>MEANING</th>
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<tbody>
<tr>
<td>AKA</td>
<td>Also Known As</td>
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<tr>
<td>ALS</td>
<td>Advanced Life Support</td>
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<td>BC</td>
<td>Battalion Chief</td>
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<td>CAD</td>
<td>Computer Aided Dispatch</td>
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<td>COG</td>
<td>Continuity of Government</td>
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<td>CONOPS</td>
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<td>COOP</td>
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<td>CP</td>
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<td>Department of Homeland Security</td>
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<td>DIRS</td>
<td>DuPage Interoperable Radio System</td>
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<td>DEDIRS</td>
<td>DuPage Emergency Dispatch Interoperable Radio System</td>
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<td>DL</td>
<td>Driver’s License</td>
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<td>DOA</td>
<td>Dead on Arrival</td>
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<td>DOB</td>
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<td>DOC</td>
<td>Department Operations Center</td>
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<td>EAS</td>
<td>Emergency Alert System</td>
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<td>EMAC</td>
<td>Emergency Management Assistance Compact</td>
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<td>Emergency Operations Plan</td>
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<td>Fire Department</td>
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<td>Federal Emergency Management Agency</td>
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<td>FI</td>
<td>Field Interview</td>
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<td>FOG</td>
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<td>FTA</td>
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<td>FTP</td>
<td>Failure to Pay</td>
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<td>FY</td>
<td>Fiscal Year</td>
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<tr>
<td>Acronym</td>
<td>Definition</td>
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<td>GIS</td>
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<td>Hazardous Material</td>
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<td>IFERN</td>
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<td>IMT</td>
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<td>Joint Information Center</td>
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<td>Joint Information System</td>
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<td>Joint Operations Center</td>
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<td>MABAS</td>
<td>Mutual Aid Box Alarm System</td>
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<td>National Crimes Information Center</td>
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<td>National Disaster Medical System</td>
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<tr>
<td>NFD</td>
<td>No Further Details</td>
</tr>
<tr>
<td>NGO</td>
<td>Nongovernmental Organization</td>
</tr>
<tr>
<td>NIC</td>
<td>NIMS Integration Center</td>
</tr>
<tr>
<td>NIMS</td>
<td>National Incident Management System</td>
</tr>
</tbody>
</table>
NIMCAST | National Incident Management Capability Assessment System
---|---
NPG | National Preparedness Goal
NRCC | National Response Coordination Center
NRP | National Response Plan
PIO | Public Information Officer
PVO | Private Voluntary Organization
R & D | Research & Development
RACES | Radio Amateur Civil Emergency Service
ROSS | Resource Ordering and Status System
RP | Reporting Person
RO | Registered Owner
RRCC | Regional Response Coordination Center
SDO | Standard Development Organizations
SITREP | Situation Report
SO | Safety Officer
SOP | Standard Operating Procedure
SOS | Secretary of State
TA | Talkaround
TCL | Targeted Capabilities List
UAC | Unified Area Command
UC | Unified Commander
USAR | Urban Search And Rescue
UTL | Unable To Locate
WC | Watch Commander
WMD | Weapons Of Mass Destruction

2.2 Definitions

This glossary provides a definition of commonly used terms related to the DEDIRS Network.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>700/800 Megahertz:</td>
<td>A newly-available range of UHF radio spectrum which may be used by public safety agencies for voice and data including wideband data channels. EDIRS utilizes channels between 764-806 MHz</td>
</tr>
<tr>
<td>800 Megahertz:</td>
<td>A range of UHF radio spectrum utilized by public safety trunked systems operate on channels between 806 and 869 MHz</td>
</tr>
<tr>
<td>Agency:</td>
<td>A participating entity within the member structure of EDIRS. Agencies include police and fire departments of municipalities as well as fire protection districts. The corporate authorities (e.g. village board, city council, board of fire protection district trustees) of each agency must execute an intergovernmental agreement (IGA) with DuPage County before its personnel may utilize the EDIRS system.</td>
</tr>
<tr>
<td><strong>Alias:</strong></td>
<td>Proper names representing a Unit ID example 270300 (StarComm21 ID) = ADP 127 (Addison Police Officer 127) or 270100 (STARCOMM21 ID) = ADF CHIEF 100 (Addison Fire Chief 100).</td>
</tr>
<tr>
<td><strong>All Call:</strong></td>
<td>A console feature which allows a dispatcher or supervisor to communicate to all system subscribers at one time. Used for major emergencies.</td>
</tr>
<tr>
<td><strong>APCO:</strong></td>
<td>The Associated Public Safety Communications Officials, Inc.; an international professional organization with members from federal, state, local government and equipment vendors in all aspects of public safety communications.</td>
</tr>
<tr>
<td><strong>ATG:</strong></td>
<td>Announcement talkgroup (same as All Call above)</td>
</tr>
<tr>
<td><strong>AVL:</strong></td>
<td>An Automatic Vehicular Location is a device on a vehicle that interfaces with a radio system to communicate actual location of a vehicle in a pre-mapped geographic grid back to the dispatch center.</td>
</tr>
<tr>
<td><strong>BDA:</strong></td>
<td>A bi-directional amplifier is a device used to extend coverage into a building.</td>
</tr>
<tr>
<td><strong>“BONK” tone:</strong></td>
<td>A busy tone, similar to a telephone busy signal. This tone is heard when a user attempts to transmit a message on a trunked talkgroup when all frequencies are in use. The busy tone is heard as long as the PTT button is depressed. The user should release the PTT button and wait for the automatic callback tones.</td>
</tr>
<tr>
<td><strong>Call Alert:</strong></td>
<td>A series of four beeps, sounding every six seconds, which indicate that a call alert has been received by the radio.</td>
</tr>
<tr>
<td><strong>DEDIRS:</strong></td>
<td>DuPage Emergency Dispatch Interoperable Radio System: A countywide radio system provided by ETSB as an integrated component of the emergency telephone system. DEDIRS employs a 700/800MHz digital P25 trunking system that is part of the statewide STARCOMM21 system. STARCOMM21 is owned and operated by Motorola Solutions, Inc. (Motorola) and under the governance of the State of Illinois.</td>
</tr>
<tr>
<td><strong>DIRS:</strong></td>
<td>DuPage Interoperable Radio System: A countywide interoperable radio system comprised of conventional repeaters operating on an 800 MHz frequency and other UHF and VHF frequencies that can be cross-patched through the Sheriff office. Note: This system was decommissioned in 2017.</td>
</tr>
<tr>
<td><strong>Emergency Call Button:</strong></td>
<td>When pressed, one beep indicates the alarm has been sent. When the alarm is acknowledged by the system, five beeps are heard.</td>
</tr>
<tr>
<td><strong>Encryption</strong></td>
<td>Law enforcement specific talkgroups and conventional channels operate in the encrypted mode. Digital radios with the encryption option are required to use encrypted talkgroups and channels. If a radio does not contain the correct encryption code, “KEY FAIL”, “SECURE ONLY” and/or an error message will appear on the radio display, and communications on that talkgroup/channel will not be possible. The radio will continue to receive and transmit on all non-encrypted talkgroups and conventional channels.</td>
</tr>
<tr>
<td><strong>Failsoft Chirp:</strong></td>
<td>A beep every 10 seconds indicates failsoft, a condition that occurs when the trunked cell fails and cannot perform trunking. When this occurs, the radio automatically switches to a predetermined frequency and functions like a conventional repeater channel.</td>
</tr>
<tr>
<td><strong>Illegal Function Tone:</strong></td>
<td>A continuous tone heard when the user attempts a function that is not allowed.</td>
</tr>
<tr>
<td><strong>Invalid Chirp:</strong></td>
<td>A momentary, lower pitched tone which indicates the user has selected an un-programmed function.</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Low Battery Chirp</td>
<td>A high-pitched &quot;chirp-chirp&quot; tone which indicates the portable radio battery needs charging/changing.</td>
</tr>
<tr>
<td>Over the Air Programming or OTAP</td>
<td>Over the Air Programming (OTAP) is a process that permits Motorola to program a subscriber unit through an RF interface using the STARCOMM21 system network and customer-approved programming templates. OTAP also permits Motorola to remotely &quot;read&quot; the status of a subscriber unit.</td>
</tr>
<tr>
<td>STARCOMM21</td>
<td>An APCO Project-25 Trunked Radio System for voice and data operations for the State of Illinois. Motorola installs, operates and maintains this system. Other state, county and local users are invited to join the system.</td>
</tr>
<tr>
<td>Talkaround</td>
<td>A mode of communication that bypasses, or &quot;talks around&quot; the repeater. This is a short range, radio communications mode.</td>
</tr>
<tr>
<td>Talkgroup</td>
<td>The term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. The control channel then coordinates the system so talkgroups can share these frequencies seamlessly. The purpose is to dramatically increase bandwidth. Many radios today treat talkgroups as if they were frequencies, since they behave like such. For example, on a radio scanner it is very common to be able to assign talkgroups into banks or lock them out, exactly like that of conventional frequencies.</td>
</tr>
<tr>
<td>Talkgroup Call</td>
<td>A call involving other users within the originating users own talkgroup.</td>
</tr>
<tr>
<td>Talkgroup ID</td>
<td>A unique identifier assigned to each talkgroup in a Motorola trunking system.</td>
</tr>
<tr>
<td>Talkgroup Scan</td>
<td>A feature that allows a subscriber unit to scan those talkgroups that have an affiliated member at the scanning radio's site. The talkgroup scan list(s) must be programmed in the radio.</td>
</tr>
<tr>
<td>Talk Permit Tone</td>
<td>A series of three short, rapid beeps when the transmit button is pressed. The radio user must wait for the talk permit tones before proceeding with a transmission on a trunked talkgroup.</td>
</tr>
<tr>
<td>Talk Prohibit Tone</td>
<td>A continuous tone heard when the user presses the transmit button when the radio is either out of range of the trunked radio system or when the system is out of service.</td>
</tr>
<tr>
<td>Template Management</td>
<td>DuPage ETSB (or its designee) will be responsible for developing and approving all of the programming templates of the DuPage STARCOMM21 radio system. When DuPage ETSB approves the creation or modification of a template, it provides a copy to Motorola's STARCOMM21 Manage Services Team for proper inclusion in a master template repository. In order to reduce the possibility of programming errors due to the use of incorrect templates, all templates used for programming via OTAP must be included in this repository so that only version-controlled copies are used. All templates should have a unique name and date field and be easily discerned as to who the customer is based upon the name. Old versions of the templates will be stored in an archive file for emergency use if a customer needs to revert back to a previous version of a template. Only the active and last version of the template will be stored. All other previous version of a template will be deleted.</td>
</tr>
<tr>
<td>Time-out Timer Tone</td>
<td>A momentary tone at 55 seconds indicating the transmission is approaching 60 seconds, and will be discontinued at the 60-second point.</td>
</tr>
</tbody>
</table>
| Trunking                                | In the context of radio communications, a trunk is a communications path. In conventional systems, similar to traffic on a one-lane road, one message cannot get to its destination if there is another message using, or blocking, the way forward. This is a problem with large radio system users. When a user is using a channel that is shared among a group of users, the other users must wait until the channel is clear to transmit. Thus, trunking became an efficient solution in large urban areas which have large radio channel needs than available spectrum permits. Trunking has been employed by telephone companies for more than a century. The phone system does not provide a dedicated trunk for each of its thousands of
users; rather it employs a complex switching system to share its trunks among subscribers. When a user makes a call, the telephone system assigns a trunk to the user for the duration of that call. After the user hangs up, the same trunk becomes available to other users. Thus, a small number of telephone trunks can be shared by a large number of subscribers. The switching equipment in the telephone company central office manages the sharing efficiently and automatically.

Radio trunking techniques are applied for the same fundamental reasons as those used by the telephone companies. The trunking technology allows a large number of users to share a small number of trunks (in this case, frequencies). The effectiveness of trunking is based on two fundamental characteristics. Firstly, the percentage of time that any individual user requires a trunk (frequency) is very small compared to the total time available, and secondly, the probability that many users will require a trunk at the same time is exceedingly small.

Each trunked radio system has a number of communications paths, known as talkgroups. In a non-technical sense, a talkgroup is the same as a channel. Within EDIRS, any reference to a “talkgroup” indicates a trunked system communications path, while a “channel” indicates a non-trunked or conventional communications path.

When a user presses the transmit button, the EDIRS trunking system controller assigns a frequency to that talkgroup for the duration of the transmission. Once the transmission is over, the frequency goes back into the pool for reassignment. With eighteen (18) frequencies available, the likelihood of all of them being unavailable at any one time is remote.

<table>
<thead>
<tr>
<th>Valid Key Chirp:</th>
<th>A momentary, higher-pitched tone, which confirms that the user has selected a valid, programmed button.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Set Tone:</td>
<td>A button-enabled tone which alerts a user that he or she has adjusted the volume to a desired level before radio traffic is actually received.</td>
</tr>
</tbody>
</table>

Policy adopted: ________________________________

______________________________________________

Gary Grasso, Chairman
RESOLUTION TO ADOPT POLICY 911-005.6: DU PAGE EMERGENCY DISPATCH INTEROPERABLE SUBSCRIBER UNIT SYSTEM (DEDIRS) USE OF EMERGENCY BUTTON

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB shall develop policies in order to plan, implement, upgrade, and maintain the DuPage ETSB 9-1-1 System; and

WHEREAS, DU PAGE ETSB Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button shall supersede policy ETS-13-001P, sections 8.0.2, 8.0.3 and 8.0.4 approved under resolutions ETS-044-13, ETS-045-13 and ETS-046-13 regarding access to DEDIRS; and

WHEREAS, DU PAGE ETSB Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button has been created in draft form to facilitate such use so long as it is not detrimental to the DU PAGE ETSB 9-1-1 mission and operations; and

WHEREAS, DU PAGE ETSB Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button has been approved by the DU PAGE ETSB Policy Advisory Committee (“PAC”) as Section 5.2.1; and

WHEREAS, the Board members of DU PAGE ETSB have reviewed Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button which allows for access to DEDIRS talk groups as detailed in Attachment A of this resolution.

NOW, THEREFORE BE IT RESOLVED, that the DU PAGE ETSB Policy 911-005.6: DuPage Emergency Dispatch Interoperable Subscriber Unit System (DEDIRS) Use of Emergency Button, be, and it is hereby adopted.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

______________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
Emergency Telephone System Board
Of DuPage County
Policy and Procedures

Policy #: 911-005.6
Previous Policy(s): ETS-13-001P, Section 4.2.2
Effective Date: April 10, 2018
Revised:

Purpose:
The purpose of this policy is to ensure compliance with State of Illinois STARCOMM21 and DEDIRS requirements for use and access of DEDIRS talk groups for the purpose of interoperability for emergency communications by acknowledging industry standards for definitions, terminology.

Additional Authority:
Public Act 100-002
50 ILCS 750 Emergency Telephone System Act
50 ILCS 751 Wireless Emergency Telephone Safety Act
83 Illinois Administrative Code Part 725
83 Illinois Administrative Code Part 1325.415(m)
OEX-003B-89 Amending Section 40-20 of the DuPage County Code Pertaining to the Emergency Telephone System Board

Goal:
It is the goal of the Emergency Telephone System Board of DuPage County (DuPage ETSB) to provide one seamless method of interoperable communication for use by agencies on DEDIRS for non-member agencies.

Scope:
This policy shall apply to all Public Safety Answering Points (PSAPs) in the DuPage ETSB 9-1-1 System, including all Telecommunicators and other employees of the PSAP, user agencies or DuPage ETSB staff, contracted vendors or other authorized agents, DEDIRS users and agencies receiving approval to access DEDIRS talk groups.

I. Policy Statement

DuPage ETSB leases a portion of the Motorola Solutions, Inc. STARCOMM21 network in Illinois as an integrated component of its emergency dispatch telephone system. The system permits communication between telecommunicators and the first responding personnel they dispatch in response to calls placed to 9-1-1. The system also permits personnel from public safety agencies throughout the County to communicate with each other during emergency joint response situations.

To achieve seamless interoperable communication, standardization of operation and naming conventions are required to ensure that first responders can effectively operate subscriber units while on duty but especially during critical, active incidents when speed and accuracy are critical.

As defined in Policy #: 911-005.5, a “Talk group” is the term given to assigned groups on a trunked radio system. Unlike a conventional radio which assigns users a certain frequency, a trunk system takes a number of frequencies allocated to the system. The control channel then coordinates the
system so talk groups can share these frequencies seamlessly. The purpose is to dramatically increase bandwidth.

Policy 911-005.6 shall deal specifically with the use of the emergency button on the subscriber unit.

II. Emergency Button

DEDIRS utilizes two radio technologies, digital trunked and conventional simplex.

This procedure describes the function of and the appropriate use for the emergency button on DEDIRS portable radios. The objective is the proper use of the emergency button as well as a uniform course of action by all DuPage County PSAPs and field personnel. It is important to note that the emergency button will operate on trunked talk groups, as well on conventional channels, although those channels might not have the equipment in place to monitor this activity. It should be noted the operation of the radio may differ (even slightly) when the emergency button is activated in the STARCOM21 (trunked) mode and the conventional mode.

III. Trunked Talk Groups

The emergency button is used:
- To send an emergency notification when field personnel are in distress, or
- When the user is unable to transmit a verbal emergency message due to heavy radio traffic.

Pressing the Emergency Button on a STARCOM21 Talk group:
- Emergency button activation will display the 6 digit radio identification number, alias name (e.g. ADSN CHF 100) and the talk group name on the radio consoles.
- The affected user’s radio will flash “EMERGENCY” on the radio’s display screen.
- The affected user that activated his or her emergency button will have priority over any other radio transmitting on the same talk group.
- During this time, the radio speaker will remain active, meaning affiliated subscriber units will hear all the radio traffic.
- The policy of wearing an earpiece will be dictated by the officers jurisdiction.

IV. Conventional Channels

The emergency button is used:
- To send an emergency notification when field personnel are in distress.

Pressing the Emergency Button on a conventional channel:
- Emergency button activation will display a 4 digit radio identification number and the frequency name on radio consoles that have that frequency. For example, a dispatch console may display an emergency for primary fire dispatch frequency, but not for fire ground red if that frequency is not monitored by the console.
- The affected user’s radio will flash “EMERGENCY” on the radio’s display screen.
- Once the affected user pushes the Push-to-talk (PTT), some radios (depending on the model) will be able to decode the emergency signal. They might be able to convert the 4 digit radio ID to an alias name if they have the current aliases programmed in their radio.
• The affected user that activated his or her emergency button will be competing with any other radio transmitting on the same channel.

V. Actions to be taken upon receipt of an Emergency Button activation

• The assigned Telecommunicator for a monitored talk group or channel will transmit “William 1 (for instance), you have an E1,” (or similar procedure that the PSAP has established). If the alarm is for a non-monitored talk group, any console Telecommunicator can pull up the alarm window and handle the alarm. The level of activity at the communications center will determine which Telecommunicator handles non-monitored talk group alarms.

• The Telecommunicator should hold the air and attempt to contact the affected user (Police officer, firefighter, or other user). If the user that has activated his/her alarm cannot be reached over the radio after two (2) attempts, the Telecommunicator shall immediately notify the Watch Commander/Shift Supervisor/Incident Commander. The Watch Commander/Shift Supervisor/Incident Commander shall make every effort to contact the affected person by any means necessary. This action shall be taken whether the user is believed to be on duty or not.

• When the PSAP is notified of emergency button activation from a radio belonging to one of their assigned units currently working with an outside PSAP, the home PSAP will immediately advise the outside PSAP of the emergency button activation. The outside PSAP will advise the home PSAP when the activation has been resolved.

• All units assigned to a channel which experience emergency button activation shall remain off the radio, except for emergency communications, until the activation is resolved. If an alternate frequency has been designated by agency policy, all non-affected units and PSAPs shall switch to the alternate frequency leaving the affected unit and PSAP on the original frequency.

• Once the affected user has been successfully contacted by the Telecommunicator, the affected user shall respond and include the word “ACCIDENTAL” in his or her response. If the affected user does not use the word “ACCIDENTAL,” the Telecommunicator should assume that the emergency activation is valid and immediately alert the Watch Commander/Shift Supervisor/Incident Commander who will coordinate the response to the distress call. If the user provides a response which in any way indicates that the signal was “ACCIDENTAL,” (without having to remember the specific phraseology), the Telecommunicator shall announce that the activation is accidental and clear the alarm from the console screen.

• If the location of the affected user is not known, the Telecommunicator shall immediately announce the affected user’s alarm activation and request that any information about his or her last activity or location be relayed to the PSAP.

• Verification activities may vary from agency to agency, but after an activation, the supervisor or his or her designee should confer with the affected user to confirm that he or she is safe.

• Agencies should establish similar policies for field units operating on conventional and/or tactical channels which might not be monitored by dispatch. In these cases, the Watch Commander/Shift Supervisor/Incident Commander is responsible for the activities that would have been handled by the PSAP.
VI. Resetting the Emergency Button Activation

After activation of the emergency button on the APEX radio, the user must reset the button activation, which can be accomplished on one of two ways:

a. The operator can push and hold the orange emergency button for approximately 3 seconds; he or she will hear a tone and the emergency button will reset or

b. Turn off the radio, wait approximately 3 seconds and turn the radio back on; this will reset the radio.

Policy adopted: ________________________________

_____________________________________________

Gary Grasso, Chairman
Policy #: 911-005.6: Emergency Button Activation and Reset

As the senior officer/department for my agency, I hereby acknowledge that the DEDIRS users under my command and/or authority have received and been trained on DuPage ETSB Policy #911-005.6: Emergency Button Activation and Reset.

In addition, going forward, this agency will:

1. On an annual basis review and train on DuPage ETSB Policy #911-005.6: Emergency Button Activation and Reset.

2. Provide a copy of this form annually when training of subscriber users has been complete, including a roster of users using ETSB911@dupageco.org the main DuPage ETSB email.

I understand that the conditions set forth above have been implemented to ensure first responder safety and DEDIRS standardization.

Acknowledged and agreed to this __________ day of __________________, 20____

Signature: ___________________________________________________________

Printed Name and Title: ________________________________________________

Agency: ______________________________________________________________

Date Training was completed: _____________________________

[ ] Subscriber Unit or PSAP Roster Attached
BUDGET TRANSFER FOR THE EMERGENCY TELEPHONE SYSTEM BOARD OF DU PAGE COUNTY FOR FISCAL YEAR 2018

(TOTAL BUDGET TRANSFER: $2,176,999.33)

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB is authorized by law and local ordinance to make disbursements from the 9-1-1 surcharge funds it receives pursuant to law for costs related to products and services necessary for the implementation, upgrade and maintenance of the emergency telephone system; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval for the following Fiscal Year 2018 budget transfers:

<table>
<thead>
<tr>
<th>Amount</th>
<th>From Fund/Object Code</th>
<th>To Fund/Object Code</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>$2,176,999.33</td>
<td>4000-5810-54110:</td>
<td>4000-5810-54100:</td>
<td>Transfer to move the funds from one account code to the other to move the capital portion of the CPE contract for payment</td>
</tr>
<tr>
<td></td>
<td>Equipment and Machinery</td>
<td>IT Equipment</td>
<td></td>
</tr>
</tbody>
</table>

NOW, THEREFORE BE IT RESOLVED, by the DU PAGE ETS Board that the transfer amount of $2,176,999.33 from object code 4000-5810-54110: Equipment and Machinery to object code 4000-5810-54100: IT Equipment, be, and is hereby approved to be made within the indicated object codes.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

GARY GRASSO, CHAIRMAN

Attest: ____________________________________________

PAUL HINDS, COUNTY CLERK
DuPage County, Illinois
BUDGET ADJUSTMENT
Effective September 21, 2016

From: 4000

<table>
<thead>
<tr>
<th>Unit</th>
<th>Account</th>
<th>Sub-Account</th>
<th>Title</th>
<th>Amount</th>
<th>Prior to Transfer</th>
<th>After Transfer</th>
<th>Balance</th>
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</thead>
<tbody>
<tr>
<td>5810</td>
<td>54110</td>
<td></td>
<td>EQUIPMENT AND MACHINERY</td>
<td>$ 2,176,999.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total  $ 2,176,999.33

To: 4000

<table>
<thead>
<tr>
<th>Unit</th>
<th>Account</th>
<th>Sub-Account</th>
<th>Title</th>
<th>Amount</th>
<th>Prior to Transfer</th>
<th>After Transfer</th>
<th>Balance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5810</td>
<td>54100</td>
<td></td>
<td>IT EQUIPMENT</td>
<td>$ 2,176,999.33</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total  $ 2,176,999.33

Reason for Request:
Budget Transfer to move funds from 4000-5810-54110 (Equipment and Machinery) to 4000-5810-54100 (IT Equipment) to move the capital portion of contract 2031-1 for Customer Premise Equipment for the PSAPs for payment [Total Transfer Amount: $2,176,999.33]

Department Head __________________________ Date ____________

Chief Financial Officer ______________________ Date ____________

****Please sign in blue ink on the original form****
BUDGET TRANSFER FOR THE EMERGENCY TELEPHONE SYSTEM BOARD OF DU PAGE COUNTY FOR FISCAL YEAR 2018

(TOTAL BUDGET TRANSFER: $41,181.00)

WHEREAS, the DuPage County Emergency Telephone System Board (“DU PAGE ETSB”) is an emergency telephone system board, established pursuant to Section 15.4 of the Local Government Emergency Telephone System Act, 50 ILCS 750/15.4 (“Act”); and

WHEREAS, the DU PAGE ETSB is authorized and empowered, pursuant to Section 15.4 (b) of the Act to plan, implement, upgrade, and maintain an Emergency 9-1-1 System; and

WHEREAS, the DU PAGE ETSB is authorized by law and local ordinance to make disbursements from the 9-1-1 surcharge funds it receives pursuant to law for costs related to products and services necessary for the implementation, upgrade and maintenance of the emergency telephone system; and

WHEREAS, the 9-1-1 System Coordinator recommends DU PAGE ETS Board approval for the following Fiscal Year 2018 budget transfers:

<table>
<thead>
<tr>
<th>Amount</th>
<th>From Fund/Object Code</th>
<th>To Fund/Object Code</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>$41,181.00</td>
<td>4000-5820-53828:</td>
<td>4000-5820-53310:</td>
<td>Transfer to move the funds from one account code to the other for payment of Meade inner-duct and fiber installation to the DU-COMM 420 PSAP.</td>
</tr>
<tr>
<td></td>
<td>Contingencies</td>
<td>Repair &amp; MTCE</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Infrastructure</td>
<td></td>
</tr>
</tbody>
</table>

NOW, THEREFORE BE IT RESOLVED, by the DU PAGE ETS Board that the transfer amount of $41,181.00 from object code 4000-5820-53828: Contingencies to object code 4000-5820-53310: Repair & MTCE Infrastructure, be, and is hereby approved to be made within the indicated object codes.

Enacted and approved this 10th day of April, 2018 at Wheaton, Illinois.

________________________________
GARY GRASSO, CHAIRMAN

Attest: _________________________________
PAUL HINDS, COUNTY CLERK
## DuPage County, Illinois

**BUDGET ADJUSTMENT**

**Effective September 21, 2016**

### From: 4000

<table>
<thead>
<tr>
<th>Accounting Unit</th>
<th>Account</th>
<th>Sub-Account</th>
<th>Title</th>
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**Total** $ 41,181.00

### To: 4000

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</table>

**Total** $ 41,181.00

### Reason for Request:

Budget Transfer to move funds from 4000-5820-53828 (Contingencies) to 4000-5820-53310 (Repair & MTCE Infrastructure) to furnish and install inner-duct and indoor outdoor fiber to the DU-COMM 420 PSAP [Total Transfer Amount: $41,181.00]

---

**Department Head**

**Date**

**Activity**

*optional*

**Chief Financial Officer**

**Date**

***Please sign in blue ink on the original form***

---

**Finance Department Use Only**

Fiscal Year _______ Budget Journal # _______ Acctg Period _______

Entered By/Date ____________ Released By/Date ____________ Posted By/Date ____________
Mark Thomas
DuPage County
Facilities Manager

Re: DuPage County Fiber Install:

Dear Mark:

We are pleased to provide a lump sum proposal for the above-referenced project.

Our pricing for the following proposal is:

**Seventy-Four Thousand Eight Hundred Thirty-Six Dollars**.......................... $74,836.00

**Scope of Work**

Proposal includes labor, supervision, materials, tools and equipment necessary to furnish and install the telecommunications scope of work per the provided drawings previously mentioned:

1. Furnish and install (directional bore) 1000’ of 4” poly and 1200’ of pull rope.
2. This includes all heavy equipment and materials needed for this install including the 4” poly, mule tape.
3. Core and drill the tunnel at the North-East side.

**Directional Bore Breakout Area #1**................................................................. $27,520.00

1. Furnish and install all required solid 2” inner-duct and all necessary Hoffman junction boxes (with required mounting and coupling materials).
2. Furnish and install 500’ of corrugated 2” inner-duct that will connect to the solid at that point and furnish and install the 1800’ of rope required for the install.

**Area #2 Fiber and Innerduct Breakout Cost** ..................................................... $13,661.00

1. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the 421 building to the 400 building (along with all LIUs and terminating hardware necessary for the completed fiber install).
2. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the 400 building to the 420 building (along with all LIUs and terminating hardware necessary for the completed fiber install).

**Area #3 Fiber and Innerduct Breakout Cost** ..................................................... $20,245.00

1. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the 421 building to the 400 building (along with all LIUs and terminating hardware necessary for the completed fiber install).
DuPage County Fiber Install  
March 14, 2018 (Revised March 30, 2018)  
Page 2 of 2

1. Furnish and install the 2” corrugated inner-duct and the indoor outdoor 24 Strand SM fiber from the DuComm Shelter building to the 420 building (along with all LIUs and terminating hardware necessary for the completed fiber install).
2. Terminate and certify and newly installed fiber.

Area #4 Fiber and Innerduct Breakout Cost ................................................................. $13,410.00

Clarifications

1. All new copper/fiber terminations will be tested on a Fluke DTX 1800.
2. As-built drawings will be issued in PDF format along with hard copies if required.
3. This proposal includes all boring and trenching required.

Exclusions

1. Overtime

General Qualifications

1. This proposal is valid for 30 calendar days from the date of this proposal.
2. This proposal contains a one-year warranty.
3. Permits, sales tax and bonds are not included.
4. Hazard waste handling and disposal is not included.
5. Survey and layout are not included.
6. Liquidated damages or penalties are not included.
7. Owner damages due to schedule delays are not included.

Thank you for the opportunity to prepare this proposal. If you have any questions, feel free to contact me at 708-588-6256 or jgagliardi@meade100.com.

Sincerely,

Jim Gagliardi

Project Executive Technology Division
Direct: 708-588-6256  
Mobile: 312-515-5776  
jgagliardi@meade100.com
ETSB Other Action Item

17-18-33

Four (4) Attendees from DuPage ETSB PSAPs ACDC and DU-COMM to attend National NENA's annual conference in Nashville, TN on June 17-21, 2018 (Total conference amount not to exceed $10,420.00)

<table>
<thead>
<tr>
<th>Name: [REDACTED]</th>
<th>Title:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Department:</strong></td>
<td>ETSB - Emergency Telephone System Board</td>
</tr>
</tbody>
</table>

**Reviewed by and Date Approved**

Eve Kraus
Completed 04/05/2018 5:19 PM

Linda Zerwin
Completed 04/06/2018 2:33 AM

ETSB - Emergency Telephone System Board
Pending 04/10/2018 8:50 AM

Packet Pg. 502
# OVERNIGHT TRAVEL REQUEST

Valid for ALL overnight travel  
Revised 3-14-2017

<table>
<thead>
<tr>
<th>REQUEST DATE:</th>
<th>4/10/2018</th>
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<td>ACCOUNT CODE: 4000-5820-53500/510/610</td>
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**PURPOSE OF TRIP:** (explain fully the necessity of making the trip)

Attending the national NENA conference allows participants the ability to see and hear about critical public safety issues. Attendees participate in seminars allowing them to network with 9-1-1 professionals across the country. Attendees also take part in training sessions allowing them the ability to accumulate continuing education hours. These hours are required to maintain the various certifications necessary for Telecommunicators in the DuPage system, and are not available locally.

| DESTINATION: Nashville, TN |

(Please include a detailed explanation if different from official business dates)

National NENA conference starts early the morning of June 18. It is necessary for attendees to travel the day before to arrive in time.

Please indicate the estimated amount for each applicable expense.

| REGISTRATION: | $599.00 |
| TRANSPORTATION: | $450.00 |
| LODGING | $1,100.00 |
| MISCELLANEOUS EXPENSES (parking, mileage, etc.) | $100.00 |
| RENTAL CAR: (explain fully the necessity) | $0.00 |
| REFERENCE MATERIALS: | $0.00 |
| MEALS: (Per Diems) | $250.00 |
| TOTAL | $2,499.00 |

## REVIEWED BY AND DATE APPROVED:

Department Head: 
(Signature)  
Date: 

Committee Name: 
Date: 

County Board: 
Date: 

Please note: If actual costs exceed the estimates, this form must be re-submitted for approval.
# OVERNIGHT TRAVEL REQUEST

Valid for ALL overnight travel
Revised 3-14-2017

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<table>
<thead>
<tr>
<th>DESTINATION:</th>
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<tr>
<td>DATE OF DEPARTURE:</td>
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<tr>
<td>DATE OF RETURN ARRIVAL:</td>
<td>6/21/2018</td>
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*(Please include a detailed explanation if different from official business dates)*

National NENA conference starts early the morning of June 18. It is necessary for attendees to travel the day before to arrive in time.

**Please indicate the estimated amount for each applicable expense.**

<table>
<thead>
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<th>EXPENSE</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>REGISTRATION</td>
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<td>TRANSPORTATION</td>
<td>$450.00</td>
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<td>LODGING</td>
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<tr>
<td>MISCELLANEOUS EXPENSES (parking, mileage, etc.)</td>
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<tr>
<td>RENTAL CAR: (explain fully the necessity)</td>
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<tr>
<td>REFERENCE MATERIALS</td>
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<tr>
<td>MEALS: (Per Diems)</td>
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<td><strong>TOTAL</strong></td>
<td>$2,499.00</td>
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**REVIEWED BY AND DATE APPROVED:**

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<tr>
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PURPOSE OF TRIP: (explain fully the necessity of making the trip)
Attending the national NENA conference allows participants the ability to see and hear about critical public safety issues. Attendees participate in seminars allowing them to network with 9-1-1 professionals across the country. Attendees also take part in training sessions allowing them the ability to accumulate continuing education hours. These hours are required to maintain the various certifications necessary for Telecommunicators in the DuPage system, and are not available locally.

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<td>DATE OF RETURN ARRIVAL:</td>
<td>6/21/2018</td>
</tr>
</tbody>
</table>

(Please include a detailed explanation if different from official business dates)
National NENA conference starts early the morning of June 18. It is necessary for attendees to travel the day before to arrive in time.

Please indicate the estimated amount for each applicable expense.

| REGISTRATION: | $599.00 |
| TRANSPORTATION: | $450.00 |
| LODGING: | $1,100.00 |
| MISCELLANEOUS EXPENSES (parking, mileage, etc.): | $100.00 |
| RENTAL CAR: (explain fully the necessity) | $0.00 |
| REFERENCE MATERIALS: | $0.00 |
| MEALS: (Per Diems) | $250.00 |
| TOTAL | $2,499.00 |

REVIEWED BY AND DATE APPROVED:

Department Head: ___________________________ Date: ____________
(Signature)

Committee Name: ___________________________ Date: ____________

County Board: ___________________________ Date: ____________

Please note: If actual costs exceed the estimates, this form must be re-submitted for approval.
# OVERNIGHT TRAVEL REQUEST

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**PURPOSE OF TRIP:** (explain fully the necessity of making the trip)

Attending the national NENA conference allows participants the ability to see and hear about critical public safety issues. Attendees participate in seminars allowing them to network with 9-1-1 professionals across the country. Attendees also take part in training sessions allowing them the ability to accumulate continuing education hours. These hours are required to maintain the various certifications necessary for Telecommunicators in the DuPage system, and are not available locally.

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<tr>
<td>DATE OF RETURN ARRIVAL:</td>
<td>6/21/2018</td>
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*Please include a detailed explanation if different from official business dates*

National NENA pre-conference courses start early the morning of June 17. It is necessary for attendee to travel the day before to arrive in time.

**Please indicate the estimated amount for each applicable expense.**

| REGISTRATION: | $698.00 |
| TRANSPORTATION: | $460.00 |
| LODGING | $1,376.00 |
| MISCELLANEOUS EXPENSES (parking, mileage, etc.) | $100.00 |
| RENTAL CAR: (explain fully the necessity) | $0.00 |
| REFERENCE MATERIALS: | $0.00 |
| MEALS: (Per Diems) | $300.00 |
| TOTAL | $2,923.00 |

**REVIEWED BY AND DATE APPROVED:**

| Department Head: | | Date: |
|------------------|--------------------|
| (Signature)      |                    |
| Committee Name:  | | Date: |
| County Board:    | | Date: |

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