1. Call to Order

2. Roll Call

3. Open Communications from the Public

4. Recognition
   A. CadView’s New Name Contest Winner

5. Action Items
   A. Consent Calendar
      1) December 2016 Governing Board Meeting Minutes
      2) December 2016 Accounts Payable Report

6. Old Business
   A. Fire Projects Update
   B. Police Projects Update
   C. E-911 Financial Stability Discussion
   D. PulsePoint Update

7. New Business
   A. Resolution 124 Approving 5th Amendment to Tyler/NWS Licensed Products and Services Agreement

8. Staff Reports
   A. Executive Director
   B. Deputy Director
   C. Police Liaison and Fire Liaison
   D. Human Resources
   E. Finance
   F. Technology

9. Committee Reports
   A. Joint Operating Board
   B. Finance Committee
   C. Strategic Planning Committee

10. Executive Session¹

¹ The Governing Board will hold an Executive Session pursuant to the following:

   • RCW 42.30.110(1)(i) to discuss with legal counsel representing the agency matters relating to agency enforcement actions, or to discuss with legal counsel representing the agency litigation or potential litigation to which the agency, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency;
   • RCW 42.30.110(1)(g) to review the performance of an employee and
   • RCW 42.30.110(1)(f) to receive and evaluate complaints brought against an employee.

The next Governing Board meeting is scheduled for February 10, 2017
**Meeting Minutes**  
**NORCOM Governing Board**  
City of Bellevue, room 1E-108  
December 9, 2016

### MEMBERS:
- Mark Risen  City of Bellevue
- Bob Van Horne  City of Bothell
- Marilynne Beard  City of Kirkland
- Mark Correira  City of Snoqualmie (by phone)
- Jeff Clark  Eastside Fire & Rescue
- Chris Connor  Fire District #27
- Steve Burns  Medina Police
- Ed Holmes  Mercer Island Police
- Jim Torpin  Northshore Fire
- Tommy Smith  Redmond Fire
- Tim Dahl  Shoreline Fire
- Greg Ahearn  Woodinville Fire

### ABSENT:
- Brad Miyake  City of Bellevue
- Bill Archer  Clyde Hill Police
- David Burke  Duvall Fire District #45
- James Knisley  Skykomish Fire District #50
- Jay Wiseman  Snoqualmie Pass Fire & Rescue

### VISITORS:
- Deanna Gregory  Pacifica Law Group
- Michael Olson  City of Kirkland
- Nathan McCommon  City of Bellevue

### NORCOM STAFF:
- Thomas Orr  Executive Director
- Josh Baker  Fire Liaison
- Melissa Crawford  Police Liaison
- Tracey Croisier  Executive Assistant & PIO
- Dee Hathaway  IT Director
- J.R. Lieuallen  Finance Manager
- Mike Mandella  Deputy Director (by phone)
- Ed Whitford  IT GIS
1. Call to Order
The NORCOM Governing Board was called to order by Marilynne Beard, Governing Board Chair, at 9:00 a.m. on December 9, 2016.

2. Roll Call
Chair Beard requested a roll call of present Governing Board members. A quorum was established. Chair Beard welcomed Nathan McCommon, Bellevue’s new deputy city manager.

3. Open Communications from the Public
There were no requests for communication from the public.

4. Employee Recognition
Director Orr recognized Josh Baker’s work at Emerald Heights in Redmond.

Director Orr recognized employees of the quarter: J.R. Lieuallen and Ed Whitford.

5. Action Items
   ➔ Consent Calendar Approved
Chair Beard called for a motion to approve the items on the consent agenda: minutes from the November 4, 2016 Governing Board meeting and the October 2016 accounts payable report.

Bob Van Horne made the motion to approve the consent calendar. Tim Dahl seconded the motion. Motion carried.

6. Old Business
   A. Fire Projects Update
      ➔ Code3 Users Meeting December 8th; Suggested Features Being Implemented
      Additionally, Code3 has asked NORCOM to host a regional users group.

      ➔ eCBD Upgrade in Testing; Production Install Slated for December 12th

      ➔ Locution PCs Replaced in 1Q 2017

      ➔ PulsePoint: SNOPAC Voices Hesitation
Director Orr said he had been in communication with SNOPAC’s director Kurt Mills and clarified that Medic One is not paying SNOPAC legal fees as previously thought.

Director Orr said he communicated NORCOM’s suggested a short list of requirements for entering into an agreement with Medic One’s director Jan Sprake.
Meeting Minutes
NORCOM Governing Board
City of Bellevue, room 1E-108
December 9, 2016

B. Police Projects Update

► **NWS/Tyler Has One Priority 2 issue Outstanding; Fix Appears to be Working**
   Dee Hathaway noted he’s working on module swapping, exhibit Q and 11.x upgrade.

► **NWS Replacement PCs Have Arrived; 95% Deployed**

► **LInX New Interface Shows No Major Problems**

► **Coplogic Scheduled to Go Live January 1st**

C. E-911 Financial Stability Discussion

► **King County IAG to Make Recommendation on Smart911**
   The Director noted IAG will make a recommendation on Smart911 next week. Seattle and King County Sheriff’s Office are in favor of continuing county funding while Redmond and NORCOM are opposed.

   The Director spoke to Seattle’s multi-node project. The project is currently under review as it appears to be much more costly and less secure than previously thought.

   The Director said the county is now projecting a $29 million deficit by 2020.

7. New Business

► **Resolution 122 Approved**
   Chair Beard called for a motion to approve resolution 122, which authorizes NORCOM’s executive director to enter into contract negotiations for a facility needs assessment.

   Mark Risen made the motion to approve resolution 122. Ed Holmes seconded the motion. Motion carried.

► **Resolution 123 Approved**
   Chair Beard called for a motion to approve resolution 123, which calls for adopting the 2017 final budget.

   Steve Burns made the motion to approve resolution 123. Greg Ahearn seconded the motion. Motion carried.
8. Staff Reports
There were no additional comments or questions regarding the staff reports.

The Director noted the services for Tacoma Police Officer Reginald Gutierrez to be held this afternoon. NORCOM sent flowers and cards to both Tacoma Police and South Sound 911.

The Director noted there was an 800 MHz outage earlier this week; EPSCA board reviewing.

9. Committee Reports
There was no discussion regarding committee reports.

10. Executive Session
There was no executive session.

The Governing Board meeting was adjourned at 10:05 a.m.

Approved by:

_________________________________________________
Chair

Attest: ___________________________________________
Secretary
I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered or the labor performed as described herein, that any advance payment is due and payable pursuant to a contract or is available as an option for full or partial fulfillment of a contractual obligation and that the claim is a just, due and unpaid obligation against NORCOM, and that I am authorized to authenticate and certify said claim.

Michael Olson, Treasurer

Date

We, the undersigned NORCOM Board Members, do hereby certify that claims in the amount detailed above are approved.

Date

Date
# Accounts Payable

## Checks by Date - Detail by Check Date

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Printed: 1/5/2017 1:35 PM

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Total for this ACH Check for Vendor 134: 1,714.82

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16519 167 MELISSA VIETH 12/02/2016 40.50

ACH 134 COLONIAL LIFE 12/07/2016 1,714.82

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Total for Check Number 16590: 8,871.75

Total for 12/30/2016: 8,871.75

Report Total (88 checks): 1,366,817.48
North East King County Regional Public Safety Communication Agency

Resolution No. 124

A RESOLUTION OF THE GOVERNING BOARD OF NORCOM APPROVING A FIFTH AMENDMENT TO THE LICENSED PRODUCTS AND SERVICES AGREEMENT BETWEEN NORCOM AND TYLER TECHNOLOGIES, INC.

BE IT RESOLVED by the Governing Board of NORCOM, as follows:

SECTION 1. RECITALS AND FINDINGS.

1.1 North East King County Regional Public Safety Communication Agency (“NORCOM”) is a consolidated, regional public safety communications center serving police, fire, and emergency medical service providers in northeast King County. NORCOM entered into a Licensed Products and Services Agreement dated December 10, 2008 (the “License Agreement”) with New World Systems Corporation. Tyler Technologies, Inc., a Delaware corporation (“Tyler”) is the successor to New World Systems Corporation as party to the License Agreement.


1.3 The Parties are working toward closeout of the License Agreement. Negotiations have addressed a number of issues, including but not limited to removal or limiting certain modules (applications) to reduce license and maintenance fees payable by NORCOM; and, addition of certain desired modules (applications) to further NORCOM’s mission. A Fifth Amendment has been prepared to include, among other provisions, the removal, reduction or addition of certain modules (applications); conditions and a process for payment of the final Police Project Payment (payments for the remainder of the Police Software, Service Payment Task P29, and Service Payment for Police Final Acceptance); and, release and implementation of Version 11 of Licensed Software now known as “New World Public Safety.”

1.4 Except as expressly provided by the Fifth Amendment, all terms and conditions of the License Agreement remain unchanged and in full force and effect.

SECTION 2. FIFTH AMENDMENT APPROVED. NORCOM authorizes and approves the Fifth Amendment to the License Agreement, substantially in the form
attached to this Resolution. The Executive Director is authorized to execute the Fifth Amendment, for and on behalf of NORCOM.

SECTION 3. FURTHER AUTHORITY; PRIOR ACTS. All NORCOM officials, their agents, and representatives are hereby authorized and directed to undertake all action necessary or desirable from time to time to carry out the terms of, and complete the transactions contemplated by, this Resolution. All acts taken pursuant to the authority of this Resolution but prior to its effective date are hereby ratified and confirmed.

SECTION 4. EFFECTIVE DATE. This Resolution shall take effect immediately upon its passage and adoption.

Passed by a majority vote of the Governing Board in an open meeting on this 13th day of January, 2017.

Signed in authentication thereof on this ____ day of January, 2017.

______________________________
Chair

Attest: _____________________________
Secretary
FIFTH AMENDMENT TO
LICENSED PRODUCTS AND SERVICES AGREEMENT

1. AMENDED AGREEMENT. This Fifth Amendment to the Licensed Products and Services Agreement (“Amendment”) is entered into on the Effective Date by and between Tyler Technologies, Inc., a Delaware corporation (“Tyler”) and North East King County Regional Public Safety Communication Agency, a Washington not for profit corporation and instrumentality of its member governments (“NORCOM”). Tyler and NORCOM are each a “Party” and collectively the “Parties” to this Amendment. The Parties agree as follows.

2. RECITALS.

2.1 Tyler is the successor to New World Systems Corporation as a party to a Licensed Products and Services Agreement dated December 10, 2008 (the “License Agreement”). Under the License Agreement, NORCOM was granted licenses in certain software (the “Licensed Software”), including Aegis® CAD Enterprise.NET; Aegis® Law Enforcement Records Software; Aegis® Public Interface Software; and others. The Licensed Software is more particularly described in the License Agreement. The Licensed Software is now known as “New World Public Safety.”


3. LICENSE AGREEMENT AMENDED. The License Agreement, as amended (collectively, the “License Agreement”) is further amended as set forth in this Amendment. Capitalized terms used in this Amendment and not defined in this Amendment shall have the meanings given to them in the License Agreement.

4. NOTICES. Under License Agreement Section 16, the addresses for notices required under this Agreement are modified as follows:

  NORCOM
  Attention: Executive Director
  Bellevue City Hall
  P. O. Box 50911
  Bellevue, WA 5091
  FAX: (425) 577-5701
  
  Copy to: NORCOM
  Attention: Secretary
  Bellevue City Hall
  P. O. Box 50911
  Bellevue, WA 50911
  FAX: (425) 577-5701
Additionally, the contact information for Tyler management is updated as follows:

**Vice President, Software Strategy and Development**, Brian Leary

**Vice President of Client Success**, Erin Miller

**Vice President, Professional Services**, Kevin Flynn

**Senior Vice President, Public Safety Division**, Bryan Proctor

**President of Public Safety Division**, Greg Sebastian.

5. **LICENSES AND SERVICES ADDED.**

5.1 The applications, licensed software and services in Amendment Exhibits 1 and 2 (Parts A and B) are added to the License Agreement.

5.2 The additional fees for the additions under this Amendment Section 5 for Exhibit 1 shall be invoiced (100%) on the Amendment Effective Date. Associated maintenance and support fees are added to the Standard Software Maintenance Agreement (at License Agreement Exhibit C, “SSMA”) and will be invoiced on a pro rata basis beginning on the first day of the month following the Amendment Effective Date, and thereafter in a lump sum amount together with NORCOM’s existing schedule for SSMA payments. In the event NORCOM requests or requires additional services beyond those set forth in Exhibit 1, Tyler will provide a quote for those services to NORCOM at Tyler’s then-current rates. The rates set forth in the quote will be valid for thirty (30) days. If NORCOM desires to procure the quoted services, Tyler will provide them according to a mutually agreeable addendum or Tyler purchase order.

5.3 The following payment terms apply under this Amendment Section 5 for Exhibit 2 upgrades:

5.3.1 Implementation and other professional services (including training) are included at no charge.

5.3.2 Third Party Software License Fees: License fees for Third Party Software are included at no charge.

5.3.3 Travel expenses shall be invoiced as incurred, as applicable.
6. LICENSES AND FEES MODIFIED.

6.1 The Licensed Standard Software listed in Exhibit A to the License Agreement and the license and maintenance fees under the License Agreement, including Exhibits AA and A thereto, are modified to remove or limit the following modules (applications):

- Pawn Shops (remove)
- Gang Tracking (remove)
- Netclock Serial Interface (remove)
- Encoder Interface (remove)
- Pictometry Interface (remove)
- Activity Reporting and Scheduling (Corrections) (remove)
- In-Car Routing (remove)
- JL Interface Operability Engine for Aegis Link (remove)
- MDT/MCT Base CAD/RMS Interface for MSP (reduce to 101-150)
- Field Reporting Server (reduce to 101-150)
- Field Reporting Data Merge (reduce to 101-150)
- Mobile Upload Software (reduce to 101-150)
- Base Message Switch to NCIC (reduce to 101-150)
- New World CAD Interface for Aegis/MSP (reduce to 101-150)
- AVL Interface (reduce to 101-150)
- Narcotics Management (remove)
- On-line Pawn Shops Interface to State/NCIC MSP (remove)
- Web Inmate Inquiry (remove)
- MCT Ticket Writer Interface (remove)

In addition, the site license is hereby reduced from 1,500 licenses to 400 licenses.

6.2 If NORCOM requests maintenance on an application or license count that has been removed under this Amendment, then NORCOM shall pay the lower of the following to resume the maintenance plan: The maintenance fees that would have been charged had NORCOM not entered this Amendment or the non-discounted license fees to repurchase the application or add to the license count.

6.3 The SSMA payments are reduced for the removed and reduced applications set forth in this Amendment Section 6, and a credit is granted against future NORCOM payments for previous NORCOM maintenance payments to Tyler for the removed and/or reduced applications, prorated from the first day of the month following the Amendment Effective Date, through April 30, 2017, the date maintenance is currently paid through.
7. **NEW RELEASE, TESTING AND ACCEPTANCE.**

7.1 Within thirty (30) days of NORCOM’s written notice to Tyler, Tyler shall commence the delivery and deployment of the then-current Version 11 release of the “New World public safety solution,” as more fully documented in Amendment Exhibit 2, Part B.

7.2 NORCOM shall proceed with acceptance testing of the Version 11 release. After NORCOM begins Live Operations of the Version 11 release, Amendment Section 8.2 applies.

8. **LICENSE AGREEMENT PAYMENTS BY NORCOM; EXHIBIT Q.**

8.1 The Settlement Agreement provides conditions and a process for payment of the final Police Project Payment (payments for the remainder of the Police Software, Service Payment Task P29, and Service Payment for Police Final Acceptance) under the License Agreement. One condition is a reconciliation of License Agreement Exhibit Q through a process acceptable to each Party. That final reconciliation and acceptance process is defined as follows.

8.2 Following completion of the Version 11 release as detailed in this Amendment, P1 or P2 defects that remain or arise during a one hundred twenty (120) day-period after NORCOM Live Operations of Version 11 shall be resolved by Tyler. In the event P1 or P2 defects remain unresolved within the initial one hundred twenty (120) day period of Live Operations, such defects shall be resolved by Tyler before the requirements of Exhibit Q shall be deemed met.

8.3 Following correction of all P1 and P2 defects consistent with Addendum Section 8.2, NORCOM shall have twenty-eight (28) calendar days for further testing and confirmation that such corrections remain effective. P1 or P2 defects arising within the twenty-eight (28) calendar period shall be resolved by Tyler. After twenty-eight (28) continuous calendar days without a P1 or P2 defect, the requirements of Exhibit Q shall be deemed met without exception and for all purposes, and NORCOM shall remit the payment detailed in Settlement Agreement Section 6.4 to Tyler within seven (7) calendar days. Thereafter, defects will be addressed through the SSMA, and shall have no impact as to timing of payment obligations under this Amendment without exception and for all purposes.

9. **NO OTHER CHANGES.** Except as expressly provided by this Amendment, all terms and conditions of the License Agreement shall remain unchanged and in full force and effect. To the extent any of the terms or conditions of the License Agreement conflict with any of the terms or conditions of this Amendment, this Amendment shall control.

10. **MISCELLANEOUS.** There are no oral or side agreements between New World and NORCOM affecting this Amendment; and this Amendment contains the entire agreement of the parties with respect to the subject matter herein contained. This Amendment may not be modified or amended except by a writing executed by New World and NORCOM. This Amendment may be executed in counterparts, all of which shall constitute one and the same agreement. This Amendment shall be governed by and construed according to the laws of the State of Washington.
11. EFFECTIVE DATE. This Fifth Amendment shall take effect and be in force (the “Effective Date”) on the date of the last signature, below.

ACKNOWLEDGED AND AGREED TO BY:

TYLER TECHNOLOGIES, INC. (Tyler)                      NORTH EAST KING COUNTY REGIONAL PUBLIC SAFETY COMMUNICATION AGENCY (NORCOM)

By: ____________________________                  By: ____________________________
Greg Sebastian, President                  Tom Orr, Executive Director
Public Safety Division

Date: ______________________________     Date: ______________________________
EXHIBIT 1 to 5th AMENDMENT TO NORCOM – TYLER LICENSE AGREEMENT

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>INVESTMENT</th>
</tr>
</thead>
</table>
| LAW ENFORCEMENT RECORDS | 1. New World Third Party LE Records Interface Software  
   - On-Line Modules  
     - includes state-specific standard forms  
     - On-Line Orders of Protection Interface to State/NCIC | 22,000 |
| | | SUB-TOTAL RECORDS MODULES | $22,000 |
| DECISION SUPPORT SOFTWARE | 2. Law Enforcement Management Data Mart (CAD, RMS)  
   - includes 10+ users | 26,000 |
| | Dashboards for Law Enforcement | 28,000 |
| | SUB-TOTAL DECISION SUPPORT MODULES | $54,000 |
| MOBILE CLIENT SOFTWARE | 3. New World Field-Based Reporting Software (120 Units)  
   - Field-Based Reporting  
     - Field Investigation Field Reporting (1 Form)  
     - 100 ea. | 12,000 |
| | | SUB-TOTAL MOBILE MODULES | $12,000 |
| NET NEW WORLD SOFTWARE LICENSE FEE | | $88,000 |
| LESS CUSTOMER LOYALTY SOFTWARE DISCOUNT | | (88,000) |
| TOTAL TYLER SOFTWARE LICENSE FEES DUE | | 0 |
### D. PROFESSIONAL SERVICES

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>INVESTMENT</th>
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<tbody>
<tr>
<td>PROFESSIONAL SERVICES</td>
<td></td>
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<tr>
<td>1. Up to 5 days of REMOTE Implementation and Training Services are included for:</td>
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<tr>
<td>- Software Tailoring and Set Up</td>
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<td>- User Education and Training</td>
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<td>- Other Technical Support</td>
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<td>- Travel Time Included</td>
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<td>* Assumes train-the-trainer approach, with the exception of CAD, which is end user training</td>
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<tr>
<td>2. Fixed Installation Service Fees (REMOTE)</td>
<td></td>
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<tr>
<td>- On-Line Orders of Protection Interface to State/NCIC</td>
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</tbody>
</table>

| TOTAL IMPLEMENTATION SERVICES | $0 |
| TOTAL ONE TIME COST | $0 |

### C. MAINTENANCE AND SUPPORT FEES

<table>
<thead>
<tr>
<th>ITEM DESCRIPTION</th>
<th>INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. MAINTENANCE AND SUPPORT AGREEMENT (Year 1 Cost):</td>
<td></td>
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<tr>
<td>Associated Maintenance and Support fees will be added to the Client’s current Maintenance and Support Agreement and will be invoiced on a pro rata basis beginning on the first day of the month following Amendment Effective Date, and thereafter in a lump sum amount together with Client’s then-current maintenance and support fees for previously licensed software.</td>
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</table>

Year 1 Maintenance: $18,480

**PRICING VALID THROUGH DECEMBER 31, 2016.**
Pricing Assumptions

Personal Computers must meet the minimum hardware requirements for New World products. Microsoft Windows 7/8 or later is required for all client machines. Windows 2008/2012 Server and SQL Server 2008/2012 are required for the Application and Database Server(s).

New World product requires Microsoft Windows 2008/2012 Server and SQL Server 2008/2012 including required Client Access Licenses (CALs) for applicable Microsoft products. Servers must meet minimum hardware requirements provided by Tyler.

New World product requires Microsoft Excel or Windows Search 4.0 for document searching functionality; Microsoft Word is required on the application server for report formatting.

Tyler recommends a 100/1000ME (GB) Ethernet network for the local area network. Wide area network requirements vary based on system configuration. Tyler will provide further consultation for this environment.

Does not include any required 3rd party hardware or software unless specified in Section C of this Investment Summary. Customer is responsible for any 3rd party support.

Licensed Software, and third party software embedded therein, if any, will be delivered in a machine readable form to Customer via an agreed upon network connection. Any taxes or fees imposed are the responsibility of the purchaser and will be remitted when imposed.

Tyler’s GIS implementation services are to assist the Customer in preparing the required GIS data for use with the Licensed New World Software. Depending upon the Licensed Software the Customer at a minimum will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard Esri file format (Personal Geodatabase, File Geodatabase, Shape Files). Customer is responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary Tyler will assist Customer in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. Tyler is not responsible for the accuracy of any ongoing maintenance of the GIS data used within the Licensed New World Software.

Customer is responsible for any ongoing annual maintenance on third-party products, and is advised to contact the third-party vendor to ensure understanding of and compliance with all maintenance requirements.

All Tyler Customers are required to use Esri’s ArcGIS Suite to maintain GIS data. All maintenance, training and ongoing support of this product will be contracted with and conducted by Esri. Maintenance for Esri’s ArcGIS suite of products that are used for maintaining Customer’s GIS data will be contracted by Customer separately with Esri.

Configuration and end user training for Decision Support Software to occur after Customer has been live for 3 months or longer on an application.
EXHIBIT 2 to 5th AMENDMENT TO NORCOM – TYLER LICENSE AGREEMENT

PART A

<table>
<thead>
<tr>
<th>A. PROFESSIONAL SERVICES</th>
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<tbody>
<tr>
<td>ITEM</td>
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<td>PROFESSIONAL SERVICES</td>
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<td>1.</td>
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**TOTAL IMPLEMENTATION SERVICES** $0

<table>
<thead>
<tr>
<th>B. THIRD PARTY PRODUCTS AND SERVICES</th>
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<tbody>
<tr>
<td>ITEM</td>
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<tr>
<td>1.</td>
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**TOTAL THIRD PARTY PRODUCTS AND SERVICES** $0
### C. TRAVEL AND LIVING EXPENSES (Estimate)

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
<th>INVESTMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>TRAVEL AND LIVING EXPENSES (Estimate)</td>
<td>$22,000</td>
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<tr>
<td></td>
<td>Estimated 11 trips at $2,000 per trip.</td>
<td></td>
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</tbody>
</table>

**TOTAL ONE TIME COST**

$22,000

---

**PRICING VALID THROUGH DECEMBER 31, 2016.**

**Pricing Assumptions**

Personal Computers must meet the minimum hardware requirements for New World products. Microsoft Windows 7/8 or later is required for all client machines. Windows 2008/2012 Server and SQL Server 2008/2012 are required for the Application and Database Server(s).

New World product requires Microsoft Windows 2008/2012 Server and SQL Server 2008/2012 including required Client Access Licenses (CALs) for applicable Microsoft products. Servers must meet minimum hardware requirements provided by Tyler.

New World product requires Microsoft Excel or Windows Search 4.0 for document searching functionality; Microsoft Word is required on the application server for report formatting.

Tyler recommends a 100/1000MB (GB) Ethernet network for the local area network. Wide area network requirements vary based on system configuration, Tyler will provide further consultation for this environment.

Does not include any required 3rd party hardware or software unless specified in Section C of this Investment Summary. Customer is responsible for any 3rd party support. Licensed Software, and third party software embedded therein, if any, will be delivered in a machine readable form to Customer via an agreed upon network connection. Any taxes or fees imposed are the responsibility of the purchaser and will be remitted when imposed.

Tyler's GIS implementation services are to assist the Customer in preparing the required GIS data for use with the Licensed New World Software. Depending upon the Licensed Software the Customer at a minimum will be required to provide an accurate street centerline layer and the appropriate polygon layers needed for Unit Recommendations and Run Cards in an industry standard Esri file format (Personal Geodatabase, File Geodatabase, Shape Files). Customer is responsible for having clearly defined boundaries for Police Beats, EMS Districts and Fire Quadrants. If necessary Tyler will assist Customer in creating the necessary polygon layers (Police Beats, EMS Districts and Fire Quadrants) for Unit Recommendations and Run Cards. Tyler is not responsible for the accuracy of or any ongoing maintenance of the GIS data used within the Licensed New World Software.

Customer is responsible for any ongoing annual maintenance on third-party products, and is advised to contact the third-party vendor to ensure understanding of and compliance with all maintenance requirements.

All Tyler Customers are required to use Esri's ArcGIS Suite to maintain GIS data. All maintenance, training and ongoing support of this product will be contracted with and conducted by Esri. Maintenance for Esri's ArcGIS suite of products that are used for maintaining Customer's GIS data will be contracted by Customer separately with Esri.
EXHIBIT 2 to 5th AMENDMENT TO NORCOM –TYLER LICENSE AGREEMENT – PART B
Activity Plan for New World Public Safety Solution Upgrade to Version 11 and esri® 10.2 (NOR1463 – 0613)

Goal:
The goal of the technical activities defined by this implementation planning document is to complete a server deployment to support the client’s New World public safety solution on a new set of Microsoft® Windows® servers utilizing Microsoft Windows 2012 (R2) Server and SQL Server® 2012. The technical portion of this implementation will be successfully completed once a new set of servers are deployed utilizing a version 11 release of the New World public safety solution, updated Microsoft software and esri 10.2 components.

Client Responsibilities – Deployment

- Build out virtual environment including the installation of all supporting hardware components, host servers and all defined virtual servers. The host operating system should be the Windows 2012 (R2) version.
- Install Windows 2012 Server (R2) along with all service packs and critical updates for each virtual server.
- The virtual servers must meet or exceed the following minimum hardware specifications:
  - CAD Enterprise Server
    - 4 vCPUs
    - 16GB Memory
    - 100GB Virtual Disk (OS)
    - Windows Server 2012 (R2) - Standard Edition
  - Aegis Application Server
    - 4 vCPUs
    - 8GB Memory
    - 100GB Virtual Disk (OS)
    - 5000GB Virtual Disk (Estimate - File Storage)
    - Windows Server 2012 (R2) - Standard Edition
  - Mobile Server
    - 2 vCPUs
    - 8GB Memory
    - 100GB Virtual Disk (OS)
    - Windows Server 2012 (R2) - Standard Edition
  - Database Server
    - 4 vCPUs
    - 16GB Memory
    - 100GB Virtual Disk (OS)
    - 500GB Virtual Disk (SQL) (Estimate – Database)
    - Windows SQL Server 2012- Standard Edition
    - Windows Server 2012 (R2) - Standard Edition
Production Environment (Continued)

Decision Support Server
- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- 100GB Virtual Disk (SQL) (Estimate – Database)
- Windows SQL Server 2012- Standard Edition
- Windows Server 2012 (R2) - Standard Edition

GIS Server
- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition

Interface Server (AJL)
- 4 vCPUs
- 16GB Memory
- 100GB Virtual Disk (OS)
- 100GB Virtual Disk (Estimate - Data Transfer Drive)
- Windows Server 2012 (R2) - Standard Edition

Enterprise Security Server
- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition

Test/Train Environment

CAD Enterprise Server
- 2 vCPUs
- 8GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition

Aegis Application Server (Host ESS)
- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- 500GB Virtual Disk (Estimate - File Storage)
- Windows Server 2012 (R2) - Standard Edition

Mobile Server
- 2 vCPUs
- 4GB Memory
- 100GB Virtual Disk (OS)
- Windows Server 2012 (R2) - Standard Edition
• Provide licensed copies of SQL Server 2012 and Microsoft Office (or Word and Excel) for deployment.
• ArcGIS Desktop Editor® 9.3.1 installed and accessible on a client to support version 10 of the New World public safety solution.
• ArcGIS Desktop Standard® (version 10.2.x or 10.3) installed and accessible on a client to support version 11 of the New World public safety solution.
• Provide Tyler with remote access to all servers for configuration, installation, deployment and go-live support services.
• Provide IT/networking staff to assist Tyler staff assigned to this project.
• Implement and test all virus protection and back-up strategies for host and virtual servers.
• Meet or exceed Tyler storage area network (SAN) requirements for the proposed environment (if any are defined).
• Provide a Lantronix device for serial cable connection to a virtual server (E911, Tone Encoder, etc.).
• Static IP addressing is required for each server. All IP addresses must be unique and cannot be utilized in the current environment.
• Servers must be deployed with a unique name and that name cannot be utilized in the current environment. Server names must be 14 characters or less.
• Inform Tyler project manager if the current New World public safety solution includes:
  o Custom geo rules for address verification
  o CAD AVL Playback
  o Civil module
  o Permits module
• Identify if test environment is to be built using production databases and File Storage directory or existing test databases and File Storage directory.
• Provide appropriate licensed Microsoft and other third party components for deployment.
• Download all required New World public safety solution installation files to a local network location prior to the start of the server migration and upgrade work.
• Provide end user communications regarding project timelines, execution and performance.
• Prior to production system upgrade, client should provide adequate staffing and management guidance to test New World public safety solution for performance and functionality.
• Provide staff with appropriate training on the use of new features and functionality within the updated version of the New World public safety solution.

**Tyler Responsibilities - Deployment**

1. Refine and update esri components.
2. Confirm hardware components and operating system installations are appropriately configured for installation of the New World public Safety solution.
3. Install SQL Server 2012 application.
4. Install New World public safety solution server components.
5. Migrate database components.
6. Configure servers to operate with esri and database components.
7. Implementation of required interfaces
8. Build duplicate environment as test system.
9. Provide appropriate technical services to migrate system to new production system (server support, esri and interfaces)
10. Provide appropriate professional services to support training and go-live efforts for updated application (CAD Enterprise, LERMS, CMS and Mobile/Field Reporting)
11. Commitment to follow Tyler’s best practices for the implementation.

Documentation Responsibilities

Tyler will provide a standard set of pre and post-trip documentation for this project. The purpose of this documentation is to document the following:

- Planned activities for on-premises or remote installation services as detailed in pre-trip report.
- Overall project activities completed as detailed in post-trip report.
- Server configuration information as detailed in post-trip report.

At the conclusion of the server deployment agency staff will be provided with an overview of administrative and operation processes. As a collaborative effort, documentation for administration and operation of the servers hosting the New World public safety solution will be generated during this overview.

Deployment Notes

- Tyler will complete an application upgrade to a New World public safety solution 11.x release of the software as part of the overall deployment activities. This upgrade will be in the new environment and the current production environment will not be upgraded past a New World public safety solution 10.x release.
- Server builds can be completed as either on-premises or remote activity depending on the complexity of the system and client’s direction. In this case, Tyler will be completing these services remotely.
- The client will need to have technical resources available throughout Tyler’s engagement on this project. These resources will not have to be directly involved with every activity performed by Tyler but, at times, their assistance will be required to continue to execute project activities.
- This project assumes that there will be no significant changes to the client’s current network architecture.
- Client staff will be required to participate in all administrative overview and training sessions for knowledge transfer regarding the system. During these sessions, administrative and operational procedures for server management should be documented by client team in collaboration with Tyler staff.
There is a 3 hour time difference between client and Tyler’s Michigan location. Time sensitive events will require a coordination of efforts between all parties to maintain the project schedule with minimal impact to users.

**Tentative Plan of Schedule Activity**

The tentative order of events for this project includes:

**System Build Activities**

1. GIS planning meeting for version 11.x upgrade project (Tyler and client)
2. Technical planning/review meeting for New World public safety version 11.x upgrade project (Tyler and client)
3. Virtual system build (Client)
   - Host server
     - i. Install host OS
   - ii. Deploy required virtual servers
4. GIS data preparation (Tyler)
   - New World public safety solution version 11
5. Installation of core servers required for CAD Enterprise and New World public safety solution (Tyler)
   - Installation of GIS server
   - Installation of GIS data
   - Installation of SQL Server
   - Installation of CAD Enterprise servers (test and production)
   - Installation of New World public safety solution servers (test and production)
   - Copy of data
   - Review system configuration with client
6. Installation of mobile servers (Tyler)
   - Production
   - Test
   - Review system configuration with client
7. esri data management overview (Tyler and client)
8. Interface migration (Tyler)
9. Application Update/Refresher Training (Tyler and client)
   - CAD Enterprise
   - LERMS\CMS
   - Mobile/Field Reporting
10. Application testing (Client)
System Go-live Activities

1. System assurance go-live readiness review (Tyler and client)
2. Go-live data migration preparation (Tyler)
   - Initial File Storage move
3. Go-live (Tyler and client) – Estimated downtime associated with this event is two to four hours. Unique client situations may vary.
   - Data Migration
     - Move database
     - Final File Storage move
   - New World public safety client upgrade to version 11.x (Client)
   - Final Interface configuration/go-live support
   - Final esri configuration
   - Final Mobile configuration/go-live support
   - Application go-live support
     - CAD Enterprise
     - LERMS
     - CMS
4. Post go-live support (Tyler and client)
   - CAD
   - LERMS
   - Mobile\Field Reporting

NOTES:
- Additional information regarding the general deployment of the New World public safety solution can be found in the Technical Services Implementation Reference Guide.
- Additional information regarding release specific technical information can be found in the appropriate Hardware and Software Prerequisite guide.
MEMORANDUM

To: Governing Board
From: Tom Orr, Executive Director
Date: January 3, 2016
Subject: General Update – Governing Board Meeting – January 13, 2016

1. NORCOM Response to Tragic Loss of Tacoma Police Officer Reginald “Jake” Gutierrez

The Tacoma Chief of Police and South Sound 911 Director both expressed their personal appreciation for NORCOM’s efforts to console and support their agencies following the tragic loss of Officer Reginald “Jake” Gutierrez.

2. King County E-911 Ordinance

The Interim Advisory Group (IAG) met on December 14. Key points from the meeting:

- **Recommendation to Stop Funding Smart 911 by end of 2017**: 3 of 4 members voted to recommend the E-911 terminate funding for Smart 9-1-1 by the end of 2017. Total biannual budgeted cost for Smart 911 is $1.2 million. Five of 12 PSAPs in King County are currently operational with Smart911.
  - KC SO moved to recommend that the E-911 continue to fund Smart911 at the five PSAPs currently using it through the end of 2017. This would allow time for those PSAPs to seek alternate funding sources. KCSO’s motion also included a stipulation that the E-911 Program Office assist with community notification if the PSAPs need to discontinue Smart911.
  - Redmond, NORCOM and KCSO voted in favor.
  - Seattle PD opposed the proposal on the basis that the value of the program was worth the cost and the county needs to seek other ways to cut the budget.
  - SPD and KCSO asked for deployment of Text-to-911 in 2017 to offset impacts in particular to the hearing loss and deaf community.

- **IAG Leadership in 2017**:
  - Jessica Sullivan from KCSO will serve as IAG Chair in 2017
  - Sheryl Mullen from Redmond will serve as IAG Vice-Chair in 2017

- **Discussion of Revenue Distribution**:
  - Laura Pitarys from the E-911 office reviewed the current escrow revenue distribution formula. She noted that the formula is currently complicated and time-consuming. There was a general discussion about the lack of clarity on how the formula was originally derived.
Tom Walsh from Seattle Fire noted that the Finance Task Force would be more suited to looking at the appropriate PSAP share of E-911 surcharge taxes (currently estimated at $5.8 million) while the IAG should recommend the formula on how the PSAP portion should be distributed.

Kayreen Lum from the E-911 office noted that there are separate buckets of money for general reimbursement vs. equipment reimbursement. She asked whether it would be easier to have one bucket?

There was a discussion about using call volume as a way to derive a formula for escrow distribution. Brian Smith from SPD noted that emergency calls are defined differently at each PSAP. Tom Orr pointed to widening of dispatch boundaries, such as the approach utilized in Maricopa County.

There was a consensus that call volume, population and APCO-defined standards would all be good starting points to research. It was suggested that PSAPs research and bring new ideas to the next IAG meeting.

The IAG and E-911 office agreed that any change in actual distribution needs to come with significant advanced notice so that PSAPs can include changes in their budget planning cycles. The E-911 office was thinking the changes to distribution could still be made for 2017. The IAG noted that PSAP 2017 budgets were already set and that any change in distribution for 2018 would need to be agreed to within the first quarter of 2018. The E-911 office understood these constraints.

The IAG will next meet on January 11, 2016.

The Strategic Planning Process continues with the Planning Group, Technology Task Force, and the Finance Task Force having held meetings since the last NORCOM Governing Board meeting.

The Leadership Group will meet on January 19 to review a draft report. The current version of the draft report is attached. Significant edits are expected before the draft is ready for the January 19 meeting.

Planning Group: The Planning Group met on December 19th and will meet again on January 9. The current version of the draft report for the January 19 Leadership Group is attached.

Governance Task Force: The Governance Task Force has not met since its meeting of November 10 that was previously reported.

Technology Task Force: At its meeting on December 16, 2016, the Task Force continued development of technology principles. A draft is attached. In summary, the principles are as follows:

- Public Safety Principle: Ensure service exists that protects he public’s safety above all else
- Capacity Principle: System Capacity should meet peak demands without service interruption
- Fair & Equitable Principle: Provide fair and equitable access so that all communities can receive and perceive value
- Security Principle: All systems and solutions should meet minimum level of security defined
- Availability Principle: Solutions should be available at all times without service interruption
- Cost Effectiveness Principle: Financial decisions should be based on most cost-effective solutions consistent with documented needs
- Convergence Principle: We should converge toward common solutions, approaches and standards
- Interoperability Principle: Software and hardware should conform to defined standards that promote interoperability for data, applications and technology
- The Task Force will meet again on January 6 and January 20
  - **Finance Task Force**: The Finance Task Force met on December 8. The Task Force’s draft Discussion Brief and E-911 office’s proposed 2017-18 Financial Plan is attached. The Finance Task force will meet again on January 26. Detailed spreadsheets of financial data are available upon request to the NORCOM Director.

3. **January 25: King County IT Director Bill Kehoe and Staff Tour of NORCOM**
   - Bill Kehoe accepted the NORCOM Director’s invitation for him and his staff to tour NORCOM and receive a briefing on NORCOM PSAP operations.

4. **PulsePoint**

   A meeting is scheduled with KC Councilmember Lambert, Medic One Foundation, King County EMS, NORCOM staff and several NORCOM Board members on January 9. The meeting will be posted because multiple Board members will be present.

5. **Facilities Study Update**

   NORCOM is in contract negotiations with the vendor.
Planning Group
December 19, 2016

Next Meeting:
January 9\textsuperscript{th}, 1:30 – 3:30
Location: Room 110 Main Terminal Building
Today's Agenda

- Introductions
- Strategic Plan Process Update
  - Timeline & Milestones
- Issue Brief — FINAL APPROVAL
  - Core Services as Mission
  - Task Force edits
- T&O Task Force Update
  - Enterprise Architecture Principles
    (Information only; discussion in January)
- Leadership Group Outreach
  - Discussion
- Equity Participation
  - Recommendation to Leadership Group
Process Update
<table>
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<tr>
<th>Sun</th>
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Scope of Work

Process Brief (√ done)

Issue Briefs: (Today)
- Governance
- Finance
- Technology & Operations

1st Draft Recommendations:
Technology & Operations (Mar.)

2nd Draft Recommendations:
Technology & Operations (June)

Draft Recommendations:
Finance (Aug.)

Draft Recommendations:
Governance (Sept.)

Draft Strategic Plan (Oct.)

Final Strategic Plan (Dec.)
Regional E-911 Strategic Plan: Terms
Terms

Shared Vision (from Scoping)
Mission (in progress)
Guiding Principles (from Scoping)
Goals (from Scoping)
Key Issues (Issue Brief)
Objectives (in progress)
Strategic Actions (in progress)
Key Performance Metrics (in progress)
Terms

Shared Vision

Mission (in progress)

"Statement of the King County Regional E-911 System and Program Office's organizational purpose and core services."

Guiding Principles
Goals
Key Issues
Objectives
Strategic Actions
Key Performance Metrics
Issue Brief

Key Issues
Key Issues

In the context of the Shared Vision, Guiding Principles, and Goals, the Strategic Plan Task Forces have responded to the Strategic Questions by identifying the following Key Issues as a comprehensive checklist of topics to be addressed in order for the strategic plan to answer the questions above:

Governance
- Decision-Making Authority, Feedback, and Transparency: A formal process is needed to effectively make decisions about the IC E-911 Regional system and deal with emerging challenges. This should include clear roles and responsibilities, and communication protocols to enable timely decisions that are responsive to both established objectives and new information.
- Conflict Resolution: A conflict resolution process is needed, and should include how conflicts are identified, at what level of governance they are addressed, and how are they resolved.
- Coordination/Communications: There is a strong demand for establishing protocols for communication between the E-911 Program Office and the PSAPs, as well as between the PSAPs.

Technology & Operations
- Pace of Change: The pace of technology change brings new public and user expectations that can stress 911 systems and operations, and will require a continuous process to review and evaluate new changes and fiscal impacts.
- Architecture Complexity and Strategy: The overall architecture of the 911 system needs to be evaluated, with a strategy developed to respond to overall system objectives and evolving future conditions. This may require an ongoing Technology & Operations committee to conduct continuous review and evaluation.
- Security: Security of the 911 system overall, as well as other critical PSAP systems, needs to be a constant focus and priority.
- Call & Operational Complexity: The nature of emergency calls is changing rapidly, with ever-increasing volumes of calls from wireless devices and emerging technologies such as text, video and telematics calls to 9-1-1. This will drive a variety of ongoing technological, operational and funding issues for the regional system overall and the systems and operations at the individual PSAPs. A technology and operations strategy must balance operational impacts with effectiveness gains from technology in a diverse environment with geographically distributed PSAPs, different jurisdictional boundaries and variety in call types handled by various PSAPs.

Finance
- Fiscal Sustainability: Forecasted increases in operating and capital expenditures need to be evaluated in detail to determine whether alternative assumptions are needed. Forecasted growth in these expenditures is driving fiscal deficits in the future. However, no
Today's Agenda

- Introductions
- Strategic Plan Process Update
  - Timeline & Milestones
- Issue Brief — FINAL APPROVAL
  - Core Services as Mission
  - Task Force edits
- **T&O Task Force Update**
  - Enterprise Architecture Principles (Information only; discussion in January)
- Leadership Group Outreach
  - Discussion
- Equity Participation
  - Recommendation to Leadership Group
# Technology & Operations

## Enterprise Architecture Principles

<table>
<thead>
<tr>
<th>Guiding Principles (From Scoping)</th>
<th>Goals (From Scoping)</th>
<th>Technology &amp; Operations Task Force Enterprise Architecture Principles</th>
</tr>
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<tbody>
<tr>
<td><strong>Process</strong></td>
<td><strong>1. No Request Lost (A, E, G, H)</strong></td>
<td>A. <strong>Public Safety</strong>&lt;br&gt;We should ensure service exists that protects the public's safety above all else.</td>
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<tr>
<td>a. Transparency</td>
<td>a. <strong>Prompt Response (A, B, E, H)</strong></td>
<td>B. <strong>Capacity</strong>&lt;br&gt;The capacity of the system should meet demand at all times without service interruption.</td>
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<tr>
<td>b. Project Management Principles</td>
<td>b. <strong>Financial Sustainability</strong></td>
<td>C. <strong>Fair and Equitable</strong>&lt;br&gt;We should seek to provide a fair and equitable access so that all communities can receive and perceive value.</td>
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<tr>
<td>c. Collaboration</td>
<td>c. <strong>Cost Effective</strong></td>
<td>D. <strong>Security</strong>&lt;br&gt;All systems and solutions will need to meet the minimum level of security defined.</td>
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<td>d. Predictability</td>
<td>d. <strong>Meet or Exceed Industry Standards (A, B, D, E, F, H)</strong></td>
<td>E. <strong>Availability</strong>&lt;br&gt;Solutions should be available at all times without service interruption.</td>
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<tr>
<td>e. Advocacy</td>
<td>e. <strong>Equity (C)</strong></td>
<td>F. <strong>Cost Effective</strong>&lt;br&gt;Financial decisions should be based on the most cost-effective solutions consistent with documented needs.</td>
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<tr>
<td>f. Inclusion</td>
<td>f. <strong>Secure, Resilient, &amp; Survivable (A, B, E, F, H)</strong></td>
<td>G. <strong>Convergence</strong>&lt;br&gt;We should converge toward common solutions, approaches, and standards.</td>
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<td>g. <strong>Interoperability</strong></td>
<td>H. <strong>Interoperability</strong>&lt;br&gt;Software and hardware should conform to defined standards that promote interoperability for data, applications, and technology.</td>
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**Notes:**
- BDS: Planning & Urban Design

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**King County**

KC E911 Strategic Plan - PG - December 16, 2016
DATE: 12/8/2016
SUBJECT: TASK FORCE MEETING 3 NOTES

Attendees
Tom Koney, Krystal Hackmeister, Jennifer Devore, Kate Davis, Tatyana Bogush-Stakhov, Laura Pitarys, Tim Osgood, Meg Goldman, Lise Kaye, Marilynne Beard, Tom Walsh, Tara Murker, Morgan Shook, Tessa Krebs, Gabriel Silberblatt

Discuss Revisions to the Issue Brief
Marilynne B: The issue brief needed to be revised to add more meat just like the Technology and Governance sections.

Tom K: This is the final review before sent to Leadership Group

Morgan S: Reviewed some of the changes to the Brief. Took out the one chart in the Background section—graph of expected revenues and expenditures

1st Issue: Forecasted increases in operating and capital expenditures
- First Issue discusses where the task force is right now. Need an evaluation of what the costs are. Specifically, around an accurate projection of costs. More detail about the different costs – PSAPs, capital, reserves, direct services, contracting with vendors.
  - Tatyana B: When will we look at these costs?
    - Morgan: in the future meetings
  - What implications of NG911 staffing and support? Are there opportunities to optimize those future costs? More efficiencies?
    - Tom K: at the County, there is a new way of delivering upgrades through a Phased approach.
    - Not only upgrades and business processes, but efficiency in staffing, etc.
  - Tatyana B: What do we mean by mandatory vs. discretionary?
    - Morgan: The idea is what are PSAPs required to be providing?
    - Tom K: In every given PSAP, what is minimum threshold to participate, then after that, what are the financial implications or responsibilities for costs beyond that?
      - Tom W: Defining what that system is. Outside of what Program Office is responsible for, is a responsibility of the PSAP.
o More about who does what, not what we do?
  ▪ Morgan: Yes. Move this into another section because it goes beyond the expenditures.
  ▪ Tom K: This is a crossover between the Task Forces. Connecting with co-chairs to discuss cross between. Conversations are happening with other TFs.

o Technology TF is looking at technology with no idea of finances.
  ▪ Tom K: Tech TF is fully aware that we need to be able to pay for it.
  ▪ Morgan: This is a key question.

o Tim O: NG911 – need to look at the new system through a new lens. Need to adapt for future uncertainties. Need a baseline level of funding that may/may not follow funding structure of the past. One of our tasks is to have an efficient, protected, secure system for the future. Need to look at going forward, not looking back
  ▪ Tom K: Challenge is to look at the revenue side.
  ▪ Tom W: Regardless of the system, we are determining the financial framework under which the program will operate.
  ▪ Marilyne B: Financial planning model – if E911 issue is revenue-driven, and we need to work within constrained revenue source. If it is expenditure-driven: forces into something. Here is the range of what would come up. Need to look to Leadership Group to guide if we focus on revenue vs. expenditure-driven problem.
  ▪ Tom K: Determine how it can be
  ▪ Tim O: We should develop 3 options, with associated concerns for each option.
  ▪ Tom W: 1) Need to have, 2) nice to have, and 3) responsibility of Program Office
  ▪ Many: We don’t know what the options are yet.
  ▪ Tim O: See what the revenue streams are out there.
  ▪ Tom K: I am concerned about one-time and revenue streams that are limited in nature.

o Morgan/Tom K: Are we spending the money we receive efficiently now?

2nd Issue: Revenue adequacy
  • Make a reference to current revenue sources.
  • Tatyana: How do the taxes work? Is it the state’s responsibility to distribute?
- Laura P/Tom K: State gets all the funds. Not sure if they are responsible for collecting the fee?

- Tatyana: For instance, in Clark County they weren’t getting all they should have, so we need look at the collection because it might be wrong. Are we getting all the King County revenue? We don’t get other counties’s data, so it is hard to verify.

- Tom K: We need to consider this issue by provider. Audit the collection.

- Laura: The program office does not know what the State’s method for collecting and distributing the excise tax revenue.

**3rd/4th/5th Issue: Clarity of responsibilities, policies, and distribution**

- Tatyana: 4th issue: Last sentence: clarify that this there is need for oversight and internal controls of spending to PSAPs from the Program Office. Want to be clear that it is not oversight of all spending by PSAPs, but only that which it receives from the Program Office.

  - Tom K: This is a hot button.

- Tom K: We want everyone to feel comfortable with this issue brief, and provide an outline of what we need to do. It is a good general indication of what we are going to consider.

**Line Item Review**

- Describe what is driving forecasted revenues.

- OEM staff are the management level – 40% of 5 FTE (2 FTE).

  - Marilynne B: What is their role with E911?
    - Tom K: Without E911, the general fund does not support OEM.
    - Marilynne B: Do they spend 40% of time on E911?
      - Tom K: No. We need to work on this. I can’t verify that 40% is associated with E911. That is one thing we can look at internally.

  - Tatyana: Is this in addition to overhead?
    - Laura P: Bulk of overhead expense are these positions

  - Marilynne B: It is sound practice not to forecast costs during spike years, but to normalize the costs over a longer period of time. I am glad the county is looking into it.

  - Laura P: The county overhead is not included in this budget.

- Laura P: Smart911: might not continue next year

  - How many people are signed up for Smart911?
- Laura P: The county office can get that information.

- Tom K: Program Office is lacking in contract management. Money is being distributed through huge contracts, but not being managed efficiently.
  - Marilynne B: Are the license fees listed annual?
    - Laura: Yes, annual fees.
  - Contracts are done through a central purchasing office, which the agency manages

- Laura: Other Contractual Prof Services: license fees – annual usually
  - Laura P: Contracts in place: Pictometry - there is a contract with them.
    - Marilynne B: Are the contracts set? Why contingency on contracts if they are set?
      - Laura P: Some are, and some are not (the updated spreadsheet now includes which contracts are in place).
  - Laura P: Contingency is generous because this is the first time we are including it.
    - Marilynne B: Do these go out as RFP?
      - Laura P: CenturyLink – 5-year contract, Frontier. Other ones we do yearly contracts.

- Laura P: Emergency Management Overhead. There is an offset in another place in the budget. This should probably be moved out (the updated spreadsheet includes a note that this is not an additional cost on top of OEM costs).

- Laura P: PSAP Distribution is based on a set amount established a while ago, and now it is just rolled forward. Part of the distribution is based on wired lines. The Program Office is working with the IAG to look into these details.
  - Marilynne B: That sheriff’s office distribution might be a recipient of that wired line calculation.

- Laura P: ESINet is a Statewide network
  - Jennifer D: Is that the same as FirstNET at the federal level?
    - Laura P: I am not sure.

- Capital expenditures. Security systems, and VIPER refresh. The refresh is based on a previous refresh.
  - Tatyana: Why is it based on positions?
    - Laura: Based on consoles/workstations. Assessment of vulnerabilities – network/system infrastructure. Working with KCIT, but will go out to RFP.
• Marilynne B: Where are the delayed projects?
  o Laura: The delayed projects were assumed to be concluded, so they are not
    included in the next biennial’s budget.
  o Are there projects that haven’t even started that were budgeted?
    • Laura: I am not sure. There is no assumption that prior projects go into
      the Capital budget.

Follow-up on budget detail
• The Program Office will wrap up the final audit from last year sometime in February,
  then we can talk about individual projects, contract management, concern about the
  large dollar contracts/are we getting fair price?

Questions regarding Best/Comparable Practices

Questions for other E911 Districts
• Is there any relationship between the best practices technology and governance are
  looking into?
  o Morgan: Yes, Finance will piggyback on what they are looking at. We
    understand that every 911 district is struggling with this issue nationwide and
    our task will be to chase down people in industry to check on those issues and
    how they are dealing with it.
• It was suggested that the Task Force should reach out to PSAP directors to ask if they
  have specific jurisdictions they want to look at.
• Tom K: Financial model practices – we should look at those also, even if it’s not
  necessarily associated with E911. Look at technology-intensive agencies and their
  financial management.
  o Morgan: Should focus on specific challenges we see here.
• Jennifer D: Agencies that are further along in NG911 including the Arizona and Ohio.
  Other counties that have implemented NG911.
• Conferences provide latest information on industry associations – call the right person to
  talk to about best practices

Consultants and chairs will do this work in December/January and come back at the January
meeting with some results. Try to send out two weeks before.

PSAP and Program Office questions:
• Marilynne B: Ask about escrow account balances. How much are in the escrow
  balances? What do they do with that? Are they being spent down, or not? Any plan to
  use them? Need context about the detail on what the PSAPs are using these for.
• Tatyana: PSAPs are supposed to submit their budget to the Program Office.
• Marilynne: Direct Services detail: need to understand better the projection and the huge deficit. How are the revenue/expenses/deficit playing with each other?
  o Laura: Are you asking about the costs that get carried over?
  o Marilynne B: Yes, contingencies and capital projects. Is the deficit as big as it is projected to be?
  o Tom K: Need to understand how much money is inactive. The better we get, the more we can put money into action, and not have money sitting in accounts.

• Tatyana: PSAPs won't be able to separate E911 from all other costs. I don't know what the right way to go about understanding what is E911. Everything is estimated.
  o Tom W: This is the same issue as the OEM jobs.
  o Tatyana: Determine what the best way to get reimbursed for costs – i.e., percent of cost is related to E911. PSAPs need clear guidelines about what you need from them. Each PSAP tracks their costs differently.
    ▪ Morgan: We can get on the phone and come up with the best questions to ask PSAPs. We will make sure we are asking the most appropriate questions?
    ▪ The state just asked this, so there might be some overlap.

Remaining research questions by topic area

• Technology TF
  o Does NG911 technology reduce staffing/support or other opportunities to reduce costs?
    ▪ Tom K: Total Cost of Ownership model
  o Are there actual NG911 things being implemented that are costing us right now?
  o Is someone on the IAG?
    ▪ Laura is on it.

Next Steps
Send detailed 2017-18 budget spreadsheet
Send Revised Issue Brief
Send Revised Discussion Draft
Next meeting in January
E911 Technology and Operations Task Force

Architectural Principles Discussion

December 16, 2016
Importance of Principles In Strategic Planning

- Align Task Force Members to common foundation for strategic planning
- Guides Decision Making
- Streamlines strategic planning process
- Provides a strategic focus
- Aligns with E911 Strategic Plan Focus Document Principles

Building stronger communities through innovative information technology
Public Safety Principle

The Public Safety Principle - *We should ensure service exists that protects the public’s safety above all else.*

We need to balance a number of factors when designing and operating a E911 system. However our highest priority is to ensure adequate service exists to protect the public and responders.

**Rationale:**
- It is important to understand the current issues and factors that are shaping both the demand for E911 services within the service area, as well as the factors affecting the technologies themselves. However, protecting the public and responders is our highest priority.

**Implications:**
- Not all technology strategies can be evaluated using traditional cost benefit analysis (CBA) criteria. There will be times when other factors need to be considered as priority in resolving a decision.
Capacity Principle

The Capacity Principle – The capacity of the system should be designed to meet peak demands without service interruption.

Public Safety systems must have enough capacity not only to meet average daily demands, but to meet peak demands when they are needed most.

Rationale:

• Providing capacity that does not strive to meet peak demands puts lives at risk.

Implications:

• Systems should be scaled to meet peak capacity
• Modeling should be used to predict demand.
• Capacity planning should take into account growth in population and the ability of the E911 technology architecture to scale to the anticipated growth
• Whenever possible, we will design systems with the ability to flexibly scale on demand, as opposed to building a static capacity of the maximum expected usage.
Fair and Equitable Principle

The Fair and Equitable Principle - We should seek to provide a fair and equitable access so that all communities can receive and perceive value.

We will balance the value of emerging and next generation technologies to the E911 program and the PSAPS with the value to the various communities in the region. This will mean considering the ability of residents to utilized access E911 services affordability, so that the cost of proposed designs don’t create accessibility issues.

Rationale:
• While no one questions the need for public safety, we need to make sure that King County residents have the ability to access E911 services as technology advances and next generation solutions are considered.

Implications:
• The Equity and Social Justice lends needs to be applied to all new technologies that are considered.
• Solution costs and benefits will need to be viewed from all perspectives.
• We need to understand the impact of solutions to the communities and their ability to utilized the technology solutions.
• We will balance cost-effective solutions with state-of-the-art solutions.
The Security Principle

The Security Principle - *All systems and solutions will need to meet the minimum level of security defined.*

- The security of our systems will only be as strong as the weakest link. Therefore, we will include all components and approaches that can affect security in the system design.

**Rationale**
- There are costs associated with making systems secure. And though we need to balance cost and effectiveness, security must meet a minimum acceptable level so as to not risk the ability to provide secure public safety communication.

**Implications:**
- Minimum security standards will need to be defined for our systems based on the needs of all jurisdictions in the coverage area. These standards should include federal guidelines if they exist.
- All systems must adhere to those standards.
- Security plans need to include all aspects of the system design that need to be protected. This includes not just the radio systems themselves, but supporting assets as well.
The Availability Principle

The Availability Principle - Solutions should be available at all times without service interruption

- Systems should be designed, operated, and maintained to be available as close to 100% percent of the time within the coverage area as feasible.

Rationale:
- The amount of time a public safety solution in unavailable is directly proportional to the increased risk to lives and property.

Implications:
- Reliability needs to be a high priority in the design, operation, and maintenance of a system.
- Solutions should be design with no single point of failure. They must meet users’ primary communication needs even in degraded modes of operation.
- System designs should include mechanisms that allow failover of a key component without interrupting service.
- System should be appropriately monitored, including mechanisms to alert of possible failure or service degradation conditions.
- Systems must be properly maintained.
- There must be standards for system and subsystem performance and performance should be regularly reported.
The Cost Effectiveness Principle

The Cost Effectiveness Principle - Financial decisions should be based on the most cost-effective solutions consistent with documented needs.

Rationale:
- The public's tax dollars should be spent as wisely as possible.

Implications:
- When two solutions meet needs equally well, the lower cost solution should be selected.
- When one higher cost solution meets our needs and one lower cost solution does not meet our needs, those solutions should not be seen as equivalent.
- Costs should be calculated as long-term total costs.
- The System will be developed in a manner that maximizes the price advantages realized in large-scale and long-term purchasing agreements. It is expected to demonstrate the wisest possible use of taxpayer dollars when compared to other E911 systems, and to realize the benefits of improved public safety communications for all county residents.
- Needs should be based on data whenever possible.
The Convergence Principle

The Convergence Principle - *We should converge toward common solutions, approaches, and standards*

The design of our solutions and approaches should move us toward common technologies and ways of doing business that enhance our ability to provide service and leverage economies of scale whenever possible.

**Rationale:**
- We are better stewards of the taxpayers’ money when we are not expending extra resources to integrate dissimilar solutions in order to interoperate with our partners.
- Our ability to interoperate is maximized when we have similar solutions and standards

**Implications:**
- Convergence points between partners that make up the E911 program and service need to be identified and mapped into a multi-year roadmap.
- Adherence to Federal and State standards and guidelines will provide increased convergence opportunities with our partners.
- Opportunities beyond technologies and standards should be explored – For example, shared purchasing and provisioning could yield economies of scale.

*Building stronger communities through innovative information technology*
The Interoperability Principle

The Interoperability Principle - Software and hardware should conform to defined standards that promote interoperability for data, applications, and technology.

Rationale:
- Standards help ensure consistency, thus improving the ability to manage systems and improve user satisfaction, and protect existing IT investments, thus maximizing return on investment and reducing costs.
- Standards for interoperability additionally help ensure support from multiple vendors for their products, and facilitate supply chain integration.

Implications:
- Interoperability standards and industry standards will be followed unless there is a compelling business reason to implement a non-standard solution.
- A process for setting standards, reviewing and revising them periodically, and granting exceptions must be established.
- The existing IT platforms must be identified and documented.
### 2017-2018 Proposed Financial Plan

**E-911 Program Operating Fund /00000110**

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<td>Wages, Benefits and Retirement⁵</td>
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<td>(257,763)</td>
<td>(273,744)</td>
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<td>Direct Services</td>
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<td><strong>Other Fund Transactions</strong></td>
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<td>GAAP Adjustment</td>
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<td>Next Generation 911 Reserve⁷</td>
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For financial plan notes, see next page
Financial Plan Notes

1. 2015-2016 Estimated reflects updated revenue based on the Office of Economic and Financial Analysis (OEFA) August 2016 Financial Forecast, expenditure estimates as of 6/30/16, and all underexpenditures identified to date. Approximately $4 million in underexpenditures are related to projects which have been delayed, but are included in the 2017-2018 Proposed Budget. Approximately $3.9 million in underexpenditures is related to delays in ongoing service costs for projects which have not been fully implemented. Approximately $2.3 million in underexpenditures is related to project scope changes and unspent operational contingency. The remaining $1.6 million in underexpenditures are related to costs which were overestimated in the 2015-16 budget.

2. 2017-2018 Proposed revenues are based on the August 2016 OEFA Financial Forecast. Proposed expenditures reflect all decisions and inflationary assumptions documented in Hyperion.

3. Outyear projections assume revenue based on OEFA forecasts and expenditures based on King County Central Budget Planning Guidance.

4. The Proposed Budget includes an accounting change that removes $1.5 million in revenues and $1.5 million in expenditures to eliminate double budgeting associated with overhead distribution.

5. The Proposed Budget includes a transfer of six employees from E-911 to KCIT. E-911 fund will transfer funds to support the employees. The costs of these employees have moved from Salaries and Benefits into a contingency account.

6. Capital expenditures include a $5.1 million transfer to the new E911 CIP Capital fund.

7. Next Generation 911 (NG911) Reserve is designated for the implementation of new NG911 services that are expected to be developed in future years. Reserve levels will be reviewed during the E-911 Strategic Planning effort in 2017.

8. Rainy Day Reserve is calculated as 35 days of operating expenditures and excludes capital costs.
EXECUTIVE SUMMARY
This briefing document outlines Key Issues in Governance, Technology & Operations, and Finance to be resolved during the King County Regional E-911 strategic planning process.

The strategic planning process was set in motion by King County Ordinance 18139, and shaped by the King County E-911 Scoping Committee in its Strategic Planning Process Report of May 31, 2016. In that report, the Scoping Committee identified a Shared Vision, Guiding Principles, and Goals that are fully restated in Appendix I.

Shared Vision, Mission, Guiding Principles, and Goals

Shared Vision — for the Regional E-911 System
King County’s Regional E-911 System will be among the best in the country in terms of:
- Rapid and effective routing of requests for service;
- Efficient use of public resources;
- Effective deployment of evolving technology; and
- Adherence to the guiding principles.

Mission — for the Regional E-911 System
In progress: Clarity and agreement about the current and future core service responsibilities and associated costs of the King County Regional E-911 System and Program Office is being developed during this strategic planning process. (due: February 2017 to Planning Group; May 2017 to Leadership Group)

Guiding Principles — for the Regional E-911 System
1. Process
   a. Transparency
   b. Project Management Principles
   c. Collaboration
   d. Predictability
   e. Advocacy
   f. Inclusion
2. Finances
   a. Fiscal Responsibility
   b. Financial Sustainability
   c. Cost Effective
3. Standards
   a. National Best Practices
   b. Performance Metrics
   c. Continuous Improvement

Goals — for the Regional E-911 System
As part of the strategic planning process, develop a dashboard of outcome metrics to monitor progress toward these goals, to be in alignment with the guiding principles above.
1. No Request Lost
2. Prompt Response
3. Seamless System-wide Technology
4. Meet or Exceed Industry Standards
5. Equity
6. Secure, Resilient & Survivable
Strategic Questions
The Regional E-911 Scoping Committee also identified a number of strategic questions to guide the work of the three Strategic Planning Task Forces, including:

Governance
G1. What is the definition of the King County Regional E-911 System?
G2. What is the management structure for the King County Regional E-911 System, in terms of authority, oversight, operations, accountability, responsibility, and performance monitoring?
G3. What is the major decision-making structure for the King County Regional E-911 System, including process management, research, input, and authority?
G4. What is the conflict resolution process for the King County Regional E-911 System?
G5. What is the stakeholder engagement structure for the King County Regional E-911 System, including input into decisions, reporting, and performance monitoring?

Technology & Operations
T1. What is the technology vision for the King County Regional E-911 System, in terms of the technology’s purpose, evolution, and investment approach?
T2. What are the technology requirements for integrating with the state’s E-911 system, and for local jurisdictions to connect to the regional E-911 system?
T3. What is the ongoing decision process for technology investments, including options, tradeoffs, priorities, budgets, and schedules?
T4. What are the ongoing performance metrics for technology in the King County Regional E-911 System, including the performance of the system, vendors, and local partners?
T5. What are the security requirements for the King County Regional E-911 System, including protection of the system, individual privacy, and proprietary information?

Finance
F1. What are the procedures and processes for forecasting, reporting, auditing, and operations related to King County Regional E-911 System revenue and expenditures?
F2. What are the funding needs and revenue strategies for the King County Regional E-911 System, including NG911 upgrades and keeping the system up to date over time?
F3. What are the stakeholder reporting requirements related to the King County Regional E-911 System finances, including revenue, expenditures, efficiency, and effectiveness?
F4. What are the investment management policies for the King County Regional E-911 System related to forecasting, investments, reserves, and contingencies?
Key Issues

In the context of the Shared Vision, Guiding Principles, and Goals, the Strategic Plan Task Forces have responded to the Strategic Questions by identifying the following Key Issues as a comprehensive check-list of topics to be addressed in order for the strategic plan to answer the questions above:

Governance

• **Decision-Making Authority, Feedback, and Transparency:** A formal process is needed to effectively make decisions about the KC E-911 Regional system and deal with emerging challenges. This should include clear roles responsibilities, and communication protocol to enable timely decisions that are responsive to both established objectives and new information.

• **Conflict Resolution:** A conflict resolution process is needed, and should include how conflicts are identified, at what level of governance are they addressed, and how are they resolved,

• **Coordination/Communication:** There is a strong demand for establishing protocols for communication between the E-911 Program Office and the PSAPs, as well as between the PSAPS.

Technology & Operations

• **Pace of Change:** The pace of technology change brings new public and user expectations that can stress 911 systems and operations, and will require a continuous process to review and evaluate new changes and fiscal impacts.

• **Architecture Complexity and Strategy:** The overall architecture of the 911 system needs to be evaluated, with a strategy developed to respond to overall system objectives and evolving future conditions. This may require an ongoing Technology & Operations committee to conduct continuous review and evaluation.

• **Security:** Security of the 911 system overall, as well as other critical PSAP systems, needs to be a constant focus and priority.

• **Call & Operational Complexity:** The nature of emergency calls is changing rapidly, with ever-increasing volumes of calls from wireless devices and emerging technologies such as text, video and telematics calls to 9-1-1. This will drive a variety of ongoing technological, operational and funding issues for the regional system overall and the systems and operations at the individual PSAPs. A technology and operations strategy must balance operational impacts with effectiveness gains from technology in a diverse environment with geographically distributed PSAPs, different jurisdictional boundaries and variety in call types handled by various PSAPs.

Finance

• **Fiscal Sustainability:** Forecasted increases in operating and capital expenditures need to be evaluated in detail to determine whether alternative assumptions are needed. Forecasted growth in these expenditures is driving fiscal deficits in the future. However,
revenue adequacy of existing sources will also need to be evaluated as part of a financial sustainability plan.

- **Clarity of Financial Responsibilities.** There is ambiguity about the appropriate roles of the E-911 Office and the PSAPs in supporting the E-911 system. It will be important to determine what services the Program Office is required to provide, and beyond those costs, what are the financial implications, if any, for individual PSAPs.

- **Financial Policies & Accountability:** Clear financial policies and accountability are needed related to budgeting and accounting.

- **Distribution of Funding:** A clear and transparent system for distribution of funding between the E-911 Office and PSAP’s and between PSAP’s is essential, and this system must also be able to evolve with changing technologies and operations.

Once this draft document is finalized and approved by the Planning Group and Leadership Group, the Key Issues above will serve as a check-list for strategic planning, in order to guide identification of measurable objectives, strategic actions, and key performance metrics. Objectives will need to respond to the issues above, as well as the vision, principles, and goals listed on page 1. These objectives will also need to be devised to be responsive to future issues, opportunities, and other future unknowns.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTIVE SUMMARY</td>
<td>1</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>5</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>6</td>
</tr>
<tr>
<td>GOVERNANCE ISSUES</td>
<td>9</td>
</tr>
<tr>
<td>TECHNOLOGY &amp; OPERATIONS ISSUES</td>
<td>14</td>
</tr>
<tr>
<td>FINANCE ISSUES</td>
<td>23</td>
</tr>
<tr>
<td>Appendix I: Strategic Plan Shared Vision, Guiding Principles, &amp; Goals</td>
<td>31</td>
</tr>
<tr>
<td>Appendix II: Technology &amp; Operations Background &amp; References</td>
<td>32</td>
</tr>
</tbody>
</table>
INTRODUCTION

This briefing document outlines key governance, technology and operations, and finance issues to be resolved during the King County Regional E-911 strategic planning process. The resulting strategic plan will address priorities for the regional portions of the E-911 system and guide the ongoing process for decision making, funding and implementing those priorities.

In sections on Governance, Technology & Operations, and Finance, this document:

- Restates the **Strategic Questions** from the Strategic Plan Scoping process,
- Identifies **Best Practices** being researched by the Strategic Planning Task Forces,
- Responds to **Baseline Questions** posed during the Scoping process,
- Explores **Existing Conditions** and **Future Challenges**, and
- Summarizes **Key Issues** to be addressed through the Strategic Planning process.

Once this draft document is finalized and approved by the Planning Group and Leadership Group, the Key Issues identified here will serve as a check-list for strategic planning. These issues are listed as a group in the Executive Summary, and described in more detail within the Governance, Technology & Operations, and Finance sections that follow.

In identifying the Key Issues, the Task Forces used the following criteria:

- Cover the breadth of the Strategic Questions,
- Respond to Best Practices,
- Capture Existing Conditions, and
- Address Future Challenges as summarized in this document.

As such, the Key Issues frame the strengths, opportunities, and challenges in each content area. The Key Issues are intended to focus future analysis in a way that responds to strategic questions, best practices, existing conditions, and future challenges. During the next phase of strategic planning, these Key Issues will guide identification of measurable **Objectives**, **Strategic Actions**, and **Key Performance Metrics**.

An additional Key Issue did not come directly from the Task Forces, but rather has emerged in various form throughout the process is a definition of the King County Regional E911 System and Program Office **Mission**. Over many years of operation, the E911 Program Office has taken on many tasks have come to be expected by various members of the King County Regional E911 System, but that may in fact not actually be appropriate E911 Program Office functions. When the E911 Program Office tries to streamline its operations and cut costs by eliminating or delegating some of these functions, there is often controversy among members of the regional system, with some members favoring the efficiencies while others decry the loss of services. As such, the strategic plan must provide a definition of what core services and technologies are fundamental to the E911 Program Office’s role in order to provide direction to future budgeting
and operational decisions. This includes a clear definition of who pays for what, and a clear line between the system’s regional elements and local elements.

**Strategic Planning Charge**

Ordinance 18139 calls for a King County Regional E-911 Strategic Plan to:

1. Integrate with the state’s E911 system and the responsibilities of local jurisdictions in their delivery of E-911 dispatch services;
2. Develop a ten-year technology investment strategy for the regional King County E-911 system with tactics and a process for adapting to evolving technology and service conditions;
3. Develop a ten-year sustainable financial plan for the regional King County E-911 system with tactics and a process for adapting to evolving financial conditions; and
4. Define an ongoing decision making or governance structure for implementing and achieving the vision and goals of the regional King County E-911 system, including a conflict resolution process.

**Strategic Planning Definitions**

For the purposes of this King County Regional E-911 Strategic Planning Process, the following definitions apply:

- **Shared Vision**: An aspirational statement of what the King County Regional E-911 System should be in the future, as initially defined during Scoping.

- **Mission**: Statement of the King County Regional E-911 System and Program Office’s organizational purpose and core services.

- **Guiding Principles**: Major tenets that identify the manner in which the King County Regional E-911 System will pursue its Shared Vision, as initially defined during Scoping.

- **Goals**: Prioritized future conditions and targets serving as an intermediate step toward achieving the Shared Vision in line with the Guiding Principles, as initially defined during Scoping.

- **Key Issues**: The most critical issues currently facing the King County Regional E-911 System, as articulated by the Strategic Plan Task Forces in this Issue Brief.

- **Objectives**: Specific statements of desired conditions responding to the Key Issues that can be measured within a specified timeframe. To be defined in Task Force draft recommendations.

- **Strategic Actions**: Activities that need to be taken in order to directly accomplish the Objectives. To be defined in Task Force draft recommendations.

- **Key Performance Metrics**: Data that will be collected and reviewed to track and measure progress on achieving the Objectives. To be defined in Task Force draft recommendations.
Process ground rule on PSAP consolidation

The King County Regional E-911 Strategic Plan Scoping process clearly states that “the evolving number and configuration of PSAPs is not part of the strategic planning process. Being locally governed and largely locally funded, the number and configuration of PSAPs is an ongoing process of local decisions by individual PSAPs and/or groups of PSAPs. The strategic plan will not include a top-down PSAP consolidation.”

This means that the Strategic Plan will not dictate the number or configuration of the PSAPs. It does not mean that the Strategic Plan needs to be designed to protect the existing number and configuration of the PSAPs. Once the Strategic Plan is finished and adopted, the PSAPs themselves might choose to modify their number and configuration to better fit with the evolving regional system. But, the Strategic Plan will not dictate this action.
GOVERNANCE ISSUES

Introduction

In June 2015, the King County Auditor's Office published findings from its independent review of E-911 operations and recommended creation of a governance mechanism. The King County Auditor's report identified the lack of a formal and effective governance structure as the most serious challenge facing the implementation of Next Generation 911. The Auditor recommended establishing a governance structure to improve collaboration, planning, and decision-making. Currently, there is no formal process for input or feedback, and in the event that partners disagree on priorities, projects or programs, there is no mechanism for conflict resolution. All partners in the King County Regional E-911 System want to develop a formal governance structure and to provide clarity regarding decision-making processes.

Strategic Governance Questions

The Regional E-911 Scoping Committee identified a number of strategic questions, including:

G1. What is the definition of the King County Regional E-911 System?

G2. What is the management structure for the King County Regional E-911 System, in terms of authority, oversight, operations, accountability, responsibility, and performance monitoring?

G3. What is the major decision-making structure for the King County Regional E-911 System, including process management, research, input, and authority?

G4. What is the conflict resolution process for the King County Regional E-911 System?

G5. What is the stakeholder engagement structure for the King County Regional E-911 System, including input into decisions, reporting, and performance monitoring?

Best Practices

What are others doing for governance of regional E-911 systems with multiple operating groups?

Several reports list best practices in governance that will be reviewed and utilized by the Task Force to evaluate governance structures from other jurisdictions. The FCC, APCO, and NENA all have reports that address in some part best practices for successful governance structures given the new technology environment of NG 911. The Task Force will review these practices and begin to address the key issues and challenges for governance of the King County Regional E-911 System by evaluating the effectiveness of other governance structures from jurisdictions in the United States and within King County. Those governance examples will be selected based on 4 main criteria:

- Multiple jurisdictions or PSAPS are represented
- Their role is advisory to a final decision authority
- They include a combinations of local and regional systems
• There is a structure for operational and policy input

Once governance examples are selected they will be evaluated based on best practices for NG 911 systems identified by the FCC, APCO, and NENA and on additional criteria identified by the Task Force that includes:

• Definition of the system being governed
• Participation of partners within that system
• Processes for decisions and dispute resolution
• Reporting and communication
• System priorities, works plans or strategic planning
• Budget and finances
• Technology and operations
• Standards and metrics
• Representation and voting
• Authority

The evaluation and discussion of the attributes of other governance structures will lead the Task Force to development of a governance model for the King County Regional E-911 system.

**Baseline Questions**

What is the current governance structure (organization chart; decision structure oversight; accountability; responsibility, conflict resolution process)?

Currently there is no formal governance structure to guide the interactions between the public-safety answering points (PSAPs) and King County or that facilitates collaboration on decisions related to the operational, technical, and financial management of the E-911 system. In 2010, a five-year Interlocal Agreement (the King County Enhanced 911 Participation Agreement) was signed by all PSAPs. That Agreement expired and due to a breakdown of trust between the PSAPs and the E-911 office was not re-adopted by most of the partners. The City of Seattle and the King County Sheriff’s office were the only PSAPs to sign the new agreement. Historically, the E-911 Program Office has held bi-monthly meetings for PSAP directors to discuss upcoming projects and related business. However, there was no formal structure for decision-making or conflict resolution regarding E-911 projects that impact PSAPs, the regional system, or its resources.

The County has final funding authority and the King County E911 Program Office has the ability to make operational decisions within their approved budget authority.

An Interim Advisory Group was formed in 2016 and is tasked with advising and consulting with the King County E-911 program office regarding technology, financial and system operational issues until completion of the E-911 strategic plan and implementation of a new governance structure.
What are the governance lessons from the 2015 King County Auditor’s report on E-911 operations?
The King County Auditor’s report found that the lack of a formal governance structure was the most pressing issue for the King County Regional E-911 system. The report recommended beginning a process to create a governance structure that contains a conflict resolution process and a formal structure for collaboration and input.

The Auditor’s report went on to advise that King County temporarily suspend its implementation of Next Generation 911 until these governance issue could be resolved. The recommendations focused on improving collaboration and planning as well as establishing a financial baseline that would allow stakeholders to agree on required spending and estimated revenue for the program.

Existing Conditions

The Enhanced 911 Participation Agreement was not unanimously ratified by PSAPs and is not in effect. Currently, there is not a formal governance structure for PSAPs and the County to collaborate on decisions related to the operational, technical and financial management of the E-911 system. The lack of a formal structure for making decisions or resolving conflicts with E-911 projects has resulted in the appearance of unilateral action by the King County E-911 Program Office and frustration at the PSAP level with the lack of transparency and participation in the decision-making process. The King County Council has final funding authority while the E-911 Program Office makes operational and project decisions within its approved budget authority.

An Interim Advisory Group (IAG) was formed in 2016 and tasked with advising and consulting with the King County E-911 Program Office regarding technology, financial, and system operational issues during the development of the E-911 strategic plan. The four (4) voting member IAG will be replaced when a formal governance mechanism is adopted as a result of the strategic planning process. The IAG membership is as follows:

- One (1) non-voting representative from the King County E-911 Program Office.
- One (1) person representing NORCOM and Valley Communications.
- One (1) person representing from the PSAPs operated by the City of Bothell, City of Enumclaw, City of Issaquah, Port of Seattle, City of Redmond, University of Washington, and Washington State Patrol (each PSAP without a designated voting member may designate a non-voting member).
- One (1) representative from the PSAPs operated by the City of Seattle.
- One (1) representative from the PSAP operated by the King County Sheriff’s Office.

Future Challenges

The success of a regional governance structure is dependent on overcoming historical relationships between the PSAPs and the King County E-911 Program Office, which resulted in a lack of trust between the parties. Substantial work has already been done in this regard, such as the establishment of the IAG, which has improved dialogue, collaboration, and transparency. In addition, steps taken by all partners through the scoping and strategic planning processes have led to stronger relationships and improved communications. Continuing to strengthen that
communication will be an ongoing priority. A formal agreement will be needed on establishing an effective and consistent communications structure. This has been among the main issues identified by the participating agencies.

The Governance Task Force recognizes that the King County Council has statutory authority over revenue and budget decisions. A principal challenge will be to develop a governance model that ensures meaningful participation by the PSAPS on issues that affect PSAPs operations and budget. Any governance model must have a strong institutionalized structure so that it can continue to function through conditions of staff turnover and rotation.

**Summary of Key Issues**

*Decision-Making Authority, Feedback, and Transparency*

**A formal decision-making process is needed.**

The King County Council has authority over revenue and budget, while the E-911 Program Office has authority to make decisions within its budget. There is not a formal process in place for PSAPS to participate in deliberations or to make recommendations to the King County E-911 Program Office or the King County Council. Decisions made by the King County E-911 Program Office decisions may often impact the PSAPs without formally soliciting and considering their input. Often, there is a lack of involvement by higher-level policy and elected officials at key decision points. This includes decisions regarding program priorities, projects, timing, and expenditures.

In the past, funding, equipment, and projects have been deployed to the PSAPs without PSAPs having meaningful input into those decisions. An example was SMART 911, where there was little consultation. As a consequence the plan wasn’t fully considered and some PSAPs were unwilling or unable to run the technology when it went live due to security issues and other challenges.

A formal input structure with consistent representation, attendance, and accountability for decisions is critical to the success of a new governance model. PSAPS would like clarity about roles and authority at all levels of the regional system. PSAPs would also prioritize meaningful input into projects, planning, and budgeting before those decisions are made. Additionally, transparency around budget and expenditures is important, as are predictable timelines and processes for effective consideration of operational, technical, and fiscal issues.

*Conflict Resolution*

**A plan for conflict resolution system-wide is needed, including who has authority, and what escalates a conflict up the system.**

No formal or consistent mechanism exists for resolving conflicts or elevating issues for consideration. A structure that can allow for these issues to be raised will be critical to any governance model. The need for conflict resolution could include addressing King County E-911 Program Office decisions that may have adverse impacts on one or more PSAPS or, in turn, PSAP decisions that may impact the regional system. Specifics to consider are how and when to trigger the conflict resolution process, who has authority to resolve conflicts, and what escalates a conflict up the regional system.
Coordination/Communication

There is a strong demand for establishing agreed upon protocols for communication between the King County E-911 Program Office and the PSAPs, as well as between the PSAPs.

Historically, stability in system technology did not require a significant need for PSAP coordination and communication. However, the advancement and cost of new technology and the operational changes it requires calls for more coordination and collaboration at all levels of the King County Regional E-911 system. The System can better leverage technology investments with improved coordination/communication between the parties.

Historically, the lack of effective communication between the E-911 Program Office and PSAPs at times resulted in confusion and mistrust. Some examples include:

- During bi-monthly meetings, PSAPs would be informed of what was occurring, but not consulted.
- PSAPs had no formal avenue to be informed about operational issues.
- Communication was viewed as unilateral, from the King County E-911 Program Office to the PSAPs with no predictable mechanisms by which the PSAPs would be given an opportunity to provide input or ask questions.

Among the Governance Taskforce, there is a strong consensus that a formal mechanism for coordinating activities across the PSAPs is needed to mitigate, plan for, and find efficiencies in decisions that could impact other PSAPs. PSAPs don’t all have the same internal systems. Decisions could impact PSAPs differently and they may have to make adjustments to accommodate a regional plan.

It is appropriate that the E-911 Program Office represent King County and its PSAPS at the state Enhanced 911 Advisory Committee, but there needs to be formal lines of communication for the PSAPS to receive information and provide input on actions at the state level.

Other

Issues that may not be directly addressed in developing a new governance model were also identified and discussed. They included:

- **Lack of equity on backups** throughout the County. In the current system, each PSAP has a stand-alone system and some PSAPs are sharing a backup (i.e. Redmond and Issaquah share NORCOM). In the event that these PSAPs require a backup at the same time, only one PSAP can be backed up successfully.
- **Lack of agreement on technology investment** process and timing.
- **Lack of project management principles** in place, no formal management systems
- **Lack of predictable timelines and processes** for effective consideration of operational, technical and fiscal issues.
TECHNOLOGY & OPERATIONS ISSUES

Introduction

The Technology and Operations Task Force is responsible for establishing a ten-year technology strategy for the regional E-911 system. While not the sole focus of this effort, the migration to and sustained compatibility with national standards and practices for Next Generation 911 (NG911) has been identified as a key strategic goal for the system. Relevant reference standards and supporting documents have been listed in the Appendix of this brief.

The Task Force has begun a variety of parallel activities:

- Conducting interviews with each of the 12 PSAPs (Public Safety Answering Points) and the E-911 Program Office to identify critical issues facing 911 services and the emergency services dispatching community for the next 10 years.
- Gathering information on the existing systems and services in use by the 911 Program Office and the PSAPs to develop an understanding of how things work today.
- Understanding the possible impacts of the statewide ESINet\(^1\) on the future regional system.
- Gathering information on current or planned projects to assess any impacts on long term strategic alternatives.

This work will then lead to a series of meetings where potential future-state models will be examined and discussed, leading to detailed work to establish the preferred future strategies and information on how they can be achieved.

Strategic Technology & Operations Questions

The Regional E-911 Scoping Committee identified a number of strategic questions, including:

T1. What is the technology vision for the King County Regional E-911 System, in terms of the technology’s purpose, evolution, and investment approach?

T2. What are the technology requirements for integrating with the state’s E-911 system, and for local jurisdictions to connect to the regional E-911 system?

T3. What is the ongoing decision process for technology investments, including options, tradeoffs, priorities, budgets, and schedules?

T4. What are the ongoing performance metrics for technology in the King County Regional E-911 System, including the performance of the system, vendors, and local partners?

\(^1\) The statewide ESINet is the Emergency Services IP Network that routes and transports calls to 911 from originating carriers to the PSAPs.
T5. What are the security requirements for the King County Regional E-911 System, including protection of the system, individual privacy, and proprietary information?

T6. Addressing the strategic questions above will entail assessing and defining the overall technical architecture, strategic goals and technology governance process for the regional E911 Program.

**Best Practices**

*Manage, review and implement in alignment with national standards and best practices (i.e. (e.g. NENA, APCO, CALEA, PMP, FCC, USDOT, NFPA)*)

The work of the Technology and Operations Task Force will examine standards and industry best practices in both the 911 system technology arena and in the operational practices needed to effectively support and utilize these systems. It will also include conforming to King County security standards and formal standards and requirements established by Washington State for interfacing to the statewide ESINet. A listing of key reference standards and documents identified to date is included in the Appendix section of this brief.

*Review of case studies.*

The work conducted during the Auditor’s Report process, coupled with the direct experiences of the Task Force members and the supporting consulting team, will be identifying and examining the experiences of other jurisdictions that have faced similar challenges to those faced here in King County. This will include multi-PSAP counties in Washington as well as other areas of the country to gain technology, programmatic and operational insights that can apply. The Task Force is also looking at lessons learned from similar technology implementations, such as text-to-911 in other counties throughout the state.

As these other models and lessons are examined, the Task Force will be looking into how technology and operational requirements were approached and the strategies utilized by the PSAPs to prepare and implement NG911 capabilities for the future. This is an important part of our work for the King County strategic planning effort since the E911 Program needs to work in collaboration with the 12 PSAPs to establish technical and operational models for the future.

**Baseline Questions**

*What relevant technology is in use within the King County Regional E-911 System now?*

The King County E911 system is a decentralized system architecture, with each of the 12 individual PSAPs directly interfaced to the statewide ESINet. A 13th “Test PSAP” is also connected to the ESINet to allow pre-deployment testing of any technology changes before rolling those changes out to the 12 operational PSAPs. The map below provides an overview of the locations of the 12 PSAPs in King County.
While a common system vendor and technology platform are used across all of these PSAPs, various components of the individual PSAP systems are coming due for replacement at different times, and this will need to be factored into long-term strategies as well. The table below provides some insight on this situation.

<table>
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<th>Location</th>
<th>Project-Srv</th>
<th>Project-SrvB</th>
<th>VoIP-Srv1</th>
<th>VoIP-Srv2</th>
<th>Database Server</th>
<th>AIM Modules</th>
<th>Mediant 1000 Gateway</th>
<th>Map Server</th>
<th>Pictometry Server</th>
<th>VIPER Switches</th>
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A high-level diagram of the current King County E911 network is provided in the Appendix section.

In addition, the King County E911 Program has implemented, or is in the process of implementing, a number of ancillary systems and services that support either the processing of 911 calls or the maintenance and operations of the 911 systems and equipment. These include things such as interim solutions for Text-to-911, system management and monitoring networks and applications, and imagery to enhance mapping functionality. These systems will need to be integrated into strategies developed in this planning process for the 10-year planning horizon.
Finally, the statewide ESINet is currently undergoing a major transition to a new vendor and complete NG911 system architecture. The ESINet transition will touch each of the PSAPs during 2017. This conversion will be integrated into current operations and will be critical in developing the 10-year strategies for the King County system.

What are the technology lessons from the 2015 King County Auditor’s report on E-911 operations?

Processing and routing 911 calls to the proper PSAP requires a complex interaction between the telecommunications carriers, the statewide ESINet, the local 911 system equipment at the PSAPs, and the computer-aided dispatch (CAD) and other systems utilized by the PSAPs to process the call and get it dispatched to law enforcement, fire and emergency medical services. Over the years, the King County E911 Program has increased the number of supporting systems and services to meet the identified and emerging needs of 911 in general, and the PSAPs in particular, without a clearly identified strategy for sustaining the ongoing operational and replacement costs for these systems and services. In some cases, these systems or services have brought unforeseen technological or operational impacts on the PSAPs themselves, bringing either additional dollar or opportunity costs into the mix.

The Task Force will be carefully considering each level of the overall 911 call routing and handling process to make sure that technology strategies developed for the 10-year planning horizon have well understood acquisition, operation and replacement costs from both the King County E911 Program perspective and from the PSAP perspective. Operational policies and practices will also be given careful consideration so that clearly defined expectations can be established. Consideration will also be given to identifying strategies that clearly identify responsibilities that rest with the King County E911 Program, responsibilities that rest with the PSAPs, and responsibilities that need to be shared between both entities. This will aid in clarifying the core mission and responsibilities of the King County E911 Program and System to support the work of the Governance and Finance Task Forces.

The King County Auditor’s report specifically noted the following issues:

- King County Department of Information Technology’s (KCIT) project review process can provide project oversight and review of project plans, business cases and cost benefit analysis of King County 911 projects.
- KCIT also brings security expertise and processes to the King County 911 program and slate of projects.
- Implementing NG 911 will be a complex multi-year process requiring a clear and detailed plan coordinated between the E911 Program, 12 PSAPs and the State ESINet.
- Collaboration with stakeholders and clear decision-making is needed to plan effectively for emerging capabilities.

Existing Conditions

The King County Regional E911 System uses a decentralized system architecture with equipment located at each of the 12 PSAPs that directly interconnects them to the statewide ESINet. This
equipment is sourced from a single vendor, and provides a homogeneous mix of system capabilities and functionality so that each PSAP has access to comparable capabilities. Connectivity between the PSAP equipment and the State ESINet has been deployed with a combination of legacy telecommunications circuits and NG911 using internet protocol networking. While envisioned as a mechanism for preparing King County PSAPs for a full Next Generation 911 future, it may be necessary to make adjustments to this architecture to meet current NG911 strategies, capabilities and security requirements. A high-level diagram of the current King County 911 network is provided in the Baseline Questions above.

The State of Washington has recently launched a project to replace the current statewide ESINet with a network provided by a different vendor. This will bring new security and interface requirements that will need to be implanted to allow the current King County PSAPs to interface to the new ESINet, which is planned for completion by the end of 2017. With this new network in place, the 10-year strategic plan for King County should be able to anticipate a fairly stable ESINet environment across the planning period.

King County continues to experience a decreasing use of landline telephones for calls to 911 and an increasing use of Voice over IP (VoIP) and wireless phones used for this purpose. This is a consistent trend across the country that shows no indication of ever changing.

![Sources of 9-1-1 Calls](chart.png)

Wireless calls present a variety of challenges in emergency call processing including the need to route the call to a PSAP based on imperfect caller location information at the time the call is placed. Currently, wireless 911 calls are initially routed to the five largest law enforcement dispatch centers King County (Seattle Police, NORCOM, King County Sheriff's Office, Valley Com and Washington State Patrol). A map of the wireless call routing areas is provided below.
Wireless 911 calls are initially routed to one of 5 PSAPs in King County based on the coverage area of the cell site or cell site sector.

- Calls originating from cell sites/sectors along the primary State highways (shown as red lines in the map) are routed to the Washington State Patrol’s PSAP
- Calls originating in the green area are routed to the King County Sheriff’s Office
- Calls originating in the dark blue area are routed to the Seattle Police Department
- Calls originating in the purple area are routed to NORCOM
- Calls originating in the brown area are routed to Valley Com.

If the circumstances of an incident reported by a wireless caller require the response of law enforcement, fire or medical resources that are not dispatched by the PSAP originally receiving the call, the caller is transferred to one of the other seven PSAPs for further call processing and dispatch of local response units. In some situations, different PSAPs are involved in dispatching the various disciplines to a given location, further complicating how best to initially route and then transfer wireless calls. While wireless industry initiatives are making progress on improving wireless caller location improvements, local governance and decision making processes will need to guide any future strategies related to how wireless calls are routed and managed from over 7,000 towers covering over 28,000 sectors in King County.

The King County E911 Program provides direct funding to the PSAPs for a variety of technology and operational support costs. This includes direct support for a total of 23 personnel; including 9 engaged in GIS/CAD support, 9 engaged in IT system support, and 5 engaged in 911 and telephony support (a table showing the level of staffing supported in each PSAP is included in the
Appendix). The Program also administers a mechanism for allocation of funds that can be used by the PSAPs to support operational call receiver positions and 911 related technology investments.

This funding support is a critical component for the PSAPs and there will be strong pressure for it to continue into the future. But it is also well understood that the core mission of accurately and reliably delivering 911 calls from the public to the PSAPs needs to be a primary focus of the countywide system, so there will be a strong need to balance these needs and interests in any plans for future technology or system services or architectures.

Future Challenges

The King County 911 system faces a number of challenges over the 10-year planning horizon. One of the most challenging of these is that it is extremely difficult, if not impossible, to accurately predict how technology pressures in the latter years of a 10-year plan may impact the overall countywide system. Therefore, even with detailed strategies to guide the early years of the 10-year plan, it will also be vital to establish ongoing technology and operations evaluation, recommendation and decision processes so that the system can adapt to changes that will inevitably occur.

The uncertain future of the full range of Next Generation 911 capabilities also presents a significant future challenge. While there is a fairly solid base of standards and practices related to the fundamental architecture of the heart of NG911 networks, there are a number of visions for the types of services and capabilities that might be possible once the core infrastructure is in place, on either a regional or nationwide basis. While there is a clear need and interest to get Text-to-911 services operational (initially with an interim strategy and then in a native mode over NG911 infrastructure) there is less clarity of the operational benefits of enhanced capabilities such as the ability to transmit photos, video or other data as part of "calling 911". It will therefore be very important to establish process so that the PSAP community is routinely engaged in reviewing and evaluating these capabilities and that collaborative decision-making is undertaken before any of them are deployed at either the PSAP or countywide level.

Planning for the future needs to be well informed and constrained by the economic capacity of the King County E911 Program and the economic and operational capacities of the individual PSAPs. It is quite likely that over the 10-year planning horizon there will be other jurisdictions in the immediate region or across the country deploying enhanced NG911 capabilities and services. It will be imperative for these to be carefully evaluated against local constraints and priorities before undertaking any deployment of these in the King County system.

Summary of Key Issues

Governance

Clear roles and responsibilities and decision-making processes are needed to effectively deal with emerging changes.

There appears to be a strong consensus that at its heart, the primary function of the E911 Program and system should be to be focused on the effective and efficient processing of "calls" to
911 so they are quickly and accurately delivered to the PSAPs responsible for dispatching emergency services to the caller’s location. To accomplish this function, a combination of regional and PSAP technology systems will be required, along with security, maintenance and operational practices to sustain their effective performance. All of these will need to be conducted within a governance process that balances countywide and individual PSAP needs and constraints.

Pace of Change

The pace of technology change brings new public and user expectations that can stress 911 systems and operations, and will require a continuous process for review and evaluation of new changes and fiscal impacts.

While there is a fairly high degree of certainty on how the State’s ESINet architecture will enable the transition to NG911 capabilities, there is less certainty about what those future capabilities will be and how rapidly they will emerge as operational realities. NG911 means many different things to different people. As discussed above, “calls” to 911 are moving beyond traditional voice telephone calls to include capabilities such as texting and the delivery of additional content and data as pictures, video or other data interactions. In some situations, the “caller” or “reporting party” of the future may actually not be a person at all, but rather monitoring or telemetry device that automatically contacts 911 in the event of a vehicle crash or similar emergency event.

As part of its work, the Technology and Operations Task Force will develop a local definition of what NG911 will mean for King County over the 10-year planning horizon. It will not be possible to anticipate all of these changes at the front-end of this process, so planning and executing these enhanced capabilities will require a well-structured and ongoing governance processes that evaluate the technological, security, operational and fiscal implications of incremental changes over time.

Architecture Complexity and Strategy

The overall architecture of the 911 system needs to be evaluated, with a new strategy developed to respond to overall system objectives and evolving future conditions. This may require an ongoing Technology & Operations committee to conduct continuous review and evaluation.

The strategic plan will need to evaluate and recommend whether King County continues with the currently decentralized 911 technology architecture or if alternative strategies utilizing a shared and more streamlined system architecture should be established. Any strategies identified need to assure that future technologies can meet adopted security standards and support high reliability, survivability and accuracy. Strategies will also need to take into consideration the full lifecycle costs for acquiring, maintaining and replacing the technologies over time, both on a regional system perspective and for the systems and equipment needed at each of the PSAPs.

Business strategies need to balance the operational needs of the PSAPs long-term effectiveness of the E-911 Program and sustaining the quality of 911 service to citizens. Clarity on business strategies allows effective development of technology strategies that is responsive to shifts in
demand from population growth, expectations from a changing demographic, and new
capabilities to serve differently abled constituents. This will require that the decision-making
processes be put in place to guide technology planning, implementation and operations and be
integrated into the governance model as a continuing responsibility of all the involved entities.

Security

Security of the 911 system overall, as well as other critical PSAP systems, needs to be a constant focus and priority.

Security is a critical consideration at all levels of the emergency call handling process, not just for
the 911 system elements themselves. There is currently no formally adopted security policies and
architecture for the 911 systems and this needs to be a current and continuing focus. The PSAPs
utilize a wide variety of other technology systems that either touch or are impacted by the
technologies in place for the “911 system” itself. Therefore, establishing and sustaining security
standards and practices will require close coordination and collaboration between the King
County 911 program and the PSAPs to allow the needs and interests of all involved entities to be
met.

Call & Operational Complexity

The nature of emergency calls is changing rapidly, with ever-increasing volumes
of calls from wireless devices and emerging technologies such as text, video and
telematics calls to 9-1-1.

These changes will create increasing complexities in the technologies needed to properly route
and handle these calls, as well as evolving operational practices to properly handle these calls.
The strategic planning process will need to work to identify mechanisms to deal with these
challenges in a technologically sound and fiscally responsible manner. As these new technologies
emerge, there will also be increasing public expectations that they be utilized in our local 9-1-1
and emergency response environment. Given the level of diversity in the geographically
distributed PSAPs and the jurisdictions they serve, this will likely have implications on overall
funding requirements as well as the distribution of funding.
FINANCE ISSUES

Introduction

The Finance Task Force is charged with the research, deliberation, and recommendation of a 10-year Sustainable Financial Plan for the Regional E-911 System. The E-911 Strategic Plan Scoping Process required that the Task Force address the following set of questions during the strategic planning process. The Task Force is progressing through its work program since being convened in late September.

Currently, the Task Force is reviewing the principles and key questions raised during the scoping process and has received detail on past, current, and forecasted revenues and costs. In addition, the Task Force is receiving information on policies that guide the:

- Financial management
- Distribution of resources to the PSAPs
- Assumptions and drivers about growth in future costs

Strategic Finance Questions

The Regional E-911 Scoping Committee identified a number of strategic questions, including:

F1. What are the procedures and processes for forecasting, reporting, auditing, and operations related to King County Regional E-911 System revenue and expenditures?

F2. What are the funding needs and revenue strategies for the King County Regional E-911 System, including NG911 upgrades and keeping the system up to date over time?

F3. What are the stakeholder reporting requirements related to the King County Regional E-911 System finances, including revenue, expenditures, efficiency, and effectiveness?

F4. What are the investment management policies for the King County Regional E-911 System related to forecasting, investments, reserves, and contingencies?

In consideration of the Strategic Finance Questions, the Finance Task Force expects to recommend a 10-year Sustainable financial plan that:

- Is clear, understandable, and transparent in its development and reporting.
- Supports agreed-to system responsibilities of stakeholders to include the E-911 Office, King County, the PSAP's and their sponsoring agencies.
- Includes a mechanism to provide accountability for all expenditures articulated through financial management policies, timely reporting, and audits.
- Incorporates a measure of flexibility to accommodate evolving system needs and changes in resources.
**Best Practices**

The Task Force is currently reviewing practices of other comparable Washington (and nationwide) counties to better understand their practices related to service responsibility, financial management and accountability. The Task Force would like to better understand how other E-911 programs in Washington State and other comparable places are funding and managing their E-911 programs. The term “best practices” does not necessarily reflect the purpose of the inquiry, since most Task Force members are interested in both the nature of the practices of other programs and whether those practices lead to effective and sustainable financial management of the program.

The work program in this task is divided into two areas. The first examines practices in Washington State counties that have service delivery conditions similar to King County. The second area would examine relevant and effective practices in other agencies across the country. The work will try to identify practices in other comparable settings that might be portable to the organizational, service delivery, and legal/policy conditions in King County and Washington State. The Task Force is also consulting other resources such as the generally accepted financial management principles for municipal agencies.

The Task Force is reviewing these and other questions related to best practices:

- What are the organizational characteristics of other counties with regard to roles, responsibilities, and accountability between county E-911 program offices and PSAPs?
- What are the policies other places put into action to ensure performance and accountability for service delivery across the E-911 system?
- What are other cities, counties, and PSAPs doing with respect to financial management of their E-911 programs? Are King County’s challenges unique or are there larger structural issues?
- How are other places choosing to fund their E-911 services?
- What are the financial policies that govern the expenditures, budgeting, and delivery of services for both operations and capital services?
- How are other places proceeding with NG 911 technology upgrades with respect to managing their financial position?
Baseline Questions

How is funding distributed now?
Revenues support the maintenance of the E-911 system. It does so by supporting operational and capital expenditures at the E-911 Program Office and through direct support to the PSAPs. The chart to the right shows the current distribution of E-911 revenue. Approximately 51% of revenue supports the PSAPs with the balance supporting the E-911 Program Office. The level of PSAP support reflects previous decisions by the E-911 Program Office (the Task Force is currently reviewing information on these decisions).

The direct support to PSAPs covers expenditures in three broad categories. A quarter of revenues goes to supporting equipment at the individual PSAPs necessary for system integration. Another quarter of revenues goes to FTE support for qualified IT activities. The remaining 50% of revenues can be used for approved 911-related purposes. These activities must fall within the State guidelines and King County code (the Task Force is currently reviewing information on these guidelines).

What are projections for future E-911 Revenue?
Revenue is forecasted to be relatively flat through 2020 (current budget forecast year). Revenue has not increased since the excise tax increase in 2011, however, little growth in the base number of phone lines was evident even before that time. While growth is expected in VOIP and wireless lines during the forecast period, these increases will not overcome the rate at which households are abandoning their wired lines.
What are the financial lessons from the 2015 King County Auditor's report on E-911 operations?
The financial consultant found that the E-911 program's financial condition is unclear due to the commingling of operating and capital expenditures. Planned spending will need to be curtailed to match available revenue in order to avoid depletion of reserves and a potential negative financial position. The E-911 Program Office is moving forward with a series of initiatives to better account for its capital and operating costs. The Task Force has requested more detailed data about E-911 program and PSAP expenses to better understand where adjustments can be made.

Existing Conditions

The E-911 program budget has experienced a growing fund balance as a result of deferred or unfinished capital projects.

Over the past decade, the E-911 program has had a gap between budgeted expenditures and actual expenditures. The exact source of the gap is not clear due to the past practice of commingling operating and capital expenses. However, it is thought that the bulk of the balance is due to the delay of capital projects from their initial budgeted timeline. In addition, some resources were reserved for future NG911 planning, although the actual cost and timing for NG911 projects is not known. This gap in expenditures has led to large fund balances, currently estimated to be $17 million by the end of 2016.
**E-911 revenue supports the system through the PSAPs**

The distribution of 911 revenues to the PSAPs is calculated through a series of formulas that are weighted by call volume. General revenue (available to fund a variety of 911-related expense) is weighted directly by call volume and augmented for large PSAPs. Revenue distribution supporting equipment use call volume to sort PSAPs into large, medium, and small categories for distribution with fixed amounts established for each category of PSAPs. Small PSAPs are funded one-half FTE for both IT and GIS. Large PSAPs are funded one FTE each for IT, GIS, and PBX/Viper Admin.

**Summary of Key Issues**

**Financial Sustainability**

**Forecasted increases in operating and capital expenditures need to be evaluated for accuracy and whether alternative action is required. Forecasted growth in these expenditures is driving fiscal deficits in the future.**

King County budget financial projections reveal a negative fund balance by the end of the 2022 budget biennium. The County anticipates operating and capital expenditures will consume current fund surpluses over the next three budget biennia. The Task Force is currently focused on evaluating the drivers of expenditure increases. The Task Force has received in-depth and insightful data from the E-911 Program Office that gives it confidence it is seeing the most in-depth assessment of the financial situation.

However, at this time we do not yet have the fullest picture of expenditures related to the E-911 system and what specific elements are driving costs whether they be at the Program Office or PSAP level. We feel that it is imperative that we have this understanding so that we can make assessments about:

- The accuracy of future expenditure forecasts,
- Whether projected deficits are inevitable under the current revenue picture,
- Whether alternative courses of action are required, and
- How financial changes to the system might set the path to financial sustainability.

Our specific inquiry into expenditures is focused on the following issues:
• Capital Planning and Expenditures. The forecasted budget includes large increases in capital expenditures. Historic under expenditures have led to large current beginning fund balances. It is thought that the bulk of the balances are due to years of successive delays of capital projects from their initial budgeted timeline; however, it could include unanticipated vacancies, unneeded contingencies, etc. The Task Force is seeking to better understand how the program office identifies, prioritizes, budgets, and delivers these capital projects. They would like to avoid situations in the past where significant under-expenditures occurred.

• Direct Services by the PSAPs funded by the Program Office. Approximately 51% of program expenditures support E-911 services at the PSAPs. Revenue distribution occurs mainly via a set of formulas weighted by call volume. Additionally, the direct service expenditures support PSAP FTEs engaged in E-911 GIS and IT activities. The Task Force is in the process of uncovering the original rationale for these arrangements, as well as the formulaic basis of the funding levels to the PSAPs. The Task Force anticipates revisiting the policy basis, funding levels, and distribution to PSAPs as part of its work program. Specifically, we are currently trying to understand what portion of total PSAP expenditures are funded by the King County E-911 Program Office as well as understanding the duties of E-911 Program Office funded FTEs (GIS/CAD; IT System Specialist and PBX/VIPER Admin) at the PSAPs.

• Financial Implications of NG911. The Technology and Operations Task Force is developing local definitions for what NG911 will mean for King County. The Finance Task Force is concerned that such uncertainty regarding the capabilities and technology changes will be difficult to translate into concrete financial needs that both the Program Office and PSAPs can plan for. This concern is not only about understanding the increased capital costs of new technology, but also if any operating efficiencies under the new system would occur, including reduced staffing or support costs. If NG911 is not fully defined, it is difficult to make a financial commitment to spending with uncertain timing and costs.

• Program Office Staffing and Services. The Program Office has recently reorganized some of its services and increased its employee count. They have recently transferred 6 employees to KCIT and the E-911 fund will transfer funds to support the employees. The office has also hired additional administrative and project management staff necessary to administer the office and deliver projects. The Task Force is in the process of understanding the motivations and financial implications of these changes.

• Reserve Policies. The Task Force has raised questions about the process and assumptions that the E-911 Program Office uses to set its fund reserve. The Task Force believes that maintaining a reasonable level of unreserved fund balances can provide insurance against unanticipated expenditures and revenue shortfalls moving forward. These reserve policies should be set with regard to the purpose and appropriateness of target levels.

• Contracting with Vendors. The Task Force will be examining the process by which the E-911 Program Office contracts with vendors for services. The Task Force is in the process
of better understanding policies that govern vendor procurement and management to ensure that more advanced, strategic practices are in place.

Revenue adequacy of existing sources will need to be evaluated as part of a financial sustainability plan.

The phone line excise tax rates are fixed nominally to the number of phone lines. The resulting revenue yield has been flat going back to the mid-2000s. The gains in the growth of VOIP and wireless phones lines have been offset by the reduction in phone lines from households who have phased out their landlines. The Task Force is concerned that the revenue adequacy of the excise tax alone may not be sufficient to meet the current costs of service delivery, let alone the financial demands required to implement new technology, capabilities, and services. The Task Force has raised questions regarding the excise tax distribution by the State. It is our understanding that the State is responsible for collecting the tax, but more clarity is needed to confirm the State is accurately capturing all the revenue at the county level and distributing it to King County appropriately.

The Task Force is currently evaluating the nature and scale of operating and capital expenditures to better understand what is likely to drive future expenditures; however, members of the Task Force are concerned that inflation and the growth in labor and capital costs might pose a key challenge for how the E-911 program is currently funded. The Task Force is investigating how other places fund these services and will consider if new revenues are necessary to bring funding in line with needed service costs.

Core Services

More clarity of financial responsibilities and associated costs of the E-911 System is needed.

There is ambiguity about the appropriate roles of the E-911 Office and the PSAPs in supporting the E-911 system. Further, the review is assessing the policy basis that determines what core services the Program Office is required to provide, and beyond those costs, what are the financial implications, if any, to individual PSAPs. A definition of the core services of the Program Office is necessary to understand delineation of costs among the Program Office and PSAPs. The Task Force has observed some inconsistency about how each PSAP allocates their share of E-911 funding. Mutual agreement is needed on how the E-911 Program Office and PSAPs use their funds most effectively and efficiently. There is a need for system-wide standards and policies on how E-911 funded FTEs in PSAPs are supporting E-911 services. The Task Force is investigating how the E-911 Program Office and each PSAP spends their share of funding, including E-911 funded FTEs. This may reveal the similarities and inconsistencies across PSAPs, and inform whether allocation decisions should be normalized system-wide as fundamental to the E-911 Program Office’s role in delivering services. However, role clarity will also need a measure of flexibility to accommodate evolving system needs and changes in resources.

Financial Policies & Accountability

Clear financial policies and accountability are needed.
The Task Force will review and recommend updates to financial policies related to budgeting and accounting, and, potentially the distribution policies for support of direct services at the PSAPs. The historic commingling of capital and operating budgets masked some long-term issues. In some cases, it appears that financial policies are lacking, outdated, or absent altogether. The Task Force believes there need to be clear measures to provide accountability through clear financial management policies, timely reporting, and audits. Specific areas of improvement thus far include the need for improved internal controls and oversight to review and authorize outlays in the E-911 Office and funds distributed to the PSAPs through the Program Office.

Distribution of Funding

A reasonable, clear, and transparent system for distribution of funding is essential, and must evolve with changing technologies, operations, and service demands.

Funds are distributed using a formula and metrics established by the E-911 Program Office, but in the past the PSAPs have lacked a full understanding of those formulas. Components of the formulas and their implications should be clear. For example, complications can arise when funding is tied to 911 call volume when individual jurisdictions have varying efforts to divert non-emergency calls from 911. All parties should have a shared understanding of how the funding decisions are made and the baseline costs. Transparency is needed for policies regarding the distribution of general revenue, technical personnel, and equipment support to PSAPs.
Appendix I: Strategic Plan Shared Vision, Guiding Principles, & Goals

The Regional E-911 Scoping Committee identified Guiding Principles and Goals for the strategic planning process and the resulting King County Regional E911 System. These are:

Shared Vision — for the Regional E-911 System
Consistent with national best practices, King County's Regional E-911 System will be among the best in the country in terms of:
• Rapid and effective routing of requests for service
• Effective deployment of evolving technology
• Efficient use of public resources
• Adherence to the guiding principles (below)

Guiding Principles — for the Regional E-911 System
4. Process
   g. Transparency - Transparency in operations, procurement, decision-making, and financial management
   h. Project Management Principles - Keep current with industry standards in terms of project management and operating principles (PMP)
   i. Collaboration - Maintain a collaborative approach among all jurisdictions and project partners, including open and regular communication
   j. Predictability - Predictability in operations and decision-making
   k. Advocacy - Advocate at all levels to influence best practices and appropriate resources in the public and private sectors
   l. Inclusion - includes a broad array of voices

5. Finances
   d. Fiscal Responsibility - Equitable, transparent, and responsible fiscal management
   e. Financial Sustainability - Manage toward long-term financial sustainability
   f. Cost Effective - Leverage resources to provide the best possible services

6. Standards
   d. National Best Practices - Stay in step with national best practices in operations
   e. Performance Metrics - Track progress with specific and transparent metrics
   f. Continuous Improvement - Respond to recommendations, and continue to seek opportunities for improvement (including the King County Auditor's 2015 report)

Goals — for the Regional E-911 System
As part of the strategic planning process, develop a dashboard of outcome metrics to monitor progress toward these goals, to be in alignment with the guiding principles above.

7. No Request Lost - Never lose track of a request for assistance
8. Prompt Response - Promptly route and respond to every request for assistance to promote rapid dispatch
9. Seamless System-wide Technology - A county-wide system that is fully integrated and interoperable, minimizing transfers and ensuring reliability
10. Meet or Exceed Industry Standards - A county-wide system that meets or exceeds current industry standards and is continuously improved to adapt to evolving technology and needs
11. Equity - Equitable access to the E-911 system by all communities and individuals, recognizing and addressing the obstacles faced by specific groups.
12. Secure, Resilient & Survivable - A county-wide system that is secure, resilient, and survivable
Appendix II: Technology & Operations Background & References

A complete listing of National Emergency Number Association (NENA) Standards and Documents can be found at http://www.nena.org/page/standards

Key Standards and Documents related to the deployment of NG911 systems and strategies include:

NENA i3 Solution – Stage 3 – This web page describes the migration actions that build towards the full implementation of the i3 end-state, which is defined in the standards document discussed below.

http://www.nena.org/?page=i3_Stage3

NENA Detailed Functional and Interface Standards for the NENA i3 Solution (NENA-STA-010.2-2016) – This document describes the “end state” of an IP-based Emergency Services IP Network (ESINet) once full migration from the legacy circuit-switched technologies for call routing and delivery has been completed.


NENA Security for Next-Generation 911 Standard (NENA 75-001) – This document identifies the basic requirements, standards, procedures or practices to provide the minimum levels of security applicable to NG911 entities.


NENA Next Generation 911 Security Audit Checklist (NENA 75-502) – This is a companion document to NENA 75-001 and provides detailed checklists to audit conformance to the Standard.


NENA VoIP Characteristics Technical Information Document (NENA 08-503.1) – This document provides an overview of Voice over IP technology.


King County Security Standards

Current 9-1-1 System Architecture for King County (next two pages)
MEMORANDUM

To: Governing Board
From: Mike Mandella, Deputy Director
Date: January 13, 2017
Subject: General Update – Governing Board Meeting – January 13, 2017

• Current/Ongoing Events

Foreign Language Interpretation Lines:

Effective February 1, 2017, PSAPs throughout King County will be required to establish a separate contract with one of three county-approved vendors providing language interpretation for non-911 calls. Non-911 calls are generally considered to be calls made to an interpreter from a field unit.

In the past, the King County E-911 Program Office held contracts with interpretation vendors for calls to 911 as well as non-911 interpretation. Calls for non-911 interpreters were paid by the county and reimbursed by each PSAP on a monthly basis. This “pass-through” administrative function will be discontinued next month and the PSAPs will be billed directly by their selected vendor. The costs will remain the same.

NORCOM has elected to contract with Language Line, the same vendor we have been utilizing for both 911 and non-911 interpretation. The new contract for non-911 interpreter services will provide each police and fire department a unique agency and personnel identifier for ease of identifying the number and length of calls placed to Language Line by agency. The detailed information on monthly statements can be tracked or audited by each response agency and used in a variety of ways, depending on the needs of the agency. NORCOM will continue to budget for and pay these monthly invoices for the foreseeable future.

Ergonomics Study and Review:

NORCOM recently contracted with Performance Ergonomics to take a look at a wide variety of items to help improve the physical layout of the technology tools used by telecommunicators as they relate to physical well-being. Performance Ergonomics specializes in helping organizations take a look at workstations, work processes, the associated adjustable furniture, seating and more. Their focus is on improving work efficiencies and reducing musculoskeletal discomfort that manifests in the form of low back pain, eye strain and upper extremity soreness.

NORCOM deploys good adjustable equipment including desks and chairs. Providing and disseminating information regarding proper seat height relative to an individual’s knees and hips, arms and elbows, and, the best height to place the several computer monitors at each dispatch position will go a long way to helping us better use our workstation equipment and reduce the
body stress that many experience. Eliminating or reducing body stress is a positive step given the other stresses of the job of telecommunicators.

**CALEA Standards and Accreditation:**

NORCOM will be purchasing the most current and updated version of the CALEA standards this month.

NORCOM follows best practices and standards found in CALEA, and conforms our internal policies and procedures to match wherever possible. Given the several updates to the CALEA standards since the last purchase, NORCOM staff will inventory our policies and procedures in 2017 for conformance compared to CALEA and consider participating in the accreditation process in the future, based upon the result of the inventory and internal review.

- **Activity Since Last Report:**

  **Employee Survey:**

  NORCOM’s third employee survey is close to being finalized and will be administered in late January or early February, 2017. The first such survey was conducted in early June of 2012, with a follow-up survey being administered in November of 2013.

  Given our collective commitment of transparency, and openness to continuous improvement, we feel it is time to conduct a check-in on any progress made in regard to the past two survey results. With each survey conducted, an action plan is developed with specific goals and objectives to make any necessary course corrections identified and validated via the survey.

  **Snoqualmie Pass Fire and Rescue (Update):**

  UPDATE: The transition of dispatching services for Snoqualmie Pass Fire and Rescue to KITTCOM is in its final stages, with the Electronic Serial Numbers (ESN) for land and VoIP lines associated with residences in the Snoqualmie Pass Fire and Rescue service having been delivered to King County and CenturyLink earlier this week. While the hard date for the cutover is not yet set, it is estimated that the date will be between January 24th and 31st.

  As reported previously, the cutoff point for determining Fire/EMS responses will be mile post 52, approximately at the top of the pass.
MEMORANDUM

To: NORCOM Governing Board & Joint Operations Board

From: Melissa Petrichor (formerly Crawford), Police Liaison

Date: January 4, 2017

Re: Staff Update for December 2016

Performance Measurement Data through December is included in packet.

1. Current projects
   b. 2017 WSP ACCESS Audit
      i. NORCOM scheduled March 9, 2017
      ii. Kirkland Police scheduled March 8, 2017
      iii. Bellevue Police scheduled February 15, 2017
      iv. Mercer Island Police scheduled February 16, 2017
      v. Medina Police unknown date
      vi. Clyde Hill Police unknown date
   c. Premise maps and information upload to police Pre-Plan in Tyler CAD
   d. Police Operations Board Meeting Jan 20, 2017 at 1030
      i. Phase 2 E911 call priority review
      ii. Police Emergency reduced response plan
      iii. Interoperability radio channel review with training
      iv. Mobile Crisis Team procedure
      v. Traffic accident procedure review
      vi. Priority call to MDC procedure development
   e. Staffing
      i. 2017 Holiday/Event Staffing
      ii. Sunday staffing analysis
      iii. Overtime/Schedule tracking
      iv. 2016 staffing level review
NORCOM Performance Measurement Data
January 1, 2017

Police Liaison

The following performance data is included with this report:

- 911 Call Answer Standards
- 911 Call Answer Standards by Month and by Year
- NORCOM Actions (phones, police)
- CAD Calls by Year
- Police CAD Incidents to Date AND Call to Dispatch Times
King County 911 Call Answering Standard

Standard: 90% of 9-1-1 telephone calls will be answered within 10 seconds or less during each hour of a calendar quarter. This graph represents the % of incoming 911 calls that were answered within the 10 second threshold for each quarter.

4th Quarter shows year to quarter to date

Monthly 911 Calls

552 Most 911 Calls received in a day December (December 02 2016)

339 Fewest 911 Calls received in a day December (December 25 2016)

439 Average Number of 911 Calls received per day in December 2016

814 Average Number of all calls per day in December 2016 (Includes 911 calls)

13,450 Total number of 911 calls received in December 2016

25,253 Total number of all calls received in December 2016
911 Call Answer Statistics 2010 – Present

The NORCOM adopted standard is 90% of 9-1-1 telephone calls will be answered within 10 seconds or less during each hour of a calendar quarter (barring major disasters or other extraordinary events).

Source: King County Enhanced 911 Participation Agreement

2016 911 Call Answer Statistics compared with Number of 911 Calls Received
<table>
<thead>
<tr>
<th>Month</th>
<th>911 Calls</th>
<th>911 Answer %</th>
<th>7 digit EMER</th>
<th>Non Emergency (Secondary)</th>
<th>Incoming Business</th>
<th>PD Calls</th>
<th>Traffic Stops</th>
<th>Officer Initiated Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>13914</td>
<td>99.33%</td>
<td>7431</td>
<td>1789</td>
<td>1516</td>
<td>8396</td>
<td>2773</td>
<td>334</td>
</tr>
<tr>
<td>February</td>
<td>12772</td>
<td>99.14%</td>
<td>7155</td>
<td>1930</td>
<td>1241</td>
<td>8130</td>
<td>2391</td>
<td>271</td>
</tr>
<tr>
<td>March</td>
<td>13972</td>
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<td>8214</td>
<td>2259</td>
<td>1447</td>
<td>8726</td>
<td>2846</td>
<td>265</td>
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<td>13215</td>
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<td>2248</td>
<td>1390</td>
<td>8482</td>
<td>2398</td>
<td>209</td>
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<td>May</td>
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<td>99.33%</td>
<td>8055</td>
<td>2400</td>
<td>1531</td>
<td>8684</td>
<td>2585</td>
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<td>June</td>
<td>14340</td>
<td>98.89%</td>
<td>8683</td>
<td>2778</td>
<td>1451</td>
<td>9011</td>
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<td>200</td>
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<tr>
<td>July</td>
<td>14978</td>
<td>98.79%</td>
<td>8931</td>
<td>2991</td>
<td>1351</td>
<td>9428</td>
<td>1919</td>
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<td>August</td>
<td>15130</td>
<td>97.85%</td>
<td>8886</td>
<td>2787</td>
<td>1344</td>
<td>9010</td>
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<td>September</td>
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<td>7796</td>
<td>2602</td>
<td>1294</td>
<td>8696</td>
<td>1987</td>
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<td>October</td>
<td>13429</td>
<td>99.14%</td>
<td>7962</td>
<td>1950</td>
<td>1263</td>
<td>8655</td>
<td>1816</td>
<td>206</td>
</tr>
<tr>
<td>November</td>
<td>12664</td>
<td>99.17%</td>
<td>7328</td>
<td>2202</td>
<td>1151</td>
<td>8580</td>
<td>1845</td>
<td>276</td>
</tr>
<tr>
<td>December</td>
<td>13450</td>
<td>98.88%</td>
<td>8316</td>
<td>2231</td>
<td>1256</td>
<td>8268</td>
<td>1614</td>
<td>201</td>
</tr>
<tr>
<td>Totals</td>
<td><strong>165,600</strong></td>
<td><strong>98.98%</strong></td>
<td><strong>96,488</strong></td>
<td><strong>28,167</strong></td>
<td><strong>16,235</strong></td>
<td><strong>104,066</strong></td>
<td><strong>26,124</strong></td>
<td><strong>2,837</strong></td>
</tr>
</tbody>
</table>

**911 Calls** = Landline, Wireless, & VoIP Calls on 911

**911 Answer %** = % of hours 911 calls were answered 90% of the time within 10 seconds

**7 digit EMER** = 425-577-5656 (alarm companies, transfers from agency phones, public safety agencies)

**Secondary Queue** = Calls have come in as 911 or 7 digit EMER, been screened, determined to be non-emergency, and transferred to the secondary queue

**Business** = 425-577-5600 (officers, family members, etc)

**PD Calls** = All calls in CAD with unit assigned excluding TS & Officer Initiated

**Traffic Stops** - field initiated, included NORCOM involvement

**Officer Initiated** = Traffic Stops via MDC (not called out & no NORCOM action needed) and all other field initiated calls

**Test** calls, cancelled calls, and calls with no unit dispatched are not reflected (not billable calls for service)
This report includes all calls with a unit dispatched on them with the exception of officer initiated (mobile) and radio initiated calls. Those incidents have been pulled from the reporting numbers because they do not accurately reflect call received to call dispatch times. In most cases, the unit was immediately dispatched on the incident (traffic incidents, on-views, etc).

**Average Call to Dispatch Times (MM:SS) for Police P1 and P2 incidents (Goal = 60 Seconds)**

All Police priority 1 and 2 calls are screened through NORCOMs Quality Assurance process. In addition, all calls over the 60 second threshold are reviewed to determine the circumstances which contributed to the apparent delay.

**16 December Incidents**

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
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<tr>
<td>2011</td>
<td>1:22</td>
<td>1:26</td>
<td>1:28</td>
<td>1:33</td>
<td>1:59</td>
<td>1:08</td>
<td>1:09</td>
<td>1:10</td>
<td>1:59</td>
<td>1:27</td>
<td>1:11</td>
</tr>
<tr>
<td>2012</td>
<td>0:54</td>
<td>1:05</td>
<td>1:05</td>
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<td>1:08</td>
<td>1:12</td>
<td>1:05</td>
<td>0:54</td>
<td>0:55</td>
<td>0:57</td>
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<td>2013</td>
<td>1:00</td>
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<td>0:57</td>
<td>1:05</td>
<td>1:06</td>
<td>0:53</td>
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<td>0:51</td>
<td>0:58</td>
<td>0:60</td>
<td>0:59</td>
</tr>
<tr>
<td>2014</td>
<td>0:57</td>
<td>0:53</td>
<td>0:50</td>
<td>0:52</td>
<td>0:55</td>
<td>0:50</td>
<td>0:65</td>
<td>0:51</td>
<td>0:58</td>
<td>1:02</td>
<td>1:04</td>
</tr>
<tr>
<td>2015</td>
<td>0:52</td>
<td>1:01</td>
<td>1:05</td>
<td>1:34</td>
<td>0:56</td>
<td>1:06</td>
<td>1:01</td>
<td>1:01</td>
<td>1:06</td>
<td>1:02</td>
<td>1:19</td>
</tr>
<tr>
<td>2016</td>
<td>1:08</td>
<td>0:53</td>
<td>0:45</td>
<td>0:51</td>
<td>0:53</td>
<td>0:58</td>
<td>0:56</td>
<td>0:46</td>
<td>0:51</td>
<td>0:45</td>
<td>0:50</td>
</tr>
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</table>

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Performance Measurement Data January 1, 2017
Prepared by: Melissa Petrichor, Police Liaison
mcrawford@norcom.org 425-577-5586
Average Call to Dispatch Times (MM:SS) for Police P3 Incidents (Goal – 3 Mins)

Dispatch times on priority 3 police calls are frequently dependant on field units being available for dispatch. Calls of this type include traffic accidents, alarms, etc. Priority 3 calls are held until sufficient information is documented in the call to provide basic response information to field units. NORCOM continues to meet this performance standard.

2258 December Incidents

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
<th>S</th>
<th>O</th>
<th>N</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1:57</td>
<td>2:02</td>
<td>2:00</td>
<td>1:51</td>
<td>1:47</td>
<td>1:57</td>
<td>1:47</td>
<td>1:55</td>
<td>1:55</td>
<td>2:32</td>
<td>1:33</td>
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<tr>
<td>2012</td>
<td>1:43</td>
<td>1:17</td>
<td>2:05</td>
<td>2:06</td>
<td>2:21</td>
<td>2:06</td>
<td>2:05</td>
<td>2:13</td>
<td>1:57</td>
<td>2:05</td>
<td>2:00</td>
</tr>
<tr>
<td>2013</td>
<td>2:09</td>
<td>1:55</td>
<td>1:50</td>
<td>2:00</td>
<td>1:53</td>
<td>2:10</td>
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<td>1:51</td>
<td>2:16</td>
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<td>2016</td>
<td>02:05</td>
<td>02:13</td>
<td>2:11</td>
<td>2:15</td>
<td>2:07</td>
<td>2:04</td>
<td>2:06</td>
<td>2:04</td>
<td>2:13</td>
<td>2:06</td>
<td>1:58</td>
</tr>
</tbody>
</table>
Average Call to Dispatch Times (MM:SS) for Police P4 and P5 Incidents (Goal 60 Mins)

NORCOM is easily meeting the expectation of non-emergency calls being dispatched in 60 minutes or less from the time of the call.

3769 December Incidents

<table>
<thead>
<tr>
<th></th>
<th>J</th>
<th>F</th>
<th>M</th>
<th>A</th>
<th>M</th>
<th>J</th>
<th>A</th>
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<th>O</th>
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<th>D</th>
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</table>
MEMORANDUM

To: NORCOM Governing Board & Joint Operations Board
From: Josh Baker, Fire Liaison
Date: January 4th 2017
Re: Staff Update for December 2016

Fire / EMS Performance Measurement Data through December is included in packet.

a. Current projects:
   i. ePASS (Electronic Personnel Accountability and Safety System)
   ii. Snoqualmie Pass Fire and Rescue transition to KITTCOM
   iii. SR520 / I90 bridge response plan changes (BEFD / MIFD / SFD)
   iv. Live MUM v1.0 to v2.0 migration
   v. CVA Protocol BLS and ALS Call Types
   vi. Resource Emergency P0 – P3 plan builds
   vii. Reduced Response revival (dispatch level changes for AFAs)
   viii. 2017 Staff Designator review
   ix. Zone 1 All capcode inventory
   x. King County Model Procedures – Aligning NORCOM FD SOPs

b. 2017 - On the horizon:
   i. Premise rights for Fire Agencies (caution notes / comments / pre-fires)
   ii. Converting from centerline to address points in cad. MIFD MIDI pilot underway
   iii. Skykomish auto-aid, map and boundary adjustments
   iv. TriTech v5.7 (attending TriCon at the end of February)
   v. Streaming FTACs for command staff
   vi. Using TriTech training environment during maintenance periods
   vii. Zone 1 command staff paging access through cadview

c. Notable 2016 accomplishments:
   i. New and Improved Resource Emergency
   ii. Manual MUM “Move Up” Type Code
   iii. Zone 1 Frontline Resource catalog on MDCs
   iv. ESFR / ALNW Landing Zone process formalized
   v. Excited Delirium adds MSO
   vi. Brush Rigs in service cross staffed
   vii. Trail Rescue / SAR enhancements
   viii. Water Rescue Changes
   ix. 1st Alarm confirmed fire “SOP” standardization
   x. TriTech Satellite Maps
   xi. Fire Communication (Routine & Priority) bulletin
   xii. Stage for Police (at discretion)
The following performance data is included with this report:

- NORCOM Actions (fire counts)
- Fire / EMS CAD Calls by Year
- Fire CAD Incidents to Date
- Call to Dispatch Times
NORCOM Fire/EMS Call Received to Call Dispatch Statistics & Incident Counts

This report includes all priority 0, 1, 2, 3, and 4 fire/EMS incidents with a unit dispatched on them. Data is gathered based on the time the call is picked up to the time a unit is dispatched on the incident.

% of Fire/EMS Calls under 60 Seconds Call Received to Call Dispatched (NORCOM Goal = 90%)

<table>
<thead>
<tr>
<th>MONTH</th>
<th>GOAL</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
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<tbody>
<tr>
<td>January</td>
<td>90%</td>
<td>88%</td>
<td>89%</td>
<td>91%</td>
<td>84%</td>
</tr>
<tr>
<td>February</td>
<td>90%</td>
<td>87%</td>
<td>88%</td>
<td>91%</td>
<td>84%</td>
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<td>March</td>
<td>90%</td>
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<tr>
<td>April</td>
<td>90%</td>
<td>87%</td>
<td>89%</td>
<td>90%</td>
<td>83%</td>
</tr>
<tr>
<td>May</td>
<td>90%</td>
<td>87%</td>
<td>88%</td>
<td>90%</td>
<td>84%</td>
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<tr>
<td>June</td>
<td>90%</td>
<td>86%</td>
<td>87%</td>
<td>88%</td>
<td>83%</td>
</tr>
<tr>
<td>July</td>
<td>90%</td>
<td>87%</td>
<td>87%</td>
<td>89%</td>
<td>83%</td>
</tr>
<tr>
<td>August</td>
<td>90%</td>
<td>88%</td>
<td>88%</td>
<td>85%</td>
<td>86%</td>
</tr>
<tr>
<td>September</td>
<td>90%</td>
<td>88%</td>
<td>89%</td>
<td>89%</td>
<td>87%</td>
</tr>
<tr>
<td>October</td>
<td>90%</td>
<td>87%</td>
<td>88%</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>November</td>
<td>90%</td>
<td>88%</td>
<td>90%</td>
<td>87%</td>
<td>87%</td>
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<tr>
<td>December</td>
<td>90%</td>
<td>89%</td>
<td>89%</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>Average</td>
<td>-----</td>
<td>88%</td>
<td>89%</td>
<td>88%</td>
<td>85%</td>
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% of Fire/EMS Calls under 90 Seconds Call Received to Call Dispatched (NORCOM Goal = 99%)

<table>
<thead>
<tr>
<th>MONTH</th>
<th>GOAL</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>January</td>
<td>99%</td>
<td>96%</td>
<td>97%</td>
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<tr>
<td>February</td>
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<tr>
<td>March</td>
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<td>96%</td>
<td>97%</td>
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<tr>
<td>April</td>
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<tr>
<td>May</td>
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<td>97%</td>
<td>94%</td>
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<tr>
<td>July</td>
<td>99%</td>
<td>95%</td>
<td>96%</td>
<td>97%</td>
<td>95%</td>
</tr>
<tr>
<td>August</td>
<td>99%</td>
<td>96%</td>
<td>96%</td>
<td>96%</td>
<td>96%</td>
</tr>
<tr>
<td>September</td>
<td>99%</td>
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<td>96%</td>
<td>97%</td>
<td>96%</td>
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<tr>
<td>October</td>
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<td>95%</td>
<td>97%</td>
<td>96%</td>
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</tr>
<tr>
<td>November</td>
<td>99%</td>
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<td>97%</td>
<td>96%</td>
<td>96%</td>
</tr>
<tr>
<td>December</td>
<td>99%</td>
<td>97%</td>
<td>97%</td>
<td>95%</td>
<td>95%</td>
</tr>
<tr>
<td>Average</td>
<td>-----</td>
<td>96%</td>
<td>97%</td>
<td>97%</td>
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</tr>
</tbody>
</table>

Performance Measurement Data December 2016
Prepared by: Josh Baker, Fire Liaison
jbaker@norcom.org 425-577-5584
Fire CAD Calls by Year Updated 12/31/2016

This chart includes all calls entered into the CAD system with a unit dispatched onto them
(NOT calls for service by budget definition)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>Total Calls (3 years) 2014 - 2016</th>
<th>3 Year Average of Fire Calls</th>
<th>2016</th>
<th>2016 % of fire calls</th>
</tr>
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<tbody>
<tr>
<td>Bellevue</td>
<td>13141</td>
<td>12652</td>
<td>13357</td>
<td>13487</td>
<td>14346</td>
<td>14492</td>
<td>43392</td>
<td>23.24%</td>
<td>14554</td>
<td>23.06%</td>
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<tr>
<td>Bothell</td>
<td>4456</td>
<td>4243</td>
<td>4513</td>
<td>4747</td>
<td>5386</td>
<td>5714</td>
<td>16751</td>
<td>8.97%</td>
<td>5651</td>
<td>8.96%</td>
</tr>
<tr>
<td>Duvall</td>
<td>801</td>
<td>739</td>
<td>776</td>
<td>772</td>
<td>847</td>
<td>817</td>
<td>2460</td>
<td>1.32%</td>
<td>769</td>
<td>1.22%</td>
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<tr>
<td>Eastside</td>
<td>7943</td>
<td>7661</td>
<td>8127</td>
<td>8286</td>
<td>8600</td>
<td>8958</td>
<td>26982</td>
<td>14.45%</td>
<td>9424</td>
<td>14.93%</td>
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<tr>
<td>Fall City</td>
<td>480</td>
<td>416</td>
<td>505</td>
<td>457</td>
<td>498</td>
<td>497</td>
<td>1507</td>
<td>0.81%</td>
<td>512</td>
<td>0.81%</td>
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<tr>
<td>Kirkland</td>
<td>6323</td>
<td>6510</td>
<td>6998</td>
<td>6854</td>
<td>7163</td>
<td>7654</td>
<td>22469</td>
<td>12.04%</td>
<td>7652</td>
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<tr>
<td>Mercer Island</td>
<td>2242</td>
<td>2120</td>
<td>2153</td>
<td>2104</td>
<td>2364</td>
<td>2398</td>
<td>7147</td>
<td>3.83%</td>
<td>2385</td>
<td>3.78%</td>
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<tr>
<td>Northshore</td>
<td>2866</td>
<td>2514</td>
<td>2802</td>
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<td>2870</td>
<td>2843</td>
<td>8658</td>
<td>4.64%</td>
<td>2945</td>
<td>4.67%</td>
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<tr>
<td>Redmond</td>
<td>6598</td>
<td>6150</td>
<td>6342</td>
<td>6318</td>
<td>6899</td>
<td>6883</td>
<td>20801</td>
<td>11.14%</td>
<td>7019</td>
<td>11.12%</td>
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<tr>
<td>Shoreline</td>
<td>6730</td>
<td>6355</td>
<td>6769</td>
<td>6837</td>
<td>7472</td>
<td>7569</td>
<td>22763</td>
<td>12.19%</td>
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</tr>
<tr>
<td>Skykomish</td>
<td>323</td>
<td>280</td>
<td>295</td>
<td>274</td>
<td>266</td>
<td>255</td>
<td>796</td>
<td>0.43%</td>
<td>275</td>
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<tr>
<td>Snoqualmie Pass</td>
<td>236</td>
<td>278</td>
<td>311</td>
<td>305</td>
<td>311</td>
<td>303</td>
<td>974</td>
<td>0.52%</td>
<td>354</td>
<td>0.56%</td>
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<tr>
<td>City of Snoqualmie</td>
<td>801</td>
<td>778</td>
<td>802</td>
<td>906</td>
<td>863</td>
<td>936</td>
<td>2480</td>
<td>1.33%</td>
<td>681</td>
<td>1.08%</td>
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<tr>
<td>Woodinville</td>
<td>3285</td>
<td>3019</td>
<td>2963</td>
<td>2990</td>
<td>2821</td>
<td>2734</td>
<td>8307</td>
<td>4.45%</td>
<td>2752</td>
<td>4.36%</td>
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<tr>
<td>OZFD Mutual Aid Outgoing</td>
<td>177</td>
<td>173</td>
<td>253</td>
<td>287</td>
<td>386</td>
<td>436</td>
<td>1229</td>
<td>0.66%</td>
<td>407</td>
<td>0.64%</td>
</tr>
<tr>
<td><strong>Fire Totals</strong></td>
<td><strong>56402</strong></td>
<td><strong>53888</strong></td>
<td><strong>56966</strong></td>
<td><strong>57455</strong></td>
<td><strong>61092</strong></td>
<td><strong>62489</strong></td>
<td><strong>186716</strong></td>
<td><strong>100%</strong></td>
<td><strong>63104</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

- Fire counts include only calls with a unit dispatched on them
- 2011 includes calls entered into New World & TriTech - some overlap exists.
- Notables: 2016 + 1% increase over 2015’s call for service tally
MEMORANDUM

To: Governing Board
From: Roky Louie, Human Resources Coordinator
Date: January 13, 2017
Subject: Staff Update

Telecommunicator Recruitment

NORCOM will begin its next Call Receiving Academy on February 7, 2017. There are currently four (4) vacant positions in the telecommunicator work group. Two (2) candidates have accepted job offers to start in this academy.

Work continues toward recruitment for this academy and the possibility of establishing an eligibility list. It is projected that current efforts will be able to fill a total of up to five (5) positions by the start of the academy if additional vacancies occur.

Associate Member of the Technical Staff

Simon Jenkins was hired on January 4, 2017 as an Associate Member of the Technical Staff (Associate MTS). Simon has worked as a contract employee with NORCOM since March of 2015. In addition to his time with NORCOM as a contract employee, Simon brings two years of information technology experience and has held a CompTia A+ certification as well as a previous Cisco Certified Network Associate (CCNA) certification.

Before accepting an offer of employment with NORCOM Simon completed a thorough hiring process which consisted of a suitability assessment report, a background investigation, a polygraph test, and a psychological examination.

Diversity Career Fair

NORCOM is working with City Career Fair Productions to secure attendance at a Diversity Career Fair in Seattle. NORCOM has attended this career fair in the past which has generated several candidates for entry level positions.
MEMORANDUM

To: NORCOM Governing Board

From: J.R. Lieuallen, Finance Manager

Date: January 03, 2017

Re: Staff Update

• Tyler (NWS) Settlement Agreement Payments – There are two remaining payments:
  o The 2014-2015 SSMA amount of $388,160 was made on December 19th.
  o The Final Acceptance payment of $274,509 is still outstanding.

• 2017 Budget
  o Gathering final budget resolutions from agencies. A follow up email will be sent the week of January 2 to the agencies that haven’t already submitted their resolutions.
    ▪ Outstanding resolutions yet to be received include:
      • City of Kirkland
      • Duvall Fire District
      • Eastside Fire & Rescue

• 2015 State Audit
  o Auditors from SAO are on site and expected to be on site for the next month.
  o Thus far everything is going well.

• Preparations are underway to close out 2016.
  ▪ Accounting and Benefits specialist update – Lena is doing very well and coming up to speed on all things NORCOM. She will soon be fully transitioned into taking over all the payroll functions.
MEMORANDUM

To: NORCOM Governing Board
From: Dee Hathaway, IT Director
Date: January 3, 2017
Re: Staff Update – Information Technology

Nathan Way and I attended the INTERFACE technology conference in Seattle. INTERFACE is a national series of invitation-only conferences dedicated to providing cutting-edge content, interactive labs and exhibits on technology solutions in areas such as security, training, infrastructure and service management. I have served as a member of the Advisory Council for events here and in Seattle for several years, helping guide the content presented to ensure its relevancy.

Fire Projects (Project Manager – Karen Furuya)

- **Code3**
  The governing board approved MOUs with Bellevue, Eastside, Redmond, Shoreline, Mercer Island and Woodinville and the licensing and maintenance contracts with Coelo (Code3 vendor) at the November meeting.

  Training for participating agencies was held October 31 through November 3 in Shoreline. On November 1 there was a product demonstration held in Redmond’s Public Safety Building for those interested in seeing the application.

  NORCOM IT is working with Coelo to create training videos to more easily accommodate future training needs, and the first local Code3 user group meeting was held December 7. The user group will serve as a sounding board for possible new features in the program, as well as a forum for the exchange of ideas and information between agencies.

  Bothell has announced its intent to use the application as well.

  *(Code 3 Simulator is a predictive modeling and analysis software program providing agencies the ability to run Response History Analysis, Strategy Modeling and Simulation Results Analysis. This project will move the license holder from individual agencies to NORCOM, resulting in a lower per agency cost and the ability to run analysis against a greater number of calls.)*

- **Locution Workstation Replacement**
  NORCOM IT has received a test computer from our vendor, CDWG, and has verified that the new computer configuration will work with Locution. IT is working to schedule replacement this quarter.

  *(This project will replace the existing locution workstations, which are end-of-life in February 2017. Replacement funding is included in the budget.)*
• **eCBD Update**
  NORCOM IT has received the content update from KCEMS, verified that the contents match the CBD books and configured eCBD in the test environment. Testing in IT began November 29, and was installed into production in December. KCEMS will begin using the new data for reporting starting January 1, 2017.

  *(This project will update King County Emergency Medical Services (KCEMS) electronic Criteria Based Dispatch (eCBD) guidelines and codes and enable new online reporting features.)*

• **Kirkland Fire MDC Replacement**
  Kirkland IT has approached NORCOM IT regarding the replacement of their fire mobile units. NORCOM IT is gathering hardware specifications and requirements. Once Kirkland has received and imaged the units, NORCOM IT will assist with the setup and configuration.

  *(This project will replace end-of-life MDCs in Kirkland fire units)*

**Police Projects** *(Project Manager – Mike Prill)*

• **Tyler/New World Systems**
  At this time, there are no priority issues. Patches were installed on January 20 to address issues remaining from the most recent upgrade and, in accordance with the settlement agreement, an outstanding SSMA payment was issued to Tyler 60 days later.

  In March and April, NORCOM held meetings with representatives of Tyler Technologies to continue discussions around module trading to complete the next steps in closing this part of the contract. We also met in May and June to discuss the requirements for upgrading to a more current version of the software.

  In July, Tyler presented a partial proposal which addressed module trading and touched on the move to an 11.x version of the software. A status update was provided to the governing board in August.

  At the direction of the Governing Board, we are working with Tyler to develop a consolidated proposal that will address module trading, exhibit Q, and the upgrade to a current, stable version of the software as a collective process rather than each piece individually. Discussions with Tyler have remained positive, and we expect to reach consensus and present a proposal to the Governing Board by the end of 2017.

  Mike Prill and I met with Tyler representatives on October 25 to clarify the final few questions concerning our current and planned module licensing.
On November 28, Tyler delivered a proposal for bringing NORCOM to a current version of New World, remove unnecessary/unwanted modules and licensing, add additional modules and address the resolution of the settlement agreement. The proposal is currently under review by NORCOM’s Executive Director and attorneys.

A fix for the last of remaining priority item was installed December 6. In accordance with the settlement agreement, paragraph 6.3, NORCOM submitted the 2014-2015 SSMA payment to Tyler.

- **LinX Interface**
  Northrop Grumman (NG) has provided NORCOM with a test site, which our agency LinX team are in the process of reviewing. There are currently no known issues.

  *(LinX is a regional data sharing website which links 1500+ agencies. It is a replacement for the old RAIN system. LinX has not been operational since October 2014)*

- **Tyler/New World Workstation Replacement**
  Workstation deployment was completed in December 2016. No major issues have occurred.

  *(This project will upgrade the Tyler/New World Systems workstations at NORCOM and the Redmond site. The current workstations are at end-of-life and due for replacement. Replacement funding is included in the budget.)*

**Infrastructure Projects** *(Project Manager – Nathan Way)*

- **CAD WebView**
  In early 2016, NORCOM launched a contest to change the name of our CAD WebView application. The WebView name is a very generic term for an application that performs a very specific function, and several vendors offer products labeled WebView.

  NORCOM IT received 118 submissions to the naming contest, which was open to all users of the current system. A panel of five selected the top five choices, and the winning name was selected by Executive Director Orr. The selected name has been run through our legal department and we are in the process of registering the trademark. The selected name will be announced at the January 2017 Governing Board meeting.

  We have partnered with Maya Lewis, a local graphic designer, for the creation of a logo for the new branding of the application.

- **Admin Phone System Upgrade**
  The back-end system (servers, switches, etc.) were installed in NORCOM’s server room in preparation for the new phone system.

  With the new system comes the need for a new phone tree recording. This will be used when someone reaches the administrative system and is used to route callers to the appropriate
department or person. NORCOM held an internal competition to select “the voice,” and telecommunicator Heidi Haley was selected to be the first voice of the new phone system.

The new phones were placed in administrative areas on December 7 with no issues reported.

(This project will replace NORCOM’s administrative NORTEL phone system with a Cisco VoIP system.)

- **Disaster Recovery**
  Working with King County IT, NORCOM has entered into an agreement that will allow us to house infrastructure at Sabey Datacenter. Sabey specializes in mission critical and other technical space, providing high availability and security for critical infrastructure. NORCOM IT is in the process of identifying which equipment and applications would be most appropriate for that location.

(This project will establish a disaster recovery program to be used for ensuring operations at NORCOM can continue in the event that the current primary facility is not available or operational.)