

# Fund 40090: E-911

## Mission

To provide and maintain highly professional and responsive 9-1-1 emergency and non-emergency communication services to the citizens of Fairfax County, City of Fairfax, Town of Herndon, Town of Vienna, Fort Belvoir, those that work in and visit Fairfax County and to the Fairfax County Police, Fire and Rescue, and Sheriff departments in a collaborative and supportive work environment that utilizes highly trained and qualified staff. To deliver emergency and non-emergency communications utilizing state-of-the-art technology through a variety of systems integrated to provide 9-1-1 telephone, computer-aided dispatch, multi-channel trunked radio and wireless data networks in a cost-effective, sustainable, reliable, and technologically innovative manner; and to utilize industry accepted best policies, practices, and standards in an efficient and cost-effective manner.

## Focus

The activities and programs in Fund 40090, E-911, provide support to the operations of the Department of Public Safety Communications (DPSC) and various other public safety information technology projects. DPSC is designated as the primary 9-1-1 Public Safety Answering Point (PSAP) for all 9-1-1 calls originating within Fairfax County as well as the city and towns therein. The agency also provides Emergency Medical Dispatch (EMD)/Pre-Arrival Instruction (PAI), which is an emergency medical service (EMS) intervention program where DPSC call takers provide emergency medical instructions over the telephone until fire-rescue-EMS units arrive on the scene of an emergency incident. Due to the vital, mission-critical, and time-sensitive service provided by DPSC personnel, they are, for many reasons, recognized as the “First of the First Responders.” Additionally, DPSC receives all commercial and residential security, fire, and medical alarm requests for service calls from private alarm service providers. Some examples of non-emergency services provided include responding to police non-emergency calls received; reporting of towed vehicles and private vehicle impounds; calls for Animal Control Unit services, a subsidiary of the Fairfax County Police Department (FCPD); and responding to non-emergency calls for service for fire and rescue assistance and information. DPSC also provides National Crime Information Center (NCIC) and Virginia Criminal Information Network (VCIN) teletype operations related to property (e.g., stolen guns and vehicles), people (e.g., protective orders and missing persons), events (e.g., fatal accidents and security matters), and queries (e.g., wanted persons/warrant confirmation). These operations ensure criminal and investigative information is shared with the appropriate authorities within the County and on a regional, state, and federal level. Additionally, DPSC serves as the official custodian of approximately 8,700 hours of audio recordings of all telephone calls and radio traffic pertaining to public safety as required by law and approximately 88,000 hours of Computer-Aided Dispatch (CAD) records. DPSC receives and responds to court subpoenas and Freedom of Information Act (FOIA) requests for audio transmissions and data records. Audio and data recordings are also maintained per national standards for investigative, quality assurance and training purposes. The Department of Information Technology (DIT) supports the telephony, radio, CAD, and audio-visual infrastructure and maintenance within Fund 40090.

### Information Technology (IT) Projects

In FY 2023, IT Projects funding totals \$8.51 million, reflecting no change from the FY 2022 Adopted Budget Plan level. Funding is provided for four specific projects in FY 2023. For detailed descriptions of each project, please see the Information Technology Project Details which follow the FY 2023 Funding Adjustments.

### Revenues

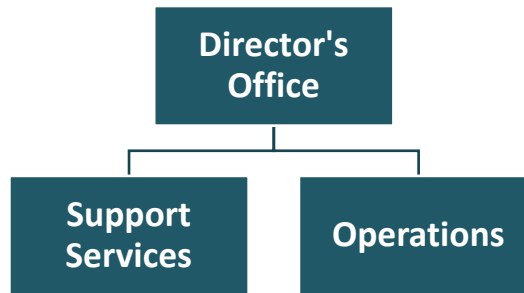
There are four main revenue categories in the E-911 Fund: Communications Sales and Use Tax (CSUT), State Wireless E-911 Reimbursement, Interest Income and Other Revenue. All communications taxes are remitted to the state for distribution to localities based on the locality's share. Fairfax County's share is currently 18.89 percent.

The CSUT revenue represents the statewide tax of 5 percent on telephone services to include landlines, post-paid wireless, internet, long distance calling and cable/satellite television and radio services. The Cable Franchise Fee portion of the CSUT is directed to Fund 40030, Cable Communications. The projected FY 2023 CSUT revenue total for Fund 40090 is \$40.6 million, which is consistent with the FY 2022 Adopted Budget Plan.

The Wireless E-911 Revenue category is derived from a monthly \$0.75 surcharge on all wireless/cellular telephones and is distributed to localities as part of the Wireless E-911 State Reimbursement. Disbursements are based on a formula that is fixed for five years and will be recalculated in 2023 (potentially impacting FY 2024 revenues).

Other Revenue reflects annual revenue from the City of Fairfax for dispatch services, FOIA fees, and reimbursement from Nextel to cover County expenses related to the Nextel 800 MHz re-banding initiative.

**Organizational Chart**



**Budget and Staff Resources**

Category	FY 2021 Actual	FY 2022 Adopted	FY 2022 Revised	FY 2023 Advertised
<b>FUNDING</b>				
<b>Expenditures:</b>				
Personnel Services	\$27,142,756	\$30,823,796	\$31,047,272	\$34,608,877
Operating Expenses	15,276,402	14,133,728	17,855,456	14,566,641
IT Projects	7,006,242	8,507,552	19,487,409	8,507,552
<b>Total Expenditures</b>	<b>\$49,425,400</b>	<b>\$53,465,076</b>	<b>\$68,390,137</b>	<b>\$57,683,070</b>
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>				
Regular	216 / 216	221 / 221	221 / 221	223 / 223

**FY 2023 Funding Adjustments**

The following funding adjustments from the FY 2022 Adopted Budget Plan are necessary to support the FY 2023 program:

**Employee Compensation** **\$3,557,806**

An increase of \$3,557,806 in Personnel Services includes \$1,211,639 for a 4.01 percent market rate adjustment (MRA) for all employees and \$61,716 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2022, as well as \$425,279 for FY 2023 merit and longevity increases, including \$15,017 for 25-year longevity increases, for uniformed employees awarded on the employees' anniversary dates. It should be noted that a larger number of employees are eligible for longevity increases in FY 2023 due to the deferral of longevity increases in FY 2021

and FY 2022. The remaining increase of \$1,859,172 is included for employee pay increases for specific job classes identified in the County's benchmark class survey of comparator jurisdictions.

**CAD and Public Radio System Maintenance** **\$598,105**

An increase of \$598,105 is included to support increased costs for the Computer-Aided Dispatch (CAD) monthly data service and the Public Radio System and telephony maintenance. These services are critical to maintain the technological advancements to the County's 9-11 platform.

**Department of Vehicle Services Charges** **\$308**

An increase of \$308 in Department of Vehicle Services Charges is based on anticipated billings for maintenance and operating-related charges.

**Diversion First** **\$231,775**

An increase of \$231,775 is associated with 2/2.0 FTE new positions to support the County's successful Diversion First initiative. Diversion First aims to reduce the number of people with mental illness in the County by diverting low-risk offenders experiencing a mental health crisis to treatment rather than bring them to jail. This funding will support the Community Response Team and increase data analytic services and workload requirements to respond to mental health treatment, substance abuse treatment, and peer support in collaboration with the Community Services Board.

**IT Projects** **\$0**

Funding of \$8,507,552, the same level as the FY 2022 Adopted Budget Plan, has been included for IT Projects. Of this total, \$3,531,352 supports the replacement of the existing fleet of mobile and portable subscriber radios in public safety agencies, \$1,616,200 is included to support mobile computer terminal (MCT) replacement, a program designed to replace one-fifth of the public safety fleet each year, \$2,180,000 is included to continue a multi-phase effort to transition core 9-1-1 services into a more robust and technologically up-to-date operating environment, and \$1,180,000 is included to continue an ongoing replacement cycle for all the equipment that supports the computer-aided dispatch (CAD) system.

**Transfer of Security Costs for the Pine Ridge Facility** **(\$170,000)**

A decrease of \$170,000 is associated with the transfer of Pine Ridge security contract from Fund 40090, E-911, to Agency 93, Department of Emergency Management and Security, in an effort to consolidate the administration of facility security services.

**General Fund Transfer**

The FY 2023 budget for Fund 40090, E-911, requires a General Fund Transfer of \$10,618,392, an increase of \$4,217,997 over the FY 2022 Adopted Budget Plan, primarily due to a market rate adjustment for all employees and performance-based and longevity increases for non-uniformed and uniformed merit employees, additional funding for specific job classes identified in the County's benchmark class survey, additional positions and funding to support the Diversion First initiative, and additional funding to support the CAD and Radio System operating costs. These increases are partially offset by transferring Pine Ridge security costs to Agency 93, Department of Emergency Management and Security.

**Changes to  
FY 2022  
Adopted  
Budget Plan**

The following funding adjustments reflect all approved changes in the FY 2022 Revised Budget Plan since passage of the FY 2022 Adopted Budget Plan. Included are all adjustments made as part of the FY 2021 Carryover Review, FY 2022 Mid-Year Review, and all other approved changes through December 31, 2021:

**Carryover Adjustments** **\$14,925,061**

As part of the FY 2021 Carryover Review, the Board of Supervisors approved funding of \$14,925,061, including \$223,476 in Personnel Services for a one-time compensation adjustment of \$1,000 for merit employees and \$500 for non-merit employees paid in November 2021. The remaining amount of \$14,701,585 is due to carryover of \$13,442,846 of Information Technology (IT) projects and \$1,258,739 of encumbered IT operating balances.

**Cost Centers**

**Department of Public Safety Communications**

The Department of Public Safety Communications cost center table below reflects all positions in the department and all expenditures except for IT Projects funding. In FY 2023, IT Projects funding totals \$8,507,552.

Category	FY 2021 Actual	FY 2022 Adopted	FY 2022 Revised	FY 2023 Advertised
<b>EXPENDITURES</b>				
Total Expenditures	\$42,419,158	\$44,957,524	\$48,902,728	\$49,175,518
<b>AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)</b>				
Regular	216 / 216	221 / 221	221 / 221	223 / 223

**Position Detail**

The FY 2023 Advertised Budget Plan includes the following positions:

DEPARTMENT OF PUBLIC SAFETY COMMUNICATIONS - 223 Positions			
1	Director	1	Financial Specialist III
1	PSTOC General Manager	1	Financial Specialist II
2	Assistant Directors	1	Financial Specialist I
6	PSC Squad Supervisors	1	Info. Tech. Program Manager I
19	PSC Asst. Squad Supervisors	1	Info. Tech III
172	PSCs III [+1]	1	Human Resources Generalist III
1	PSC Records Analyst	1	Human Resources Generalist II
1	Programmer Analyst III	1	Geog. Info. Spatial Analyst III
2	Management Analysts IV	1	Geog. Info. Spatial Analyst II
1	Management Analyst III	1	Network/Telecomm Analyst III
2	Management Analysts II	3	Administrative Assistants IV
2	Management Analysts I [+1]		
+	Denotes New Position(s)		

## Performance Measurement Results

In FY 2021, with a 95 percent rate, DPSC exceeded the new National Emergency Number Association (NENA) standard of 90 percent of 9-1-1 calls answered within 10 seconds. With a 96 percent rate, DPSC exceeded the NENA standard of 95 percent of 9-1-1 calls answered within 20 seconds. While the agency did see some improvement, staff vacancies continued to be a challenge in FY 2021 due to the difficulty with hiring sufficient numbers of qualified applicants, the long lead time of training newly hired public safety communicators, retaining trainees, and facing the reality of experienced public safety communicators retiring from the agency. While successfully maintaining a prudent and disciplined management of financial resources, the agency was still required to meet minimum operational staffing using overtime expenditures. DPSC anticipates making progress in FY 2023 with retaining staff and training new public safety communicators to reduce its dependence on overtime and improve the cost efficiency of its operations.

Indicator	FY 2019 Actual	FY 2020 Actual	FY 2021 Estimate	FY 2021 Actual	FY 2022 Estimate	FY 2023 Estimate
Percent 9-1-1 calls arriving at DPSC answered within 10 seconds	91%	94%	90%	95%	90%	90%
Percent 9-1-1 calls arriving at DPSC answered within 20 seconds	95%	96%	95%	96%	95%	95%

A complete list of performance measures can be viewed at  
<https://www.fairfaxcounty.gov/budget/fy-2023-advertised-performance-measures-pm>

## FUND STATEMENT

Category	FY 2021 Actual	FY 2022 Adopted Budget Plan	FY 2022 Revised Budget Plan	FY 2023 Advertised Budget Plan
<b>Beginning Balance</b>	<b>\$23,318,189</b>	<b>\$6,705,549</b>	<b>\$24,429,018</b>	<b>\$7,684,145</b>
<b>Revenue:</b>				
Communications Sales and Use Tax	\$45,429,467	\$40,568,880	\$40,568,880	\$40,568,880
State Reimbursement (Wireless E-911) <sup>1</sup>	4,669,326	3,396,251	3,396,251	3,396,251
Other Revenue <sup>2</sup>	172,687	1,046,259	1,046,259	1,046,259
Interest Income	44,604	10,000	10,000	10,000
<b>Total Revenue</b>	<b>\$50,316,084</b>	<b>\$45,021,390</b>	<b>\$45,021,390</b>	<b>\$45,021,390</b>
<b>Transfers In:</b>				
General Fund (10001)	\$220,145	\$6,400,398	\$6,623,874	\$10,618,392
<b>Total Transfers In</b>	<b>\$220,145</b>	<b>\$6,400,398</b>	<b>\$6,623,874</b>	<b>\$10,618,392</b>
<b>Total Available</b>	<b>\$73,854,418</b>	<b>\$58,127,337</b>	<b>\$76,074,282</b>	<b>\$63,323,927</b>
<b>Expenditures:</b>				
Personnel Services	\$27,142,756	\$30,823,796	\$31,047,272	\$34,608,877
Operating Expenses	15,276,402	14,133,728	17,855,456	14,566,641
IT Projects <sup>3</sup>	7,006,242	8,507,552	19,487,409	8,507,552
<b>Total Expenditures</b>	<b>\$49,425,400</b>	<b>\$53,465,076</b>	<b>\$68,390,137</b>	<b>\$57,683,070</b>
<b>Total Disbursements</b>	<b>\$49,425,400</b>	<b>\$53,465,076</b>	<b>\$68,390,137</b>	<b>\$57,683,070</b>
<b>Ending Balance</b>	<b>\$24,429,018</b>	<b>\$4,662,261</b>	<b>\$7,684,145</b>	<b>\$5,640,857</b>

<sup>1</sup> Localities receive wireless 9-1-1 funding based on annual true-up data (total number of all incoming 9-1-1 calls, wireless 9-1-1 calls and personnel costs). On July 1, 2018, the PSAP funding percentages produced through the formula were recalculated as required by the Code of Virginia §56-484.17. This formula will be fixed for five years and recalculated in 2023.

<sup>2</sup> This revenue category includes annual revenue from the City of Fairfax for dispatch services, FOIA fees, and reimbursement from Nextel to cover County expenses related to the Nextel 800 MHz rebanding initiative. This also reflects a one-time reimbursement of \$896,259 from the state as a result of transitioning from the old telephony system to the new ESI-net platform. In FY 2023, a similar one-time contribution from the state is anticipated to reimburse the fund.

<sup>3</sup> IT projects are budgeted based on the total project costs and most projects span multiple years. Therefore, funding for IT projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

## Information Technology Project Details

### 2G70-056-000, Public Safety Communications Wireless Radio

**IT Priorities:**

- Improved Service and Efficiency
- Enhanced County Security

FY 2021 Expenditures	FY 2022 Revised Budget Plan	FY 2023 Advertised Budget
\$3,525,417	\$3,889,012	\$3,531,352

**Description:** This project was established in FY 1995 (along with Project 2G70-059-000) to replace and upgrade the County's critical Public Safety Communications Network (PSCN) and its various component systems. The network's component systems are vital for ensuring immediate and systematic response to emergencies, and replacement and enhancement is necessary to maintain performance, availability, reliability, and capacity for growth due to increases in County population and demand for public safety services. The PSCN supports emergency communications for the DPSC, Police, Fire and Rescue, and Sheriff's departments. This includes public safety call taking (E-911, Cellular E-911, non-emergency calls for service), dispatching, and all affiliated communications support for public safety agencies.

This specific project supports the replacement of the existing fleet of mobile and portable subscriber radios in public safety agencies. The FCC mandated public safety radios had to meet the 700 MHz narrowband requirement by the end of December 2016 (FY 2017). The purchase of the mobile and portable radio equipment for Fairfax County met this 700 MHz narrow banding requirement and preserved regional interoperability.

FY 2023 funding remains unchanged at \$3,531,352. It should be noted that FY 2021 was the final lease payment on the existing radios; however, DIT is beginning the process of working with the agencies involved on the next generation of devices, and it is anticipated that replacement costs for these units will be significantly higher. Therefore, DIT recommends maintaining the funding level at the baseline level so that these funds can be applied to the next generation of radios. Substantial additional discussion on this topic will be required over the short-to-mid-term.

**Return on Investment (ROI):** The return on investment for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support. Upgraded technology preserves the investments in technology that have been made and allows increased functionality, performance, and reliability to be achieved to facilitate responses to, and management of, emergencies. It mitigates the need for extraordinarily large additions of personnel that would be necessary to provide the same level of service and results without this technology. The increased access to important information, improvements to maintenance and reliability, increased capacity for growth, and enhanced functionality for users now and in the future builds upon past investments, responds to critical existing requirements, and sets the stage for the next generation of public safety communications technology.

2G70-059-000, Mobile Computer Terminal Replacement

**IT Priorities:**

- Improved Service and Efficiency
- Enhanced County Security

FY 2021 Expenditures	FY 2022 Revised Budget Plan	FY 2023 Advertised Budget
\$1,346,046	\$3,456,422	\$1,616,200

**Description:** This project was established in FY 1995 (along with Project 2G70-056-000) to replace and upgrade the County’s critical Public Safety Communications Network (PSCN) and its various component systems, which are vital for ensuring immediate and systematic response to emergencies. Replacement and enhancement are necessary to maintain performance, availability, reliability, and capacity for growth due to increases in County population and demand for public safety services. This includes public safety call taking (E-911, Cellular E-911, non-emergency calls for service), dispatching, and all affiliated communications support for public safety agencies.

Funding of \$1,616,200 supports Mobile Computer Terminal (MCT) replacement, a long-standing program designed to replace one-fifth of the public safety fleet each year to keep technology up to date. This equipment supports field personnel by granting them access to the CAD system, Virginia Criminal Information Network, County Enterprise System, and a host of other remote databases required in their daily functions. This mandated functionality supports the DPSC, Police, Fire and Rescue, and the Sheriff’s Office. Current equipment will not support existing public safety access to available remote systems due to a lack of connectivity ports and devices in the vehicle. If ports and additional power to connect devices to these units are not provided, a risk of non-compliance to regulation and an inability to access criminal information systems could occur. Docking stations that support connectivity of MCT units to the CAD and other systems are purchased on an as needed basis, older units are breaking on a regular basis due to age and are rapidly becoming obsolete. Funding will move towards accomplishing a complete replacement cycle with the updated technology needed to maintain a rapidly changing mobile fleet environment.

**Return on Investment (ROI):** The ROI for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replacement and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support. Upgraded technology preserves the investments in technology that have been made and allows increased functionality, performance, and reliability to be achieved to facilitate responses to, and management of, emergencies. It mitigates the need for extraordinarily large additions of personnel that would be necessary to provide the same level of service and results without this technology. The increased access to important information, improvements to maintenance and reliability, increased capacity for growth, and enhanced functionality for users now and in the future builds upon past investments, responds to critical existing requirements, and sets the stage for the next generation of public safety communications technology.



**3G70-078-000, E-911 Telephony Platform Replacement**

**IT Priorities:**

- Improved Service and Efficiency
- Enhanced County Security
- Maintaining a Current and Supportable Technology Infrastructure

<b>FY 2021 Expenditures</b>	<b>FY 2022 Revised Budget Plan</b>	<b>FY 2023 Advertised Budget</b>
<b>\$1,174,039</b>	<b>\$8,583,048</b>	<b>\$2,180,000</b>

**Description:** Fairfax County is in the midst of a multi-phase effort to transition its core 9-1-1 services into a more robust and technologically up-to-date operating environment. Widespread adoption of rapidly advancing technologies like text, video, Voice over Internet Protocol (VoIP) and the saturation of high-speed broadband access has raised the expectations of 9-1-1 services for the citizens of Fairfax County. Improvements are needed to support new requirements and expectations. The upgrades will allow the County to continue the migration to NG9-1-1 as that technology matures. NG9-1-1 will provide the ability to accept multimedia data (e.g., text, video, and photo) and improve interoperability, call routing accuracy, PSAP call overflow for extreme natural disaster situations, emergency health profile data sharing, and location accuracy. NG9-1-1 will strengthen system resiliency and reliability, as well as increase opportunities to potentially achieve fiscal and operational efficiency through cost-sharing arrangements.

An overview of 9-1-1 today with NG9-1-1 is shown below:

<b>9-1-1 Today</b>	<b>Full NG9-1-1</b>
Primarily voice calls via telephone handsets	Voice, text, or video information available from many different types of communication devices sent over IP networks
Most information transferred via voice	Advanced data sharing is automatically performed (e.g., telematics)
Callers to 9-1-1 routed through legacy selective routers, limited forwarding / backup ability	Enhanced backup capabilities provided as calls can be routed to different PSAP locations more dynamically (if required)
Routing is based on phone number / Master Street Address Guide (MSAG)	Ability to route "calls" more accurately (routing is based on GIS coordinates)

Funding of \$2.18 million is included in FY 2023 to continue this transition process. It is anticipated this level of funding will be required through at least FY 2024 and then depending on the available NG9-1-1 technology in the future, additional funds will likely be required.

**Return on Investment (ROI):** The ROI for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support. Upgraded technology preserves the investments in technology that have been made and allow increased functionality, performance, and reliability to be achieved to facilitate responses to, and management of, emergencies. It mitigates the need for extraordinarily large additions of personnel that would be necessary to provide the same level of service and results without this technology. The increased access to important information, improvements to maintenance and reliability, increased capacity for growth, and enhanced functionality for users now and in the future builds upon past investments, responds to critical existing requirements, and sets the stage for the next generation of public safety communications technology.

3G70-079-000, Public Safety CAD Hardware Refresh

**IT Priorities:**

- Improved Service and Efficiency
- Enhanced County Security
- Maintaining a Current and Supportable Technology Infrastructure

FY 2021 Expenditures	FY 2022 Revised Budget Plan	FY 2023 Advertised Budget
\$960,740	\$3,549,927	\$1,180,000

**Description:** Funding of \$1,180,000 is included to maintain an ongoing five-year cycle to refresh and update the hardware/software environment that supports the CAD system. The CAD System supports all of Fairfax County Public Safety in their mission to keep Fairfax County and its citizens safe. The CAD System is the primary dispatch records system that is used 24/7/365 by DPSC call-takers to process all calls for service received on 9-1-1 and other emergency and non-emergency lines. With this system, they are able to efficiently process over 5,000 calls for service each day and document each event with full details of the activities associated with the incident from the time the call is received to dispatch of the call and on through to unit arrival, clearing the call for service and then transfer of the information to the associated records management system where the responding unit(s) can retrieve data to complete an incident report.

Call information is downloaded to the CAD System, added comments are inserted and then the call for service is routed to the appropriate DPSC dispatcher(s) who then use the same CAD system to identify the closest appropriate field units for the event, and dispatch and track those units responding to the event and documenting services provided. Through the CAD System interfaces, users have instant access to records from a diverse collection of other systems like Virginia Criminal Information Network, National Crime Information Center, Geographic Information Systems (GIS), Virginia Hospital & Healthcare Association status tracking system, agency specific Record Management Systems, Sheriff's Information Management System, to name a few. The field units can also use the CADs in their vehicles to provide them directions to any location within and immediately surrounding the County.

**Return on Investment (ROI):** The ROI for this project is realized by the performance, productivity, and effectiveness of public safety services in Fairfax County. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support. Upgraded technology preserves the investments in technology that have been made and allow increased functionality, performance, and reliability to be achieved to facilitate responses to, and management of, emergencies. It mitigates the need for extraordinarily large additions of personnel that would be necessary to provide the same level of service and results without this technology. The increased access to important information, improvements to maintenance and reliability, increased capacity for growth, and enhanced functionality for users now and in the future builds upon past investments, responds to critical existing requirements, and sets the stage for the next generation of public safety communications technology.