# El Paso-Teller County 9-1-1 Authority

# 2017 - 2018 Authority Strategic Plan



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# Chief Executive Officer's Letter

Our world is about to change. The 9-1-1 telephone system will soon be obsolete due to a significant shift in telephone technology, fueled by the proliferation of wireless telephone devices and the demise of the archaic plain old telephone system. The El Paso Teller County 9-1-1 Authority must take action in the coming years in order to meet the customer's expectations and the business requirements of the 9-1-1 emergency communication centers in El Paso and Teller Counties. This Authority Strategic Plan sets forth a plan to move the Authority forward.

**What's Driving the Shift to Next Generation 9-1-1?**

The 1990's emergency 9-1-1 call taker knew the location of callers with great certainty. Today? We are not so sure. This Authority Strategic Plan is put into place to mitigate the challenges of today's technology in tomorrow's emergency communication center.

Effective emergency communications in El Paso and Teller Counties depends on well-trained call takers and dispatchers utilizing robust and resilient communications systems. The line-level 9-1-1 call takers and dispatchers deftly and efficiently process hundreds of thousands of calls each year and communicate life-saving information and instructions to the first responders who render assistance to the residents of our communities and the region's travelers as promptly as possible. The system simply wouldn't work without caring people who help others experiencing their worst days.

The success of the El Paso-Teller County 9-1-1 Authority depends upon effective planning, systematic design, excellent project execution, fiscal conservancy, and striving to meet the business requirements of the regional 9-1-1 emergency communication centers. The Authority is working to deploy resilient and robust systems that are contemporary in design and will serve the community members and travelers in El Paso and Teller Counties for years to come.

This document describes the progress of the five-year Authority Strategic Plan, first published in 2016.  The Authority Strategic Plan has been updated to identify those tactics that were affected in 2016 and those that have been continued into the coming years.  Several of the objectives have been eliminated due to changes to the Authority business requirements, changes in strategic direction or, in some cases better, stronger, more durable, alternative technologies.

The Information Technology (I.T.) team deployed stronger, more resilient networks in 2016 that better support the 9-1-1 emergency communication centers in El Paso and Teller Counties and interconnected them together for vastly improved redundancy. These stronger networks will support the future of 9-1-1, commonly referred to as Next Generation 9-1-1, or NextGen 9-1-1 (NG 9-1-1) and will enable the 9-1-1 system employees to more accurately identify the location of callers.
As our customer's expectations rise and the incumbent system is end of life, it is paramount that the Authority Board and Employees work quickly and smartly to improve the 9-1-1 network and systems.

Thank you to all who provide exceptional emergency communication service to El Paso and Teller County residents on their worst day.

Sincerely,


Carl Simpson, MA, ENP
El Paso-Teller County 9-1-1 Authority, Chief Executive Officer

## Table of Contents

# El Paso-Teller County 9-1-1 Authority History

The El Paso-Teller County 9-1-1 Authority was formed under Article 11 of Title 29 of the Colorado Revised Statutes with the purpose to establish a separate, collaborative legal entity for the El Paso and Teller County governments to provide emergency telephone service to residents and businesses in both counties. The governing board for the Authority consists of nine Board Members appointed by the municipal governing agencies within the service area.

In 2016 the Authority Board submitted an application to increase to the ETC rate to the Public Utilities Commission. The PUC approved an increase of $0.65 in April 2017 for a total ETC of $1.35 that will go into effect on July 1, 2017.

The funds collected shall be spent solely to pay for the equipment costs, installation costs, and other costs directly related to the continued operation and total implementation of an emergency telephone service and emergency notification service.

# El Paso-Teller County 9-1-1 Authority Mission Statement

The El Paso-Teller County 9-1-1 Authority shall provide the public reliable access to public safety agencies by managing high quality, redundant, secure, and cost effective 9-1-1 services while provide exceptional customer service to Authority stakeholders..

Resolution 99-12, Revised June 28, 2017

## Authority Governing Board

The El Paso-Teller County 9-1-1 Authority is governed by a Board of nine members; three are selected by the Colorado Springs City Council and these appointees represent the citizens of Colorado Springs; two are selected by the El Paso County Board of County Commissioners who represent El Paso County; and one selected by the Teller County Board of County Commissioners represents the residents of Teller County. Three Board Members are selected by the seated El Paso-Teller County 9-1-1 Authority Board Members to represent Cities, Towns, U.S. Military, and Special Districts.

The Board Meetings are conducted in the Board Room at the Authority facility located at 2350 Airport Road, Colorado Springs, CO 80910. Meetings begin at 1:00 P.M. on the fourth Wednesday of each month and are open to the public.

## 2017 Authority Board Members

Derek Wheeler, Vince Niski, Pat Rigdon
Representing the Citizens of Colorado Springs


Brad Shannon, Dave Rose
Representing the Citizens of El Paso County


Miles DeYoung
Representing the Citizens of Teller County


Chris Truty, Ron Reeves, Joe Ribeiro
Representing Cities, Towns, U.S. Military, and Special Districts

# Authority Board Member Responsibilities

The duties and the responsibilities of the Authority Board Members and Employees include:

1. Complying with all laws, rules and regulations as propagated by Colorado Revised Statues, Federal Communications Commission Rules and Orders, and the State of Colorado Public Utilities Commission.

2. Fostering improved intergovernmental communications with all entities, public and private, having interest in the 9-1-1 system.

3. Providing broad-based education on 9-1-1's role in the provision of emergency services and its proper use.

4. Providing information on issues and trends that may affect the 9-1-1 system, Public Safety Answering Points and dispatch centers, making recommendations as appropriate.

5. Identifying, advocating for, and supporting innovative technologies for Public Safety Answering Points that are mutually beneficial to the system.

6. Annually estimating the costs of providing 9-1-1 services and creating balanced budgets that maintain and enhance the 9-1-1 system.

7. Providing funding support, when possible, for the implementation of systems, equipment and technology which is of value to the 9-1-1 system.

8. Providing system-wide asset control and management.

Resolution 99-12, Adopted May 25, 1999

## El Paso and Teller County 9-1-1 Emergency Communication Centers

The Authority Employees work to support the leadership teams and line-level employees from the seven emergency communication centers located in El Paso and Teller Counties.  The Authority partners include the managers of the seven public safety answer points (PSAPs) more commonly known as 9-1-1 emergency dispatch centers.

## 2017 El Paso and Teller County 9-1-1 Center Managers

Kyla Gingrich, El Paso County Sheriff's Office (EPSO)

Renee Henshaw, Colorado Springs Police Department (CSPD)

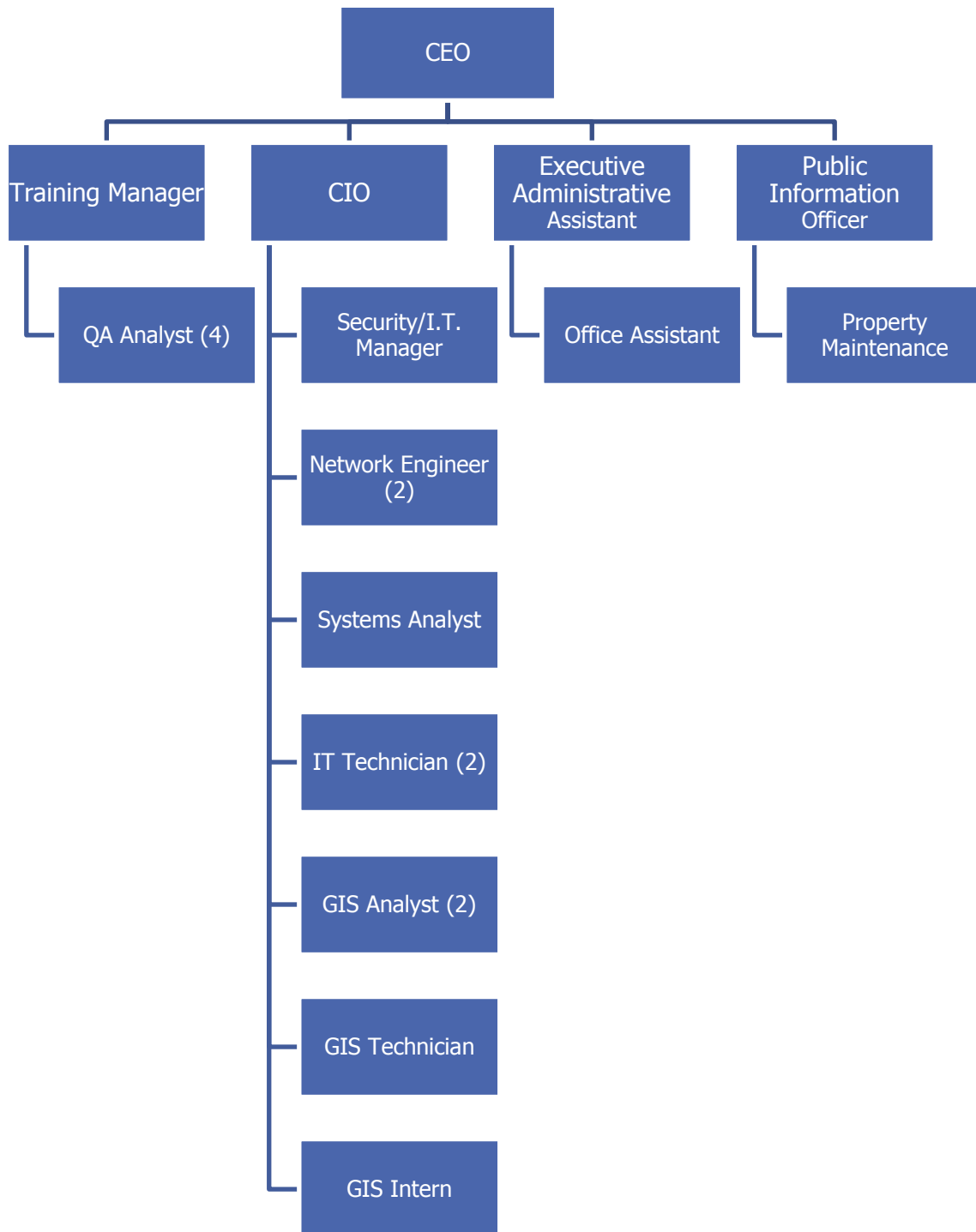Cindy Link, Teller County Sheriff's Office (TCSO)

Dawn Lucero, Fort Carson Emergency Communications Center (FCEC)

Daniel Matthies, Peterson Air Force Base

Diann Pritchard, Cripple Creek Police Department (CCPD)

Jennifer Tobias, Woodland Park Police Department (WPPD)

# 2017 El Paso – Teller County 9-1-1 Authority Organization Chart

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                                    │     CEO     │
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┌───────────────┐   ┌───────────┐   ┌──────────────┐   ┌──────────────┐
│Training Manager│   │    CIO    │   │  Executive   │   │    Public    │
└───────────────┘   └───────────┘   │Administrative│   │ Information  │
        │                 │          │  Assistant   │   │   Officer    │
┌───────────────┐   ┌───────────┐   └──────────────┘   └──────────────┘
│ QA Analyst (4)│   │Security/I.T.│         │                  │
└───────────────┘   │   Manager  │   ┌──────────────┐   ┌──────────────┐
                    └───────────┘   │Office Assistant│  │   Property   │
                          │         └──────────────┘   │ Maintenance  │
                    ┌───────────┐                       └──────────────┘
                    │Network Engineer│
                    │     (2)    │
                    └───────────┘
                          │
                    ┌───────────┐
                    │Systems Analyst│
                    └───────────┘
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                    ┌───────────┐
                    │IT Technician (2)│
                    └───────────┘
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                    ┌───────────┐
                    │GIS Analyst (2)│
                    └───────────┘
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                    ┌───────────┐
                    │GIS Technician│
                    └───────────┘
                          │
                    ┌───────────┐
                    │ GIS Intern │
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## 2017 Authority Employees

Justin Annan, Geographic Information System Technician

Jenna Armstrong, Quality Assurance Analyst

Ben Bills, Public Information Officer / Public Education Specialist

Justine Boyd, Office Assistant

Connie Chavez, Quality Assurance Analyst

Christy Davis, Executive Administrative Assistant

Jennifer Dvorsky, MS, Geographic Information System Analyst

Mark Everitt, Facility Technician

Benjamin Gairrett, Network Engineer

Ardelle Grima, Quality Assurance Analyst

John Lofgren, Training Manager

Alex Marcznski, Geographic Information System Intern

Emilio Miller, Information Systems Technician

Jocelyn Niski, Quality Assurance Analyst

Jordan Rowe, Geographic Information System Analyst

Carl Simpson, MA, ENP, CMCP Chief Executive Officer

Adam Smith, Information Systems Technician

Peter Smith, MBA, Chief Information Officer

Matt Towell, Security / Information Technology Manager

Julius Torralba, Systems Analyst

# Authority Departments

The Authority Board Members and the Authority Employees work to ensure that the citizens of El Paso and Teller Counties are well served by an efficient, robust, resilient, and cost effective 9-1-1 system.

Services provided by Authority include 9-1-1 systems administration, quality assurance (QA), on-going and refresher call taker and dispatcher training, information technology (I.T.) support, mapping, geographic information services (GIS), 9-1-1 public education (Pub Ed) programs, and facility management.

## Administrative Team Overview

The Administrative team manages the business of the Authority, human resources, controls document management, facilitates contract management, manages accounts payable and accounts receivable, handles procurement, tracks revenue and monitors, and reports revenue and spending to the Board Members.

## Quality Assurance Team Overview

The QA team reviews thousands of 9-1-1 calls annually to ensure compliance to nationally accepted standards, participates in the effective training of newly hired call-takers and dispatchers, and provides standards-based training to newly hired and tenured call takers and dispatchers.   In addition to the QA process, the QA team provides feedback to the call takers who process 9-1-1 calls in the community.  The feedback process is designed to improve the call taker's compliance to national standards, and improve the level of service received by 9-1-1 callers.

## Information Technology Team Overview

The I.T. team utilizes industry best practices with a goal to plan, design, and implement resilient, dependable, standardized, and cost-effective technology.

## Geographic Information System Team Overview

The work conducted by the GIS team is far more complicated than simply providing maps. The GIS team manages, edits, analyzes, shares, and utilizes the information systems that integrate, store, and display 9-1-1 and jurisdiction-related geographic information. The GIS team is responsible for the management of the GIS systems that present spatial data or geographic data to the systems utilized by PSAPs and first responders in El Paso and Teller Counties.  The GIS team is playing a key role in the delivery of the Authority's NG 9-1-1 solution, planned for implementation in 2018.

## Public Education Team Overview

The Public Education team conducts a variety of training programs that include 9-1-1 classroom presentations to first grade students, 9-1-1 Mobile Classroom presentations to K-3 students, emergency preparedness exercises, safety events, and community meetings.  The team is currently completing the work to integrate the training and marketing documents, ensuring they are congruent and consistent with the public education curriculum.


The Public Education team manages the Emergency Notification System (ENS), commonly referred to as "reverse 9-1-1", a tool used by the PSAPs to make rapid, telephone, text, e-mail and fax notifications to specific geographic areas in the two county area.  ENS is used by PSAP personnel to notify citizens of dangerous situations including man-made disasters, natural disasters, hazardous events, missing persons, in-progress crimes or neighborhood evacuations.

# Administrative Authority Strategic Plan 2016 – 2020

Administrative and Executive Statement

"*The Administrative team serves as a critical resource to Authority stakeholders who are comprised of the Information Technology team, the Public Education and Public Information team, the Quality Assurance team, the Authority Board and the Emergency Communications' teams in El Paso and Teller County with the objective to provide resources, services, products, project management, legal counsel, technology, training, problem resolution, information and leadership.*

## History and Scope of the Administrative Team Program

The Authority is led by a Chief Executive Officer, a Chief Information Officer, and an Executive Administrative Assistant. This organizational alignment supports the vision of deploying resilient technology, providing effective training and delivering efficient and effective 9-1-1 services and ENS to the residents and travelers in El Paso and Teller Counties.

## Administrative Team Accomplishments for 2016

| 2016 Plan | Result |
|---|---|
| Improve the Authority budgeting process. | Completed. |
| Hire an external consultant to create an Authority Strategic Plan for the Authority. | Completed. |
| As an outcome of the 2016 Authority Strategic Plan an application to increase the emergency telephone charge (ETC) was submitted to the Public Utilities Commission (PUC). | Completed. <br><br> Increase granted to $1.35, a 93% increase. |

| Employee evaluation system – A human resources consultant will be contracted to facilitate the development and implementation of an employee evaluation system. | Completed.<br><br>A new process was implemented and adopted in 2016. |
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## Administrative Authority Strategic Plan for 2017 – 2020

- Continue to improve the annual budgeting process.
- Continue to improve the Authority Strategic Planning efforts by including all Authority stakeholders.
- Refine the process for paying and processing invoices, ensuring that the most appropriate level of supervision is approving invoices for payment, ensuring that the charges are correct and attributed to the appropriate budget line.
- Conduct audit of Emergency Telephone Charge collections; ensure that all telephone providers are submitting appropriate and accurate collections in the amount of $1.35, per subscriber, per month.
- Further update and improve the employee evaluation process and forms.
- Administered the first Authority Employee Engagement survey in March of 2017. Participation rate was 100% with a satisfaction rate (83%). Also administered a management 360-Degree Feedback Survey (71%). Overall, both surveys were positive and subsequent activities have been developed to foster continued open lines of communication and to improve employee competencies.
- The Authority executive team will conduct follow up Employee Engagement Survey and the 360-Degree Feedback Surveys. The Authority executive team will work the employee group to further improve the communication between management and the employee group.
- The Authority executive team will update the Authority's Continuity of Operations Plan (COOP) by the end of the second quarter 2017 and verify that it is in synch

with the City of Colorado Springs Office Of Emergency Management Master COOP.

- The Authority executive team will review and update all of the existing policies in the Authority Policy Manual by the end of the fourth quarter 2017.

- The Authority executive team will review and update all of the existing job descriptions by the end of the fourth quarter 2017.

- The Authority Personnel Manual was updated in the fourth quarter of 2015 and some of the edited material will be developed into an Operations Manual for the Authority. The Authority Operations Manual will be created by the end of the fourth quarter 2017.

- The Authority Personnel Manual will be updated by the end of the fourth quarter 2017.

- The Authority executive team will develop a code of conduct for inclusion into the Authority Personnel Manual.

- The Authority executive team will develop a leadership succession plan.

- The Authority executive team will provide leadership development training for those who are currently in leadership positions as well as those who could find themselves in leadership positions in the very near future.

- The Authority executive team will develop and disseminate a satisfaction survey to all of the PSAPs in an effort to improve services and products offered to the communication centers.

## Fiscal Overview

The Authority submitted an application to the State of Colorado Public Utilities Commission (PUC) to increase the monthly emergency telephone charge (ETC) in August of 2016 and received approval to increase the ETC from $0.70 to $1.35, per telephone, per month in May, 2017.

Based on the current number of wireline and wireless telephones in use in El Paso and Teller Counties, the Authority income may increase up to $12,100,000, a 93% increase.

This increase in revenue will provide the ability of the Authority and the Board to provide funding for NG9-1-1 equipment, improved communication services, and dispatcher salaries.

The funds collected by the Authority shall be spent solely to pay for the equipment costs, installation costs, and other costs directly related to the continued operation and total implementation of an emergency telephone service and an emergency notification system.

## Quality Assurance and Training Plan 2016 – 2020

Quality Assurance and Training Statement

*"To advance the 9-1-1 PSAP workforce capability and excellence by providing continuous education, feedback, certifications, accreditation, and personnel development."*

### History and Scope of the Quality Assurance Program

The objective of the 2016 – 2020 plan is to foster performance consistencies within the PSAP's, as well as providing tools to make education a technological-led process coupled with traditional instructor led classes.

The PSAPs were included in the development of the 2017 – 2020 Authority Training Plan and all of the PSAPs provided input as to how the training program could be improved.  Quality Assurance will continue to provide objective and meaningful feedback to all PSAP employees while identifying performance trends and supporting specific Continuing Dispatch Education (CDEs) that identify, address, and work to correct those trends.

## Quality Assurance and Training Accomplishments for 2016

| 2016 Plan | Result |
|---|---|
| The Emergency Telecommunicator Instructor (ETC-I) is scheduled May 10-12, 2016 with the vendor Priority Dispatch. The Authority QA team and one trainer from each PSAP will participate. The goal of this class is to have a deep instructor pool, so these classes can be conducted each time a certification is required. | Completed.<br><br>This is an ongoing initiative. |
| Emergency Telecommunicator Course (ETC) training academy is a structured class offered to newly hired PSAP employees that provides basic skills training for newly hired call takers and dispatchers. | Completed.<br><br>Feedback was excellent and these classes will continue as requested by the PSAP leadership teams. |
| In February of 2016 the Authority will conduct a Safeguarding American Families Everyday (S.A.F.E.) class. As a result of this class, opportunities to increase the safety and security of the building will be identified.  This project's completion is anticipated by end of second Quarter 2017. | In Progress.<br><br>This initiative began in 2016 and will continue through 2017 until improved access controls are implemented. |
| In February of 2016 the Authority will conduct a Safeguarding American Families Everyday (S.A.F.E.) class. | Completed. |
| Refresher and recertification protocol and | Completed. |

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| cardiopulmonary resuscitation training will be provided to PSAP employees whose certifications will expire in June 2016. | This is an ongoing initiative. |
| Special Communities Training – A full-day session of speakers from the following communities will be provided:<br><br>▪ Alzheimer's / Dementia<br>▪ Autism<br>▪ Independent Center for Physically and Mentally Challenged Community Members.<br>▪ A subject matter expert skilled in providing tools for special needs utilizing the 9-1-1 CAD System such as:<br>    o The Friendly Caller System – a check in system where elderly / isolated residents call into the police department communication center daily to let them know that all is well.<br>    o National Center for Missing and Exploited Children (NCMEC) – an overview of certification process for PSAPs. | Completed.<br><br>The training team will integrate this content into future CDE training.<br><br>CCPD implemented Friendly Caller System |
| Active Assailant Protocol for Telecommunicators, a four-hour continuing education training class, will be offered for all call takers and dispatchers. | Completed.<br><br>This is an ongoing initiative. |

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| Fire protocol implementation for the EPSO – This includes certification training for the staff and management, installation of software and card sets for each desk. | Completed. <br><br> EPSO Fire protocol went live December 12, 2016. |
| PSAP employee enrichment training will be designed to address work related opportunities as it relates to the daily challenges of work in the PSAPs. | Rescheduled. <br><br> Will be completed by the end of the second quarter 2017. |
| In 2016 the Authority began creating video continuing dispatcher education modules. | Completed. <br> This is an ongoing initiative. |
| The Cripple Creek Police Department PSAP will apply for accreditation from the International Academies of Emergency Dispatch in 2016.  The QA team will assist in the process. | Completed. <br><br> The accreditation was awarded. |
| The EPSO PSAP will apply for reaccreditation from the International Academies of Emergency Dispatch in 2016. The QA team will assist in the process. | Completed. <br><br> The accreditation was awarded. |
| The CSPD PSAP will apply for reaccreditation from the International Academies of Emergency Dispatch in 2016. The QA team will assist in the process if requested by the PSAP leadership team. | Completed. <br><br> The accreditation was awarded. |

| In the fourth Quarter of 2016 EMD policies will be reviewed and presented to the Dispatch Steering Committee for consistency and accuracy. | Completed. |
|---|---|
| The QA team will institute "Line-up" Training at the EPSO PSAP. | Completed. This is an ongoing initiative. |

## Quality Assurance and Training Plan for 2017 – 2020

- The QA team will use trend analysis to identify specific training needs for the individual PSAPs and individual PSAP employees.

- The QA team will implement a best practices method for PSAP Managers to appeal the results of quality assurance audits. The process will be structured and intended to further improve the communication link between the PSAP employees and the QA team.

- A Newsletter will begin publication in 2017 with the objective to provide information, education, and recognition of PSAP employees highlighting the excellent service each provides.

- The recognition "Thank You" video to be disseminated to all PSAP's during National Telecommunicator Week in April 2017.

- Continuing Dispatch Education (CDE) content will be delivered to PSAP employees utilizing multiple forms of media in 2017.

- The training team will utilize a mobile training kit in 2017 that will facilitate the delivery of on-site training at remote PSAPs. The goal of the mobile training kit is to make it easier for more PSAP employees to attend Authority sponsored training.

- Implement an automated Learning Management System (LMS) that enhances collaboration and training file sharing with the PSAP training teams and employees. The LMS will have the capability to monitor and track employee

progress and leverage technology that fosters continuous improvement for the call taking processes at all PSAPs.

- All PSAPs become Emergency Medical Dispatch Accredited Centers of Excellence with the International Academies of Emergency Dispatch estimated to be complete by 2020.  The Authority employees will assist in the development of the applications when requested by the PSAP Leadership teams.

- Each year the Authority employs the talents of nationally recognized speakers to provide training that is designed to address current trends and contemporary issues facing 9-1-1 call takers and dispatchers. This is an ongoing initiative.

- The content from the Special Communities presentations delivered in 2016 will be integrated into future CDE training.

- EPSO Police Protocol implementation is tentatively planned for 2018.

- Business best practices and leadership development training will be provided to the Authority Leadership team with the objective to provide the same training to the line-level employees in the coming years.

## Technology Authority Strategic Plan 2016 – 2020

Information Technology Statement

*"Providing a consistent, responsive, cost efficient, technology solution to El Paso and Teller County PSAPs, while being flexible in a rapidly changing regulatory space."*

### History and Scope of the Technology Program

The technology vision is developed by first conducting fact finding to determine business and system requirements and then to assess and determine the most logical approach to standardization.

In 2015, PSAPs with similar functionality were used to create a prototype platform that was validated with the objective to be used to support all PSAPs. In 2016, I.T. aggressively moved to improve the connectivity in the existing infrastructure.

The 2017 – 2020 strategic vision and plan is to create a continually improving telephony technology platform that will be flexible at the most effective cost possible.

## Technology Accomplishments for 2016

| 2016 Plan | Result |
| --- | --- |
| SysAid is an integrated help desk system that will support all projects that are included within the Life Cycle Management approach. | Completed. |
| The network firewall will be upgraded. | Completed. |
| Inform 9-1-1, the TriTech 9-1-1 computer aided dispatch (CAD) software will be upgraded. The projected completion date is the end of second quarter 2016. | Completed. |
| The WPPD server room will be remodeled and will be completed by third quarter 2016. | Completed. |
| Consolidation of the City of Fountain PSAP with the EPSO PSAP will be completed by fourth quarter 2016. | Completed. |

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|---|---|
| Server replacement and Virtual Desktop Infrastructure (VDI) for Teller County PSAPs will be completed in 2017. | Server replacement Completed. Virtual Desktop Infrastructure (VDI) In Progress. |
| Microwave infrastructure upgrade will improve network connectivity in Teller County. | In Progress. |
| Fort Carson move will be completed by the end of fourth quarter 2016. | Completed. |
| The I.T. team will upgrade the TriTech PSAPs to CAD software version 5.7. | Completed. |
| The City of Colorado Springs I.T. Team will upgrade the Hi-Tech CAD system. The Authority I.T. team will assist when requested. | Completed. |
| The City of Colorado Springs I.T. team will continue the development of the interagency CAD to CAD interface between CSPD and EPSO. The Authority I.T. team will assist when requested. | Planned for 2017. |
| The GIS team will implement a NG 9-1-1 compatible GIS data base. | The database will be completed by the end of the fourth quarter 2017. |
| The GIS team will continue to develop the | In Progress. |

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| web-based portal for Authority customers to obtain GIS related products. | The server is in place; further development will be conducted after the NG 9-1-1 ready data base is completed. |
| The EPSO PSAP will implement Fire Protocol by the end of 2016. | Completed. |

## Technology Plan for 2017 – 2020

### National Fire Protection Association

- The Technology team will adhere to the standards set forth in the National Fire Protection Association Standard for the "Installation, Maintenance, and Use of Emergency Services Communications Systems", known as Standard 1221, 2016 Edition.  Standards included in the 2016 Edition include the functionality of Communication Centers, Operations, Telephone Systems, Dispatching Systems, Computer Aided Dispatching Systems (CAD), Data Security, Public Alerting Systems, and records management.

### NextGen 9-1-1 Technology

- Leverage the results and recommendations from the Colorado NG9-1-1 Subcommittee and the Department of Homeland Security and Emergency Management.  Ensure that the Authority efforts are in synch with the statewide initiative and that the Authority leadership participates in the subcommittee work.

### 9-1-1 Telephone System Technology

- Upgrade the TriTech 9-1-1 telephone system or replace the entire 9-1-1 telephone system. Due to the pending Avaya bankruptcy proceedings and the

end-of-life status of the current telephone system, the NG9-1-1 project will need to be initiated in early 2018.

- Evaluate the feasibility of utilizing I.T. vendor managed service provider for the 9-1-1 phone system, voice recording systems and potentially CAD systems. 2018-2020.

## ESInet Framework

- An ESInet is a standards-based "network of networks" that is designed with a high level of redundancy and resiliency to ensure that the network can continue to operate (delivery of 9-1-1 calls) even if some of the circuit or end points are no longer functioning.[1]  The Authority will require a robust and resilient ESInet in order to implement NG9-1-1.

## PSAP Logging / Telephone Recorder Technology

- The current recording product is end of life and is no longer supported.  Develop a request for proposal (RFP) to replace the Internet Protocol (I.P.) logger voice recorder and issue the RFP in late 2017.

## Computer Aided Dispatch System Technology

- Continue to support the CSPD Hi-Tech CAD upgrade. No current cost or time estimate for completion.
- Continue to support the interagency CAD to CAD interface.  The project is in progress and the City of Colorado Springs I.T. department is the lead agency. This project was rescheduled several times due to the extensive amount of work that has been required to bring the TriTech agencies up to CAD software version 5.7, a significant upgrade and critical to the success of the interagency CAD to CAD interface.

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[1] Jeff Lupinacci, (May 6, 2015) ESInets Are a Game Changer for Public Safety *Emergency Management,* Retrieved May 21, 2017.  http://www.govtech.com/em/next-gen-911/ESInets-Are-a-Game-Changer-for-Public-Safety.html

## Geographic Information System Technology

- Engage GeoComm to achieve NENA i3 Standards in the Authority GIS database. The project will begin in the second quarter 2017.
- The master core data base development data project is in process and will need executive support to a successful completion.
- GIS will automate the ability to export data to Tri-Tech and Contact Map consumable schemas.
- Aerial Photography data for El Paso and Teller County will be purchased and implemented every other year.

## Disaster Recovery Technology

- Disaster Recovery – Explore the feasibility of moving the primary data center to an offsite, secure and controlled location.  If the primary data center is relocated the Authority facility could serve as the secondary data center.

## PSAP Technology

- Fort Carson PSAP move was initially projected to be completed by year end 2016 but has been delayed.  The updated completion date is end of the second quarter 2017.
- VDI will be implemented at the Fort Carson PSAP, the CSPD PSAP, and El Paso Sheriff's Office PSAP.  These changes will be a continuation of the desktop integration that is currently underway for the Teller County PSAP's with the objective to have all PSAPs on VDI by the end of 2019.

## Cyber Security Technology

- Upgrade to the most current anti-malware solution by the end of the third quarter 2017.
- Engage a third-party company to perform penetration testing and vulnerability scanning of internal and external networks by the end of the third quarter 2017.

- Update the I.T. security policies and incident response plans for the Authority by the end of the third quarter 2017.

## PSAP Premise Technology

- Quick recall radio recording support responsibility will be moved to Motorola and is on track to be completed in early 2017.

## Authority Premise Technology and Equipment

- The large training room located at the Authority would benefit from the installation of a video solution and smart boards by year end 2017.
- Install a network monitoring application to ensure 100% network uptime.
- SharePoint document management and administration is scheduled to occur in 2018.

## Information Technology Training and Certifications

- Information Technology Infrastructure Library (I.T.I.L.) Integration and Certification for all I.T. and GIS employees is planned for 2017.
- I.T.I.L. integration and certification will continue on a rotational basis to ensure the I.T. and GIS staff members are fully trained by 2019.

## Automatic External Defibrillators

- Explore the feasibility of developing or implementing a system-wide automated external defibrillator (AED) database.
- The selected product will need to interface seamlessly with the PSAP CAD systems, requiring no additional keystrokes by call takers or dispatchers for the AED map to populate.
- The AED product will be hosted by the vendor and require minimum administration by the PSAP or Authority personnel.

# Public Education Plan 2016 – 2020

Public Information and Education Strategic Statement:

*"To educate and inform the public about the appropriate use of 9-1-1;*

*And how to effectively communicate during an emergency."*

## History and Scope of the Public Education Program

The Public Education role for El Paso-Teller County 9-1-1 Authority has been focused on providing service and education to the elementary grade school student with the goal to make a lasting impact in our community since 1994. At its earliest beginnings, resources were limited to the distribution of handouts and school kits.

As technology improved over the last decade the use of mass mailings and telephone calling strategy to schools were added. During that time frame educational presentation visits to schools averaged 25 per school calendar year. In the following years, the focus included elderly communities and alumni associations. Presentations in 2009 averaged 30 per year reaching approximately 5,000 citizens in El Paso and Teller Counties.

This dual strategy of public events and school presentations remained in effect until the acquisition of Life Safety Classroom in 2012, a 28' enclosed mobile trailer, providing hands-on educational experiences for elementary school age students. This addition to the 9-1-1 educational platform increased the reach rate by 35% over the year prior, positively impacting over 20,000 citizens in El Paso and Teller County during public events.

Popularity of the Life Safety Classroom, coupled with referrals from the local fire departments and renewed responses from letter mailings, created the need to be more specific in both the marketing and approach to public 9-1-1 education.

El Paso and Teller County have 17 school districts with approximately 175 elementary schools. Tracking of the specific elementary school's reach rate began in 2015. The educational reach rate for 2015 was 30%. Realizing that the gap for educating the elementary school age population was widening, a strategy to prioritize the 9-1-1 educational platform to El Paso and Teller County's Title I schools in 2016 was adopted. Of the El Paso and Teller County's 17 school districts there are approximately 130 schools that qualify for Title I socio-economic designation.

In 2016 the educational reach rate increased to 43%, still leaving a 57% reach gap. Beginning in 2017, a tailored approach to include age appropriate marketing materials will be shared in classroom presentations. In an effort to narrow the gap, a staggered bi-annual visitation routine is being integrated as a pilot through 2019.

By adopting a bi-annual visitation, there may be loss or risk in the generational impact to the kindergarten and first grade population. Additional administrative support will be required to manage and calculate this risk as this piloted approach is implemented.

## Public Education Accomplishments for 2016

| 2016 Plan | Result |
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| Target Title I Schools with mass mailing. Acquire a comprehensive list for mass mailing and scheduling purposes. | Completed with the achievement of a 43% reach rate, a 13% increase from the year prior. |
| As part of the 2016-2020 strategy, there is a focused emphasis on Title I schools. The "no response to mailings populations" will not be addressed for the 2016 plan. | The reach rate for 2016 was 43%. * Note that this does not address the schools with no response. The stagger rate goal for 2017 is 23% and it being addressed by an invitational mailer |

| | multiple times during the calendar year. |
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| | Reach rate 2016 = 43% |
| | Reach gap = 57% |
| | Gap break down: 57% |
| | 23% represents 30 schools not visited in <2 years. |
| | 34% (equates to 45 schools) accounts for schools with no response to mass mailing for >3 years. |
| | There is no strategy in place to address the "34% - no response population" for 2017. This remains an identified risk. |
| Identify a resource, possibly an intern or seasonal employees, to assist with the administrative planning for 9-1-1 educational platform. | Rescheduled for 2018. |
| Rebrand the Life Safety Classroom not only in name to the 9-1-1 Mobile Classroom, but aesthetically overhaul the look of the 9-1-1 Mobile Classroom to emulate an actual home. Rebranding also includes updating all marketing literature and public service announcements. | The name change and reconstruction of the Mobile Classroom initiated in 2016 and is on track for completion by third quarter 2017.<br><br>Marketing literature and PSA's were updated. |
| Deploy a mascot for Public Education Events and presentations. | Completed the purchase of Cell Phone Sally, a wearable mascot costume. |
| To accommodate the expected increase in presentations and mobile classrooms, | Completed.<br>The QA team has been integrated into |

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| support was effectively leveraged from the Authority QA Team and the PSAP staff. | the visitation schedule for both in classroom presentations and Mobile Classroom experiences.<br><br>Members of the PSAP team also led classroom presentations during 2016. |
| In 2016, a Public Education Dashboard was created and is accessible to internal Authority personnel that provides real time updates to the capacity rate of public education event and the number of school presentations. | Completed. |
| Increase and deepen social media activity by embedding quick links on the Authority Website http://www.elpasoteller911.org for special events, a calendar of media stream will deploy daily messaging to advertise. | Completed. |
| Update the Public Information and Education Policy and Procedures on the Authority's shared drive. These procedures were updated in 2016 and are updated as changes occur. Those procedures on file are:<br>▪ Public Education Programs – The two programs are the 9-1-1 classroom presentation and the Mobile Classroom presentation. | All completed with the exception of the ENS procedure. This procedure was updated in 2016, and is under review for approval in 2017. |

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| • The 9-1-1 Hero Program – The procedure includes both the Public Education team coupled with the PSAP leadership team to recognize 9-1-1 heroes in our community.<br><br>• Emergency Notification System (ENS) – This procedure was updated 2016 and is slated for review again in 2017. | |
| 9-1-1 Media Partnership Presentations – Partner with Fox 21 during the summer of 2016 to co-present and educate the community about 9-1-1 and weather safety. | Completed. |
| Effectively leveraged Fire Department partnership with 9-1-1 during Fire Prevention Month by co-presenting and educating the community about 9-1-1 and Fire Safety. This partnership is critical to build relationships in the local school districts. | Completed. |
| The 9-1-1 Public Education team participated in a large scale evacuation drill with Colorado Springs Office of Emergency Management in an identified risk community in the Broadmoor area. | Completed. |

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| The Public Information Officer is a member the security team at the Authority and serves as the project manager. The team will complete the implementation of security measures by the end of third quarter 2017. | In progress.<br><br>This initiative began in 2016 and will continue through 2017 with improved access entry measures until complete. |

## Public Education Plan for 2017-2020

- 2016-2017 initiative is to rebrand the Life Safety Classroom to the 9-1-1 Mobile Classroom to have a recognizable look and feel. This includes to rebranding all marketing literature, curriculum, educational handouts, and new public service announcements. The re-facing of the 9-1-1 Mobile Classroom is on track for completion by the end of the second Quarter of 2017.
- For 2017, a post presentation e-mail will be sent to elementary grade school teachers to measure effectiveness of the 9-1-1 public education material.
- Beginning in 2017, grade appropriate marketing material will be shared in classroom presentations to fortify the generational impact.

| Grade | Program | Handout |
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| Kindergarten | 9-1-1 Educator reads the Cell Phone Sally oversized book titled "Getting Help is Easy" to the kindergarten class. Topics covered in the book include:<br><br>  • Recognizing the purpose and appropriate use of 9-1-1.<br>  • Identifying 9-1-1 emergency situations.<br>  • Knowing your location and telephone number. | • Cell Phone Sally 9-1-1 Pledge Sheet.<br>• Cell Phone Sally Activity Sheet. |

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| | <ul><li>Keeping safe during an emergency.</li><li>Understanding what a 9-1-1 dispatcher does and how they can help you.</li></ul> | |
| First Grade | 9-1-1 Educator shows the Cell Phone Sally movie "Getting Help is Easy." Topics covered:<ul><li>Recognizing the purpose and appropriate use of 9-1-1.</li><li>Identifying 9-1-1 emergency situations.</li><li>Knowing your location and telephone number.</li><li>Keeping safe during an emergency.</li><li>Understanding what a 9-1-1 dispatcher does and how they can help you.</li></ul> | <ul><li>Cell Phone Sally Activity Book.</li><li>Pamphlet to parents.</li></ul> |
| Second Grade | 9-1-1 Mobile Classroom. Topics covered:<ul><li>Recognizing the purpose and appropriate use of 9-1-1.</li><li>Identifying 9-1-1 emergency situations.</li><li>Knowing your location and telephone number.</li><li>Keeping safe during an emergency.</li><li>Understanding what a 9-1-1 dispatcher does and how they can help you.</li><li>Keeping **SAFE** during an emergency.</li></ul> | <ul><li>Cell Phone Sally Bookmark.</li><li>Cell Phone Sally Mood Pencil.</li><li>Cell Phone Sally Activity Sheet.</li></ul> |
| Third Grade | 9-1-1 Mobile Classroom. Topics covered:<ul><li>Recognizing the purpose and appropriate use of 9-1-1.</li><li>Identify 9-1-1 emergency</li></ul> | <ul><li>Cell Phone Sally Activity Sheet.</li><li>Cell Phone Sally Folder.</li></ul> |

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| | situations.<br>▪ Knowing your location and telephone number.<br>▪ Keeping safe during an emergency.<br>▪ Understanding what a 9-1-1 dispatcher does and how they can help you.<br>▪ Keeping **SAFE** during an emergency. | |
| Fourth Grade | 9-1-1 Mobile Classroom. Topics covered:<br><br>▪ Recognizing the purpose and appropriate use of 9-1-1.<br>▪ Identifying 9-1-1 emergency situations.<br>▪ Knowing your location and telephone number.<br>▪ Keeping safe during an emergency.<br>▪ Understanding what a 9-1-1 dispatcher does and how they can help you.<br>▪ Keeping **SAFE** during an emergency. | ▪ Cell Phone Sally Slap Bracelet. |
| 5<sup>th</sup> Grade | 9-1-1 Mobile Classroom. Topics covered:<br><br>▪ Recognizing the purpose and appropriate use of 9-1-1.<br>▪ Identify 9-1-1 emergency situations.<br>▪ Knowing your location and telephone number.<br>▪ Keeping safe during an emergency.<br>▪ Understanding what a 9-1-1 dispatcher does and how they can help you.<br>▪ Keeping **SAFE** during an emergency. | ▪ Augmented Reality Tattoo. The sticker interacts with a Cell Phone Sally app on a variety of devices. When scanned, the sticker activates a lesson for the student. |

- Mass mailer strategy for 2017:

| E-mail/Mail Sent: | Target Audience | Presentation Timeline |
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| February | First Grade | 9-1-1 Classroom Presentations March – May. |
| July | Second and Third Grade | 9-1-1 Mobile Classroom Presentations August – October. |
| October | Kindergarten | 9-1-1 Classroom (Reading Presentation) November – December. |

- Middle schools and high schools will be selected using the socio-economic designation of Title I Districts.  Presentations will be determined by the audience size and calendar availability. This 2019 target will be reached by hiring field support and an intern is the likely best option for this strategy.
- The Pub Ed team will create a virtual learning library with 9-1-1 educational content such as "Tips and Presentations" that can be loaded to YouTube, posted on the Authority website and shared when needed. 2018-2019 to develop the library.

There are three terms to be familiar with as the effectiveness of the 9-1-1 Public Education Platform is discussed as it pertains to the Elementary Schools in El Paso and Teller Counties. They are as follows:

- Reach Rate – The population that is positively impacted out of the possible number of elementary schools in El Paso and Teller County. This number is represented by El Paso and Teller County Title I Elementary Schools from 2016 forward. Tracking attendance for public 9-1-1 educational events is not included. The Reach Rate for 2016 is 43%.
- Reach Gap – The gap that is created when a school does not receive 9-1-1 education annually. The benefit to an annual 9-1-1 public education school is to teach entry level students (kindergarten) and those students moving into  the El

Paso and Teller County schools districts.  This number includes the population of elementary schools that have not been scheduled for a visit in over one year. For 2016, the reach gap was 57%.

- Reach Risk – The risk that is created when a population of elementary school children does not receive 9-1-1 education. The lesser risk is when a generation is missed (kindergarten and first grade) with a biannual visitation strategy. The greater risk lies in the "no response" to the mass mailer outreach. There are approximately 45 schools (34% in 2016) that reside inside the Title I designation where no documented public education visit has ever occurred.

# Acronyms and Abbreviations

| Term | Definition |
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| 9-1-1 | A three-digit telephone number to facilitate the reporting of an emergency requiring response by a public safety agency. |
| 9-1-1 Service Area | The geographic area that has been granted authority by a state or local governmental body to provide 9-1-1 service. |
| 9-1-1 System | The set of network, software applications, databases, components, operations & management procedures required to provide 9-1-1 service. This may include commercial, governmental body 9-1-1 service. |
| Administrative ESN | A 3-5 digit number that represents an ESZ. It is stored in the MSAG and is returned from an ALI query. The Administrative ESN facilitates dispatching of the proper emergency service agency(ies). An Administrative ESN is assigned to each MSAG range to associate the physical addresses to an ESZ. It is used to display English Language Translations (ELT) and may be used by CPE to transfer calls to the correct responder. |
| Alternate PSAP | A PSAP designated to receive 9-1-1 calls when the primary PSAP is unable to do so. |

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| Alternate Routing | The capability of routing 9-1-1 calls to a designated alternate location(s) if all 9-1-1 trunks are busy or out of service. May be activated upon request or automatically, if detectable, when 9-1-1 equipment fails or the PSAP itself is disabled. |
| American National Standards Institute (ANSI) | Entity that coordinates the development and use of voluntary consensus standards in the United States and represents the needs and views of U.S. stakeholders in standardization forums around the globe. Please refer to: www.ansi.org |
| Association of Public Safety Communications Officials (APCO) | APCO is the world's oldest and largest not-for-profit professional organization dedicated to the enhancement of public safety communications. |
| Automatic Call Distributor (ACD) | Equipment that automatically distributes incoming calls to available PSAP attendants in the order the calls are received, or queues calls until an attendant becomes available. |
| Automatic Location Identification (ALI) | The automatic display at the PSAP of the caller's telephone number, the address/location of the telephone and supplementary emergency services information of the location from which a call originates. |
| Automatic Number Identification (ANI) | Telephone number associated with the access line from which a call originates. |
| Automatic Number Identification (ANI) Controller | A stand-alone CPE component which provides the ANI decoding and function key control for 9-1-1 service. |

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| Basic 9-1-1 | An emergency telephone system which automatically connects 9-1-1 callers to a designated answering point. Call routing is determined by originating central office only. Basic 9-1-1 may or may not support ANI and/or ALI. |
| CDE | Continuing dispatch education. |
| Cellular Priority Access Service | A uniform nationwide method of providing priority access to authorized wireless subscribers in the event of an emergency. |
| COOP | Continuity of Operations Plan. |
| Emergency Alert Systems | Radio or television based broadcast of emergency event information. |
| Enhanced 9-1-1 (E9-1-1) | A telephone system which includes network switching, database and Public Safety Answering Point premise elements capable of providing automatic location identification data, selective routing, selective transfer, fixed transfer, and a call back number.<br><br>The term also includes any enhanced 9-1-1 service so designated by the Federal Communications Commission. |
| Environmental Services Research Institute (ESRI) | Software developer of geographical information system (GIS) software and technology. |
| Geographic Information System (GIS) | A system for capturing, storing, displaying, analyzing and managing data and associated attributes which are spatially referenced. |

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| Landline | Colloquial term for the Public Switched Telephone Network access via an actual copper or fiber optic transmission line that travels underground or on telephone poles. Used to differentiate the "wireless" connectivity of a cellular or PCS system. |
| Learning Management System | The objective of the Learning Management System is to methodically provide PSAPs with informational content and educational resources. It is an effective and responsive way for the Authority to create, deliver, and manage training content, as well as monitor participation and assess performance among learners. |

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| Master Street Address Guide (MSAG) Address | Address recognized by Public Safety for the dispatch of emergency first responders. It is an absolute and unique address in that variants for directions, street spelling, street suffixes, and community names are not allowed. It is preferred that MSAG Addresses be in Civic Address format. The community name associated with this address format is assigned by the Addressing Authority in cooperation with the 9-1-1 Administrator and may or may not be the same as the community name assigned by the USPS.<br><br>MSAG addresses are used to route 9-1-1 calls and for ALI display.<br><br>NOTE: MSAG Address data format is not standardized throughout the country. This is generally attributed to legacy system limitations that have been continued as operational practices on the part of 9-1-1 administrative entities. This fact gives rise to the need for two subtending MSAG definitions. (See Standard MSAG and Local Operational MSAG.) |
| Next Generation 9-1-1 (NG 9-1-1) | NG 9-1-1 is an Internet Protocol (IP) based system comprised of managed Emergency Services IP networks (ESInets), functional elements (applications), and databases that replicate traditional E9-1-1 features and functions and provides additional capabilities.<br><br>NG 9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for Public Safety Answering Points (PSAPs) and other emergency service organizations. |

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| Primary Public Safety Answering Point (PSAP) | A PSAP to which 9-1-1 calls are routed directly from the 9-1-1 Control Office. |
| Public Safety Answering Point (PSAP) | An entity responsible for receiving 9-1-1 calls and processing those calls according to a specific operational policy. |
| Reach Rate | The population that is positively impacted out of the possible number of elementary schools in El Paso and Teller County. This number is represented by El Paso and Teller County Title I Elementary Schools from 2016 forward. |
| Reach Gap | The gap that is created when a school does not receive 9-1-1 education annually. The benefit to an annual 9-1-1 public education school is to teach entry level students (kindergarten) and those students moving into the El Paso & Teller County schools districts.  This number includes the population of elementary schools that have not been scheduled for a visit in over 1 year. For 2016, the reach gap was 57%. |
| Reach Risk | The risk that is created when a population of elementary school children do not receive 9-1-1 education. The lesser risk is when a generation is missed (kindergarten and first Grade) with a bi-annual visitation strategy. The greater risk lies in the "no response" to the mass mailer outreach. There are approximately 45 schools (34% in 2016) that reside inside the Title I designation where no documented public education visit has ever occurred. |

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| Routing Emergency Service Number (ESN) | The 3-5 position Emergency Service Number (ESN) used by a selective router to selectively route a 9-1-1 call and for switch-based selective transfer features. In cases where Routing ESNs are not used, the routing ESN equals the Administrative ESN. |
| Single Point of Failure | A hardware or software component or sub-system which experiences a failure causing more than 50% of the total system to fail. |
| Standard Operating Procedure (SOP) | A written directive that provides a guideline for carrying out an activity. The guideline may be made mandatory by including terms such as "shall" rather than "should" or "must" rather than "may." |
| Web service | A self-contained, self-describing, modular application that can be published, located, and invoked across the Web. Web services perform functions that can be anything from simple requests to complicated business processes. |