



The Operational Integration of Technology and Tools December 2021

Acknowledgments

The Public Safety Telecommunicator Reclassification Toolkit was compiled through the efforts of numerous 911 professionals with a deep commitment to the individuals that are the first, first responders in any emergency. The goal of this toolkit is to provide public safety answering point (PSAP)/emergency communications center (ECC) leaders and decision-makers with a framework to help ensure job descriptions, training programs, and operational documents adequately reflect the evolving expectations of the public safety telecommunicator. This document, entitled “Guidelines for the Operational Integration of Technology and Tools,” provides a framework for evaluating, updating, and maintaining your center’s written directives to ensure they equip public safety telecommunicators with an understanding of the technology and tools needed to perform their duties.

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1 Call to Action

It is vital that when a person dials 911, they receive a consistent level of 911 service—no matter where they live or travel in the United States (U.S.). Just as the role of the public safety telecommunicator (PST) has evolved, so also has the technology and tools used by public safety answering points (PSAPs), emergency communications centers (ECCs), or other emergency services providers. Gone are the days of simply answering a phone call and inputting data. Today’s modern ECCs require that PSTs have tools and technology to analyze 911 calls, operate in a multi-dynamic environment, as well as make mass notifications to responders and citizens as a crisis evolves.

This toolkit has been developed to help ECCs take the necessary actions to support the change in job classification of public safety telecommunicators from clerical to **protective services**. The case for change begins at the ECC. ECCs are encouraged to read and act upon all four parts of this toolkit, as necessary.

This document, *Guidelines for Operational Integration of Technology and Tools*, is part three of a four-part toolkit that addresses the steps an ECC can take to prepare for Office of Management and Budget (OMB) reclassification efforts as well as state-level reclassification efforts. These tools also can be used to increase professionalism in the ECC.



This document is a call to action to evaluate, update and maintain your center’s written directives to ensure they equip PSTs with an understanding of the technology and tools needed to perform their job.

HISTORY

Classification

The U.S. Bureau of Labor Statistics (BLS), under the Department of Labor, is responsible for the Standard Occupational Classification (SOC) of workers into occupational categories for the purpose of collecting, calculating, and disseminating data. “Occupations are classified based on work performed and, in some cases, on the skills, education and/or training needed to perform the work.” [[Classification Principles and Coding Guidelines, 2018 SOC \(bls.gov\)](#)]

The Decisions to Not Reclassify

BLS ultimately was unable to reclassify because of the lack of objective, measurable data; thus, the 911 telecommunicator position remains classified under the Office and Administrative Support Occupation. The decision not to reclassify PSTs from the Office and Administrative Support Occupation to Protective Services was a blow to the industry and a campaign to increase the visibility of PSTs and their roles and responsibilities was undertaken.

Moving Forward

It is in the best interest of the 911 community to assemble objective data and information that can be used for the reclassification of the PST by updating job descriptions, training programs, and written directives to accurately depict job duties and responsibilities, as well as the knowledge, skills, and abilities required for the modern PST.

For more information on the Toolkit visit www.911.gov

This toolkit outlines the steps to create and maintain written directives that support current and emerging technologies and the responsibilities of the PST.

Understand your current written directives

- Get to know specific requirements (laws, regulations, and standards)
- Meet with public safety stakeholders (e.g., law enforcement, fire, emergency medical services [EMS], emergency management) to understand their needs
- Conduct a self-assessment

Engage your operational subject-matter experts

- Identify gaps in policies and/or procedures
- Align your written directives with ECC operations
- Incorporate the tools and technology your ECC uses into your written directives
- Compare your written directives to your training program

Seek advice from other ECCs

- Review neighboring jurisdictions' written directives
- Consider applying for accreditation

Review often and make changes

- Review written directives regularly
- Develop a process to keep written directives updated
- Make changes as often as necessary to ensure accuracy

2 Background

Each year millions of calls are made to 911. The estimated 98,300¹ dedicated men and women who answer those calls are facing a time of great change as their careers, roles, and responsibilities move from a legacy environment to a Next Generation 911 (NG911) environment. Their roles in answering 911 calls include such tasks as:

- Helping to calm a terrified teenager hiding in a closet during a home invasion, while simultaneously providing information about the incident to first responders while they rush to the scene
- Directing a frightened caller on how to safely escape a burning building or take protective actions if they are trapped
- Providing cardiopulmonary resuscitation (CPR) instructions to a panicked parent holding a lifeless child

¹ Police, Fire, and Ambulance Dispatchers. Occupational Outlook Handbook. <https://www.bls.gov/ooh/office-and-administrative-support/police-fire-and-ambulance-dispatchers.htm#tab-1>. Last accessed 06/03/2021.

These dedicated professionals are trained to stay on the line with callers during emergent situations and provide a sense of calm in the worst times of callers' lives. However, even with the expectations and stressful demands of the positions, they currently fall into a clerical/administrative job category for classification and reporting purposes.

The United States (U.S.) Bureau of Labor Statistics (BLS), under the Department of Labor, is responsible for the Standard Occupational Classification (SOC) of workers into occupational categories for the purpose of collecting, calculating, and disseminating data.² The classifications are reviewed every ten years, and in 2018, the efforts of 911 professionals to make the case for reclassification failed due to a lack of objective, measurable data required to support reclassification of the PST profession within the BLS SOC database. Part three of this four-part toolkit will help guide ECCs in the development of written directives that lead to data that helps support the reclassification effort.

2.1 Technology in the ECC and its Uses

Initially, wireline telephones were used to simply place a 911 call and the PST received the address associated with the telephone number being used for the call. Now PSTs handle requests for service from wireline, wireless (including text messages), Voice over Internet Protocol (VoIP), and telecommunications device for the deaf (TDD) devices and other technologies. PSTs must identify the location of the caller, verify the caller's telephone number, and gather details about the emergency. With NG911, the capabilities of the 911 system are much more sophisticated and the technology more complex.

PSTs not only input information from the caller, but also are now responsible for receiving data from multiple types of communication devices such as wireless phones for text-to-911, shot spotter cameras to notify of gunshots in an area, and automated data feeds perhaps from a vehicle crash. This information must then be analyzed and organized to be input into a computer-aided dispatch (CAD) system, which requires multiple fields to be populated before the incident can be sent electronically for dispatch. This input is involved and may include multiple caution notes, maps, data lookups, and linking of incidents—PSTs must be able to successfully navigate the CAD system.

PSTs must be familiar with the recording devices for when they need to replay a call. And two-way radio communications occur on multiple talkgroups, often monitored by a single dispatcher. PSTs must understand how to patch disparate talkgroups and even disparate radio systems. PSTs respond to emergency button activations from portable radios to determine if the responder is in danger. PSTs also monitor various alarms, use specialized global positioning system (GPS) software, alert fire stations, and identify additional detail needed such as floor plans, citizen-provided medical information, and intrusion alarm permit validation.

PSTs are trained on many call-handling, dispatching, recording, and communication devices and software, as well as backup or work-around routines when the primary technology is down.

² Standard Occupational Classification. U.S. Bureau of Labor Statistics. <https://www.bls.gov/soc/>. Last accessed 01/09/2020.

This enhanced technology, coupled with the PST’s work to gain situational awareness through analyzing a caller’s voice, listening for background clues, etc., helps them correctly identify and prioritize the incident. The use of structured protocols, such as emergency medical dispatch (EMD), also allows PSTs to provide life-saving support, such as CPR instructions or guiding a caller through childbirth, until responding agencies arrive.

The software, technology, and systems with which PSTs must be proficient while working in an ECC are shown below. As technology advances, the expectations of PSTs grow as well.

Computer Applications	Geographic Information System (GIS)	Social Media	Multimedia (video, images)	Artificial Intelligence
TDD	Alarm Systems	Automatic Vehicle Location	English Language Translation Services	Radio Communication
Broadband Communication	Fire Station Alerting	Shot Spotter	Logging Recorder Playback (IRR)	Equipment Troubleshooting
Protocol Software Navigation	Mass Notification Systems	Location Verification Systems	Call-Handling Equipment	Criminal Justice Information System (CJIS) Database
Automatic Vehicle Location (AVL)	Bank Bait Bags	Bait Vehicles	Telematics	Adanced Automatic Crash Notifications
Automated Secure Alarm Protocol (ASAP) to PSAP	Over-the-Top Applications	Text-to-911	Text-from-911	Active Shooter Alarms
	Mapping Software	Internet	Additional Data Repositories	

Figure 1: ECC Technology

As the job of a PST becomes more complex with evolving technology, standard operating procedures (SOPs), also referred to as directives (law enforcement) or guidelines (fire), must be written and updated.

2.2 Moving Forward

It is in the best interest of the 911 community to build the case for the reclassification of the PST not only by updating job descriptions and training programs but also by cultivating written SOPs and directives that incorporate the tools and technology used in the ECC. Documented policies, which are reviewed regularly, will help ECCs maintain high-quality operations and will demonstrate the increasing expectations of the PST.

3 Cultivating Written Directives

Written directives are a critical component of an ECC's operations. The policies or directives (i.e., rules) serve to reduce the possibility of human error and provide direction (or guidance in some cases) for employees to follow. Written directives create consistency in the internal and external functions of the ECC, which is paramount when dealing with callers and emergency services personnel. The more consistent the process or procedure is for all staff, the less chance there will be for problems with quality.

Written directives help:

- Communicate what is expected of a PST in the performance of their duties
- Provide guidance on how to perform their duties, or use tools and technology
- Simplify decision-making
- Establish accountability and alignment with laws and regulations
- Serve as a foundation for the ECC's training program
- Provide a fair and equitable way to evaluate PSTs³

Written directives also provide a method of communication. As improvements are made to operations or technical processes, written directives are updated; each update then requires new training. This provides a method to communicate the process and technology changes to all employees.

Written directives ensure an ECC can meet the expectations of first responder agencies. The policies can be developed to ensure alignment with responder agencies while considering the requirements and limitations of the ECC itself.

³ Kenyon, Matt. *How To Write The Rules: Developing Your Own SOPs*. PSC Magazine, May/June 2019. https://www.pscmagazine-digital.com/pscs/0319_may_june_2019/MobilePagedArticle.action?articleId=1481729#articleId1481729

Written directives are unique to each ECC, as the capabilities, roles, and responsibilities vary greatly among ECCs. There is no single template that will work for all agencies. Creating and updating written directives begins with the ECC understanding its local needs and applicable legislation and identifying any gaps in policy. Written directives also form the cornerstone of any training program. The policies should provide the rules for performing a job, duty, or task, whereas the training program provides the details—directions or instructions—on how to operate a piece of technology or how to use a tool⁴, for example. Therefore, it is important to engage training personnel when creating or updating written directives.

Written Directives are the rules.

Training Programs provide the details.

The following subsections are items to consider when cultivating written directives.

3.1 Terminology Differences

Many terms are used to describe an agency’s operating manual and are often used interchangeably. Written directives can either serve as a mandatory policy, procedure, or guideline.

Policy	Procedure	Protocol	Guideline
A course or principle of action that is desired or required and adopted or proposed by a government, party, business, or individual.	Specific steps or actions to be completed; an established or official way of doing something.	A highly defined procedure placed into a reference system ⁵ ; a procedure for carrying out a prescribed course of action.	A general rule, principle, or piece of advice. ⁶

Regardless of the terminology used in the ECC, well-developed written directives serve as a roadmap and user manual for day-to-day operations.

3.2 Standards and Best Practices

When creating written directives, ECCs should adopt and use industry standards and best practices to assure the effectiveness of the agency and that the best possible service is provided to citizens and first

⁴ Ibid.

⁵ *Emergency Telecommunicator Course Manual*, International Academies of Emergency Dispatch.

⁶ Google Definitions

https://www.google.com/search?q=Guideline+definition&rlz=1C1GCEA_enUS800US800&sxsrf=ALeKk03eKkqAUURQFahRoctZqTOPDcoYCQ%3A1624285878017&ei=tqLQYJA4iuPk2g-Pv4nwAw&oq=Guideline+definition&gs_lcp=Cgdnd3Mtd2l6EAMyBggAEAcQHjIGCAAQBxAcMgYIABAHEB4yBggAEAcQHjIGCAAQBxAcMgYIABAHEB4yBggAEAcQHjoHCAAQRxCwAzoHCAAQsAMQQ1Do6AhY6OqIYOfuCGqBcAJ4AIAbfogB3wGSAQMxLjGYAQCgAQKqAQGqAQdnd3Mtd2l6yAEKwAEB&scient=gsw-wiz&ved=0ahUKewiQ65a2-KjxAhWKMVkfFHY9fAj4Q4dUDCA8&uact=5

responders. Measurable standards create an objective view of 911 operations and provide for consistent interactions with the public and first responders.

Standards and best practices most often used in ECCs are from the Association of Public-Safety Communications Officials (APCO) International, the National Emergency Number Association (NENA), the National Fire Protection Association (NFPA), and the Commission on Accreditation for Law Enforcement Agencies (CALEA). APCO, NENA, and NFPA are each an American National Standards Institute (ANSI)-accredited standards development organization (SDO).

Definitions of written directives also vary.

APCO	NENA	NFPA	SAFECOM
Written Directives: A set of agency specific policies, procedures, rules, regulations, and guidelines. ⁷	SOP (Standard Operating Procedure): 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”. ⁸	Standard Operating Procedures (SOPs): Written organizational directives that establish or prescribe specific operational or administrative methods that are to be followed routinely for the performance of designated operations or actions. ⁹	Standard Operating Procedures (SOPs) are formal, written guidelines or instructions for incident response that typically have both operational and technical components. ¹⁰

The inclusion of these organizations is for informational purposes and should not be construed as an endorsement of any kind. Federal agencies are precluded from any perception of favoritism toward any individual product, service, or company.

For more information and a comprehensive listing of standards for Enhanced 911 and NG911, visit: https://www.911.gov/project_standardsforenhancedandnextgeneration911.html.

⁷ APCO ANS 3.103.2.2015 *Minimum Training Standards for Public Safety Telecommunicators*© <https://www.apcointl.org/download/minimum-training-standards-for-public-safety-telecommunicators-3/?wpdmdl=6288>

⁸ NENA Master Glossary of 9-1-1 Terminology. [NENA Master Glossary - National Emergency Number Association](https://www.nena.org/terminology)

⁹ NFPA Glossary of Terms. <https://www.nfpa.org/Codes-and-Standards/Resources/Glossary-of-Terms>. This reference is specific to NFPA 1221 (2019). Depending on the referenced standard, the definition of SOP may vary slightly.

¹⁰ Standard Operating Procedures, SAFECOM. <https://www.cisa.gov/safecom/sops>

3.3 Accreditation

Accreditation is a voluntary process ECCs can undertake to certify that their operations, including their SOPs, meet a rigorous set of standards and best practices. There are two programs specific to 911 centers through which an ECC can seek standalone accreditation—CALEA® and the International Academies of Emergency Dispatch (IAED).

The inclusion of these organizations is for informational purposes and should not be construed as an endorsement of any kind. Federal agencies are precluded from any perception of favoritism toward any individual product, service, or company.

4 Next Steps

Creating and updating written directives to include new and existing technology is increasingly important as the job complexity of the PST increases. Understanding the importance of maintaining written directives will assure the documentation is up to date and reviewed regularly.

Clearly defined written directives are vital in an ECC as they provide the rules for PSTs operating the various tools and technologies. Written directives provide the structure for how the ECC should operate. Adopting industry-recognized standards and best practices helps assure the effectiveness of the agency and that the best possible service is provided to citizens and first responders.

While the process for PST recertification is not scheduled to begin for a few years, the time to make changes is now. Written directives should be updated and implemented in advance of the next round of BLS reclassification research. Documenting the technology in ECCs, how each is used, and the complexity of the job also may aid the reclassification effort. 911 authorities should review their written directives using the documents provided in Appendix A—Guidance on Creating Written Directives.

Consideration also should be given to sharing this document with operational personnel and other stakeholders to assist with the creation of policies and procedures.

Appendix A – Guidance on Creating Written Directives

What are written directives?

Written directives are the rules of the ECC. They can take the format of policies, procedures, or guidelines. They are the rules for ECC operations, including the tools and technology.

How to use this document

While this guidance document is relevant to the entire 911 community, its use is directed towards those responsible for creating and updating written directives. The use of the contents of this document is strictly voluntary.

Each written directive topic area contains two major components (see figure below). For each topic area, sample language has been provided, as well as further “advice and tips” to take into consideration.

Guidance

Provides an overview of the topic area, an explanation of the area’s crucial factors, and recommendations for avoiding pitfalls.

Sample Language

Provides sample language that can be “cut-and-pasted” and easily modified to align with ECC-specific requirements.

Before you get started ... a checklist

✓ Understand your current written directives

Get to know specific requirements (laws, regulations, and industry standards). Meet with public safety stakeholders (law enforcement, fire, EMS] emergency management, etc.) to understand their needs. Conduct a self-assessment and identify the technology in use in your ECC.

✓ Engage your operational subject-matter experts

Identify gaps in policy. Align your written directives with ECC operations. Develop the “rules” for the tools and technology your ECC uses. Compare your written directives to your training program and assure alignment.

✓ Seek advice from other ECCs

Review neighboring jurisdictions’ written directives. Consider accreditation.

✓ Review often and make changes

Review your written directives regularly and develop a process to keep written directives updated. Make changes as often as necessary to ensure accuracy.

Written Directives Guidance, Sample Language, and Examples

Several industry resources can be used to help develop and write effective written directives. This toolkit sets a foundation on how to begin to develop written directives. (The inclusion of these organizations is for informational purposes and should not be construed as an endorsement of any kind. Federal agencies are precluded from any perception of favoritism toward any individual product, service, or company.)

Title	Resource	Link
<i>Writing Guide for Standard Operating Procedures</i>	SAFECOM	https://www.cisa.gov/safecom/sops
<i>How To Write The Rules: Developing Your Own SOPs</i>	APCO	https://www.pscmagazine-digital.com/pscs/0319_may_june_2019
SOP Development Course	NENA	https://www.nena.org/page/sopDevelopment

Mission and Vision of the ECC

Guidance

Determine the ECC's organizational objectives. A clear vision of the mission of the ECC will set the foundation for the direction of the agency.

Sample Language

Get the right people, to the right place, in the right time.

Gather Documentation

Guidance

ECCs should review applicable laws, regulations, and standards, as well as conduct research on where gaps lay within policies.

Interviewing frontline workers to determine where they need more guidance is a good practice.

Sample Language

Americans with Disabilities Act (ADA)

*Federal Bureau of Investigation (FBI) Criminal Justice Information Services (CJIS) regulations
Federal Communications Commission (FCC) rules*

Are there local procedures that need to be followed? Enlisting the help of law enforcement, fire, and EMS first responders and emergency management personnel can be beneficial to assure you meet their needs as well.

Health Insurance Portability and Accountability Act (HIPAA)

Write the Written Directive

Guidance

Creating an SOP template should be the first step in this process. This will help keep things organized. When crafting language, it should be plain and easy to follow.

Tips and Advice

There are many free online templates available for ECCs to use.

If your ECC is a division of a first responder agency, a template likely exists already.

Sample Language

Topic: Call Taking	Policy No: 3.1
Effective: 05/21/2018	Approved:
Revised: 06/01/2019, 06/21/2020, 05/23/2021	[Signature]

Answering Telephone Lines

911 emergency lines: hard lines, VoIP, wireless, and telematics.

All calls received on a 911 emergency line shall be answered in 15 seconds or less, per industry standards. 911 emergency lines shall be answered; “[Agency name] 911, what’s the address of the emergency?”

Test the Written Directive

Guidance

Before implementing an SOP, have subject-matter experts review the content. Seek feedback from staff or first responders, as applicable.

Check with leadership; ensure the SOP aligns with their expectations.

Tips and Advice

Bringing subject-matter experts who use the SOPs every day to the table will assure that the documented processes are accurate and relevant.

Sample Language

Having a change management process allows the ECCs to ensure SOPs are reviewed by the correct personnel before being published.

- ✓ *This document has been circulated through ECC leadership, first responders, and staff for approval and to ensure it does not conflict with other established policies and procedures.*

Implement the Written Directive

Guidance

Once the SOP has been approved, it needs to be distributed to staff. Develop mechanisms that allow an employee to know that a new or updated SOP will be going into effect.

Having a document control process will help eliminate confusion on which is the most current version of the SOP.

Tips and Advice

When you publish an SOP, consider conducting a training class on the SOP or review in a shift briefing to ensure that your employees understand the content and can ask any questions.

Sample Language

N/A

Availability of the Written Directive

Guidance

Determine how you will publish SOPs; it could be a hard copy or an electronic version. Either way, SOPs should be easily accessible.

Sample Language

N/A

Review Regularly

Guidance

As things change within the ECC, so should SOPs. Developing a mechanism to review, create, and update policies should be a part of this process.

Sample Language

SOPs will be updated annually. Policies, procedures, and technology will be reviewed, updated, and added for the next version.