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SUCCESSION PLANNING RESOURCES FOR PUBLIC SAFETY COMMUNICATIONS

A Planning and Program Guide for Public Safety Communications Personnel

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Introduction

The Cybersecurity and Infrastructure Security Agency (CISA), in collaboration with SAFECOM, presents the SAFECOM *Succession Planning Resources for Public Safety Communications: A Planning and Program Guide for Public Safety Communications Personnel*. This guide includes best practices, recommendations, templates, and checklists to assist public safety agency leaders with transitioning traditional first responder personnel into new communications systems roles. Too often, agencies find themselves without qualified communications personnel for a variety of reasons; such as retirement, relocation, or promotion, which occur frequently within the public safety community. It is imperative for public safety agencies to identify and establish at least one person within their agency to serve as the *"public safety communications coordinator"* (PSCC)[1]. It is not recommended for public safety agencies to establish the PSCC as a new funded position. Rather, public safety agencies are encouraged to make use of current personnel; by way of implementing informal training, documenting institutional knowledge, developing mission specific best practices, and routinely sharing lessons learned.

The PSCC's responsibilities include being the liaison between the following: radio technicians, end-users/field personnel, management, chief information officers (CIO), IT department, and financial officers. Ideal candidates for the PSCC position possess an interest in public safety communications (i.e., land mobile radio [LMR] legacy systems and broadband/long term evolution [LTE]), as well as in other emerging technologies. Public safety agencies have full autonomy to determine the appropriate title, requirements, and functions for the PSCC position within their respective agency.

To fortify the PSCC role and/or its equivalent, public safety agencies are encouraged to train the individual(s) in all aspects of the complex public safety communications ecosystem and to enact procedures to ensure key information is shared during transitions of the PSCC role.

SAFECOM developed this document with support from CISA. This document reflects the expertise and knowledge of SAFECOM members and coordination efforts of CISA in bringing stakeholders together to share information, best practices, and lessons learned in public safety communications. Direct all questions on this document to SAFECOMGovernance@cisa.dhs.gov.

The Emergency Communications Landscape

As described in the *Public Safety Communications Evolution Brochure*, LMR systems have supported mission critical voice communications for the public safety community since the 1930s. These systems have proven reliable for personnel in the field to communicate with each other and with emergency communications centers/public safety answering points. However, the evolution of LMR systems and the disparity of spectrum bands have created challenges for the public safety community. New technologies and upgraded systems have been developed and deployed across the country, and these systems often vary in disparate ways. As a result, the public safety community has struggled with interoperability and the ability to facilitate communications across jurisdictional and agency lines.

In the current state of communications, LMR networks and broadband networks are evolving. As communications evolve, public safety will continue to use the reliable mission critical voice communications offered by traditional LMR systems. At the same time, agencies will continue to implement emerging wireless broadband services and applications. When broadband applications are enabled to meeting mission critical voice standards, many public safety agencies may migrate to broadband voice applications to augment voice LMR systems. The increase in interoperability and flow of data streams in the coming broadband networks allows for more vulnerabilities to be exploited. Therefore, the integration of broadband networks will also highlight the need for comprehensive cybersecurity practices to be used by all public safety community members.

[1] It is important to note, the PSCC is not an official position and is intended as a descriptor for collateral duties for existing personnel.

Given the evolving nature of public safety communications and the looming lack of qualified public safety communications personnel, public safety agencies need to focus on creating training and succession plans to ensure proper staffing for this increasingly important communications role.

Succession Planning Toolkit

A succession plan is a process for keeping talent in the pipeline. It requires continual assessment of current personnel and future agency needs. Creating a succession plan for public safety communications roles will ensure that these crucial and often difficult to fill positions are properly staffed at all times.

Agencies should consider including current personnel in the succession planning process as those individuals are critical to ensuring success. Current personnel may refer to the *Recommendations for Documenting and Updating Communications Information* section of this *Toolkit* for templates and checklists highlighting key communications information to collect and update regularly. Used in conjunction with existing policies and procedures, these documents may be compiled to create an easy-to-use reference guide for staff transitioning into communications roles.

The PSCC's role in emergency communications requires specific operational and technical skills as well as knowledge of LMR networks and broadband technologies. The ***Appendix A: Training Resources*** section of this *Toolkit* provides various resources for education, training, and certification for emergency communications personnel. Together, these resources may be used to develop requirements for personnel to complete in order to fill the communications coordinator role.

CISA assisted SAFECOM in gathering resources from SAFECOM members and other public safety stakeholders responsible for various aspects of communications. SAFECOM recognized the need for resources to assist agency officials in identifying, training, and retaining highly qualified communications personnel.

PSCC Responsibilities and Characteristics

Communications personnel fill a critical role within a public safety agency, operating both internally and externally to communicate on a range of issues. These personnel may work within the agency to maintain, sustain, and/or upgrade communications equipment; communicate with outside agencies, vendors, and/or related organizations on various agency needs; coordinate equipment training requirements and opportunities; and develop or update communications policies and procedures. In some agencies, communications personnel may perform additional duties regularly and on an as-needed basis. The responsibilities of this position require certain characteristics. Individuals who may be considered for the role must be able to:

- Act as liaison with management and field personnel
- Quickly determine what equipment and services are appropriate for the agency's mission critical objectives
- Routinely train and pass knowledge on to other personnel within their agency

A high volume of stress and interactions with various personnel are typical for this role, which means a candidate should have the following characteristics:

- Ability to work well under pressure
- Excellent interpersonal skills
- An appreciation of the demanding schedule and urgency aspects of emergency response
- Knowledge of how various communications systems interact

Public safety and operational knowledge are a plus, but not the sole defining factor. In law enforcement it is recommended to select a candidate after 3-5 years of service, but will vary across public safety disciplines. Most important to this role is a willingness to learn technologies and practices as they develop within the field.

The candidate will need some type of formal education to be familiar with current and emerging communications technologies. Recommended, but not required or limited to, formal education may include:

- Undergraduate and professional degrees
- Institutional knowledge and understanding of agency/public safety operations and an agency's mission critical objectives
- "On the Job" training

Since physical abilities are not a requirement to fulfill these responsibilities, this role provides an opportunity to extend careers. Personnel who have been injured, developed a medical condition, or can no longer meet the physical requirements of being a first responder would not be disqualified. Additionally, this position may be performed as a full-time, part-time, or temporary detail role depending on the size and needs of an individual agency. PSCC's will therefore need to be flexible with the ever-changing scope of the position and its requirements.

Appendix A: Training Resources

This appendix highlights available trainings to assist your organization with developing a training program. The recommended practice for your organization's program is to include progressive phases of trainings to allow for an easy progression for personnel. These phases could be categorized in any way you desire, such as introductory phase, mid-level phase, and advanced phase. Recommended best practices to incorporate into your program include:

- Basic introductory trainings for Incident Command System (ICS)/National Incident Management System (NIMS)
- Continuity of Operations (COOP) trainings
- Coordinate trainings with your state agencies/Statewide Interoperability Coordinator (SWIC)
- Amateur Radio/Auxiliary Emergency Communications (AuxComm) trainings.

Below are available training resources for organizations to utilize. The trainings listed are applicable for multiple public safety disciplines and would be useful for any communications personnel.

Host Organization	Web Link	Available Trainings
SAFECOM	https://www.cisa.gov/safecom	• Resources Document Library
Association of Public-Safety Communications Officials (APCO) International	https://www.apcointl.org/training-and-certification/	• Public Safety Telecommunicator • Emergency Medical Dispatch • Fire Service Communications • Law Enforcement Communications • Communications Training Officer
National Emergency Number Association (NENA)	https://www.nena.org/page/EducationOverview	• Center Manager Certification Program (CMCP) • 9-1-1 Center Supervisor Program • Center Training Officer Program • Emergency Number Professional
CISA Interoperable Communications Technical Assistance Program (ICTAP)	https://www.cisa.gov/interoperable-communications-technical-assistance-program https://www.cisa.gov/safecom/ictaps_cip-resources https://www.cisa.gov/safecom/communications-unit	• NIMS ICS All-Hazards Communications Unit Leader (COML) • All-Hazards Communications Technician (COMT) • All-Hazards Information Technology Service Unit Leader (ITSL)
ARRL: The National Association for Amateur Radio	http://www.arrl.org/ares	• Amateur Radio Emergency Services (ARES) Standardized Training

Host Organization	Web Link	Available Trainings
Federal Emergency Management Agency (FEMA)	https://training.fema.gov/nims/nims.aspx	• ICS-100: Introduction to the Incident Command System • ICS-200: ICS for Single Resources and Initial Action Incidents • ICS-300: Intermediate ICS for Expanding Incidents • ICS-400: Advanced ICS for Command and General Staff • IS-700: National Incident Management System, An Introduction • IS-701: NIMS Multiagency Coordination System (MACS) • IS-702: NIMS Publication Information Systems • IS-703: NIMS Resource Management • IS-704: NIMS Communication and Information Management • IS-706: NIMS Intrastate Mutual Aid – An Introduction • IS-800: National Response Framework, An Introduction • G-191: Incident Command System/ Emergency Operations Center Interface • G-402 Incident Command System (ICS) Overview for Executives/Senior Officials • G-775: Emergency Operations Center (EOC) Management and Operations

Appendix B: Recommendations for Documenting and Updating Communications Systems Information

It is critically important for an agency to maintain up-to-date information about the public safety communications systems and equipment in its inventory. These historical records are the foundation of succession planning and ensure that personnel can easily locate detailed descriptions of systems and equipment, illustrations, and inventories. Personnel can share information about systems and equipment with important points of contact and reference how systems and equipment are currently used. The template and checklists in this section highlight key information to collect and update regularly. Used in conjunction with existing policies and procedures, these documents can be compiled into a matrix to create an easy-to-use reference guide for staff transitioning into new or enhanced communications roles. Additionally, the Department of Homeland Security (DHS) Science and Technology Directorate (S&T) Information Sharing Assessment Tool (ISAT) is a valuable resource to identify information sharing capabilities and gaps. To access the ISAT, click on the following link: https://www.dhs.gov/science-and-technology/isat.

Equipment Inventory Tool

The purpose of the Equipment Inventory Tool is to identify and record all public safety communications assets used by your organization. It is important to note all the capabilities your organization possesses to ensure that the next generation of personnel does not inadvertently neglect an important aspect of communications equipment. The assets available to the public safety community are no longer limited to isolated pockets of equipment, but constitute a complex and interdependent environment of diverse technologies. These systems can be physical or cyber assets and may vary based on the organization's preferences and needs. For this tool, assets are organized into three major categories:

Devices and Sensors

- Physical assets used to store or transmit data which may include radios, pagers, computers, tablets, laptops, cameras (e.g. body-worn or in-vehicle), cell/satellite phones, etc.
- Various types of sensors (e.g., biometric, motion, flood, heat)

Applications and Services

- Software programs which perform actions for the user or the network by using the data
- Applications either embedded in the equipment or run on top of other systems
- Services including a collection of applications, processes, and procedures
- Applications and services including word processing software; office productivity; mobile apps which can be loaded on a smartphone; computer aided dispatch (CAD) systems; records management systems (RMS); geographic information systems (GIS); instant messaging/email etc.

Networks

- Networks are a group of components which share information, exchange data, or interact with each other to perform a function
- Networks may include LMR, LTE, LTE-LMR converged, satellite, high frequency (HF) radio/ AuxComm/ shared resources (SHARES)/ FEMA National Radio System (FNARS), local area networks (LANS), metropolitan area network (MANS), wide area networks (WANS), enterprise private networks (EPNS), virtual private networks (VPNS), storage area networks (SANS), wireless local area networks (e.g., WiFi), cellular (e.g., 2nd Generation [2G]/3rd Generation [3G] wireless systems), wireline (e.g., fiber, copper), microwave backhaul, 911 telephony (e.g., basic, enhanced, Next Generation 911 [NG911]), etc.

** It is important to note that a system can be put into more than one category based on its components. For example, LMR could reside in both the "Devices and Sensors" category as well as the "Networks"*

category because LMR is a physical asset which may use networked equipment to transmit voice and data.

Below are examples of the template tables intended to easily list your organization's public safety communications assets with additional columns to briefly note the asset's purpose, capabilities, disposition, and any important comments regarding the asset.

Example 1 - Radio

Devices and Sensors				
Asset Type	**Purpose**	**Capabilities**	**Disposition**	**Comments**
Project 25 (P25) Portable Radio	Communicate with personnel on an incident	• Voice • Multi-site Trunked Radio System • Digital Conventional: P25 • Text Messaging • Voice Announcements • Radio Profiles • Dynamic Zone • High Capacity Battery (Ruggedized) • RFID Volume Knob • Digital Tone Signaling • Instant Recall • Intelligent Priority Scan	Active use by incident response personnel	Primary source for communicating on incidents

Example 2 - Computer Aided Dispatch (CAD) System

Applications and Services				
Asset Type	**Purpose**	**Capabilities**	**Disposition**	**Comments**
Computer-Aided Dispatch (CAD) Software	Full multi-disciplinary and multi-jurisdictional dispatching program to assign units to respond to incidents	• Alarm Tracking and Billing • CAD Management Dashboard • CAD Mapping • E9-1-1 Interface • Equipment Maintenance • Fire Mobile CAD • Personnel Management • Pin Mapping • Response Plans • Rapid Notification • ProQA Interfaces • Paging Software	Active use by dispatch personnel	Primary source for assigning units to respond to incidents

Devices and Sensors Template

Devices and Sensors				
Asset Type	**Purpose**	**Capabilities**	**Disposition**	**Comments**
		•		
		•		
		•		
		•		
		•		
		•		

Applications and Services Template

Applications and Services				
Asset Type	**Purpose**	**Capabilities**	**Disposition**	**Comments**
		•		
		•		
		•		
		•		
		•		
		•		

Networks Template

Networks				
Asset Type	**Purpose**	**Capabilities**	**Disposition**	**Comments**
		•		
		•		
		•		
		•		
		•		
		•		

Communications Standard Operating Procedures: Quick Reference Tool

The purpose of the Communications Standard Operating Procedures (SOPs) Quick Reference Tool is to briefly explain the SOPs for using communications assets from one's own organization. Public safety communications can incorporate everything from radios to social media platforms and may vary based on organizational preferences and needs.

The template is divided into three columns:

- **Assigned Path of Transmission** to list the exact channels of communication used by your organization, including talk groups, frequencies, specific applications on cellular devices, etc.
- **Use** to identify the intended purpose of the assigned path of transmission
- **Explanation** to briefly describe the units of personnel who should be utilizing the specific assigned avenue of transmission

Below are examples of information to include in the template:

Example 1 - Fire Department

Device/Platform: Multi-Band P25 Portable Radio

Assigned Path of Transmission	Use	Explanation
Alpha 1	Dispatch	Designated channel for all emergency incident dispatch
Alpha 2	Box Assignments (Reported fire related incidents)	Designated channel for all units assigned to a fire related response
Bravo 3	Hazardous Materials (HazMat) and Technical Rescue	Designated channel for all units assigned to a hazardous materials or technical rescue related response

Example 2 – Law Enforcement Agency

Device/Platform: Single-Band P25 Portable Radio

Assigned Path of Transmission	Use	Explanation
Frequency 555.5555X	Dispatch	Designated channel for all emergency incident dispatch
Frequency 555.5555Y	Alpha Sector Incidents	Designated channel for incidents reported in specific area of the jurisdiction, Sector Alpha
Frequency 555.5555Z	Special Operations	Designated channel for large scale terrorist incidents

Device/Platform Template

Device/Platform: [INSERT BRAND, MODEL NAME, MODEL SERIES/NUMBER, ETC.]

Assigned Path of Transmission	Use	Explanation

Bordering Public Safety Organizations Point of Contact Tool

The purpose of the Bordering Public Safety Organizations Point of Contact (POC) Tool is to identify the neighboring public safety organizations at any level of government or discipline that your organization could possibly interact with during an emergency incident. This list should include POCs for any existing Mutual Aid Agreements (MOA) or similar arrangements to be archived within the necessary agencies.

Organization	Name and Role/ Title	Phone Number	Email Address

Equipment Vendor Point of Contact Tool

The purpose of the Equipment Vendor Point of Contact (POC) Tool is to identify the vendors for each piece of equipment used by a public safety agency. Over the course of its lifespan, equipment maintenance or other technical support is often necessary and, in some cases, may be provided by the vendor. This list should be populated with contact information for all the vendors associated with an agency's equipment.

Equipment Name/ Type	Name, Role/ Title, and Company	Phone Number	Email Address

About SAFECOM

SAFECOM is comprised of more than 70 members representing federal, state, local, and tribal emergency responders as well as major intergovernmental and national public safety associations who aim to improve multi-jurisdictional and intergovernmental communications interoperability through collaboration with emergency responders and policymakers across federal, state, local, tribal, territorial, and international partners. SAFECOM members bring years of experience with emergency communications during day-to-day operations as well as natural and man-made disasters. SAFECOM members offer insight and lessons learned on governance, planning, training, exercises, and technologies, including knowledge of equipment standards, requirements, and use. SAFECOM members also provide input on the challenges, needs, and best practices of emergency communications, and work in coordination with DHS to share best practices and lessons learned with others.

CISA is charged, by law (6 U.S. Code Section 571 (c) (2)) ,with administering SAFECOM, as well as conducting stakeholder outreach with the aim of promoting first responder communications in the event of disasters; fostering interoperable communications capabilities at all levels of government; and promoting and sharing best practices, SOPs, and information to achieve and advance interoperable public safety communications capabilities.