Reg. 5

10

3

## Goal 1: Formalize baseline levels of service and capabilities that meet public expectations

**Interpretation: Establish the minimum 9-1-1 services/capabilities that should be available to meet the public expectation**

### Initiative A: Identify, specify, and adopt a standard or set of standards for a baseline level of 9-1-1 services and capabilities

**Interpretation: Develop and adopt a master set of Standards necessary to support an infrastructure for identified 9-1-1 services**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1<br>10 | Create baseline level of service and capabilities document | This document should define what is meant by "standards" and create a matrixed framework that captures necessary requirements and policies.<br>The baseline level of services/capabilities should include the following: Wireline, Wireless, VoIP, EMD, Location, Security, and NG9-1-1 Core Services (call routing, transferability, disaster recovery, and Text-to-9-1-1)<br>This document should describe services/capabilities from both an operational and technical perspective and provide for the measurement of these items using key quantifiable metrics to produce a PSAP Capabilities Status Dashboard that has strong stakeholder value.<br>Standards are needed to ensure intrastate and interstate interoperability of 9-1-1 services. These standards should strike a balance between requirements and local choice and be written in a user friendly format. |
| 2<br>3 | Develop PSAP baseline capabilities implementation plans | ISP staff will use the document developed above to help PSAPs determine where service gaps and interoperability issues exist on both a PSAP and regional level. The RAC will use this input to develop regional plans which will contain identified metrics to document where service gaps and interoperability issues exist. Then resources, such as the PSAP Grant Program can be applied to address these issues. |

Reg. 6

5

1

## Goal 2: Increase situational awareness through enhanced incident information sharing

**Interpretation: Facilitate and increase standardized data sharing among PSAP and other public safety systems in which PSAP are involved**

### Initiative A: Implement statewide standards and best practices that enhance incident information sharing

**Interpretation: Set the standards to enable data sharing among PSAP and other public safety systems that include PSAPs (Standards)**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (5) | Create a 9-1-1 Clearinghouse | This clearinghouse would contain vital information for 9-1-1 stakeholders and would attempt to be a single source of reference for stakeholders to refer to in determining what activities are underway in the state that provide opportunities to leverage . It would be the repository of best practice information, references to appropriate standards and projects underway (e.g. grant programs, other regional initiatives, etc.) |
| 2 (1) | Create and adopt data sharing standards and best practices | Data sharing standards are needed amongst all entities that participate in commonwealth systems that include PSAPs. This task should also include best practices and operational procedures for specific programs.<br>Standards and best practices play a critical role in federal and state initiatives. Existing models should be leveraged in the Clearinghouse to provide a means to promote local and regional awareness for data sharing standards and best practices. Virginia PSAPs and other 9-1-1 stakeholder groups, such as local government IT and GIS professionals, will also benefit from this approach. |

| **Initiative B: Identify and adopt a planning methodology that enhances technology implementation coordination throughout a project life cycle and improves change management**<br>**Interpretation: Promote PSAP data sharing to address aggregated needs of 9-1-1 stakeholders (Planning)** | | |
|---|---|---|
| | *Recommended Tasks* | *Recommended Actions* |
| 1 | Create an incident information sharing planning policy that provides a strategic framework for data sharing initiatives | The PSAP Grant Program could be used to incentivize adoption of the policy and the Clearinghouse would be a way to showcase projects incorporating the policy. |

| **Initiative C: Employ technology that allows for seamless automatic bi-directional communication of incident information between PSAPs**<br>**Interpretation: Deploy PSAP data sharing projects (Implementation)** | | |
|---|---|---|
| | *Recommended Tasks* | *Recommended Actions* |
| 1 | Monitor industry and assess emerging technologies that promote data sharing and interoperability | The Clearinghouse would be a particularly useful tool for smaller PSAPs to access this type of information. Data sharing would include network/transport methods. |
| 2 | Champion emerging technology projects | Again, the Clearinghouse would be an appropriate tool, but in this case, it would be used to understand how lessons learned from these types of projects could be leveraged locally, |

## Goal 3: Allocate funding for future state and regional PSAP initiatives to maintain and improve service

**Interpretation: Determine how we will pay for 9-1-1 now and in the future**

### Initiative A: Maintain stable and sustainable funding for the overall 9-1-1 system(s) in the Commonwealth

**Interpretation: Determine future funding requirements for 9-1-1 system(s) in the Commonwealth and implement funding models**

REG 3

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (5) | Develop PSAP baseline level of service and capabilities budgets | Identify estimated costs for these systems and then focus on closing the gaps that exist with current funding model. As part of this task, procurement authority will need to be determined. |
| 2 (3) | Create a holistic statewide 9-1-1 funding strategy | A starting point in developing this strategy is a review of existing funding models and white papers, some of which have been developed by the FCC. This funding strategy should focus on what will be defined as "Mission Critical" infrastructure. |

### Initiative B: Establish a strategy for funding the statewide deployment of NG9-1-1

**Interpretation: NG9-1-1 is interpreted here as NG9-1-1 transitional costs**

REG 4 & 7

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (6) | Create NG9-1-1 deployment and sustainment funding strategy that aligns with the statewide 9-1-1 funding strategy, taking into consideration potential technology such as text-to-9-1-1, implementation of an i3-capable Emergency Services Internet Protocol (IP) network (ESInet), regional NG9-1-1 pilots, and GIS database development | This funding strategy needs to consider the following: funding for early adopters, the need for PSAP consolidations, leveraging the PSAP Grant Program to better support NG9-1-1, promoting multi-jurisdictional projects, exploring hosted v. non-hosted solutions, and GIS database development. |

## Initiative C: Adopt statewide procurement guidelines

**Interpretation: Adopt a future procurement model for PSAP equipment and services**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Create and maintain statewide procurement and vendor qualification guidelines | Determine a balanced approach to procurement decision-making. PSAPs will continue to want to purchase equipment and services locally, but there is an increasing need for a statewide procurement strategy to leverage economies of scale. Issues need to be documented. For example, a lack of interoperability due to a limited number of broadband providers in areas of the commonwealth. |

## Goal 4: Position PSAPs to better respond to emergencies through professional development of 9-1-1 and technical personnel

**Interpretation: Promote professional development of 9-1-1 and technical personnel to enhance the delivery of 9-1-1 services**

### Initiative A: Identify PSAP and technical staffing needs

**Interpretation: Identify critical Knowledge, Skills, and Abilities (KSAs) and Core Competencies related to 9-1-1 and technical staffing needs**

REG. 2

4

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (4) | Conduct staffing analyses | These analyses should focus on staffing levels, independent of seats. The outcome of these analyses should be insight towards the critical training necessary to develop the operational and technical skill sets for 9-1-1 and technical personnel. Two priority categories identified for NG9-1-1 are cybersecurity and disaster recovery. Staffing methodologies and professional development guidance developed in conjunction with the analyses should be included in a research library within the Clearinghouse. |

### Initiative B: Identify and adopt minimum criteria for training, certification and retention programs to support 9-1-1 professional and technical support personnel

**Interpretation: Identify and adopt recommended training levels to support 9-1-1 professional and technical support personnel.**

2

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (2) | Adopt and create baseline 9-1-1 professional and technical support staff development criteria | This baseline should be a benchmark of the entire state. This task will focus on the continuation of DCJS certification, supplemented with expanded Continuing Education that includes new technologies and operations. |

## Goal 5: Protect the reliability and security of the 9-1-1 system

**Interpretation: Focus on the role of disaster recovery and cybersecurity in the 9-1-1 system**

### Initiative A: Identify PSAP assets and communication infrastructure attributes

**Interpretation: Identify PSAP Critical Infrastructure/Key Resources (CI/KRs) before an incident occurs**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Gather and assemble attributes for existing PSAP assets and infrastructure | Conduct a survey (or use another discovery instrument) to pull together attributes of PSAP CI/KRs. A determination will need to be made as to which 9-1-1 data elements are the most critical. |

### Initiative B: Support 9-1-1 center staff in formalizing COOPs for their respective PSAP

**Interpretation: Develop PSAP-level COOPS and Disaster Recovery (DR) plans**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Develop COOP template for Virginia PSAPs | This approach will enable PSAPs that have limited COOP knowledge to get to where they need to be. Templates can be contained from VDEM, DHS-OEC, and others. |
| 2 | Confirm that each PSAP has a formalized COOP that includes technology continuity management for disaster response, and recovery activities for PSAP assets and communications infrastructure | When confirming that COOPs are in place, reach out to 9-1-1 service providers to make sure there is coordination with these entities with the COOP and DR plans. COOP and DRs should be maintained. |

| **Initiative C: Adopt a QA/QI and monitoring program to document and report the effectiveness of baseline level service and capabilities criteria**<br>**Interpretation: The QA/QC monitoring program would focus on the services identified in Initiative 1A** | | |
|---|---|---|
| | *Recommended Tasks* | *Recommended Actions* |
| 1 | Create QA/QI guidelines | To the extent possible, existing programs should be leveraged. |

REG 1

6

## Goal 6: Improve 9-1-1 service delivery through enhanced communications within stakeholder community

**Interpretation: Consistent outreach and communications**

### Initiative A: Develop a communications plan for internal and external 9-1-1 stakeholders

**Interpretation: Develop a policy and process on how communications will take place among stakeholders**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 (6) | Create a 9-1-1 stakeholder communications plan | A dashboard is needed to measure progress and to keep internal and external 9-1-1 stakeholders up to date. |

### Initiative B: Develop guidelines for an effective stakeholder education and outreach program, to include legislators

**Interpretation: Develop guidelines on an as needed basis for specific audiences**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Develop 9-1-1 public education guidelines | Expand the use of webinars and offer to new audiences, as well as create a newsletter. |

0

## Goal 7: Leverage GIS technology and data to better locate callers and improve response capabilities

### Initiative: Leverage GIS to better support Virginia's 9-1-1 ecosystem

**Initiative A: Support coordination and collaboration of 9-1-1 between PSC Coordinator and VGIN**

**Interpretation: Support 9-1-1 and GIS coordination and collaboration within and between levels of government**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Identify ways to improve 9-1-1 and GIS coordination and collaboration within and between levels of government | The following items should be considered with this task: educating GIS professionals on NG9-1-1 and identifying/addressing knowledge gaps, training opportunities, leveraging SMEs in professional organizations, including IT professional when considering infrastructure needs. |

**Initiative: Validate and improve GIS data quality and integration for public safety purposes**

**Interpretation: Identify the types of things that can be done to validate and improve GIS data quality**

| | *Recommended Tasks* | *Recommended Actions* |
|---|---|---|
| 1 | Develop contractual provisions (recommended language) for outsourcing | Timeliness of updates is problematic if you don't have dedicated staff. |
| 2 | Conduct GIS database review | GIS projects funded through the PAP Grant Program should be reviewed and lessons learned, both positive and negative, reported. Also, benchmarks are needed. |
| 3 | Develop user requirements for using GIS information in public safety software solutions | User requirements are vendor specific. This will be difficult to change. Instead, should focus on requirements and lessons learned for GIS managed services and consider interstate GIS data issues (Forest Guide). |