



# E-911 Services Board

General Business Meeting

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July 23, 2015



# Agenda

1. Call to Order
2. Approval of Minutes
3. 9-1-1 Comprehensive Plan
4. Policy Committee Report
5. Old Business
6. New Business
7. Public Comment
8. Adjourn



# 9-1-1 Comprehensive Plan





## Background

- This Plan articulates the Commonwealth's 9-1-1 vision, goals, and actionable initiatives
- It also aligns with the guiding principles, themes, and several existing resources
- The intent is to guide operational, technical, resource, funding, and legislative decisions based on identified needs for advancing 9-1-1 capabilities and services
- Stakeholder-driven process



## Project Tasks

- **Task 1: Perform Capabilities Analysis**
  - Develop a picture of Virginia's current 9-1-1 capabilities, challenges, and stakeholder needs
- **Task 2: Develop Statewide 9-1-1 Requirements**
  - Identifies gaps in current capabilities, mapped to technology solutions / user requirements
- **Task 3: Finalize 9-1-1 Comprehensive Plan and Develop Strategic Initiatives**
  - Prioritized list of proposed technology projects



## The Vision

- In Virginia, 9-1-1 personnel, resources and systems provide the public — using any communications device, and in any language — with rapid, reliable and accurate emergency response.



## Plan Goals

- The strategic goals represent overarching, long-term targets that will help Virginia move toward its vision for 9-1-1, and represent the prioritized requirements identified by participants in the town hall meetings and the Joint Review Session.



## Goals 1 through 4

- Formalize baseline levels of service and capabilities that meet public expectations
- Increase situational awareness through enhanced incident information sharing
- Allocate funding for future state and regional PSAP initiatives to maintain and improve service
- Position PSAPs to better respond to emergencies through professional development of 9-1-1 and technical personnel



## Goals 5 through 7

- Protect the reliability and security of the 9-1-1 system
- Improve 9-1-1 service delivery through enhanced communications within stakeholder community
- Leverage GIS Technology and data to better locate callers and improve response capabilities



## Moving Forward

- Recommended Initiative Tasks
  - Dependent upon partnerships and commitment between the E-911 Services Board, 9-1-1, GIS, public safety stakeholders, and VITA
- Request that the Board approve the 9-1-1 Comprehensive Plan



# Policy Committee Report





## Study - Policy and Political

- Expanded role for state coordination and E-911 Services Board, as well as rulemaking (enforcement)
- Changes in Board representation
- Regional Advisory Council makes recommendations for rulemaking
- Elimination of cost recovery and transfers
- Sustainable funding model
- Enhanced role of Regional Coordinators



## Original Staff Recommendations

- Total of 57 MCP recommendations
- 27 to be addressed in first year
- Decision maker education
- Explicit designation of 9-1-1 as essential and local service
- Role of the Board and Coordinator
- Not Board composition or Advisory Council
- Rulemaking Authority



## Staff Recommended Schedule

- Secondary PSAPs and Educational material completed by March 31
- First two committee meetings to address Board responsibilities
- First PSAP work session in conjunction with these two meetings
- Third committee meeting to address responsibilities of staff & Advisory Council
- Second PSAP work session
- Last two meetings to consider draft legislation



## March 12 Board Actions

- Direct the PSAP Grant Committee to advance Study recommendations within the FY2017 PSAP Grant Guidelines
- Direct the Policy Committee to address Study recommendations for Governance and Legislative changes and address Regional Advisory Council at first meeting
- Direct Staff to begin work on ESINet requirements and best practice development



## NG9-1-1 Governance/Legislative

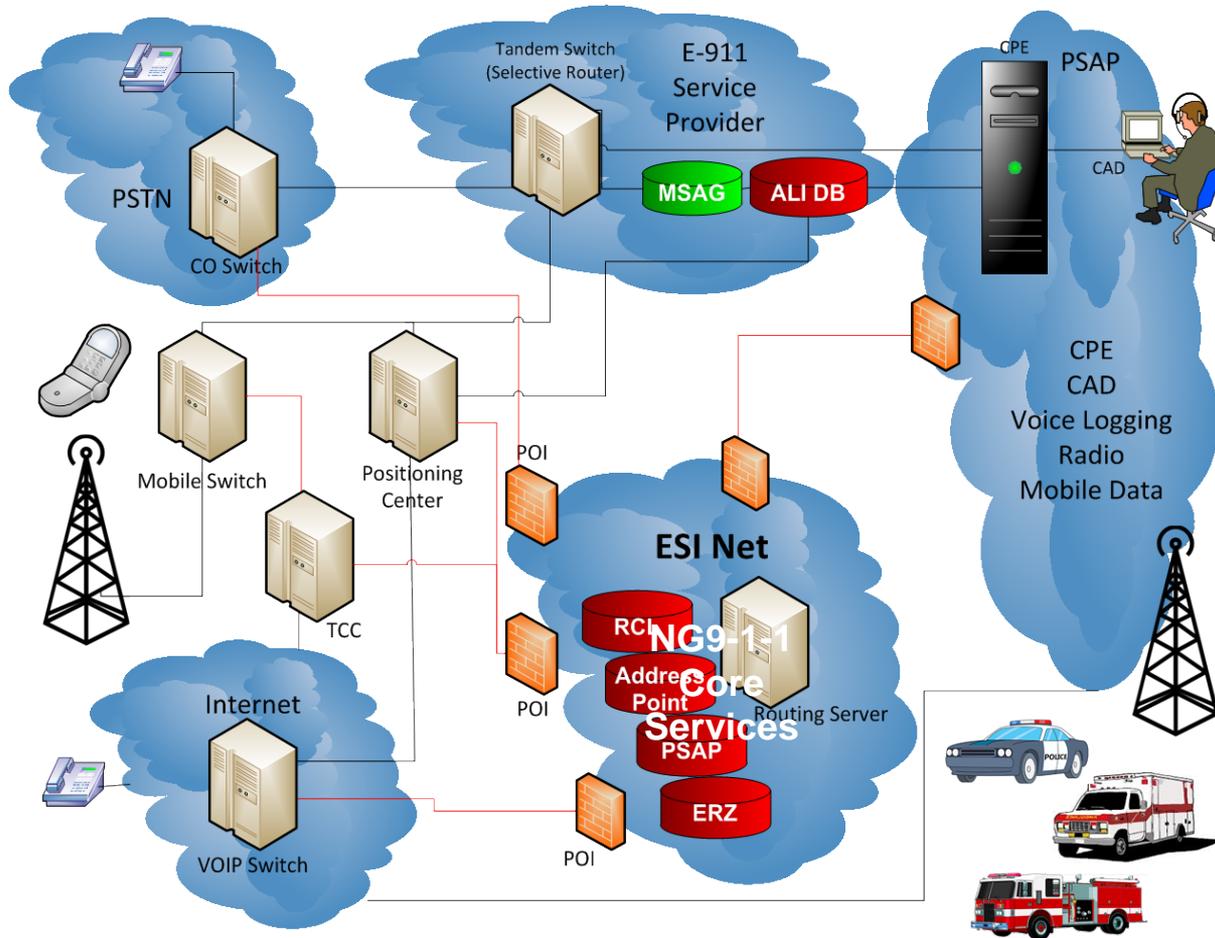
- Address in first year:
  - Develop educational material for decision makers
  - Establish responsibility for the E-911 Board and supporting staff
  - Preserve and codify 9-1-1 as a locally managed, essential, public safety service
- Primarily assigned to Policy Committee
- Meetings March 26<sup>th</sup>, April 28<sup>th</sup>, June 25<sup>th</sup>
- Goal to have legislation drafted by August 1



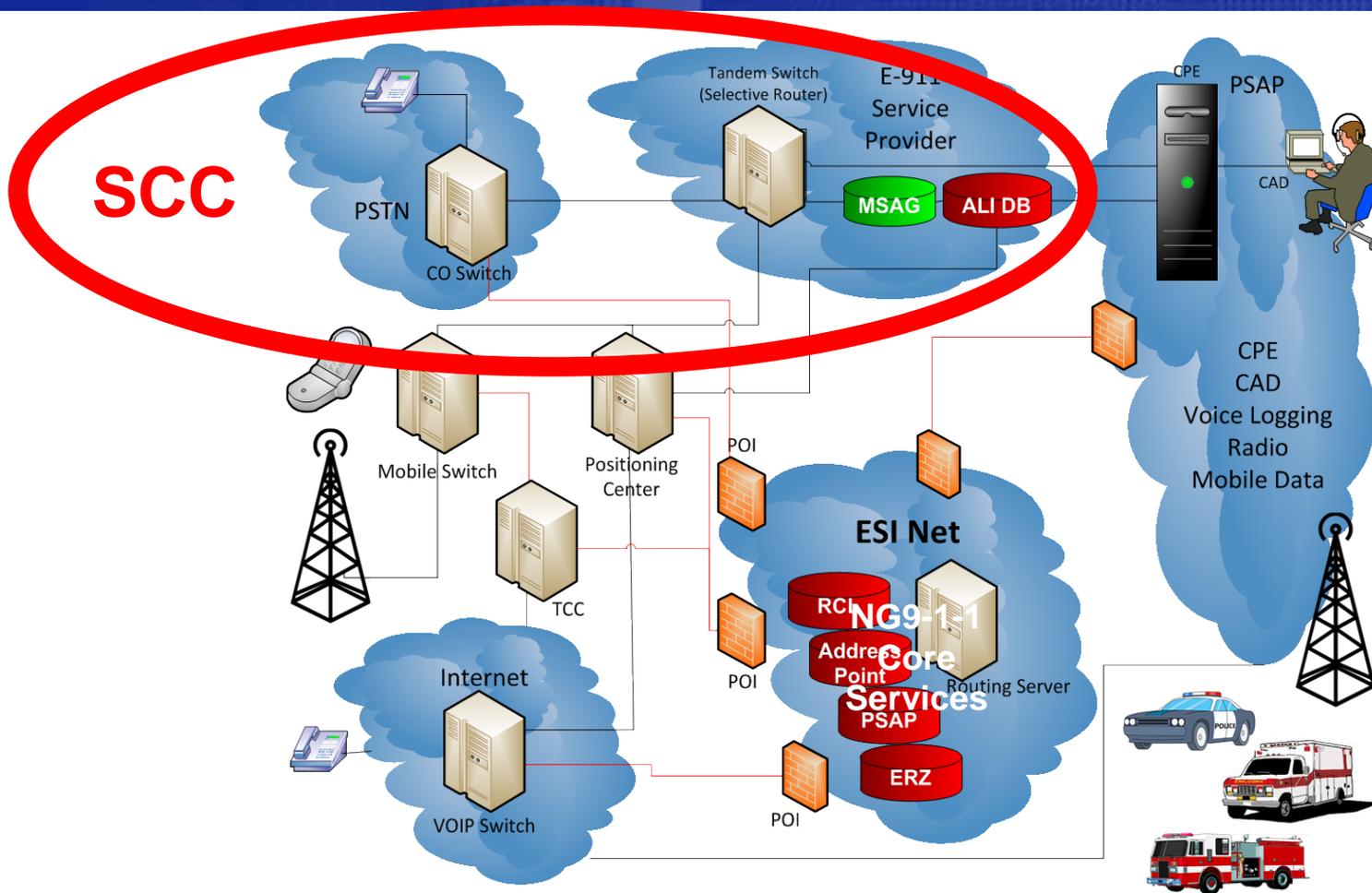
## Guiding Principles

- 9-1-1 is an essential, local/regional service
- Need to address ALL of 9-1-1 not just NG
- Full stakeholder engagement is needed
- Services must be not be degraded
- Economies need to be leveraged
- Doing nothing is NOT an option

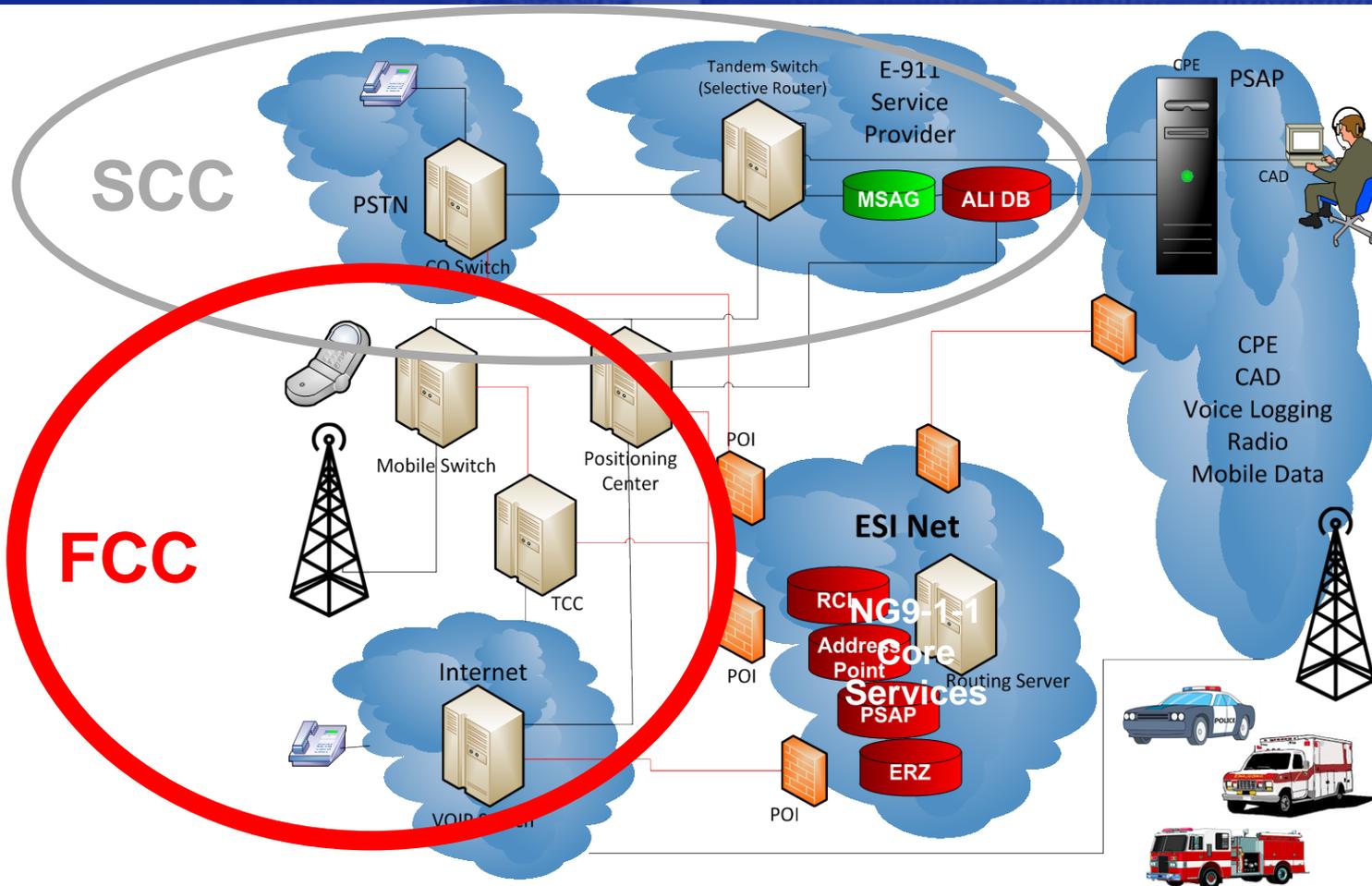
# 9-1-1 Ecosystem



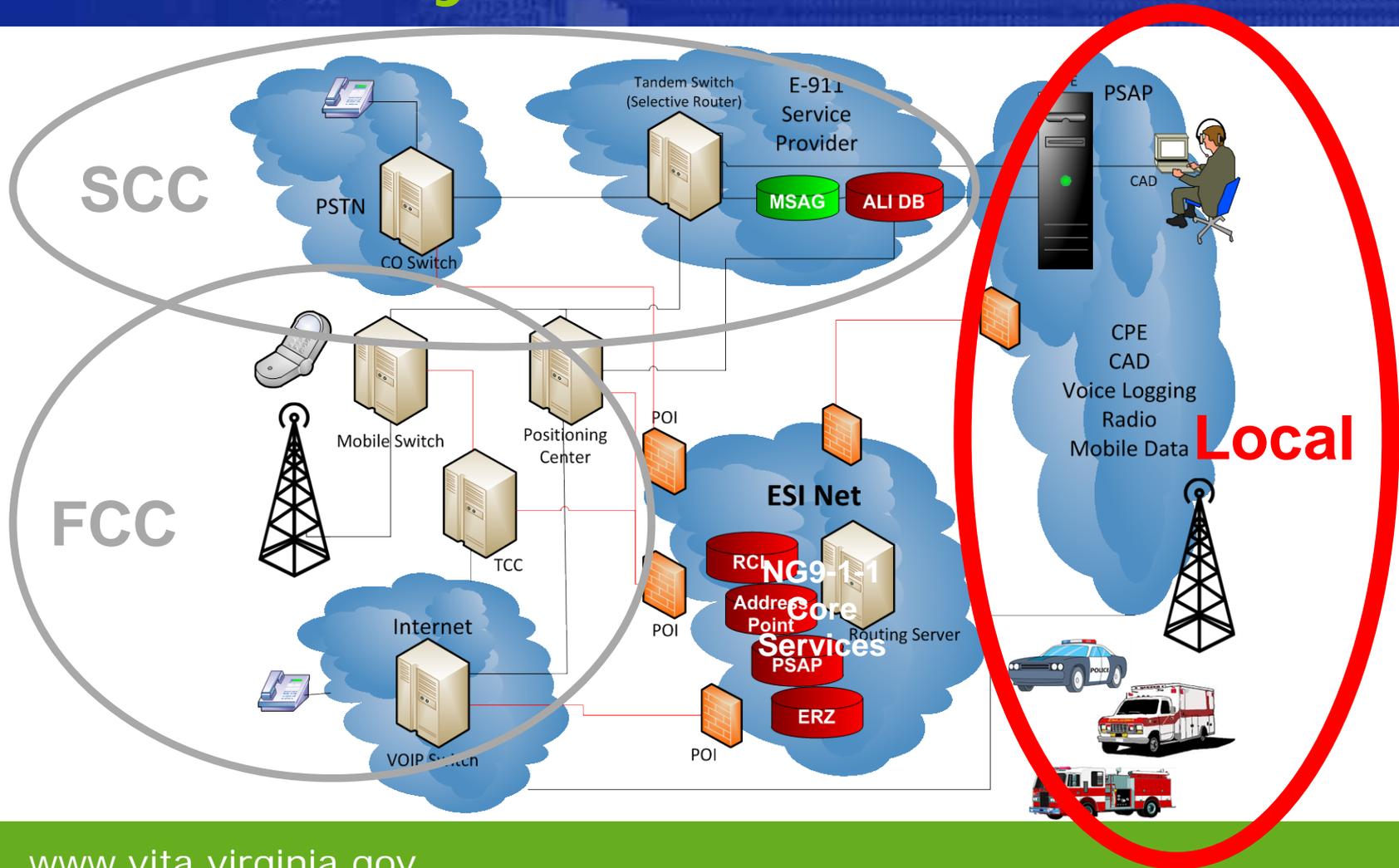
# 9-1-1 Ecosystem



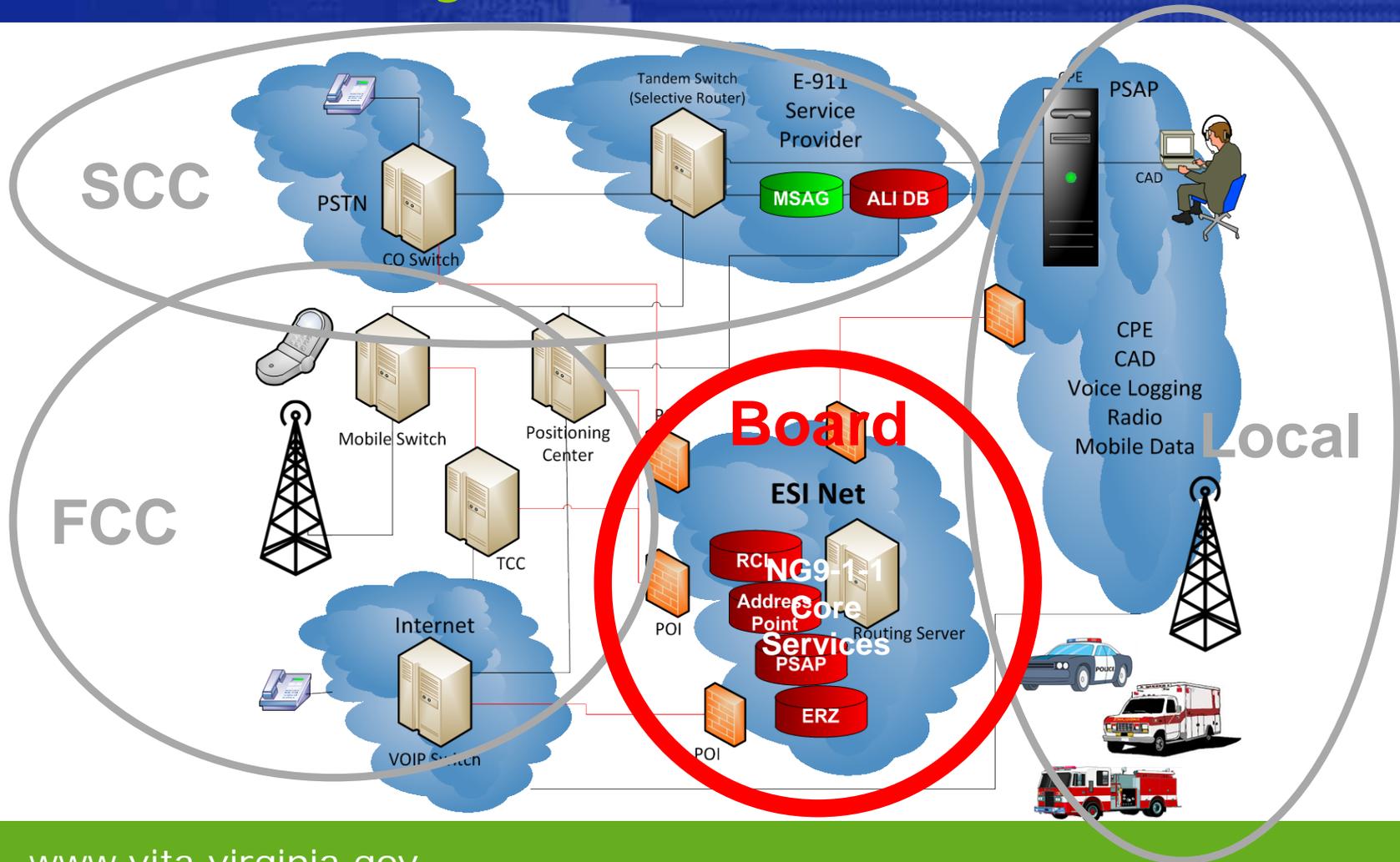
# 9-1-1 Ecosystem



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# 9-1-1 Ecosystem





## Role of the Board

- Define Standards for:
  - NG9-1-1 Core Services
  - ESINet
  - PSAP Function
  - Processing of information through the ESI Net
  - Ensuring the Commonwealth can operate as a single network and interoperate with other states
- Assist localities with best practices for those things in Local control

NENA I3 Standard



## Specific NENA I3 Functions

- Addresses are pre-validated against the Location Validation Function (LVF)
- Calls enter through a Border Control Function (BCF)
- Routed through Emergency Services Routing Proxy (ESRP)
- Routing data supplied by Emergency Call Routing Function (ECRF)
- Policy Routing Function (PRF)
- Data maintained in Spatial Information Function (SIF)



## Other ESINet Requirements

- Diversity
- Redundancy
- Availability
- Security
- Network Management/Monitoring
- Interconnected Systems



## Board Establishment - § 56-484.13

- A. The Wireless E-911 Services Board is hereby continued as the E-911 Services Board. The Board shall plan, promote and offer assistance:
1. In the statewide development, deployment, and maintenance of enhanced wireless emergency telecommunications services and technologies; and
  2. In the development and deployment of enhanced wireline emergency telecommunications services and technologies only in specific local jurisdictions that were not wireline E-911 capable by July 1, 2000.

The Board shall exercise the powers and duties conferred in this article.



## Board Establishment

(continued)

- B. The E-911 Services Board may promote and offer planning assistance:
1. In the statewide development, deployment, and maintenance of VoIP E-911 and any other future communications technologies accessing E-911 for emergency purposes;
  2. To the Virginia Information Technologies Agency (VITA), and other stakeholder agencies, in the development and deployment of a statewide public safety network that will support future E-911 and other public safety applications; and
  3. However, the Board shall seek funding from sources other than CMRS providers or customers of CMRS to support efforts that exceed the scope of wireless E-911 service.



## Board's Powers and Duties § 56-484.14

1. Make and enter into all contracts and agreements necessary or incidental to the performance of its duties and the execution of its powers, including purchase agreements payable from (i) the Wireless E-911 Fund and (ii) other moneys appropriated for the provision of enhanced 9-1-1 services.
2. Pursue all legal remedies to enforce any provision of this article, or any contract entered into pursuant to this article.
3. Develop a comprehensive, statewide enhanced 9-1-1 plan for wireless E-911, VoIP E-911, and any other future communications technologies accessing E-911 for emergency purposes. In constructing and periodically updating this plan as appropriate, the Board shall monitor trends and advances in enhanced wireless, VoIP, and other emergency telecommunications technologies, plan and forecast future needs for these enhanced technologies, and formulate strategies for the efficient and effective delivery of enhanced 9-1-1 services in the future with the exclusion of traditional circuit-switched wireline 9-1-1 service.



## Board's Powers and Duties (continued)

4. Grant such extensions of time for compliance with the provisions of § [56-484.16](#) as the Board deems appropriate.
5. Take all steps necessary to inform the public of the use of the digits "9-1-1" as the designated emergency telephone number and the use of the digits "#-7-7" as a designated non-emergency telephone number.
6. Report annually to the Governor, the Senate Committee on Finance and the House Committee on Appropriations, and the Virginia State Crime Commission on (i) the state of enhanced 9-1-1 services in the Commonwealth, (ii) the impact of, or need for, legislation affecting enhanced 9-1-1 services in the Commonwealth, and (iii) the need for changes in the E-911 funding mechanism provided to the Board, as appropriate.



## Board's Powers and Duties (continued)

7. Provide advisory technical assistance to PSAPs and state and local law enforcement, and fire and emergency medical service agencies, upon request.
8. Collect, distribute, and withhold moneys from the Wireless E-911 Fund as provided in this article.
9. Develop a comprehensive single, statewide electronic addressing database to support geographic data and statewide base map data programs pursuant to § [2.2-2027](#).
10. Receive such funds as may be appropriated for purposes consistent with this article and such gifts, donations, grants, bequests, or other funds as may be received from, applied for or offered by either public or private sources.
11. Manage other moneys appropriated for the provision of enhanced emergency telecommunications services.



## Board's Powers and Duties (continued)

12. Perform all acts necessary, convenient or desirable to carrying out the purposes of this article.
13. Drawing from the work of E-911 professional organizations, in its sole discretion, publish best practices for PSAPs. These best practices shall be voluntary and recommended by a subcommittee composed of PSAP representatives.
14. Monitor developments in enhanced 9-1-1 service and multiline telephone systems and the impact of such technologies upon the implementation of Article 8 (§ [56-484.19](#) et seq.). The Board shall include its assessment of such impact in the annual report filed pursuant to subdivision 6.



## Local Requirement § 56-484.16

- A. On or before July 1, 2003, every county, city or town in the Commonwealth shall be served by an E-911 system, unless an extension of time has been granted by the Board.
  
- B. The digits "9-1-1" shall be the designated emergency telephone number in Virginia. No public safety agency shall advertise or otherwise promote the use of any number for emergency response service other than "9-1-1".



## PSC Legislation - § 2.2-2031

- A. There is established within VITA a Division of Public Safety Communications (the Division), which shall be headed by a Virginia Public Safety Communications Coordinator, appointed by the CIO with the advice and consent of the E-911 Services Board. The Division shall consist of such personnel as the CIO deems necessary. The operating expenses, administrative costs, and salaries of the employees of the Division shall be paid from the Wireless E-911 Fund created pursuant to § [56-484.17](#).



## PSC Legislation - § 2.2-2031

B. The Division shall provide staff support to the E-911 Services Board and encourage, promote, and assist in the development and deployment of statewide enhanced emergency telecommunications systems.



## Comments Received

- Revisions to the ESINet definition
- Inclusion of a definition for NG9-1-1
- Add “core NG9-1-1 services” to standards language (56-484.14 (14))
- Drop the “E” from E-911
  - E-911 is commonly used to refer to legacy network
  - E or NG may be replaced by another technology
- Add “technology” to public safety apps



## Revised Definition - § 56-484.12

- ESI-net Definition

"Emergency Services IP Network" or ESI-net is a shared public safety agency managed Internet Protocol (IP) network that is used for emergency services communications. An ESI-net provides an IP transport infrastructure, capable of carrying voice and data and supports next generation 9-1-1 (NG9-1-1) core functions such as routing and location validation of emergency service requests. The ESI-net is engineered, managed, and intended to support emergency public safety communications and 9-1-1 service.



## New Definition - § 56-484.12

- NG9-1-1 Definition

“Next Generation 9-1-1 service” or “NG9-1-1” means a service consisting of coordinated, intrastate 9-1-1 IP networks serving Commonwealth of Virginia residents with the routing of emergency service requests (voice and data) across public safety ESInets. NG9-1-1 service also will automatically direct 9-1-1 emergency telephone calls and other emergency service requests in data formats to the appropriate PSAPs by routing using geographical information system (GIS) data and provides for ANI and ALI features. NG9-1-1 service will interconnect with Enhanced 9-1-1 service.



## Powers and Duties Revision

14. Develop or adopt and publish standards for an Emergency Services IP Network and core NG9-1-1 services on that network to ensure that enhanced public safety telephone services seamlessly interoperate within the Commonwealth and with surrounding states.



## Board Establishment - § 56-484.13

- A. The 9-1-1 Services Board, formerly known as the Wireless E-911 Services Board, shall exercise the powers and duties conferred in this article.
- B. The 9-1-1 Services Board shall:
  - 1. Support and assist PSAPs in the provision of 9-1-1 operations and services, including through provision of funding and development of best practices;
  - 2. Plan, promote, and assist in the statewide development, deployment, and maintenance of an Emergency Services IP network to support future 9-1-1 and other public safety applications and technologies; and
  - 3. Consult and coordinate with PSAPs, state and local public bodies in Virginia, public bodies in other states, CMRS providers, and others as needed in the exercise of the Board's powers and duties.



## Local Requirement Changes

### § 56-484.16

A. ~~On or before July 1, 2003, e~~Every county, city or town in the Commonwealth shall be served by an E-911 system., ~~unless an extension of time has been granted by the Board.~~ The provision of 9-1-1 shall be considered an essential, local public safety service.



# Policy Committee Recommendation

- Recommend approval of draft legislation to accomplish the following:
  - Renames the Board to the 9-1-1 Services Board (drop “E”) and makes all references consistent
  - Establishes Board’s ESINet and core NG9-1-1 services standard setting authority
  - Defines ESINet and NG9-1-1
  - Codify 9-1-1 as essential, local, public safety service



## Next Steps

- Formation of Regional Advisory Council
  - Application process underway (completed August 26)
  - Comprehensive Plan - Task/Action Plan
  - Best practices/standards
- Funding Theme
  - In coordination with Finance Committee
  - ESINet RFI/RFP
  - Transition costs versus Sustainment costs
  - Funding models



# Old Business





## Approach

- Report contains 141 recommendations
- Determined priority
- Identified those chronologically first
- Grouped into “themes”
- Estimated resources required
- Completion by July 1, 2016



## Funding

- Total of 29 recommendations
- None to be addressed in first year
- Sustainability
- Collection methodology
- Rate amount
- Fund transfers
- Formulas
- Need ESI Net design and pricing first



## ESI Net Design/Pricing

- Develop a design to reduce POI (Tech01A)
- Develop a list of common requirements for the ESI Net and NG9-1-1 services (Tech09A)
- Network requirements should be determined and a competitive ITB issued for network services (Tech11A)



## ESI Net Design/Pricing Schedule

- Develop a common set of requirements based on early adopters by April
- Regional outreach meetings in May to determine/validate requirements
- PSAP work session in June to review statewide results
- Present results to Board in July
- Issue RFI in August/September
- Response due by November 1



## ESI Net Design/Pricing Accomplished

- Developed a common set of requirements by May
- Conducted seven regional outreach meetings in June to validate requirements
- Have not yet conducted PSAP work session to review results (August)
- Present results to Board in September
- Issue RFI in September/October
- Response due in November



## Best Practice/Standards

- Comprehensive review of the necessary technical and operational standards for the NG9-1-1 system (SO5A)
- Ensure that the types of data collection the E-911 Services Board or VITA may need to manage the NG9-1-1 services is appropriate (Rec02A)
- Monitor compliance of any adopted standards for the 9-1-1 system, the PSAP, or call handling, adopted by the Board (Gov04B)



## Best Practice/Standards Schedule

- Establish work group by April 30
- Conduct first meeting in May and schedule monthly meetings thereafter
- Develop the prioritized list of NG-911 standards by August 31
- Begin developing best practices to become standards by September 15



## Best Practice/Standards Accomplished

- Establishment of work group put on hold at APCO/NENA request
- Establishment of Regional Advisory Council to occur first
- Staff developing two model best practices to start discussion
  - 9-1-1 Addressing
  - 9-1-1 Call Processing
- Staff developing preliminary list of possible best practices/standards needed



# Geospatial Foundation

- ALI/MSAG Analysis (Tech15A)
- NG-911 Data Standards
  - Road Centerline
  - PSAP Boundaries
  - Emergency Response Zones
  - Authoritative Boundaries
  - Address Points



# Geospatial Foundation Schedule

- Conduct ALI/MSAG Analysis for 30 localities by September 1
- Analyze results to determine statewide implications
- Develop RCL data standard by August 1
- Develop PSAP boundaries standard by October 1
- Develop ESZ and address points by December 31



## Geospatial Foundation Accomplished

- Conducted ALI/MSAG Analysis for 30 localities by July 1
- Analyzing results to determine statewide implications
- RCL data standard work group established
  - Three teleconferences to date
  - Staff drafting data standard



## PSAP Grant Program

- Establish state contract for PSAP equipment (Ops04A)
- All call handling equipment should be NG-911 ready (Ops05A&B)
- Incentivize PSAP to act regionally when procuring NG9-1-1-ready CPE (Ops06A), CAD systems (Ops07A) and voice logging (Ops09A)
- Provide additional grant funding to PSAPs, especially those interested in pursuing regional approaches (FR09A)



## PSAP Grant Program Schedule

- PSAP Grant Committee (PGC) to meet up to three times before May Board meeting
- Board adopts FY2017 guidelines in May
- PGC to meet monthly to develop PSAP equipment requirements
- Complete CPE in June
- VITA to issue RFP in July, award in September
- CAD and Logging handled sequentially



## PSAP Grant Program Accomplished

- PSAP Grant Committee (PGC) met three times before May Board meeting
- PGC recommended significant change to FY2017 grant guidelines in May
- PGC developing PSAP call handling equipment requirements
- Draft nearing completion
- RFP to be released in August



# New Business





## New Business

- Southampton FY 16 WEP Grant Waiver Request
- Rockbridge County Emergency Grant Request



## And In Conclusion

- Public Comment
- Adjourn
- Next meeting date is Sept 10<sup>th</sup>