VGIN Board Meeting

Steve Marzolf, ISP Director
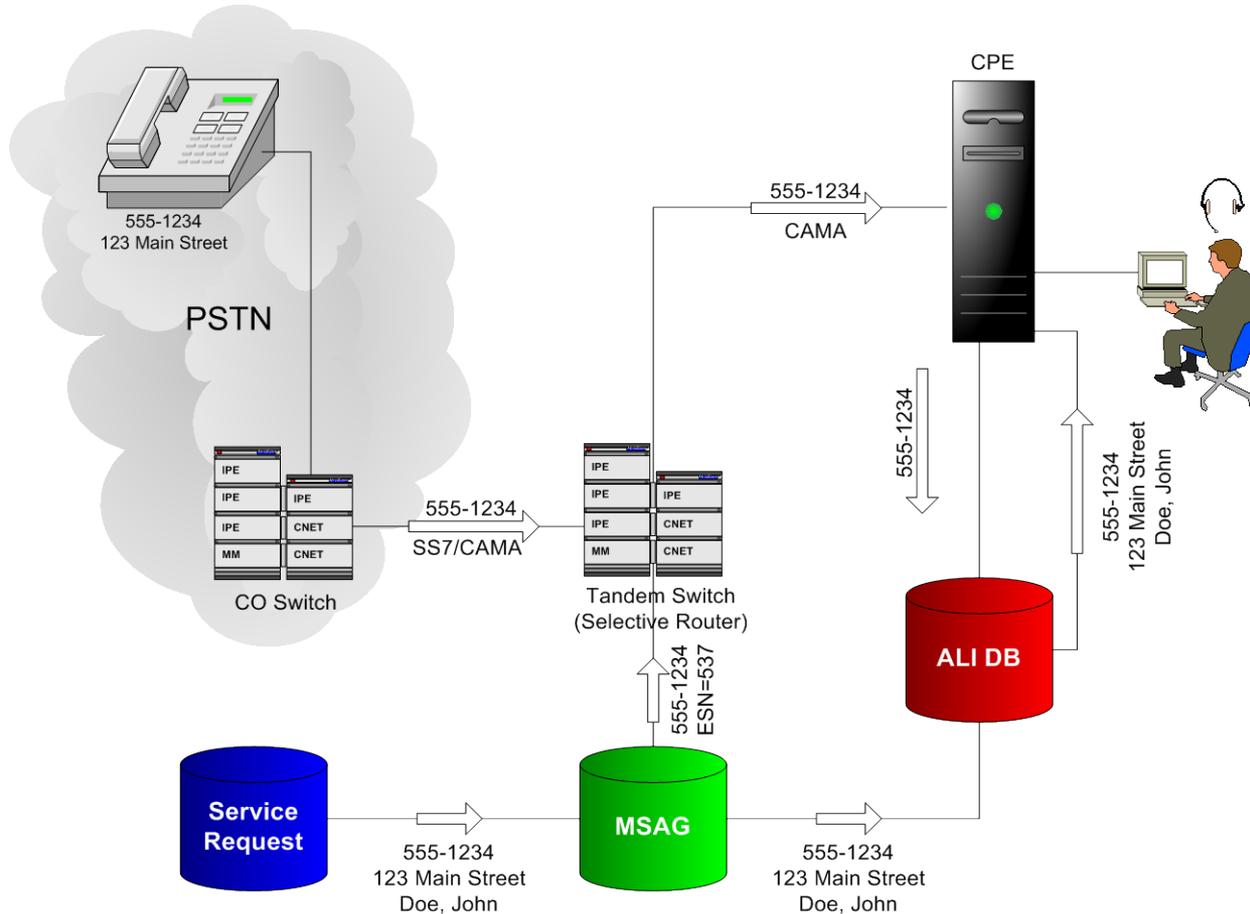
April 1, 2015

Agenda

- Overview of NG-911
- Planning Efforts
  - NG-911 Feasibility Study
  - GIS Strategic Plan
- Common Themes
- Path Forward
  - E-911 Services Board Actions
  - Additional Planning
  - Your Involvement

Existing 9-1-1 Network

Challenges to E-911 System

- Multiple providers/technologies
- Increased flexibility/mobility to users
- Unclear customer expectations
- Solutions are national and global instead of local
- New technologies
- Existing architecture of nine, independent networks with limited data
- ANALOG NETWORK IS GOING AWAY

What is Next Generation 911?

- A migration from circuit to packet switched technology

- A complete upgrade of the E-911 network to a shared IP network

- A system of systems serving local, state and national needs

- Required to meet the demands of new telecommunications technologies

Benefits of Next Generation 911

- Flexibility within the PSAP

- Integration of voice and data

- Increased data available to the PSAP
  - About the caller
  - About the incident
  - About sharing data with other PSAPs and first responders

NG-911 Vision Statement

Virginia will have an integrated statewide NG-911 system that enables seamless 9-1-1 communications through an infrastructure of distributed regional networks, supported by a specialized workforce.

The Big Picture

- NG911 represents a fundamental change in the way 911 call for service are handled
- The use of cell phones means we now need to determine the location of a call based on spatial data
- Since the phone system is not "smart", call routing based on tower location
- The ultimate resolution is to make the system "spatially aware"
- That places a bigger burden on local GIS data

Overview of Planning Efforts

- NG-911 Feasibility Study
  - Used staff augmentation contract to solicit
  - Mission Critical Partners engaged
  - Began work in July 2014
  - Completed January 2015

- GIS Strategic Plan
  - Used staff augmentation contract to solicit
  - Michael Baker & Associates engaged
  - Began work in September 2014
  - Completed January 2015

NG-911 Feasibility Study Goals

- Provide multiple solutions for the design of a statewide IP-based 9-1-1 network

- Develop a multi-phase effort to address generational technology issues

- Support a long-term strategic approach to improve 9-1-1 service delivery

- Address system design, procurement, implementation, operation, and governance issues

NG-911 Project Drivers

- Carriers transitioning from circuit-switched to IP
- Existing legacy technologies impact 9-1-1 service
  - Public Safety Answering Points (PSAPs) are hampered by outdated and/or proprietary systems
  - Carriers have announced plans to discontinue support for some 9-1-1 systems in the next 2-3 years
- Significant limitations exist, including:
  - Length of analog 9-1-1 call setup time
  - Limited ability to transfer 9-1-1 calls between PSAPs
- Consumer expectations / changes in behaviors
- Advances in technologies

NG-911 Feasibility Scope

- Operational

- Technical

- Economic

- Policy Considerations

NG-911 Feasibility Study Results

- 141 Recommendations

- Identified those chronologically first

- Grouped into six "themes"
  1. Governance
  2. ESI Net Design/Pricing
  3. Best Practices/Standards
  4. Geospatial Foundation
  5. PSAP Grant Program
  6. Financial

- Estimated resources required

- Focus on those for completion by July 1, 2016

GIS Strategic Plan Results

- 50 recommended tasks

- Tasks organized into three (3) phases each of about a year and a half

  – 22 tasks in Phase 1

  – 14 tasks in Phase 2

  – 14 tasks in Phase 3

- Phase 1 heavily focused on localities

Common Themes

- Coordination/Communications

- Education

- Best Practices

- Requirements Gathering

- Geospatial Data Coordination

Guiding Principles

- 9-1-1/GIS are essential, local/regional services
- 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

Path Forward

NG-911 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 service
- Primarily assigned to Policy Committee
- Begin meeting in late March
- Goal to have legislation drafted by August 1

9-1-1 Universe
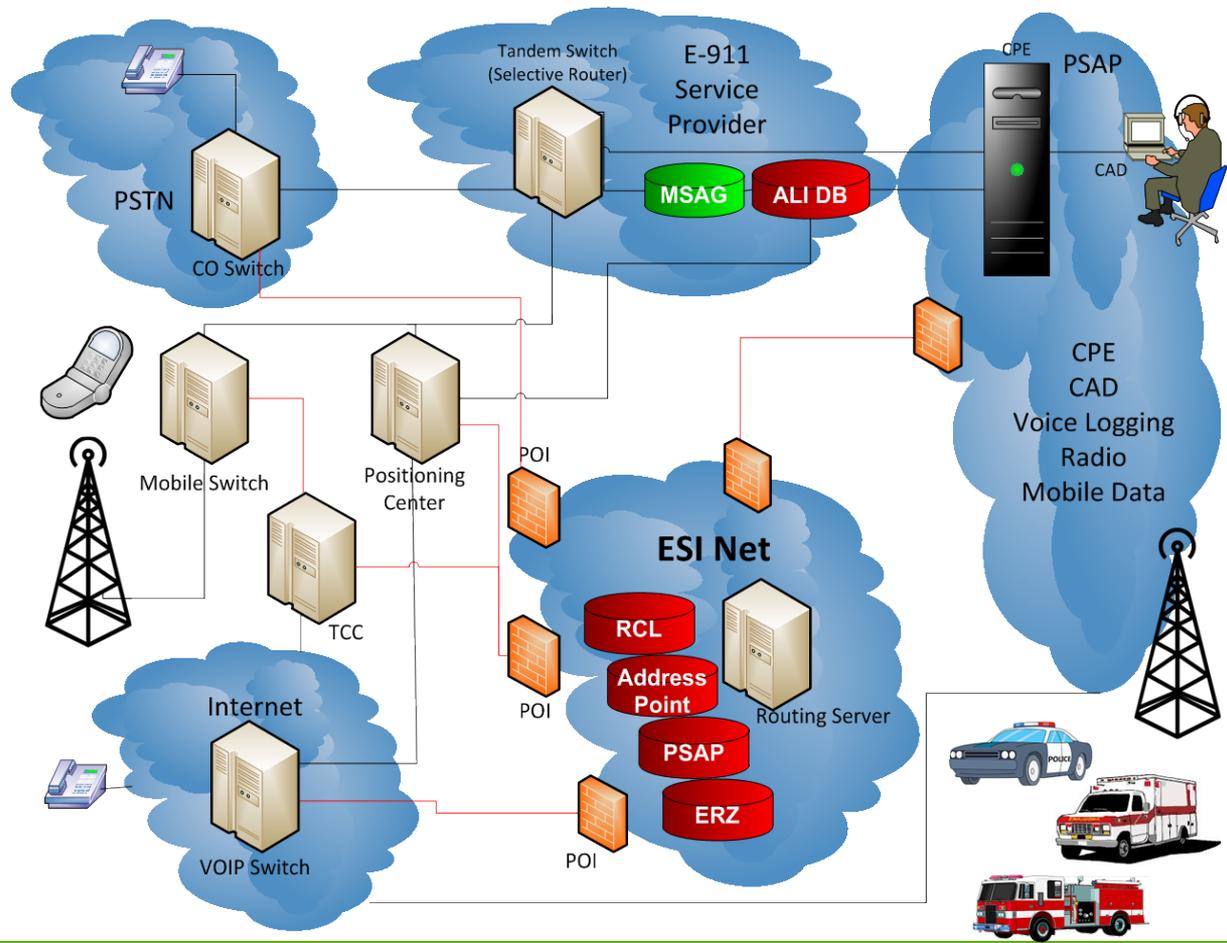
NG-911 ESI Net Design/Pricing

- Address in first year:
  - Develop a list of common requirements for the ESI Net and NG9-1-1 services
  - Focus requirements gathering on ISP regions (May 2015)
  - Conduct locality work session to validate regional requirements (June 2015)
  - Issue RFI through VITA to determine market ability to meet requirement (August 2015)
  - Evaluate responses (November 2015)

![VITA - Virginia Information Technologies Agency]

NG-911 Best Practice/Standards

- Address in first year:
  - Develop list of all technical and operational standards needed for NG-911
  - Prioritize that list
  - Begin developing those standards as best practices
  - Evaluate data collection needed for NG-911 and recommend changes

- Stakeholder work group to develop through monthly meetings starting in May

NG-911 Geospatial Foundation

- Address in first year:
  - ALI/MSAG Analysis (30 by September 2015)
  - NG-911 Data Standards
    - Road Centerline (August 1)
    - PSAP Boundaries (October 1)
    - Emergency Response Zones (December 31)
    - Authoritative Boundaries (October 1)
    - Address Points (December 31)
- Manage through VGIN Coordinator
- Leverage work of Associations and other states

NG-911 PSAP Grant Program

- Address in first year:
  - Establish state contract for PSAP equipment - CPE, CAD, voice logging (beginning June 2015)
  - Evaluate FY2017 grant guidelines to include:
    - All call handling equipment must be NG-911 ready
    - Incentivizing localities to act more regionally
- Primarily assign to PSAP Grant Committee
- Use VITA's statewide procurement authority to issue RFP
- E-911 Board adopt guidelines in May 2015

GIS Strategic Plan First Year

- Initiative 1 – C&C within ISP
  - Review and refine responsibilities of ISP management and staff
  - Attend and participate in educational and conference activities
  - Purposeful and consistent interaction and coordination with local GIS and local PSAP Managers

GIS Strategic Plan First Year

- Initiative 2 – C&C with Localities
  - Provide a recurring webinar forum as a communication channel for local government
  - Upgrade and improve the ISP website
- Initiative 3 – C&C with State Agencies
  - Continue formal, quarterly outreach to state agency stakeholders
  - Upgrade and improve the ISP website
- Initiative 4 – C&C with Others
  - Upgrade and improve the ISP website

GIS Strategic Plan First Year

- Initiative 5 – Provide NG-911 Services
  - ISP education on the data specifications needed to support a NG9-1-1 solution
  - Develop a NG9-1-1 GIS roadmap for 2015-20
- Initiative 6 – Oversee Clearinghouse
  - Provide training on use the clearinghouse
  - Conduct an annual evaluation of the clearinghouse to ensure it meets needs

GIS Strategic Plan First Year

- Initiative 7 – Provide Data Layers
  - Establish a stakeholder driven committee for the statewide data layers
  - Divide the VBMP into three functional units
  - Expand the VBMP to support NG9-1-1
  - Identify a product owner within VGIN for each of the three functional units
  - Conduct annual evaluations of the data layers to ensure they meet needs

GIS Strategic Plan First Year

- Initiative 8 – BP for VGIN Services
  - Provide educational opportunities like focused webinars or specific classes on themes
  - Update VGIN's web presence to include a more user friendly website
- Initiative 9 – BP for Government Services
  - Provide a platform to highlight geospatial best practice examples across the state
  - Leverage RCs for one-on-one interaction with localities to understand areas of need
  - Update VGIN's web presence

Strategic Direction

- Primary focus on NG-911 not forgetting E-911 and VBMP services
- Increased outreach activity
- Greater locality involvement
- Proactively address issues
- Consistent messaging across ISP
- Bidirectional communications with constituents

Additional Planning

- Comprehensive Plan for 9-1-1
  - Broader view than just NG-911
  - Defines key strategic initiatives for improving 9-1-1 services and functionality across Virginia
  - Plan for NG-911 will likely feature prominently
  - Includes citizen survey component
- NG-911 Master Plan
  - Action Plan resulting from Feasibility Study
  - Address all recommendations approved by the E-911 Board

Your Involvement

- WE NEED YOU!!!
- Volunteer for work groups
  - GIS data standards
  - Best practices
- Attend meetings to provide input
  - In person or teleconference
  - Requirements gathering relies on your participation
- Participate in training offered and guide future educational opportunities

Webinars and Meetings

- Webinars
  - Text-to-911 Implementation (March 26)
  - ALI/MSAG Analysis (April 7)
  - Wireless Call Processing T-t-T (May 12)
  - Land Cover Data Project (May)
- Quarterly Regional Meetings
  - Planning efforts/Data acquisition (Today)
  - ESI Net Requirements/Grants, if needed (May-June)