



Vermont Enhanced 911 Board Introduction, Overview and Key Issues

PRESENTED TO THE JOINT INFORMATION TECHNOLOGY OVERSIGHT COMMITTEE
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VERMONT ENHANCED 911 BOARD

INTRODUCTION, OVERVIEW AND KEY ISSUES

Enhanced 911 Board Overview

- The Enhanced 911 Board is the single governmental agency responsible for statewide enhanced 911. (30 V.S.A § 7053)
- The 911 Board is responsible for the development of policy, system design, and standards and procedures related to the statewide 911 system. The 911 Board consults with various state agencies and local community service providers to meet these responsibilities. (30 V.S.A § 7053)
- The 911 Board consists of nine Board members, appointed by the Governor, one each representing state, local and county law enforcement, Emergency Medical Services, Fire Service, municipalities, and three members of the public. The Governor appoints the Board Chair and Vice-Chair. (30 V.S.A § 7052)
- The 911 Board and the statewide 911 system are funded through the Vermont Universal Service Fund as appropriated to the Enhanced 911 special fund annually by the General Assembly. (30 V.S.A § 7054)
 - The FY19 appropriation is \$4,831,183.00
- Board Staff currently consists of the Executive Director, nine full-time staff members, and one part-time administrative support person. Staff member responsibilities fall into three broad categories:
 - IT Management: Manages and oversees 911 system and contracted system provider.
 - Database Administration: Develops and maintains multiple databases critical to the operation of the NG911 system
 - Training/Communications: Responsible for training & certification of approximately 100 call-takers as well as quality control, and public education and outreach
- The 911 Board does not have oversight over:
 - Dispatch agencies or their operations
 - Emergency response agencies.

Vermont Statewide 911 System Overview

- **Multiple Networks Involved in Delivery of 911 Calls**
 - When a call is placed to 9-1-1 in Vermont, it will traverse many networks before being answered by a Vermont 9-1-1 call-taker. These networks can be grouped into three categories:

Originating Service Provider (OSP) Networks – OSP networks are owned and operated by the service providers that offer calling services to customers such as cellular plans, VoIP or traditional wireline service.

9-1-1 Tandem/Legacy Network Gateway (LNG) Environment – The 9-1-1 tandems, once the selective routers of the original 9-1-1 network in the State of Vermont, now serve only as the aggregation point for all 9-1-1 traffic from the OSP networks. In the LNG, the aggregated traffic is converted from Time Division Multiplex (TDM) to Internet Protocol (IP) and delivered into the

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state's NG911 system. The tandems and LNG environment also provide service to other Public Switch Telephone Network (PSTN) traffic, such as long distance and subscriber to subscriber calls.

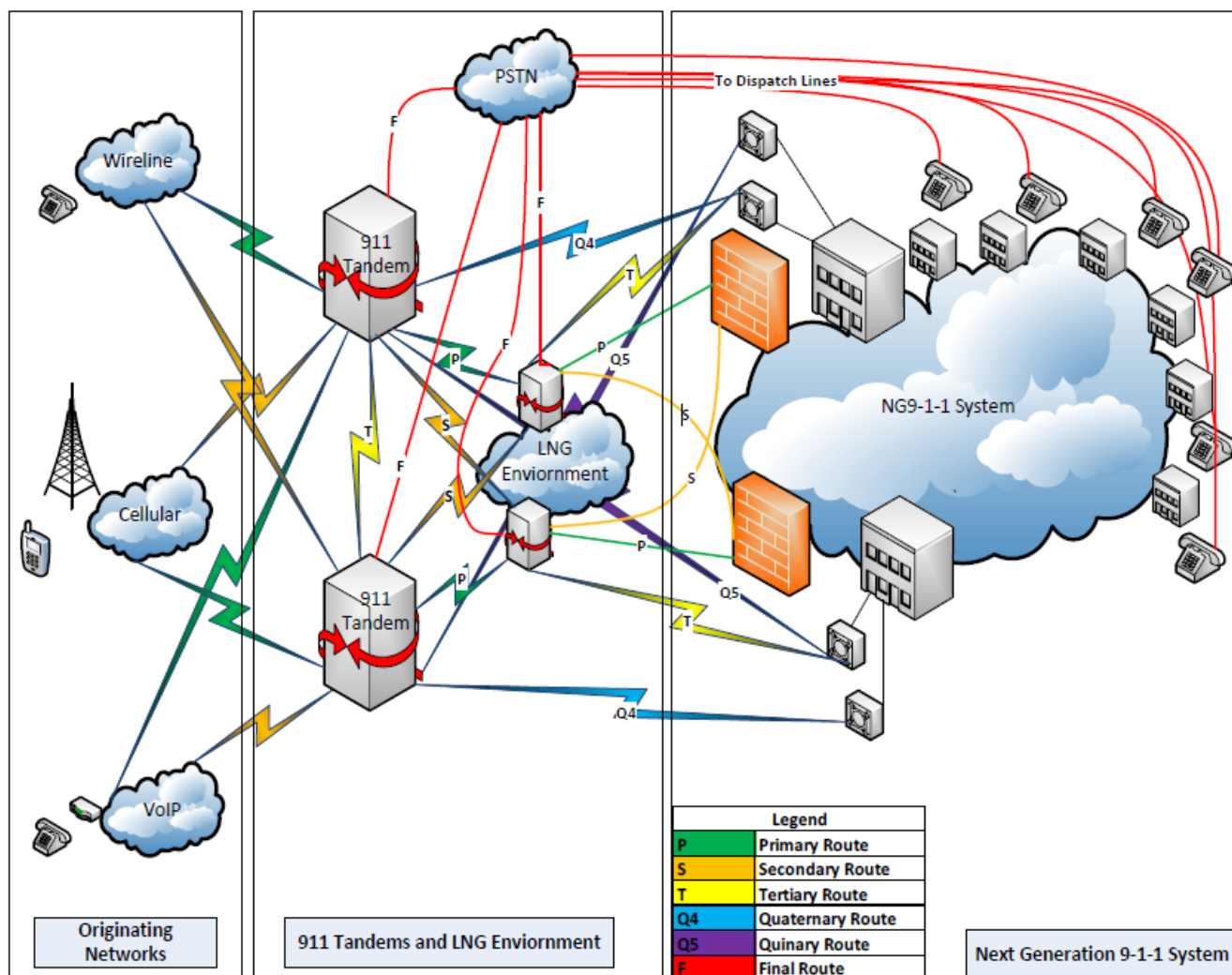
Next Generation 9-1-1 (NG911) System – The NG911 system processes and selectively routes 9-1-1 calls to the PSAPs, queries and delivers Automatic Location Identification (ALI) with the call, provides geo-spatial mapping to the call-taker, identifies the correct emergency response agencies based on caller location, provides text to 9-1-1 capability, stores historical 9-1-1 call data and recordings, allows for ALI and Geographic Information System (GIS) discrepancy processing, and provides access to municipal coordinators for addressing database additions and maintenance.

The 911 Board currently contracts with Consolidated Communications for a fully-hosted, Next Generation 911 (NG911) system that facilitates the delivery of 911 calls and text messages, and associated location data, to certified call-takers at six Public Safety Answering Points (PSAPs)

The statewide 911 system processes approximately 200,000 calls and text messages each year.

See diagram on next page for a high-level illustration of the networks involved in 911 call delivery in Vermont.

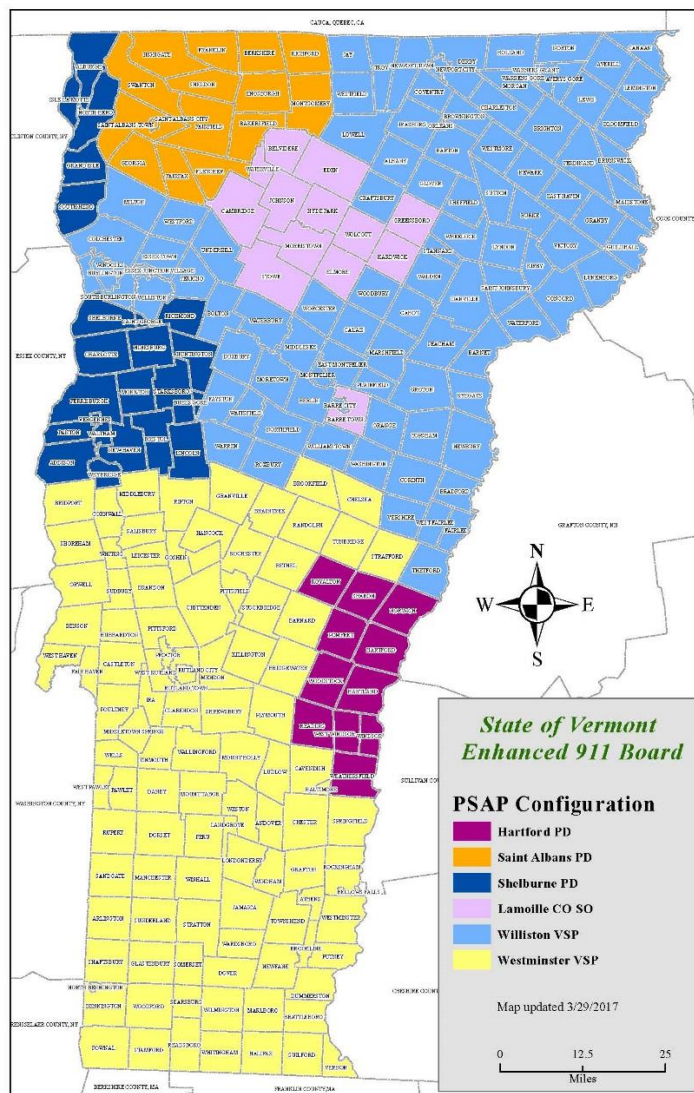
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- **Current PSAP Configuration Overview**

- Six Public Safety Answering Points (PSAPs)
 - Each PSAP is responsible for answering calls from a primary catchment area and for handling overflow calls from all other PSAPs.
 - Two Department of Public Safety PSAPs:
 - Located in Williston and Westminster
 - Answer approximately 68% of the total 911 call volume
 - House a combined 16 911 workstations
 - Four regional PSAPs:
 - Operated by the Hartford, Shelburne, St Albans Police Departments and the Lamoille County Sheriff's Department
 - Answer about 32% of total 911 call volume.
 - The regional PSAPs each house two funded 911 workstations. In addition, two unfunded workstations are currently housed at two of the regional PSAPs.



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- **Current Key Issues**

- NG911 2020 System Procurement
 - Current contract with Consolidated expires in July 2020
 - Issued Request for Proposals in March 2018 to allow sufficient time for evaluation of proposals, contract negotiation, and implementation time if needed.
 - 911 Board voted on 10/30/2018 to proceed to contract negotiations with one of the three bidders.
 - Expect contract negotiations to be complete in Q1 2019.
- 911 Compliance Grant Program Administration
 - This program provides matching grants of up to \$25,000 to support telecommunications systems upgrades in Vermont public schools so they are capable of sending all required location information to 911 when calls are placed.
- CARE Program
 - Currently working with Vermont Emergency Mgmt, the Vermont Dept of Health, 211 and the United Ways of Vermont to review and assess an existing program called CARE (Citizens Assistance Registry for Emergencies).
 - This program allows citizens who would need special assistance in an extended power outage, isolation, or evacuation event to be identified in the 911 GIS data and made available to responders during such events.
- Rulemaking
 - A continuing priority is the review and updating of existing rules; and identification of any additional rules that may be needed.
 - ECS rulemaking to be initiated with ICAR in December.

- **Initiatives Moving Forward**

- Implementation of LVF – Location Validation Functionality. A tool that allows telephone service providers to ensure a customer's address is accurate by comparing it to specific points in the GIS data.
- Improving Wireless Location Accuracy
 - Monitoring the development of solutions that could help improve wireless location accuracy and monitoring wireless service provider compliance with FCC requirements for wireless location accuracy.
- Improved Multi-Line Telephone Systems/Enterprise Communications Systems Outreach/Compliance Program
 - Development of program to ensure MLTS/ECS end users have the same level of service that other users have
 - Currently work is focused on Vermont's public schools where we have seen considerable improvement in the number of schools capable of sending complete and accurate location information to 911....expected to be at about 54% by end of the year (up from just 20% in 2016)
 - Program will expand to all MLTS/ECS systems moving forward
- Continued Engagement in NG911 Discussions Nationwide