



NextGeneration 9-1-1



2019 WCA Conference
Wisconsin Dells - Kalahari
September 23, 2019

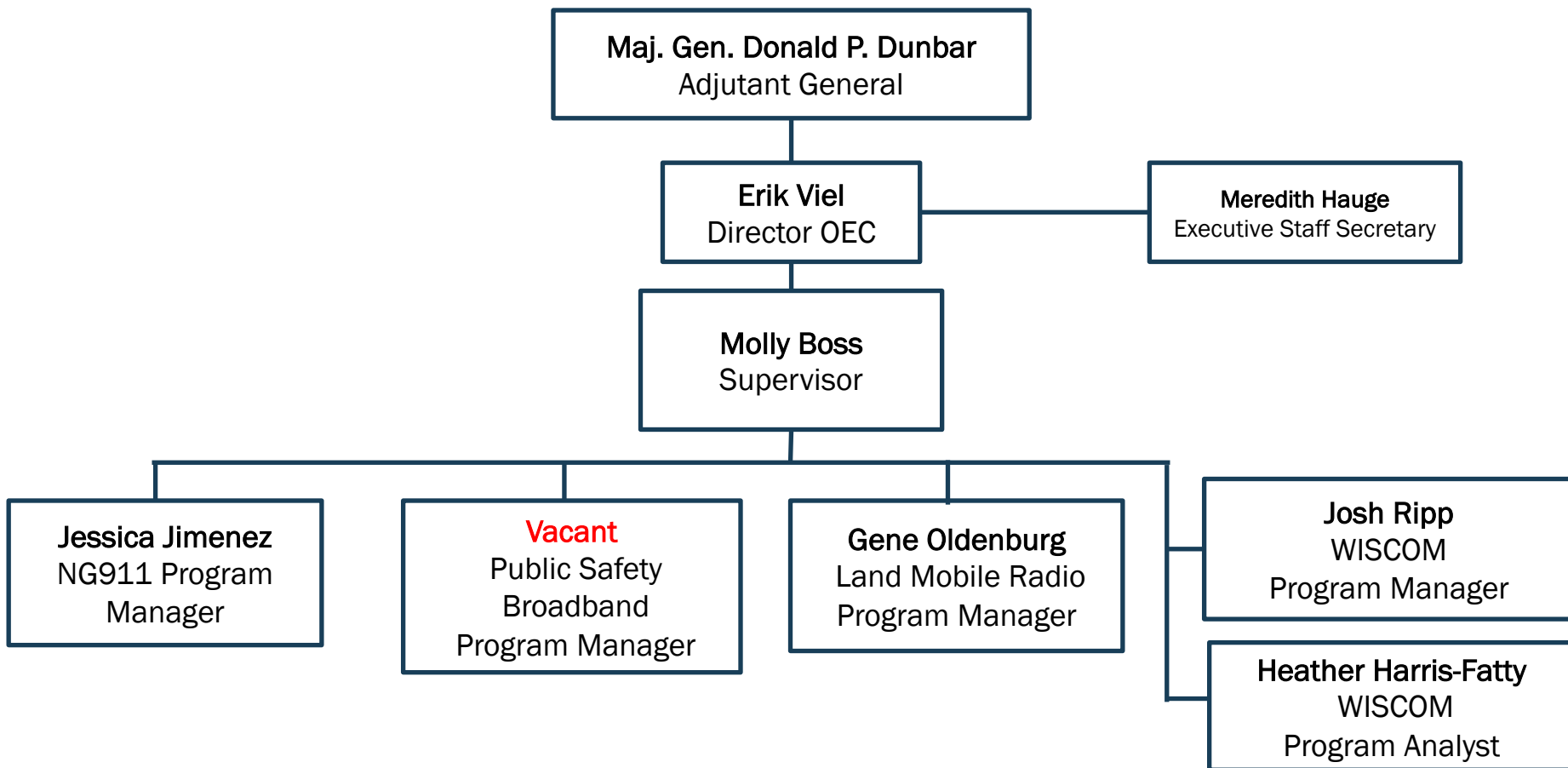


Session Topics

- OEC Overview
- What is NextGen9-1-1?
- NG9-1-1 Program Status
 - Progress to Date
 - Future Dates
- Major Impacts
- Statewide 9-1-1 System Assessment
 - Statistics
 - Findings & Conclusions
- Federal 9-1-1 Grant Program
- Next Steps
- NG9-1-1 & GIS



WI Office of Emergency Communications



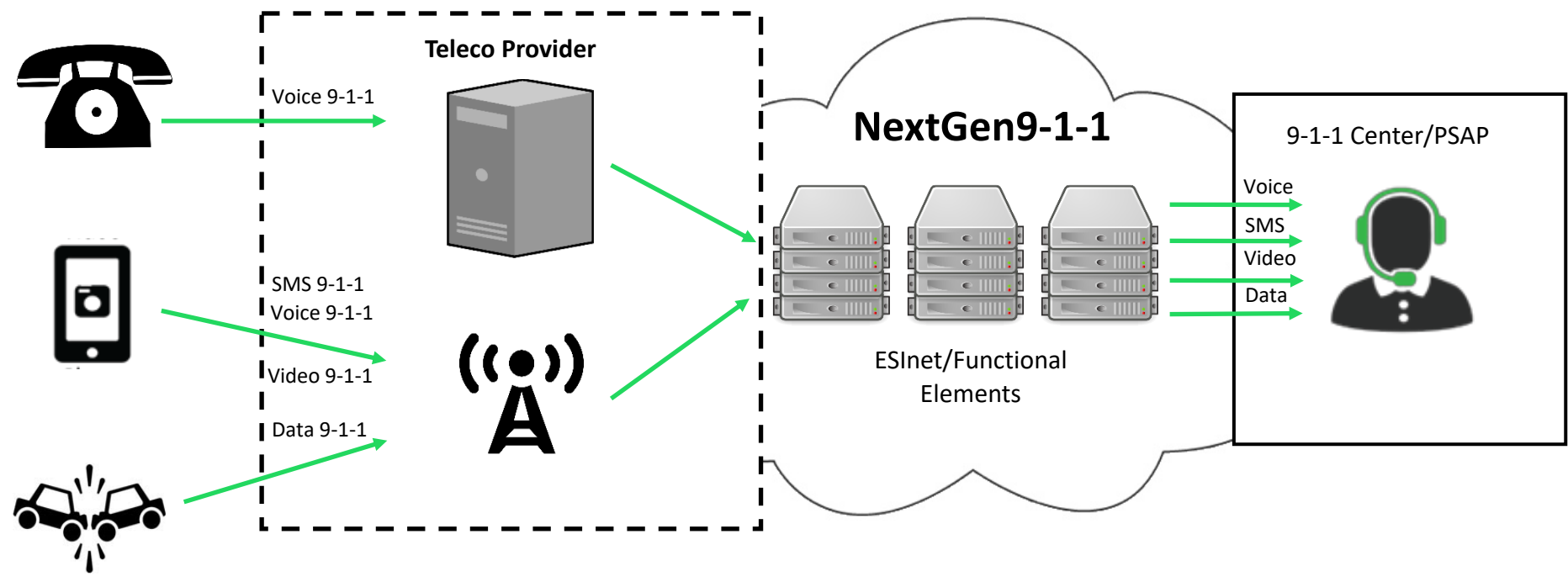
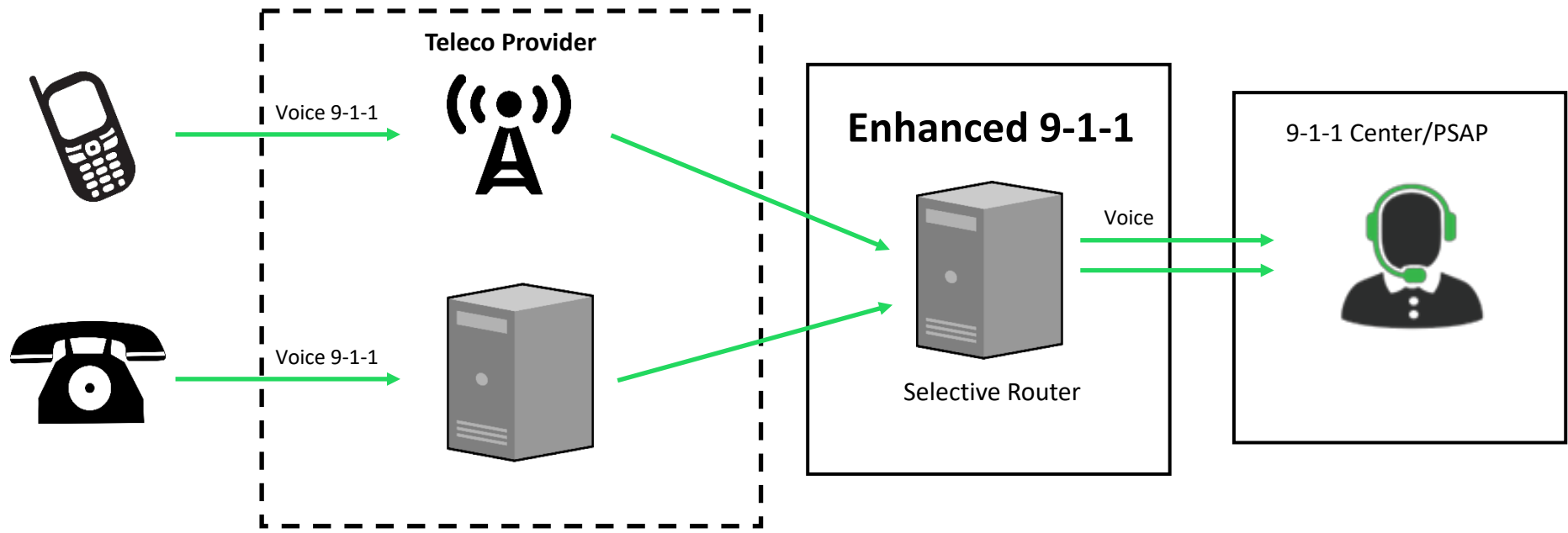


What is NextGen9-1-1?

NextGen9-1-1 (NG9-1-1) is an IP-based 9-1-1 system utilizing an emergency services IP network (ESInet) to replace the existing legacy/circuit-based systems.

NG9-1-1 is comprised of hardware and software to:

- Process all forms of emergency calls, including real-time text, images, video, and other data
- Deliver and transfer calls to the appropriate public safety answering point/9-1-1 Center
- Improve location information of emergency callers through standardized Geographic Information System (GIS) data



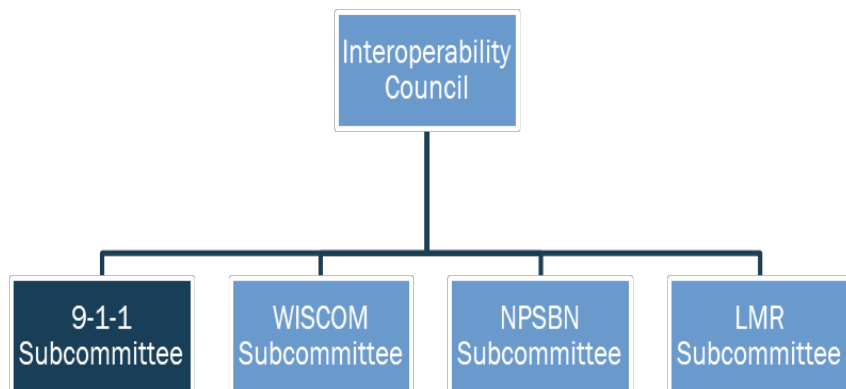


ESInet Funding

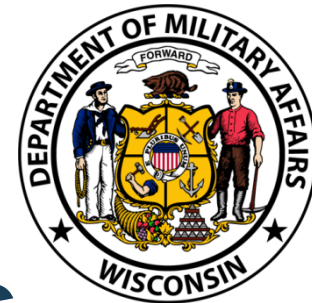
- Under Wis. Stat. 20.465(3)(qm), \$19.7 million has been allocated for DMA to spend over the next biennium (though 6/30/21)
- The funding can be used:
 - To make and administer contracts for the creation, operation, and maintenance of a statewide ESInet, and;
 - For the 9-1-1 Subcommittee to administer its duties under Wis. Stat. 256.35(3s)(d)



9-1-1 Subcommittee



- 19-member subcommittee comprised of various stakeholder associations and private stakeholders appointed by the Governor
- First meeting held December 2017
- WCA Representative:
Marcie Rainbolt
Five County-level Reps



Subcommittee Duties

- Advise DMA on NG9-1-1 emergency services IP network contracts
- Advise DMA on the statewide efforts, leveraging existing infrastructure, and industry standards that are necessary to transition to NG9-1-1
- Conduct a statewide 9-1-1 telecommunications system assessment
- Advise DMA or other state agency on grants, including advising on eligibility criteria for grants



Progress to Date

NG9-1-1/ESInet RFI

- June 2018

NG9-1-1 Consultants

- November 2018

PSAP Survey/Statewide 9-1-1 System Assessment

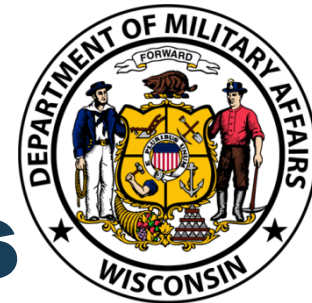
- January – August 2019

Federal 9-1-1 Grant Award

- August 2019

ESInet/NextGen Core Services Draft RFP Release

- August 28, 2019



Important Future Dates

NG9-1-1/ESInet Procurement

- Final posted Fall 2019

Federal 9-1-1 Grant Local Applications

- Anticipated November/December 2019

ESInet Award

- Anticipated 2020

ESInet Implementation

- 2020 – TBD

NG9-1-1 GIS Gap Analysis

- Anticipated 2020



Major Impacts

- The State is building a statewide ESInet for the benefit of local public safety answering points (PSAPs)
 - Do not need to build one on their own, leading to potential cost savings and increased interoperability
- Joining statewide ESInet is voluntary but strongly encouraged
 - Timing
 - Operational and cost considerations
- Limited state oversight, currently restricted to ESInet buildout and operating as clearinghouse



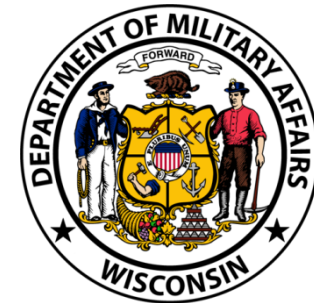
9-1-1 System Assessment

- In consultation with the 9-1-1 Subcommittee, the 9-1-1 System Assessment included review of:
 - Current list of Wisconsin 9-1-1 centers and contact information
 - Current and other possible funding sources (local, state, and federal) for implementing a statewide ESInet and NG9-1-1
 - Current equipment and software, as well as changes needed for the implementation of NG9-1-1 at the state and local levels (including CPE, servers, workstations, CAD, etc.)



2019 Survey Data

9-1-1 in Wisconsin – Quick Facts	
Wisconsin PSAPs (Responded/Estimated Actual)	108/122
9-1-1 Call Answering Positions	641
9-1-1 Trunks	653
9-1-1 Staff	2,115
First Responder Agencies Served (Fire, Police, EMS, includes duplication)	2,288
9-1-1 Calls (Annual approximate as reported)	3,000,000
Total Calls handled by PSAPs (Annual approximate as reported)	9,000,000



2019 Survey Data

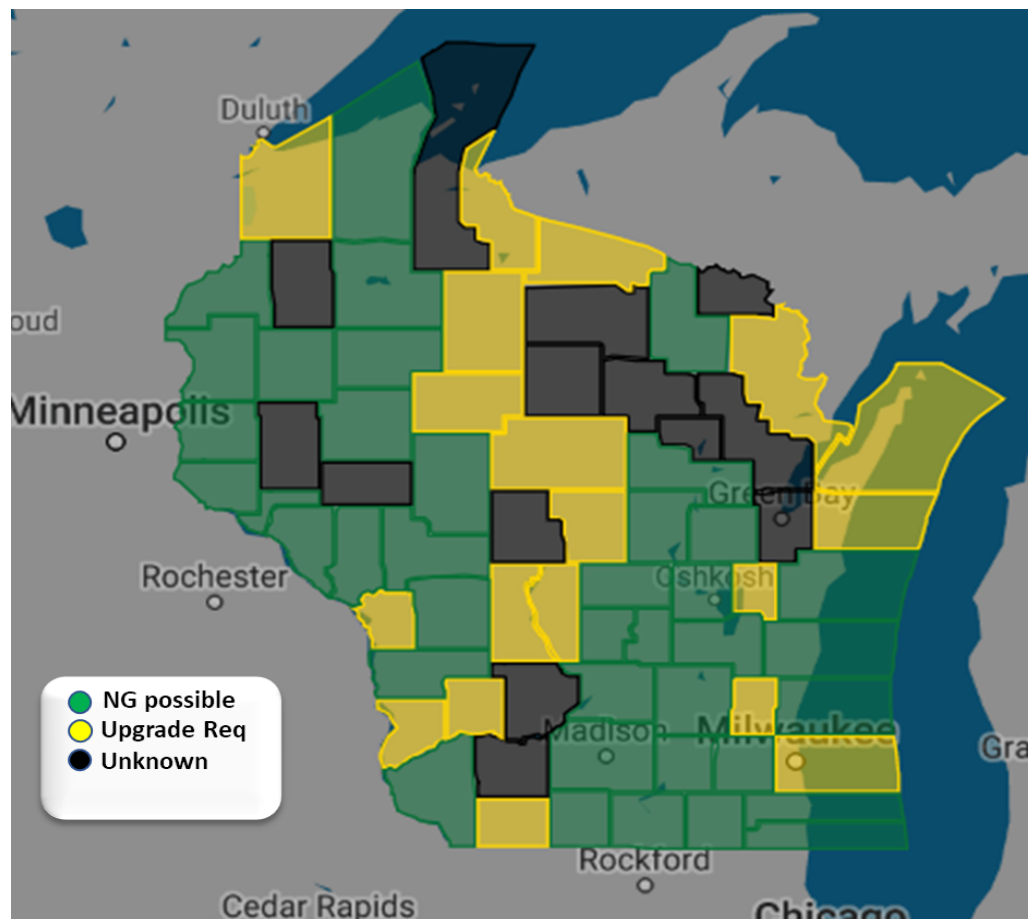
Estimated Annual Costs Statewide

Category	Total Amount	Percentage
Personnel	\$111,029,987.24	87%
Radio	\$7,360,789.59	5.8%
CAD	\$4,338,076.38	3.4%
Call Handling (CPE)	\$4,916,051.69	3.8%
Total Estimated	\$127,644,904.90	



2019 Survey Data

Customer Premise Equipment –
NextGen “Readiness” Status*



*As of March 2019



Report Findings & Recommendations

- Section 2 – Funding and Regulatory Findings
 - Current legislation relative to 9-1-1 needs modification to be more inclusive of NG9-1-1
 - Current revenues collected to fund legacy 9-1-1 will not support costs associated with operating an NG9-1-1 system
 - The State should identify a sustainable funding model for implementation and operation of the statewide ESInet



Report Findings & Recommendations

- Section 3 – Current System Findings
 - Current infrastructure is becoming rapidly obsolete and will not support NG9-1-1 technologies
 - The current systems have created operational scenarios that will no longer be necessary in NG9-1-1 (e.g. 9-1-1 call overflow, backup centers, 9-1-1 call transfers)
 - About 50% of 9-1-1 Centers are prepared for the transition



Report Findings & Recommendations

- Section 4 – NG9-1-1 Findings
 - Operating a NG9-1-1 system will lead to better service, reduced costs after transition, and improved response at the local level
 - NG9-1-1 will eliminate the duplication of work and route 9-1-1 calls to the correct 9-1-1 center
 - The current level of investment in GIS data at the local level is exceptional and will be needed as the transition to NG9-1-1 occurs



Federal 9-1-1 Grant Program

- Federal 9-1-1 grant program developed by the U.S. Dept of Transportation and U.S. Dept of Commerce
- Notice of Funding Opportunity released August 8th, final state application was due April 2nd
- Over 90% of funds will be allocated to benefit local entities
- Wisconsin applied for \$2.9 million with a 40% non-federal match requirement
- Grant awarded in August 2019



Subgrant Information

- \$2.7 million available for up to 30 subgrants
- Priority – end of life CPE, not currently NG-capable
- Equipment must comply with SAFECOM Grant Guidance document
- Eligible for up to \$27,492 federal share per answering position
 - Must provide at least \$18,328 local share per answering position (40% non-fed match)
 - Total \$45,820 per answering position (fed and non-fed share)
- Expenses must be incurred within the grant period to qualify



Subgrant Timeline*

Hire Grant Specialist

- In Progress

Release Grant Guidance

- October 2019

Release Local Subgrant Applications

- December 2019

Sub-awards Announced

- Early 2020

Procurement/Reimbursement

- January 2020 – September 2021

*Subject to change



NG9-1-1 & GIS

- A GIS or Geographic Information System integrates hardware, software and data for capturing, managing, analyzing, and displaying all forms of geographically reference information or location information
- In NG9-1-1, used for Call Routing and Call Dispatching

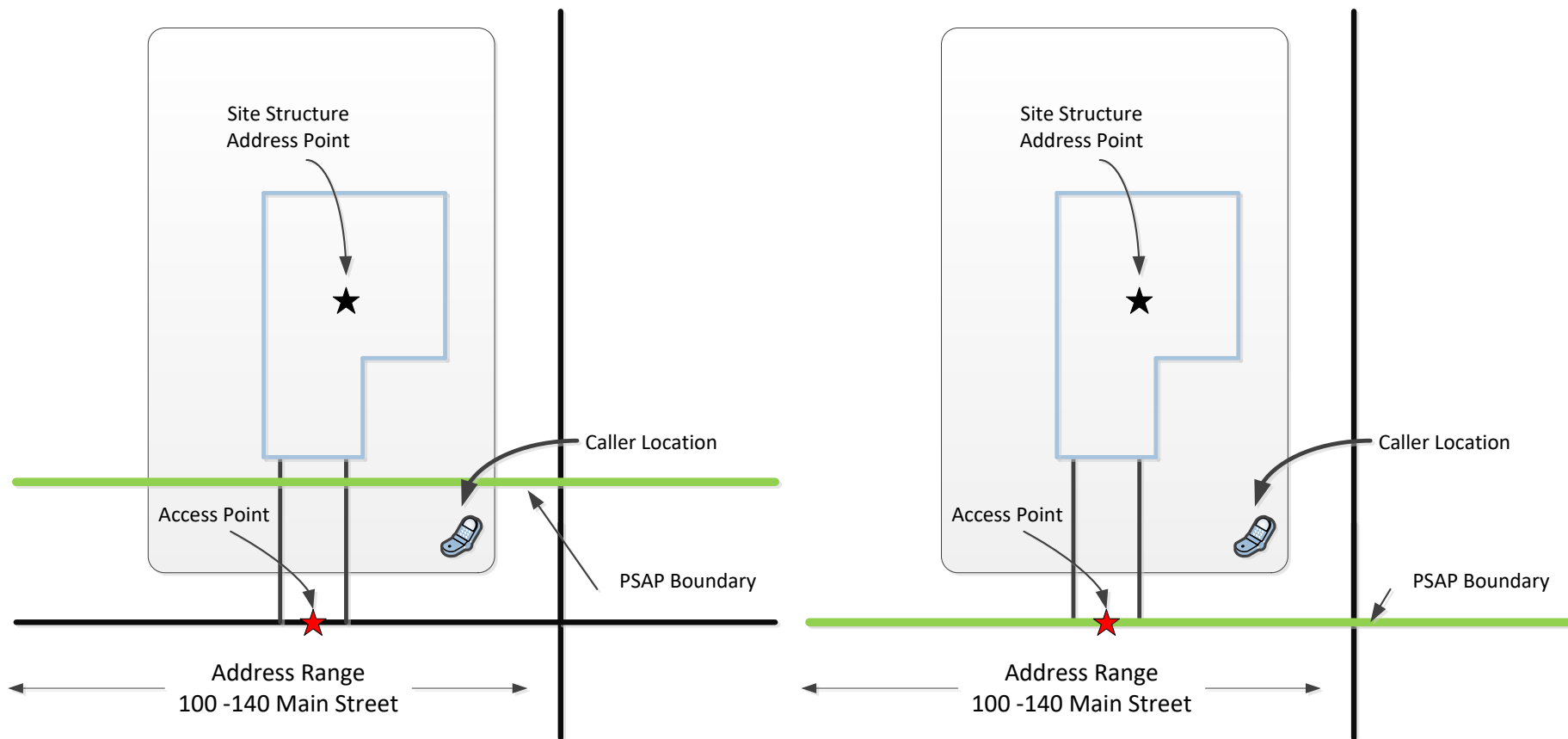


Call Routing vs. Call Dispatching

- Call Routing : Using location as means of routing the call to the correct 9-1-1 center
 - Required Layers = PSAP boundary, road centerlines, address points (preferable)
- Call Dispatching : Happens after 9-1-1 center receives the call to get responders to an incident
 - Required Layers = Call routing layers, emergency service boundaries, mile markers, landmarks, etc.



Data Accuracy





GIS Management

- Most states have gone with centralized management framework to collect and store data, including grants to prepare local data
- Partnership between stakeholders:
 - State, local and tribal governments
 - Telecommunication companies (e.g. Verizon, AT&T, TDS)
 - CAD Vendors
 - ESInet Vendor
- GIS standards, processes, workflow, and quality control must be implemented



GIS Gap Analysis

- Evaluate local GIS data to determine fitness for use in Statewide NG9-1-1 System
- Need to determine:
 - Statewide standard GIS format consistent with national standards
 - What data layers are currently available?
 - What format is the data currently in and how does it compare to the established standard?
 - Recommendations for GIS data remediation
 - State and local costs



Next Steps Summary

- Release 9-1-1 Grant Guidance
- Receive ESInet vendor proposals
- Federal 9-1-1 Subgrant awards
- Hire consultants for NG9-1-1 GIS Gap Analysis
- Statewide ESInet Implementation



Questions?

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