

Minnesota's Next Generation 9-1-1 GIS Initiative

Status Update: 11-5-15



This Morning's Presentation...

- NG9-1-1 Overview
 - What is NG9-1-1?
 - Who is involved in Minnesota?
 - Current Activities:
 - *PSAP RFI Summary Report*
 - *Initial NG9-1-1 GIS Data Collection*
 - *NG9-1-1 GIS Data Assessment and Preparation*
 - *Minnesota NG9-1-1 GIS Standards*
 - *Communication Plan*
- SE Minnesota MnGeo Contact
- Questions





What is NG9-1-1?

- **Next Generation 9-1-1**
 - Modern evolution of 9-1-1
 - “Any device, anytime, anywhere”
 - Access to more data and information

GIS Data in NG9-1-1

- **Location validation** of devices capable of calling 9-1-1
- **Route 9-1-1 calls** to the proper destination
- Determine the correct **emergency response** agency
- Enhanced data quality, interoperability, and sharing
- Streamlined data maintenance



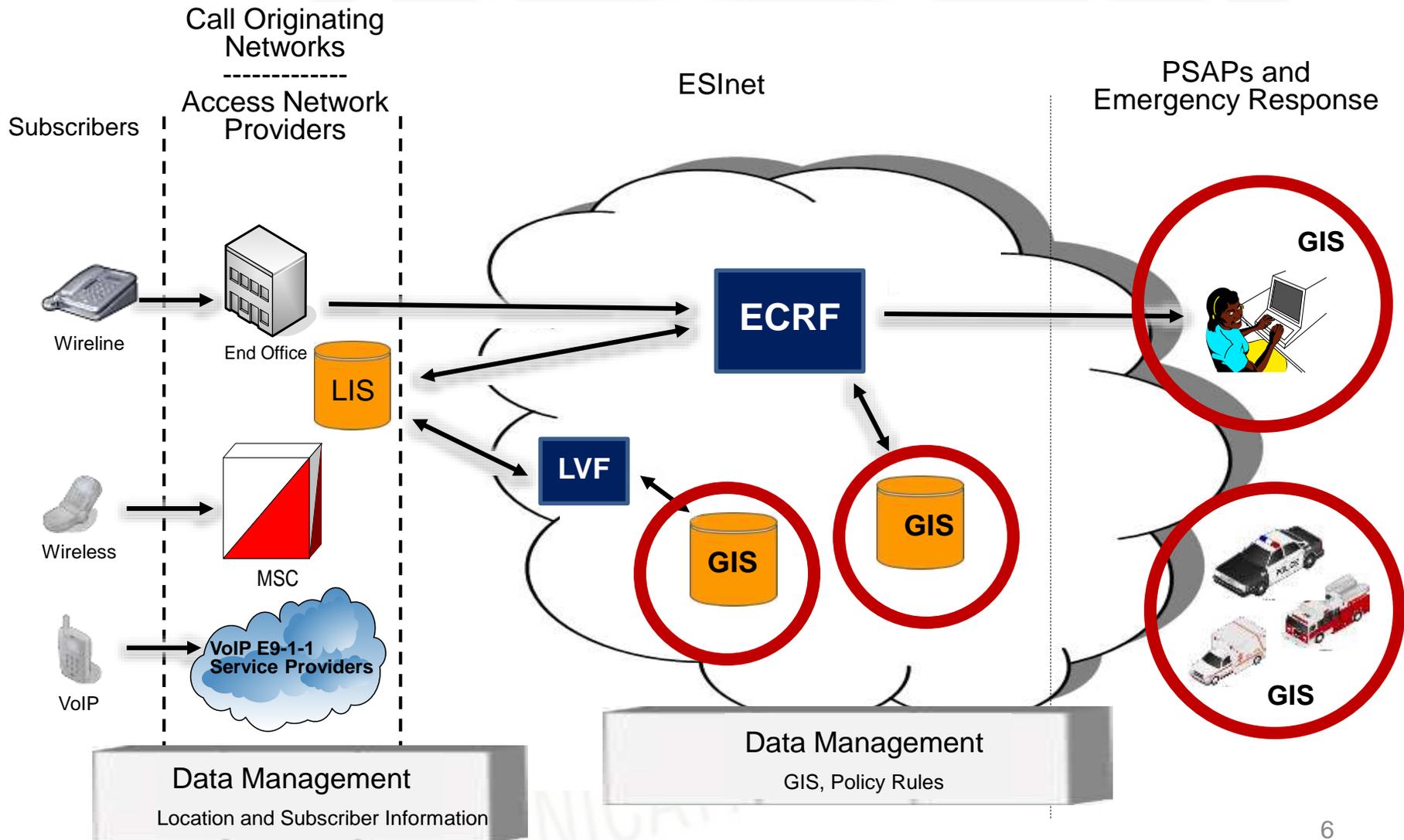


Why Are We Involved?

Per MN State Statute 403.025 Subd. 1: Minnesota Counties have the responsibility to operate and maintain the 9-1-1 system in their respective counties

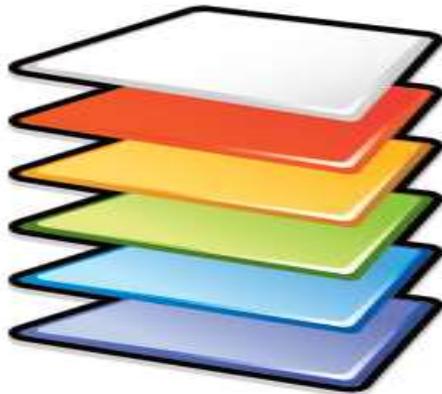
- GIS today is used to **support** CAD and ALI mapping systems
- GIS in NG9-1-1 will become the **primary** element for performing call routing and location validation in the NG9-1-1 system
- Counties and PSAPs retain responsibility for data
 - Today: MSAG and ALI
 - Future: GIS data

GIS in NG9-1-1



Required:

- Street Centerlines
- Address Points
- Emergency Service Boundaries
 - Fire
 - Law Enforcement
 - Emergency Medical Service
 - PSAP
- Authoritative Boundaries

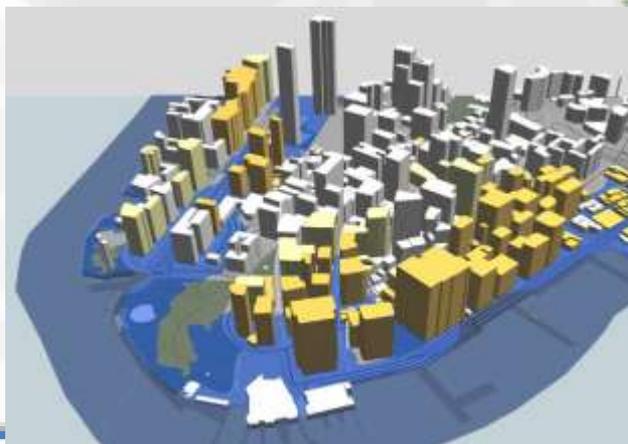


Recommended:

- Community Boundaries
- Parcels
- Water Features
- Railroads
- Hiking, ATV, Snowmobile Trails
- Driveways
- Mile Markers
- Common Places
- Cell Towers and Sectors
- Pipelines
- AVL
- Weather, Camera, Traffic Feeds
- Imagery
- 3D Landscape and Buildings
- National Grid
- Premise Info

Public Safety GIS Trends

- Real-time events – weather, traffic, construction, special events
- Controlled crowd sourcing
- Cameras
- Premise information
- Hyperlinks
- Routing
- 3D modeling





Objectives and Deliverables

- **Actively engage PSAPs, federal, tribal, state, regional and local jurisdictions** in Minnesota in the collection, aggregation and maintenance of geospatial data required for NG9-1-1 and related PSAP and emergency responder needs.
 - **Identify “core” NG9-1-1 geospatial data** that may be available from federal, tribal, state, regional and local jurisdictions in Minnesota.
 - **Identify areas of the State** where geospatial data and accuracy can be improved.
 - **Define common data models** and successfully transition collected data to the defined schemas.
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Objectives and Deliverables

- **Establish a long-term communication** plan to keep participants engaged and informed
 - **Construct a viable path** to obtain and/or develop, maintain, update, aggregate and standardize these data.
 - **Identify sustainable long-term maintenance requirements and data custodians.** Determine resources necessary for a repeatable process for gathering, aggregating, standardizing, and storing the data for the State of Minnesota.
 - **Documented GIS data collection, assessments, and quality control procedures with discrepancy reports** sent to the GIS data authoritative sources and PSAP Managers to allow for continuous improvement of data quality and integrity.
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Objectives and Deliverables

- **Coordinate with existing Minnesota NG9-1-1 providers and the Minnesota Department of Public Safety Emergency Communication Networks division** to determine and implement the requirements and mechanisms to interface with ECRF/LVF solution vendor(s) to interface according to NENA GIS Standards.
 - **Develop transition plan to migrate from tabular MSAG** legacy 9-1-1 call routing to NG9-1-1 geospatial based routing and location validation (ECRF and LVF).
 - **Make statewide geospatial data available** to stakeholders and provision data to NG9-1-1 services (ECRF and LVF).
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Benefits

- **Improved quality of emergency services** to citizens and visitors of Minnesota
- **Potential cost reduction** of providing authoritative GIS data and services for multiple uses
- **Improved response** by first responders – potentially saving lives
- **Multi-jurisdiction (state, county and community) coverage** for first responders



Benefits

- **Improved reporting and situational awareness**
- Ability to collaboratively **create, maintain and update statewide data layers once and share with many** local, regional and state entities
- **High quality, current GIS data will be available to other agencies** including emergency management and a number of state and local government entities using GIS data

Who's involved?

- Government: Tribal, City, County, Regional, State, National
 - DPS, MnGeo, DOT, DNR
 - SECB, NG911 Committee, GIS Subcommittee
 - MESB, MetroGIS, LOGIS, MRCC, GIS TOC WG
 - City and County GIS Departments
 - PSAP Managers
 - Call takers, Dispatchers, and Responders
 - MSAG Coordinators
 - Addressing, Planning and Zoning, Assessor's Office
 - Schools, Colleges, and Universities
- Vendors and Contractors





Roles and Responsibilities

ECN

- Lead agency
- Overall coordination and oversight

MnGeo

- Coordination of GIS data collection, aggregation, development, standardization, quality assurance and maintenance of geospatial data needed for NG9-1-1



Roles and Responsibilities

PSAP Managers/MSAG Coordinators

- Establish partnership with GIS data authority
- Track map updates
- Review and correct 9-1-1 data discrepancies

Dispatchers

- Flag and report all map discrepancies

GIS Managers

- Establish partnership with PSAP
 - Review and correct GIS data discrepancies
 - Prioritize GIS issues for public safety
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Current Activities: NG9-1-1 GIS Data Collection

- All Regions in the State:
 - Public Safety Answering Point (PSAP) boundaries
 - Emergency Service boundaries
 - Fire
 - Law Enforcement
 - Emergency Medical Service
- Metro and NE Regions Only:
 - Street centerlines with address ranges
 - Address points



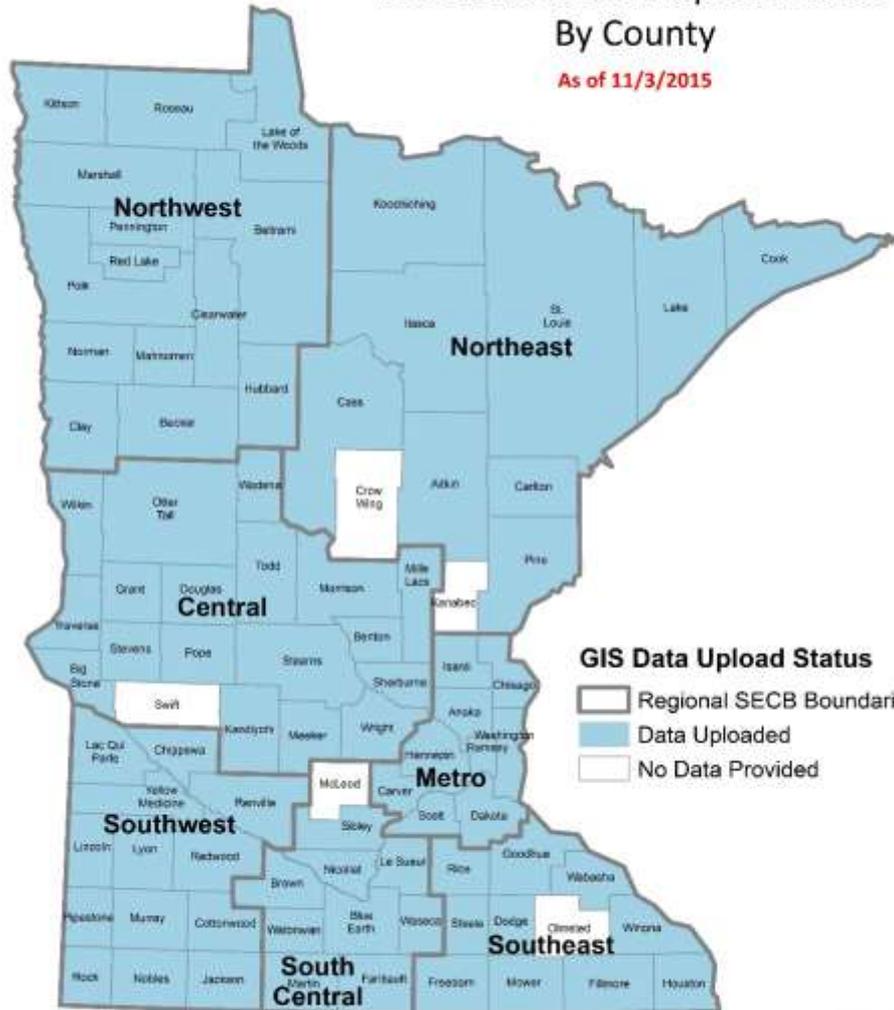
NG9-1-1 GIS Data Assessment and Preparation

- NG9-1-1 GIS data request
 - **FirstNet** – needs all Public Safety Entity boundaries for reporting purposes
 - **MnGeo** – inventory existing NG911 GIS data, build internal processes, field mapping (local vs NENA schemas)
- Gaps/overlap corrections
- GIS data workflow and repository
- Document and assist with MESB's current 9-1-1 GIS data preparation processes in Metro region
- Plan for pilot regions (Metro and NE)



NG9-1-1 GIS Data Upload Status By County

As of 11/3/2015



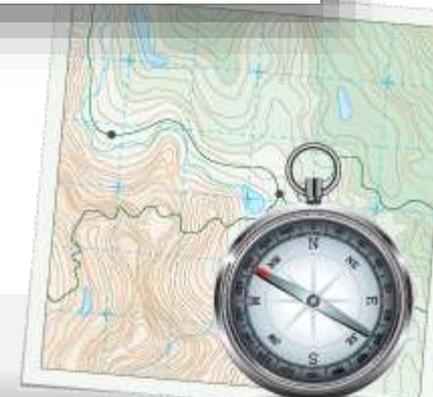
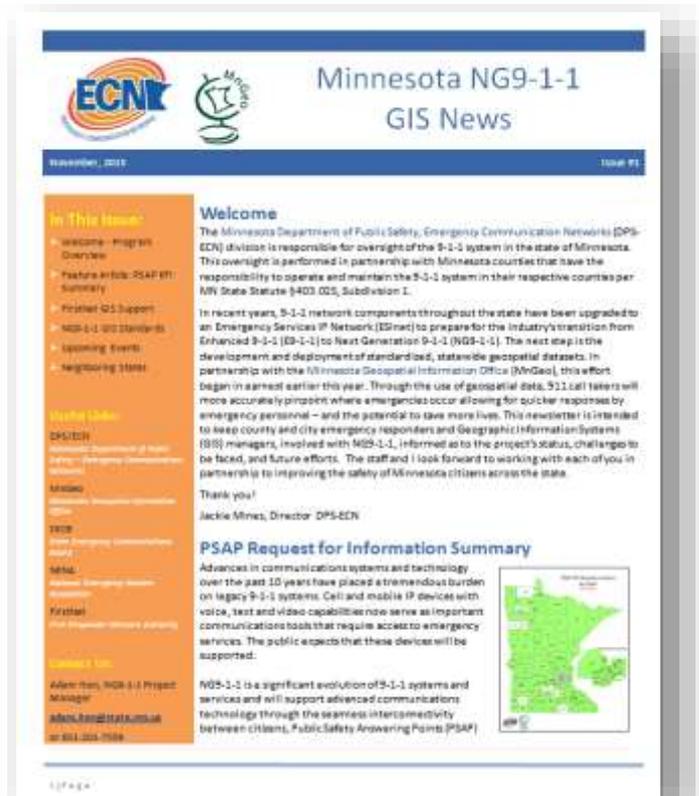
Collection Status

Minnesota NG9-1-1 GIS Standards

- GIS data requirements for NG9-1-1 in Minnesota
- Align with NENA Standards
- Standards Workgroup Meeting Weekly
- Review and approval
 - Metropolitan Emergency Services Board (MESB)
 - GIS Subcommittee
 - NG9-1-1 Committee
 - Statewide Emergency Communications Board (SECB)
 - Statewide Geospatial Advisory Council (SGAC)
 - MN Information Technology Agency (MNIT)
- Other States

Communication Plan

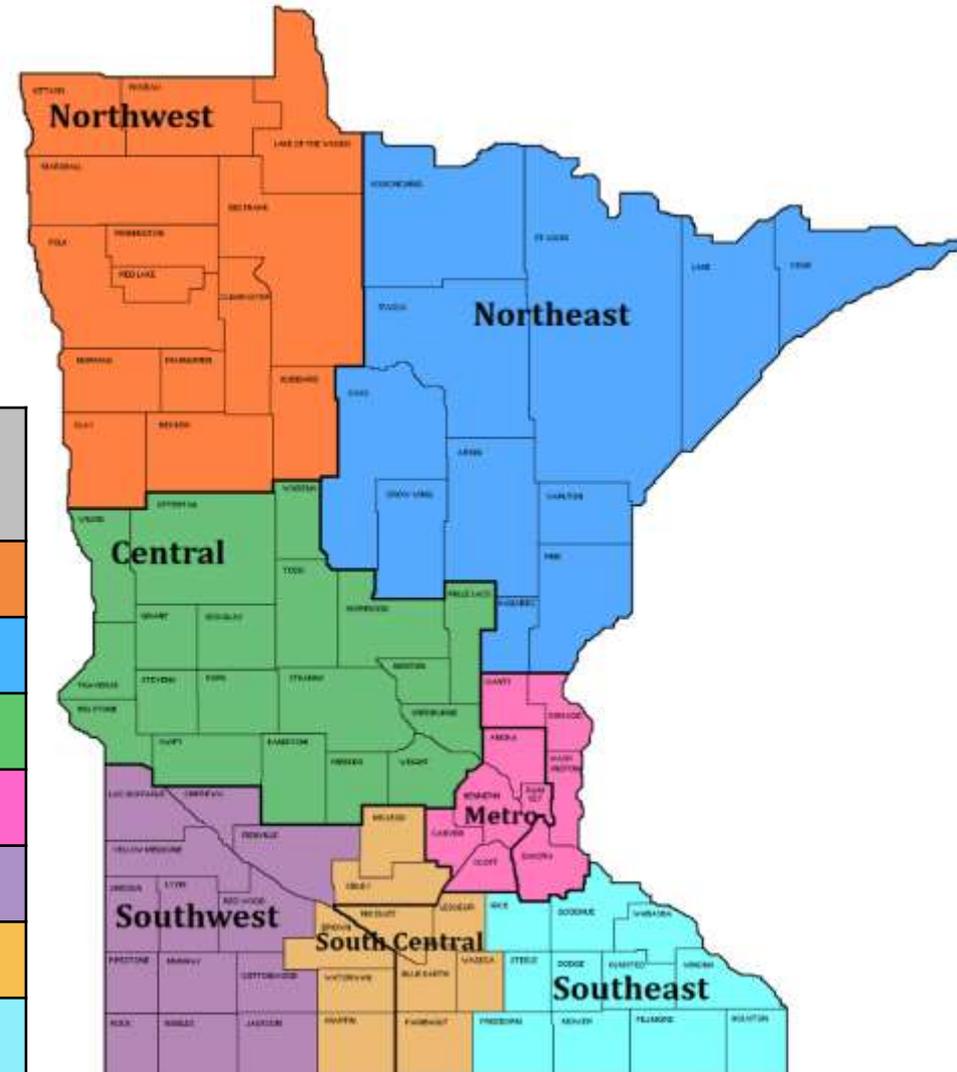
- DPS-ECN website
- Monthly
 - Project newsletter
 - GIS Subcommittee meeting
 - NG9-1-1 Committee meetings
 - SECB meeting
- Quarterly
 - Regional PSAP/GIS meetings
 - Statewide Geospatial Advisory Council



Communication Plan

7 Regions

Region	Primary Contact	Backup Contact
Northwest	Dolbow	Ross
Northeast	Dolbow	Ross
Central	Ross	Dolbow
Metro	Bunning	Ross
Southwest	Bunning	Ross
South Central	Bunning	Ross
Southeast	Hoshal	Bunning



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