

Authoritative Next Generation 911 GIS for Reliable Emergency Response

Achieving NG911 Geospatial Data Compliance

Cities and counties are responsible for development and maintenance of Next Generation 911 (NG911) compliant GIS datasets for emergency call routing. This requires alignment of multiple layers (e.g. address points, road centerlines, service boundaries, etc.) with NENA standards with accommodations for growth and changes to infrastructure. Without structured validation and coordinated workflows, maintaining compliance becomes complex and resource-intensive.

- **Fragmented Validation** Address points, road centerlines, service boundaries, and MSAG data are often validated separately, increasing the risk of routing inconsistencies
- **Evolving Standards** NG911 requirements require continuous data alignment and oversight
- **Disconnected Workflows** Uncoordinated update processes reduce consistency across datasets
- **Manual QA Processes** Reactive validation slows progress and reduces routing accuracy

Xentity NG911 Services

- GIS Data Management
- Geospatial Data Validation
- Geospatial Data Curation
- Implement data pipelines
- Data Lifecycle Services
- NENA Standards SME Advisor
- ECRF/LVF Services Support
- ESINet Services Design
- NG911 Tools Development
- NG911 Dashboards

Empowering NG911 Geospatial Readiness

Xentity empowers customers to achieve and sustain NG911 geospatial readiness through structured data assessments, targeted remediation, and practical validation tools. Our approach strengthens both initial dataset development and long-term maintenance while building internal capability.

- **Data Cleanup & Remediation** Identify and correct address, road, boundary, and MSAG discrepancies to strengthen routing accuracy
- **Dashboards & Validation Tools** Deploy automated QA/QC scripts and ArcGIS Online dashboards that provide real-time data health and compliance visibility
- **Error-Correcting Forms & Workflow Automation** Implement smart forms and validation-driven processes that prevent errors at the point of data entry.
- **Capability Transfer** Deliver documented tools and hands-on knowledge transfer to enable sustainable internal maintenance



Example Delivery Solution Highlights

Douglas County Colorado Emergency Communications Authority NG911 GIS Ready

Xentity guided Douglas County ECA through a structured NG911 GIS readiness initiative to align core datasets, implement automated validation workflows, and deploying real-time dashboards for progress tracking. The result was a self-sufficient team with full visibility and control over their geospatial environment.

Proven Results

- Full NENA i3 Alignment
- 99%+ Geocode Match Rate
- Automated Validation & Reporting
- Real-Time Progress Dashboards
- Zero Continued Vendor Fees

"I recommend Xentity for their outstanding work with the Douglas County 911 Communication Authority. Their expertise in data management and NG911 support has proved invaluable in helping us get prepare for our future transition to NG911. Xentity demonstrated professionalism, deep domain knowledge, and clear understanding of public safety priorities."

Josh Ferguson | DCECA Douglas County, CO

Elko County, NV - NG911 GIS Ready

Elko County with over 50,000 residents over 11M acres, needed to replace legacy E9-1-1/MSAG system with new NG9-1-1 approach. Call routing depended on outdated tabular data, limiting accuracy. The data needed to support required experts to identify, curate, transform, and establish ongoing tools to meet their needs

Large Data Conversion/Creation

- 26,000 addresses
- 30,000 road segments
- ~6,000 manual edits
- Boundary Data Load & Snap

The **18-month** phased implementation supported **Data, Services, and Tools.**

- Created and transitioned to operate the GIS database
- Supported LDB propagation to live web services
- Setup internal GIS tools and resources that provide the ability to manipulate, edit, process discrepancies, provide updates, provision of functional elements, and provide data normalization.

The Elko NG911 GIS now provisions the LVF and ECRF functions for accurate geospatial routing, enabling the deployment: [Nations First Cloud-Based Next Generation 9-1-1 ESINET & CPE Goes Live in Elko County, Nevada](#)

About Xentity

Xentity is a leading Large Data Program Integrator specializing in geospatial, open, big data, IoT/remote sensing, and voice data. Over 20 years of experience, we have served a diverse client base of over 300 clients.