Building a Statewide Address Point Layer for NG9-1-1

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Agenda

• North Dakota DES Goals
• Data development approach
• Evolution of project
• Challenges
• Quality control and ongoing maintenance plan
• Next steps for North Dakota DES
• Lessons learned
Address Points

- Dispatch Mapping
- Location Validation (LVF)
- Call Routing (ECRF)
- Identifying addressing anomalies
- Emergency Notification
Data development approach

**ND DOT**
- aerial imagery
- road centerline digitization

**GeoComm**
- road centerline road names and ranges
- point layer development & field verification

**ND DES review & maintenance coordination**
- Updates
- Data aggregation
- Data distribution

Final data delivery October 2015
Considerations

How was your layer developed?

- Parcel Centroid
- Building Footprint Centroid
- Driveway Access
- Structure Front Door
- Building Rooftop – from aerial photo
- Fieldwork or remote
- ALI database or other address database geocode
ADDRESS POINT PLACEMENT

Actual building (rooftop)

Access to a Property
Address point development workflow

1. **Is point on top of structure?**
   - **Yes**: Placement_Source: Aerial Imagery
   - **No**
     - **Is there an obvious structure for the address?**
       - **Yes**: Move Point to structure and mark as Placement_Source: Aerial Imagery
       - **No**
         - **Does the address make sense based on location?**
           - **Yes**: Attribute_Source: County provided resources or ALI database
           - **No**: Placement_Source: NEEDS FW

2. **Attribute_Source: County provided resources or ALI database**
   - **Yes**
   - **No**
     - **Location will be visited and address verified via field verification**
Evolution of project

Original

• Enhanced 9-1-1
• Future Next Generation 9-1-1 needs

Now

• Statewide MSAG
• Use of data for other agencies
Challenges

- Development challenges
- Maintenance challenges
- Local stakeholder challenges
Quality control and ongoing maintenance

- Maintenance Tools - GeoLynx Server
  - Web DMS
  - Change Requests

- Major updates provided by sending GIS data to GeoComm/DES

- Full dataset replacement
Maintenance tools
Next steps – maintenance for current and future uses

- Maintenance plan
- Transitional systems
- QA/QC processes
Next steps – boundary layer development

- PSAP boundaries (urn:service:sos)
- Law enforcement agency boundaries
- Fire service area boundaries
- Medical service area boundaries
- Other service boundaries
- Enhancement of existing layers
Lessons Learned