Kansas Next Generation 911

Kansas
911 Coordinating Council

Kansas Next Generation 911

…the largest IT project in state history*

…the largest GIS project in state history*

* could be...has not been fact checked

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Project overview

Primary components:

- Development of statewide Emergency Services IP Network (ESINet)
- GIS database development, enhancement, aggregation, & conflation
- Deployment of new Call Handling hardware & software
- Implementation of geospatial call routing
- Outreach, coordination, & policy development

When I say we…

- Kansas 911 Coordinating Council:
  - 911 Administrator
  - 911 Technical Support Specialist
  - Security Committee
  - Technical Committee
  - GIS Committee
  - Training Committee
- Kansas Counties (105)
- GIS service providers:
  - ATCi
  - GDR
  - GeoComm
  - Kimball Mapping
  - R&S Digital
- Imagery:
  - Surdex
  - Valtus
- Service providers:
  - AT&T – ESINet & Data Centers
  - Airbus DS Communications – 911 Call Handling hardware & software platform
  - Mission Critical Partners (MCP) – consulting services
  - Randall White Consulting – program management

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Next Generation 911 in Kansas

Deployment Strategy

Accumulated Total Number of PSAPs

- 11 transition from legacy 9-1-1
- 64 transition from legacy 9-1-1
- 107 possible transition to geo-spatial routing
- 117 possible transition to i3 architecture

Year

- 2015
- 2016
- 2017
- 2018

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GIS Data Requirements

- **Statewide**…covering every county and PSAP
- **Consistent**…common set of data layers, data model and implementation procedures:
  - Address points
  - Road centerline
  - Emergency service boundaries
  - Authoritative boundary
  - MSAG change spreadsheet
- **Current**…regularly maintained
- **Authoritative**…accurate and reliable
- **Standardized**…Meets applicable Kansas & NENA NG911 GIS Standards, Data Models and Implementation Guidelines

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Gap Analysis & Data Enhancement

General process:

1. **GIS Data Gap Analysis (complete statewide)**
   - Determine how existing data adheres to new standard…aka…the "Gap"
   - Performed by AOS
2. **GIS Data Enhancement (in-progress)**
   - Remediate data to Kansas NG9-1-1 GIS Data Model
   - Performed by jurisdiction or one of the following vendors:
     - *ATCi*
     - *GDR*
     - *GeoComm*
     - *Kimble Mapping*
     - *R&S Digital*
3. **GIS Data QA Audit (in-progress)**
   - Ensure all issues were remediated according to the standard
   - QA audit performed by AOS
4. **Data Aggregation & Conflation (in-progress)**
   - KDOT (GeoComm)
   - Incorporate local geometry, conflate state (KDOT) attributes, maintain statewide
   - Support multiple state and federal projects

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GIS Standards & Policies

- Kansas NG911 GIS Data Model
  - Provides a framework for consistent statewide data
  - Adheres to *draft* NENA GIS specifications
  - Esri file geodatabase templates have been adopted by **all** jurisdictions
  - NG9-1-1 GIS Toolbox contains validation scripts and conversion tools
  - * used Tennessee data model and documentation as our starting point…extremely well done and saved us a great deal of time
- Kansas NG911 GIS Governance Policy
- Kansas NG911 GIS Change Management Policy
- Coordination, education, & outreach:
  - A series of webinars were held during the development of GIS data model to gather public comment.
  - Numerous database development workshops were held across the state to educate users and vendors on the new standard and project requirements.

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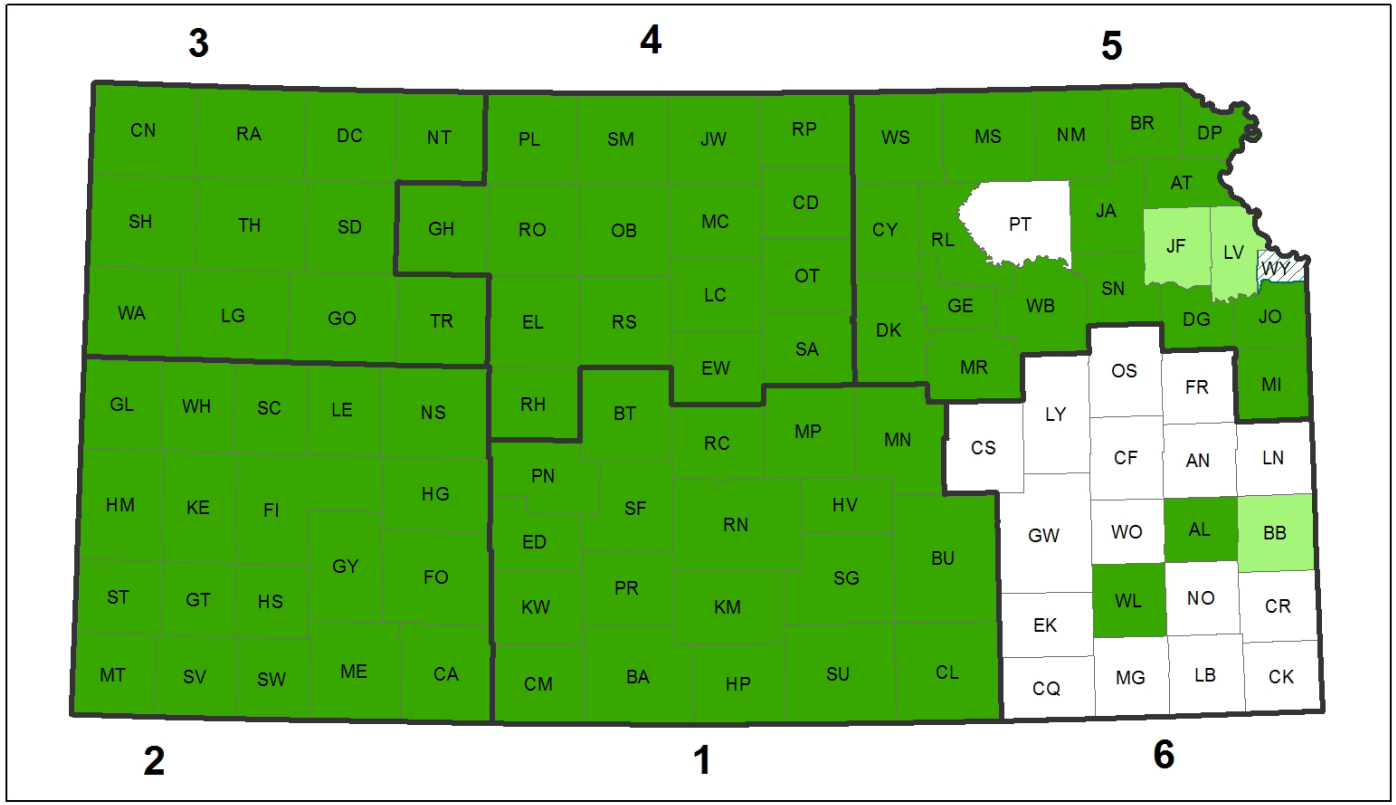
GIS Data Enhancement Status



- 85/105 counties have passed final QA and have been accepted by the Data Review Committee (DRC)
- Scheduled to complete remainder of state by end of calendar year

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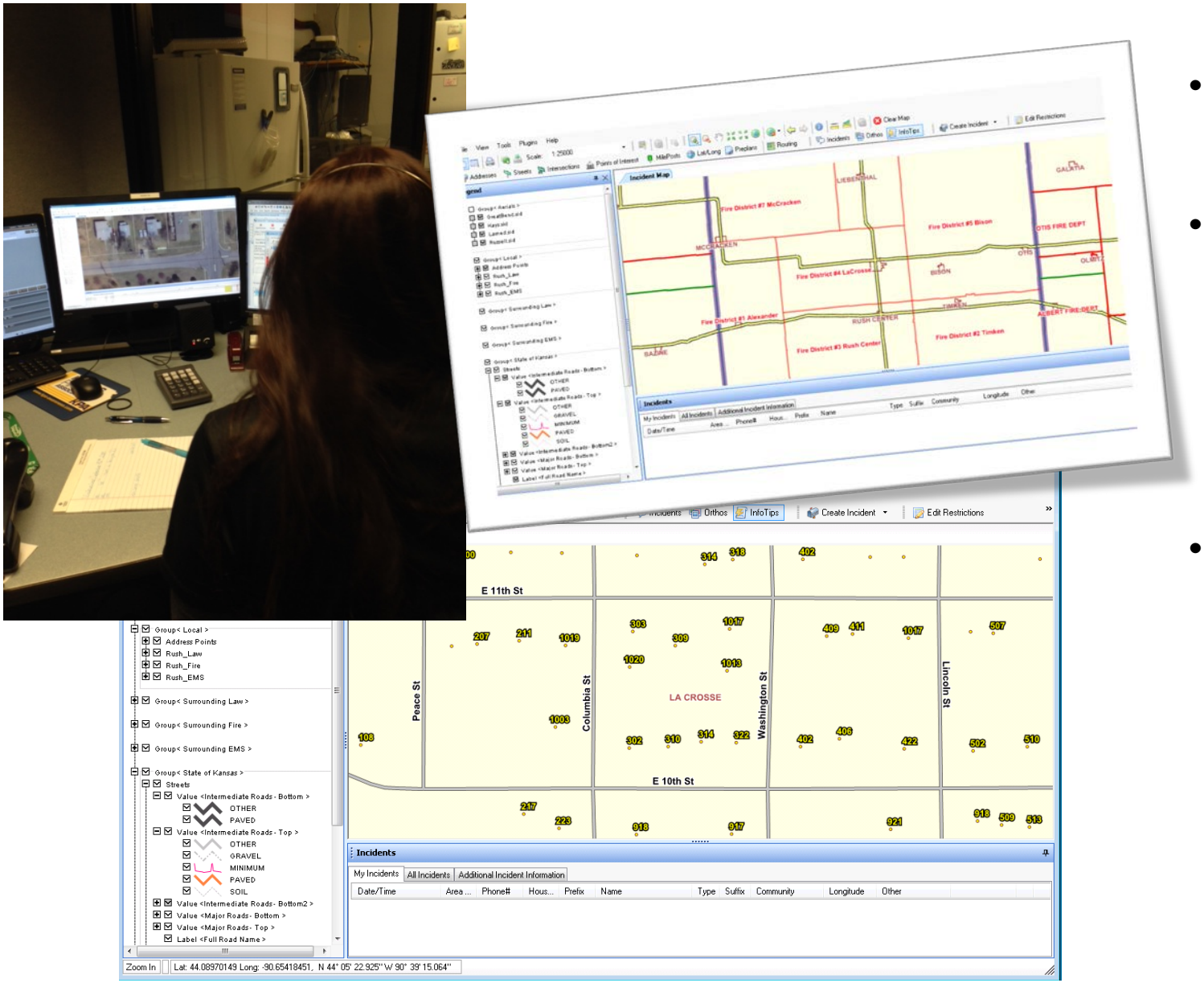
Deployment within PSAP's



- Airbus Vela/Vesta
- Map templates and data sync facilitated through GIS data clearinghouse
- Immediate need for GIS data and drives requirement for data maintenance

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Statewide Orthoimagery Project

Goals: acquire statewide orthoimagery for the following purposes:

1. Support the 911 Coordinating Council's GIS Gap Analysis & Data Enhancement project.

2. Provide a reference layer for call taking and dispatch positions.

3. Provide a statewide, current, & consistent base map that can base leveraged by other state and local government GIS programs.

1. Economy of scale by conducting one statewide project.

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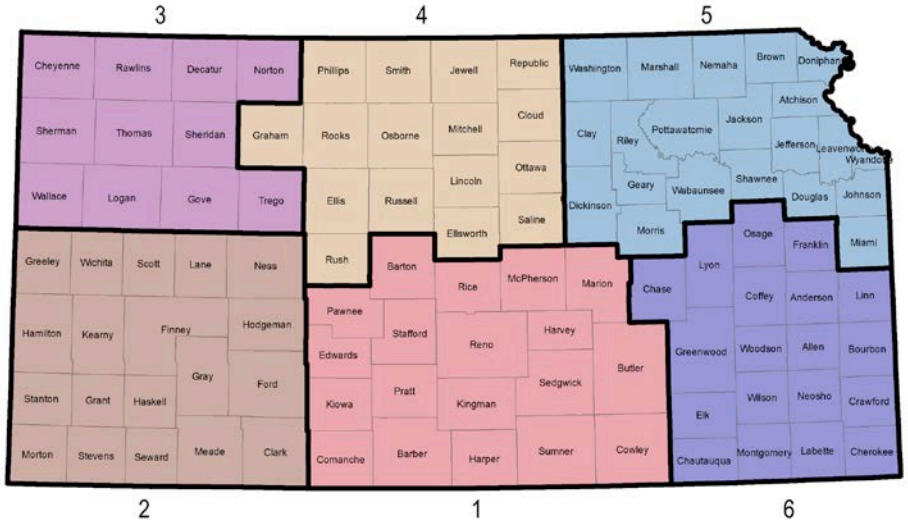
Statewide Orthoimagery Project

- Aggressive timeline due to overall NG9-1-1 project schedule.
- RFP posted March 31, 2014

Region	Imagery Ready Date Not later Than
Region 1 South Central	May 30, 2014
Region 2 South West	June 15, 2014
Region 3 North West	July 15, 2014
Region 4 North Central	August 15, 2014
Region 5 North East	October 1, 2014
Region 6 South East	Nov 30, 2014



- Format – GeoTIFF & MrSID (required), web service (optional)
- Willing to consider data licensing under certain conditions

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Statewide Orthoimagery

- Vendors:
  - Imagery – Surdex Corporation
  - Web Services – Valtus Content Program
- Statewide, 1-foot pixel resolution, natural color, orthoimagery
- License allows access to the following
  - State, county, and municipal (city) government departments
  - Regents institutions
  - All Public School Districts
  - Any firm doing work on behalf of one of these entities
  - *No public domain distribution*
- File formats: GeoTIFF & MrSID
- Web service:
  - OGC WMS (authenticated)
  - With support for Esri JS API
- Access:
  - DASC provide distribution services
  - See www.kansasgis.org or kansas911.org for more details

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Mid-term project observations

- One of the largest IT projects ever conducted in the state
- GIS is a centerpiece technology
- Developing authoritative statewide data layers…road centerlines, address points, boundaries, imagery etc.
- Raised the profile of the state's GIS program & clearinghouse
- 911/e911 aspect of this project is a career in itself. Subject Matter Experts that can act as a translator between 911 and GIS are a must.

Questions

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