



Next Generation 9-1-1

Charleston County
Consolidated 9-1-1 Center



Charleston County Consolidated 9-1-1 Center Presenters

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CAD Supervisor
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Director



Today's Objectives

- Charleston County Consolidated 9-1-1 Center transition to NG9-1-1
 - Opportunities & Challenges
- GIS and 9-1-1

(Lots of information in a short amount of time!)





SCDNR

County EMS

Sherriff's Office

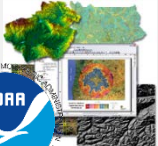
North Charleston

Mount Pleasant

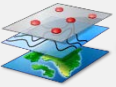
City of Charleston

Isle of Palms

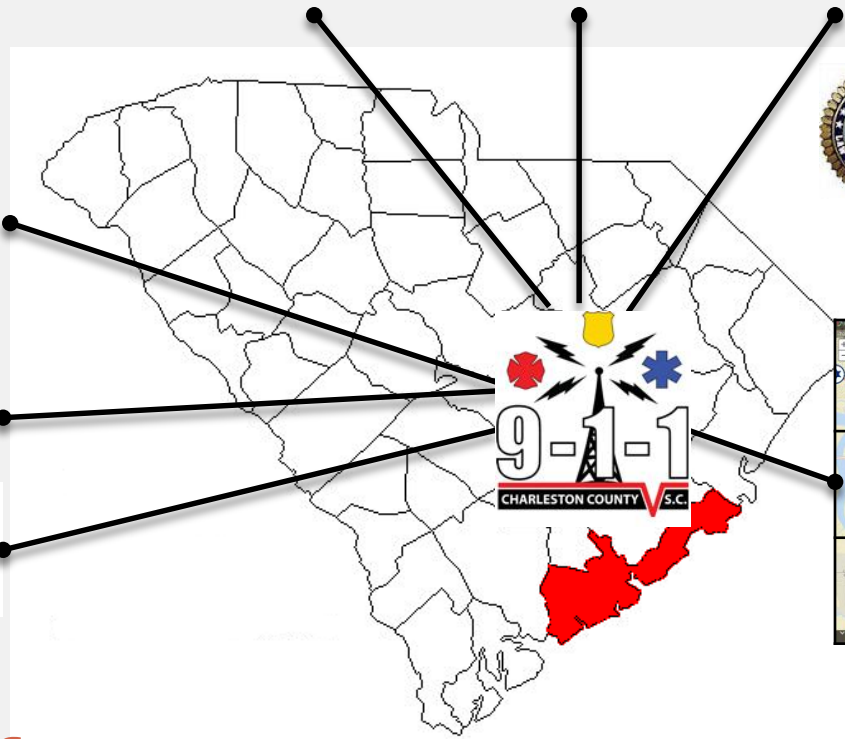
Sullivan's Island



Web based Base Mapping Services

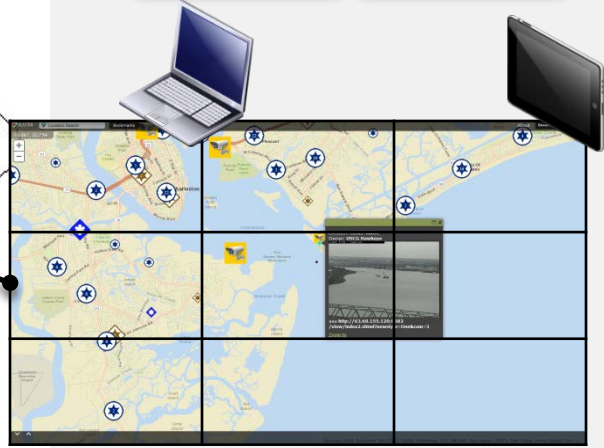


IP Surveillance Camera



Fusion Center

EOCs



Public Safety Information Sharing Hub



Technology



- Cell phones account for 81% of all our 9-1-1 calls
- Cell phones do not provide an exact location
- We rely on Wireless Phase II info that is not always accurate
 - Phase II = latitude & longitude
- NG9-1-1 prepares us for the next wave of technology



NG Transition

Opportunities

- Reduced response times
- Information sharing
- Inter-agency cooperation
- Automatic Aid
- Geographic Diversity

Challenges

- CJIS
- Cyber Security
- Human Resources
 - Moving from auditory to visual



National Emergency Number Association

Next Generation 9-1-1 Definition



- NG9-1-1 is an Internet Protocol (IP) based system comprised of:
 - Managed Emergency Services IP networks (ESInets),
 - Functional elements (applications),
 - Databases that replicate traditional E9-1-1 features and functions and provides additional capabilities
- NG9-1-1 is designed to provide access to emergency services from all connected communications sources, and provide multimedia data capabilities for Public Safety Answering Points (PSAPs) and other emergency service organizations.



Jim's Expanded Version of the NG9-1-1 Definition

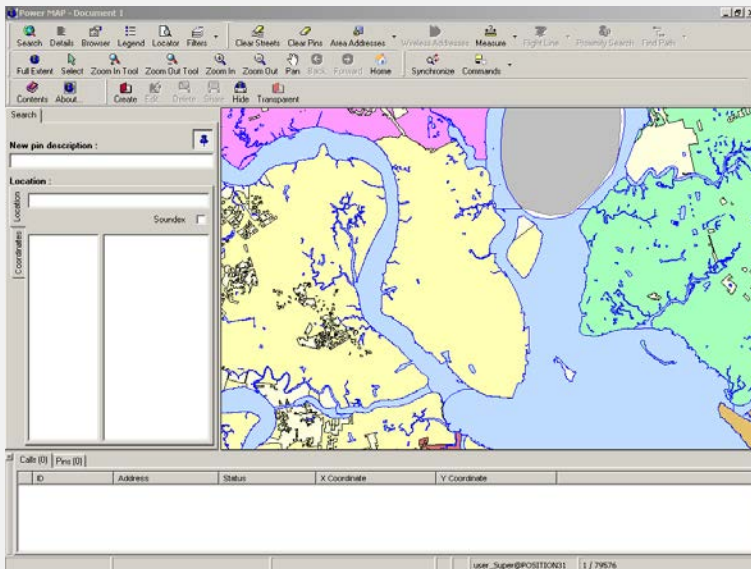
Systems that use IP technology to:

- Enable information sharing
- Enhance situational awareness
- Provide information to public safety responders



Intrado Viper 9-1-1 Telephony (IP)

- The CDC has an NG 9-1-1 capable telephone system
 - Intrado Viper equipment capable of receiving voice, text and video from callers
 - Our incoming lines are IP and analog to ensure redundancy



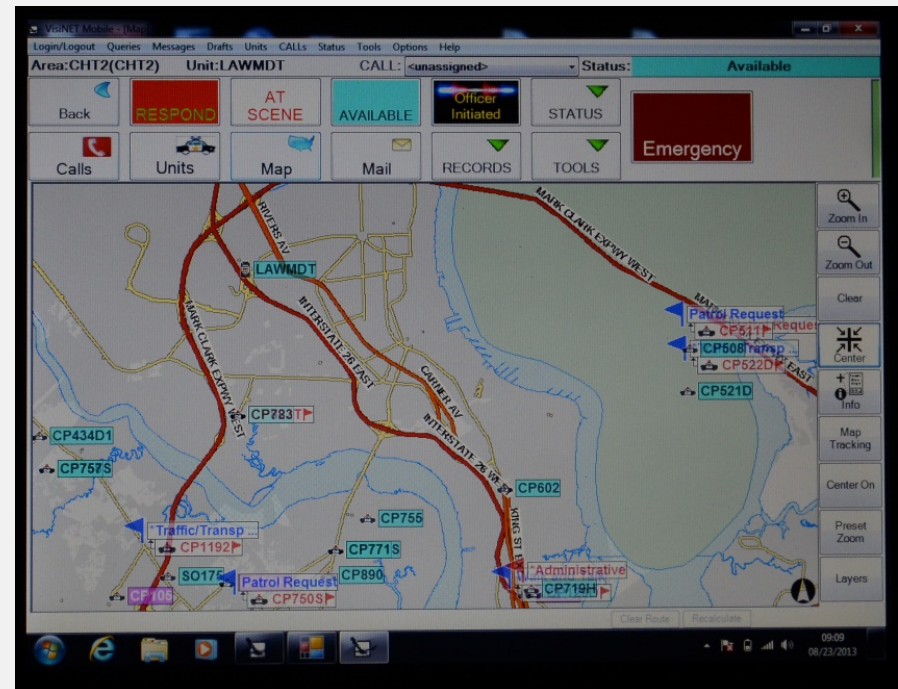
TriTech Computer Aided Dispatch (CAD)

- Unit tracking
- Incident tracking
- Geographic position of units and incidents
- Response recommendations based on incident type, location, capabilities and sharing
- Caution Notes



TriTech Mobile Data (MDT) & Automatic Vehicle Location (AVL)

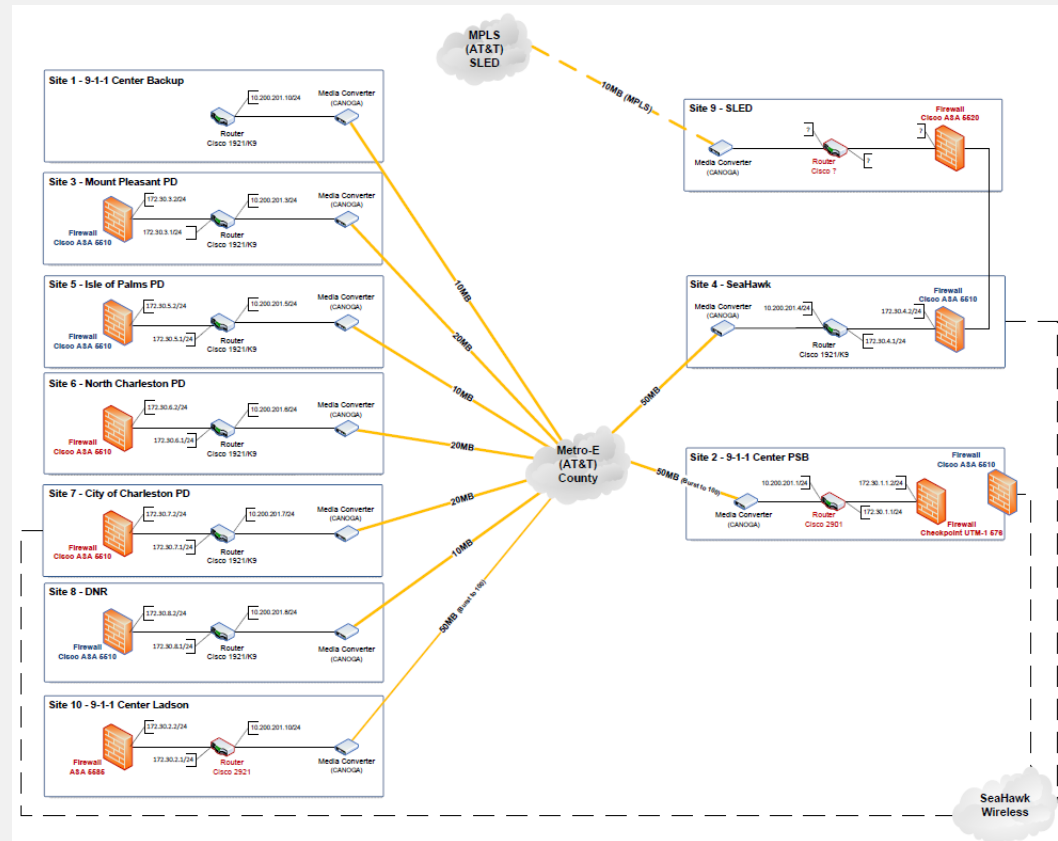
- Over 500 MDTs being used in Charleston County by Law, Fire, Rescue and EMS officials
- MDTs provide the “quickest path” to the call based on geography, speed limits and other factors
- AVL allows us to see the location of resources in order to send the closest
- They can see each other



AT&T Metro E Network

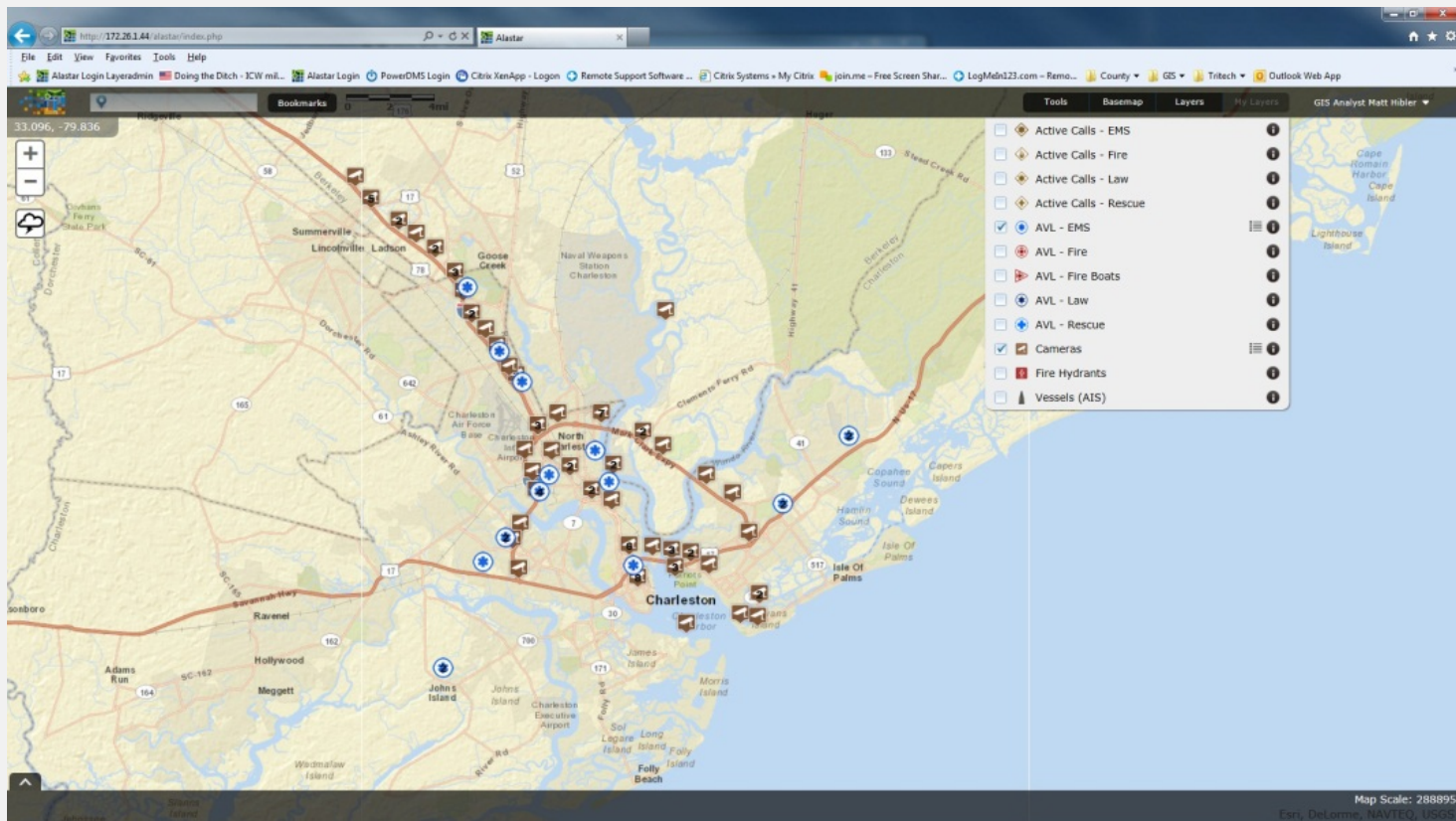
- Voice & Data Network Between Member Agencies

- CAD data
- RMS data
- Station Alerting
- Alastar
- Etc.

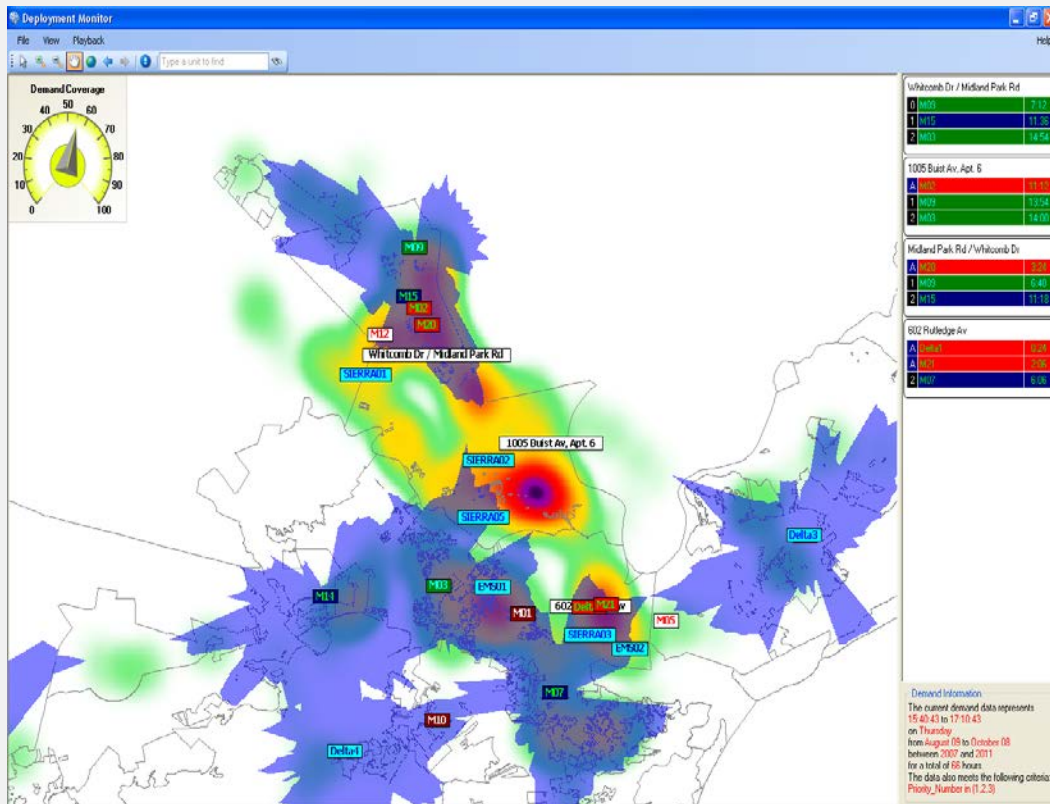


SCRA Alastar

- Multiple database sources to provide situational awareness and information sharing view in GIS layers



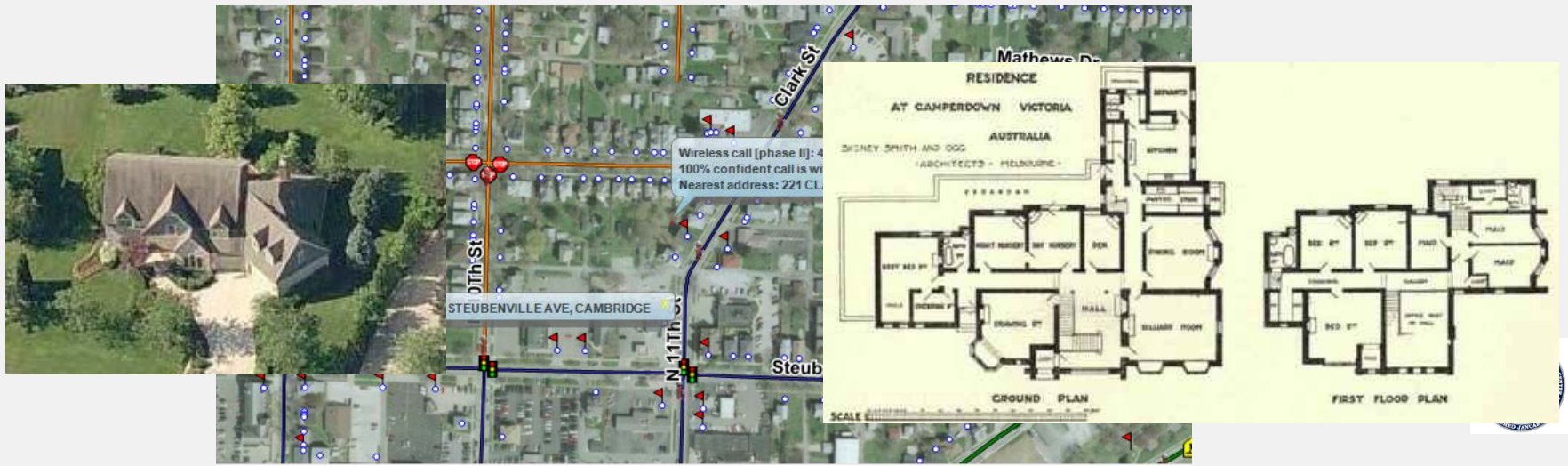
Marvlis by BCS



- GIS based tool
- Predicts where the next call will occur based on historical data
- Provides recommendations for deployment of resources for optimum coverage

NG9-1-1 and GIS

- GIS becomes one of the central data stores in NG9-1-1
- GIS is fully integrated into NG9-1-1
- GIS will be fully integrated into Call Taking, CAD, Emergency Services, Dispatch and Response
- Locations Validated with Local GIS Data
- Responders (any number of them) have service boundaries as polygons with associated contact data



NG9-1-1 and GIS

Support data associated with the caller location

Floor Plans

Fire Control Panels

Ingress, Egress, Stairwells

Fire Code Inspections

Past historical data (law and fire)

Building Inspections

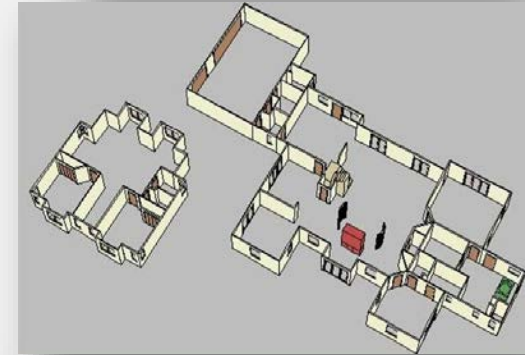
Hazardous Materials

Sensor Locations and Data

Historical Data

Surveillance Camera Locations

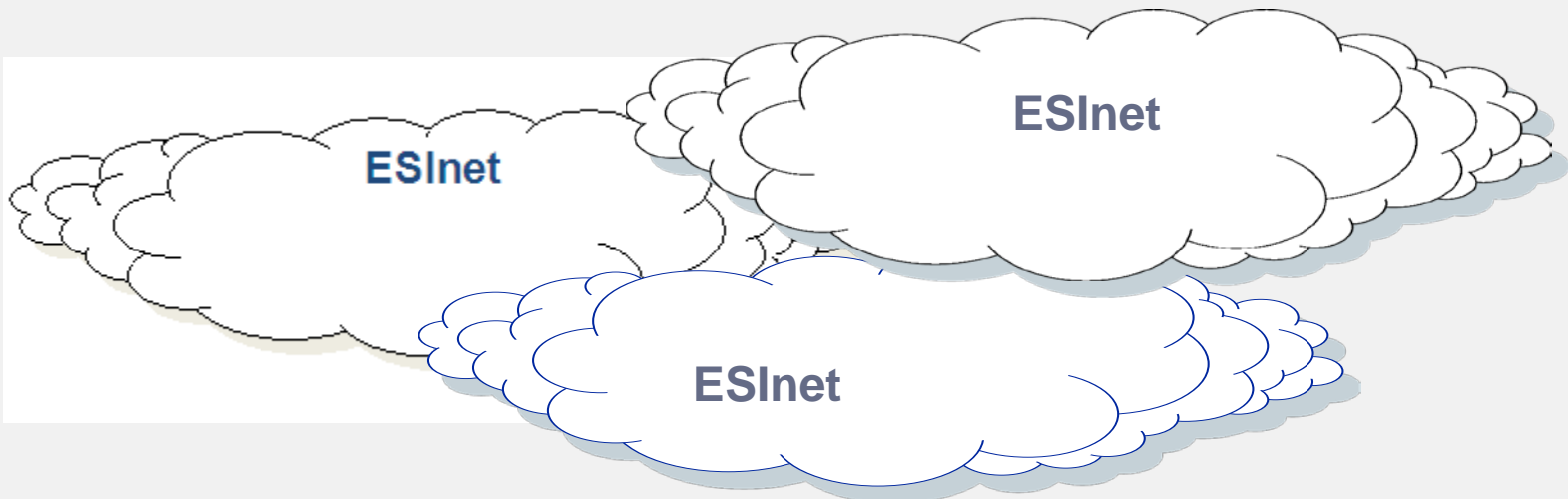
Campus / Facilities Layouts



ESInet Emergency Services IP network

An ESInet can service many PSAPs and allow for sharing of cost and resources

ESInets connect together, allowing sharing of data and information across a state or nation (network of networks)



What are we working on right now?

- ESI_{net}
- Geographically Diverse 9-1-1 Backup Center
 - Coop Backup
 - CAD to CAD
- Automatic Video Identification (AVI)



How does it all tie together?

GIS data fully integrated and
available immediately to those
that need it!



Questions???

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