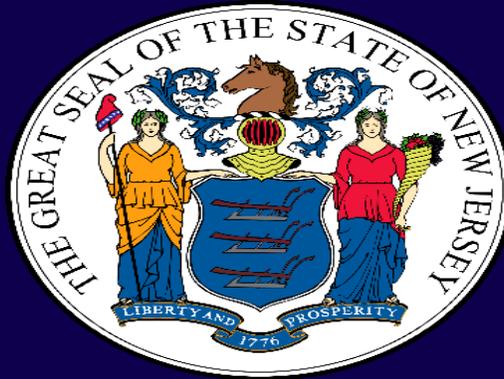




JERSEY NET



jerseynet.state.nj.us

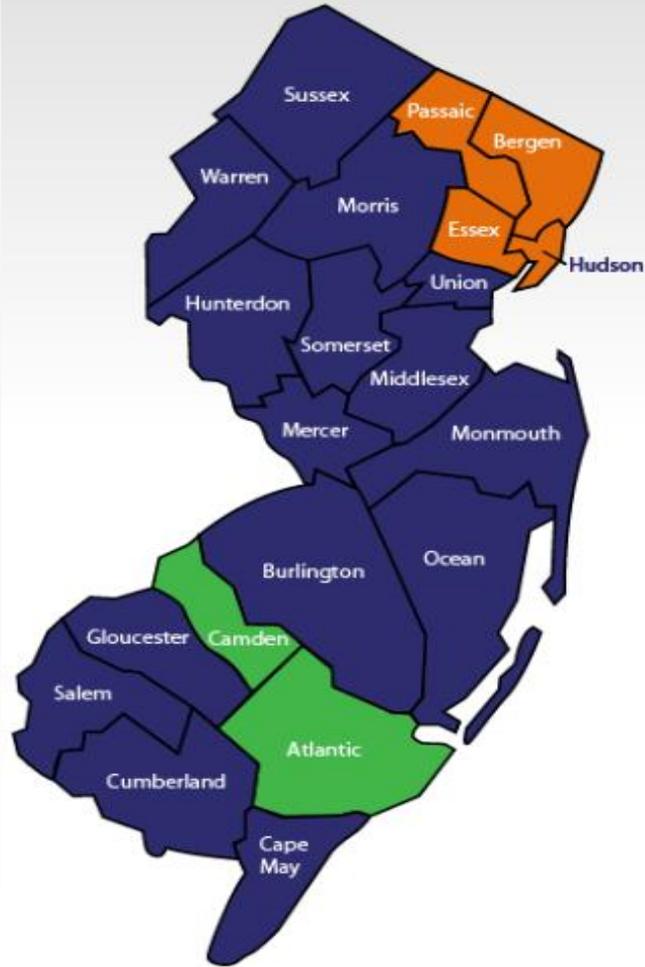
jerseynet@njohsp.gov



NJ IT
New Jersey Office of Information Technology



Network Coverage



Route 21 Corridor

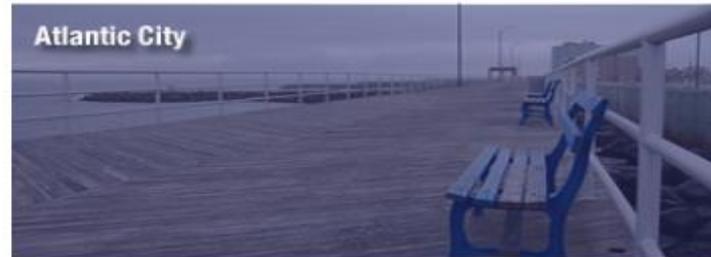


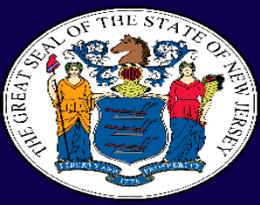
Route 21 is a state highway that runs along the Passaic River in northern New Jersey. Route 21 begins at its southern end in Newark and terminates in the north just below Paterson. The highway runs through a number of towns, including Passaic. The Route 21 Corridor lies in the New Jersey Urban Area Security Initiative (UASI) region.

Camden



Atlantic City



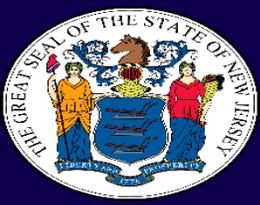


JerseyNet Deployment



- Network Operations Center (NOC):
 1. Central command
 2. Managing/monitoring all deployable systems
- Each region will consist of a single System on Wheels (SOW) and multiple Cell on Wheels (COW) determined by coverage requirements
- A SOW or COW can be either a deployable trailer, rack mount or mobile vehicle





Satellite



- Each SOW uses a satellite connection for emergency backhaul in the event the wired connection fails. The JerseyNet satellite backhaul solution is provided by Hughes.
- Each SOW will have a Hughes HN9500 Satellite modem, AvL AAQ2000 controller and 1280KA-14 dish.
- The satellite dish is mounting on the top of the SOW enclosure..



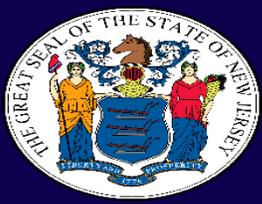
HN9500



AAQ2000

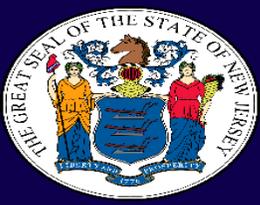


1280KA-14



JerseyNet Trailer



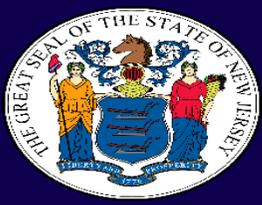


Deployed Trailer



- Fully mobile, self sustaining and can operate in extreme weather conditions
- Communication coverage 3-5 miles depending upon obstructions
- 60 Ft telescoping tower with manual override capability
- Setup completed by 2 personnel which only takes up 2 parking spots
- Each trailer equipped with NetGuardian security system



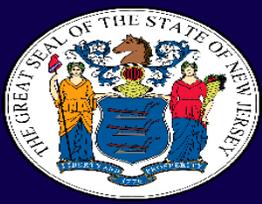


JerseyNet SOW Van



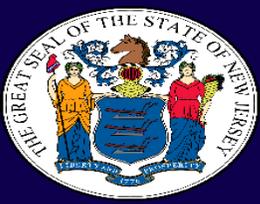
- Custom designed Communication Van with 60Ft. telescoping satellite
- Communication coverage 3-5 miles depending upon obstructions
- Retains a cache of communication devices for deployment
- Fast mobility unit that provides service to outside coverage regions
- Can be operated by 1 person



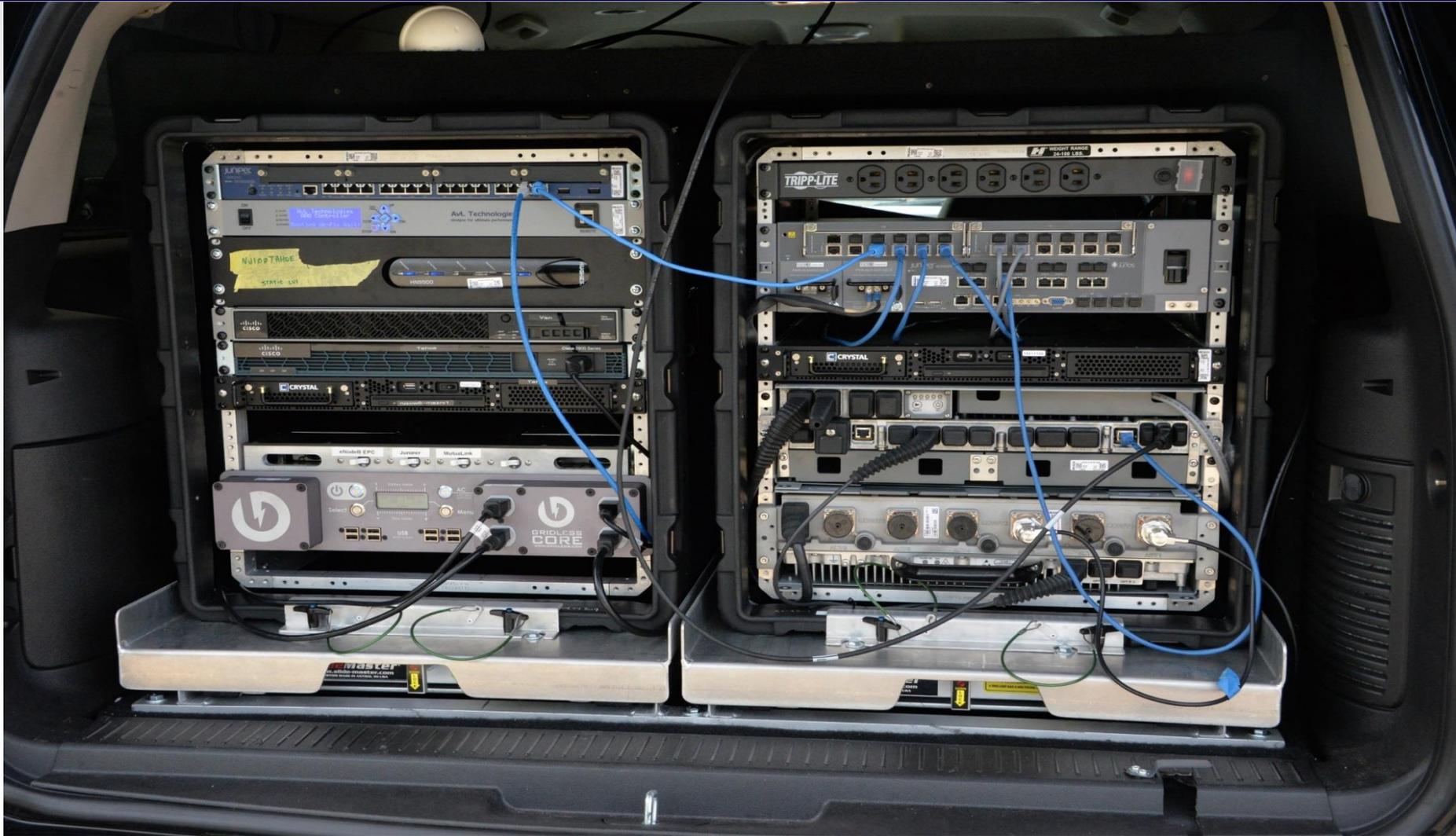


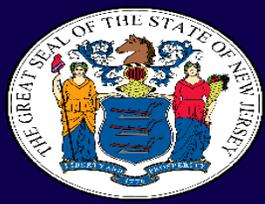
JerseyNet SOW Tahoe





JerseyNet Rack SOW

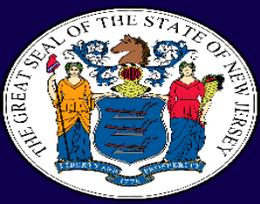




Rapid Response Vehicle Network System



- Rapid deployment
- Full SOW and LTE
- Cache of Portable Equipment
- Tactical Node for Interoperability built in
- VNS upgrades include versatile remote tower, vehicle power upgrades, Mutualink terminal, and weather shield



Share Diverse, Mixed-Media Mission Critical Information



Voice



Video



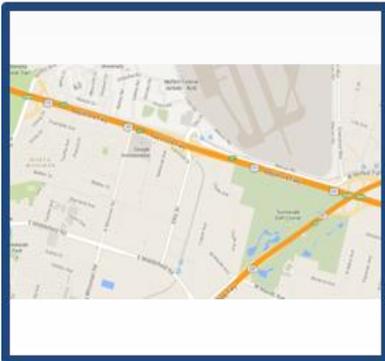
Text Messaging



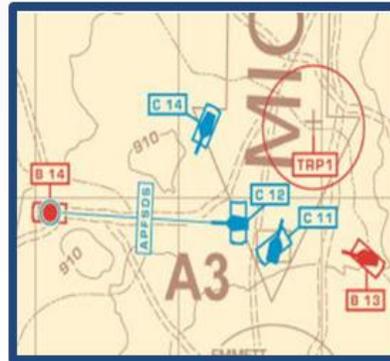
Photos



Maps



Position Location Information

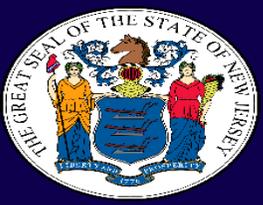


Device/Asset Controls



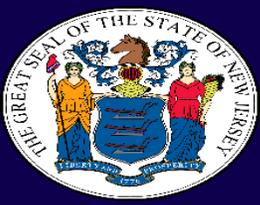
Synchronization





Mutualink Operating Picture





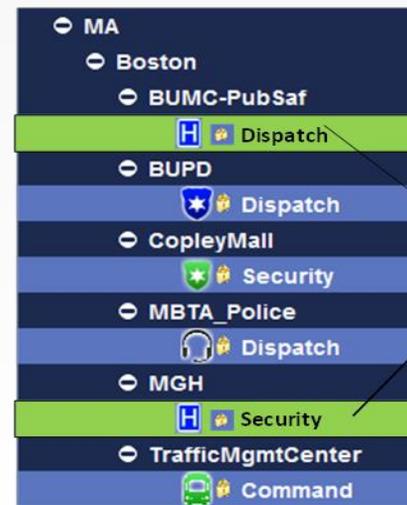
Mutualink New Feature



New Feature - Agency Incident Membership

During a major event it is desired to know who, within an agency, is in and incident. The request is for the endpoint name in the Agency window of the IWS and Favorites be highlighted in a specific way when the endpoint is in one or more incidents. Incident Membership was also requested at the state level allowing the IWS user to see who is in an incident from their favorites list or by their state.

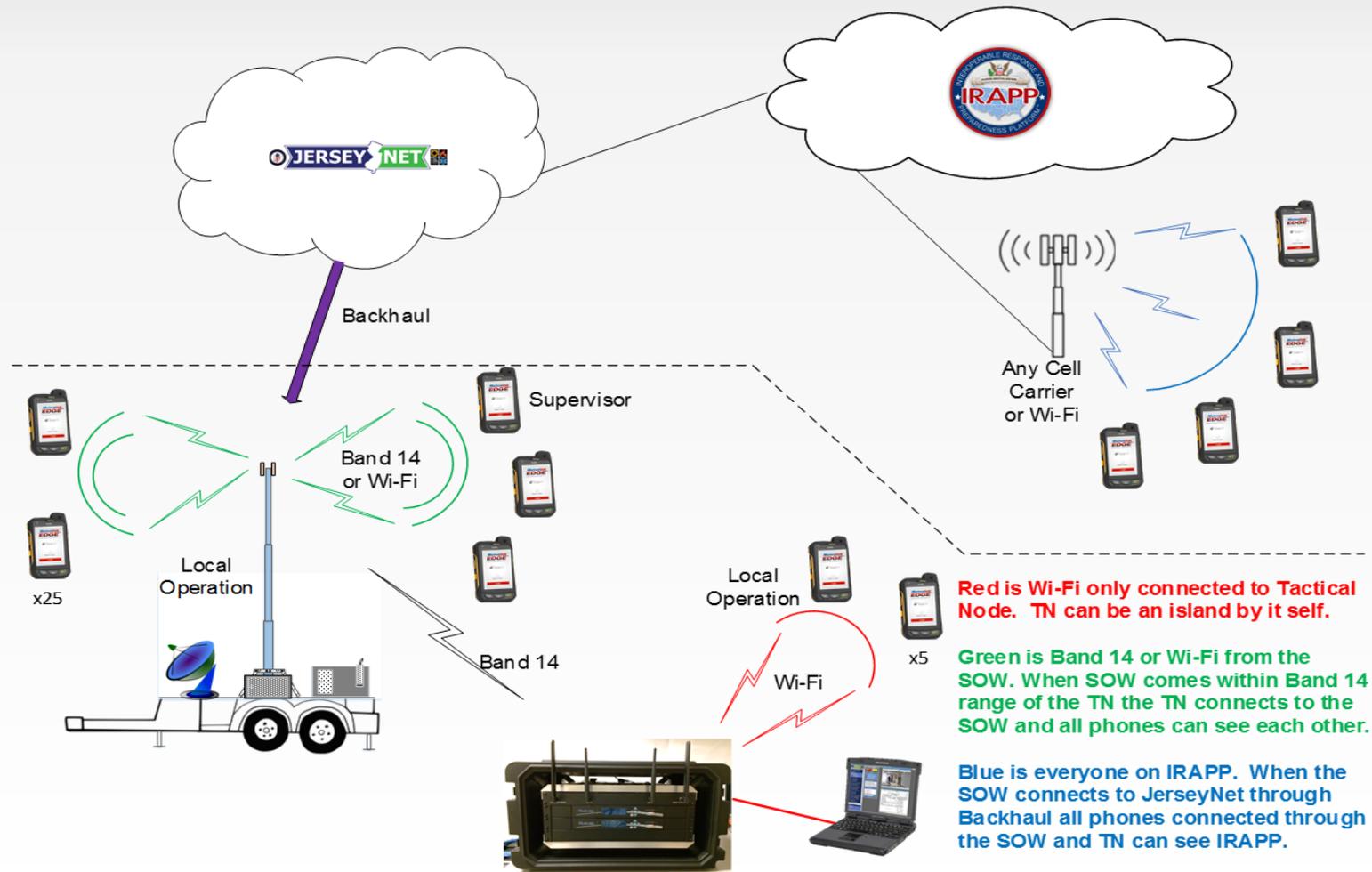
When an incident is created there will be two additional check boxes "Favorites Public" and "Favorites & Agency Public". When the "Favorites Public" box is checked all people (endpoints) in Favorites will be highlighted as they are brought into the incident. When "Favorites & Agency" is checked all people (endpoints) in Favorites and within their agency will be highlighted as they are brought into the incident.



Highlight indicates in an incident

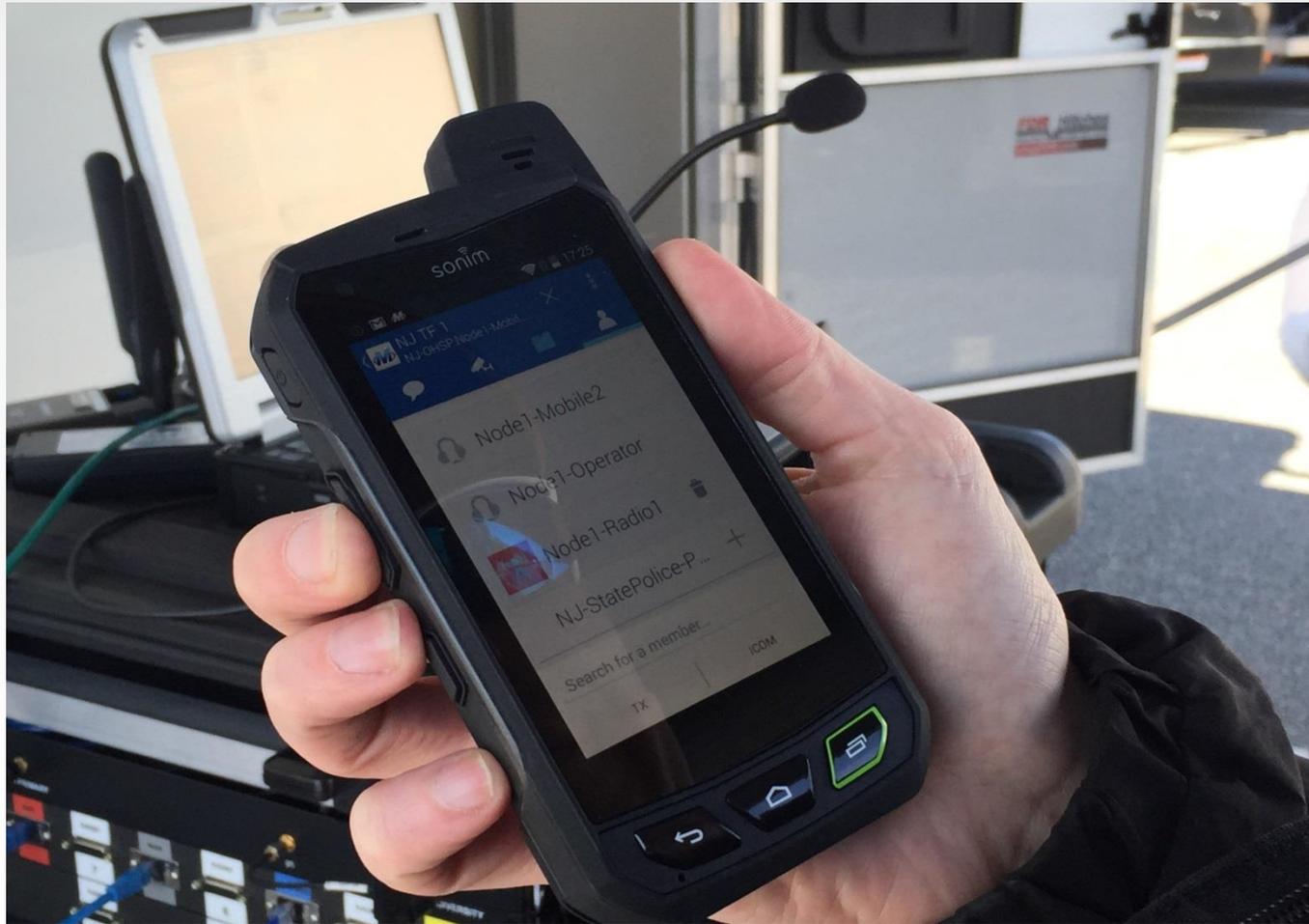


SOW & TN Interaction with IRAPP





Communication





Mobile Pro



Mobile PRO Systems

Smarter Solutions for Remote Applications

SOLAR SOLO

OPERATES 24/7 IN MOST ENVIRONMENTS

The SOLAR SOLO is a single camera system that places a camera anywhere that adequate sunshine is available. The system easily mounts on existing poles or buildings that will support a 37" x 56" solar panel. The system includes a minimum of 90AH of Lithium battery provides up to 75 hours (3+ days) of no sun operation. (optional additional battery for a total of 5 days) The system operates wirelessly 24/7 providing live video streaming and recording. The system will record for up to 7 days of video for playback and live viewing.

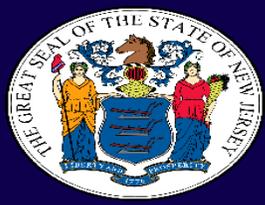


FEATURES

- **SEE EVERYTHING** - with the 1.3 megapixel "Light Finder" extremely low light fixed camera, a viewing range of 105° provides a great view.
- **DETECT ACTIVITY** (optional) there is a single PIR detector to reach out 40+ feet to detect motion in the area. (optional 80°)
- **SCHEDULED OPERATION** - activate your system during specific hours
- **DEPLOY** - mounts on wall or pole
- **POWER** - this is a system is primarily configured solar operation. It has 2 (3) - 45Ah Lithium Battery to provide up to 3 (5) days without reasonable sun. The system is still capable of operating on 120vac-277vac Charges within 6 hours.
- **SOLAR** - the system is delivered with a 150W (+/- 10) solar panel and a pole solar mounting system. The panel is configured with a power connector ready for operation.
- **COMMUNICATE** - via embedded 4G cellular connection / WIFI
- **BE INFORMED** - Receive emails on alarms
- **REMOTE VIDEO ACCESS** - Have the ability to see live video of the remote location
- **RECORD** - for up to 5 days, includes 64GB of drive storage
- **FORENSICS** - system maintains 3-5 days of recorded video available at any time. Have the ability to zoom in after the recording is made
- **REMOTE CONTROL** - be able to control your system, reset the system.
- **REMOTE STATUS** - have the ability to see all of the critical information about your device.



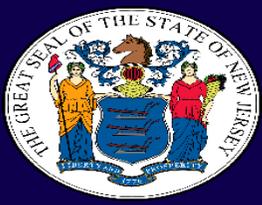
The primary purpose of this configuration is for placing a high quality camera at a remote area where power is not a possibility.



EMS Telemedicine is a Significant FirstNet Opportunity



- Enhance decision-making during time-sensitive emergencies such as stroke and trauma.
- Improve preparedness, triage and situational awareness for disaster or mass casualty situations.
- Improve the integration of EMS with hospitals and the wider healthcare delivery system.
- Demonstrate the value of EMS to the community through mobile integrated healthcare or community paramedicine programs that reduce healthcare costs and improve patient care.



What's needed for EMS?



e-Bridge Apps are available from GD for your existing:

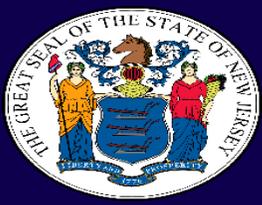
- Smartphone (iOS & Android)
- Pads & tablets
- Toughbook & tablet PC's
- A mobile (WiFi) router or Sonim XP7 rugged PTT smartphone with SIM card for JerseyNet *



NJ has a dual card router and special plan that can roam between JerseyNet and Verizon.

* e-Bridge can work on Verizon/AT&T networks also

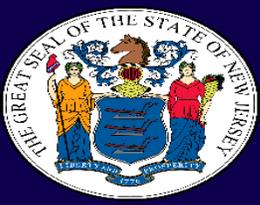




JerseyNet Recent Deployments



- Atlantic City beach concerts with over 100,000 in attendance
- Atlantic City Air Show with approximately 60,000 in attendance
- Miss America Beauty Pageant with over 100,000 in attendance
- Assisted Philadelphia, PA with 2015 Papal Visit with over 800,000 in attendance
- Neptune Full Scale Exercise in Bayonne
- Far Hills Steeplechase horse race



KLC and Lessons Learned

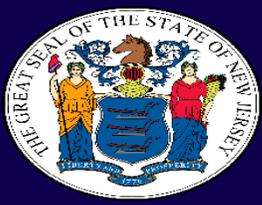


FirstNet Key Learning Conditions (KLCs):

- Lessee agrees to demonstrate and document the use and **capabilities of rapidly deployable assets**
- Lessee agrees to **conduct emergency management exercises** that will showcase the capabilities of a deployable system
- Lessee agrees to document a **Network Operations Center (NOC)** notifications approach aligned with best industry practices for the notification of key personnel of important events associated with the network

Issues Identified / Lessons Learned:

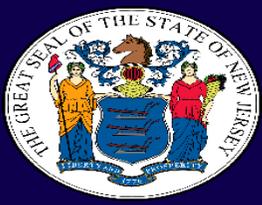
- IP addressing scheme, VPN tunneling, ALPRS, CJIS
- Backhaul, satellite, microwave, fiber
- Security; who receives access to which applications
- Priority and Preemption
- Static and Non-Static issues
- Public Safety BTOP Stakeholders support
- Disaster Recovery Plan becoming 3 documents: Disaster Operations, Continuity of Operations, and Emergency Response plan



Lessons Learned (cont)



- The complexity of application integration and security configurations (especially with respect to law enforcement applications) should be considered as early as possible in the project. The State has actively reached out to agencies to understand unique applications and connectivity required. This proactive coordination highlighted actions required to address transition to JerseyNet and FirstNet.
- Application and device training is key for public safety personnel adopting and using the B14 network and services. New Jersey ensured pre-event training was conducted individually with each agency participating in Papal visit. There was one agency that did not disseminate the training and where unprepared to utilize the network during the initial hours of the event. The JerseyNet project team quickly stepped in and trained this group, and the incident served to point out the importance of training.
- Consistent outreach to individual agencies helps build user confidence and opens doors to collaboration and valuable feedback and insight. New Jersey is very aggressive in its outreach to users and agencies. The project leadership travels weekly, and sometimes daily, to support outreach and education to stakeholders. Continued outreach will be critical as the project enters the operational stage.
- If microwave will be used for COW and SOW deployments, auto pan-tilt brackets should be considered for installation. In preparation for an approaching hurricane, the project team lowered antenna masts on their COWs and SOWs. After the event passed the team found microwave backhaul connectivity was challenging and time consuming to restore. Having auto pan-tilt installed on these units could have addressed this issue.



Conclusion



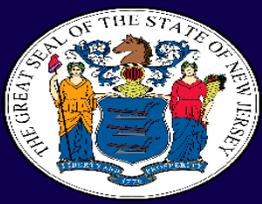
LTE Networks deliver a single unified experience regardless of location or device

Increase the speed and precision of critical decision-making processes with LTE

Drive innovative next-generation public safety applications and technologies to transform first responder's operational effectiveness

Leverage commercial economies of scale, mitigate risk and improve efficiency through the application LTE in accordance with global and public safety standards





CONTACT US



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