

Public Safety Wireless Data Networks

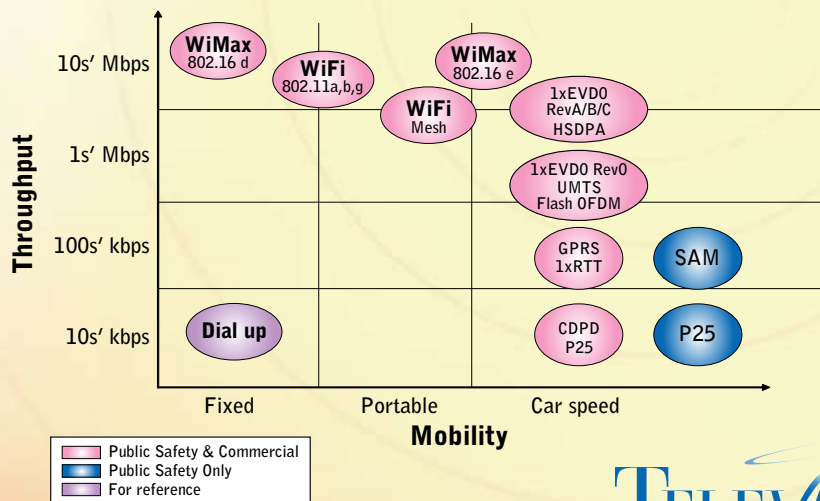
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In the wake of 9/11 and Hurricane Katrina, a unique and pressing requirement emerged – the necessity for public safety personnel to quickly access, use, and distribute crucial, comprehensive information from the field. Applications including high resolution, real-time full motion video, GIS, biometrics, and many others have surfaced as critical needs today. Many additional bandwidth intensive applications are anticipated. However, before these essential applications can be deployed to the field, they need platforms to support them: affordable, scalable, high-capacity wireless data networks.

In order to deploy these networks, public safety agencies face a complexity of challenges. High speed data networks are not a one size fits all solution. The most appropriate solution depends on the operational and coverage requirements, subscriber device needs, geographical constraints, spectrum availability, technology options, application requirements, and budget.

Televate, a dedicated public safety technology company, has extensive experience and expertise with high speed data solutions. We offer comprehensive services to assist government system operators to assess, select and deploy optimal network solutions. From requirements definition through solution design, planning and implementation, to operations management, Televate can provide the technical and program management resources to determine and deploy your data application and wireless data network needs.



Public Safety High Speed Data Challenges:

Spectrum: Licensed P25 narrowband data channels, 700 MHz Wideband channels, 4.9 GHz broadband channels, 700 MHz broadband channels, and various unlicensed options, are all potential options for government data networks. Additional unlicensed and commercial options also exist for public safety to provide broadband and narrowband speeds and priority services. The frequency choice is guided by FCC rules and is also driven by radio frequency propagation, technology performance and cost, availability of end user subscriber devices, and the availability of targeted spectrum in the required service area.

Interoperability: Public Safety requirements for interoperability are far more complex for data than for voice. Beyond allowing visiting first responders to communicate outside their jurisdictional boundaries, the network architecture must support dialog between local and remote applications and the exchange and sharing of associated data, while ensuring flexible resource access control and data security.



Seamless interoperability across jurisdictional borders is achievable with proper planning and the use of common standards. Because of the number of options available for data communication, interoperability will become a major challenge for public safety nationwide.

Technical Performance: Today a plethora of wireless data technologies and applications claim to satisfy public safety mobile data requirements, all quoting their peak data rates. Selecting which ones best achieve your objectives includes the assessment of their optimal performance, their behavior in realistic scenarios and worst case load and RF conditions. These factors will become critical as bandwidth intolerant streaming media applications proliferate.

Cost: Implementation and operational costs depend on the specific technology solution, its wide scale deployment and the number of competitive suppliers. Additionally, the total size of the service area, the number of radio sites required to cover the service area, the number of users, and the ability to leverage existing assets including towers and backhaul facilities, all must be factored into the deployment cost of the public safety data network.



Reaching Your Data Communications Goals:

Televate is prepared to lead you to the right data network and application solutions for your agencies. Our experienced project managers and engineers will team with you to detail requirements, and integrate data applications into your operations. Our service offerings include:

Needs Assessment

- User-driven operational and functional needs analysis
- Existing licensed spectrum assessment
- Existing applications assessment
- Gap analysis
- Detailed requirements development
- Regional interoperability requirements

Spectrum Assessment

- Determine optimal radio spectrum
- FCC and regulatory support
- Negotiate clearing with existing broadcast incumbents

Technology Evaluation

- Analyze potential technologies, features, performance and long term viability
- Recommend which technology(ies) and network architecture to deploy
- Evaluate commercial wireless solutions (coverage, throughput, reliability)

Application Assessment

- Evaluate best fit operational applications
- Integration of existing application onto private or public wireless networks
- New application design and development including streaming video

Network Design Implementation

- Prepare a network design integrating existing assets
- Develop system implementation plans including budget and schedule

Implementation of the Network and Applications

- Finalize funding grants and vehicles
- RFP development, vendor negotiation and selection
- Network Implementation, Project Planning and Management
- Network Testing and Acceptance
- Application Integration and Testing
- Develop operations plans to deliver public safety grade of reliability
- Manage vendors to operate networks and customer operations
- Provide turnkey network and customer operations



Our Experience

Our experience with advanced wireless data technologies and applications, in challenging public safety environments, makes Televate the ideal partner for your mobile data needs. In January 2005, Televate personnel managed the launch of the Wireless Accelerated Responders' Network (WARN), a District of Columbia broadband pilot network operating at 700 MHz. This network enables local, state, and Federal agencies to exchange data at broadband speeds. WARN enables data communication among command buses, mobile cruisers, and dispatch and emergency field operations. WARN supports demanding streaming media applications that require consistent throughput in order to deliver usable content. Televate's experience in delivering operational mobile video is unparalleled and has provided our technologists with the tools needed to deliver these challenging solutions.

In launching WARN, Televate managed the entire process – from spectrum and technology evaluation and acquisition, through negotiation with existing broadcasters and FCC filings, to the implementation and operations of the network. WARN has received numerous accolades including the IACP Leadership in Technology Award and was selected as the NTIA 2006 demonstration program for spectrum sharing.

Our extensive project management experience and our well-developed technical skills can enable your jurisdiction to cost effectively solve your public safety data needs.

Contact us today to learn how wireless data networks can help you achieve your objectives and how Televate can assist in making your vision a reality.

