

May 2014

## **ESI Network Planning – Getting Started**

Many areas of the United States are still in the early stages of network planning and regionalization of public safety communications networks. Whether it be a county undergoing an ESInet migration effort, a state looking to deploy NG9-1-1 in its PSAPs and/or Data Centers, or a consortium of agencies deploying a radio system, each of these projects will come together at some point to fall within the framework of the National Public Safety Broadband Network, known today as FirstNet. How an ESInet is designed and the Data Center aggregation strategies used therein have significant impact (and opportunity) on a state's backhaul, security and asset modeling.

Conversely, the applications and services inherent in the delivery of NG9-1-1 calls to PSAPs must also align with the state's FirstNet strategy, just as they must fit the ESInet deployment model, as where a call may terminate in a PSAP, the data associated with it does not; looking at migrating to these end-states cannot be done in pieces but rather must be undertaken as long-term systems integration efforts, planning processes which all center around a common core: the network.



## **Define the Roadmap – Create Options through Choice**

While FirstNet has the responsibility to deploy the national network, each state and territory is tasked with defining their own respective state plan to aid it in coming to the "Opt-In" or "Opt-Out" decision status. This process should be looked at not as a task, but an opportunity, as it is in the best interests of all states and localities to define their respective roadmap to determine what options exist, how assets may be utilized, explore potential savings and define converged communication synergies which harness the power of IP and LTE without creating a blueprint reminiscent of a labyrinth.

Having these options defined is not only part of the coming process with respect to building out FirstNet, but these options serve as strategic network planning tools for any area looking to control its own destiny through sound foresight and fiscal consciousness. Not only will this network asset list and convergence plan help substantiate the "Opt In" or "Opt Out" decision criteria, but these

**Winbourne Consulting offers a full range of public safety services, including strategic planning, systems integration, specifications development, solution acquisition, and implementation project management and quality assurance.**

options can then serve as the basis for an “Opt In with Options” possibility, and an architectural blueprint which guides the individual agencies and even FirstNet representatives throughout the process.

### **Designing the Landscape – Be the Visionary**

Planning for the end-state of your ESInet and Public Safety Broadband Network can be a liberating experience; one where that daunting migration to NG9-1-1 and the plethora of applications and systems on the market, becomes similar to a landscaping project: no one garden will ever look the same, and the inherent beauty in each stems from the individual requirements required for each design. Look at your network planning process as a landscaping exercise, an opportunity to introduce certain elements, revitalize others, enhance the appeal of select elements and blend them all together to create one unified picturesque view. ***How your network landscaping effort comes together is entirely up to each designer*** and the area requirements. In some cases this effort may need a professional planner like Winbourne Consulting or others who can assist the agencies with the proper tools and design principles.

Winbourne Consulting is well versed in the national and state-level challenges that lie ahead for this industry with respect to the National Public Safety Broadband Network (NPSBN) program. Winbourne Consulting has assembled a team of Subject Matter Experts (SMEs) who provide this level of consultation and planning guidance every day, specifically for the public safety industry. Our team’s guiding principles are to use our industry expertise for our clients to:

- Serve Public Safety agencies and stakeholders during their NG9-1-1, ESInet and NPSBN/FirstNet planning processes;
- Help ensure that the long-term goal and model of all communication migration efforts align and converge;
- Facilitate transition through strategic asset utilization planning which empowers local choice and control
- Align local, regional and state broadband strategies with the national framework based on local dynamics and needs
- Assist local areas and states in maintaining their operational dynamics via strategic integration planning to match the FirstNet national framework

Our approach to these network projects is one which lays the foundation for the future assessments required, providing a framework which allows our clients to have a “Network Playbook”. A playbook which accounts for what was initially envisioned through the Middle Class Tax Relief and Job Creation Act of 2012 for FirstNet, but has been refined to accommodate the vast arrays of LTE technologies in the 700Mhz range and TDM→VoIP ESInet options. While it may appear on the surface that 4G LTE, NG9-1-1 services and ESInet blueprints fit all; the reality is far from that. these playbooks can serve as vital reference guides, functioning like precision compasses which protect network planners from hitting the dead-ends and confusing turns of that labyrinth known as NG911 and navigate effortlessly (and creatively) to their own well-functioning NG9-1-1 network landscape that meets their users’ needs.

**Our Areas of Expertise encompass all segments of Public Safety, including:**

- PSAP Consolidation
- NextGen/911 Strategic Planning and Implementation
- Public Safety Communications and Telephony Applications and Systems Requirements and Implementation Support
- Mission Critical Facilities Design and Fit-Out
- 311 Call Centers Planning and Implementation
- PSAP Staffing and Operations Analysis

## Network Business Plans from Winbourne Consulting

As discussed above, the arrival of FirstNet and Next Generation 9-1-1 presents the Public Safety industry with challenges as well as highly unique opportunities. What was once a product-driven market has become an integrated solution ; an industry where leaders in their respective core competencies need to come together to create application-based systems in collaboration with their customers. Where once we operated in a hardware-centric environment with clear lines of demarcation; the emerging software solutions and IP networks need to be part of an integrated whole.

While the boundaries and capabilities of systems are changing; how we approach each initiative brings a new set of challenges as well as limitless opportunities. Where once there was a clear set model for building a Public Safety communications solution that primarily used hardware;, the dynamic of software-based solutions and logical networks requires that we change the entire composition of how we assess, plan, execute and optimize.

### Navigating the Paradigm Shift

This paradigm shift requires new approaches to the business of **Public Safety**, mandating fresh views and most importantly, **Subject Matter Experts (SMEs)** who understand the complexities of systems integration and how to prepare technology roadmaps based on each organization's individual operational needs. Winbourne Consulting has long been recognized for its thought leadership and operational modeling. As such, we have invested in the future for our clients to bring our offering to a new level and lead with you into the Next Generation of Public Safety and Security.

Through our unique bi-directional client service approach, the Winbourne Consulting team has brought together the necessary global expertise to assess all facets of a State's Public Safety ecosystem. This step is a critical requirement when preparing **operationally-focused Technology Business Plans**. Understanding the user and provider dynamics of this industry allows our team to approach our clients with options and choices not generally found through other firms, subject matter expertise which is optimal for addressing Public Safety operations and the technology transformations facing each entity, agency and user when adapting to this new paradigm.

With an industry at the crux of an architectural transformation, client-partner models are crucial, as technology alone no longer dictates how Public Safety must function. Through technologies such as VoIP and LTE, solutions must now adapt to the Operational Dynamics of the multiple First Responder agencies, their core assets and cost constraints. Upon closer observation, the challenges inherent in this technology shift are very similar for both the **NG9-1-1 and FirstNet** initiatives. . These are similarities that Winbourne Consulting is able to maximize with each client so as to effectively define with our clients **the total roadmap** of their **Public Safety Broadband Plan**.

## Industry Events



**Winbourne Consulting** again participated in the annual International Association of Chiefs of Police (IACP) Law Enforcement Information Management (LEIM) Conference and Technology Exposition in May in Atlanta, Georgia. The IACP/LEIM conference provides a platform for members of the IACP Criminal Justice Information System (CJIS), Computer Crime & Digital Evidence (CCDE), Communications and Technology, (C&T) and Private Sector Liaison (PSLC) committees, together with LEIM Section members, and federal, industry, and state and local agency representatives to come together to discuss the evolving role of technology in policing.

The Summit included presentations and facilitated dialogues covering key topics such as:

- Exploring the Future of Law Enforcement Technology
- Navigating Privacy, Policy, and Law Enforcement Technology
- Planning, Governing and Measuring Results: Making the Business Case for Public Safety

Public safety industry experts, police scientists, and public safety system providers from around the world participated in this three-day conference. Presentation topics included:

- Empowering Smart Cities with Technology Innovation
- Rolling Out the Taser Lapel Camera: Lessons Learned
- Navigating the Cloud—Legal, Technical, and Security Issues for Cloud Usage
- Predictive Analytics - A Key Tool Supporting Better Decision-Making
- 

Technology vendors both large and small filled the exhibition hall providing demonstrations of their newest systems during breaks. Public safety and IT leaders networked in between sessions. Winbourne Consulting is vendor agnostic and does not sell or service public safety software, and as such, leverages these opportunities to maintain awareness of all vendors and their latest offerings so we can provide un-biased advice to our many clients.

We participated in a tour of the Atlanta Police Department's Video Integration Center (VIC) which was developed and



**Our Clients include city, county, state, and federal agencies located throughout the United States and the world, as well as countries in Europe, the Middle East, Asia, the Caribbean, and South America.**

implemented based on lesson's learned from similar centers in New York City, Chicago, IL, and London, England. The latest issue of Police Chief Magazine featured the City of Atlanta's VIC and their approach to Predictive Policing:

[http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display&article\\_id=3341&issue\\_id=52014](http://www.policechiefmagazine.org/magazine/index.cfm?fuseaction=display&article_id=3341&issue_id=52014)

A presentation on "Trends in Camera Surveillance and Sensing" focused on trends in camera surveillance which presented research findings regarding the expectations of crime prevention, dealing with the Big Data that cameras collect, smarter analysis, and privacy issues. For example, research presented determined that camera footage can provide useful information to solve crime:

- Finding and arresting suspects
- Excluding suspects
- Reconstructions
- Tracing stolen goods

Further, camera footage can also be used as evidence in court.

The IACP LEIM continues to be a unique professional development opportunity for law enforcement practitioners and IT managers to learn about new and emerging technologies, standards, policies and practices.



<http://www.apco2014.org/>

**We look forward to seeing you at the upcoming APCO 2014.**

## **Articles of Interest**

### **State of Maryland Is Updating Its State Police Systems for NG911**

Maryland will be updating their 911 centers to the Next Gen system, in doing this the state's new 911 centers will be able to receive text messages, images, video and audio. Construction has begun on the Eastern Shore for the first part of a \$7.1 million system that gives the Maryland State Police the framework for Next Generation 911 statewide. The system will allow caller information to be transferred along with the voice calls from local 911 centers to state police and clear the way for future testing of Next Generation capabilities.

[\*\*Text, video to 911? Md. plans future emergency communications\*\*](#)

## **New Security Requirements for NexGen911**

Because next-generation 911 (NG-911) requires moving from a closed analog environment to an interconnected Internet Protocol (IP) network environment, security must increase to a level that protects networks, equipment and data. The steps along the path to secure NG-911 environments are addressed in the National Emergency Number Association (NENA) Next Generation Security (NG-SEC) standard. Although other standards could be used — such as the National Institute of Standards and Technology (NIST) Special Publication 800-53, or the Criminal Justice Information Services (CJIS) Security Policy version 5.0 — NENA's NG-SEC is stated in terms written specifically for the NG-911 environment. It is important to note that the CJIS Security Policy is a mandate for systems processing criminal justice information. It also is an excellent resource to secure the remainder of the network.

### **[Five steps to NG-911 protection](#)**



### **NG911 Progress**

Next-generation 911 (NG-911) can work, and the potential benefits are enormous, according to many industry experts. But while a NG-911 proof-of-concept project is complete, there are still many hurdles on the path leading to public-safety answering points (PSAPs) accepting live 911 calls on a standardized next-gen platform.

For more information about our services and solutions, visit our website at:

[www.winbourneconsulting.com](http://www.winbourneconsulting.com)

[Next-generation 911 progress continues, but challenges remain](#)