

Public Private Partnerships (PPP) for FirstNet

Overview

- There is a formal mandate for a nationwide dedicated Public Safety Broadband Network, known, as FirstNet
- An organization is established at the federal level to manage FirstNet
- Policy, goals, and direction are being developed
- There is no consensus on how FirstNet should be deployed
 - Top down by the Feds...
 - Bottom up state by state...
 - Something in between, maybe a regional approach
- A firm policy objective of the FirstNet organization is that solutions that are deployed in one location (e.g. a state) must be interoperable with solutions deployed in another location
- Standards and definitions defining interoperability are not yet in place
- There is consensus that funding is inadequate for a nationwide capability able to meet the coverage requirements necessary

This last point—inadequate funding—is significant to the full deployment of FirstNet. If the Federal government allowed states to build their own FirstNet-compliant Radio Access Networks (RANs), *networks already leveraging existing assets that could connect to the national FirstNet core*, there is a major opportunity to help develop and deploy FirstNet using private financing in a Public Private Partnership (PPP) approach.

Hit the pause button for a minute...

It would be useful to review some basic concepts about Public Private Partnerships to get an understanding of when/why they are appropriate, so as to frame the discussion about how a PPP approach can be used to accelerate the deployment of FirstNet.

Some background...

- PPPs have been around a long time
- They are very popular in the U.K. and in Asia
- The PPP has been a major investment vehicle in India for infrastructure development
- In the U.S. PPPs have traditionally been used for roads
- Over the past few years, however, the potential for PPPs has increased dramatically
- More than 30 states have established or modified legislation to encourage the use of PPPs for projects that are determined to be necessary and useful to include public safety projects
- Other countries with far less national debt than the US have been using them, recognizing the value to the resident and government as a means to enhance public service without burdening the taxpayer

How a PPP works...

- A Public Private Partnership is a contractual arrangement between a public agency and a private-sector entity to deliver a public service
- The arrangement provides for an infusion of private-sector capital as well as funding and Operations and Maintenance (O&M) services to the new state-owned infrastructure
- To combat growing deficits in government budgets and increasing maintenance and construction costs, many policy experts and government officials see the benefits in exploring relationships with private partners on certain projects
- PPPs shift key risks from the public agency to private investors. These risks include construction costs, financial costs, and O&M costs

How a PPP might be structured for FirstNet

Ahead of all the financial engineering, a project needs to be identified that meets the following criteria:

- It addresses a fundamental requirement for a FirstNet solution, such as rural area tower build-out for coverage, development of statewide backhaul between core aggregation points (Data Centers or “On Ramps”), or build-out and secure integration of State FirstNet Data Fusion Centers as examples
- The solution would align with the Federal mandate and subsequent technical standards
- It is large enough to warrant/attract private financing (\$20M+)
- Project justification is strong
- Political support is strong and engaged and a clearly defined customer exists

FirstNet PPP Options—Making the “Opt-In” Process Affordable for All

Many states facing the FirstNet broadband build-out are all asking the same questions: “*How will we afford this?*” or “*Even if we Opt-In, will there be enough for our coverage requirements?*” This challenge appears to be an even more daunting one to states that are predominately rural with only one or two major metropolitan areas and hundreds of miles of open road and highway to serve. While states with many cities and towns have more asset availability to work with, rural states are effectively starting from scratch, having to come up with not only unique coverage models, but also (and just as critical) funding and governance solutions. Such states, accustomed to having to find creative solutions to everyday challenges, are ideal candidates for the benefits of a PPP.

But what if there were a way to strengthen the Opt-In process, to help FirstNet and the state set a new model for government spending? What if a state, like Arizona, presented a hybrid solution to Opt-In, one where the national priorities of FirstNet were met from a spectrum and connection perspective without asking Congress for another penny? States are in need of options to the Opt-In option, since realistically no state can effectively “Opt-Out” due to the

value of the 700 MHz band allocated for Public Safety. FirstNet, as well as the states and territories that represent their respective customer base share the same goal—broadband coverage and a dedicated First Responder network. They just have different perspectives as to feasibility, cost, and control.

Does the Opt-In process have to be an all or nothing process, one that limits the Feds and states/territories to a specific coverage percentage due to the allocated Federal funding? Or, is there a way to provide options to the Opt-In process, a hybrid funding model, where states can still elect to build and manage their respective state networks, utilizing the 700Mhz spectrum of FirstNet, without using Federal funding, so as to both offset the build-out cost and provide options within the states to have multi-use services for other government agencies.

What if there were investment options, flexible ones, that came from a PPP structured to work within the specific confines of the FirstNet mandate and designed to assist and enable national, state, and local agencies build this “network of networks?” What if these options allowed for local nuances necessary for successful operation and the national interconnection framework required without having to go to Congress for another round of funding? Looking at this from a state-specific perspective we see more clearly how this model can be structured to address the build-out needs of the most costly areas: rural America.

State PPP Example – Arizona

Let’s take a state like Arizona. It is densely populated across two major metropolitan areas (Phoenix and Tucson) with several smaller cities spread throughout the state (Yuma, Prescott, Flagstaff, Lake Havasu City, Kingman and Sierra Vista). Arizona is a state with a thriving economy, top universities, a plethora of attractions, and millions of annual visitors. While many travel to the Phoenix metro area for golf, sports, and the abundance of local attractions, hundreds of thousands go “off the grid” to places like Sedona, Flagstaff, the Colorado River, and the Grand Canyon. The throngs of visitors and residents who require the same emergency services as available in major cities but who face unique hazards and response criteria often far and above those of urban areas, must have first responders who are able to gain access to the state’s Public Safety Broadband System.

When lives are on the line and a fire rages down I-17, a multi-agency response occurs with agencies sharing data and real-time information to save lives. Unfortunately, these rural areas are not beneficiaries of metro-regional infrastructure, existing networks, commercial resources, and “big pipes.” When building a RAN, the first place we look is to urban areas for cost effectiveness and the ability to leverage existing infrastructure. Since the majority of residents

live in these densely populated areas, the logical means for investment by FirstNet, assuming the state Opts-In, is to focus on these areas; there's only so much a state can do with the current means of investment presented.

Due to these unique geographic and demographic constraints, let's assume that for Arizona to have statewide wireless broadband coverage for Public Safety, the build-out and operating cost over 20 years is estimated at \$1 billion. With a PPP arrangement not only will unique funding solutions surface, but also creative commercial means to build-out infrastructure will emerge. Current trends at state and municipal levels indicate that many governments are interested in developing non-budgetary sources of funding to support their public safety programs. Identifying a reliable source of dedicated revenue is the key factor to attracting financing on the best possible terms for a PPP.

As part of the State and Local Implementation Grant Program (SLIGP) process, states are defining Memorandums of Agreement (MOA), governance models and foundations as a means of doing business. These MOAs bring agencies and entities together to form the equivalent of a governance board and structure, a board of directors *per se*. If states are already tasked with building and formalizing what are essentially business plans, why wouldn't they want to benefit from taking on a new business partner who can serve as the investment arm? In our example, should Arizona take this approach, the State would be in the unique position of not only defining its requirements and Opt-In, but also for presenting the Federal Government a strategy for funding large public programs in partnership with the private sector, a roadmap for deficit offset and budget optimization.

Arizona presents different contrasting population centers—from very low density rural to urban agglomerations. The number of first responders varies dramatically based on geography. This requires different approaches to revenue sourcing to enable the repayment of a privately-financed public safety communications system. Given the demographics of Arizona, revenue models can be developed to cover as many project combinations as possible. This would enable the State to make an informed decision about its possible participation in such PPPs.

Revenue models can be developed for each scenario.

- Subscriptions per first responder - utility model with or without the option to expand into non-emergency services
- Leases—Build Lease Operate Transfer (BLOT, and Design Build Lease (DBL)
- Telephone surcharge line fees (only if integrated with Next Gen 9-1-1)
- Real Estate Trust (REITs)—Wireless Tower Leases

- Combination of FirstNet rollout with other technology deployments, such as smart poles for LEDs

With a PPP, government agencies receive as their partners business strategists who are accustomed to these exact investment dynamics that are fundamental parts of private sector business dealings.

PPP Solutions from Winbourne Consulting

Winbourne Consulting with our PPP partner Petrafoose, LLC is prepared to bring the power of Public-Private-Partnerships to the FirstNet domain, assisting states in modeling their respective build-out requirements and financing options. Our combined expertise designing, implementing, and financing major Public Safety infrastructure programs worldwide allows our firms to uniquely assist states with the same set of challenges through our PPP offerings.