



Testimony of  
**George White, Chief Information Officer, Commonwealth of Pennsylvania**  
before the  
**Senate Communications and Technology; Transportation; Law and Justice; and  
Veterans Affairs & Emergency Preparedness Committees**  
regarding  
**Public Safety Radio and the Pennsylvania Statewide Radio Network, PA-STARNet**  
May 22, 2012 - 9:30 a.m. - Hearing Room #1, North Office Building

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Chairman Folmer, Chairman Rafferty, Chairman Pippy, Chairman Baker, and members of the Committees – good morning. I am George White, the Deputy Secretary for Information Technology and Chief Information Officer for the Commonwealth. With me today is Steve Kuller, the Director for the Office of Public Safety Radio Services. Thank you for inviting me here today to brief you about the commonwealth's public safety radio network—also known as PA-STARNet—and to answer any questions you may have.

Specifically you have asked us here today to discuss the future of public safety communications. In Pennsylvania, this future will be defined, in part, by our past investments at the state level and by events taking place at the national level.

The commonwealth has invested significant money and time into creating a statewide radio system that is now fully operational to meet the challenges of today and to continue to serve the needs of public safety personnel well into the future.

What originally began as a project within the Office of Administration has grown over the years into a full-blown office. In examining radio systems in other states, we've found that while they are built by the IT department, they are generally transitioned to a user agency once they are operational. With the primary build of the system now complete, OA, State Police and Governor Corbett believe the system should be housed in an agency whose core mission is public safety.

The State Police is the heaviest user of the radio network in terms of the number of calls, as well as the most demanding due to its presence throughout the state, particularly in rural and remote areas.



The State Police currently provide centralized law enforcement and public safety services to other agencies through access to information databases, laboratory services, homeland security, and specialized investigations. Undertaking responsibility for statewide public safety communications, including interoperability with county systems and other state systems, is consistent with the mission of the State Police.

Moving the radio system under the same roof as its largest user can potentially make it easier to address issues that surface. The State Police has operational working relationships with almost all state and local agencies and other organizations that use the system, as well as the leadership and respect of being the statewide law enforcement agency.

We are working to transition management of the radio system from OA to State Police by the end of the fiscal year.

Looking a little further into the future, there have been several developments at the federal level that will define the future direction for us and other states.

Earlier this year, the president signed into law Title 6 of the payroll tax cut extension. Within this law was funding to create a National Public Safety Broadband Network. The vision is to have a national standard for interoperability, using a single block of frequency – the 700MHz D-block – and a standard wireless technology, known as LTE. This network has been a major priority for public safety agencies across the country since 9/11. The legislation included \$7 billion to begin building the network, although the final cost will certainly be much higher.

Pennsylvania's participation in this network will require cooperation between our major cities, all 67 counties, and all state agencies involved with public safety. It will also require coordination with our neighboring states. We are only 3 months into what will be a multi-year process and, at this point, there are more questions than answers. Public safety broadband is a bold vision, and it will require a lot of hard work and patience to get there.

The second major event will come at the end of this year, which is the Federal Communication Commission's deadline for narrowbanding of VHF spectrum. Without getting into technical details about spectrum and radio transmissions, VHF narrowbanding requires both changes in base station transmission equipment and mobile and portable radios, especially equipment that pre-dates 1995. Although the mandate to comply with the narrowbanding order has been in place for 10 years, it is still a major challenge for some of our state agencies and local police and fire departments. The federal and state budget reductions of the past several



years have added pressure to meeting the deadline by slowing down purchases of new equipment.

At the state level, the most significant impact is that the Pennsylvania State Police will have to turn-off their legacy VHF radio system, which is currently used as a backup to the 800 MHz Statewide Radio Network, and replace or remove their legacy VHF radios in the patrol vehicles. The State Police have requested an extension of the January 1, 2013 deadline so that it can continue to use the Statewide Radio Network's existing VHF infrastructure while we implement a new narrow-banded VHF backup system.

With regard to the future of the Statewide Radio Network and adapting to these national milestones, I want to briefly discuss our immediate, short-term and long-term strategies.

First and foremost, we want to make the system easier for our users. We have found over the years that many of the problems and complaints about the network can be traced back to issues involving a lack of training and improper installations of equipment. One way we plan to address this is by making training videos for the system available online and through other channels so that users can access them wherever or whenever they are needed.

We also want to enhance operability by making sure every radio on the network has one common talk group on the 16 channel dial, in every profile. As of today, every radio can communicate with every county 911 center. We want to extend this interoperability to have standing, permanent radio-to-radio interoperability in every county in the Commonwealth.

We are also working continuously to improve our overall reliability statistics, as well as strengthen the overall governance and communication among agency leaders using the system. We are planning to complete the transition of DCNR state parks to the 800 MHz system by the end of the summer and complete the VHF narrowbanding solution for the State Police by the end of this calendar year.

Our short-term priorities include using what we have to increase the number of users and number of agencies that benefit from the radio network. Each agency may have unique needs. Some agencies may consider new radios. Some agencies will leverage P25 interoperability. Some will leverage wireless data across the network. DCNR is kicking off their use of a hybrid 800/VHF system this month, adding more than 2,000 radios. Turnpike is looking to use the system for wireless data to control intelligent traffic signs. Both the Fish and Boat Commission and the Game Commission are piloting mobile radios. We are working with PEMA to leverage our network with their next generation 911 requirements. There are



multiple opportunities to leverage our core infrastructure to increase the number of users on the system and improve emergency communications and interoperability across the commonwealth.

Our long-term strategy will be defined, in large part, by the national public safety broadband network and waiting patiently as events unfold for this initiative. The allocation of 20MHz of contiguous spectrum for public safety communications is a tremendous opportunity to create a true national standard and national network, and is what was recommended by the 9/11 commission. The general, informal consensus is that it will be five to 10 years before there is any widely accepted implementation. At this point in time, there is no accepted standard for push-to-talk using the LTE standard, although I am confident a standard will be developed quickly as part of this program. Another key question within public safety will be whether LTE technology can support what is called "talk around" – device to device communication that is independent of a centralized network or infrastructure.

For Pennsylvania, we face a number of key decisions with regard to our expectations for the national network. First, LTE coverage will be expensive to build. With a statewide two-way radio system in place, the state should consider priorities for coverage. One possibility, for example, may be to begin by focusing on jurisdictions with an immediate need for public safety applications that run on broadband and those paying for broadband through a network provider. Highways and critical infrastructure are another potential priority.

Second, although the state will be the primary control point, along with the federal government, the national public safety broadband network will be shared by all the cities, municipalities, counties and state agencies as one network. While the federal funding may provide the substantial amounts necessary to begin building out of the infrastructure, Pennsylvania will need a sustainability model.

Considering the amount of funds invested in state and county land mobile radio systems, the 5 to 10 year landscape will most certainly include a blend of traditional two-way radio devices and LTE broadband devices. The challenge for the state and our taxpayers will be funding both technologies at the levels needed. In recognizing the need for additional strategic planning necessary for LTE, the Secretary of Administration has been planning an expansion of the Public Safety Communications Council, which provides guidance to the statewide radio network. The federal Department of Homeland Security has recommended that the commonwealth have a larger, more inclusive council representing local and county government interests, as well as associations representing public safety and first responder interests. Intergovernmental cooperation will be critical to maximizing the investments made at the state and local levels into their radio systems.



In conclusion, Pennsylvania has in fact made a significant investment in the public safety of its citizens for the long term. This includes investments in communication towers, communications networks, and two-way radio systems. We would ask that the Senators here today continue to support this investment so we can ensure that the statewide radio system remains the key piece of infrastructure for the future of public safety communications.

I'll be happy to answer questions you may have.