

Testimony of

Ellen O'Hara  
President and Chief Executive Officer  
Zetron, Inc.

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Subcommittee on Technology and Innovation

Hearing on  
*"Interoperability in Public Safety Communications Equipment"*

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Chairman Wu and members of the Committee, thank you for this opportunity to offer testimony on Project 25 standards and their implementation in public safety radio systems.

I am President and CEO of Zetron, a manufacturer of public safety communications equipment.

Zetron has been serving the communications needs of our nation's public safety agencies for over 30 years. With several thousand installations worldwide, we're the largest independent manufacturer of interoperable dispatch consoles in the nation.

I appreciate the opportunity to testify to the Committee regarding the Project 25 standard. We feel that Project 25 (P25) is critically important to public safety. Zetron is in agreement with the goals of P25. Our company was one of the early signers of the P25 Memorandum of Understanding (MOU), and we have been an active participant in the P25 standards-development process for the past decade.

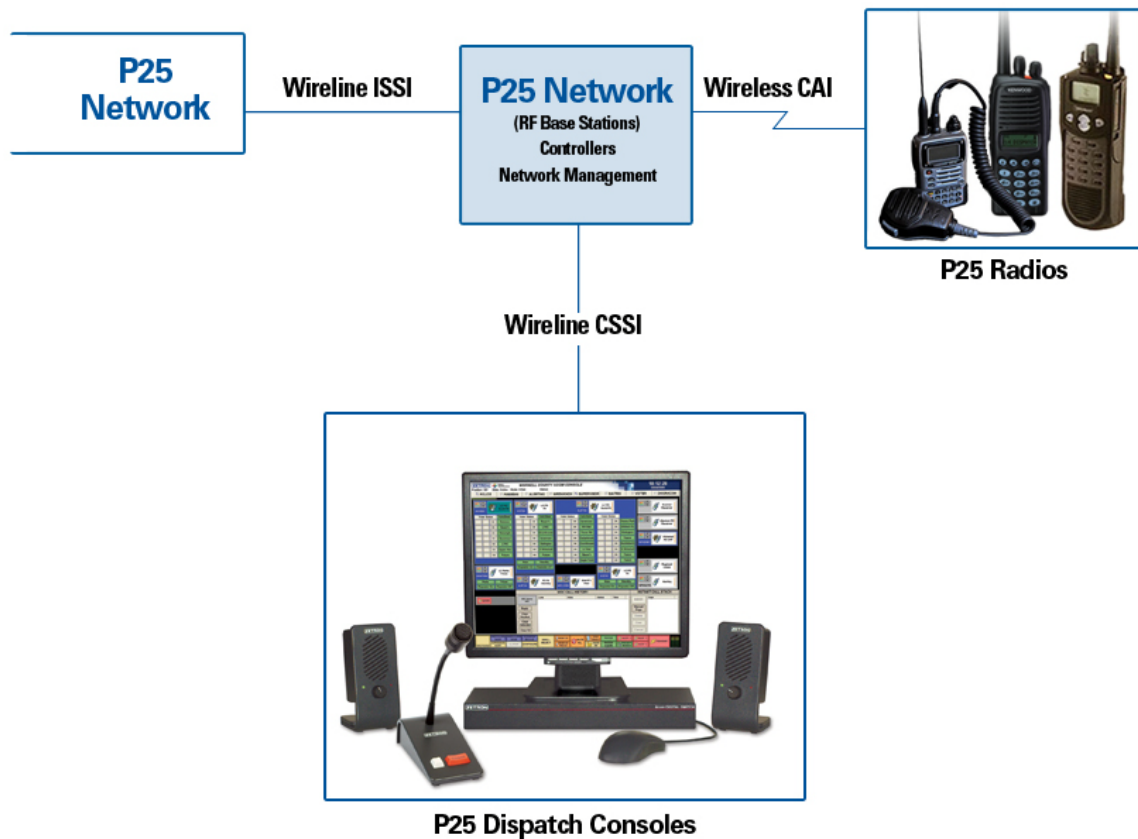
Chairman Wu, you asked me to address two questions concerning P25:

First, what challenges has Zetron faced integrating our products with those of other vendors, and how has this impacted our customers?

Second, what recommendations would Zetron make to ensure that the P25 process helps foster competition in the marketplace?

In order to put my answers into context, I'd like to refer you to the following graphic.

## P25 System



This is a highly simplified depiction of a P25 system. It includes the P25 network, the dispatch console, radios that are used on the system, and the interfaces that connect these components: the Common Air Interface (CAI), the Inter Subsystem Interface (ISSI), and the Console Subsystem Interface (CSSI).

In your first hearing in May, you focused on radio-to-radio interoperability and competition, which is achieved in P25 through the wireless Common Air Interface.

All P25 network manufacturers in the United States have adopted the CAI standard. As a result, their systems are compatible with all P25 radios, regardless of the radio vendor. In this case, competition is well served—it gives customers more choices and better value.

Different circumstances affect competition on the wireline side, where dispatch consoles are connected to the network.

To support competition on the wireline side, two standards have been created. One is the Inter Subsystem Interface—which provides an interface between two different vendors' P25 systems.

The other is the Console Subsystem Interface. The CSSI provides a seamless wireline interface between the dispatch consoles of one vendor (such as Zetron) and another manufacturer's P25 network.

The CSSI ensures that the customer has a choice in their selection of dispatch consoles. This is important because the dispatch console is the heart of a public safety communication system. It connects first responders, such as police officers on their beat, to the public safety communications center. The console also supports interoperability among radios by patching together radios that use different frequency bands.

Because dispatch consoles play such a critical role in a communication center, customers are best served when they have the freedom to choose the console that best meets their needs and cost requirements. Without a CSSI standard **and** the adoption of that standard by the P25 network vendor, the

customer's choice is limited to the proprietary console provided by that network vendor.

There are several reasons why the adoption of the CSSI standard by P25 network vendors has been slow.

Each P25 interface is defined by a "suite" of standards documents that specify how the interface is to be implemented, tested and verified. The critical documents, which define the CSSI and how to implement the standard, are complete. Due to other priorities in the standards process, the Telecommunications Industry Association (TIA) has not yet finished the testing and verification documents.<sup>1</sup>

This situation has given some P25 network manufacturers reason to delay the implementation of the CSSI in their network offerings. A customer who purchases a P25 network from one of these vendors today has no choice but to purchase the network manufacturer's own proprietary console.

Zetron has invested considerable resources to implement the P25 CSSI wireline standard. But today our CSSI-enabled consoles are currently able to connect to the networks of only three of the seven network vendors' equipment—Tait Radio Communications, EADS North America, and Raytheon. The other network manufacturers have not yet publicly adopted the CSSI, and thus proprietary consoles are the only choice available to customers of those networks.

We are concerned that competition and customer choice are limited by the slow adoption of the open-standard CSSI. Indeed, the lack of the widespread adoption of the CSSI has led some of Zetron's customers to delay their transition to P25, which in turn negatively impacts both competition and interoperability.

We feel that incentives are needed to solve this problem. To that end, I would like to offer two recommendations that could help eliminate some of the obstacles to competition.

- First, we believe that the completion of the full suite of published standards for P25 wireline interfaces would remove a significant roadblock to their adoption. To hasten the completion of these standards, we recommend that the federal government consider issuing grants to manufacturers so that they can allocate the resources necessary to complete the standards. This would allow a manufacturer such as Zetron to provide dedicated engineering resources to the TIA for the purposes of completing these standards.
- We also recommend that the federal government set a date within the next 12 months, after which it will no longer fund, through grants, the purchase of P25 networks that offer **only** proprietary console interfaces rather than the open-standard CSSI. This means that if the offered P25 network equipment can support consoles, that equipment must also support the open-standard CSSI; otherwise, it is ineligible for purchase using interoperability grants.

In closing, I would like to reiterate Zetron's strong support for the objectives of Project 25. We believe that policies that support the completion and adoption of open-standards wireline interfaces such as the CSSI will help ensure that P25's goals of interoperability and competition will be fully realized.

Chairman Wu, and members of the Committee, thank you again for the opportunity to testify before you on these important topics.

## Note

### 1. **Why Are the P25 Standards Taking So Long?**

*This is perhaps the most frequently asked question regarding P25. When asked, it is often in comparison to other wireless communications standards, such as cellular or even Europe's narrow-band public safety standard called TETRA.*

*We believe that a significant portion of the answer to this question lies in the scope of P25. P25 is unique among all other wireless communications standards in that it includes open, published standards not only for over-the-air protocol and data dispatch consoles to P25 networks (via the CSSI), and to accommodate the unique need of cross-band interoperability (via the ISSI).*

*While other standards may identify similar interface points, only P25 has gone to the extent of creating standards for these interfaces. This is to ensure that the needs of our nation's public safety agencies are met. Thus the scope of the P25 standard is at least twice that of other wireless communications protocols. In addition, some of the other wireless standards, particularly cellular, were able to leverage the substantial number of existing telephony standards. Land mobile radio, with its unique push-to-talk and selective signaling characteristics, is not able to use telephony standards to the same extent.*

*Another reason it has taken longer to produce P25 standards is the collaborative, cooperative, and consensus-based approach used. While P25's requirements are identified by its users, as it should be, the actual development of standards to meet those requirements is done mostly by manufacturers.*

*P25 may not be unique in this approach; some cellular standards have also developed in this way. But being a much smaller market with smaller revenue potential and fewer participants, the amount of resources applied by P25 manufacturers has been relatively small compared to those of cellular manufacturers. In the case of European mobile radio standards, many of these have had external funding and participation by European governments.*

*Finally, the needs of our nation's public safety users are not static, but continue to evolve. For this reason, Project 25 has always been dynamic, with standards that can be extended and modified to meet emerging needs.*

*Thus P25 has grown beyond its original vision of the 90's which is "complete," (Phase 1), and is now nearing completion of a Phase 2. In this sense, P25 will not be complete until it is replaced.*