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| In the Matter of: | ) | |
| | ) | |
| Increasing Public Safety Interoperability By | ) | PS Docket No. 10-168 |
| Promoting Competition For Public Safety | ) | |
| Communications | ) | |

To:     The Commission

## REPLY COMMENTS OF THE
## TELECOMMUNICATIONS INDUSTRY ASSOCIATION

The Telecommunications Industry Association (TIA) hereby submits reply comments to

the Federal Communications Commission (Commission) in the above-captioned

proceeding.[1]  TIA appreciates the opportunity to draw the Commission's attention to

Commenters' input on the success of Project 25 to develop interoperable standards and

consider factors that impact competition and interoperability.

TIA represents the global information and communications technology (ICT) industry

through standards development, advocacy, tradeshows, business opportunities, market

intelligence and world-wide environmental regulatory analysis.  For over 80 years, TIA

has enhanced the business environment for broadband, mobile wireless, information

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[1] *In the Matter of Increasing Public Safety Interoperability By Promoting Competition For Public Safety Communications*, PS Docket No. 10-168 (rel. Aug. 19, 2010) (Interoperability Competition PN).

technology, networks, cable, satellite, and unified communications. TIA is accredited by the American National Standards Institute (ANSI).

## SUMMARY

As TIA and numerous other Commenters have emphasized, Project 25 functions as a cooperative effort that continues to effectively develop Land Mobile Radio Service (LMRS) standards for use by public safety entities. Project 25 standards incorporate the most spectrally-efficient and inclusive benchmarks and are available to all manufacturers, resulting in ever-increasing public safety narrowband interoperability. TIA requests that the Commission recognize Commenters' assertions that a very significant factor contributing to interoperability concerns is a difficulty for public safety entities to coordinate across regions and agencies.

The Project 25 process has enhanced competitiveness in the public safety narrowband market by promoting openness and innovation, leading to a significant increase in the number of vendors in every area of interoperable narrowband communications. In addition, Project 25 standards are available to any interested manufacturer on reasonable terms. Given this success, the Commission should be wary of disrupting Project 25's effect on the market, which is markedly evidenced by significant decreases in equipment prices over the last decade.

To enter the market, potential public safety interoperable narrowband device manufacturers must make considerable investments despite a lack of guarantee of an

adequate return on that investment. The Commission should recognize that factors including a small customer pool, spectrum saturation, and the varied and specialized requirements of public safety entities are limiting factors to competition in the public safety interoperable narrowband product space.

## DISCUSSION

### I. THE GOAL OF NARROWBAND PUBLIC SAFETY INTEROPERABILITY HAS BEEN MET TO A SIGNIFICANT DEGREE THROUGH THE EFFORTS OF TIA AND THE PROJECT 25 STEERING COMMITTEE.

As made clear by TIA and other Commenters, the separate entities that comprise Project 25 collaborate to establish user requirements and develop standards designed to satisfy those needs. Project 25 was conceived of by public safety entities across the nation, and LMRS interoperability requirements are advocated by them.[2] As it notes, the Project 25 Steering Committee effects the identification of user requirements.[3] TIA develops TIA-102 standards designed to meet user requirements as requested by the Project 25 Steering Committee. Upon completion of a TIA-102 standard document, TIA submits the document to the Project 25 Steering Committee for review and approval to be identified as a Project 25 document.[4] As noted by Motorola:

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[2] *See* Zetron Comments at 2.

[3] *See* Project 25 Steering Committee Comments at 2.

[4] *See* TIA Comments at 3-4.

Project 25 standards facilitate interoperability with backward compatibility, interoperability across system boundaries, open interfaces to radio frequency subsystems to facilitate interlinking of different vendors' systems, and future interoperability by enabling public safety users to migrate to new, compatible bands while re-using existing spectrum.[5]

The current Project 25 standards represent the latest technology platforms[6] and are updated on an ongoing basis to respond to new user requirements, technologies, and regulations.[7] Commenters agree that Project 25 provides the necessary feature set to address interoperability for public safety communications.[8] As Plant CML notes, "the current discussions of Project 25 interoperability issues concern non-Project 25 features which are outside of the 'baseline' features defined by the standard."[9]

Commenters also make clear that, as Project 25 continues to work with manufacturers and public safety to create current LMR interoperability standards, interoperability is hampered by a lack of system development planning between local public safety entities and across agencies.[10] In fact, the National Governors Association (NGA) has found that state homeland security directors find that interoperability is most limited by a lack of effective governance structures.[11] Thus, while Project 25 standards make interoperability

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[5] Motorola Comments at 4.

[6] *See* Zetron Comments at 5.

[7] *See* Project 25 Steering Committee Comments at 9.

[8] *See, e.g.,* RELM Wireless Comments at 3.

[9] *Id.* at 8.

[10] *See* RELM Wireless Comments at 8.

[11] *See* "2009 State Homeland Security Advisors Survey," National Governors Association Center for Best Practices, at 4 (Feb. 24, 2010), available at http://www.nga.org/Files/pdf/1002HSASURVEY.PDF.

feasible, coordination among public safety entities can significantly limit their effectiveness.

## II. COMMENTERS SHOW THAT INTEROPERABLE NARROWBAND PUBLIC SAFETY MARKETS BECOME MUCH MORE COMPETITIVE AS PROJECT 25 PROGRESSES.

Commenters in this proceeding agree with TIA that competition in the narrowband public safety market is significant and growing, consistent with the purpose of creating Project 25 standards.[12] The Telecommunications Industry Association Project 25 standards suite is an open standard that enhances new market entrance with a common air interface and baseline features that can drive development and use of interoperable networks.[13] These standards are available to any interested manufacturer on fair terms, which are developed to sustain Project 25 while costs for the development of standards increases.

The Project 25 Steering Committee, representing public safety users, makes clear that, "[i]f the goal is to increase public safety communications interoperability through increased competition, the only way to achieve that goal is through standards such as Project 25."[14] Zetron concurs that Project 25 is the sole process that can promote competition.[15] Project 25 manufacturers offer products that range in durability,

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[12] *See* TIA Comments at 8; *see also* Plant CML Comments at 4; *see also* Project 25 Steering Committee Comments at 10.

[13] *See* Plant CML Comments at 4.

[14] Project 25 Steering Committee Comments at 10.

[15] *See* Zetron Comments at 2.

reliability, and other features, allowing the purchaser to weigh their priorities and select the product that meets technical demands and budgets.[16]

The Project 25 Steering Committee cautions that competition for competition's sake should not be a main driver with regard to furthering narrowband public safety interoperability; it states that the Commission should not forgo "the use of the technology that is required for a mission for technology that [the Commission believes], from their perspective, brings competition to the marketplace."[17]

The pro-competitive goals of Project 25 continue to yield results. Competitors in all areas of providing interoperable narrowband communications has dramatically increased in the past 10 years.[18] Increased competition can be found in the markets for base station and repeater equipment, mobile radio equipment, console equipment, and network solutions.[19] Further, due to robust competition created by Project 25, interoperable public safety devices have dropped in price considerably. RELM Wireless reports that, in 2003, Project 25 radios cost between $3,000.00 and $5,000.00. Seven years later, comparable units are sold for $1,000.[20]

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[16] *See* Tait Radio North America, Inc. Comments at 2.

[17] Project 25 Steering Committee Comments at 11.

[18] *See id.* at 9 (noting that competition has increased during this period in the areas of, " 'end-to-end' systems, infrastructure and subscriber equipment, as well as control and console equipment.").

[19] *See id.* at 6; *see also* Project 25 Technology Interest Group Comments at 7 (citing *Project 25—A User's Perspective*, presented by Jim Downes, Project 25 Technology Interest Group chair, at the APCO Conference and Exhibition, Houston, Texas (Aug. 3, 2010)). Mr. Downes stated that as of August 2010, there are 11 manufacturers for base station and repeater equipment, 14 for mobile radio equipment, 13 for portable radio equipment, 7 for console equipment, and 8 for network solutions. *See also* Zetron Comments at 2 (stating that there is significant competition in the Project 25 mobile and portable radio markets).

[20] *See* RELM Wireless Comments at 2.

### III. WHILE PROJECT 25 HAS INCREASED COMPETITION, AND WHILE MORE MANUFACTURERS ARE PRODUCING PUBLIC SAFETY DEVICES, BUSINESS CONSIDERATIONS LIMIT FURTRHER INTEROPERABLE LMRS MARKET ENTRY.

While Project 25 clearly encourages market entry, many manufacturers struggle to identify likely returns on investment from the manufacture of interoperable narrowband public safety communications equipment. From a technical perspective, the ever-growing number of market entrants reflects that there are no barriers to competition. However, it remains clear that the limited availability of spectrum has reduced the number of manufacturers in this space.[21] Further, Commenters demonstrate that developing, testing, and manufacturing public safety grade equipment requires significant resources.[22] Manufacturers must spend a much greater amount on the development of public safety equipment conforming to the robustness requirements of public safety compared to commercial counterparts.[23] For example, public safety users expect interoperable radios that withstand rugged conditions to have long product lives; manufacturers make devices lasting between 10 and 20 years to satisfy customer demand.[24] Further, public safety users expect high coverage reliability.[25]

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[21] *See* Plant CML Comments at 4.

[22] *See* TIA Comments at 9-10; *see also* Project 25 Technology Interest Group Comments at 2-3.

[23] *See* Project 25 Steering Committee Comments at 4 (stating that, "Unlike commercial service offerings, public-safety grade equipment requires significant product development efforts to meet the requirements and demands such as exceptional performance, durability, high levels of security, greater duty cycles, and extended coverage across large geographical areas.").

[24] *See* Tait Comments at 2.

[25] *See id.*

These significant costs must be taken into consideration in the context of potential sales. Public safety customers total 3 million in the U.S. However, there are approximately 300 million commercial customers.[26] Taken together, annual sales of public safety handsets are estimated at approximately 200,000 to 300,000 units.[27] Such low potential sales volumes, which are exponentially smaller than the commercial marketplace that sells hundreds of millions of units annually, drives interest away from manufacturing a high-cost, low-yield product.[28]

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[26] *See* Motorola Comments at 13.

[27] *See* Project 25 Technology Interest Group Comments at 3.

[28] *See id.*

## **CONCLUSION**

For the foregoing reasons, TIA urges the Commission to take into consideration its views

on the best approach to further increase public safety narrowband interoperability.

Respectfully submitted,

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