

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)
)
)
Request by the Los Angeles Regional,)
Interoperable Communications System)
System (LA-RICS) and its members for)
Waiver of the Commission's Rules to allow)
Establishment of a 700 MHz Interoperable)
Mobile Public Safety Broadband Network)

PS Docket No. 06-229

REQUEST FOR WAIVER

LA-RICS Joint Power Authority (JPA)

Deputy Fire Chief Dennis Keane

201 N. Figueora St. # 535

Los Angeles, CA 90012

(213) 202-9989

Dennis.Keane@Lacity.Org

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REQUEST FOR WAIVER

I. SUMMARY OF REQUEST

Pursuant to Section 47 C.F.R. § 1.925(b)(3), the Los Angeles Regional Interoperable Communications System (“LA-RICS”), members, respectfully submits this Request for Waiver to the Federal Communications Commission (“Commission”) to waive any Commission rules that would prohibit LA-RICS to use the public safety broadband spectrum in the 700 MHz band to deploy a regional, mobile public safety broadband data network leveraging the current infrastructure investment being made to deploy a Project 25 voice network.¹

The LA-RICS, a regional cooperation organization which includes the County of Los Angeles, City of Los Angeles and over 80 other Cities, School Districts & Universities are poised to begin design and construction of a public safety broadband data network in the LA-RICS Region (“Region”). Granting the requested waiver would allow the LA-RICS members to move ahead with the design and construction of an integrated public safety broadband network in the 700 MHz band concurrent with its voice radio system in the UHF band (450-512 MHz). The result would be significant cost savings, efficiency benefits, and the accelerated availability of a voice and broadband public safety data network serving more than 11,000,000 people in Los Angeles County, California, all of which strongly serves the public interest and supports the Commission's goals.

Accordingly, the LA-RICS members seek a waiver of the Commission’s rules to grant them the authorization to use the public safety broadband 700 MHz spectrum (763-768/793-798 MHz) under an agreement with the Public Safety Spectrum Trust (“PSST”), the nationwide licensee of the spectrum. This waiver would enable the LA-RICS members to immediately begin planning and implementation of a regional public safety wireless broadband network and

¹ E.g. 47 C.F.R. § 27.1330 and § 90.143. These rules provide the D-Block licensee with the "exclusive right to build and operate the Shared Wireless Broadband Network. Early build-out by a public safety entity is only allowed in limited circumstances that *require* the participation of a currently non-existent D Block Licensee. The Commission should waive these rules and any others it or other Petitioners find to be an impediment to early build out in the 700 MHz public safety broadband spectrum.

begin serving first responders upon grant of the waiver. In comments filed by the PSST they recommended that the FCC should, “address the Petitions as soon as possible and not wait until the broader 700 MHz D Block rulemaking proceeding is complete”.²

II. BACKGROUND

A. The LA-RICS Members

The LA-RICS consists of, but not limited to, County of Los Angeles, City of Los Angeles, over 80 other Cities within the County such as Long Beach, Downey, Cerritos, multiple ports and airports., school districts and universities. A majority of the LA-RICS members are also members of a regional cooperation organization. In addition to the County and City of Los Angeles, LA-RICS comprises over 80 other Cities within the County such as Long Beach, Downey, Cerritos, multiple ports and airports.

Moreover, the Region is one of the nation’s largest urban areas with a population over 11,000,000. Over hundreds of public safety agencies serve the Region. These agencies provide comprehensive public safety services to the residents living within the boundary of the County of Los Angeles. Communications are an integral part of this function. The LA-RICS is dedicated to regional cooperation³ in building and operating public safety infrastructure to provide the highest feasible level of prevention, protection, response and recovery from acts of terrorism and other catastrophic events in the LA-RICS region. The LA-RICS members manage hundreds of millions in Federal and State Grants, and has a governance structure in place to effectively manage the implementation of projects throughout the region.

² See Comments of Public Safety Spectrum Trust Corporation (PSST) filed Public Safety and Homeland Security Bureau Seeks Comment on Petitions for Waiver to Deploy 700 MHz Public Safety Broadband Networks, Public Notice, 24 FCC Rcd. 10814 (rel. Aug. 14, 2009)

³ Department of Homeland Security – FEMA, DHS-09-GPD-067-1958, The UASI program focuses on enhancing regional preparedness in major metropolitan areas. The UASI program directly supports the National Priority on expanding regional collaboration in the National Preparedness Guidelines and is intended to assist participating jurisdictions in developing integrated regional systems for prevention, protection, response, and recovery.

B. LA Regional Interoperable Communications System (LA-RICS)

Since 1999, the local governments comprising the Region have been planning and building for a mission-critical interoperable voice and data system. To achieve this goal, in 2005, the Region established the LA-RICS program, which has been a collaborative initiative of the LA-RICS members. The LA-RICS has secured federal and state grant funding for the LA-RICS program and will soon launch competitive solicitations for the design and construction of the network. As part of the LA-RICS program, the Region plans to take advantage of millions of dollars in existing assets to build, own and operate an interoperable Project 25 Land Mobile Radio System for critical voice communications in the UHF band. The existing capital available for the program includes sites, towers, backhaul, power systems, infrastructure, and personnel. The Region could deploy a broadband data system with a relatively small incremental investment beyond the funding needed for the Land Mobile Radio network, by taking advantage of the same capital and resources utilized in deploying the voice network.

Should the requested waiver be granted, the Region has the ability to utilize the 10 MHz of public safety broadband spectrum to supplement the Project 25 Voice Radio Network, and to deploy an integrated and interoperable voice and data network for the LA-RICS area. Upon the approval of this request, the LA-RICS members would work toward the goal of deploying such an integrated and interoperable network.

In order to accomplish an accelerated deployment of a 700MHz broadband and UHF voice radio system throughout the LA-RICS Area, the Region could take advantage of the regional cooperation fostered and utilize a combined competitive procurement process to obtain the equipment and services necessary to build out a regional voice and broadband data system. Funding for the infrastructure would come from federal and state grant programs, as well as initial investment from the participating cities and the County. It is estimated that the procurement process would take approximately twelve months with build out beginning no later than 2011. This coincides with the expected commercial availability of LTE broadband

infrastructure equipment. LTE is the broadband technology that has been endorsed by the National Public Safety Telecommunications Council (NPSTC), the Association of Public-Safety Communications Officials - International (APCO) and the Public Safety Spectrum Trust (PSST).

Finally, the success and effectiveness of the LA-RICS program hinges on the ability to provide not just voice service on the narrowband spectrum, but also wireless broadband data service to the Region's first responders and supporting agencies. Use of the 700MHz public safety broadband spectrum is a critical need for the Region.

C. Relevant Commission Actions

The Commission has repeatedly noted the many potential benefits of broadband service to public safety, including: allowing police officers to exchange mug shots, fingerprints, photographic identification, and enforcement records; allowing firefighters to have access to floor and building plans and real-time medical information; providing high resolution photographs and real-time video monitoring of crime scenes to incident command centers.⁴ In the *Second Report and Order*, the Commission adopted rules that would establish a public-private partnership to control the upper portions of the 698-806 MHz band (“700 MHz Band”).⁵ The rules provided that the winning bidder of the commercial license in the Upper 700 MHz D

⁴ E.g. Report to Congress on the Study to Assess the Short-Term and Long-Term Needs for Allocations of Additional Portions of the Electromagnetic Spectrum for Federal, State, and Local Emergency Response Providers, WT Docket No. 05-157 (Dec. 16, 2005) (recognizing that broadband communications applications offer the public safety community a number of benefits, including video surveillance, real-time text messaging and e-mail, high resolution digital images and the ability to obtain location and status information of personnel and equipment in the field.

⁵ See *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, *Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, Section 68.4(a) of the *Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, *Biennial Regulatory Review -- Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, WT Docket 03-264, *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 06-169, *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, *Declaratory Ruling on Reporting Requirement under Commission's Part 1 Anti-Collusion Rule*, WT Docket No. 07-166, *Second Report and Order*, 22 FCC Rcd 15289 (2007)(Second Report and Order).

Block (758-763/788-793 MHz) (“D Block”) would enter into a public-private partnership with the nationwide licensee of the public safety broadband spectrum (763-768/793-798 MHz) (“Public Safety Broadband Licensee”) to construct a nationwide broadband network, which would share both the commercial D Block and public safety broadband spectrum.⁶ The Commission concluded that the public-private partnership would serve its objective “to promote the rapid deployment of a nationwide, interoperable, broadband public safety network that was robust, cost effective, spectrally efficient, and based on a flexible IP-based, modern architecture”⁷ In particular, the Commission found that this approach would address “the most significant obstacle to constructing a public safety network – the limited availability of public funding”⁸ and would provide “the most practical means of speeding deployment”⁹ of the desired nationwide, interoperable voice and public safety broadband network. Thus, two of the Commission's key goals in adopting the public-private partnership were overcoming financial hurdles through the utilization of cost efficiencies and enabling public safety agencies to gain the considerable benefits of a broadband network as quickly as possible.

In the auction of commercial 700 MHz licenses that concluded March 18, 2008, known as Auction 73, bidding for the D-Block license did not meet the applicable reserve price of \$1.33 billion. Pursuant to the Commission’s rules, there was no winning bid for the D-Block license. In response to the failed auction, the Commission issued the Third Further Notice of Proposed Rulemaking (“Third Further Notice”) seeking comment on proposed rules that would maintain the public-private partnership and re-auction the D Block with a lowered reserve price and reduced build out and service requirements.¹⁰ However, most notably, the Commission

⁶ *Id.*, at ¶ 13.

⁷ *Id.*, at ¶ 396.

⁸ *Id.*

⁹ *Id.*

¹⁰ See *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, WT Docket No. 06-150 and PS Docket No. 06-229, *Third Further Notice of Proposed Rulemaking*, FCC 08-230 (rel. Sept, 25, 2008) (“*Third Further Notice*”).

proposed to modified its auction framework to allow entities to bid for either a single nationwide license or 58 individual regional basis. In the Third Further Notice the Commission recognized “that both nationwide and PSR area licenses have advantages that could help achieve the public interest goal of establishing a commercially viable interoperable public safety broadband network on a nationwide basis.”¹¹ Specifically the Commission recognizes that “regional licensing could lead to enhanced build-out and faster deployment to less populated, rural areas”¹² and “could be particularly responsive to the unique needs of state, regional, and local public safety agencies.”¹³ Furthermore, the Commission recognizes that even under a regional licensing framework there can be sufficient measures put in place to ensure nationwide interoperability.¹⁴

Recently the Commission issued a Public Notice¹⁵ requesting comment on fourteen other Petitions for Waiver to deploy in the 700 MHz public safety broadband spectrum.¹⁶ As recognized by the Commission in its Public Notice, Petitioner’s have committed to working with the Commission to provide public safety entities access to this vital spectrum, while ensuring

¹¹ *Id.*, at ¶ 64.

¹² *Id.*, at ¶ 70.

¹³ *Id.*, at ¶ 71.

¹⁴ *See Id.*, at ¶¶ 70, 110-116.

¹⁵ *See* Public Safety and Homeland Security Bureau Seeks Comment on Petitions for Waiver to Deploy 700 MHz Public Safety Broadband Networks, Public Notice, 24 FCC Rcd. 10814 (rel. Aug. 14, 2009) (“Petitions for Waiver Public Notice”).

¹⁶ *See* City of Boston Amended Request for Waiver, PS Docket No. 06-229 (filed May 28, 2009) (Boston Amended Petition); City and County of San Francisco, City of Oakland, City of San Jose Request for Waiver, PS Docket No. 06-229 (filed May 28, 2009) (Bay Area Amended Petition); State of New Jersey Petition, PS Docket No. 06-229 (filed Apr. 3, 2009) (New Jersey Petition); City of New York Petition for Waiver, PS Docket No. 06-229 (filed June 8, 2009) (New York City Petition); District of Columbia Request for Waiver, PS Docket No. 06-229 (filed June 26, 2009) (DC Petition); New York State Request for Waiver, PS Docket No. 06-229 (filed June 30, 2009) (NYS Petition); New EA, Inc. dba Flow Mobile Request for Waiver, PS Docket No. 06-229 (filed July 7, 2009) (Flow Mobile Petition); City of Chesapeake, Virginia, Request for Waiver, PS Docket No. 06-229 (filed July 8, 2009) (Chesapeake Petition); City of San Antonio, Texas, Petition for Expedited Waiver, PS Docket No. 06-229 (filed July 10, 2009) (San Antonio Petition); State of New Mexico, Petition for Expedited Waiver, PS Docket No. 06-229 (filed July 10, 2009) (New Mexico Petition); North Dakota Amended Petition for Waiver, PS Docket No. 06-229 (filed Aug. 18, 2009); Petition for Waiver of the City of Charlotte, North Carolina, PS Docket No. 06-229 (filed Aug 4., 2009) (Charlotte Petition); Request for Waiver State of Hawaii, PS Docket No. 06-229 (filed Aug. 12, 2009) (Hawaii Petition); Petition for Waiver Iowa Statewide Interoperable Communications System Board, PS Docket No. 06-229 (filed Oct. 15, 2009) (Iowa Petition).

deployments are interoperable and consistent with the future national broadband network.¹⁷ In the Petitions for Waiver, including that of LA-RICS, public safety entities have demonstrated an immediate need for access to the 700 MHz public safety broadband spectrum.¹⁸ The importance of access to this spectrum is underscored by support in comments submitted in response to the Public Notice by numerous public safety organizations¹⁹ and the fact that even in a time of economic uncertainty many state and local governments stand ready to invest funds and leverage existing assets to deploy networks in the 700 MHz public safety broadband spectrum.²⁰ The Commission can grant waiver petitions without inhibiting the current D-Block proceeding. In fact, granting the waiver requests at issue will move the Commission one step closer to achieving its goal of establishing a nationwide interoperable broadband wireless network for public safety.

D. Uncertainty Regarding the Commission's Plan Is A Major Roadblock to 700 MHz Deployment.

Even though the Commission has proposed revised rules that retain the Public-Private Partnership concept and set forth technical and operational rules to govern the Shared Wireless Broadband Network, it is unclear whether a future auction of the Upper 700 MHz D Block will be held, whether it would succeed, or whether it would result in nationwide coverage. As a

¹⁷ “Further, the Petitioners generally state they can deploy their broadband networks in advance of a resolution of the Commission’s ongoing 700 MHz D Block proceeding, and that these deployments can be accomplished in a manner that may be integrated into any such network resulting from the Commission’s rulemaking.” *Id.*

¹⁸ *See, e.g.* Comments of the City and County of San Francisco, City of Oakland, and City of San Jose, Request for Waiver of the Commission’s Rules to Allow Establishment of a 700 MHz Interoperable Mobile Public Safety Broadband Network, PS Docket No.06-229, at 6-7 (filed March 24, 2009); Comments of the City of San Antonio, Texas, Request for Waiver of the Commission’s Rules to Allow Establishment of a 700 MHz Interoperable Mobile Public Safety Broadband Network, PS Docket No.06-229, at 3-4 (filed July 10, 2009); Comments of the City of Boston, Request for Waiver of the Commission’s Rules to Allow Establishment of a 700 MHz Interoperable Mobile Public Safety Broadband Network, PS Docket No.06-229, at 8-10 (filed May 28, 2009).

¹⁹ Cite Comments of PSST, APCO, NENA etc.

²⁰ “Generally, each of the Petitioners suggests that it has sufficient funding in place or plans for funding to be secured, such that it could deploy a public safety broadband network. Petitioners assert that they can fund such a build out independently, while others assert that they would seek out commercial or other partners on their own.” Petitions for Waiver Public Notice, *supra* note 1, at 2.

result of the delays and uncertainties in establishing the Shared Wireless Broadband Network, first responders in LA-RICS and across the country have been left without access to state-of-the-art communications capabilities, and the American public is put at risk each day the initiation of public safety broadband services is delayed.

The uncertainty surrounding the 700 MHz public safety spectrum is a major roadblock to the Region's urgent desire and need to build and operate a public safety broadband network while leveraging the planned investment of a UHF P25 Voice System. Urban areas such as the LA-RICS Region simply cannot afford to wait years for a nationwide carrier to build this network -- particularly since there are no assurances that the final result will be sufficiently hardened, have sufficient capacity, and will be otherwise adequate to serve the Region's public safety needs during catastrophic events and disasters. As described above, the Region has the resources and ability to construct its own network now. All the Region lacks is the broadband spectrum to complete it.

III. THE COMMISSION SHOULD GRANT THE REQUESTED WAIVER TO ALLOW THE LA-RICS REGION TO CARRY OUT ITS PLANS TO BUILD AN INTEGRATED INTEROPERABLE UHF VOICE RADIO AND 700 MHZ BROADBAND DATA NETWORK FOR PUBLIC SAFETY USERS.

A. Applicable Standard

To obtain a waiver of the Commission's rules, a petitioner must demonstrate either that: (i) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the present case, and that a grant of the waiver would be in the public interest; or (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.²¹ An applicant seeking a waiver faces a high hurdle and

²¹ 47 C.F.R. § 1.925(b)(3).

must plead with particularity the facts and circumstances that warrant a waiver.²² Although a successful waiver petition needs to satisfy only one of the two tests, the LA-RICS members will demonstrate that this request satisfies both tests.

B. Depriving the LA-RICS Region of Spectrum that It Needs for Its Broadband Data Network Would Not Serve the Commission's Goals and Would Frustrate the Public Interest.

Under the first test, the waiver request should be granted if: (a) denying LA-RICS the use of the broadband spectrum, in the hope that a national public-private partnership plan will succeed, would not serve the underlying purposes of the Commission's plan, and (b) granting the waiver would be in the public interest. The instant waiver request easily meets both requirements.

As demonstrated above, the underlying purpose of the Commission's plans for a public-private partnership are to overcome the lack of funding for public safety broadband networks and to speed their deployment. Recognizing the enormous benefits of wireless broadband services for first responders, the Commission wisely wishes to have public safety broadband networks available for use as quickly as possible. However, with the failure of Auction 73 and the uncertainties regarding the Commission's plans, it is unclear when and how the Commission will ultimately meet its goals. Whether or not the Commission revamps its general approach, it is clear that, with respect to the LA-RICS Region, the current plan does not serve the Commission's purposes.

The LA-RICS Region, representing over 11,000,000 people, stands ready to deploy a state-of-the-art integrated interoperable voice and broadband data network. The LA-RICS Region can accommodate its funding needs, without the participation of a commercial partner, by taking advantage of the synergies resulting from simultaneously designing and building the

²² See *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969), "a general rule, deemed valid because its overall objectives are in the public interest, may not be in the 'public interest' if extended to an applicant who proposes a new service that will not undermine the policy served by the rule."

Project 25 voice and broadband data network in the 700 MHz public safety spectrum space. As previously noted, the Region has secured Grant funding to carry it through the design of the system and is poised to implement that effort. Many of the same steps that are required to build the voice network -- such as hiring consultants, managing the competitive solicitation process, and installing the communications infrastructure -- apply equally to building the broadband part of the network. By designing and constructing an integrated voice and data network, at the same time, the Region can avoid duplicated effort, efficiently marshal its resources and secure the necessary incremental funding. Furthermore, scarce national resources for public safety would be saved by designing and constructing the broadband network at the same time as the voice network. However, the Region will only be able to make such efficient use of limited federal, state and local resources if the Commission grants the requested waiver and allows public safety agencies within the Region to use the public safety broadband spectrum now, with the agreement of the PSST.

Denial of LA-RICS Waiver would frustrate the Commission's own articulated goals. The LA-RICS Region would lose a one-time opportunity to efficiently fund a public safety broadband network. Instead of obtaining the benefits of a broadband network in the next few years, the LA-RICS Region would have to wait an unknown period of time for a commercial provider to build out a network with unestablished specifications that may be neither cost effective nor adequate to meet LA-RICS needs.

Conversely, granting the waiver would unequivocally serve the public interest by providing 11,000,000 Americans, in the nation's second largest urban area, the benefits of enhanced abilities of first responders to prevent and respond to all types of disasters. Critical first responder tools, such as instant access to criminal databases for suspect information, improved situational awareness using video technologies, and real time tracking of assets,

firefighters and resources, would be available throughout the region. For example, utilizing the planned narrowband voice and broadband data network, a fire chief at an incident scene could communicate directly with a police officer on his UHF voice radio system, while downloading critical building floor plan information on its 700 MHz broadband system, and uploading video to Incident Command. A police chief could communicate with its state or federal partners, to secure perimeters and effectively deploy resources.

Moreover, the public interest benefits of granting the waiver would extend beyond the LA-RICS Region. The LA-RICS Region would become both a test-bed and a showcase for the entire nation of the benefits to public safety from “advanced broadband applications using modern, IP-based system architecture.”²³ The nation's homeland security would be improved by providing enhanced public safety communications capabilities to the City of Los Angeles, LA County, and the surrounding areas, some of the most likely targets of a potential terrorist attack.

C. Depriving LA RICS Access to the 700 MHz Public Safety Spectrum, Given the LA-RICS Region's Unique Circumstances, Would Be Contrary to the Public Interest and Would Leave LA-RICS With No Reasonable Alternative.

The second test for granting a waiver under Commission rules is met if the Petitioner demonstrates that (ii) in view of unique or unusual factual circumstances of the instant case, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative. The LA-RICS members' waiver request also clearly satisfies this test.

The LA RICS Region is presented with a unique, one-time opportunity. The Region can leverage the resources and work effort required to build a voice network to construct both an interoperable voice and broadband data network. The Region desperately needs to move ahead

²³ *Second Report and Order*, ¶ 396

with its interoperable voice network; as a result, this opportunity will pass if the members of the Region are not granted access to the public safety broadband spectrum soon. The public interest would not be served by preventing the Region from taking advantage of this unique opportunity, thus delaying all the benefits of broadband public access previously identified.

The second test is also met if the requesting party demonstrates that it has no reasonable alternative to seeking a waiver. The public safety broadband spectrum is the Region's only reasonable option for broadband communications. Previously, spectrum allocation to public safety has been fragmented throughout the frequency ranges, and has been made available for voice and narrow-band mobile data communications. Further, the 4.9 GHz spectrum is not adequate for large scale, wide area deployments, as its propagation characteristics require significant investment in infrastructure. All other potential spectrum options, including 2.4 GHz WiFi fail to allow for licensing, rendering systems susceptible to interference and thus unacceptable for public safety use. The 700MHz broadband spectrum is the only viable solution for a cost effective, regional wireless broadband system.

Finally, the LA-RICS members also recognize and support the goal of nationwide interoperability. As the Commission recognized in its *Third Further Notice*, a regional network can be made fully compatible with this goal. To ensure nationwide interoperability, the LA-RICS members would urge the Region to deploy standards-based LTE technology, as advised by the Commission, and to meet all of the technical specifications recently proposed by the Commission in its *Third Further Notice*. Further, the LA-RICS members would urge the Region to enter into a network sharing and roaming agreement with the PSST and other jurisdictions as needed to support the goal of nationwide interoperability.

D. The Network Will Be Robust and Will Satisfy All of the Technical Specifications Proposed by the Commission in the *Third Further Notice*.

LA-RICS is planning deployment of a Long Term Evolution (LTE) network to support public safety operations. This LTE system will be deployed to operate on a paired assignment of 5 MHz wide channels in the public safety broadband block between 793-798 MHz for mobile transmission and 763-768 MHz for base station transmission. The equipment operating band will be compliant with Band Class 14 as specified in the 3GPP standards. LTE is a commercial open standard technology which will be deployed by commercial wireless operators in the commercial portions of the 700 MHz band within the next year.²⁴

Our proposed LTE network would meet the technical specifications proposed by the Commission in its *Third Further Notice*. In particular:

- *Capacity, Throughput, and Quality of Service*. With user peak data rates of 31.7 Mbps (downlink) and 8.5 Mbps (uplink) and quality of service support for real-time and non-real-time IP-based applications, LTE will support all the applications listed in Table 1 of proposed Section 27.1305 of the Commission's rules. The network will be designed with effective cell edge data rates exceeding those listed in Table 2 of proposed Section 27.1305. In addition, the system will provide QoS mechanisms and priority levels consistent with LTE standards. Both inter- and intra-user QoS are supported by LTE, including a total of 8 distinct priority levels. Since the network deployed under this waiver request is intended for operation in the public safety broadband allocation and will only serve public safety subscribers, features to preempt consumers or allow priority access to the D block described in the *Third Further Notice* will not be supported. Should they be needed at a later time, these features can be supported by updating the network's core network software.
- *Security and Encryption*. LTE is highly secure in view of its use of a variety of robust authorization and authentication mechanisms employing standard encryption techniques. IPsec is supported. The system will comply with commercial best practices.
- *Availability, Robustness, and Hardening*. The network will be designed for robustness and reliability. The system as designed is expected to exceed the 99.6% availability metric excluding radio signal coverage and scheduled maintenance downtime. Network equipment will be deployed at existing sites currently supporting the LA-RICS Land Mobile Radio networks. These sites have been hardened to meet the needs of mission-critical public safety communications. In addition, most of these

²⁴ Cite to Verizon, AT&T or Qualcomm.

sites provide high-capacity, highly-reliable optical and/or microwave radio transmission facilities.

E. LA-RICS Network Can Be Integrated Into A Shared Commercial/Public Safety Network.

The interoperable public safety broadband network that would be deployed by LA-RICS under the requested waiver will be capable of being integrated into a shared commercial/public safety network once it is built. A number of LA-RICS members' assets could be used to support a public-private network including, but not limited to:

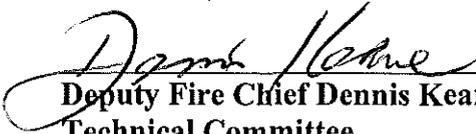
- Tower structures and ancillary equipment such as antennas, cables and backup power equipment; and
- Base station and core network equipment used to construct the LA-RICS wireless broadband network. Reusable base station components include power amplifiers, I/O units, timing units, RF filters, racks and controller cards. Reusable elements of the IP Core include AAA (Authorization Authentication & Accounting equipment.)

LA-RICS would obtain the approval of the Public Safety Broadband Licensee for any early deployment undertaken in accordance with its waiver. As previously stated, if the Shared Wireless Broadband Network is extended into the LA-RICS area, we would work with the D Block licensee and the Public Safety Broadband Licensee to achieve seamless integration.

IV. CONCLUSION

For the reasons set forth above, the LA-RICS members respectfully request that the Commission grant the instant waiver that would allow the LA-RICS Region to take advantage of a unique opportunity to construct a wireless broadband network while it builds an interoperable UHF voice network. To prevent this opportunity from passing, the LA-RICS members respectfully request that the Commission act on this petition expeditiously, so that the Region and the nation can gain all of the public interest benefits enumerated in this request.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Dennis Keane", is written over a horizontal line.

**Deputy Fire Chief Dennis Keane, Chairperson
Technical Committee
Los Angeles Regional Interoperable
Communications System (LA-RICS)
Joint Powers Authority**