

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
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
	)	

**COMMENTS OF CISCO SYSTEMS, INC.**

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## SUMMARY

With its *Ninth NPRM* in this proceeding, the Commission has taken an important step in promoting interoperable public safety communications. The new national broadband public safety framework proposed for the 700 MHz band will remedy the fragmented and inefficient system that has been used to license public safety entities, foster competition in the equipment, applications and services markets, encourage technology development and innovation, and promote efficient spectrum use.

Cisco Systems, Inc., the world's leading manufacturer of Internet Protocol ("IP") networking equipment and IP communications hardware and software, is confident that adoption of the Commission's proposal will create an efficient and user-friendly platform on which public safety agencies will be better able to communicate with each other, making them better able to respond to emergency situations. Using broadband network architecture for the new public safety network also will make possible the interoperable use of countless IP-based video and data applications, and will be more easily upgraded as new applications and technologies are developed.

The Commission's proposal to license a single entity to manage a nationwide, interoperable broadband public safety network will eliminate inefficiencies inherent in licensing thousands of different public safety entities, increase spectrum efficiency, update the band plan to make it capable of supporting state-of-the-art technologies, and create economies of scale and scope that will trigger greater competition and innovation. The resulting network will be more robust, reliable and adaptable.

In short, the proposal put forth in the Commission's *Ninth NPRM* holds the promise of creating a public safety network that will go a long way toward fulfilling the potential envisioned by Congress when it allocated 700 MHz spectrum to public safety several years ago. The Commission must not fail to follow through on the initiative it has seized in the proceeding.

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To: The Commission

**COMMENTS OF CISCO SYSTEMS, INC.**

**I. INTRODUCTION AND BACKGROUND**

The 700 MHz public safety allocation presents the Commission with an historic opportunity to transform forever the communications network of our nation's first responders. In the *Ninth NPRM*, the Commission has moved boldly by proposing an innovative new approach to licensing public safety communications that will maximize public safety entities' access to interoperable broadband communications capabilities in the 700 MHz band.<sup>1</sup> Building upon the ideas the Commission put forth in its *Eighth NPRM*,<sup>2</sup> this new approach marks a significant step forward in facilitating effective public safety and law enforcement operations. Cisco Systems, Inc. ("Cisco") fully supports the Commission's initiative and the approach taken in the *Ninth NPRM*.

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<sup>1</sup> *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Ninth Notice of Proposed Rulemaking*, FCC 06-181 (released December 20, 2006) ("*Ninth NPRM*").

<sup>2</sup> *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Eighth Notice of Proposed Rulemaking*, FCC 06-34 (released March 21, 2006) ("*Eighth NPRM*").

Since its inception in 1984, Cisco has been the world's leading manufacturer of Internet Protocol ("IP") networking equipment and IP communications hardware and software, and the company has a long record of developing new technologies to serve the communications needs of the public safety community. For example, Cisco has developed mobile wireless routers used in first responder vehicles, and has crafted wireless solutions from its 802.11 product set to deliver broadband services to public safety. Cisco's engineers are continually developing innovative IP networking technologies and industry-leading products in its core areas of routing and switching, including wireless broadband equipment and advanced technologies in IP telephony and other IP-enabled services.

As Hurricane Katrina, the terrorist attacks of 9/11 and other crisis situations have demonstrated all too well, our federal, state and local emergency first responders do not yet possess the means to communicate effectively in times of crisis.<sup>3</sup> The proposals set forth in the *Ninth NPRM*, however, offer the promise of change. Allowing wireless broadband technologies to operate in the 700 MHz public safety spectrum will give public safety the opportunity to develop new broadband tools that will advance public safety's ability to respond to everything from routine events to large-scale disasters. While Cisco believes that deploying broadband capability is critical in the public safety spectrum at 700 MHz, the proposal in the *Ninth NPRM* to create a national framework for the new broadband public safety network is of equal importance. Creation of this framework will provide an efficient and uniform platform on which interoperable public safety and homeland security applications can be easily run. This new

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<sup>3</sup> As the 9/11 Commission noted, "the problems in command, control and communications that occurred at both [the World Trade Center and the Pentagon] will likely recur in any emergency of similar scale. The task looking forward is to enable first responders to respond in a coordinated manner with the greatest possible awareness of the situation." Report of the National Commission on Terrorist Attacks upon the United States, released July 22, 2004, at 315 (download available at <http://www.9-11commission.gov/report/index.htm>) ("*9/11 Commission Report*").

network will be capable of offering countless new and needed applications, including interoperable voice communications, remote video monitoring at command sites, video information for officers on patrol, cross-jurisdictional database messaging and ambulance-hospital video links. In addition, the Commission's proposal avoids technology "balkanization" that could occur under current rules if different public safety agencies choose different wireless technologies and their employees carry different end user equipment. Finally, it ensures that the 24 MHz of spectrum can be used in the most efficient way possible – avoiding guardbands between systems that would be required to protect transmissions from inconsistent air interfaces, maximizing the use of cell sites for spectral reuse, and providing an opportunity for the licensee to select from the most advanced antenna technology possible. Crafting effective public policy that facilitates the development of such a public safety network should be the Commission's key imperative in this proceeding.

As discussed below, establishment of a nationwide, interoperable broadband public safety communications network, operated by a single national licensee as proposed in the *Ninth NPRM*, will enhance interoperability, encourage innovation in the development of broadband technologies, services and products, and foster competition in the public safety equipment and services markets. The inevitable result will be the development of new applications and solutions that will better address public safety communications needs. In addition, such a broadband network, taking full advantage of resilient IP communications, also will increase the reliability, adaptability and recoverability of public safety communications. In turn, the availability of software-driven improvements that can be easily implemented at the applications layer of the network minimizes the risk that public safety entities will be stranded with outdated equipment and capabilities, as they have in the past. Finally, the national public safety licensee

should be afforded substantial flexibility under the rules to develop the system and to integrate the narrowband channels into the broadband network if public safety needs warrant.<sup>4</sup>

## **II. A NATIONAL BROADBAND LICENSE WILL ENHANCE INTEROPERABILITY AND BENEFIT ALL PUBLIC SAFETY COMMUNICATIONS.**

The Commission's proposal for a national broadband public safety licensee can be a key turning point in solving the problems that plague today's first responder networks. It is widely acknowledged that the efficiency and utility of public safety communications networks have been neither adequate to the needs of public safety entities nor commensurate to the important work that they perform for our society.<sup>5</sup> The fragmented scheme by which spectrum historically has been allocated and assigned for public safety communications use is inefficient and has failed to encourage competition and innovation in the market for public safety equipment. As a long-time leader of the public safety communications community remarked at a recent U.S. Senate hearing on public safety communications, "[o]ur public safety users who should have the best, most advanced, and most robust capabilities too often must rely on systems that are inadequate for their needs today, much less the expanded responsibilities with which they will

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<sup>4</sup> Throughout this comment, Cisco will refer to the new network as a "broadband" network. There are today several competing standards-based wireless broadband technologies from which a national public safety licensee could reasonably choose. Not all of them are "native IP", but all of them have the capability of delivering IP-based communications at high data throughput rates, and each is supported by a substantial community of vendors who continually are looking to improve their technology. Regardless of public safety's selection of an air interface, a wireless broadband network today must be supported by a robust IP-based network that connects base stations and provides transport capabilities in order to support the types of applications that public safety will want to operate on the network.

<sup>5</sup> See, e.g., *In the Matter of Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, EB Docket No. 06-119, *Notice of Proposed Rulemaking*, FCC 06-83 (released June 19, 2006), at Appendix B (*Report and Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*), pp. 23-27; *9/11 Commission Report* at pp. 319-23; Jon M. Peha, *How America's Fragmented Approach to Public Safety Wastes Money and Spectrum*, 33<sup>rd</sup> Telecommunications Policy Research Conference (Sept. 2005), at pp. 13-14; The Aspen Institute, Communications and Society Program, *Clearing the Air: Convergence and the Safety Enterprise* (2006) ("Weiser Report"), at pp. 8-9.

continue to be charged in the future.”<sup>6</sup> Simply put, the current balkanized system under which public safety entities obtain their communications capabilities is broken.

In light of this record, the Commission has wisely opened the door to a new approach to public safety spectrum management. Commenting on interim measures that would address the need for greater public safety interoperability, Chairman Martin recently noted that “[b]y adding IP-based technologies to existing public safety network equipment (a so-called ‘IP patch’) and deploying IP-based network equipment where necessary, public safety officials would achieve functional, if not full, interoperability.”<sup>7</sup> As the Commission recognized, “[t]he availability of a nationwide, interoperable, broadband communications network for public safety substantially could enhance the ability of public safety entities to respond to emergency situations . . . .”<sup>8</sup>

The Commission wisely identified “broadband” and “nationwide interoperability” as its first two objectives for public safety communications in the twenty-first century.<sup>9</sup> Allocating 12 MHz of the 24 MHz of spectrum allocated for public safety use in the 700 MHz band (the “700 MHz Public Safety Allocation”) for interoperable, broadband public safety operations and centralizing the licensing of 12 MHz of this spectrum offers a once-in-a-lifetime opportunity to fulfill both of these objectives.

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<sup>6</sup> Written Testimony of Harlan R. McEwen before the Committee on Commerce, Science & Transportation, United States Senate, February 8, 2007, at p. 2. Mr. McEwen has been Chairman of the Communications & Technology Committee of the International Association of Chiefs of Police for more than 28 years.

<sup>7</sup> Attachment to Letter from FCC Chairman Kevin J. Martin to The Honorable John D. Dingell and The Honorable Edward J. Markey, February 7, 2007, at p. 16.

<sup>8</sup> *Ninth NPRM* at para. 13. See also *FCC 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* (submitted December 19, 2005) (“2005 FCC Report to Congress”), at para. 2 (“Emergency response providers would benefit from the development of an integrated interoperable nationwide network capable of delivering broadband services throughout the country”).

<sup>9</sup> *Id.* at paras. 12, 13.

Cisco wholeheartedly supports adoption of this public safety broadband proposal, which will allow multiple applications to co-exist in the same spectrum and give law enforcement agencies and first responders access to the video surveillance, real-time text messaging and email, digital imaging and precise location data capabilities which they deserve and which will enable them to do their jobs better. The commercial sector of the wireless industry has been working to deploy broadband services to the public, and with this increased deployment have come accelerating throughput capabilities and increased application and service development. Wireless consumers can access broadband data and video services simply by choosing a handset that delivers them. Shouldn't our first responders have the same ability? As Commissioner McDowell recently stated:

“The same market and technological forces that have made advanced wireless services an everyday part of living for the vast majority of Americans can and should be leveraged by the public safety community to make robust, redundant, low cost solutions widely available to our nation's first responders.”<sup>10</sup>

Public safety communications can realize the benefits of broadband deployment only if the Commission re-thinks the existing 700 MHz plan.

Having a minimum of 12 MHz of broadband channels operating in a single, national footprint represents an enormous step toward the “system of systems” goal that public safety first articulated in 2004 for the future of its communications. At the time, public safety identified a hierarchy of wide-area, jurisdiction-wide, incident-level and personal area networks that support advanced applications that would specifically be developed for public safety.<sup>11</sup> A uniform

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<sup>10</sup> Attachment to Letter from FCC Commissioner Robert M. McDowell to The Honorable John D. Dingell and The Honorable Edward J. Markey, February 7, 2007, at p. 8.

<sup>11</sup> See *Public Safety Requirements for Communications and Interoperability*, The SAFECOM Program, U.S. Department of Homeland Security, 2004 (revised October 2006) (“*2004 Statement of Requirements*”), found at [http://www.safecomprogram.gov/SAFECOM/library/technology/1258\\_statementof.htm](http://www.safecomprogram.gov/SAFECOM/library/technology/1258_statementof.htm). While the *2004 Statement of Requirements* did not link specific spectrum to the types of networks it describes, it calls out a “systems of systems” approach to public safety networking, with network reach described as “wide area”, “jurisdiction,”

technology platform supported by interoperable applications and equipment, operating in the public safety band at 700 MHz, ensures that public safety officials will be able to communicate easily with each others' organizations and across geographies – the very purpose of jurisdiction and wide area networks. Spectrum propagation characteristics at 700 MHz are ideally suited for jurisdiction-wide and wide area communications because signals propagate easily through structures and travel long distances. Targeting the 700 MHz public safety spectrum for these types of networks therefore builds upon the systems of systems concepts, and complements the “incident-level” network concept that public safety sought, and won, when it pursued 50 MHz of spectrum at 4.9 GHz just a few years ago.

Another key benefit that will flow from using broadband network architecture for the new public safety network is that its ability to carry IP-based communications such as data and video means that the problem of interoperating IP-based broadband data and video applications becomes less significant. To the extent the licensee adopts a set of uniform applications that runs over the network, problems with the interoperability of broadband tools among public safety organizations may never plague public safety in the way that voice interoperability has. As the worldwide leader in IP-based networking, Cisco can attest to the ability of IP-based networks to facilitate this type of integration.<sup>12</sup>

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“incident level” and “personal.” The 50 MHz awarded public safety at 4.9 GHz, and the technology deployed there, is ideally suited for “incident level” and “personal” networks. Incident level networks are mobile, generally supported by a command vehicle at the incident that serves as the base station for nomadic devices on the scene.

<sup>12</sup> Cisco has developed technologies that address today's voice communications interoperability requirement, enabling communications across any type of device, whether push-to-talk (radio) systems, cell phones or landline phones. One such technology, called IPICS (IP Interoperability and Collaboration System), is now in use in multiple locations in the United States. New capabilities are being added to IPICS that enable it to offer new interoperable data tools to public safety. IPICS is an example of one of the industry's first systems designed to easily integrate disparate radio systems together with widely deployed voice, video and data networks.

The Commission must not fail to take this opportunity to create the kind of broadband network that will fulfill the promise of this public safety allocation.

**III. A NATIONWIDE BROADBAND NETWORK WILL INCREASE EFFICIENCY, PROMOTE NEW TECHNOLOGIES, AND FOSTER COMPETITION.**

Licensing a single entity to manage a nationwide, interoperable broadband public safety network will solve four problems that have long hindered efficient public safety communications: (1) it will eliminate the inefficient and fragmented use of spectrum inherent in having thousands of different local public safety licensees; (2) increase efficiency of spectrum use; (3) it will replace a well-intentioned but now anachronistic band plan with one that will facilitate public safety deployment of state-of-the-art technologies; and (4) it will create economies of scale and scope in the market for technology, services and products, allowing for greater vendor competition and choice.

*From Thousands of Licensees to One.* A single nationwide licensee will eliminate – literally with the stroke of the pen – the inefficiencies and fragmentation that currently typify public safety licensing. A single nationwide licensee will dramatically reduce the transaction costs of selecting technologies, overseeing deployments, and managing this new network. The licensee will gain essential economies of scale in the acquisition and deployment of network equipment, end user equipment, and to obtain efficiencies in network management, including transport. The national licensee will also be able, for the first time, to develop and implement a nationwide strategy for network build-out that will mitigate, and eventually eliminate, the uneven builds that are common in other public safety bands. Similarly, only a centralized licensing scheme for broadband public safety communications can realize certain efficiencies. For example, it is clear from the commercial experience that broadband networks will evolve and get

faster, more secure and more robust over time. A centralized licensee is better positioned to exploit improvements in technology and migrate its network in support of future, as-yet-unimagined uses. Moreover, a centralized manager will be more capable of dynamically managing the demands on the network to ensure peak performance when and where the need is greatest.

Individual states and localities also will derive important benefits from having a single, nationwide licensee for the 700 MHz broadband network. In addition to the obvious benefits of broadband deployments and interoperability, individual public safety entities will have the flexibility to use (and pay for) the network only when they need it – while spreading the costs of building it and maintaining it across a far wider variety of users.

*From Siloed to Dynamic and Efficient Use.* A unified, standards-based, interoperable broadband public safety network also will lead to a more efficient use of spectrum. By employing broadband technologies, public safety spectrum can be used as efficiently as commercial spectrum, thereby allowing for greater capacity and more simultaneous public safety uses. Regardless of the air interface technology that the public safety licensee decides to adopt, the virtuous cycle of competition and innovation is driving broadband technologies toward faster and more reliable deployments. Wireless broadband is a particularly dynamic segment, with two principle technology “families” serving incumbent providers (*e.g.*, CDMA and GSM), and new technologies (*e.g.*, WiMax) seeking to take market share. In this hotly competitive environment, a snapshot of a technology taken in 2007 will soon be outmoded as the various vendor communities continue to advance the performance of wireless broadband. In addition, an interoperable broadband network will allow multiple services to be integrated in a single device and make possible dynamic load-shifting from application to application as communications

demands dictate. From the perspective of spectrum policy, the Commission’s proposal amounts to a “win-win-win” – better technologies and devices will be developed, leading to more efficient use of spectrum, giving public safety entities a greater ability to serve the public.

*From Wideband to Broadband.* A band plan premised on a broadband platform will also deliver capabilities which can substantially enhance the ability of public safety entities to respond to emergency situations. These capabilities, however, are simply not achievable under the current band plan for the 700 MHz Public Safety Allocation, which splits the allocated band between narrowband and wideband channels.<sup>13</sup>

Since the current band plan was originally crafted, the communications landscape has changed significantly, and the band plan must be changed to keep pace. Channels defined as “wideband” in 2000 – 50 kilohertz channels that could be aggregated to form 100 kilohertz or 150 kilohertz channels – have little use in today’s broadband world. The Commission’s proposal to modify 12 MHz of the 700 MHz Public Safety Allocation to accommodate broadband communications wisely recognizes that retaining the current channelization plan would deny public safety entities access to today’s broadband communications capabilities, to say nothing of those coming in the future. The broadband services public safety identified in the *2004 Statement of Requirements* document generally demand throughput speeds far in excess of those that can be provided through 150 kilohertz of bandwidth.

*From Few to Many Equipment Manufacturers.* As the Commission recognized, the existence of a nationwide broadband public safety network will produce economies of scale and

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<sup>13</sup> See *The Development of Operational, Technical and Spectrum Requirements For Meeting Federal, State and Local Public Safety Agency Communication Requirements Through the Year 2010*, WT Docket No. 96-86, *Third Memorandum Opinion and Order*, 15 FCC Rcd 19844 (2000).

scope and encourage competition among suppliers of products and services.<sup>14</sup> A broadband national public safety broadband network will provide a large market for which manufacturers of broadband technologies, services and products will compete, thereby spurring innovation and ultimately resulting in cost savings that will inure to the benefit of end-users – the police officers and fire and rescue workers on whom we all rely in times of crisis – and the taxpayers who pay to build their networks.

The compelling case for broadband is evidenced by a quick glance at the networks being built today around the world – simply put, “wideband” networks are not being developed, while broadband networks are everywhere. As a result, public safety can and should expect that only a small circle of vendors will develop wideband public safety applications and equipment. In contrast, the universe of companies working on new broadband IP applications and equipment is enormous. As wireless broadband technologies of the future promising throughput speeds of 100 Mbps and more are being developed, the Commission’s nationwide broadband network proposal will put public safety entities in the position – for the first time – to take advantage of this evolution.

#### **IV. BROADBAND PUBLIC SAFETY COMMUNICATIONS WILL INCREASE THE RELIABILITY, ADAPTABILITY AND RECOVERABILITY OF PUBLIC SAFETY COMMUNICATIONS**

With the *Ninth NPRM*, the Commission recognizes the important public safety benefits that flow from a network architecture that utilizes IP technologies at its core.

This echoes the sentiments expressed in the *2005 FCC Report to Congress*, in which the Commission observed, with respect to spectrum needs for emergency response providers, that “IP-based technology . . . provides the dynamic capability to change and reroute

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<sup>14</sup> See *Ninth NPRM* at paras. 15, 22.

telecommunications voice and data traffic within the network.”<sup>15</sup> As such, “[g]reater incorporation of IP-based technology into public safety networks may allow public safety entities to restore service in the event of failure, as well as initiate coverage in new areas more rapidly.”<sup>16</sup> Considering the devastation that natural disasters can wreak, the Commission is wise to seek to create a system that is “inherently robust by incorporating flexible routing and other features . . . that will maintain essential operations when parts of the infrastructure have been destroyed or disabled.”<sup>17</sup>

Unlike today’s public safety systems, many of which are outmoded, an IP-based broadband network will be nimble enough to keep up with the changing demands of public safety communications. IP-based networks are configured to be software-driven, enabling innovation in applications to drive development of the network. Because innovation in software occurs far more rapidly than in hardware, the existence of an IP-based public safety broadband network will help to spur the development of new technologies that can be put to use quickly. Thus, as the needs of law enforcement and emergency first responders evolve over time, developers will have an incentive to create solutions that can be implemented quickly on the new nationwide network. This will constitute a demonstrable improvement over the current state of public safety communications.

Creating a national market for broadband public safety equipment also will dramatically improve the disaster recovery abilities of public safety entities. With uniform equipment distributed widely across the country, it is more likely that immediately usable equipment will be

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<sup>15</sup> *2005 FCC Report to Congress*, at p. 4.

<sup>16</sup> *Id.*

<sup>17</sup> *Ninth NPRM* at para. 17.

available on short notice to emergency personnel in affected areas. In contrast, in the aftermath of Hurricane Katrina, if one parish used proprietary equipment from one vendor and another used proprietary equipment from another vendor, each would need to be separately stockpiled and maintained, resulting in greater expense and less flexibility.

Noting the failure of specialized equipment during Hurricane Katrina, a recent Aspen Institute report observed that the focus should not be “on whether equipment is specially made for public safety agencies[,] but on whether it meets the requirements and specifications for effective public safety communications.”<sup>18</sup> In order to increase the efficiency and utility of the national public safety communications system, public safety communications plans must take advantage of the economies of scale provided by commercially available equipment that interoperates with an open, IP-based broadband network.

**V. COMMISSION RULES GOVERNING ANY NEW PUBLIC SAFETY BROADBAND NETWORK SHOULD BE FLEXIBLE ENOUGH TO FOSTER IMMEDIATE DEPLOYMENT**

It is crucial that the national broadband public safety licensee be given substantial flexibility to adapt the network to changing needs. The Commission stated in the *Ninth NPRM* that it “would leave significant discretion to the national licensee to carry out its responsibilities.”<sup>19</sup> This is clearly the correct approach.

The Commission has moved away from a “command-and-control” regulatory model in the commercial wireless sector, created flexible spectrum allocations in which competing technologies can develop and flourish, and authorized market-based solutions like spectrum leasing to enable spectrum to flow to its highest and best use. By granting a single licensee the

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<sup>18</sup> *Weiser Report* at p. 13.

<sup>19</sup> *Ninth NPRM* at para. 19.

necessary flexibility, the competition and innovation that have typified the commercial wireless bands can be brought to bear for public safety as well. The important public interest benefits of a nationwide IP public safety licensee should not be undercut by operational mandates that hamstring the licensee's leadership.<sup>20</sup>

The rules governing the public safety broadband network should give the national licensee enough flexibility to respond quickly to evolving public safety needs and new technological developments – while creating a floor which creates threshold capabilities for the new network in the band. The Commission's rules should be designed to ensure only that a true broadband architecture utilizing IP technology is in place that will allow all the public interest benefits of flexibility and competitive providers set out above. These new minimal requirements must allow for new products and services to be introduced in the network without having to seek prior Commission authority. Giving the national licensee this flexibility will send an important signal to the marketplace that innovation will be rewarded.

**VI. THE COMMISSION SHOULD GIVE PUBLIC SAFETY THE DISCRETION TO USE THE NARROWBAND CHANNELS FOR BROADBAND OPERATIONS.**

The Commission should also grant additional flexibility to public safety to make broadband operations primary in the narrowband segment of the allocation. The Commission has proposed that the national public safety broadband licensee would be permitted to operate on a secondary basis on the remaining 12 MHz of the 700 MHz Public Safety Allocation, noting that such use could serve as a “migration path for a gradual transition to the nationwide,

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<sup>20</sup> In keeping with the need for flexibility, Cisco supports the Commission's proposal to give the national licensee the ability to lease access to commercial service providers on an unconditionally preemptible basis and to arrange for joint provision of public safety and commercial services, as well as the unfettered right to determine when such arrangements must be discontinued. *See Ninth NPRM* at paras. 41-43. Cisco also agrees that the national public safety licensee should be able to charge fees for the use of its services, and that it should be allowed to share use of commercial wireless infrastructure to reduce costs. *Id.* at paras. 28-30.

interoperable, broadband public safety system from legacy narrowband systems.”<sup>21</sup> Cisco agrees that allowing additional broadband operations in the narrowband channels is good public policy, but suggests going even further. Broadband operations typically include both broadband and narrowband communications functions. Because broadband networks are able to transmit video, data and voice communications, with such a network in place, public safety agencies may – now or in the future – see less of a need to operate stand-alone voice services on the narrowband channels. To allow for this possibility, the Commission’s regulatory structure for the new broadband public safety network should include a mechanism whereby public safety agencies – perhaps on a statewide basis – can choose to employ broadband services on the entire 24 MHz public safety allocation.<sup>22</sup>

## VII. CONCLUSION

The Commission’s proposed new nationwide broadband public safety communications network will promote interoperable public safety communications, promote competition in the equipment, applications and services markets, encourage technology development and innovation and foster efficient spectrum use. Opponents of this plan may believe that it is too disruptive of the *status quo*, but Cisco regards this disruption as one of the plan’s best features. The fragmented and inefficient system for licensing public safety entities has been inadequate to the task of meeting the communications needs of public safety entities, and the Commission is right to depart from that broken model by embracing an IP-based broadband architecture to fulfill the promise of public safety communications.

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<sup>21</sup> *Ninth NPRM* at para. 39.

<sup>22</sup> Cisco recognizes that some coordination issues likely would need to be resolved to avoid interference issues if some jurisdictions deploy narrowband, but such issues could be addressed in the statewide planning process that is currently being compelled by the U.S Department of Homeland Security.

