

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

In the Matter of)	
)	
Amendment of Part 90 of the)	WP Docket No. 07-100
Commission's Rules)	
)	

To: The Commission

**COMMENTS OF THE
ALARM INDUSTRY COMMUNICATIONS COMMITTEE**

The Alarm Industry Communications Committee ("AICC"), on behalf of its members, hereby submits the following comments on the *Sixth Further Notice of Proposed Rulemaking*¹ ("FNPRM"), released March 23, 2018 in the above-captioned proceeding. As detailed below, AICC supports the expansion of eligibility for access and use of the 4.9 GHz bands, for commercial entities that provide public safety-related services. This approach would achieve expanded use of the spectrum by activities consistent with its public safety purpose, while mitigating concerns of congestion and license exhaustion. Further expansion of eligibility should be explored only after the results of this more limited first step are known.

¹ *In the Matter of Amendment of Part 90 of the Commission's Rules, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, Service Rules for the 698-746, 747-762, and 777-792 MHz Bands*, Sixth Further Notice of Proposed Rulemaking, WP Docket No. 07-100, FCC 18-33, released March 23, 2018.

I. Statement of Interest

AICC is comprised of representatives of the The Monitoring Association (TMA), Electronic Security Association (ESA), Bosch Security Systems, Digital Monitoring Products, Digital Security Control, Telular Corp, , Honeywell Security, Vector Security, Inc., ADT LLC, AES- IntelliNet, Alarm.com, Bay Alarm, Intertek Testing, RSI Videofied, NetOne, Monitronics, Encore Networks, ipDatatel, Wyeless, Inc., United Central Control, Security Industry Association (SIA), AFA Protective Systems, Vivint (formerly APX Alarm), COPS Monitoring, DGA Security, Security Central NC, Simplex Grinnell, Universal Atlantic Systems, Axis Communications, Interlogix, LogicMark, Napco Security, Alarm Detection, ASG Security, Select Security, Inovonics, Linear Corp., Numerex, Tyco Integrated Security, Tyco Security Products, FM Approvals, the Underwriters Laboratories, CRN Wireless, LLC, Rapid Response Monitoring, and xG Technology, Inc.

TMA and ESA, representing the alarm monitoring and installation industry sectors, collectively have approximately 2434 member companies providing alarm service to the public. Together with these trade association members, AICC member companies protect a wide range of sensitive facilities and their occupants from fire, burglaries, sabotage and other emergencies. Protected facilities include government offices, power plants, hospitals, dam and water authorities, pharmaceutical plants, chemical plants, banks, schools and universities. In addition to these commercial and governmental applications, alarm companies protect a large and ever increasing number of residences and their occupants from fire, intruders, and carbon monoxide poisoning. Alarm companies also provide medical alert services in the event of medical emergencies.

II. Expansion of Eligibility

The Commission is seeking comment on how it can encourage greater use of and investment in this band. In particular, it is seeking comment from public safety stakeholders and other potential users so that it can increase the use of this band, while protecting users from harmful interference from additional users if eligibility for this band were increased beyond the public safety allocation. The Commission believes that opening the spectrum to additional uses will encourage a more robust market for equipment and greater innovation. The Commission therefore seeks comment on whether an appropriate sharing mechanism could encourage more opportunistic use of the band while ensuring the priority, integrity, and security of public safety operations. Of note, the FNPRM explicitly asks for comment at paragraph 73 of its Sixth Further Notice of Proposed Rulemaking on whether primary eligibility to use this band should be extended to alarm companies.

In 2002, the FCC allocated 50 megahertz of spectrum in the 4.9 GHz band for public safety uses. While there are approximately 90,000 public safety entities in the United States that are eligible for licensing in this band, there are fewer than 3,200 licenses currently in use. Based on this record, the FCC has expressed concern that the 4.9 GHz band is not being used to its full potential. In this regard, the Commission notes that public safety organizations and others have cited possible reasons for light usage of the 4.9 GHz band to include difficulty in acquiring equipment, the cost of deployment, and concerns about harmful interference. The Commission believes that its proposal to open the band up for other uses may have the effect of alleviating these equipment concerns – provided that it can assure that non-public safety uses will not interfere with public safety users.

The FCC therefore seeks comment on whether offering Critical Infrastructure Industries (CII) co-primary status with public safety is likely to create incentives for increased investment in the 4.9 GHz band, and whether eligibility for CII entities should be conditioned on using the band to provide “public safety services;” and comment on extending 4.9 GHz band co-primary eligibility to all private internal systems. Alternatively, the FCC seeks comment on the feasibility of a two-tiered sharing approach, in which Tier 1 would consist of primary licensees in the band (including all incumbent users), while Tier 2 would allow other non-public safety users to access the band on a secondary basis, with safeguards to ensure priority and interference protection for Tier 1 operations. Furthermore, the Commission seeks comment on redesignating the 4.9 GHz band, wholly or partially, to support commercial wireless use.

AICC reiterates its support for the expansion of eligibility for access to and use of the 4.9 GHz bands to safety-related service providers such as central station alarm companies.² Allowing such entities to make use of the 4.9 GHz band not only maximizes the use of the spectrum, but does so in a way that promotes its intended use, which is to further public safety. The public safety community has explored the possibility of having safety-related entities participate in FirstNet on a limited basis, as a way to foster beneficial interoperability and to create a source of additional revenue for FirstNet. If safety-related service providers can operate on the same spectrum as first responders, including the 700 MHz and the 4.9 GHz band, it can improve their ability to send all types of emergency communications, data and video to the public safety broadband network.

² Pursuant to Rule Section 90.35(c)(63), Central Station commercial protection service is defined as an electrical protection and supervisory service rendered to the public from and by a central station accepted and certified by one or more of the recognized rating agencies, or the Underwriters Laboratories' (UL), or Factory Mutual System. On October 29, 2012, AICC filed Comments asking that central station alarm companies be eligible to apply for 4.9 GHz spectrum; and on November 30, 2012, AICC filed Reply Comments in this proceeding in support of such eligibility.

Currently, as the Commission notes, non-public safety entities are able to use 4.9 GHz spectrum only by entering into sharing agreements with eligible public safety licensees.³ AICC agrees that expanding eligibility to include, at a minimum, safety-related private sector operations (making a license-sharing agreement unnecessary) would help reduce regulatory burdens and foster cooperation between the public safety community and private sector entities with which it already works hand-in-hand. Alarm service providers are such entities, providing alerts to public safety answering points (PSAPs) about fires, home invasions, and medical alerts, so that the PSAPs can coordinate an immediate first response.

AICC also supports eligibility for the FCC-identified CII operations, which utilize spectrum in furtherance of safety-related activities. Other private sector operations providing services that are focused primarily on safety (such as automobile emergency services, and OnStar-type telematics services) may benefit from such limited expansion of eligibility.

A number of benefits would flow from giving such safety-related operations access to the 4.9 GHz band: First, AICC agrees that opening the spectrum to additional uses will encourage a more robust market for equipment and greater innovation, which should translate to greater equipment availability at lower cost.

Second, to the extent that the public safety community will be using the 4.9 GHz band for backhaul of FirstNet communications, and perhaps for specialized applications involving high volume video and data, it would be valuable for the alarm industry and other safety-related operations to have this same capability and access to the spectrum, as potential FirstNet network users and as existing private sector partners with public safety. For example, arming first

³ *FNPRM* at ¶43.

responders with real time security camera footage inside of a building that is on fire or in which an active shooter is on the loose would benefit those first responders and members of the public in the zone of impact.⁴

Alarm companies would benefit tremendously by having access to the wideband 4.9 GHz spectrum for the applications that will directly benefit subscribers utilizing alarm services, as well as first responders. As the world evolves rapidly toward 5G, most items in the home and workplace will become “smart”. It will be possible to have sensors in nearly every pipe and wire in a factory indicating whether the temperature has risen even a few degrees, so that catastrophes can be prevented rather than dealt with after the fact. Drones and autonomous robots will revolutionize operations and issue detection in businesses, prisons, hospitals, government facilities, and other settings, sending detailed data and video via 5G technology. Alarm systems can incorporate this data source into its capabilities, again so that customers and first responders alike can access it remotely and respond appropriately when an emergency starts to arise. 5G will also take the tracking of precious cargo to a new level, using this technology to provide not only the geographic coordinates of an item, but also detailed information about its status. Other

⁴ The Commission also asks, at paragraph 73 of the FNPRM, “does the fact that the Commission’s recent review of ULS in another proceeding suggesting that certain frequencies designated for central station alarm operations may be underutilized affect how we should approach this request [for alarm access to 4.9 GHz].” The frequencies referred to are the central station voice channels allocated under Rule Section 90.35(c) of the Commission’s Rules. As AICC has established in WT Docket No. 16-261, the voice channels are underutilized because newer alarm technology requires data signaling capabilities, and artificial restrictions on signaling over the voice channels have prevented their wider use by central stations. As part of WT 16-261, the alarm industry has worked with the Land Mobile Communications Council (LMCC) to craft a Consensus Plan to (1) make central station voice channels available to non-central stations in many circumstances and (2) finally allow full time alarm signaling on the voice channels. See, e.g., Consensus Plan Ex Parte Comments filed May 8, 2017. Therefore, the underutilization of such channels should not “count against” alarm company eligibility for the 4.9 GHz band, especially since these channels will likely be exhausted in metropolitan areas by both alarm companies and non-central station users once the new rules are adopted. Moreover, the 50- MHz wide 4.9 GHz band will be used for significantly different purposes than the central station voice channels, which offer only 12.5 kHz bandwidth and are therefore incapable of supporting incident scene video or other 5G applications that will benefit both alarm companies and the public safety community they support.

private sector safety operations will likewise benefit from the benefits of 5G, but only if they have access to the appropriate wideband spectrum. If such operations are on the same spectrum as used by FirstNet and first responders, timely sharing of vital data and video with public safety is enhanced. The FNPRM notes (at note 13) that public safety operations are already using 4.9 GHz in part to transmit security camera footage. If alarm companies can utilize 4.9 GHz for this purpose, it could facilitate public safety access to an enormous increase in the amount of security camera footage.

The Commission proposes to authorize both fixed and mobile uses in the 4.9 GHz band, on a licensed basis. See, e.g., FNPRM at para. 3. If the Commission authorizes central station users, it should allow such licensees to classify protected premises as “mobiles”, similar to the licensing scheme allowed for designated narrowband central station frequencies in Rule Section 90.267(f)(1). The Commission allows this approach not only to avoid deployment delays but also to protect the identity and location of protected customers, including not only individuals but also government installations and other sensitive facilities.

AICC recommends that the Commission defer a decision on expanding eligibility to all other commercial users until after the impact of expansion to safety-related operations has been assessed. Widescale commercial operations are in the process of gaining access to comparable spectrum such as the 3.5 GHz band, as well as a number of other 5G options. Allowing such industries to “digest” this additional spectrum, while the public safety community assesses the impact of a more limited eligibility expansion to compatible users, will allow a more reasoned decision as to whether further eligibility for the 4.9 GHz band is warranted at some point in the future.

To the extent that the Commission opts for wide open eligibility, AICC supports the Commission's proposed two-tiered sharing approach, in which Tier 1 would consist of primary licensees in the band (including all incumbent users) would have priority, while Tier 2 would allow other non-public safety users to access the band on a secondary basis, with safeguards to ensure priority and interference protection for Tier 1 operations. Under this two-tiered approach, it would be important that central station alarm, CII and other quasi-public safety users be classified as primary users.

III. Conclusion

In light of the forgoing, AICC urges the Commission to expand access to the 4.9 GHz band to private sector entities engaged in safety-related activities such as alarm service providers and alarm monitoring services, in close coordination with FirstNet’s vision for participation by private sector entities in the public safety broadband network.

Respectfully submitted,

THE ALARM INDUSTRY COMMUNICATIONS COMMITTEE

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