

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

In the Matter of)
)
Amendment of the Commission’s Rules to) ET Docket No. 08-59
Provide Spectrum for the Operation of)
Medical Body Area Networks)
)
)

**COMMENTS OF THE AMERICAN SOCIETY FOR HEALTHCARE ENGINEERING
OF THE AMERICAN HOSPITAL ASSOCIATION**

The American Society for Healthcare Engineering of the American Hospital Association (“ASHE”), pursuant to Section 1.415 of the FCC’s rules, hereby submits comments on the *Notice of Proposed Rulemaking* (“*NPRM*”) in the above-captioned proceeding.¹ In the *NPRM*, the Commission proposes to allocate spectrum and establish service and technical rules for the operation of Medical Body Area Network (“MBAN”) systems and seeks comment on a number of issues arising out of these proposals.

As the representative of a diverse network of 9,400 members dedicated to optimizing the health care physical environment, ASHE welcomes the opportunity to participate in this proceeding. Among the nation’s highest priorities today is the effort to promote the availability, increase the efficiency, and lower the cost of health care in the United States. ASHE commends the Commission for initiating this proceeding to establish an additional platform for the use of wireless technologies in health care facilities, thereby improving patient care and safety, reducing costs, and enhancing

¹ *Amendment of the Commission's Rules to Provide Spectrum for the Operation of Medical Body Area Networks*, ET Docket No. 08-59, FCC 09-57, 24 FCC Rcd 9589 (2009) (rel. June 29, 2009) (“*NPRM*”).

patient outcomes.

ASHE and its parent association, the American Hospital Association, were the primary proponents for the creation of the Wireless Medical Telemetry Service (“WMTS”), which has become a key element in the advancement of wireless health care delivery in hospitals in the United States. Serving as the WMTS frequency coordinator/database manager², ASHE has seen the rapid development and increased deployment of advanced medical telemetry systems operating in both the 608-614 MHz and 1.4 GHz bands. ASHE recognizes that the creation of MBAN systems contemplated in this *NPRM* can be a valuable complement to the existing and future WMTS systems.

As noted in the *NPRM*, the instant proceeding has its genesis in a 2006 Notice of Inquiry (“NOI”) seeking information on the future spectrum needs for wireless medical technologies.³ In response to that NOI, GE Healthcare (“GEHC”) filed a petition for rulemaking seeking a distinct spectrum allocation for MBAN development. As envisioned, MBAN systems would provide a flexible platform for the wireless networking of multiple body sensors used for monitoring a patient’s physiological data, primarily in health care facilities. As GEHC described it, the proposed MBAN allocation would enable low-cost, low-power, high-throughput, low-duty cycle, and short-range wireless medical applications to be deployed in healthcare facilities. When appropriately frequency-coordinated, such applications would complement relatively longer-range WMTS systems, MedRadio devices in the 400 MHz band, and Part 15 unlicensed medical devices.

² ASHE was designated by the FCC as the first WMTS frequency coordinator and, as such, was assigned the responsibility to create and maintain a database of WMTS licensees and deployments as the primary source of information concerning each licensee’s location and technical parameters.

³ *NPRM* at ¶ 8.

ASHE supports the proposed allocation of spectrum for a new MBAN service. ASHE believes that a spectrum allocation for MBAN could facilitate the next-generation of low-power, short range medical devices and thereby facilitate improvements in the quality and efficiency of healthcare services in the United States. A MBAN allocation should be of sufficient expanse (ASHE supports the allocation of 40 MHz as proposed by GEHC) to promote competition and permit coexistence.

ASHE anticipates that potential manufacturers of MBAN systems will be commenting directly on the technical rules and aspects of a proposed MBAN allocation and service. However, the Commission has asked about the relative benefits and disadvantages of authorizing MBAN systems to operate on an unlicensed basis under Part 15, on a licensed, but non-exclusive basis under Part 90, or under a license by rule basis under Part 95.⁴ Based on the very positive experiences of ASHE's members and the land-mobile community operating on frequencies adjacent to WMTS under a "license by rule/data base coordination" approach, ASHE strongly supports this approach for the new MBAN service as well.

ASHE fears that authorizing MBAN under an unlicensed regime under Part 15 would likely lead to numerous cases of interference, not only between the primary and secondary uses of the spectrum, but even potentially among closely located health care facilities. ASHE also believes that licensing and coordination of these very low power systems under Part 90 procedures would be overly cumbersome for health care facilities that do not regularly deal directly with this type of frequency coordination and licensing at the FCC. Nor does ASHE believe that the more formalistic coordination process under Part 90 is necessary to prevent interference among licensed users, both primary and

⁴ *NPRM* at ¶¶ 13-14.

secondary. As the several years of experience that ASHE has now had with coordinating WMTS usage demonstrates, licensing by rule with a requirement for database registration is the best approach for this type of low-power health care use of the spectrum.

Therefore, ASHE strongly recommends that MBAN operations be licensed by rule with a requirement for registration of all MBAN systems with a centralized database, similar to WMTS. A centralized database will facilitate coordination with primary users of the spectrum, who will be able to identify where MBANS systems have been deployed and by whom. Such a system also will help MBAN licensees better manage their frequency use, irrespective of whether a contention-based protocol is used.

ASHE has extensive experience with creating and managing such a centralized database. As noted in the NPRM, WMTS spectrum could be used as a transport medium for MBAN backhaul.⁵ Having both MBAN and WMTS licensed by rule via registration procedures under Part 95 would therefore streamline deployment and the device registration process. Indeed, the WMTS registration process created and implemented by ASHE has been widely considered a success in registering users, avoiding interference among users and minimizing the resources that the FCC needs to expend in frequency coordination. To date over 50% of US hospitals have registered in ASHE's WMTS database with 4,492 total deployments (multiple deployments per hospital). With 717 deployments so far this year, 2009 may set the record for the most WMTS deployments in a single year.

If the Commission were to adopt WMTS-like licensing for MBAN, ASHE would consider applying to become the MBAN database manager/coordinator, leveraging its existing WMTS registration framework to accommodate MBAN systems. Through its members, ASHE is an integral part of the medical community and is closely connected to the hospitals and other health care facilities where MBAN systems would be deployed. Moreover, WMTS coordination

⁵ *Id.* at ¶ 12.

procedures already are well known to many of the companies supporting an MBAN allocation.

For the foregoing reasons, ASHE supports a spectrum allocation of 40 MHz for use with MBAN systems and use of a Part 95 “license by rule” regime using a centralized database to facilitate coordination among users.

Respectfully submitted,

/s/

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