

FCC Approves MBAN

Legal Alert
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Garvey Schubert Barer Legal Update, May 25, 2012.

The FCC voted May 24, 2012 to approve a Report and Order creating the Medical Body Area Network ("MBAN") service. The purpose will be to provide wireless monitoring of patients, with the hope and expectation that this will reduce costs, save lives and create other efficiencies in the delivery and quality of healthcare. While the use of MBANs is not approved for use, the FCC will be accepting comments and make further recommendations by June 2013.

What is a Medical Body Area Network, and how does it work?

An MBAN monitors a patient's vital statistics without the use of wires and tubes. It "untethers" the patient from bulky immobilizing equipment. An MBAN includes body-worn or implanted sensors, which transmit patient information to a nearby control device, which in turn transmits a signal to the remote monitoring and evaluation site.

What frequencies does it use?

MBAN devices can be used in the 2360 to 2400 MHz radio spectrum. In the 2360-2390 portion of this band, MBAN use is secondary to Aeronautical Mobile Telemetry licensees who use this spectrum during flight testing of airplanes. The 2390-2400 portion of this band is not used for flight testing.

Will a hospital have to obtain an FCC license to operate an MBAN?

No. The FCC will permit MBAN usage under a "license by rule" system of registration and frequency coordination, which simply requires the operator to obey the FCC's technical rules.

When can hospitals start using this new service?

It will probably be at least a year before we see the first MBAN technology in use, for several reasons. First, the FCC has to adopt additional rules to establish the registration and frequency coordination procedures, and it has to select a frequency coordinator. Second, the FCC must approve and certify MBAN equipment, because it emits radio frequency signals. To date, no equipment has been submitted to the FCC for approval. Thirdly, most MBAN equipment will also qualify as a "medical device" by the Food and Drug Administration, and must first be approved by the FDA as safe and effective, before it can be used.

What are the benefits of MBAN?

As anyone who has had an extended hospital stay will attest, patient comfort and greater mobility are very important. The expectation is that monitoring will enhance care and efficiency, produce better results, shorten hospital stays, lower costs, and ultimately save lives. The FCC cited one study that monitoring can save up to \$12,000 per patient, and that a monitored patient has a 48% chance of surviving cardiac arrest, as compared with 6% for a non-monitored patient.

Who are the major players in MBAN?

GE Healthcare and Philips Healthcare Systems took the lead in getting the FCC to adopt the MBAN rules. However, the FCC has indicated that it is aware of many other innovators who intend to develop MBAN technology. The U.S. is the first country to adopt rules for MBANs. The FCC considers MBAN as part of the broader National Broadband Plan that it hopes will create jobs and spur economic growth in the United States and overseas. Many at the FCC also hope that the use of MBANs will eventually expand beyond hospitals, into emergency vehicles, clinics, homes, and elsewhere, and that they may be able to deliver medications or other treatment. One would expect MBANs to become linked with smart phones and other Internet-based services. Furthermore, as specialty medical practices learn about this new service, one would anticipate the creation of highly specialized and customized MBANs.

[View FCC MBAN Press Release.](#)