

FLYER

Spirent Wi-Fi Turn Up Services

Assuring Reliable & Secure Connectivity for Healthcare Providers

Wi-Fi has been the prevailing wireless technology for providing flexible and efficient clinical services in the healthcare industry for decades. As the number of Wi-Fi enabled life-saving medical devices from patient monitors to ventilators accelerates, and the need for ubiquitous and reliable Wi-Fi coverage becomes mission critical for patient care and workflows, is your Wi-Fi network up to the tasks?

The recent pandemic is acting as a catalyst for faster adoption of telemedicine and is introducing new Wi-Fi use cases such as a critical healthcare communication infrastructure on a floating ship or temporary facility. It is also revealing many flaws in outdated and/or poorly maintained Wi-Fi networks, ranging from unreliable, unsecured connections, to lackluster audio and video quality for virtual patient consulting in healthcare facilities.

Wi-Fi Networking Turn Up

Spirent is the world's leading provider of end-to-end testing expertise and solutions, ranging from traditional performance, functional and scalability testing of Wi-Fi devices to detailed use-case driven Wi-Fi network testing in various deployment scenarios, including ensuring superior end user experience for clinical staff, patients, and visitors.

Spirent Wi-Fi Turn-up Services for healthcare providers include:

- Technology and product selection based on business requirements
- Network planning, analysis and management
- Pre and post deployment testing
- Data collection, analysis, and recommendation
- Service assurance

Optimized, Secure, Reliable Wi-Fi Networking

Coverage and Performance: Clinical staffs use Wi-Fi enabled equipment such as computer on wheels (CoW) and handheld devices to update patient records while on ward rounds. Also, patients and visitors use Wi-Fi networks to connect with their family members and for entertainment purposes. Healthcare facilities, for example hospitals, are designed to be fire retardant which makes them notoriously difficult for RF signals to penetrate. Spirent test services help reveal dead zones or less than desired performance on the healthcare premises.

Wi-Fi Multimedia Experience: Video use in healthcare industry is skyrocketing for Telemedicine, whether for online patient consulting, or usage of autonomous telepresence robots due to the pandemic. Spirent testing includes emulation of application layer traffic, mixed with voice and data traffic, to ensure Quality of Service (QoS) and Quality of Experience (QoE).

Device Testing: When on-boarding any wireless medical devices, such as EKG/ECG, patient monitoring, and imaging system devices, healthcare IT leaders are worried about the security and vulnerability associated with software patching of these devices. Spirent tests ensure critical medical device connectivity, availability and security by emulating Golden Access Point (AP) for thorough testing.

Co-Existence Testing: As healthcare providers deploy new Wi-Fi equipment, they must ensure it works with other Wi-Fi devices and technologies, without impacting critical care environments. The FDA requires that medical equipment manufacturers comply with **ANSI C63.27**. Spirent solutions help test to this coexistence standard.

Maximum User Loading: The congestion on Wi-Fi networks can be significant for any multi-story healthcare facility with increased utilization of beds, staff, and visitors. Spirent tools provide multi-client emulation capability with thousands of realistic clients (Wi-Fi 6/5/4), to help eliminate bottlenecks in Wi-Fi networks.

Roaming and Band Steering: Healthcare facilities typically deploy a large number of APs to provide seamless Wi-Fi coverage. This use case requires proper validation of Wi-Fi roaming between APs and band steering of AP. Spirent provides detailed testing of roaming features such as fast transition roaming (802.11r), assisted roaming (802.11k), and network assisted roaming (802.11v). Band steering of a large number of clients between 2.4GHz and 5GHz can also be tested with advanced Spirent tools and automation effectively.

Security Testing: Healthcare industry is especially concerned about protecting critical medical information, including patient records to meet federal regulations such as **Health Insurance Portability and Accountability Act (HIPAA)** in the US, and **General Data Protection Regulations (GDPR)** in the EU. Connection over Wi-Fi, as opposed to wire, is viewed as an additional security risk by many healthcare IT staff. New security standards such as Wi-Fi Protected Access 3 (WPA3) for Enterprise and even Wi-Fi Enhanced Open are now offering extra levels of protection, which must also be tested. Spirent solutions include WPA3/2 and Enhanced Open to ensure safe and secured Wi-Fi networks.

Splash page (Captive Portal): Most healthcare facilities provide internet access to their patients and visitors. However, IT staff are particularly concerned about vulnerability of the facility's network security due to online activities, and they rely on Splash page (Captive Portal) for capturing user credentials, web authentication, and registration. Spirent experts can test accessibility to Splash page, including web-authentication for various types of user certificates.

How Spirent Can Help

Spirent services and solutions enable you to Design, Develop, and Deploy next generation networks and applications with proven expertise and practical guidance ensuring success.

To learn more visit: www.spirent.com/wifi

Contact Us

For more information, call your Spirent sales representative or visit us on the web at www.spirent.com/ContactSpirent.

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