



## *Mobilizing Healthcare with Extricom's Wireless LAN*

If ever there was a technology that perfectly supports and advances the goals of healthcare organizations, it is Wireless LANs (WLANs). The digitization of medicine, including standardized electronic medical records and Computerized Physician Order Entry (CPOE) systems, seeks to increase quality of patient care, reduce medical errors, and maximize staff productivity. Wireless technology based on the IEEE 802.11 Wi-Fi standard is the best vehicle for extending these medical information networks right to the point of care – in the doctor's and nurse's hands, at the bedside.

The ways in which WLANs can be used in healthcare are almost unlimited, spanning:

- Patient-centric applications that include patient registration, treatment verification, prescription automation, and patient tracking (locationing)
- Instant staff communications using both voice and data
- Asset and Facilities Management applications that include materials management (bar code) and inventory tracking and locationing

Wi-Fi also allows healthcare facilities to provide patients and visitors with public broadband service, improving both image and revenues.

### **The Unique Challenges to Healthcare WLANs**

The healthcare arena is probably the most demanding environment imaginable for WLANs. Medical personnel perform information-intensive and time-sensitive activities within a campus-wide, highly mobile operation. A typical medical building's T-, U-, or H-shaped layout, with multiple enclosed rooms and long hallways, presents a physical hurdle that can be terminal for WLANs. The regulated nature of healthcare also imposes stringent requirements for privacy of electronic information, as illustrated by the U.S. Health Insurance Portability and Accountability Act (HIPAA) and the European Union Privacy directives. Finally, the introduction of guest broadband service on the same network challenges the balance between mission-critical and public convenience.

### **The Architecture Built for Pervasive Wireless LAN**

Extricom's award-winning Wireless LAN System is uniquely designed to meet these demanding requirements. Compared to other WLANs in the marketplace today, the Interference-Free™ Architecture enables dramatically easier WLAN deployment and lower total cost of ownership, while achieving a generational leap in capacity, coverage, seamless mobility, and security capability. The result is a large-scale WLAN infrastructure delivering campus-wide triple play services, with the dependability of a wired network.

More and more, technology is revolutionizing medical practice, with the promise of increased patient quality of care and higher efficiencies. And wireless has the potential to bring it all to the bedside. The challenge now is to identify the right solution that can really make this promise a reality.



The Extricom Interference-Free™ Architecture  
Impressive Performance  
Surprising Simplicity  
Lowest Cost of Ownership

- Converged Voice, Data, & Video, with Zero-Latency Mobility
- Plug-and-Play Simplicity, with no RF Cell Planning
- Blanket Coverage for Ubiquitous Service without Co-Channel Interference
- Wire-like Connection
- TrueReuse™ Bandwidth
- Multi-Blanket Operation, in One Infrastructure

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**Healthcare Core Requirements**

**Mission-Critical Communications**

The work of medical staff is time-sensitive. And the ability to have access to information at all times, everywhere, is not negotiable when patient care and safety is at stake.

**Information-Intensive Applications**

Consider: radiology files that reach 30 to 90 MB in size; emergency rooms with high user density; voice communications that must co-exist with equally critical data transmissions.

**Multi-Tenant and Multi-Application Support**

Many uses of Wi-Fi; one infrastructure. This is the goal. Return on investment is maximized if a single WLAN system can allow for co-existence of many different users (staff and visitors), a wide variety of devices, and the full range of voice, data, and video applications.

**Mobility and Wireless VoIP**

What good is wireless voice communication, if users are frustrated by an inability to move?

**Privacy**

Good security is good business. Concurrent support of every grade of privacy, from open to high encryption, makes for good operations.

**Cost-Effectiveness**

The healthcare environment is demanding, requiring the most sophisticated and capable of WLANs. But such capability should not come with increased complexity, cost, and implementation risk.

**Extricom's Unique Value**

**Guaranteed Service**

Extricom's technology is the only WLAN technology that can deliver a guaranteed and consistent level of connectivity speed, to all users, everywhere on the campus.

**The Highest Capacity WLAN**

The Extricom solution delivers the highest WLAN capacity in the industry, achieving system bandwidth that is up to ten times that of competing solutions.

**A Multi-Layer System that Ensures No Performance Trade-offs**

Extricom's unique channel blanket topology permits the physical segregation of different users, devices, and applications, providing maximum performance to all without trade-offs – as if they each had a dedicated system of their own.

**Zero-Latency, Seamless Mobility**

No handoff delays. No dropped calls. Superior voice quality and battery life. This is the Extricom WLAN built for voice over Wi-Fi.

**Security in a Mobile World**

Extricom embeds the strongest security available, without asking you to trade off mobility or performance in return.

**The Lowest Cost of Ownership**

Extricom eliminates the cost of RF cell planning and RF staff expertise, seamlessly extends your existing wired network, and is deployed and maintained with plug-and-play simplicity. The bottom line is Total Cost of Ownership 50% lower than other systems.

**The Future of Wi-Fi**

The healthcare industry clearly understands the transformational effect of wireless on its operation and its patients. The question is: how confident is the IT staff that today's technologies can meet the demands of their environment?

Ask us how hospitals, as well as clients in the education, hospitality, and enterprise arenas have succeeded with Extricom. Extricom's WLAN is specifically designed to surpass the challenges posed by pervasive Wi-Fi, providing the high-performance, resilient, and future-proof infrastructure required by hospitals.