



Making Wireless an Indoor State of Mind



## ▶ Northwestern Memorial Hospital

### Northwestern Memorial Hospital Sets the Standard for Wireless



Northwestern Memorial Hospital, one of the nation's premier academic medical centers, is the teaching hospital of Northwestern University's Feinberg School of Medicine. Widely recognized as a pioneering research institution, the award-winning hospital has 744 beds and employs more than 1,400 affiliated physicians and 5,000 employees.

Northwestern Memorial realized that wireless applications were fundamental to its mission of delivering high-value patient care and for maintaining its competitive edge. By embracing wireless technologies, the hospital could enhance communications and productivity among its caregiver community and enable emerging applications such as clinical systems, computerized physician order entry (CPOE) and nurse call systems. With the construction of its new Prentice Women's Hospital on the horizon, it was decided that the time was right to implement a comprehensive wireless strategy for delivering wireless coverage throughout its five-building, 2 million square foot campus.

To achieve its goals, Northwestern Memorial sought a wireless infrastructure that could provide campus-wide coverage for a broad range of wireless services, including cellular offerings from multiple operators, public safety services for first responders and robust WLAN communications to enable Cisco's advanced mobility applications such as VoWLAN and Real-Time Location Services (RTLS). In addition to these capabilities, the hospital wanted to ensure that this system could accommodate its near-term objective of deploying WMTS-based wireless patient telemetry applications, which require a particularly robust wireless transport infrastructure.

In a hospital environment, the installation of any sort of new infrastructure can be a disruptive event. Aware that wireless technology is constantly evolving, the hospital wanted a solution that could seamlessly accommodate new wireless services and adapt to changing conditions. In addition, Northwestern Memorial planned to implement this solution incrementally, starting with one building then expanding to the others on campus. The hospital needed a solution that could scale cost-effectively without compromising performance.

### The Solution

After a rigorous needs analysis, Northwestern Memorial selected the MobileAccess Universal Wireless Network as its campus-wide in-building wireless platform. With its unique Wire-it-Once™ architecture, the MobileAccess solution can simultaneously deliver all of Northwestern Memorial's current and future wireless requirements over a single integrated infrastructure. The solution combines the low-loss transport capabilities of fiber optics with the

#### The Company ▶▶▶▶

Northwestern Memorial Hospital is Northwestern University's nationally-recognized research and teaching hospital system located in Chicago, Illinois.

#### Challenges ▶▶▶▶

- ▶ Need campus-wide wireless coverage to deliver high-value patient care and maintain competitive edge
- ▶ Support a broad range of wireless services including cellular, public safety, WLAN and WMTS-based wireless patient telemetry
- ▶ Required an adaptable solution that accommodates changing conditions

#### Benefits ▶▶▶▶

- ▶ Universal architecture simultaneously delivers all wireless services over a single integrated infrastructure
- ▶ Highly adaptive solution seamlessly accommodates new wireless services and scales cost-effectively
- ▶ Delivers robust, integrated WLAN coverage that transparently supports advanced WLAN applications
- ▶ Architecture offers integrated support for WMTS wireless patient telemetry applications

broadband flexibility of coaxial cable, providing a solution that can deliver virtually any mix of wireless services while scaling to extremely large sizes.

Northwestern Memorial was impressed with the flexibility of the MobileAccess system, which uses intelligent modules to carefully groom each wireless signal, ensuring that wireless services are always delivered with consistent quality. With this modular approach, the hospital can easily activate new wireless services simply by adding the appropriate modules – there is no need for re-wiring and no disruption to existing services.

The MobileAccess solution also offered Northwestern Memorial compelling advantages with its unique approach for integrating WLAN services. The Universal Wireless architecture locates WLAN APs in the wiring closets instead of on the ceilings – a huge advantage in healthcare environments as maintenance can occur out of public view, without the disruption and burden of infection control procedures. At the same time, the solution maintains a 1-to-1 relationship between APs and fixed, discrete antennas allowing it to seamlessly support advanced WLAN applications such as RTLS, rogue-detection and dynamic power control.

In addition, Northwestern Memorial recognized that the MobileAccess Universal Wireless Network architecture was well-suited for delivering WMTS-based wireless patient telemetry applications. These telemetry systems require strong, consistent signal coverage throughout a facility using fixed radiating points. With its structured, low-loss hybrid fiber/coax infrastructure, the MobileAccess was a natural fit for supporting Northwestern Memorial's planned telemetry roll-out.

In October, 2006, Northwestern Memorial Hospital received the prestigious 2006 Mobile Impact™ Award, given by the Mobile Enterprise Alliance (MEA), a global advocacy group, that recognized the hospital for its innovative use of wireless technologies.

## About MobileAccess

MobileAccess Networks is an enterprise wireless innovator that provides a universal platform for connecting the people and applications that drive business. The company's intelligent, in-building infrastructure solution is the key to mainstream wireless connectivity in hospitals, office buildings, public venues and other large-scale facilities. The MobileAccess Universal Wireless Network delivers business-quality performance, scalability, security and signal reliability to more than 1000 customers, including Aladdin Resort and Casino, ALLTEL Stadium, American University, Clarian Health Partners, Hearst Corporation, Lehman Brothers, Northwestern Memorial Hospital, Oakland International Airport, SeaMobile and The Homer Building. For more information, visit [www.mobileaccess.com](http://www.mobileaccess.com).

8391 Old Courthouse Road, Suite 300

Vienna, Virginia 22182 USA

Phone 866.436.9266

Fax 703.848.0280

Email [info@mobileaccess.com](mailto:info@mobileaccess.com)

[www.mobileaccess.com](http://www.mobileaccess.com)

*“By bringing the power of seamless mobile computing to every corner of the hospital and to everyone in it, Northwestern Memorial has dramatically improved communication, connectivity and productivity while delivering financial and operational cost savings. The result is a direct, positive impact on patient care.”*

*-Tim Zoph,  
Vice President of  
Information Systems  
and CIO, Northwestern  
Memorial Hospital*

