convergence at the

point of care

NORTEL NETWORKS

BUSINESS WITHOUT BOUNDARIES

5

Solution Brief

Nortel Networks Converged Mobility solutions for Healthcare

Nortel Networks is uniquely positioned to deliver point-of-care solutions to transform the care experience for patients and providers alike. Our complete solution—spanning telephony clients, wireless and wired infrastructure, and market-leading IP Telephony platforms—delivers the secure wireless data and IP Telephony required to improve patient care, staff productivity, and operational efficiency.

What is convergence?

Convergence is more than just voice over IP (VoIP). It enables the delivery of voice, data, video, and applications over one network—wired or wireless.

What are the key benefits of convergence?

- **Improved service** by anticipating consumers/patients' wants and needs and delivering time-critical information via the method of their choice.
- **Increased staff productivity** through anytime, anywhere access to information and collaboration capabilities.
- **Reduced operating costs and simplified administration** of communications through a converged network infrastructure.

Nortel Networks is a leader you can trust to help you take advantage of the significant benefits that convergence offers. With Nortel Networks portfolio of reliable and secure solutions, you can choose how you deploy converged networks and applications for every part of your institution.

6th Annual
SUPER*Quest*
Awards

Delivering the value of convergence to healthcare providers

From the large medical campus to smaller centers and remote clinics, Nortel Networks Converged Mobility solutions deliver the benefits of convergence to healthcare institutions of all sizes. The key benefits include:

Improved patient care by providing the right information at the right time

- Ability to communicate and collaborate anywhere in the facility with real-time access to communications and patient information. Care-givers have more time with patients and access to critical information enables improved patient care and reduced chance of medical errors, leading to faster recovery time.

- Increased responsiveness to patient needs with integration to applications, such as Messaging and Nurse Call systems. Nurses can attend to patients while waiting for an important call, can roam the unit while on hold, can receive calls directly from patients, and speak with them directly, avoiding wasted time of telephone/paging tag, and receiving real-time notification of messages waiting.

  – Improved collaboration with colleagues leveraging features like "Push to Talk" and Group Calling/Paging. When multiple people need to be involved in a patient care situation, these features enable healthcare organizations to involve the right people at the right time.

  – Improved patient experience using discrete communication options to eliminate noisy, overhead paging systems. With Phone Vibration and Text Messaging features, healthcare organizations can provide a more peaceful patient care environment.

Ability to support the demands of convergence with a trusted infrastructure

- Nortel Networks has the most comprehensive network security features in the market (SUPERQuest Security Award 2003 and Application Layer System 2004). Our multi-layer security enables healthcare institutions to meet Health Insurance Portability and Ability Act (HIPAA) requirements. We support Wired Equivalent Privacy (WEP), Wi-Fi® Protected Access (WPA), Secure Sockets Layer (SSL) and IPSec encryptions, and are Advanced Encryption Standard ready (AES-ready). Our solution architecture includes integrated firewalls, unauthorized Access Point (AP) detection and containment, and support for Multiple Service Set Identifiers (SSIDs).

- Easy configuration of different access rights and QoS characteristics required by nurses, physicians, patients, and visitors with WLAN management tools.

- A Nortel Networks wireless connection has high reliability with failover protection and self-healing feature. Our Radio Frequency (RF) management dynamically adjusts to changes in the environment (structural, equipment moves, RF interference) to maintain coverage and service quality. This all helps in providing better end-user experience which is critical for healthcare staff user acceptance of the solution.

- Nortel Networks provides secure and seamless roaming across IP subnets with sub 100ms handoff (anything over 100ms degrades voice quality). This extremely reliable connection lets you continue conversation without unnecessary worry about connection loss while moving from one building to another regardless of the protocols used.

Increased healthcare staff efficiency with a pleasant work environment

- Nortel Networks WLAN IP Telephony reduces time wasted searching for nurses, and waiting for call backs. (A third-party study shows savings of 554 hours per year in search time for a nurse and 537 hours per year wait time for call backs).

- Group Calling/Paging provides immediate access to other staff to quickly resolve issues and answer questions. Up to eight different groups can be defined for immediate access to groups like nurses, trauma teams, code teams, radiologists, pharmacists, technicians, and transporters.
- Reduced caller (staff are usually the callers) hold times with Call Park/Retrieve telephony feature. (A third-party study found that up to 700 hours per year are wasted by callers waiting on hold.)
- Eliminated travel time to and from phone, missed calls and pager tag with Call Pickup/Group Pickup. (A third-party study showed WLAN IP Telephony can save over 358 hours per year in travel time to and from the fixed phone).

Ability to protect your investment without overhauling your existing infrastructure

- We understand that healthcare institutions have varying needs and so offer a choice of three WLAN infrastructures: standalone, hybrid, and adaptive. With our broad portfolio, we are able to provide robust coverage and security to address the application and facility requirements of healthcare organizations.
- Standards compliancy ensures that the network will be ready to support current and future medical technologies like Power over Ethernet, WPA, and WLAN Multimedia Extension (WME).
- Converged wireless infrastructure reduces costs of deployment and management as healthcare providers no longer need to deploy and manage separate wireless networks for voice and data, such as 900-MHz voice infrastructure and 2.4-GHz data infrastructure.
- Location-based tracking helps prevent loss of valuable assets and provides infrastructure protection through location and isolation of unauthorized access points.

Nortel Networks Converged Mobility solution components

- **WLAN Handsets 2210 and 2211**—Durable handsets, specifically designed for mobile workplace use within a facility using the supported Nortel Networks IP Telephony Call Servers and 802.11b APs in a wireless LAN.

- **WLAN IP Telephony Manager 2245**—An Ethernet LAN appliance that works with the AP to provide Quality of Service (QoS) on the wireless LAN.

- **WLAN Application Gateway 2246**—An Open Application Interface (OAI) which enables third-party software applications to communicate with the Nortel Networks WLAN Handsets 2210 and 2211.

- **WLAN Access Points 2220, 2221, and 2225**—Multi-mode access points supporting 802.11a/b, 802.11 b, and 802.11a/b/g respectively. They can be complemented by the WLAN Security Switch 2250.

- **WLAN Access Port 2230**—Multi-mode and single-mode access port with air monitoring capability and complemented by the WLAN Security Switch 2270.

- **WLAN Security Switches 2250 and 2270**—Additional layer for a centralized architecture that offers a highly secure and cost-efficient WLAN network.

- **Succession* Call Server 1000, Large Campus**—Server-based, fully featured IP PBX that provides the benefits of a converged network plus advanced applications. Succession 3.0 software provides a seamless migration path for Meridian 1* PBX customers.

- **Succession Survivable Remote Gateway (SRG), Large Branch**—Extends the desktop feature and user interface of Succession 3.0 to remote users and gives them full access to the same applications as the main site. Under survivable mode, SRG is a survivable call server with a limited subset of BCM features, local PSTN gateway and local data services, and dial-backup option for data services.

- **Business Communications Manager (Small Branch)**—Provides telephony, applications, IP routing, IP firewall, remote office DHCP services, and branch/client VPN.

- **BayStack* 460-24T-PWR**—BayStack 460-24T-PWR 24-port 10/100 Mbps IEEE 802.3af compliant Power over Ethernet (PoE) switch with advanced Quality of Service (QoS) features.

- **Contivity* IP Services Gateway**—Single hardware device which provides routing, VPN, firewall, bandwidth management, encryption, authentication, and data integrity for secure connectivity across managed IP networks and the Internet.

- **Optivity* Network Management System**—End-to-end domain manager for the Nortel Networks portfolio of converged solutions.

4
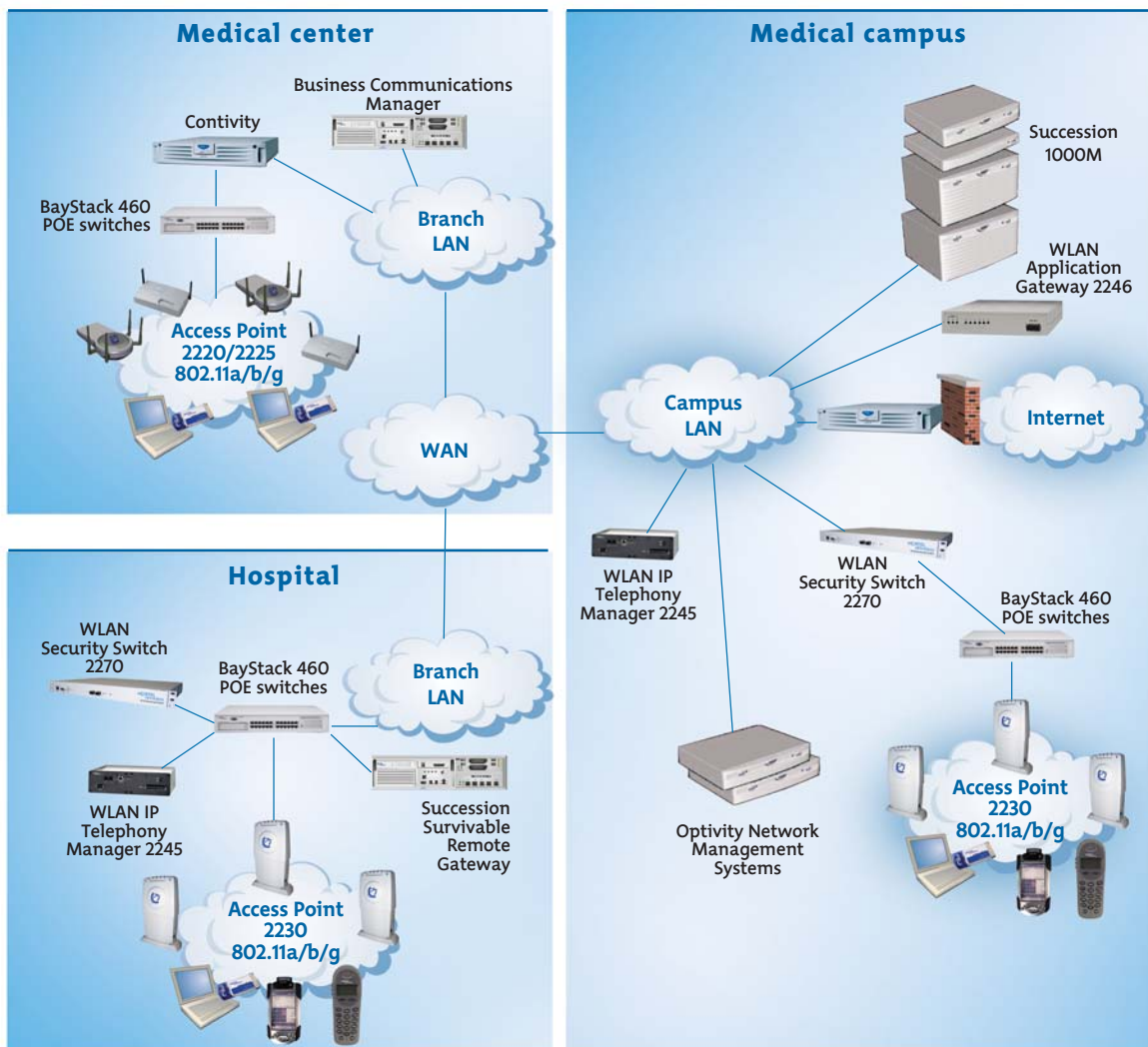
Why Nortel Networks

We are uniquely positioned to deliver the full value of convergence to the point of care—a complete solution spanning telephony clients, wireless and wired infrastructure, and market-leading IP Telephony platforms.

• World-class partner alliances for solutions and support give you multiple solution options at varying price points.

• Multi-layer security approach protects data from patient, financial, to administrative data, enabling compliance with various pieces of legislation across countries.

• Evergreen philosophy that encompasses both traditional voice and IP Telephony enabling a smooth migration path and investment protection.

Still not sure?

"Can't abandon current investments."
We understand that as a healthcare provider, you have a limited budget and although you may be ready to take advantage of compelling technologies, ripping out existing environments typically is not an option. Nortel Networks solutions come at a variety of price points that can be implemented in multi-vendor environments.

"I am concerned about security of a wireless network."
Nortel Networks provides the most comprehensive network security features in the industry. Our multi-layer security helps healthcare institutions protect medical information and comply with security and privacy regulations.

"We deal with life and death situations every day. A converged wireless network isn't reliable enough for us to entrust it with our mission-critical operations."
Our solutions' self-healing features and failover protection ensure that your wireless connection has the highest availability. If one AP goes down, the surrounding APs increase their RF power to compensate and avoid the coverage gap. This important functionality ensures that you can provide uninterrupted care.

Have more concerns and questions?
Contact Nortel Networks for more information.

Extend information and services to every moving decision point, and transform the care experience. Mobile point-of-care solutions from Nortel Networks offer healthcare professionals and provider organizations a compelling toolset to dramatically improve care quality, staff utilization, operating efficiency, and profitability.

Proof point

Centre Hospitalier Pierre-Le Gardeur—Recognizing the need for scalable, reliable, and secure communications, this Repentigny, Quebec-based healthcare provider is deploying converged enterprise solutions from Nortel Networks as it moves into a new building. These solutions will include Nortel Networks Succession IP Telephony, wireless LAN, security, Nortel Networks Symposium* Call Center, Nortel Networks CallPilot* unified messaging, and a redundant data networking infrastructure. Nortel Networks secure wireless voice and data solutions will be used to protect digital patient information.

Nortel Networks is an industry leader and innovator focused on transforming how the world communicates and exchanges information. The company is supplying its service provider and enterprise customers with communications technology and infrastructure to enable value-added IP data, voice and multimedia services spanning Wireless Networks, Wireline Networks, Enterprise Networks, and Optical Networks. As a global company, Nortel Networks does business in more than 150 countries. More information about Nortel Networks can be found on the web at:

www.nortelnetworks.com

For more information, contact your Nortel Networks representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

NN109021-071304

NORTEL
NETWORKS
BUSINESS WITHOUT BOUNDARIES