



> NORTEL SMALL AND MEDIUM BUSINESS SOLUTIONS

NORTEL

Solution Brief

Converged voice and data networking for small and medium businesses

One easy-to-manage IP network for all the services your business needs

Would you like to untangle the maze of voice and data networking equipment that clogs equipment closets and burdens your staff and budget? Is it cumbersome to support remote or mobile users? Would you like your communication system to do more but cost less?

If the answer to any of these questions is “yes,” Nortel has an answer for you: network convergence over Internet protocol (IP) — the foundation for IP

Telephony, unified messaging, multi-media customer contact centers and more. And now that IP networks offer the performance characteristics that delay-sensitive voice service requires, convergence solutions can lead to significant benefits for your business:

> **Streamline the network architecture.**

Converge voice and data networks into a single network that carries both types of traffic — for significant capital and operating cost savings.

> **Enhanced productivity.** Provide users with powerful new capabilities that allow them to get messages from multiple systems in one place, manage phone calls from their PCs, define precisely how calls are handled and more.

> **Anywhere service accessibility.** Enjoy virtually seamless network moves, adds and changes. Extend secure services to remote sites and home offices over cost-effective IP links.

> **Reduced costs.** Reduce or eliminate toll and long-distance charges for inter-site voice and fax calls with Voice over IP (VoIP). In fact, traditional “tie-line” telephone lines can be relegated to back-up status or eliminated.

Convergence caught on first because of the dramatic direct cost savings. It then very quickly proved its deeper value for improving business efficiency, employee productivity and customer care. With these advantages at hand, it’s no surprise that nearly half of large North American enterprises have IP Telephony at the core of their next-generation network plans, and small and medium businesses are catching up fast.



Voice telephony and converged voice/data services — traditional voice and data, IP or a mix of both

Thousands of small businesses have already converged their voice and data applications onto one IP network using Nortel Business Communications Manager. This affordable solution not only provides connection to the public telephone network (PSTN), but also to other IP devices, such as routers, enabling you to connect with other sites on your company network or the Internet.

Business Communications Manager supports wireless and wired IP telephones and PCs equipped with software, microphone and headset to perform as IP “softphones”. You only need one data port per desktop, and no power outlet for the telephone. Simply plug the IP phone into the Ethernet network, and connect the PC to an extra jack on the IP phone. One cable drop serves both devices and provides power for the telephone as well.

This versatile device can support a combination of IP and traditional telephones, so you can mix and match for the best economy and utility — and upgrade on your schedule.

The solution is pre-loaded with hundreds of features and a full suite of integrated applications. As your business grows and its needs evolve, you can activate more capabilities just by entering a software key code. Consider the possibilities:

- › **An industry-leading portfolio of telephony features** — more than 200 in all — lets you process calls with exceptional efficiency and flexibility. Callers receive prompt, professional treatment. Employees enjoy convenience and control features that reduce phone tag and frustration.

Deliver premium levels of professionalism and service quality, and customers will want to keep doing business with you.

- › **Voice messaging** enables callers to leave important information on a mailbox for a selected user or department. The system adds call information, such as calling line ID, time and date of the call and priority level. Employees can record their own personalized greetings and get password-protected access to their messages from anywhere.
- › **Automated attendant** answers calls 24 hours a day with your personalized greetings, and routes calls to the right people, departments or voice mailboxes — according to time of day, day of week, holiday schedule and calling line ID.
- › The **Contact Center** application distributes incoming calls among up to 50 designated employees. Use this capability to create an order desk, reservations department, customer service group or technical support center.

The data networking part of the convergence story

Nortel also offers IP data networking solutions designed specifically for the unique requirements and budgets of small to medium-sized businesses. If your business is looking to create a reliable and sophisticated LAN at an affordable price, the Nortel Business Ethernet Switch family is the ideal choice.

Ideal for sites with 10 to 250 users, the Business Ethernet Switch family connects PCs, printers, servers, routers and other devices throughout your office. The Business Ethernet Switch works seamlessly with the Business Communications Manager to connect IP phones. And if you have an in-building wireless LAN

(WLAN), the switch also connects the wireless access points located throughout your facility. Choose from 12-, 24- or 48-port models — each port operating at 10 Mbps (megabytes per second) or 100 Mbps — at an attractive cost per port.

The switches’ compact design occupies only one unit of rack space and requires very little power. It also offers an unusual level of technical sophistication for a product designed to be affordable and simple to manage for small business.

Here’s how you can put the Business Ethernet Switch to work for you:

- › **Connect dozens of users and devices.** With one compact switch you can network dozens of PCs, IP phones, printers, servers, wireless access points and a router.
- › **Separate traffic into virtual LANs.** Virtual LANs or VLANs segregate traffic into logical partitions of the network, so one network can perform like several smaller private networks.
- › **Send power to IP phones and wireless access points.** Power over Ethernet enables you to power devices from the switch — eliminating the need to use wall outlets.
- › **Give voice traffic the priority treatment it requires.** The switch reads packet headers that are marked “this is voice traffic, speed it through,” and prioritizes it accordingly, resulting in toll-quality voice.
- › **Expand and change the network at will.** Whenever you connect a new desktop PC, printer or other device into the switch, it gets assigned an IP address. The device and the switch will automatically negotiate the appropriate transmission speed to use.

Leveraging the Internet to extend communications

Nortel Business Secure Router 222, the ideal companion to the Nortel Business Communications Manager and Business Ethernet Switch, provides always-on Internet access and enables secure, virtual private networks across the Internet. This versatile router allows you to harness the power of the Internet or your service provider's managed IP network to securely extend communications to business partners, customers, remote offices, and mobile or home-based employees.

With Business Secure Router 222, even very small businesses can set up an intranet so employees can share information and resources, an extranet to communicate with partners and suppliers, and Web access to interact with customers and securely extend business communications anywhere.

Business Secure Router 222



Easy to install and manage. Easy to grow.

For administrators and users alike, the phone system and LAN should be almost invisible — a no-worry, no-hassle conduit for all the critical information flow of business.

Nortel convergence solutions are true to that proposition. Nortel delivers a level of system integration and flexibility rarely seen in the industry — and certainly uncommon for small business systems.

Nortel Business Element Manager provides a simple-to-use management interface that's designed for the casual computer user. You can activate and manage platforms and applications from

any workstation that has LAN or Web access — using graphical interfaces.

Imagine the savings in time and effort by being able to manage the core elements of your business network from one consistent, familiar interface.

Best of all, Nortel's convergence solutions enable you to migrate to IP in phases, from today's hybrid environment to pure IP in the future. Whether you're ready for convergence today — or a year from now — your options will be open and your investment secure.

Convergence of services over IP supports powerful new e-business applications

- › **Manage messages and calls from your PC.** Unified messaging converges voice, fax and e-mail messages onto a user's PC or laptop, to be managed by one standard application, such as Microsoft Outlook or Exchange. This convenience can be a real time-saver, especially for users with heavy call volume.
- › **Take the cost and hassle out of moves, adds and changes.** Users can connect anywhere on the network without intervention by an administrator. With centralized, automated IP address management, you can relocate your phone down the hall to a branch office — for now, or permanently — and your service comes up in the new location exactly as if you were in your own office.
- › **Extend the company network to reach remote users.** You can order your Business Communications Manager 50 base unit with integrated Ethernet or ADSL routers. Telecommuters can enjoy the same connectivity and features as in-office colleagues. All staff can be given access to the company intranet or the Internet. Optional security features — such as authentication, encryption, firewall and virtual private networks (VPNs) — keep hackers away from your communication traffic and devices.
- › **Empower voice calls with computer features.** Computer Telephony Integration (CTI) enables you to use third-party, PC-based applications to control telephone services, such as a click-to-call company directory or automatic screen “pops” of a customer's account information alongside a customer's call.
- › **Eliminate boundaries.** Nortel convergence solutions translate between phone numbers and IP addresses. Just enter the phone number you want to reach, and the call will ring through — even if the person you are calling is on a wireless IP network.

Business communications made simple

Don't take chances with your business communications. Count on the company that has been delivering telephony and data systems to the world's largest service providers and enterprises for decades — the company that pioneered the digital revolution, reinvented business networking in the Internet Age and is a leader in small and medium business telephony.

Find out more about how your business can benefit from data and voice convergence solutions. Contact your local reseller or visit us on the Web at www.nortel.com/smb.

In the United States:

Nortel
35 Davis Drive
Research Triangle Park, NC 27709 USA

In Europe:

Nortel
Maidenhead Office Park, Westacott Way
Maidenhead Berkshire SL6 3QH UK

In Canada:

Nortel
195 The West Mall
Toronto, Ontario M9C 5K1 Canada

In Asia:

Nortel
United Square
101 Thomson Road
Singapore 307591
Phone: (65) 6287 2877

In Caribbean and Latin America:

Nortel
1500 Concorde Terrace
Sunrise, FL 33323 USA

Nortel is a recognized leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world's most critical information. Our next-generation technologies, for both service providers and enterprises, span access and core networks, support multimedia and business-critical applications, and help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people with information. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at www.nortel.com.

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

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