

*Hybrid digital/
IP-based communications
solutions for single-site and
multi-site businesses*

Business Communications Manager

Network convergence strategies designed
to empower organizations of all sizes

NORTEL
NETWORKS™

Network convergence strategies for a broad range of markets



The powerful synergy created by converging traditional data networks with breakthrough IP telephony applications offers significant benefits to your business. Whether it's using Internet Protocol (IP) networks to handle telephony traffic, establishing interactive voice response and auto attendant applications to provide higher levels of customer service, or network management tools that deliver streamlined global solutions, Business Communications Manager can help your business gain a strategic edge over your competitors. By supporting both digital and IP telephony in a single, easy-to-manage, cost-effective unit, this scalable platform enables your organization to adopt IP-based solutions at its own pace, and also preserves existing investments in Norstar* telephony equipment.

Retail and e-commerce companies

Nortel Networks understands that service is the key to retail success, and Business Communications Manager helps you deliver new levels of customer service that can set you apart from the competition. For example, interactive voice response (IVR) features enable customers to save time by reordering products of any type—such as prescription drugs—simply by entering information via the touchtone keys on their phone. And if they have a question that needs personal assistance, auto attendant gives them the option to be routed to a live person, request a callback, or receive driving directions and other information. This approach can dramatically reduce customer on-hold times and increase the efficiency of your personnel by streamlining their workload.

Business Communications Manager raises the bar as the standard for IP telephony for the small site, delivering cost-effective access to offices that have as few as 10 to 20 users. As your business grows over time, Business Communications Manager

can be expanded to support up to 200 users per system. In addition, powerful management solutions are now available that help you configure new units with ease, and make quick, efficient global changes to all the units on your network.

Government and educational facilities

In the public municipality, government, and educational markets, Business Communications Manager reduces costs by creating a converged data/telephony network architecture. The unit offers a robust, stand-alone, highly resilient solution that also provides virtually seamless voice networking capabilities. Centralized voice mail and four-digit dialing can be extended to all branch locations over the wide area network (WAN). Advanced telephony features—such as call transfer between branches, conference calling, call centers, universal/coordinated dialing plans, and wireless telephony—streamline internal operations and increase efficiency. This scenario is also ideally suited to other multi-site organizations within the local metropolitan environment.

Financial/insurance institutions

Ideal for providing the security and flexibility required by multi-site financial institutions, Business Communications Manager offers substantial cost savings over purchasing separate voice and data networking equipment. When security is a top priority, Virtual Private Networks (VPNs) create encrypted data tunnels between corporate sites over the public Internet, delivering Triple DES security without the need for costly leased lines. IP telephony, voice mail, and four-digit dialing between branches improve operational efficiency and reduce costs. Security is also enhanced by replacing mail and next-day air services with file transfers, e-mail, and unified voice/data/fax messaging.

Telephony costs are effectively contained by consolidating incoming lines and rerouting traffic over available bandwidth on the corporate IP network. Incoming customer calls can be routed through a main or regional facility and distributed to Business Communications Manager units at the branch locations by a live attendant or the integrated Auto Attendant. And call detail recording allows your company to track telephony usage patterns across the network, delivering a precise picture of how network resources are being utilized.

Healthcare facilities

Delivering wireless high-speed data and voice services over the same network is revolutionizing the way medical facilities operate. Staff can have instant access to medical records via their mobile laptops from anywhere in your facility, quickly accessing and updating patient records as they make their rounds. Wireless phones also increase efficiency by keeping your staff in constant contact with their co-workers. By eliminating the need for purchasing, cabling, managing, and maintaining legacy telephony equipment, facilities can cut costs through simplification of the internal network. Additional savings can be realized by using the IP network to support cost-effective inter-site telephony.



**Nortel Networks
Business Communications
Manager**

Solving business challenges with hybrid digital/IP solutions

Today's competitive marketplace demands that your organization adopt new technologies that can help deliver improved customer service, reduce operating expenses, and increase revenues by expanding market reach. A member of Nortel Networks Succession* converged IP telephony portfolio, Business Communications Manager is available in two different models:



- **Business Communications Manager 200** is designed to supply the benefits of converged voice/data networking to smaller sites of 10 to 20 users and more.
- **Business Communications Manager 400** is designed to bring the benefits of converged voice/data networking to small- to medium-sized sites of 30 to 200 users.

Both models offer key technologies that can help your business compete more effectively, including support for both IP and digital telephony, interactive voice response, auto attendant, unified messaging, and more—all from a single, cost-effective, easily-managed device.

Nortel Networks has brought eight key capabilities into a single, affordable device that's designed to help your business offer exciting new services while simultaneously reducing costs.

Digital and IP telephony from a single, cost-effective device. Business Communications Manager can support up to 160 digital stations (or up to 200 stations, using a mix of digital and IP stations) and can offer a level of flexibility and usability that is unmatched by any other product in today's market.

Centralized configuration and management for networks of all sizes. In addition to an intuitive application that's ideal for configuring a single unit or small networks, Nortel Networks delivers Network Configuration Manager, a powerful, global, template-based solution that simplifies the management of large networks containing hundreds of units.

Interactive Voice Response (IVR) for improved profitability. Now smaller companies can cut down on customer hold times, increase the efficiency of their employees, and improve customer service by offering information and ordering capabilities from the keypad of any touchtone phone!

Virtual Private Networks (VPNs) for enhanced security. Intra-site Virtual Private Networks (VPNs) enable organizations to use the public Internet for

secure communications, reducing the need for costly leased lines. Contivity* clients can now be loaded onto users' remote PCs and laptops, delivering secure access from any location.

Call center applications combine personalized agent interaction and customer support with advanced Web-based solutions. The silent monitoring feature enables supervisors to listen to calls as they occur, helping to ensure high levels of customer service.

Unified messaging increases productivity by consolidating all incoming messages—including e-mail, voice mail, and faxes—onto the screen of your PC.

Hybrid environment leverages existing investments in Meridian* and Norstar systems, offering a future-proof migration strategy.

Simplified network infrastructure cuts costs by connecting IP phones over the LAN wiring system, streamlining network management and extending connectivity to multiple sites over the IP network.



IP-enabled or pure-IP networks? The choice is yours.

Whether you're creating a hybrid digital/IP telephony environment, or creating a new IP-based voice network, Nortel Networks has the solutions you need to ensure your success.

For customers interested in a traditional digital telephony implementation, Business Communications Manager supports the requirements of sites with up to 160 stations. Nortel Networks Business Series Terminals provide a full-featured option for traditional digital phones. Full interoperability and support are also offered for Nortel Networks Norstar and Meridian equipment.

Business Communications Manager is also ideal for supporting IP telephony in hybrid digital/IP and pure-IP environments. The Nortel Networks i2002 and i2004 Internet Telephones combine the functionality of the popular Meridian handsets with the power and flexibility of IP telephony, and the Nortel Networks i2050 Software Phone brings complete telephony functionality to your Windows PC.

IP telephony—A technology whose time has come

Until now, it's been impossible to find an affordable platform that's capable of handling both data and IP telephony in a converged environment. Telephony can now be easily extended across large campuses without the distance limitations of digital systems. In addition, wireless IP telephony provides your company with exciting new ways of meeting your business requirements. Wide-area connectivity over IP extends advanced call center and messaging applications to both branch and home offices, creating a more cohesive structure that will maximize the efficiency of your personnel.

Best of all, Business Communications Manager is a flexible, future-proof solution that will enable your company to adopt new technologies at its own pace. Whether you are interested in a gradual migration from digital PBX phone systems to a more cost-effective IP telephony infrastructure, or a pure-IP solution capable of delivering advanced network services, Nortel Networks can help.

Today's increasingly competitive marketplace poses a challenge to single-site and multi-site businesses: to adopt technologies that will help your company grow and compete more effectively.

Nortel Networks understands that new hardware investments need to deliver tangible benefits. Business Communications Manager is designed to help your company achieve the strategic edge you're looking for, reduce operating costs, improve customer service, and increase revenues by expanding market reach.

Nortel Networks
i2002 Internet
Telephone



Finding the strategic edge for your business

Hybrid digital/IP telephony solutions

Unlike competing products that require you to make an “either/or” choice, Business Communications Manager gives you the option of continuing to support, or even expand, your digital telephony network, while simultaneously deploying IP telephony where it suits the needs of your organization.

Business Communications Manager provides an elegant, self-contained solution that is simple to deploy and manage. Unlike complex chassis-based products that can only be deployed at the central site, this cost-effective solution can be installed in the branch office environment and easily managed from any remote location.

Available in two models, Business Communications Manager enables your network to be extended economically without sacrificing features or functionality. Both units deliver the unique benefits of IP telephony, including:

- Portable connectivity options that enable a configured handset or computer to be connected to any LAN/WAN port with sufficient bandwidth. For example, you can connect your laptop at any branch office, plug in your Nortel Networks i2050 Software Phone, and place or receive calls exactly as if you were at your home office!

- Flexible connectivity options that allow you to deploy handsets across the data infrastructure, including wireless 802.11b connectivity and extended fiber optic cabling runs.
- Unlike digital phones, which are hardwired to the PBX base unit, your Nortel Networks i2002 or i2004 Internet Telephones or Nortel Networks i2050 Software Phone will work anywhere on the network, even over a remote connection. In addition, the Contivity VPN capabilities of Business Communications Manager extend secure voice services over the public Internet.
- Toll-free telephony between branch offices eliminates toll charges. By using the extra bandwidth on your wide area network (WAN) for IP telephony, you leverage the untapped capabilities of your existing data infrastructure to maximize the return on your current network investment.

IP telephony offers a truly portable solution. Any port with sufficient bandwidth on the LAN/WAN will give you the connectivity you need—just plug in a configured phone or laptop and you’re ready to go. And if you need wireless IP connectivity for your phone, laptop, or scanner, your equipment will work anywhere on the network where there’s an 802.11b access point installed.

Unlike products from other networking companies, Business Communications Manager delivers a fully integrated solution that does not require external devices—such as applications servers or voice mail servers—to realize the benefits offered by IP telephony. These capabilities are native to the unit, improving network reliability and resiliency because there are fewer devices to manage and keep online. To ensure prioritization of latency-sensitive network traffic such as voice, the Nortel Networks BayStack* Policy Switch or other DiffServ-capable device should be installed on the network.

Data services

In today’s challenging business environment, the fast, secure exchange of information between your users is a prerequisite for success. Until now, achieving this level of connectivity has required the purchase of multiple devices, posing financial and network management challenges that small and medium-sized businesses were not prepared to meet.

For organizations that need to establish secure communication between sites, Business Communications Manager supports the creation of Triple DES-encrypted Virtual Private Networks (VPNs). Contivity software clients can be loaded onto your laptop or PC, and costly leased-line connections can be reduced or even eliminated by establishing

Nortel Networks
i2004 Internet
Telephone



secure, encrypted tunnels over the public Internet, corporate intranets, and extranets. Ideal for protecting your sensitive data, VPNs use the most powerful IPSec encryption and authorization technologies available, and can be extended to a Nortel Networks Contivity Extranet Switch, a Nortel Networks Shasta* 5000 Broadband Service Node, or another Business Communications Manager.

For small sites, only Nortel Networks delivers a solution capable of meeting all your data and voice networking needs from a single, easily managed device—Business Communications Manager. The unit includes on-board routing capabilities and is capable of extending Internet connectivity to all of your users, enabling them to communicate via e-mail, access Web sites, and share files between remote locations.

Voice processing

Up to 75 percent of business calls aren't completed on the first try, and that's why efficient voice messaging is essential to your company's success. To maximize efficiency, Business Communications Manager CallPilot* Unified Messaging enables your personnel to manage their voice mail, e-mail, and incoming faxes directly from any multimedia Windows PC. You can listen to voice mail, save or forward messages, view faxes on screen and forward them as e-mail, or even use Caller ID to go straight to the message you've been waiting for.

Many small and medium-sized businesses, as well as larger enterprises, can't afford a full-time receptionist at every site. The auto attendant feature solves that problem with customer-controlled routing that gets your callers where they need to go—fast. This ensures that your customers can always reach you, eliminating busy signals and the potential for missing an important call or message.

Business Communications Manager will help your organization create a flexible, scalable solution that can improve customer service and streamline your internal and external communications. These enhanced voice-processing applications are an incredible timesaver, and will dramatically simplify your company's message management.

Call center

When customers pick up the phone, what happens next can make the difference between the success and failure of your business. Whether customers are calling to place their first order, to reorder, or for support with an existing order, Business Communications Manager can help you deliver the top-flight customer service that leads to success.

Through the power of IP telephony, Business Communications Manager enables agents in multiple locations to support the same queue—even agents working from home can receive calls as if they were at the central site. Customers browsing your Web site can enter the queue simply by clicking a button and entering their phone number. When their request reaches the front of the queue, they are called at the specified number

What is a converged networking environment?

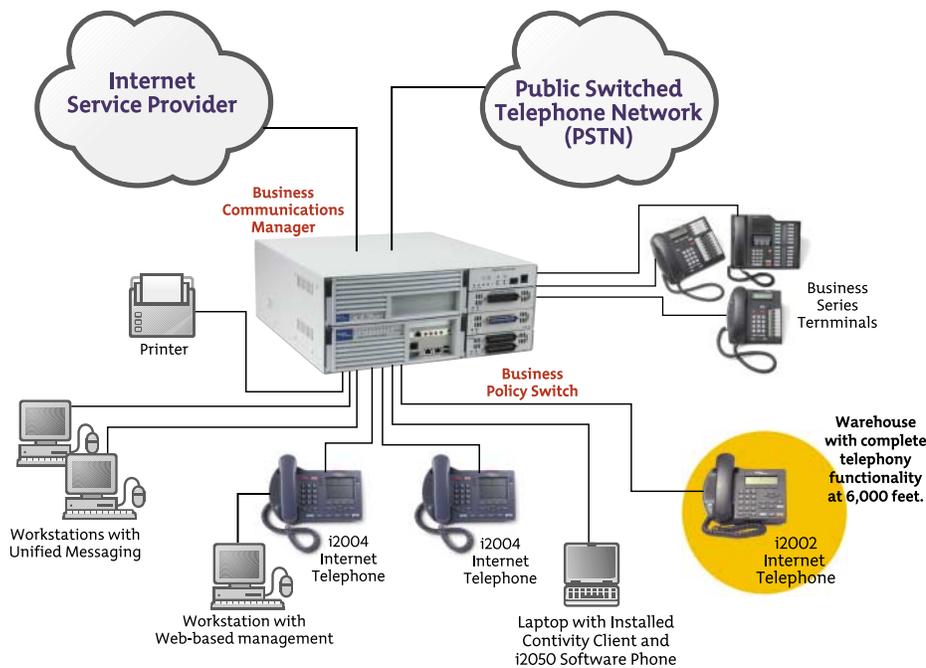
In a converged environment, both telephony and data signals are transmitted as packets over the data network. This approach delivers several advantages, including:

- **Cost-effective IP telephony.** Bandwidth resources that have traditionally been restricted to data can now be used for telephony, maximizing the efficiency of your network and simplifying network management. Digital voice circuits can be relegated to back-up status or even eliminated, and toll charges between branch offices can be reduced.
- **Simplified networking architecture.** A single infrastructure is capable of carrying both data and telephony traffic, saving money by eliminating the need to pull separate cables and manage two networks. This approach reduces repair time and streamlines system installations and reconfigurations.
- **Portable, flexible solution.** Network deployments and reconfigurations are simplified, and service can be extended to remote sites and home offices over cost-effective IP links.

by the next available agent. Special offers can be provided via the Web while they are waiting; and if they just need a quick question answered, they can “chat” online when their message reaches the head of the queue.

Business Communications Manager also supports Computer Telephony Integration (CTI), which enables call center agents and other users to have access to caller information before the conversation begins. Recent purchases are displayed on screen, enabling agents to provide improved customer service and more efficient call handling. By giving customers rapid access to sales and support personnel via the phone, the Web, and e-mail, your business can deliver the highest levels of customer service—even better than your larger competitors who haven't adopted these advanced techniques.

Figure 1: Business Communications Manager single-site solution



Network architecture

Business Communications Manager delivers a flexible, scalable solution for growing businesses. Ideal for creating branch office connectivity between multiple sites, the hybrid digital/IP-based solution delivers multiple benefits in terms of creating a more unified, cohesive, and cost-effective network for your business. Capable of supporting a hybrid environment of digital telephony, IP telephony, and 10/100 Ethernet data networks, this innovative platform maximizes the utility of your existing equipment while providing a smooth migration to the IP-enabled networks of the future.

Until now, companies of all sizes have traditionally used separate cabling installations to support their data network and PBX phone systems. Each telephone needed its own twisted-pair copper connection to the central PBX unit, and typically had to be located no more than 4,000 feet away. In the converged environment created by Business Communications Manager, voice connections can

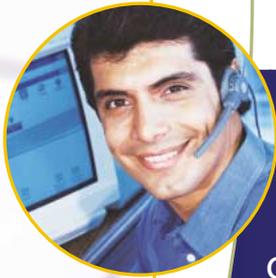
now be transmitted over the same fiber connection as the LAN. This eliminates the need for dual cabling plants, dramatically increases cabling distances, and provides a network architecture that is both more efficient and easier to manage.

Key benefits are realized by enabling personnel at different sites to reside on the same network. Companies of all sizes can use Business Communications Manager to create a unified communications system that supports multiple branches—and even home offices—over IP connections. Companies with a Meridian 1* PBX phone system installed at the central site can extend CallPilot and Meridian Mail services to remote offices where a Business Communications Manager is installed, optimizing their existing investment by extending unified voice/fax/e-mail messaging to the remote site. Both approaches provide centralized voice services, and offer four-digit extension dialing to any point on the network—including home offices connecting over DSL or cable.

Prioritizing network traffic with BayStack Policy Switch

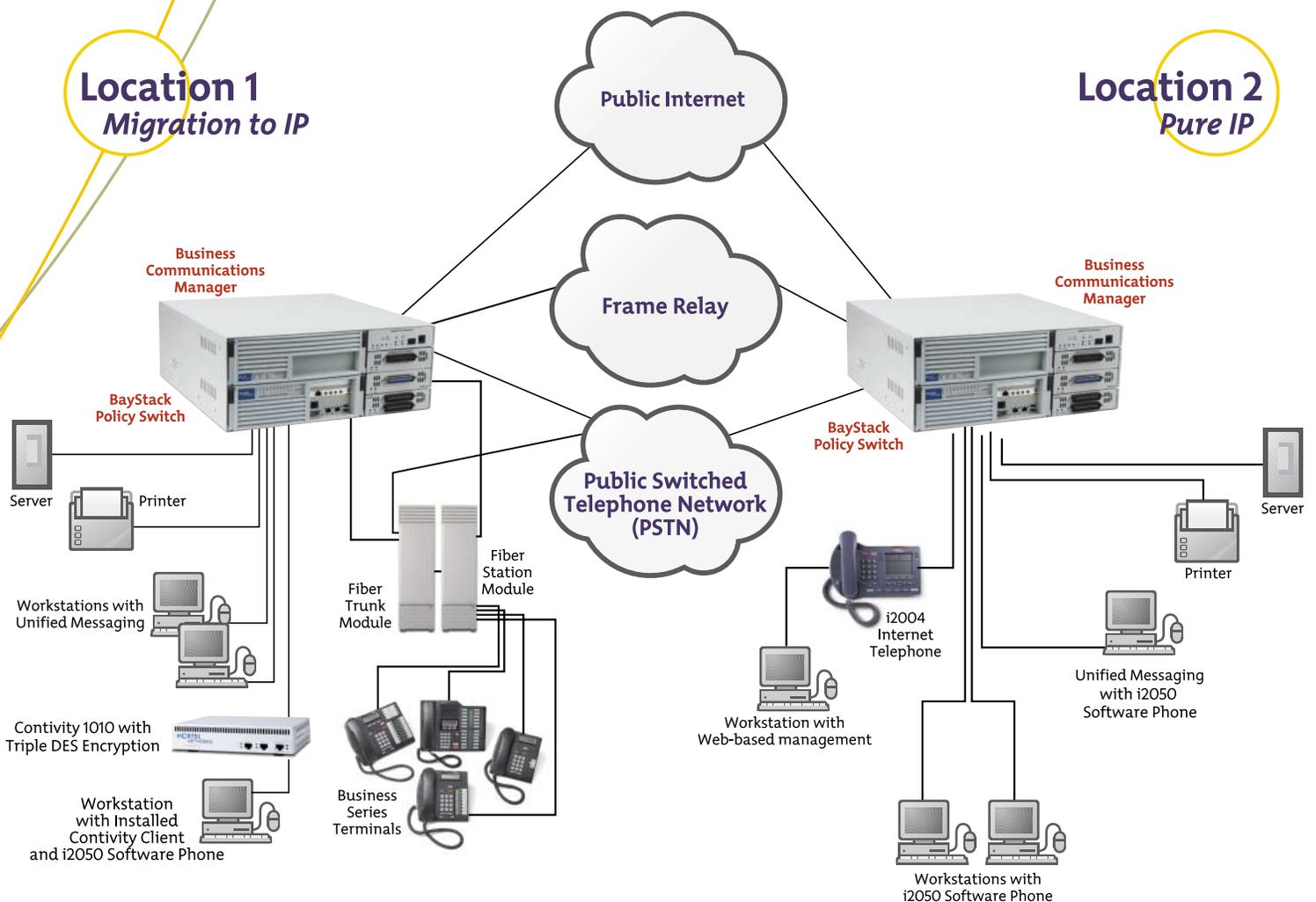
Now there's a way to make your network's priorities mirror those of your business. By installing the BayStack Policy Switch with Business Communications Manager, your network becomes an intelligent partner that can prioritize business-critical traffic, helping you get the most out of your existing infrastructure. DiffServ ensures that latency-sensitive applications and selected users will receive platinum-level service, while less urgent traffic is allocated bandwidth on a lower-priority basis.

Traffic prioritization is especially important for businesses that support mission-critical IP applications—including IP telephony—but do not want to incur higher costs by over-provisioning the network to ensure bandwidth availability.



Whether **your business** is *transitioning from digital to IP telephony*, or you're **creating a new IP-only environment**, Nortel Networks delivers the only **integrated solution** *that supports either approach.*

Figure 2: Business Communications Manager multi-site solution



Putting the **power** of IP telephony to work for your **business**

In an increasingly competitive marketplace, companies of all sizes need to find a strategic edge. Business Communications Manager helps your company compete more effectively by delivering new technologies designed to increase the efficiency of your personnel, maximize the viability of your existing resources, and reduce operating costs.

To learn more about how Business Communications Manager can put the power of IP telephony to work for your business, contact your local Nortel Networks reseller today, or pick up the phone and call 1-800-4-NORTEL for more information.

In the United States:

Nortel Networks
4000 Veterans Memorial Hwy.
Bohemia, NY 11716
USA
Telephone: 1 800 4 NORTEL

In Canada:

Nortel Networks
8200 Dixie Road,
Suite 100
Brampton, Ontario L6T 5P6
Canada
Telephone: 1 800 4 NORTEL

In Caribbean and Latin America:

Nortel Networks
1500 Concorde Terrace
Sunrise, FL 33323
USA
Telephone: 1 954 851 8000

In Europe:

Nortel Networks
Maidenhead Office Park
Westacott Way
Maidenhead Berkshire SL6 3QH
UK
Telephone: +44 1628 432 000

In Asia:

Nortel Networks
1111 King's Road
Quarry Bay, Hong Kong
Telephone: +852 2500 2888



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.

**GSA Schedule GS-35F-0140L
1-888-GSA-NTEL**

*Nortel Networks, the Nortel Networks logo, the Globemark, BayStack, CallPilot, Contivity, Meridian, Meridian 1, Norstar, Shasta, and Succession are trademarks of Nortel Networks. All other trademarks are the property of their respective owners. Information subject to change without notice. Nortel Networks reserves the right to make changes in design or components as progress in engineering or manufacturing may warrant.

© 2002 Nortel Networks. All Rights Reserved.

92001.06-12xx02