Compact, all-in-one platform delivers complete, integrated telephony and data services

Business Communications Manager

features browser-based management for streamlined setup and hassle-free operation

In business, your company's lifeblood is the telephone. Whether your business is looking for branch connectivity or a standalone telephony solution for a small- to medium-sized central site, Nortel Networks Business Communications Manager has the flexibility and broad feature set to meet your specific needs.

Business Communications Manager goes far beyond providing basic connectivity. Supported within this amazing unit are all the capabilities your business needs to maximize its success, including robust telephony features, voice mail, call center, interactive voice response, computer telephony integration, and much more.

By choosing Business Communications Manager for your site, you'll be installing a platform that delivers a powerful, affordable solution that's quick to deploy and easy to manage. And since it's an integrated solution, you won't get lost in a maze of software upgrades and a tangle of cabling—everything you need is right there in one compact chassis that can be managed from a single, intuitive software application.

NØRTEL
NETWORKS™

Put
integration problems
behind you with
Business Communications Manager

In the past, creating an environment capable of supporting telephony, voice mail, a call center, and data networking would require devices from four or five different vendors. System maintenance and management were a nightmare in a network where even music-on-hold required a standalone device.

Now, Business Communications Manager supports virtually all the technologies your business needs from a single, compact, easy-to-manage platform. Imagine the relief of operating a device where all of the functions are actually designed to work together!

Installation and configuration are a snap, because Business Communications Manager comes with its own intuitive management application. In fact, the entire system with its myriad capabilities can be accessed from only two windows of the browser-based software.

End the integration hassles of the past, and put your business in position for more streamlined operation and increased profitability by deploying Business Communications Manager today!

Available in two different models, Business Communications Manager is a member of Nortel Networks Succession* converged IP telephony portfolio.

- **Business Communications Manager 200** is designed to supply complete voice and data services to smaller sites of 10 to 20 users in a compact, cost-effective, easy-to-manage platform.

- **Business Communications Manager 400** is designed to supply complete voice and data services to small- to medium-sized sites of 30 to 200 users in a single, cost-effective, easy-to-manage platform.

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.

Nortel Networks
Business Communications Manager 200
and Business Communications Manager 400

Solving business challenges with Business Communications Manager

Flexible, cost-effective call processing solutions

Ideal for branch office and standalone small business environments

Now you can get an affordable, integrated platform that delivers all of the telephony and data networking capabilities you need in one compact chassis—Business Communications Manager. The system delivers a host of digital telephony and data networking features designed to meet the needs of any organization. And whether you're ready for IP telephony today, or a year from now, your options will be open and your investment will be secure.

Unlike products from other vendors, the call processing capabilities of the Business Communications Manager leverage Nortel Networks rich heritage and superiority in telephony. Based on feedback from our customers, this compact, powerful, and flexible device delivers hundreds of business-critical telephony features.

Nortel Networks understands that each customer has a different set of requirements and that your needs will evolve over time. Designed to meet a broad range of changing needs, Business Communications Manager is designed to meet all of your telecommunications needs—both now and in the future.

Business Communications Manager delivers a wide range of digital and IP-based telephony solutions:

- On the user side, companies can select from three feature-rich Business Series Terminal digital handsets, and there's even a Business Series Terminal Door Phone that's ideal for providing latch-release security at delivery sites and other restricted areas. Up to 192 digital sets can be supported, and the system also provides analog interfaces for phones, fax machines, and analog equipment from any vendor.

- In applications where IP telephony is more appropriate, users can select one of two full-featured IP telephone sets, or use the i2050 IP softphone client to transform their laptop or desktop PC into a multimedia communications platform. Up to 90 IP stations can be supported.

- On the trunk side, connectivity options include T1/E1, BRI and PRI ISDN, H.323 VoIP, and SIP-based IP trunking. And of course, full support is provided for traditional analog trunk connections to the central office.

Enhancing personnel effectiveness with voice processing solutions

Streamlined messaging and call routing solutions

There's more to voice processing than making sure your voice mail is readily available and easily accessed. Business Communications Manager also offers sophisticated voice processing services designed to increase the effectiveness of your personnel and to improve your company's accessibility to its customers. These advanced voice processing applications can also improve corporate efficiency and profitability.

- **Auto Attendant** gives small businesses and branch offices a way to gracefully handle their incoming call traffic, without the expense of hiring a full-time receptionist. By using advanced customer controlled routing (CCR) techniques, the system gets your callers where they need to go—fast.

Eight key capabilities in a single, affordable device

Virtual Private Networks (VPNs) for enhanced security—Intra-site Virtual Private Networks (VPNs) enable organizations to use the public Internet for secure data and voice communications.

Centralized configuration and management—Unified Manager is ideal for configuring a single unit or small networks, and optional Network Configuration Manager provides a global, template-based solution that streamlines the management of large networks.

Call center applications combine personalized agent interaction and customer support with advanced Web-based solutions.

Interactive Voice Response (IVR) enables companies to deliver information and ordering services from the keypad of a touchtone phone. Customer hold times are reduced, employee efficiency increased, and customer service improved.

Digital and IP telephony from a single, cost-effective device—Supports up to 160 digital stations, or up to 200 stations using a mix of digital and IP phones.

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.

- **Voice Mail** delivers advanced capabilities that enable your callers to stay closely in touch, and helps you work more efficiently. Callers can leave detailed information, mark their messages as urgent or private, or speak to your designated alternate. When new messages arrive, the system can be set to send a notification call or page, or the caller can receive the option to transfer to your cell or home phone. Business Communications Manager Voice Mail includes support for 32 ports and 200 hours of voice messaging storage, and individual voice mailboxes can be enabled via keycode as required.

- **Unified Messaging** increases productivity by consolidating all incoming messages—including e-mail, voice mail, and faxes—into a single window on your desktop or laptop PC. CallPilot* Unified Messaging for Business Communications Manager allows you to listen to voice mail, save or forward voice 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. This breakthrough technology also gives you complete access to all of your messages, even from remote locations.

- **Centralized Voice Mail** can be configured across the network, simplifying management and restricting control to the central site. A single Meridian 1, Succession 1000, or Business Communications Manager can be configured to extend CallPilot voice mail services to the entire network. Depending on customer preference, voice mail can also be set up at each local system without difficulty.

In the past, extending advanced voice processing services to your users meant installing, maintaining, and managing several standalone devices. Now, with Business Communications Manager, all of these powerful systems are incorporated into a single, easy-to-manage platform, eliminating the hassle and expense of performing hardware and software upgrades, experiencing software conflicts, and contracting with multiple vendors. CallPilot Voice Mail for Business Communications Manager and CallPilot Unified Messaging are pre-loaded on the system, and are available for activation on a 60-day try-and-buy basis, empowering your company to test the applications thoroughly before buying them.

Call center solutions that deliver the competitive edge

Improving sales and service through customer relationship management

When a customer dials into your call center, your phone system needs to help you deliver the best service possible. Business Communications Manager delivers advanced queuing techniques that quickly put callers in touch with the best agent to serve their needs. As soon as they are connected, the agent benefits from optional computer telephony integration (CTI) that puts a returning customer's sales history on screen, enabling agents to work more efficiently and provide better service.

Two call center versions are pre-loaded on the system—Basic and Professional—and can be activated without the need for software installations. Both versions deliver efficient call handling, the ability to provide a recorded announcement, and call routing.

For smaller environments, Basic Call Center supports up to two skill sets and 10 active agents. And for more demanding environments, Professional Call Center supports up to 50 different skill sets and 80 active agents.

- **Skill-Based Routing** enables agents that have expertise in several areas to belong to separate skill set agent groups. This enables agents to field calls from different types of customers, while simultaneously ensuring they do not receive calls that they are not qualified to answer. A feature that can deliver powerful competitive advantages to your business, skill-based routing helps your staff feel confident and maintain the confidence of the customer.

- **Wallboard Displays** enable agents and supervisors to monitor the number of callers in the queue, and handle call flow accordingly. When people are waiting, agents can either request support from additional personnel, or work more quickly to speed up call processing. Conversely, agents can take extra time with a caller if call volume is low. This information can either be displayed on the wall or on the agent's PC, and can lead directly to superior customer service.

- **Interactive Voice Response (IVR)** is also supported, enabling customers to call in and make real-time interactive queries with an external SQL or mainframe database. By porting over the run-time engine technology of the Nortel Networks Periphonics* IVR, Business Communications Manager supplies a tested and effective IVR solution that can add another competitive edge for your business.

- **Silent Monitoring** offers far more than assisting supervisors in evaluating agent performance. Agents can request help from a supervisor with additional expertise while on a call, and the supervisor can provide agent support. And if the supervisor is not available, agents can leave a message requesting assistance.

Nortel Networks i2004 Internet Telephone

- **Expected Wait Time** announcements let your customers know that help is on the way.

- **Music On Hold** ensures that customers know their call is in the queue and will be answered soon. Music can either be played directly from the system's hard drive, or sales messages can be played from a streaming source over IP.

- **Real-time and historical reporting** is included with Professional Call Center, and an optional upgrade can be purchased for adding reporting capabilities to Basic Call Center.

- **TAPI** (Telephone Application Programmer's Interface) support enables the system to interface seamlessly, with a variety of third-party computer telephony applications.

By integrating these powerful capabilities within the system, overall reliability and performance are enhanced. Everything works together seamlessly so that costly downtime does not compromise your call center or overall availability to your customers.

IP-enabled platform supports converged voice networks

IP telephony adds additional flexibility and capabilities to your network

As the network expands and specific challenges arise, IP telephony provides an additional level of flexibility for solving specific business challenges that cannot be met by conventional digital telephony. The ideal solution is to mix-and-match digital and IP telephony to create a solution that precisely mirrors the needs of your business.

For example, an IP phone set can be placed at an employee's home office, and with secure IP connectivity, it will function as part of the enterprise network. Need to place a handset at a guard post that's over a mile away? No problem. Or one of your roving employees might need to connect to the enterprise voice network from various campuses, or even over a customer's network. Imagine the flexibility of connecting via a wireless IP hotspot at any remote location, even an airport, and receiving your calls as if you were seated at your desk at the central site!

IP telephony consists of two different types of interfaces:

1) IP stations, which function as normal phone sets or wireless phones, but are connected directly to an IP interface such as a BayStack 460 10/100 switch.

2) IP trunks, which allow the system to connect to other devices, including other Business Communications Manager, IP-enabled Meridian 1 PBX, or Succession 1000 IP-PBX systems. IP trunks can be established using either the H.323 protocol or SIP (BCM to BCM only).

The Nortel Networks IP telephone portfolio currently includes:

- i2002 Internet Telephone, which is a small, economical IP-based phone set

- i2004 Internet Telephone provides a full-featured IP-based phone set with a large LCD display

- i2050 IP softphone client, a software-based PC client that brings full-featured IP telephony to your desktop or laptop PC

- Support for a wide variety of third-party wireless IP-based handsets

By combining wireless IP-based handsets with wireless IP, customers can now take advantage of wireless voice over IP. This lets customers use the same WiFi 802.11 infrastructure that they already have to support voice mobility, opening the door for wireless phones, wireless barcode scanners, and wireless laptop telephony.
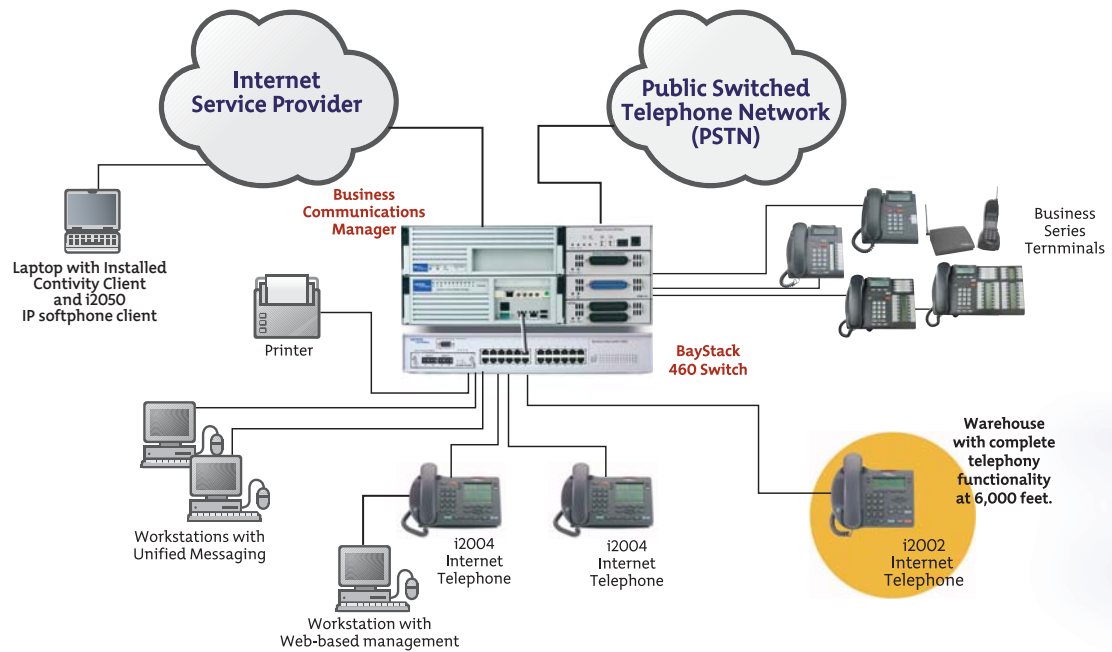
To simplify calling between conventional telephones and IP-based phones, Nortel Networks provides gatekeeper technology to deliver automatic translation between phone numbers and IP addresses. Just key in the phone number of the person you wish to reach, and the call will ring through—even if the person you are calling is connecting over a wireless IP network at a remote location. Gatekeeper databases can either be established locally within each Business Communications Manager, or the system can work with a centralized gatekeeper database maintained within Nortel Networks Succession devices or other third-party products.

Figure 1:   *Business Communications Manager single-site solution*

Internet Service Provider

Public Switched Telephone Network (PSTN)

Business Communications Manager

Laptop with Installed Contivity Client and i2050 IP softphone client

Printer

BayStack 460 Switch

Business Series Ternminals

Workstations with Unified Messaging

Workstation with Web-based management

i2004 Internet Telephone

i2004 Internet Telephone

Warehouse with complete telephony functionality at 6,000 feet.

i2002 Internet Telephone

Integrated data services designed to meet the needs of your business

Comprehensive data services for small- to medium-sized sites

In addition to its comprehensive telephony solutions, Business Communications Manager can also provide a rich array of data services capable of meeting the requirements of most small- to medium-sized sites. By leveraging tight, system-wide integration of both telephony and data networking features, Business Communications Manager delivers a level of reliability and ease of management that cannot be provided by solutions that rely on multiple components.

The system provides support for the following advanced data networking features:

- **VPNs** (Virtual Private Networks) are secure private networks created over the public Internet. The system's VPN implementation adheres to Microsoft's Point-to-Point Tunneling Protocol (PPTP), and supports IPsec and 128-bit triple DES encryption. By using branch-to-branch tunneling, the system can extend VPNs to all devices on the network, and extend a secured tunnel over the public Internet to another Business Communications Manager, Nortel Networks Contivity* Secure IP

Services Gateway, Nortel Networks Shasta* 5000 Broadband Service Node, or other IPsec-compliant device.

- **IPsec Support** enables the system to provide secure connectivity to mobile workers with an IPsec client installed on their laptops, or to a home office with a small IPsec-compliant branch device such as a Contivity 1000 Series gateway. This approach supports both encrypted data and encrypted voice, and is capable of satisfying stringent governmental security requirements.

- **Firewall with Stateful Packet Filtering** can be quickly configured to allow or deny network access based on time-of-day, application, IP address, port range, or other attributes. Ultra-granular control enables Web or data traffic to be restricted, while still permitting VoIP calls to pass through.

- **Integrated IP Router** built-in to the system can be configured with an optional WAN interface to provide full-service IP routing. Two WAN Media Bay Modules are available: one with two serial interfaces, and one with one serial interface and one T1 interface with integrated CSU.

- **QoS (Quality of Service)** is essential for supporting IP telephony or other latency-sensitive traffic. Even if you are

using an external router, the system can recognize and prioritize voice traffic, and in many instances this approach can help your company avoid the cost of replacing your router. QoS prioriti-zation takes place within the Business Communications Manager, and voice traffic is then sent through the second LAN interface to the legacy router.

- **NAT (Network Address Translation)** allows a single public IP address to be shared by multiple internal users. Up to 250 private IP addresses can be issued by the DHCP server, providing addi-tional security because the user's private IP address is not visible to other sites on the public Internet. NAT can also be used to share static addresses across a group of users who need exclusive, but temporary, use of a static IP address. Since static IP addresses can be costly, this can translate into hard cash savings for your company.

- **DHCP (Dynamic Host Control Protocol)** automatically issues IP addresses on an as-needed basis. Ideal for sharing IP addresses through NAT, DHCP is also useful for supporting mobile workers who want to use their laptop-enabled i2050 Software Phone, but don't want to go through the hassle of obtaining and entering a static IP address. With

DHCP enabled, a user with a wireless IP telephony handset can simply walk into a wireless IP hot spot, and their phone will be ready to make and receive calls.

- **DNS (Domain Name System)** provides name-to-IP address correlation, allowing users to enter the name of frequently-visited sites and have the system call up the appropriate Web page. This eliminates the need for the system to perform lookups over the Internet every time a site is accessed, maximizing performance and preserving available bandwidth.

- **Web Caching Services** also maximizes system performance, and preserves available bandwidth by eliminating the need to pull down frequently-visited Web pages, such as the corporate home page. Cached Web pages are stored locally on the system, and then updated automatically.
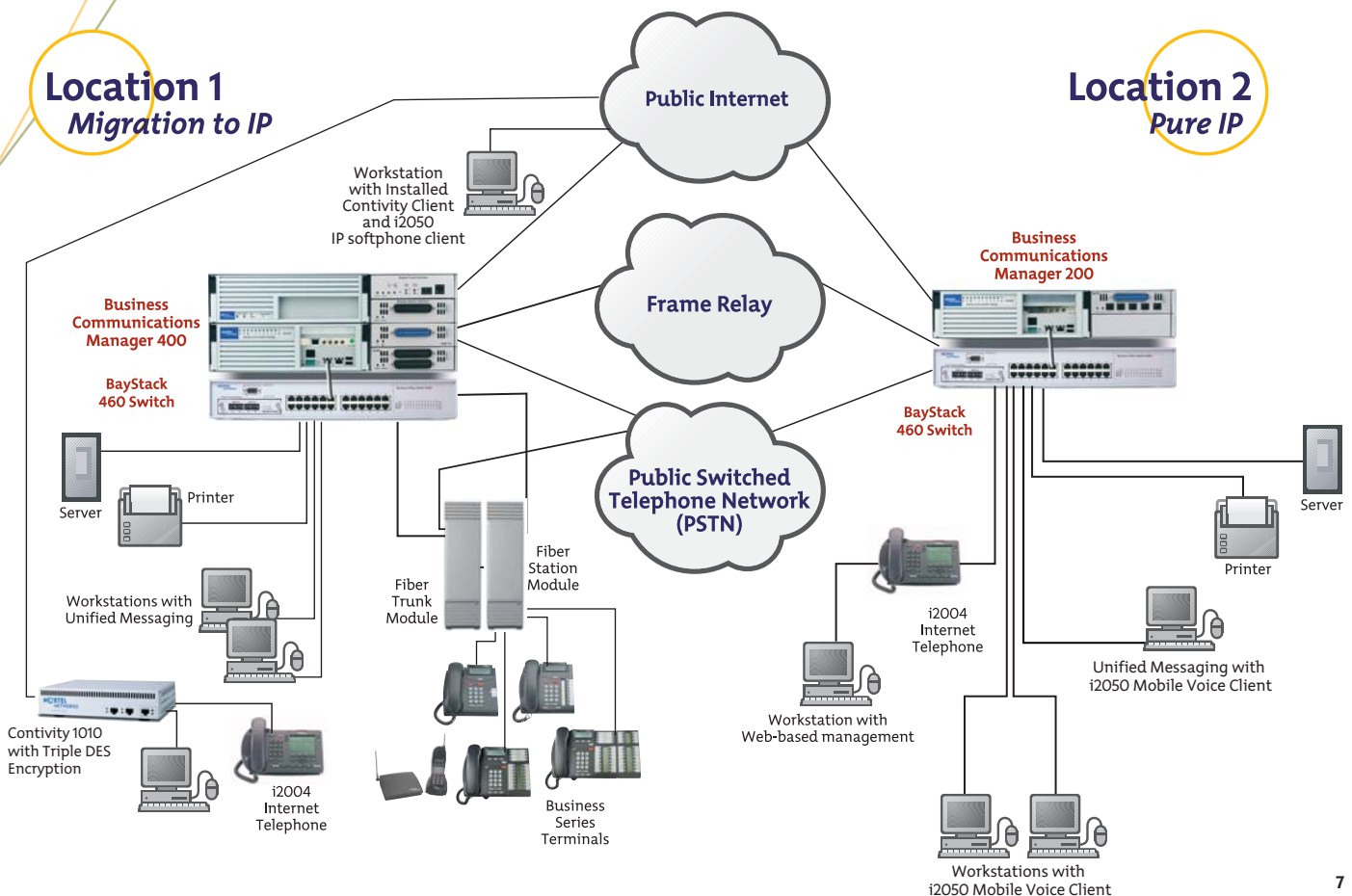
Streamlined management solutions for large networks

As your network expands, the complexities of managing a large network can pose real challenges. Network Configuration Manager is a client/server solution from Nortel Networks designed to maximize the efficiency and profitability of your business. By providing a global management solution capable of managing hundreds, or even thousands, of Business Communications Manager systems from a single location, this powerful application can streamline your business operations and minimize costly downtime.

Network Configuration Manager helps you create and maintain a centralized database of system configurations, which offers several key benefits:

- Enables new systems to be brought online quickly and efficiently by using a template-based approach

- Simplifies the process of system restores by using archived device images

- Automates the backup process, ensuring that up-to-date device images are always available

- Offers a scalable, cost-effective solution for networks of all sizes

Figure 2:   Business Communications Manager multi-site solution

Location 1
Migration to IP

Location 2
Pure IP

Public Internet

Frame Relay

Public Switched Telephone Network (PSTN)

Workstation with Installed Contivity Client and i2050 IP softphone client

Business Communications Manager 400

BayStack 460 Switch

Server

Printer

Workstations with Unified Messaging

Contivity 1010 with Triple DES Encryption

i2004 Internet Telephone

Fiber Trunk Module

Fiber Station Module

Business Series Terminals

Business Communications Manager 200

BayStack 460 Switch

i2004 Internet Telephone

Workstation with Web-based management

Server

Printer

Unified Messaging with i2050 Mobile Voice Client

Workstations with i2050 Mobile Voice Client

7

Bringing
integrated telephony and
data services to your business
with a single, cost-effective device

Business Communications Manager combines the best elements of high-end digital PBX phone systems, cutting-edge IP telephony solutions, and a robust set of data networking features that are capable of meeting the needs of almost any organization. By integrating advanced data networking features and comprehensive telephony solutions within a single platform, Business Communications Manager delivers a level of system integration and flexibility rarely seen in the industry. Combine this with the quick setup and ease of operation provided by the Unified Manager application, and Business Communications Manager is clearly the logical choice for your business.

For further information on how Business Communications Manager can help your company operate more efficiently and increase its profitability, contact your local reseller or visit www.nortelnetworks.com.

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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.

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