Business Communications Manager

Network convergence strategies designed to empower organisations 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 businesses.

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 businesses gain a strategic edge over their competitors.

By supporting both digital and IP telephony in a single, easy-to-manage, cost-effective unit, this scalable platform enables organisations to adopt IP-based solutions at their own pace.

Network solutions that can help grow the bottom line

Business Communications Manager delivers a complete, stand-alone solution that provides a smooth migration path to the IP-enabled networks of the future. Whether a company wants to establish IP telephony on-site, extend the service to remote sites, or to home offices, Nortel Networks can help. Unlike digital telephony equipment, IP phones are connected directly to the data network. This enables companies to capitalise on the economies of a single, simplified wiring system for both data and voice networks. Business Communications Manager also supports a full range of flexible wireless IP solutions to streamline their operations.

Retail and eCommerce

Business Communications Manager helps deliver new levels of customer service that can set organisations apart from the competition. For example, Interactive Voice Response (IVR) enables customers to save time by reordering products simply through entering information via the touchtone keys on their phone. If they have a question that needs personal assistance, Auto Attendant gives them the option to be routed to a staff member, request a callback, or receive other information. This can cut customer on-hold times and increase employee efficiency. Business Communications Manager

delivers cost-effective IP Telephony access to as few as ten users. As a company's business grows it can be expanded to support up to 200 users. Powerful management solutions are available that help companies configure new units with ease, and make quick, efficient global changes to all the units on their network.

Government and Education

For central and local government and for education, Business Communications Manager offers a robust, stand-alone solution that provides virtually seamless voice networking capabilities. Centralised voicemail and four-digit dialling 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 centres, universal/co-ordinated dialling plans, and wireless telephony – streamline internal operations and increase efficiency.

Finance and Insurance

When security is a priority, Virtual Private Networks (VPNs) create encrypted data tunnels between corporate sites over the Internet, delivering Triple DES security without the need for costly leased lines. IP telephony, voicemail, and four-digit dialling between branches improve operational efficiency and reduce costs. Security is also enhanced by using file transfers, email, 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 branch locations manually or using the integrated Auto Attendant. Call Detail Recording allows companies to track telephony usage patterns across the network, delivering a precise picture of how network resources are being utilised.

Healthcare

Staff can have instant access to medical records via their laptops from anywhere in their facility, accessing and updating patient records as they make their rounds. Wireless phones also increase efficiency by keeping 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 their internal network.

Nortel Networks Business Communications Manager 400 and Business Communications Manager 200

Solving business challenges
with hybrid digital/IP solutions

Today's competitive marketplace demands that organisations adopt new technologies that can help deliver improved customer service, reduce operating expenses and increase revenues by expanding market reach.

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

A member of the 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, typically of 10 to 24 users and more (up to 64 using a mix of digital and IP phones).

• **Business Communications Manager 400** is designed to bring the benefits of converged voice/data networking to small- to medium-sized sites of 16 to 200 users.

Both models offer key technologies that can help businesses 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.

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

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

Whether a company is creating a hybrid digital/IP telephony environment, or creating a new IP-based voice network, Nortel Networks has the solutions to ensure its success.

For customers interested in a traditional digital telephony implementation, Business Communications Manager supports the requirements of sites with up to 160 telephones. 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.

Centralised 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 organisations to use the public Internet for secure communications, reducing the need for costly leased lines. Contivity clients can now be loaded on to users' remote PCs and laptops, delivering secure access from any location.

Call centre applications combine personalised 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 email, voicemail and faxes – on to the screen of a user's 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.

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 a 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 companies with exciting new ways of meeting their business requirements. Wide-area connectivity over IP extends advanced call centre and messaging applications to both branch and home offices, creating a more cohesive structure that will maximise the efficiency of personnel.

Best of all, Business Communications Manager is a flexible, future-proof solution that will enable organisations to adopt new technologies at their own pace. Whether a company is 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 businesses grow and compete more effectively.

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

Finding the strategic edge
for businesses

Hybrid digital/IP telephony solutions

Unlike some competing products that require companies to make an 'either/or' choice, Business Communications Manager gives them the option of continuing to support, or even expand, their digital telephony network, while simultaneously deploying IP telephony where it suits the needs of their organisation.

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.

Business Communications Manager enables the network of companies 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, a user can connect his laptop at any branch office, plug in the Nortel Networks i2050 Software Phone, and place or receive calls exactly as if located at his home office.

• Flexible connectivity options that allow companies to deploy handsets across the data infrastructure, including wireless 802.11b connectivity and extended fibreoptic cabling runs.

• Unlike digital phones, which are hardwired to the PBX base unit, the Nortel Networks i2002 or i2004 Internet Telephones or Nortel Networks i2050 Software Phone will work anywhere on the data 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 the wide area network (WAN) for IP telephony, companies can leverage the untapped capabilities of their existing data infrastructure to maximise the return on their current network investment.

IP telephony offers a truly portable solution. Any port with sufficient bandwidth on the LAN/WAN will provide the connectivity needed – just plug in a configured phone or laptop and a user is ready to go. And if wireless IP connectivity is required for a phone, laptop, or scanner, the equipment will work anywhere on the network where there's an 802.11b access point installed.

Business Communications Manager delivers a fully integrated solution that does not require external devices – such as application servers or voicemail servers – to realise 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 prioritisation of latency-sensitive network traffic such as voice, the Nortel Networks BayStack 460-24T-PWR Switch or other DiffServ-capable device should be installed on the network.

**Nortel Networks
i2002 Internet
Telephone**

**Nortel Networks
i2004 Internet
Telephone**

Data services

In today's challenging business environment, the fast, secure exchange of information between the users in a company 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 organisations 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 on to a user's laptop or PC, and costly leased-line connections can be reduced or even eliminated by establishing secure, encrypted tunnels over the public Internet, corporate intranets, and extranets. Ideal for protecting sensitive data, VPNs use the most powerful IPSec encryption and authorisation 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.

Even for small sites, Nortel Networks delivers a solution capable of meeting all the data and voice networking needs of a company 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 users, enabling them to communicate via email, access web sites, and share files between remote locations.

Voice messaging

Up to 75 percent of business calls are not completed on the first try, and that is why efficient voice messaging is essential to a company's success. To maximise efficiency, Business Communications Manager CallPilot unified messaging solution enables employees to manage their voicemail, email, and incoming faxes directly from any multimedia Windows PC. Users can listen to voicemail, save or forward messages, view faxes on the screen and forward them as email, or even use Caller ID to go straight to the message they have 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 callers where they need to go – fast. This ensures that customers can always reach the company, eliminating busy signals and the potential for missing an important call or message.

Business Communications Manager will help organisations create a flexible, scalable solution that will improve customer service and streamline internal and external communications. These enhanced voice-processing applications are an incredible time saver, and will dramatically simplify companies' message management.

Call centre

When customers pick up the phone, what happens next can make the difference between the success and failure of a business. Whether customers are calling to place their first order, to reorder, or for support with an existing order, Business Communications Manager can help 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 the website of an organisation 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 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 centre agents and other users to have access to caller information before the conversation begins. Recent purchases are displayed on the 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 email, businesses can deliver the highest levels of customer service – even better than larger competitors who haven't adopted these advanced techniques.

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, maximising the efficiency of a company's 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 install 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.

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 businesses. Capable of supporting a hybrid environment of digital telephony, IP telephony, and 10/100 Ethernet data networks, this innovative platform maximises the utility of a company's 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 1,200 metres away. In the converged environment created by Business Communications Manager,

voice connections can now be transmitted over the same fibre 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 realised 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 network 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, optimising their existing investment by extending unified voice/fax/email messaging to the remote site. Both approaches provide centralised voice services, and offer four-digit extension dialling to any point on the network – including home offices connecting over broadband or cable.

Prioritising network traffic with the BayStack 46D-24T-PWR Switch

Now there's a way to make a company's network priorities mirror those of their business. By installing the BayStack 460 Switch with Business Communications Manager, the network becomes an intelligent partner that can prioritise business-critical traffic, helping to get the most out of the 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 prioritisation 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.
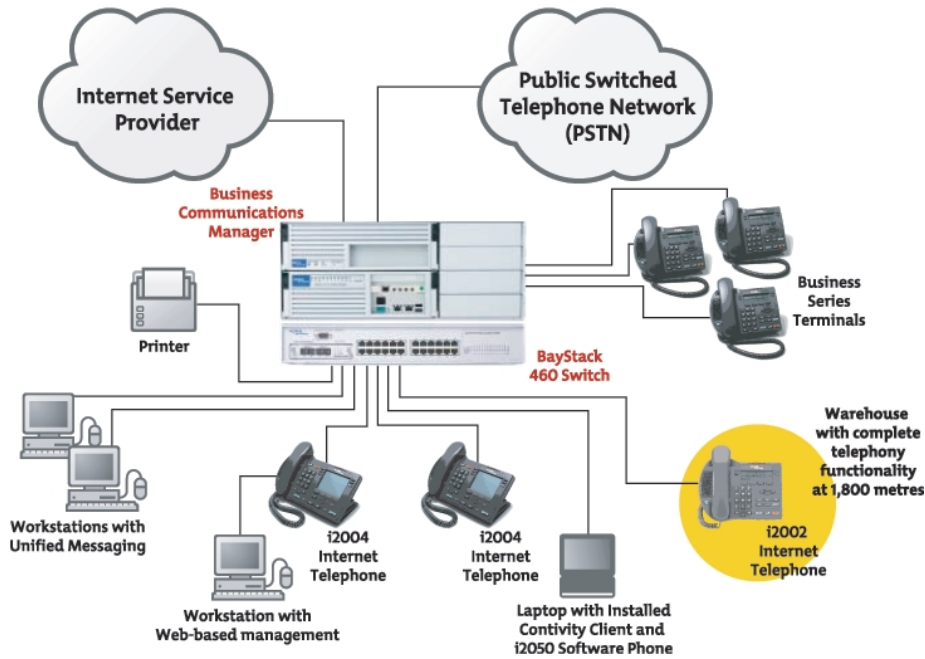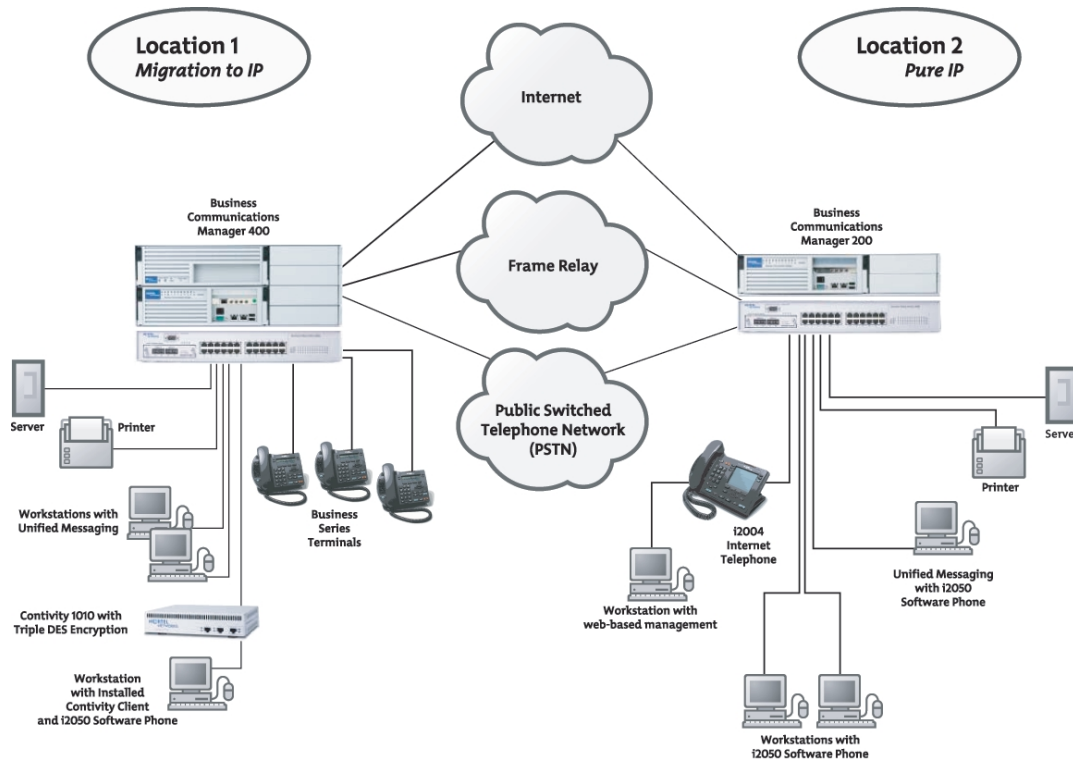
Figure 1: Business Communications Manager single-site solution

Figure 2: Business Communications Manager multi-site solution

Putting the power of IP telephony
to work for businesses

In an increasingly competitive marketplace, companies of all sizes need to find a strategic edge.

Business Communications Manager helps companies compete more effectively by delivering new technologies designed to increase the efficiency of their personnel, maximise the viability of their existing resources, and reduce operating costs.

To learn more about how Business Communications Manager can put the power of IP telephony to work for businesses, contact your local Nortel Networks representative, or call 00800 8008 9009 for more information.

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