NORTEL

Product Brief

Nortel Business Communications Manager 50

Rich features and a broad range of capabilities: just what your business deserves

The Business Communications Manager 50 (BCM50), which is ideal for businesses with 5 to 50 users, offers a number of advanced features and capabilities, including:

- Robust telephony features (400+)
- IP telephony to users' desktops
- Voice messaging and unified messaging
- IP networking (and Session Initiation Protocol, or SIP Trunking)
- Mobility solutions
- Optional integrated router for WAN and secure remote access
- Contact centers with skills-based routing
- Advanced conferencing and paging capabilities
- Comprehensive reporting
- Centralized management of multiple sites
- Common management interface with Nortel SMB data products

Fact: It's competitive out there. So what will it take for your business to succeed in a world where your customers and clients are demanding more, your workforce and locations are increasingly scattered, and you're being challenged to do more with less?

How can you ensure that your employees have the communications tools they need to be as productive away from their desk or away from the office? How can you deliver stellar customer service without investing in costly and complex contact center solutions?

That's where Nortel's award-winning Business Communications Manager 50 (BCM50) comes in. It's a cost-effective all-in-one platform that fulfills the converged voice and data communications needs of your small sites, franchises and branches by connecting employees and locations — efficiently, reliably and securely.

A winning solution

Nortel's BCM50 is an award-winning IP convergence platform that provides a choice of IP-enabled or pure IP deployment solutions, with simultaneous

support for IP and traditional business sets — and smooth migration from one to the other.

The BCM50 enables you to seamlessly migrate to IP convergence in phases from today's hybrid environment to pure IP — when it works best for your business. Whether you're ready for convergence today or a year from now, your options will be open and your investment secure.

One box. Many benefits.

Nortel BCM50 can help you transform communications from basic utility to competitive advantage. How? By offering powerful capabilities and applications that can help boost employee productivity, elevate customer satisfaction levels and reduce operating costs.

Enhance employee productivity

A rich portfolio of convenience and control features, secure remote Internet access and VoIP, and enhanced in- or near-office mobility provides the means for users to stay in touch any time they're away from their desks.

Increase revenues and encourage repeat business

Take advantage of optional intelligent contact center and self-service voice menu applications (i.e., automated attendant) that make it easier and more enjoyable for customers to do business with you. Skills-based routing, for example, sends callers promptly and directly to the agent most qualified to help them — a sure way to increase customer loyalty and drive repeat business.

Reduce operational costs

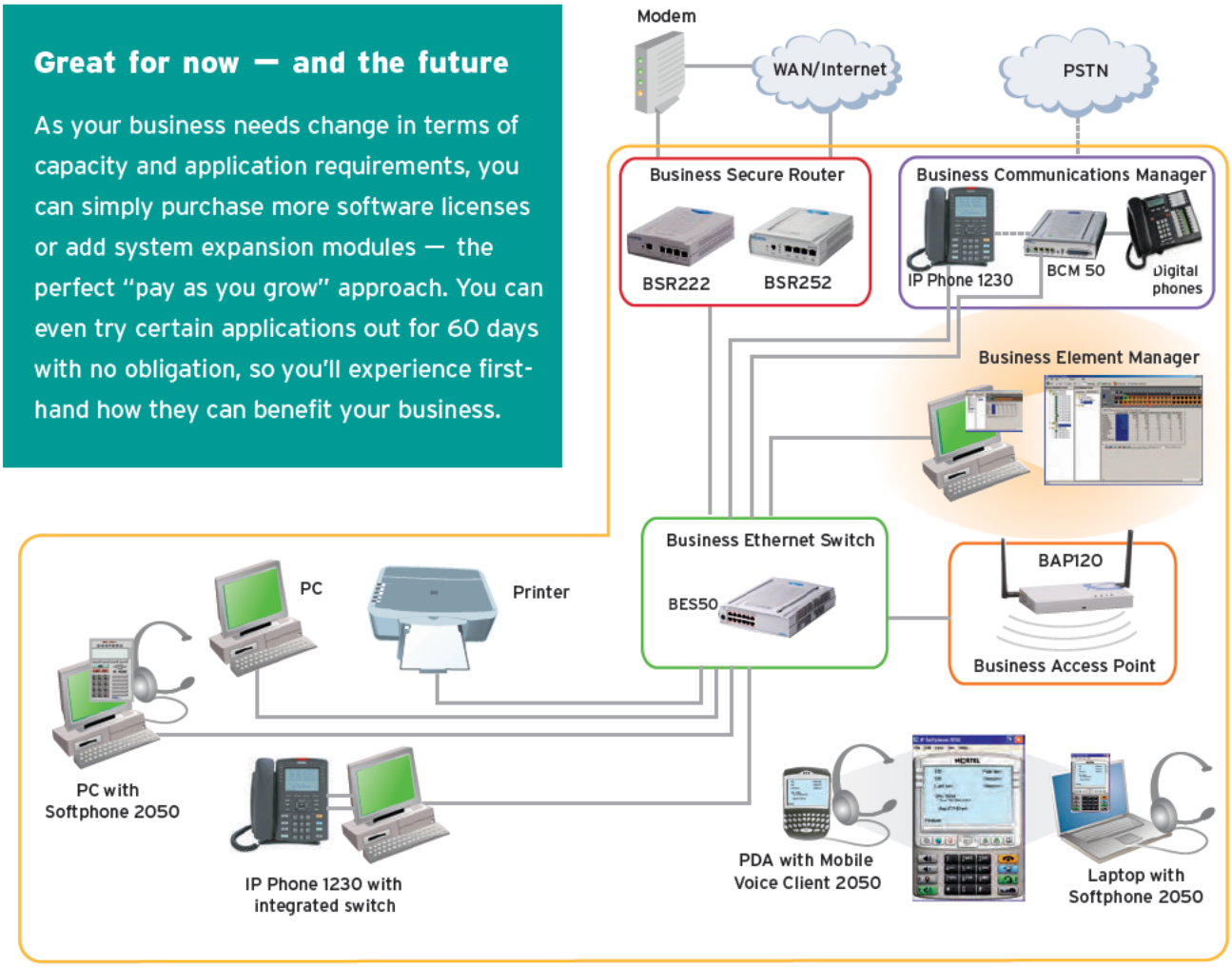
Centralize and simplify administration, configuration and management across your multiple sites (using Nortel Network Configuration Manager, or NCM). Use your Wide Area Network to securely transmit voice and fax calls while avoiding long distance charges and capitalizing on advanced applications and conferencing capabilities.

Nortel's SMB portfolio: built from the ground up for you

Business Communications Manager 50 is an integral part of Nortel's end-to-end IP convergence solution for small and medium businesses (SMBs). When you combine the BCM50 with the Nortel SMB Data portfolio, including the Business Ethernet Switch 50 (BES50),

Great for now — and the future

As your business needs change in terms of capacity and application requirements, you can simply purchase more software licenses or add system expansion modules — the perfect "pay as you grow" approach. You can even try certain applications out for 60 days with no obligation, so you'll experience firsthand how they can benefit your business.



Contact Pro Telephone Technologies for Sales and Support of this Nortel Telephone System Solution.

Business Access Point 120 (BAP120 for Wi-Fi), and Business Secure Routers 222/252, (BSR222/252), the result is impressive — a complete and fully tested converged solution with a common, user-friendly and browser-based management platform (Business Element Manager). The Nortel SMB Data portfolio is not only standards-based, but also complements the new Nortel IP Phone 1200 Series with Quality of Service and Power over Ethernet capabilities to save you time and money on wiring (i.e., no electrical jacks required). The BES50 was even designed from the ground up to be the ideal "Ethernet-switching" buddy to BCM50, and as such these two products work together beautifully.

Last but not least, if there are multiple sites or branches, they can be managed centrally and easily through the Nortel Network Configuration Manager.

Big-business features and applications — at a small-business price

The economically priced BCM50, which is scaled for small sites, comes with hundreds of telephony features and a full suite of integrated applications pre-loaded "in the box". But the features don't stop there. As your business grows and your needs evolve, you can easily activate more capabilities without having to purchase additional expensive hardware.

The industry's largest portfolio of telephony features

Access to more than 400 sophisticated telephony features helps your business process calls with exceptional reliability, efficiency and flexibility. This sophistication is balanced with the simplicity that many businesses need, as all IP Phone 1200 Series models come pre-programmed with the most common features used by SMBs. The net result is that your callers receive prompt, professional treatment and your employees enjoy convenience, productivity and control features that reduce phone tag and frustration.

Voice messaging: a must for the employees on the go

Even if employees aren't there to answer the phone, they can still get the message. BCM50's voice messaging provides 100 hours of storage and allows callers to leave information in a mailbox for selected users, departments or groups of users. Employees can record personalized greetings and enjoy anywhere-anytime password-protected access to their messages, with added value information such as calling line ID, time and date of the call and priority level.

Unified messaging for simplified and efficient communications

BCM50 consolidates voice, fax and email messages onto users' PCs, laptops or PDAs, and manages them through one standard application such as Microsoft Outlook or Exchange. This means that important messages are sent and received regardless of terminal or device — a real time saver and productivity booster.

Automated attendant to ensure calls get answered

This always-on-duty "administrative assistant" answers calls to your business with your personalized greetings and menu options, and routes calls to the right people, departments or voice mailboxes, delivering much greater efficiency and more satisfied customers.

Integrated Intelligent Contact Center to provide better customer service

Comprehensive contact center functionality, for up to 50 agents and 30 skill-sets and support for advanced reporting capabilities, enables you to fine-tune and increase the efficiency of your business. Incoming calls can be distributed among designated employees to create an order desk, reservations department, technical support center and more — enabling you to deliver a higher level of customer service.

Advanced Paging Productivity Pack for sophisticated paging and text-messaging capabilities

The Advanced Paging Productivity Pack (APP Pack) is a suite of advanced applications that can increase employee productivity, improve customer service and streamline business processes — virtually anywhere paging and text messaging are used. APP Pack works with both IP and digital stations (i.e., desktop and mobile types), and includes features such as One Button Paging, One Button Text Messaging, Customer Assistance Paging (with an Optional Customer Call Box) and Scheduled Announcements. APP Pack is supported in North America only.

Ad-hoc conferencing to take care of business quickly

Simply and efficiently initiate a teleconference call with up to 18 simultaneous participants on the spur of the moment, without the need for a conference operator or service.

Meet-Me Conferencing to make meetings easy, secure and productive

This easy-to-use functionality allows parties to establish a teleconference by calling in to a specified telephone number and extension at an agreed-upon time. Meet-Meet Conferencing includes a rich set of user controls, enabling the "chairperson" to start, stop, secure and control the conference. This makes it ideal for larger conferences, especially those involving outside suppliers or customers.

Computer Telephony Integration (CTI)

Simple to activate, set up and manage, 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" with customer information when they call.

Optional integrated router for WAN and secure remote access

BCM50's optional integrated router (ADSL or Ethernet based) supports Wide Area Networking and up to 10 simultaneous remote worker sessions. Converge your network, connect your locations, and provide your tele-workers and road warriors with secure network access using any high-speed connection.

Mobility options to keep employees accessible and connected

Whether your employees are in the office, nearby or even traveling, BCM50 has a full suite of mobility offerings to choose from including digital and IP wireless handsets or even PDA and PC-based soft clients. Regardless of location, your employees can stay connected to customers and each other.

Flexible reporting capabilities

Choose the reporting capabilities that work best for your business. Activity Reporter Basic solution is an on-box reporting system (no additional software required) that provides reports on BCM telephony data metrics including Call Accounting, Auto Attendant Call Routing, Hunt Groups and Voicemail. Activity Reporter (full version) is an off-box telephony metrics reporting system (goes on a customer's PC) offering more advanced reporting capabilities and greater flexibility, enabling you to slice and dice information the way you want. With BCM50's flexible reporting offerings, businesses can better understand and optimize their call flows, resulting in improved customer service, increased employee productivity and cost savings.

Support for a broad range of phones — to keep employees connected, satisfied and productive

BCM50 offers a wide portfolio of user-friendly telephone sets to fit any of your business requirements — from the front desk to the conference room, from supervisors who spend their days on the phone to mobile workers who are never at their desks.

Desktop IP

IP Phone 1200 Series: A new IP desktop portfolio designed and optimized specifically for SMBs, featuring the 1210, 1220, 1230 IP Phones as well as two Key Expansion Modules (KEMs). There is a 12-Key LCD (Liquid Crystal Display) self-labeling KEM and an 18-Key LED (Light Emitting Diode) KEM that comes with a paper label.

Key features include multiple softkeys, integrated speakerphone, advanced audio-quality technology for crystal clear conversation, headset support, an integrated Ethernet switch and more. The 1200 Series phones are also the perfect balance of simplicity and sophistication; they come pre-programmed with the most common features used by SMBs, yet can be easily customized to access the 400+ BCM telephony features.

Each set within the 1200 Series has been designed for different types of users within an SMB or branch office environment:

- *IP Phone 1210* is a standard-level IP phone for most SMB employees with basic communications needs. It is also suitable for common areas such as for lobbies.
- *IP Phone 1220* is an intermediate-level IP phone. It has four programmable soft keys at the top, and is ideal for employees with more moderate communication needs.
- *IP Phone 1230* is a premium, intermediate-level IP phone. It has 10 programmable soft keys, and is best suited for employees with more advanced communication needs (e.g., administrative assistants or other traditional power users).

Easy installation and set-up for worry-free telecommunications

IP Phone 1100 Series: A premium portfolio of desktop IP Clients that offers support for high-resolution graphical displays, USB, Gigabit Ethernet and Bluetooth (selected models). It also includes a local secure tools menu for simplified administration.

IP Phone 2000 Series: A portfolio of standard, intermediate, professional and advanced-level desksets that supports a comprehensive suite of business-grade telephony features and high-value applications such as unified messaging and intelligent contact center services.

IP Audio Conference Phone 2033: A full duplex, handsfree, IP audio conference phone that provides 360-degree coverage for rooms up to 20' x 30' in size.

Desktop Digital

These desktop digital telephones work with both Norstar and BCM. When you're ready to migrate, you can take them with you and evolve to convergence at your own pace.

Business Series Terminal T7000: The T7000 telephone is an entry-level digital set for basic low-use office environments. It has four programmable feature keys and four autodial buttons. The T7000 is available in all regions but North America.

Finally, the advantages of convergence, made affordable and practical for the smallest business locations.

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

BCM50 simultaneously supports a choice of IP and digital telephone sets and clients, including Nortel IP Phone 1200 Series, IP Phone 1100 Series, Business Series Terminal T7406E and many more.

Business Series Terminal T7100: An entry-level, single-line telephone designed for public areas such as lobbies, cafeterias, hallways, break rooms or other locations where use is occasional.

Business Series Terminal T7208: An enhanced-level, multi-line telephone with an integrated LCD that is ideally suited for moderate call volume users such as office professionals and technical specialists.

Business Series Terminal T7316E: A full-featured, expandable, multi-line telephone designed for high call volume positions requiring access to extensive system features.

Audio Conferencing Unit: A full-duplex unit that extends voice connectivity to conference rooms and offices with clarity and reliability.

Mobile IP

WLAN Handset 2200 Series: Full-featured, lightweight, durable handsets for premises-based mobile voice and data communication via WLAN 802.11b access points.

Mobile Voice Client 2050: A soft-phone that extends 802.11b WLAN IP Telephony to mobile workers using Pocket PC PDAs running Microsoft Windows Mobile 2005.

IP Softphone 2050: Transforms PCs into full-featured platforms that offer real-time, feature-rich voice communications along with support for data communications.

Mobile Digital

These mobile digital telephones work with both Norstar and BCM. When you're ready to migrate, you can take them with you and evolve to convergence at your own pace.

Business Series Terminal T7406E: A full-featured, multi-line cordless telephone for businesses that would benefit from a workplace mobility solution. It supports one to eight users with mobile access up to 1,000 feet away from the base station. The T7406E is supported in North America, Mexico and Caribbean countries (except for Jamaica and Trinidad).

Digital Mobility Handset 7430: Offers a solid basic value at a low cost, with a rugged design that's ideal for industry, warehouse and retail environments. It supports 1 to 64 mobile users. The 7430 is available in North America, China and Argentina only. Equivalent handsets include the 4135 (EMEA, Hong Kong and Taiwan), 4136 (Australia and New Zealand) and 7434 (South America).

Digital Mobility Handset 7440: A rugged, full-featured high-quality set with IP 54 classification (protection against dust and splashing water). It is designed for high traffic and/or more rugged environments and supports 1 to 64 mobile users. The 7440 is available in North America, China and Argentina only. Equivalent handsets include the 4145 (EMEA, Hong Kong and Taiwan), 4146 (Australia and New Zealand) and 7444 (South America).

From traditional telephony all the way to users' desktops

BCM50 is the ideal solution for you wherever you are in your telephony evolution. The versatile platform can support a combination of IP and non-IP phones and IP soft clients so you can mix and match for the best economy and utility — and upgrade on your schedule without major investment.

Buy what you need today. Easily expand to what you need tomorrow.

Grow capacity when you're ready

The BCM50 base unit was designed to optimally meet the interface requirements of small businesses from 3 to 30 users. However, this scalable platform grows to support up to 44 digital set users and 32 IP set users, and up to 50 users in a mixed digital and IP configuration. Buy the ports you need today, and activate additional ports later as you need them.

Pick and choose the features you want

Since all features and applications are pre-loaded onto the BCM50 system, these too can be easily activated through the use of a simple keycode. If you're not sure which applications are right for your business, Nortel makes it easy to decide by offering a 60-day free trial for most applications.

Upgrade without an overhaul

Through open standards and an "evergreen" development strategy, BCM50 fits well in hybrid environments that contain a mix of analog, digital, IP and wireless services. And since the platform interworks with other Nortel key/PBX systems (Norstar), larger Business Communications Manager systems (BCM200/400) and Nortel's portfolio of convergence call servers, you have the flexibility to evolve your network — wherever the future leads you.

Easy to install. Easy to manage.

BCM50 systems are reliable, cost-effective, easy to install and use. A compact unit about the size of a package of printer paper, the system can stand alone on a desktop, be mounted on a wall or in an equipment rack. BCM50 even has the same form factor as Nortel's other data products for SMBs (BES50, BSR222 and BSR252) for a fully stackable solution.

Simplify administration with integrated management tools

Through a built-in, intuitive management application, you can monitor and program the entire system, and even use PVQM (Proactive Quality Voice Monitoring) to ensure optimal performance. You don't even need a separate PC or IP connection as most BCM50 functions can even be programmed through any connected digital or IP telephone set.

Easily manage large, distributed networks

If your network includes multiple systems — including BCM50, 200 and 400 — you can manage all from a central location. Nortel Network Configuration Manager helps you create and maintain a centralized database of system configurations. This makes it fast and easy to bring new systems online, back-up and restore information — whether you need to manage a small or large number of systems (up to 2,000).

Take advantage of centralized applications

You can further streamline administration by centralizing applications for messaging and management, and distributing these capabilities over your IP network. In addition to cost savings, your business also benefits from global administration and a consistent interface and user experience across the network.

Enjoy one user-friendly management interface

The Nortel BCM50 system optionally combines a choice of integrated edge routers for a converged solution that is simple to install and manage. This is further complemented by the Nortel Business Ethernet Switch, Business Access Point and Business Secure Router products, which provide the complete solution for your converged IP telephony. All of these products are managed through the same intuitive Business Element Manager interface and have been tested to work as one solution.

From Nortel — affordable, converged voice and data communications

When it comes to your communications needs, count on the company that has been delivering telephony and data systems to service providers and enterprises for decades — the company that pioneered the digital revolution, reinvented business networking in the Internet Age, and leads the market in small and medium business telephony today.

To find out more about Nortel BCM50, visit *www.nortel.com/bcm50.*

The clear choice for small and medium businesses

By integrating advanced data networking and comprehensive telephony features, BCM50 delivers a level of system integration and flexibility rarely seen in the industry. Combine all this with quick setup, ease of operation and affordable pricing, and the result is clear — this innovative system is the logical choice for your business.

Technical specifications

Physical specifications

Depth	12.75 in.
Width	8.625 in.
Height	2.625 in.
Weight	BCM50 4 lb. 1.9 oz.; BCM50a/e 4 lb. 8.6 oz.
MBM	2 w/Expansion Unit
CPU	PowerQuickII 8270
Memory	256 Mbytes of SDRAM
Hard drive	40G Serial ATA HD
System status LEDs	Status and Power
Mounting options	Desk top, wall mount or rack mount
Power supply specifications	AC input: 100-240V -2 A, 50-60 Hz; DC output: 19 6.32 A
Operating temperature	-5°C to 50°C
Operating humidity	90-95% RH at 40°C
Storage temperature	-55°C to 70°C
Storage humidity	90-95% RH at 40°C

Mechanical requirements

Packaged

- Transportation vibration as per Telcordia GR-63 (Section 5.4.3, Figure 4-3, Curve 2)
- Transportation bounce as per IEC 68-2-55 (Method A)
- Drop and vibration as per ISTA Procedure 1A

Unpackaged (Operational)

- Office vibration as per Telcordia GR-63 (Section 5.4.2, Electronic Subassemblies)
- Mechanical shock as per IEC 68-2-27 (Test Ea)
- Drop as per IEC 68-2-32 (Test Ed)

Regulatory compliance

Canada CS-03 and US

Federal Communications Commission (FCC) Part 68 and has been registered under files Industry Canada 332D-5980A and FCC US: AB6KF15B20705 (key system), US: AB6MF15B20706 (hybrid system) and US: AB6PF15B23740 (PBX system). BCM50 Model No. NT7B10xxxx is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. European Safety requirements EN 60950 and EMC requirements EN 55022 (Class A) and EN 55024.

Electromagnetic emissions

BCM50 equipment meets all FCC Part 15, Class A radiated and conducted emissions requirements. BCM50 does not exceed the Class A limits for radiated and conducted emissions from digital apparatus as set out in the Radio Interference Regulations of Industry Canada.

Electromagnetic compliance

The Nortel BCM50, BCM50 with ADSL Router (BCM50a), BCM50 with Ethernet Router (BCM50e) and BCM50 Expansion Unit fully comply with the following standards and specifications:

Canada	ICES-003 Class A using: – CISPR 22 (1997) Class A – ANSI C63.4 (2001) method
United States	FCC Part 15 Subpart B Class A using: – CISPR 22 (1997) Class A – ANSI C63.4 (2001) method
European Union	EN55024 (1998 w/A1:01 & A2:03)/CISPR 24 (1997) excluding Annex A EN55022 (1998) Class A EN61000-3-2 (2001) EN61000-3-3 (1995 w/A1:98)
Australia/New Zealand	AS/NZS CISPR 22 (2002) Class A using: – EN55022 (1998) Class A
Japan	VCCI (April 2000) Class A using: – CISPR 22 (1997) – ANSI C63.4 (2001) method

Spec or configuration questions can be answered by calling Pro Telephone Technologies at (562) 422-6934

The following specific tests were performed to verify the above certifications		
Radiated Emissions	EN55022 (1998)	Class A
Mains Conducted Emissions	EN55022 (1998) CISPR 22 (1997)	Class A
Harmonic Emissions	EN61000-3-2 (2001)	
Voltage Fluctuations and Flicker Emissions	EN61000-3-3 (1995 w/A1:98)	
Electrostatic Discharge	EN61000-4-2 (1995) EN55024 (1998 w/A1:01 & A2:03 CISPR 24 (1997)	+/- 4kV contact +/- 8kV air
Radiated E-Field Immunity	EN61000-4-3 (1997) EN55024 (1998 w/A1:01 & A2:03 CISPR 24 (1997)	3 V/m
Electrical Fast Transient Burst	EN61000-4-4 (1995) EN55024 (1998 w/A1:01 & A2:03 CISPR 24 (1997)	1 kV (AC) 0.5 kV (I/O)
Surge	EN61000-4-5 (1995) EN55024 (1998 w/A1:01 & A2:03)	2 kV (AC) 1 kV (AC)
Conducted Immunity	EN61000-4-6 (1996) EN55024 (1998 w/A1:01 & A2:03 CISPR 24 (1997)	3 Vrms
Voltage Dips and Interrupts	EN61000-4-11 (1994) EN55024 (1998 w/A1:01 & A2:03 CISPR 24 (1997)	>95%, 30%, >95%
Network protection		
Safety and surge/transient		

MBM

BCM50 main unit

- One Amphenol (male) connector (25 pair)
- 4 loop start CLASS/CMS lines (keycode enabled)
- 4 analog station ports [disconnect supervision - 850 Ms Momentary Disconnect, Message Waiting Indication - NA 120V 600 ms on and 1000 off, Calling Line Identification (CLID) Name and Number] (keycode enabled)
- 12 digital phone ports (keycode enabled)

Embedded modem

- BCM50 – standard soft modem support on analog lines

BCM50

- Craftsperson interface – 10/100 auto sensing/auto polarity; RJ-45 connector, DHCP support
- Customer access – 10/100 auto sensing/auto polarity; RJ-45 connector, DHCP support
- Expansion port or 10/100 auto sensing/auto polarity switch port; RJ-45 connector, DHCP support
- Expansion port or 10/100 auto sensing/auto polarity switch port; RJ-45 connector, DHCP support

BCM50a and BCM50e

- 4 10/100 auto sensing/auto polarity switch port; DHCP support

Telephony components

MSC interfaces

- BCM50 Main unit – Recessed reset button; USB interface, Music on Hold Interface [3.5mm (1/8 inch) standard miniature stereo (3 conductor)]; Auxiliary Ringer, Page Relay, Page Output and Music on Hold on Amphenol (male) connector (25 pair)

WAN interface

BCM50a

- ADSL interface, RJ-45 connector

BCM50e

- 10/100 auto sensing/auto polarity; RJ-45 connector

Expansion cabinets

BCM50 Expansion Unit

- One Media Bay Module slot
- Supports all BCM Media Bay Modules except FEM and DDIM
- Maximum two Expansion Units per BCM50
- Utilizes standard 10/100 LAN cable for the interface to the BCM50 main unit
- Supports 3 10/100 auto sensing/auto polarity switch port; DHCP support

Depth	12.75 in.
Width	8.625 in.
Height	2.625 in.
Weight*	2 lb. 5.2 oz

The specifications above also apply to the BCM50b, BCM50ba and BCM50be versions (for EMEA and APAC only) with integrated BRI trunks.
* Weight does not include MBM.

Call Pro Telephone Technologies at
(562) 422-6934
for Sales and Support of this and other
Nortel Telephone System Solutions.

We proudly represent Nortel as a trusted brand.

We invite you to visit our website at
www.iprotelephone.com

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Nortel is a recognized leader in delivering communications capabilities that make the promise of Business Made Simple a reality for our customers. Our next-generation technologies, for both service provider and enterprise networks, support multimedia and business-critical applications. Nortel's technologies are designed to help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people to the information they need, when they need it. Nortel does business in more than 150 countries around the world. For more information, visit Nortel on the Web at **www.nortel.com.** For the latest Nortel news, visit **www.nortel.com/news.**

For more information, contact your Nortel representative, **Pro Telephone Technologies at (562) 422-6934** or call 1-800-4 NORTEL from anywhere in North America.

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