



# **Business Communications Manager 450 R1**

John Jackson  
SMB Product Marketing Manager

**BUSINESS MADE SIMPLE**

**NORTEL**



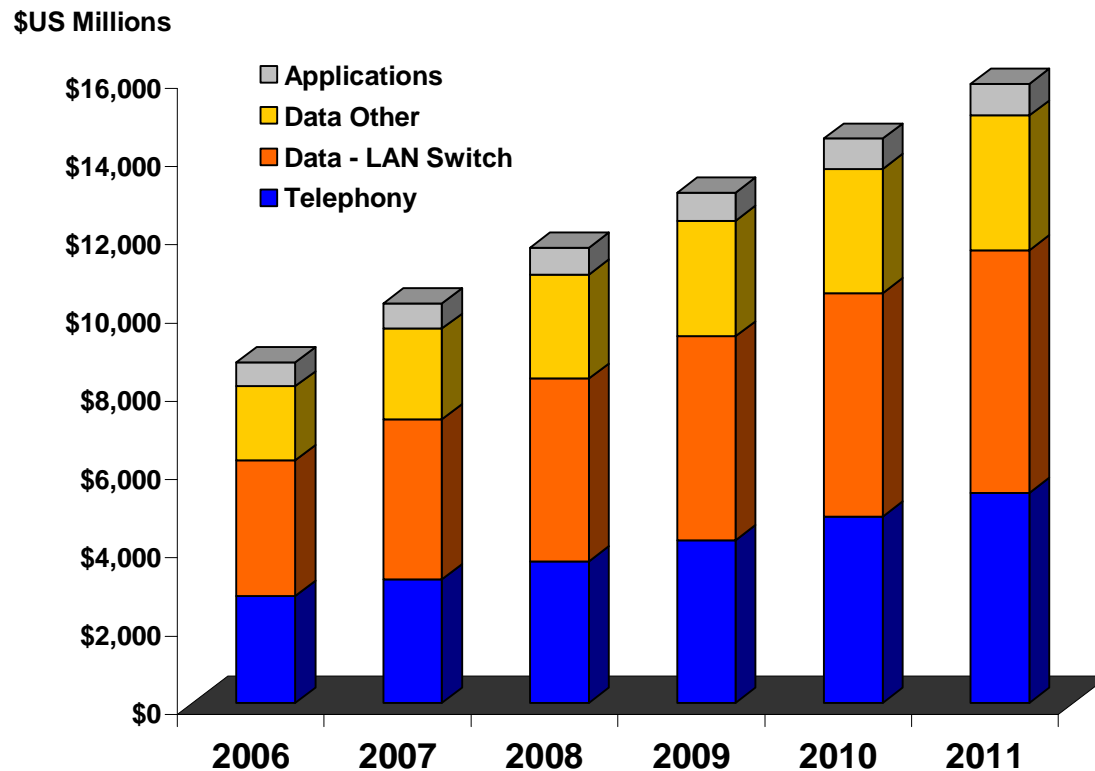
# Contents

- Introduction
- Nortel Solution Framework
- BCM450 Overview
- BCM450 Positioning
- BCM Portfolio Evolution
- Additional Resources
- Pricing and Bundling
- Competition



# Introduction

## Worldwide Sub250 Communications Market



- Total Sub250 Market including Infrastructure and Applications growing at a CAGR of 12.7%.

**SMB market is healthy and growing.**

Telephony – Voice Systems, IP Clients  
Data Other – WLAN, Router, Security Appliances, Application Switch  
Applications – Messaging, Contact Center

Source: Nortel SMB Market Intelligence using data from Dell'Oro, IDC, InfoTech.



# Introduction

## Today's SMB Realities

- **Mobility**
  - 2/3 of SMB workers travel for business
  - 30% say that mobile policies are a priority
- **Dispersed Workplace**
  - 27% of SMBs have multiple locations
  - 35% of SMBs have telecommuters
- **Employee Satisfaction**
  - Attracting, developing and retaining talent are major challenges
- **Efficiency & Productivity**
  - Managing cash flow and reducing costs are among the top decision criteria
- **Technological Expertise**
  - Limited IT resources available to deploy and support new technology





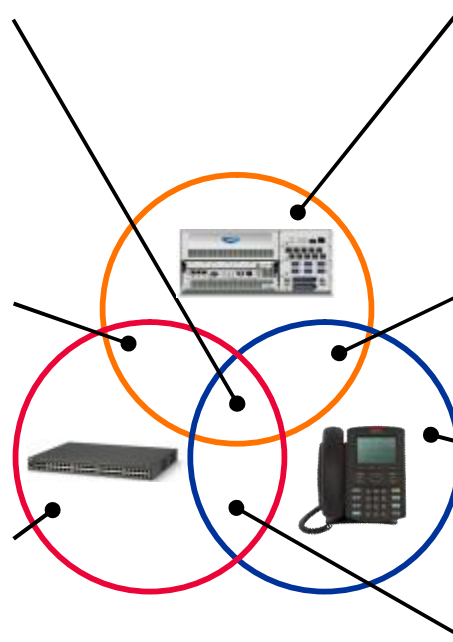
# Nortel SMB

## Solution Framework

- Business Element Manager
- Network Configuration Manager
- Standards-Compliant
- Single Source Solution
- Specially designed for SMBs

- VoIP Quality of Service
- High Speed Data Transfer
- Secure Internet Access
- Hosted or Managed Services

- Business Ethernet Switch
- Business Secure Router
- Business Access Point
- Business Services Gateway



- Business Communications Manager
- Extensive Telephony Feature Set
- Integrated Business Applications
- Advanced Networking
- Embedded Security

- Full Feature & Application Support
- Easy to Set Up and Program

- IP or Digital Desktop Phones
- IP or Digital Mobile Phones
- Conference Phones & Soft Clients

- VoIP Quality of Service
- Power over Ethernet

**Innovative, easy to use, and affordable IP communications designed with the unique challenges of SMBs in mind.**



# BCM450 Overview

## What is the BCM450?

- BCM450 is a NEW model being added to the BCM portfolio that expands the BCM addressable market to the 100-300 station segment.
- BCM450 provides a scalable migration path for the underserved Norstar MICS customer base, and opens up incremental business growth opportunities.
- Target market is midsize SMBs with 30-250 employees.

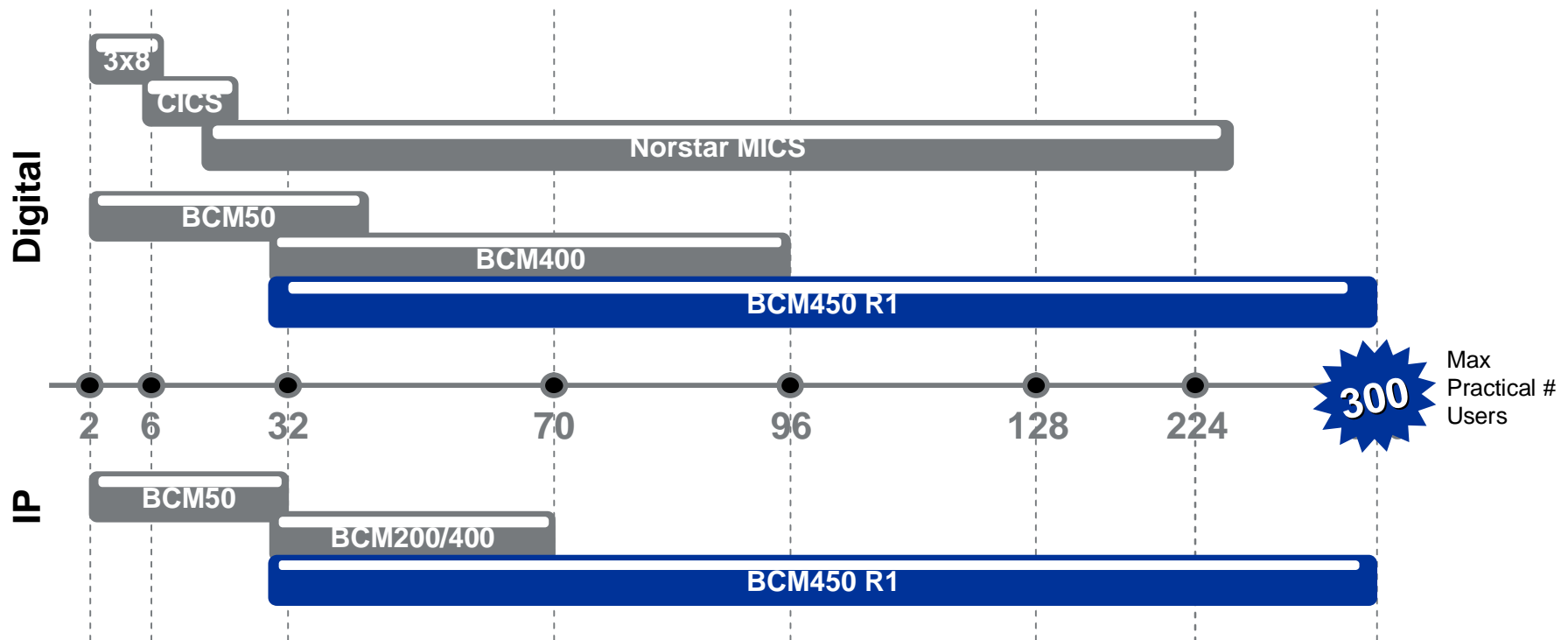
**New product to drive Norstar migration and new business.**

Note: BCM450 R1 is not directly targeted at the BCM installed base; this will be addressed in a follow-on release.



# BCM450 Overview

## Market Coverage



**Adding scalability to the BCM family and providing a smooth IP migration path for Norstar MICS customers.**

Note: BCM450 R1 is on the Plan of Intent (POI) only and is not yet committed and tracked as Plan of Record (POR). Target GA is 4Q08.

# BCM450 Overview

## Content Summary



### Capacity improvements

- Up to 300 total users: max 300 digital / 300 IP / 48 analog w/ Capacity Expansion Card (CEC)
- Up to 120 Ad Hoc or Meet-Me conference participants, 8 fax ports, 400 hours voicemail w/ CEC
- Base model supports up to 100 stations, 60 conference participants, 4 fax ports

### Operability improvements

- BEM – automated renumbering, template based sets provisioning
- Other – documentation suite, system reset, self-test, recovery, troubleshooting, reboot

### Platform simplification

- Base Function Tray (BFT), Chassis Interface Board (CIB), CEC

### Feature parity with BCM50 R3, including:

- Conferencing – Meet-Me Conferencing: flexible, easy to use, secure, scalable
- IP – IP Phone 1200 Series, IP Phone 1110, 1100 Expansion Module
- SIP – native SIP trunking enhancements for interworking with other systems
- Contact Center – new APIs, features, reporting engine, installation utility

Note: Based on BCM50 R3 software stream alignment, the major delta items to BCM400 R4 are: integrated router, V.92 hard modem (replaced by V.34 soft modem), Interactive Voice Response (IVR) application, RAID hard drive redundancy (new BFT is RAID ready for GR1), Digital Drop & Insert MUX (DDIM) MBM.



# BCM450 Value Proposition

## Addressing SMB Challenges

### Compatibility

- Norstar customers can keep their phones, fiber trunk and station modules.
- BCM customers can retain their phones, MBMs, expansion cabinet, and most of their software investment.
- No user training required; base telephony features and user interface remain the same.

### Efficiency

- All the benefits of VoIP: toll savings, easier setup, improved portability, call features.
- New enhancements improve installability, usability and supportability.
- Simplified platform with high quality and reliable hardware reduces lifecycle costs.

### Flexibility

- Flexibility to add capacity or deploy new features with the optional field installable CEC and easy to enable keycodes.
- Elegantly scales up to 300 total users with any mix of digital or IP phones.
- Same software as BCM50 R3 for full feature parity and interoperability.

### Familiarity

- Nortel has 20 years experience in SMB with Norstar and the award-winning BCM.
- Nearly 200K BCM systems sold worldwide.
- 15 million SMB clients in over 80 countries.
- Affordable, easy to use solutions designed specifically for SMBs.



# BCM450 Capacity Improvements

## Summary

	BCM400 <sup>1</sup>	BCM450	with CEC <sup>2</sup>
IP Endpoints	90	100	300
Digital Stations	192	100	300
H.323 or SIP Trunks	60	48	130
Digital Trunks	96	48	130
T1 Interfaces	3	2	6
E1 Interfaces	3	2	5
BRI Loops	4	16	16
Ad Hoc Conf. Ports	40	60	120
Meet Me Conf. Ports	NA	60	120
Voicemail Hrs	200	400	400
UM Seats	200	300	300
Fax Ports	2	4	8

- Comprehensive 'across the board' increase in capacity
  - Stations, Trunks, Interfaces, Ports, Storage Memory
- Modular design approach using the CEC.
- Key Benefits:
  - Scalability
  - Flexibility
  - Affordability
  - Simplicity

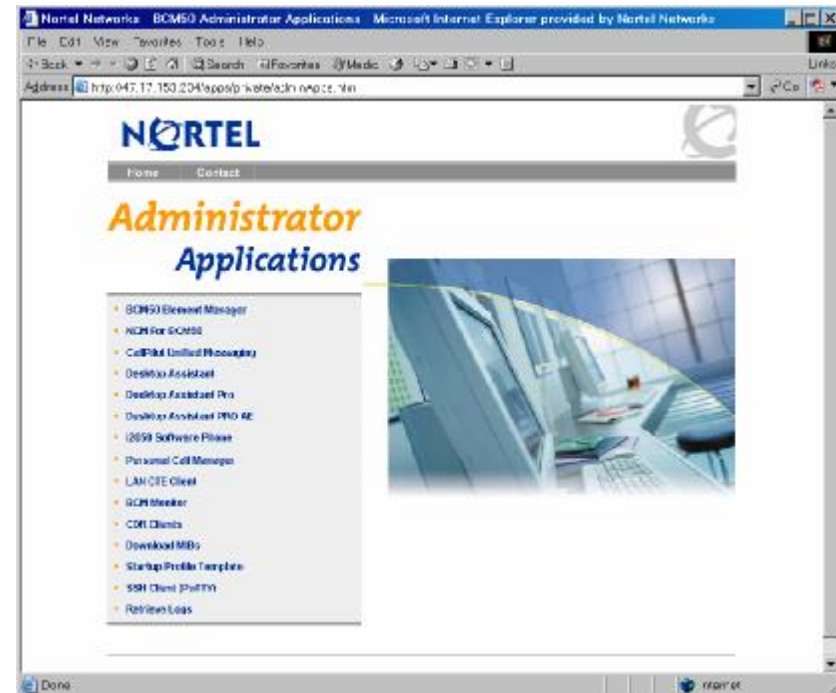
1) BCM400 with Expansion Gateway; 2) BCM450 with Capacity Expansion Card. Specifications are subject to Engineering rules and restrictions.



# BCM450 Operability Improvements

## Business Element Manager (BEM)

- New capabilities at a glance:
  - Flexible resource allocation
  - Automated renumbering
  - Template based sets provisioning
- Key Benefits:
  - Flexible configuration
  - Faster system start-up
  - Easier ongoing administration



System set up time up to 25% faster than BCM400 R4.



# BCM450 Operability Improvements

## Automated Renumbering

- Automated renumbering of:
  - Device Numbers (DNs)
  - Outgoing Line Identification (OLI)
  - Target Line Assignments
  - Public/Private Received Digits
  - Set Name
- Applicable for initial installation and ongoing management
- Replaces BCM DN Renumber wizard

### Sample Task:

Renumber range of existing DN's:

Existing DN range: 225-230

Required DN range: 660-665

A screenshot of a software dialog box titled "Renumber". It contains four input fields: "Attribute" with a dropdown menu set to "DN", "Start value" with the number "225", "End value" with the number "230", and "New start value" with the number "660". At the bottom, there are "OK" and "Cancel" buttons.

Attribute	DN
Start value	225
End value	230
New start value	660

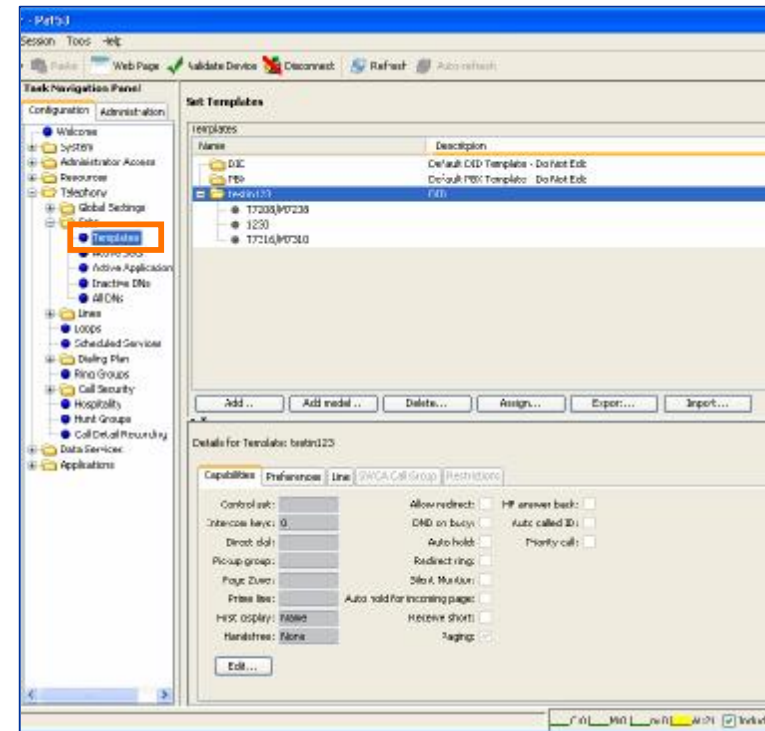
**Significant time savings due to bulk provisioning of incremental parameters.**



# BCM450 Operability Improvements

## Template Based Sets Provisioning

- Bulk provisioning of sets with similar characteristics using templates:
  - Generic or set type-specific to support buttons programming
  - Created offline and then propagated to selected DNs
  - Easy to create library of templates and reuse across BCMs
  - Included in back up and restore as an additional component
  - Simplifies Moves/Adds/Changes



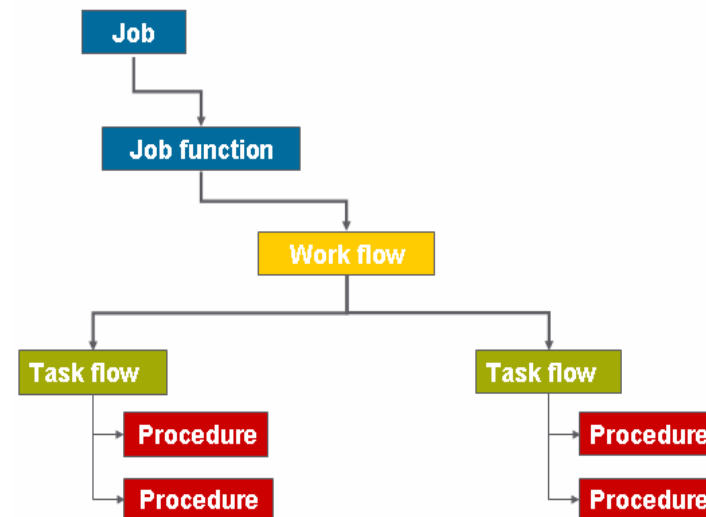
**Single screen view of phone settings system-wide.**



# BCM450 Operability Improvements

## Improved Documentation Suite

- Converting six core documents to the Nortel MTBI<sup>1</sup> standard:
  - Administration Guide
  - Device Configuration Guide
  - Installation and Maintenance Guide
  - Networking Configuration Guide
  - Telephony Device Installation Guide
  - Upgrade Guide
- User Benefits:
  - Clear, easy-to-follow procedures
  - Supports the needs of different functions
  - Consistent look & feel



**MTBI compliance ultimately yields time savings and greater accuracy in executing procedures.**



# BCM450 Operability Improvements

## System Reset and Self-Test

- **Reset Functionality**

- Restores factory software image using a reset button instead of the BIT tool. Available with BCM50 R3, but requires a sequence of button pushes as LEDs flash.
- With BCM450, one simply presses the reset button to get a CLI<sup>1</sup> prompt with options to choose L1/L2 reset for a smoother operation.

- **System Self-Test**

- Allows testing of basic hardware functionality from Maintenance CLI. Configuration CLI also available while main OS is running to allow configuration of basic IP parameters.



**Simpler and faster BCM reset and test operations.**

1. Command Line Interface



# BCM450 Operability Improvements

## System Recovery, Troubleshoot and Reboot

- **Recovery Trees**
  - Documented set of known and proven actions to recover the system in the fastest way possible.
- **Troubleshooting Guide**
  - Comprehensive document with task-based procedures to troubleshoot operational issues on a BCM system, including emergency recovery tree procedures for outage recovery.
- **Reboot Optimization**
  - Reboot time savings compared to BCM400 R4 as a result of faster CPU, starting services in parallel and/or executing a services only reboot command option while OS kernel remains up.

**Simpler and faster BCM recovery and reboot operations.**

# BCM450 Operability Improvements

Ported from BCM50 R3

- **Power-On-Self-Test (POST) Logging**
  - Captures hardware test data from system boot cycle for faster trouble diagnosis and resolution.
- **BEM Change Tracking Logs**
  - Tracking of all configuration changes to improve diagnostics and system optimization.
- **System ID Field Copy**
  - System ID field in BEM can be copied to the KRS web tool interface for more efficient installation.



Leveraging BCM investments to improve installability and supportability.

# BCM450 Operability Improvements

## Ported from BCM50 R3 (cont.)

- **IP Music Enhancements**
  - Normalized volume thresholds, and ability to upload and store multiple music files in compressed format.
- **Enhanced Microsoft Integration**
  - Support for Windows VISTA™ Operating System (OS).
- **Network Configuration Manager – RADIUS**
  - NCM R4 has the option to delegate user management responsibilities such as authentication, authorization, and credentials to an external RADIUS server.



Leveraging BCM investments to improve usability and interoperability.



# BCM450 Platform Simplification

## Base Function Tray (BFT)

- New Base Function Tray (BFT) installed in main chassis brings forward the highly successful BCM50 R3 to a larger platform.
- Houses 80G SATA hard drive for voicemail storage and backup, located at the front of the unit for easy access.
- Includes a V.34 soft modem replacing the V.92 hard modem, and two USB 2.0 host ports for high speed file transfer.
- CPU and DSP scale to support future releases.
- The BFT is a Field Replaceable Unit (FRU) that delivers a modular and flexible solution.



**New BFT offers a robust, reliable and reusable system architecture.**

Note: BCM450 R1 is NOT positioned for BCM 200/400 upgrades; this will be addressed in a follow-on release.



# BCM450 Platform Simplification

## Other Changes

- **Capacity Expansion Card (CEC)**
  - New enhanced DSP daughter card that can be optionally added for more capacity, and is pluggable into one of the three (3) BFT slots.
- **Chassis Interface Board (CIB)**
  - New interface that connects the BFT to the chassis wiring, allowing easy removal without having to manually disconnect the peripherals. DS256 connectors simplify cabling requirements.
- **Media Bay Modules (MBMs)**
  - Previously DIP-switch settings had to be changed when installing MBMs on the BCM main chassis. Now they can just simply be plugged in.
  - Digital Drop & Insert MUX (DDIM) MBM is no longer supported.

**New BCM hardware components simplify expandability and connectivity.**



# BCM450 Platform Simplification

## Other Changes (cont.)

- **Router**
  - No longer offering integrated routing and WAN services. Strategy is to deploy other Nortel routing solutions.
  - Continue to offer on-board essential data services to support IPT eg. DHCP.
- **VPN Client**
  - No longer offering integrated IP Sec functionality. Strategy is to deploy other Nortel routing solutions.
- **Interactive Voice Response (IVR)**
  - Not supported on BCM450 R1; planned in next release.
- **RAID<sup>1</sup> Redundancy**
  - BFT will be RAID-ready for HD field upgrade kit planned in next release.
  - Continue to support power supply and cooling fan redundancy.

**Focusing on core functionality and time-to-market,  
while leveraging best-of-breed Nortel Data suite.**

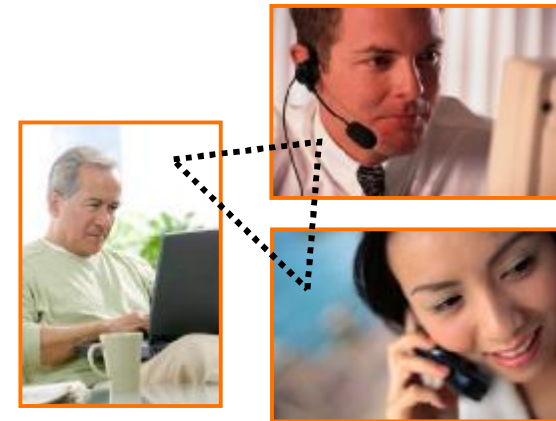
1. Redundant Array of Independent Disks



# BCM450 Business Applications

## Meet-Me Conferencing (MMC)

- BCM450 supports multi-party conferencing; both unplanned (Ad-Hoc) or via a specified bridge number at an agreed-upon time (Meet-Me).
- MMC, introduced with BCM50 R3, provides a solution that is:
  - Easy to use – reservationless; convenient display/softkey commands
  - Flexible – universal access anywhere, anytime
  - Secure – password enabled; chairperson controls
  - Scalable – up to 120 simultaneous participants<sup>1</sup>



**Integrated tools for effective business meetings.**

1. Using the Capacity Expansion Card (CEC).



# BCM450 Business Applications

## Intelligent Contact Center (ICC)

- Enables SMBs to increase customer satisfaction and business productivity by directing clients to the right person quickly and efficiently.
- Customers can order any # of agents or skillsets, as well as advanced reporting and multimedia applications.
- ICC enhancements introduced with BCM50 R3:
  - New APIs<sup>1</sup> – enable integration with other applications
  - New features – flexible configuration / management options
  - Reporting – faster and more reliable database engine
  - Install Verification Utility (IVU) – reporting setup tool



**Integrated contact center with big business capabilities.**

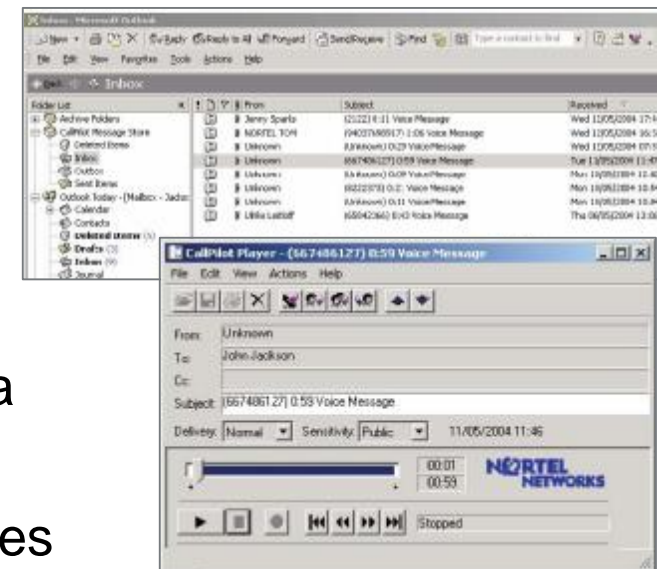
1. Application Protocol Interfaces



# BCM450 Business Applications

## Unified Messaging (UM)

- Converges or 'unifies' all voice, fax and email messages onto a single email application.
- Allows users to conveniently manage their entire inbox, review messages off-line, and archive messages to their computers.
- BCM50 R3 introduced the ability to launch an Instant Messaging (IM) session directly from a voice or email message.
- The UM client supports popular email packages including MS Outlook, and is easy to set up.



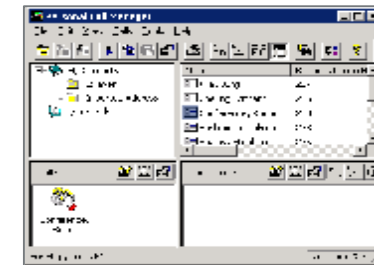
**Integrated capability that enables clients to better manage their messaging environment.**



# BCM450 Business Applications

## Other Integrated Applications

- **Automated Attendant**
  - Answers calls 24/7 with personalized greeting and intelligent routing.
- **Computer Telephony Integration (CTI)**
  - Enables PC-based applications to control telephone services, such as a 'click-to-call' directory or screen 'pop-ups' of a customer's account status during a call.
- **Activity Reporter**
  - Provides basic and advanced (customizable) reporting on telephony and related metrics.

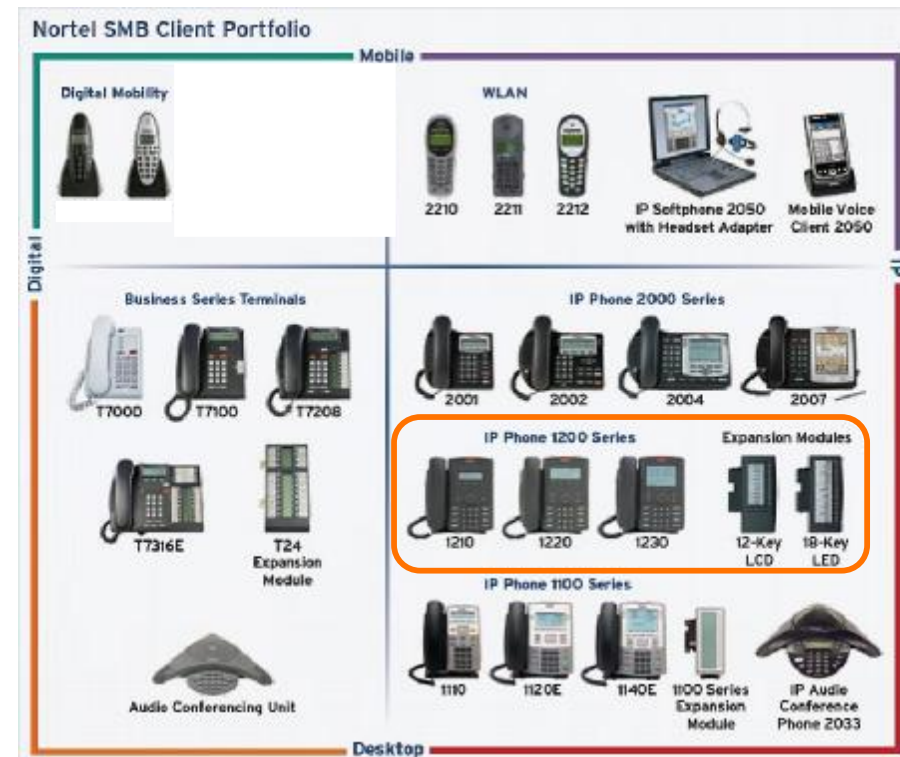




# BCM450 Client Support

## Industry Leading Portfolio

- Nortel has some of the most advanced phones in the market.
  - Digital or IP; wired or wireless
- Ongoing portfolio evolution with the SMB-optimized **IP Phone 1200 Series**.
- Evergreen strategy allows Norstar customers to continue using their handsets on BCM as they evolve to IP telephony.



Superior breadth, feature integration and investment protection.



# IP Phone 1200 Series

## Overview



**IP Phone 1210**  
Standard-Level



**IP Phone 1230**  
Premium Intermediate-Level



**IP Phone 1220**  
Intermediate-Level



**Key Expansion Modules**  
12-Key LCD or 18-Key LED

Capabilities	Customer Value
<b>Feature Rich</b> - Multiple softkeys, integrated 2-way speakerphone, enhanced audio quality headset support	IP desktop offering optimized for SMB values, cost effective
<b>Efficient</b> - Integrated Ethernet switch for single drop desktop wiring with PoE	Cost / equipment savings, less time to install/support, simpler solution
<b>Converged</b> - Unified voice and data infrastructure	Single supplier / support opportunity, reduces cost and maintenance complexity
<b>Simple</b> - Feature keys are pre-programmed with most common SMB features	Simple & easy to use, increased productivity
<b>Sophisticated</b> - Customizable to access 400+ BCM features	Can be tailored for specific activities and/or advanced users

**Simple yet sophisticated new IP phones for SMBs.**



# BCM450 VoIP Networking

## SIP Trunking

- In addition to H.323, BCM450 supports the SIP<sup>1</sup> signaling standard to enable VoIP communication with other systems, extend partnerships with third party vendors, and allow service providers to develop new converged offerings.
- SIP enhancements introduced with BCM50 R3:
  - Interoperability – open standards for transport and security
  - Simplicity – domain names vs. IP addresses for configuration
  - Security – authentication process, privacy protection
  - Reliability – proxy failover mechanism for load balancing
  - Flexibility – optional G.711 codec for faster fax transmission



**SIP compliance expands the BCM development community and allows greater interoperability.**



# BCM450 Positioning

## BCM450, SCS500 and CS1000

	BCM450 R1	SCS500 R2	CS1000 R5
Market Segment	SMB – IP/IP Hybrid	SMB – Pure SIP	Enterprise – IP/IP Hybrid
Max Line Size	300 IP / 300 Digital	1,000 SIP	22,500 IP / 5,000 Digital
Target Users	30-250	50-500	100-5,000
Customer Type	New + Norstar	New	New + Meridian <sup>1</sup>
Customer Values	Value, “All in One”, Integrated	Simplicity, User Configurability, UC	Scalability, Sophistication, Resiliency
Telephony Features	Advanced	Basic	Advanced
Call Center Integration	Advanced	Basic	Advanced
Investment Protection	Yes	No	No
Converged Mgmt (Data)	Yes	No	Yes
Mobile Phones	Yes	No	Yes
Soft Phones	Basic – PC + PDA	Advanced – PC	Basic – PC + PDA
Advanced Collaboration	No	Yes	Yes

**Different products aimed at different market segments with different customer needs.**

1) CS1000E for New customers, CS1000M for Meridian customers; 2) Advanced Collaboration includes: Video Conferencing, Find-Me-Follow-Me, Embedded IM / Presence.



# BCM450 Summary

## Key Takeaways

- Creates a scalable migration path for Norstar and BCM
  - Investment protection in transition to VoIP
  - Extends Nortel's flagship platform for SMB
  - Access to a segment previously underserved
- Delivers significant operability and platform improvements
  - Easier to install, use and support
  - Lower operations and management costs
  - Reliable and flexible hardware
- Achieves feature parity with BCM50 R3
  - Lifts the R3 content to a bigger platform
  - Leverages the latest enhancements on BCM
  - One common software stream

**BCM450 is a logical addition to a successful portfolio.**

## Silver Bullets

- Compared to its rivals, the BCM family offers:
  - Proven investment protection
  - Award-winning innovation
  - Simple, integrated management
  - Robust, multi-layered security
  - Diverse client portfolio
  - Holistic feature integration
  - Outstanding value for money



BCM50



BCM450



**BCM is a leader in converged IP communications for SMB**