Business Communications Manager

Overview

The Business Communications Manager (BCM) is a fully converged business communications system. It brings together voice, data and business applications onto a single unified solutions platform. The BCM delivers IP telephony and a full complement of features and functions, such as Internet access, voice messaging and call centre capabilities, as well as Web based system management. This breakthrough solution is built specifically for small-to-medium businesses and networked branch offices. It enables businesses to streamline operations and can assist to obtain improved employee productivity, better customer service and more effective and profitable relationships with clients. Business Communications Manager lets businesses communicate over traditional voice circuits, IP networks or a combination of both. This unified communications platform makes network management easier, facilitates voice over IP calls and IP networking between offices and can help to significantly lower operating costs and overall cost of ownership.

Ideal For

- Small and medium-sized businesses and enterprises with multiple sites, franchises or branch offices (10-200 users)
- Businesses that want the cost advantages of an integrated solution that provides turnkey access to the Internet whilst protecting existing equipment investment
- Businesses that want a solution that allows migration – at their own speed – to a fully converged IP based data and voice network
- Businesses that want an affordable high quality professional call centre
- Businesses that want mobility solutions to allow employees to remain accessible when they're away from their desk
- Businesses that want a solution that delivers rock-solid reliability for business-critical applications

Business Challenges

- Are you seeking a solution that enables seamless communication with your clients and suppliers and still delivers on the promise of ease of management?
- Have your plans to implement a call centre been hampered by high costs or limited feature sets?
- Are you concerned about the business opportunities you've lost because you're not communicating with your clients in a way that suits them?
- Do your employees travel and could they benefit from greater accessibility and freedom to work from anywhere?
- Are you looking to increase revenue earning opportunities?
- Have you considered the cost savings you could realise by moving to a converged voice and data network?
- Have you considered implementing IP telephony?
- Do you want to adopt new technologies and applications at your own speed?

Typical Applications

- Integrated business communications – fax, voice, voice messaging and Internet access – all in one footprint
- Call centre functionality that can also voice-enable Web sites
- For companies with multiple sites, IP telephony can help contain the cost of call charges
- Unified messaging creates a desktop portal for all communications – voicemail, email and fax

- For organisations that need to retrieve customer records from a database when a customer calls, computer telephony integration (CTI) automates the retrieval process
- Mobility ensures that employees can answer their phone when they're away from their desk
- Auto attendant enables customers to reach the appropriate personnel, even when the reception desk is un-staffed
- A virtual private network (VPN) delivers the security of a private WAN over a public network
- Telecommuters have access to reliable, toll quality telephony and applications such as unified messaging and call centre, just as if they were in the head office
- Offers an evergreen solution that protects owners' investments in hardware as they migrate to IP telephony, call centre functionality, mobile telephony, etc

Key Points

- **IP telephony** – supports powerful new e-business applications that allow small and medium businesses to level the playing field with larger competitors, extend network services to remote workers, increase portability, simplify moves and changes and eliminate call charges on site-to-site calls
- **Call centre applications** – combines the reach of the Web with personalised agent interaction and customer support
- **Hybrid environment** – leverages existing investments in Meridian and Norstar systems as well as other vendor equipment, offering a future-proof migration strategy
- **Universal Internet access** – for all connected users and workstations, including access to corporate Intranets, support for intra-site virtual private networks (VPNs) and remote connectivity for mobile or home users
- **Simplified network infrastructure** – cuts costs by connecting IP phones over the LAN wiring system, seamlessly extending features to multiple sites through IP connectivity and streamlining network management
- **Wireless solutions** – breaks the chains that tie users to their workstations
- **Browser-based management** – simplifies installations and provides an intuitive, wizard-based method of managing the network from any Web enabled workstation
- **Unified messaging** – allows users to manage all their voice, fax and email messages from a single application on their multimedia-equipped PC or laptop
- **Interactive voice response** – is a self service application designed to allow businesses to be accessible to their customers 24 hours a day, 365 days a year. Businesses can supply callers with access to a broad range of information simply by responding to a series of prompts via their touchtone phones
- **Scalability** – that extends from one to 200 users (configuration dependent)

Features and Benefits

The Business Communications Manager is an integrated communications platform for both multi site enterprises and single-site small to medium businesses. It delivers a highly reliable, innovative, converged voice/data solution that enables a business to save money by streamlining costs and to make money by increasing revenues, expanding market reach and improving customer service. The Business Communications Manager delivers PBX functionality along with no-compromise voicemail and auto attendant features. Combined with its robust quality of service (QoS) routing capability, it provides a single cost effective solution for both data and voice needs. As businesses grow, its functionality can be extended with a simple key code to deliver business-critical applications that positively impact the bottom line.

The Business Communications Manager provides enterprise-level telephony and data services, all in an easily managed platform. From one box, a business can cost effectively extend its communication capabilities. The Business Communications Manager's built-in routing

capabilities and data services such as firewall, Web caching and network address translation (NAT) enable a business to connect its LAN to the Internet quickly, reliably and securely. The Business Communications Manager also offers an extensive range of communications applications – call centre, unified messaging, VPN, auto attendant, mobile telephony– all accessed by simply entering a key code.

The top differentiators of the Business Communications Manager include:

- Comprehensive solutions that are easily implemented
- Choice of either IP-enabled or pure IP solutions
- Investment protection, since businesses may migrate without investing in completely new infrastructures
- The delivery of value-added applications, such as multimedia call centre, IP telephony, voice and data networking, virtual private networks (VPNs), unified messaging and mobility

BCM200

- 2 U high chassis supporting up to 2 media bay modules
- 32 digital telephone users maximum
- 90 IP telephone users maximum
- Optional redundant hard disk

BCM400

- 4 U high chassis supporting up to 4 media bay modules
- Optional expansion chassis for adding up to 6 additional media bay modules
- 192 digital telephone users maximum (with expansion chassis)
- 90 IP telephone users maximum
- Optional redundant hard disk + RAID controller
- Optional redundant power supplies and fans

Voice capabilities	• Over 150 core PBX telephony features • ISDN trunks – PRI and BRI – Analogue available in some markets • Voice networking over ISDN – QSig, DPNSS and MCDN • 5 digital telephone models – Norstar based – M7000, T7100, T7208 – T7316e and T24 key expansion module
Voice applications suite	• Auto attendant and custom call routing • CallPilot voicemail • CallPilot 2.0 unified messaging for: – Outlook, Outlook Express, Lotus Notes, Qualcomm, Eudora Pro, Novell Groupwise, Netscape Messenger • Fax messaging • BCM contact centres – 1 to 80 active agents – 2 to 50 queues – 10 to 150 recorded announcements – Integrated MIS reporting for real time and historical data – IP and soft wall boards – Web voice button • TAPI 2.1 server for computer telephony integration • MPS 100 based interactive voice response support (integrated) • CDR raw data output via FTP or in real time, over IP

IP Internet telephones and networking	• Support for i2002, i2004 and i2050 Internet telephones • Support for up to 60 VoIP trunks • Voice networking between BCM systems, Meridian 1 IP enabled systems via ITG or Succession 1000, using MCDN protocols over IP • Support for Symbol IE 802.11 wireless IP telephones, with T7100 digital set feature emulation
DECT mobility*	• Up to 32 cordless handsets and 8 radio base stations
Data capabilities	• IP/IPX router • RIP1, RIP2, OSPF, static • DHCP server • DNS cache server • Web cache server • NAT - public to private network address translations • Netlink Manager for WAN back up
WAN access services	• PPP or frame relay over X.21 or V.35 • PPPoE • PPP/MP dial on demand over ISDN
Security services	• IPSec - 3DES 128 bit encryption • PAP/CHAP – password and challenge handshake authentication protocol • RAS • Integrated firewall - stateful or basic packet filtering
VPN services	• Contivity server support – Up to 16 VPN tunnels – BCM to BCM, BCM to Contivity, BCM to client PC (SOHO) • Contivity Extranet client supports up to 16 simultaneous IPSec clients • PPTP – up to 10 tunnels
System management and IP services	• Web browser system management interface • SNMP traps • Network configuration manager for multi site management and configuration of up to 2000 BCM nodes • DiffServ quality of service • DHCP server

Market Information

- Unlike other integrated solutions, the Business Communications Manager offers full redundancy and PSTN fallback
- The Business Communications Manager delivers the widest range of enterprise-strength applications in a single, integrated solution
- Value-added services can be implemented with a keycode rather than adding hardware
- No competitor offers as many telephony features
- Out of the box, it offers unparalleled ease of configuration and management than similar products
- Even if the IP network or WAN goes down, users still maintain quality call processing and get rock solid reliability

Ordering Information

For further information please contact your local Nortel Networks representative.

* Europe, Middle East, Africa

Norstar Integrated Communications System (ICS)

Overview

The Norstar Integrated Communications System is a fully featured, applications-rich, voice communications platform, perfect for small and medium businesses and enterprise branch offices. Norstar solutions are ideal for any business with 2 to 192 employees and provide an unparalleled choice in application options, including voicemail, fax and desktop messaging, call centre, mobility and computer telephony integration (CTI).

Whether a standalone business office, multi-site business, franchise, branch office, or department within a larger organisation, a business relies on its phone system to perform every time the receiver is picked up or a button is pushed. A business needs a simple-to-use telephone system with practical, scalable features that does not require costly end-user training to be effective, as well as a cost effective system to fit its budget today, with the capacity and scalable applications to secure that competitive edge as it grows. Norstar Integrated Communications Systems offer end-to-end solutions to small and medium sized businesses and branch offices to enable businesses to focus on the bottom line - the business.

Ideal For

- Single-site small and medium businesses
- Multi-site small and medium businesses with basic site-to-site networking requirements
- Enterprise branch offices with basic site-to-site networking requirements
- Businesses seeking a basic, affordable telephony solution
- Businesses seeking cost effective, highly reliable and easy-to-use solution for facilities with fewer than 192 employees
- Businesses who demand a fully integrated communications platform that supports unified messaging, call centre and CTI applications

Business Challenges

- Are you looking for a communications solution to improve your business image? Your customer service levels? Your employee efficiency?
- Do you have employees that perform repetitive tasks such as directing calls, explaining business location or hours of operation?
- Are your employees frustrated by the lack of a single application that will allow them to deal efficiently with voicemail, fax and email through one interface?
- Do you find your current phone system difficult to use? Do you spend too much time having to train new employees how to use your phones?
- Is your phone system unreliable, or does your current system provide poor voice quality?
- Do you need a phone system that will allow you to control and monitor long distance charges or day-to-day usage?
- Would you like to be able to identify who is calling you prior to answering the phone?

Typical Applications

Norstar can accommodate home offices, small and medium businesses and enterprise branch offices with up to 192 users.

Key Points

- **Feature-rich** – Norstar supports a complete set of voice features and applications, along with sophisticated site-to-site networking applications
- **Simplicity** – Norstar is easy to learn and use – no special training is required because the LCD

windows on every telephone takes the user through feature and application steps

- **Reliability** – with over 14 million users, Norstar is the world's number one small business telephony solution, with one of the lowest failure rates in the industry
- **Affordability** – Norstar's modular architecture lets businesses add capacity and applications as required and its many money-saving applications can reduce long distance charges and increase employee efficiency. On-going software and application development ensure that future business needs will continue to be met
- **Flexibility** – starting at 2 users, Norstar can grow to 192 users with multiple applications – an unprecedented level of investment protection

Features and Benefits

Every Norstar solution begins with an Integrated Communications System (ICS). This fully digital platform brings together all communications - voicemail, fax, email, computer and telephone - right to the desktop. The communication needs and size of a business will help determine the best system for the company. Whatever system is chosen, every Norstar ICS offers these important advantages:

- High bandwidth to the desktop allows the business to use applications like ISDN and computer telephony integration (CTI) without changing existing wiring
- The modular, scalable design lets a business choose the system that fits its needs today, while planning for the future
- Digital technology creates a platform for current and future PC-based applications
- Outstanding quality makes Norstar one of the most durable and reliable voice solutions available, delivering one of the lowest failure rates in the industry with a tested mean time between failure (MTBF) rate of 100 years for the Compact ICS
- A complete applications suite:
  – Call centres (up to 80 active agents), that allow unsurpassed customer service through in-bound call capture, load balancing and intelligent routing
  – Computer telephony integration (CTI), which improves employee productivity by allowing calls to be managed from a PC screen
  – Desktop messaging that solves information overload issues by letting users retrieve all in-bound communications, whether voicemail or email, from one unified mailbox
  – Digital networking that reduces long distance charges by letting businesses send voicemail and fax messages to other locations over the data network, rather than the voice network
  – Private networking that gives employees seamless remote office connectivity
- Extensive connectivity options:
  – Trunking – analogue loop start, analogue CLID, analogue DID, E&M, T1, ISDN BRI and PRI
  – Stations – Business Series Terminals, T7406 Cordless Telephone and analogue
- Remote administration – through Norstar remote utilities, Norstar systems can be programmed and maintained from a remote location, saving enterprises and service providers time and money
- Private networking – Norstar supports Norstar to Norstar networking and networking to a Meridian 1 and offers the following capabilities:
  – Centralised voicemail
  – Centralised attendant
  – Private numbering plan
  – Network call redirection
  – Trunk route optimisation
  – Network tandem calling
  – Calling number and name
- Investment protection – businesses can reuse trunk cards, telephones and applications as they move from the Compact ICS to the Modular ICS platforms and can upgrade to the Business Communications Manager (BCM) platform and reuse their telephones

Norstar 3x8 Integrated Communications System (ICS)

Simple, yet sophisticated, this unit was designed specifically for small businesses and supports:

- Up to 3 CO lines and 8 telephone extensions
- Voicemail, automated attendant and telephone support
- Supports all Business Series Terminals, including fully-featured digital functions with LCD and soft keys

Norstar Compact Integrated Communications System (ICS)

A flexible building-block design expands with a business easily and cost effectively:

- Grows from a 4x8 to an 8x24 capacity
- Supports voicemail, automated attendant, telephones, basic call centre and CTI
- Allows a business to easily add enhancements as the business needs change
- Supports all Business Series Terminals

Norstar Modular Integrated Communications System (ICS)

Designed to be both flexible and scalable, there is ample room to expand the software and hardware capacity of the Norstar Modular ICS supporting:

- Up to 248 ports in various configurations
- Advanced integrated applications: voice messaging, unified messaging, digital networking and enhanced call centres
- Software and system expansion modules that allow growth as business needs change
- Supports all Business Series Terminals

Norstar 6.1 Software

Introduces new features and capabilities for small and medium businesses that continue to offer communications evolution to meet business needs.

- Enhancements to the Business Series Terminals portfolio and support of the T7316E telephone and T24 KIM module for central answering positions
- Silent monitor capability for hunt groups
- Secondary CLID information when telephone set is active on another call

CallPilot 100

A sophisticated messaging system for small businesses that grows with the business and as business needs change. Simple to manage and maintain, scalable with a plethora of features, all the while enabling businesses to simply and incrementally add and pay for mailboxes as the business grows and business needs change:

- Comes equipped with 10 mailboxes
- Grows to 40 mailboxes
- 4 ports, 9 hours of message storage
- Many features to give the small business, big business capabilities, including single digit dialling, external transfer, CLID integration, off-premise message notification and Web based administration
- Optional basic call centre and call centre reporting

CallPilot 150

An advanced messaging and applications system for small and medium sized businesses, that grows with the business as business needs change. Simple to manage and maintain, scalable with a plethora of features, all the while enabling businesses to simply and incrementally add and pay for features, mailboxes and applications as the business grows and business needs change:

- Comes equipped with 32 mailboxes
- Grows to 200 mailboxes
- 8 ports, 60 hours of message storage
- Includes 2 seats of unified messaging
- Includes basic call centre
- Many features to give big business capabilities, including single digit dialling, external transfer, CLID integration, off-premise message notification and Web based administration
- Optional basic call centre reporting
- Optional VPIM/AMIS networking

Norstar IP Gateway

An analogue VoIP solution for both the Compact ICS and Modular ICS. Provides a cost effective networking solution for existing Norstar users and offers new users entry into VoIP with minimal investment while enhancing the migration path to a complete converged solution. A built-in browser

based OA&M simplifies the installation and configuration and allows access to any site on the network:

- Each gateway supports 4 VoIP trunks
- Caller ID support
- Private network dialling
- Interoperability with Business Communications Manager, Meridian 1 ITG and Succession 1000
- Nortel Networks distributed and supported

Ordering Information

For further information please contact your local Nortel Networks representative.

Succession 1000

Overview

Succession 1000 is an enterprise IP telephony solution supporting a flexible mix of phones, applications and PSTN gateways connected over a converged network. Telephones supported include IP phones, digital TDM phones, analogue TDM phones, DECT cordless and 802.11 wireless LAN phones as well as software phones on PCs and PDAs. Succession 1000 contains all the business telephony features and services developed for the market leading Meridian 1 plus new innovative features for IP telephony. It supports business applications for personal productivity, team productivity, mobility, customer service and management control. Succession 1000 provides advanced networking services to other Nortel Networks and non Nortel Networks equipment using industry standards. Succession 1000 benefits from Nortel Networks investment protection methodology to keep total cost of ownership amongst the lowest in the industry.

Ideal For

- Enterprises with a mobile workforce (eg sales and service engineers, consultants, executives, casual or part-time home workers)
- Enterprises with multi-site networks
- Enterprises with Meridian 1 – easy to upgrade to Succession 1000 to save money
- Enterprises that have a large number of adds, moves and changes
- Enterprises with Greenfield sites or fully depreciated PBXs
- Enterprises that want to transform the way they work

Typical Applications

- Home worker solutions (eg Remote Office 9115, i2050 software phone, PC/Web access to business IP telephony applications)
- Mobile worker solutions (eg 2050 software phone on PC/PDA, Web browser access to business IP telephony applications)
- Team working solutions (eg boss secretary services, conference bridge, personal call assistant to link phone to MCS 5100 multimedia collaboration software)
- Personal productivity solutions (eg personal call director, personal call assistant to link phone to MCS 5100 productivity software - presence so you can see if colleagues are available to take a call, multimedia call handling, instant messaging to get quick answers to questions)
- Switchboard operator services (eg support for software applications, barge in, break in, camp on to busy extension)
- Management control solutions to proactively manage the network (eg integrated billing, unified directory services, global changes, what if analysis for planning ahead, alarm management, reports, easy configuration tools)

Key Points

- Distributed architecture over converged network
- Full application portfolio support – Nortel Networks and Developer Partner Programme compatible applications
- Multiple built-in reliability mechanisms – no single point of failure, robust operating systems
- Scalability – 1,000 IP clients per call server (10,000 IP clients per Succession 1000M server, 100,000 clients in centrally managed network)
- Centralised management control and dialling plan for 100,000 IP clients
- Centralised and networked business communication services
- IP telephony service overlay that works on any open standards based data network

Features and Benefits

- Mobility services to provide office anywhere functionality enabling users to access the same set of business communication services securely from any high speed Internet connection point as easily as if they were in the office
- Instant office moves at zero cost (eg DHCP IP phones, network wide virtual office to securely log-in at any IP phone in network, and IP software phone on PC/PDA)
- Designed to scale to meet growing enterprise requirements – 1,000 IP clients per call server (10,000 IP clients per Succession 1000M call server with Succession 3.0 software); multiple call servers networked with transparent IP networking; single gatekeeper supporting up to 100,000 IP clients
- Built-in reliability based on WindRivers VXWorks operating system and proven feature set with multiple resiliency mechanisms, including survivable call servers, signalling server redundancy configurations and survivable WAN gateways
- Extensive desktop portfolio includes IP phones, software phones, 802.11 wireless VoIP phones, as well as digital and analogue phones to meet diverse end-user requirements
- Supports business-critical applications, including Symposium IP Contact Center, CallPilot unified messaging and integrated services such as conferencing, one-number-follow-me personal call director, recorded announcement, network-wide attendant and messaging. Personal call assistant to network with multimedia services provided by MCS 5100
- Range of survivable branch office gateways based on phone type and size (Remote Office 91xx series for digital sets, Succession Branch Office for 50-400 IP phones, Succession survivable remote gateway for 5-90 IP phones) plus support of compatibility tested third party PSTN gateways
- Supports new desktop capabilities including network wide virtual office (ability to log into any IP phone in the network as their personal phone) and corporate directory (access to network directory; created using OTM which is LDAP compatible with organisations' unified directory) and a wide range of data applications for IP phones as (available in cooperation with Nortel Network Developer Partner Net6)
- Support for multi-vendor networking standards (eg DPNSS, Qsig, H323) – enables enterprises to leverage existing investment to new users, eg centralised voicemail, unified messaging, operator switchboard services – without requiring duplication of these services across platforms

Capacity	Up to 10,000 IP clients per call server; multiple call servers networked with transparent IP networking; single gatekeeper supporting up to 100,000 IP clients
IP client/desktop support	i2004, i2002, i2001, i2050 software phone, 802.11 wireless LAN devices, PC-based attendant consoles, Meridian digital telephones, analogue phones
Applications	• Home worker solutions (Remote Office 9115, i2050 softphone, PC/Web access to business IP telephony applications) • Mobile worker solutions (i2050 software phone on PC/PDA, Web browser access to business IP telephony applications) • Team working solutions (boss/secretary services, conference bridge, personal call assistant to link phone to MCS 5100 multimedia collaboration software) • Personal productivity solutions (personal call director, personal call assistant to link phone to MCS 5100 productivity software eg presence so you can see if colleagues are available to take a call, multimedia call handling, instant messaging to get quick answers to questions) • Switchboard operator services (eg support for software applications, barge in, break in, camp on to busy extension) • Management control solutions to proactively manage the network (eg integrated billing, unified directory services, global changes, what if analysis for planning ahead, alarm management, reports, easy configuration tools) • Nortel Networks Developer Programme third party compatible applications
Connections	10base-T port for IP-based applications and management, 100base-T or 100base-F for Succession media gateways
Mounting	19" rack mountable

Market Information

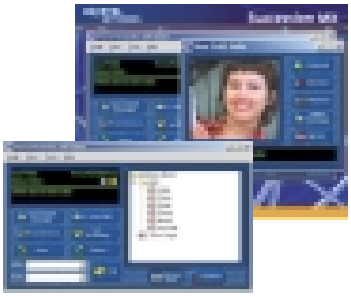
Nortel Networks is the only vendor to offer a wide range of choice to businesses. This confirms our commitment to our evergreen philosophy of investment protection combined with our innovation spirit.

- Open standards support – Succession 1000 is open standards-based and designed to work across any QoS aware, IP network infrastructure – supports compatibility tested H323 PSTN gateways and clients and will interwork SIP server – MCS 5100, power over LAN (IEEE 802.3af). Supports open standards for QoS (IETF diffServ). Supports open standards for voice networking (DPNSS, Qsig)
- Carrier grade reliability – survivability is built-in on call server, Succession branch office, media gateways and telephony proxy server application; redundant signalling server (optional). For example, Succession Media Gateways are survivable, delivering a full feature set when in survive mode. Media gateways can run in stand-alone mode and perform call processing in the event of an IP link failure, or an improbable outage of the call server. Call server redundancy with changeover memory arbitration supported. Succession 1000 is built on proven technology for high reliability. The call server runs embedded WindRivers VX-Works operating system which is less susceptible to virus and hacker attacks that target vulnerabilities in Windows operating systems
- World class feature suite – Succession 1000 fully leverages Meridian 1 PBX software feature set and expertise. This results in an IP telephony offering with robust feature and application support. Succession 1000 supports the full suite of telephony features developed by Nortel Networks based on business demand and feedback over the past 20 years – a $1Bn investment over time
- Business choice – Nortel Networks recognises that businesses are at different stages, therefore we cater for varying needs – whether a new organisation ("Greenfield") or installed base. IP telephony can be implemented in a migratory fashion (hybrid digital/IP) or as a pure IP PBX (100% IP). Networks seamlessly with Succession Business Communications Manager (BCM) and Meridian 1 systems
- Superior migration path for Meridian 1 customers – Meridian 1 customers have an excellent migration path to IP PBXs and IP telephony with Succession. Can be implemented as an addition to existing Meridian 1 systems, sharing applications and supporting featured interworking between systems, or can evolve Meridian 1 to Succession 1000, preserving 100% of existing investment in end user training and equipment

Ordering Information

For further information please contact your local Nortel Networks representative.

Multimedia Communication Server (MCS) 5100



Overview

The Multimedia Communication Server (MCS) 5100 is Nortel Networks enterprise multimedia and collaborative applications platform. The Multimedia Communication Server (MCS) 5100 utilises open, industry standard hardware to evolve PBX and IP PBX networks to multimedia and collaborative communication networks. It is not a PBX or an IP PBX, rather, it is an application server that has the ability to transform the way an enterprise communicates, enabling users to take advantage of next generation tools that improve productivity, reduce operations costs and facilitate fast decision making. The Multimedia Communication Server (MCS) 5100 brings together advanced communication and collaboration capabilities within a single converged communications solution, including features such as multimedia (video and voice calling), collaboration (conferencing, instant messaging, white boarding, file exchange, co-Web browsing), personalisation (call screening and routing and call management) and presence.

Ideal For

- Enterprises with mobile users or geographically distributed workgroups, eg highly mobile workforces, R&D teams collaborating on a new project, sales representatives and customer support staff
- Users can increase their productivity even when they are away from the main office and those who work in areas remote from their work team can collaborate more effectively. Additionally, travel and calling card expenses can be reduced
- Businesses with as few as 100 users and those that scale to thousands of users
- Businesses that want to increase user productivity and want new multimedia features for their staff while at the same time, retaining the existing feature set and existing digital handsets

Typical Applications

- Multimedia collaboration – productivity is enhanced with services such as ad-hoc and meet-me conferencing, video calling, white boarding, Web push, co-browsing and file exchange
- Personalisation – users can personalise and provision their workspace by simply setting up and establishing individual preferences. Using any browser, a user may select such call handling services as call forwarding, call screening and monitor the availability of other office personal through buddy lists which let users know whether you are available to take calls or not
- Mobility – find me/follow me, call agent and presence management enables calls to reach you no matter where you are and which device you are using

Key Points

- Full suite of Nortel Networks developed next-generation multimedia services
  - End-user mobility services, collaboration, messaging, multimedia
  - Telephony features
- Access and network independent
  - Multi-vendor SIP interoperability
  - Spans wireless, wireline and enterprise networks
- Open system infrastructure
  - Standards-based interfaces
  - Multi-vendor
  - Scalable commercial hardware and software platforms
- Reliability
  - Redundancy
  - Integrated OAM&P

Features and Benefits

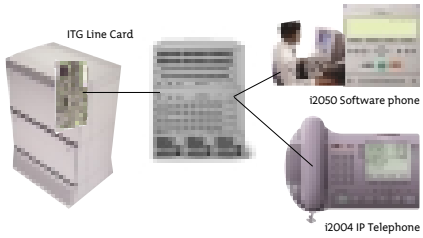
The Multimedia Communication Server (MCS) 5100 is a network-based, application delivery solution that seamlessly integrates voice, data and video services so that enterprises can conduct "business as usual" virtually anywhere, anytime. The MCS 5100:

- Leverages VoIP WAN efficiencies
- Offers a centralised platform with fault tolerance, manageability, scalability and billing options
- Supports H.323 and SIP compliant gateways
- Industry-leading SIP based applications that drive business productivity and reduce operational expense
- Provides flexible, easy-to-use, GUI-based provisioning
- Scales from hundreds to tens of thousands of users
- JAVA-based and hardware-independent
- Has a module architecture, which is independent of and can be deployed across, any vendor's standards based data network while delivering a true voice solution return on investment
- Offers a multitude of integrated connectivity clients that truly promote mobility allowing users to connect to the network using hard clients, soft clients and Web based clients
- Allows users to tailor all communications services to their needs using real-time call management tools

Ordering Information

For further information please contact your local Nortel Networks representative.

Meridian 1 Internet Enabled (IE) Communications System



Overview

Meridian 1 is the world's leading office communications system with over 43 million lines installed. Meridian 1 can evolve into an IP based communications system with all equipment distributable over an IP converged network. IP enabling the Meridian 1 represents the smoothest evolution path to IP telephony with full investment protection for existing features, telephones and equipment.

Ideal For

- Any business that wants a mix of IP, digital and analogue sets on a tried and tested office communications platform
- Businesses with an existing Meridian 1 – IP enabled Meridian 1 represents the smoothest, most cost effective route to IP telephony for existing Meridian 1 users
- Organisations who want the latest technology on the world's leading communications system
- Companies that want to expand their network either by adding new sites or adding new users
- Companies that have a large number of adds, moves and changes
- Remote workers – these users need to access their corporate data and voice services in exactly the same way, in the office, at home, or on the road

Typical Applications

With Meridian 1 IP enabled solutions, distributed server applications like Nortel Networks CallPilot unified messaging and Symposium contact centre IP solutions are available to users on a data network. A business benefits from distributed applications that are cost effectively and easily deployed. Whether a contact centre comprises a single site or is geographically dispersed, IP telephony can be used to simplify management and administration and to extend customer care capabilities to agents anywhere – in branch offices or working at home. An IP solution results in lower operating costs and increased employee retention, both of which improve profits. Convergence of a communications network is not complete without addressing management.

Key Points

- A Meridian 1 IP enabled solution offers a highly distributed connection management system that consolidates the sophisticated intelligence, complex call/connection management and evolving standard protocol support that is required for delivering a robust and scalable Internet telephony solution
- The solution supports a rich set of telephony features traditionally found on PBX and key systems, along with standards-based IP networking support of H.323 protocol that provides the link between IP and the traditional telephony world
- Industry leading IP applications and devices
- Feature rich telephony
- Most cost effective evolution to IP telephony
- Built-in reliability
- Simplified network management
- e-Business solution enabled
- Open standards based
- Consolidation of network services
- Dynamic quality of service (QoS) monitoring and transitioning

Features and Benefits

The Meridian 1 Internet Enabled (IE) portfolio includes the following products:

- Internet Telephony Gateway Line and Trunk Cards
- Succession media cards
- Remote Office 9150/9110/9115 portfolio
- i2001, i2002 and i2004 Internet Telephones
- i2050 Software Phone
- IP adaptors for digital phones
- Optivity telephony IP based management
- Symposium contact centre solutions
- Voice portal solutions
- Symposium CTI (Agent, TAPI, MLS, IPML)
- CallPilot unified messaging
- Integrated applications (Conference Bridge, Personal Call Director, etc)
- Survivable IP expansion

Meridian 1 supports integrated IP telephony server cards that provide support for IP terminals (i2004, i2002, i2001 and i2050) distributed over the LAN and WAN. IP telephony server cards are also available to transport voice with full Meridian 1 customer defined networking (MCDN) over IP between two or more Meridian 1 locations, as well as between Meridian 1 systems and Succession Business Communications Manager and Succession 1000/1000M systems.

A reach line card, in conjunction with a Nortel Networks remote office solution, is also available to extend Meridian 1 telephony features and applications over IP data networks to users located at a small remote site. Meridian 1 supports a mix of analogue, digital and IP terminals, applications and management distributable over an IP network.

Ordering Information

For further information please contact your local Nortel Networks representative.

Internet Telephones i2001 / i2002 / i2004 / i2050

Overview

The Nortel Networks **i2004 Internet Telephone** combines the familiarity and ease-of-use of traditional business communications functionality with powerful capabilities that capitalise on the values introduced by voice and data convergence at the desktop. This multi-line phone features a large LCD display screen capable of displaying a maximum amount of information and is well suited for high call volumes.

A mid-range addition to Nortel Networks IP telephone portfolio, the **i2002 Internet Telephone** is a compact display-based phone with a built-in Ethernet switch designed to accommodate shared LAN access between an IP telephone and desktop PC. Ideal for moderate call volume users, the i2002 is designed with a smaller footprint than the i2004 Internet telephone, yet delivers the same fully featured support and advanced applications access as the i2004.

The **i2001 Internet Telephone** has been introduced to compliment the range as it provides a very cost effective solution for the less sophisticated user but where the business demands a full IP solution.

The **i2050 Software Phone** is a Windows based application that turns a desktop computer into a powerful tool for unified voice, data and video communications. Designed to meet diverse user needs as a primary desktop phone, a supplemental desktop phone, or a telecommuting device, the i2050 Software Phone transforms a PC into a fully featured telephony communications platform by simply loading the software and plugging the headset into a USB port.

Ideal For

- **i2001 Internet Telephone** – designed for business areas such as receptions, hallways and restaurant as well as users who require basic telephony functionality
- **i2002 Internet Telephone** – designed for office professionals and technical specialists, this multi-line phone offers an integrated LCD display screen and is well-suited for moderate call volumes
- **i2004 Internet Telephone** – ideal for managers, executives and office administrators, this multi-line phone features a large LCD display screen capable of displaying a maximum amount of information and is well-suited for high call volumes
- **i2050 Software Phone** – created for a broad range of workplaces, from small to large businesses with single or multiple sites that are ready to deploy IP telephony solutions to mobile workforces such as road warrior and home office users

Key Points

- As business needs change, it is easy to unplug i2001, i2002 or i2004 IP telephones and move to an alternative location without any reprogramming
- With the i2050 Software Phone, as you move around on business, a dial up connection can be used to place and receive calls wherever you are connected to the corporate network
- Cost effective solutions that can be fully maintained

- All the benefits of traditional telephony but using the latest IP sets
- Can be used for business or IP contact centre sets
- The Nortel Networks solution of IP telephony sets is LAN independent, allowing an organisation the choice of the LAN infrastructure that they wish to run the sets over

Features and Benefits

All i20x IP telsets connect directly to an enterprise LAN via a 10/100 base-T RJ45 connector and the IP phones support either manual or automatic IP address assignment with a standard DHCP server to simplify the process and reduce the cost of station moves, adds and changes. Designed to seamlessly connect with the entire range of Nortel Networks IP telephony system platforms, Internet Telephones are supported by Succession Business Communications Manager (BCM), Succession 1000/1000M and Meridian 1 Internet Enabled systems.

The i2050 Software Phone provides access to the same services and capabilities as the i2002 and i2004 IP telsets, but utilises the computer and audio resources of a standard PC. Supported by Succession Business Communications Manager (BCM), Succession 1000/1000M and Meridian 1 Internet Enabled systems. The i2050 is easily twinned with any other set that the user may have in the office, thus leaving the user the choice of how they answer or make calls.

- **Simplicity, flexibility and cost advantages**
  - IP sets are flexible as they can be connected to any LAN port
  - Faster to set up and rearrange and easier to manage
  - Reduced long term management costs of configuring, supporting and maintaining IP extensions over digital extensions
  - Corporate directory allows a user to access the company directory from any IP set with a display
- **Portability**
  - It's possible to extend an IP station to virtually anywhere in the LAN/WAN via IP
  - Home workers can be connected through dial up from anywhere in the world
  - Small branch offices can be connected back to a central IP-Enabled Meridian 1, Succession 1000/1000M, or Succession Business Communications Manager using a Nortel Networks data switch at the branch office and data network connection back to the central site
  - The user has the ability to enter a code into an IP set, which allows them to load their own profile to that set anywhere in the corporate network.
- **Unified infrastructure**
  - With IP clients, voice is supported on an IP based data network
  - On any of the IP telephones it is possible to connect the telephone and the PC into a single Ethernet cable on the desktop reducing overall cabling costs and delivering a unified infrastructure that supports both voice and data
  - Powering of the sets can be supported locally at the desktop or over a standards based powering over LAN solution such as the BayStack 460

i2001 Internet Telephone

- Multi-line set with 2 line 24 character LCD display
- 4 soft keys, 2 feature keys and up/down navigation
- One LED for visual ringing alerter/message waiting
- Supports headset splitter box
- Listen speakerphone capability

i2002 Internet Telephone

- Multi-line set with 2 line 24 character LCD display
- Supports four self-labelling programmable features and four soft feature keys
- Dual use incoming call indicator and message waiting light
- Supports direct headset connection (set has built in amplifier)
- Navigation cluster keys gives fast menu, sub-list and call log scrolling
- High fidelity full duplex speakerphone supports disabled users with hearing aids
- Adjustable LCD contrast
- Desk or wall mounting

i2004 Internet Telephone

- Multi-line set with 4 line 24 character LCD display
- Supports six self-labelling programmable features and nine soft feature keys
- Dual use incoming call indicator and message waiting light
- Supports direct headset connection (set has built in amplifier)
- Navigation cluster keys gives fast menu, sub-list and call log scrolling
- High fidelity full duplex speakerphone supports disabled users with hearing aids
- Adjustable LCD contrast
- Desk or wall mounting

i2050 Soft Phone

- Three slide out feature draws (line keys, voicemail and quick dials)
- Supports five special purpose service keys and four interactive keys
- Message waiting indicator
- Supports direct headset connection via PC USB port
- Navigation keys
- Supports local directory imports. Reads Symantec ACT, Microsoft Outlook and LDAP databases for seamless directory integration

Technical Specifications

	i2001	i2002
Platform compatibility	Succession Business Communications Manager, IP-Enabled Meridian 1 and Meridian SL-100 systems, Succession 1000/1000M, Succession Communication Server 2000, Succession Communication Server 3000 and MCS 5100	Succession Business Communications Manager, IP-Enabled Meridian 1 and Meridian SL-100 systems, Succession 1000/1000M, Succession Communication Server 2000, Succession Communication Server 3000 and MCS 5100
Power supply	110 V wall mount supply delivering 16 VAC @500 mA	110 V wall mount supply delivering 16 VAC @500 mA
AC power	90-240 VAC, 50/60 Hz	90-240 VAC, 50/60 Hz
DC input power	-48 VDC LAN feed	-48 VDC LAN feed
Output power	N/A	4.5 Watts typical, 5 Watts max
Power dissipation	4.5 Watts typical, 5 Watts max	+5°C to 40°C 40°F to 104°F
Operating temperature	+5°C to 40°C 40°F to 104°F	5% to 95% (non-condensing)
Relative humidity	5% to 95% (non-condensing)	40°C to 70°C -40°F to 158°F
Storage temperature	40°C to 70°C -40°F to 158°F	G.711a and/or u law, G.723.1 and G.729a and annex b
Codecs support	G.711a and/or u law, G.723.1 and G.729a and annex b	UNIStim subset over UDP w/reliability layer
Call control protocol	UNIStim subset over UDP w/reliability layer	Supports headset splitter
Headset support	Supports headset splitter	N/A
OS compatibility	N/A	Private key challenge response
Security	Private key challenge response	N/A
Audio interface	N/A	Configurable, default is two frames
RX jitter buffer	Configurable, default is two frames	N/A
WAV buffer	N/A	No
Internet telephone switch	No	N/A Integrated
Mounting	Desktop or wall	Desktop or wall
Ports	N/A	3 (1 internal, 2 external)
Data rates	10/100 Mbps autosensing	IEEE 802.3, 802.3u Auto-learning, auto-aging at 700 seconds
Standards	IEEE 802.3, 802.3u	Fixed priority to phone port based on hardware
MAC address	Auto-learning, auto-aging at 700 seconds	16 VAC by supplied AC adaptor or 48 VDC Power over LAN Hub
Hardware priority	Fixed priority to phone port based on hardware	N/A
Power feed	16 VAC by supplied AC adaptor or 48 VDC Power over LAN Hub	N/A
Load sensing	N/A	N/A
Fault sensing	N/A	

Technical Specifications continued...

i2004	i2050
Succession Business Communications Manager, IP-Enabled Meridian 1 and Meridian SL-100 systems, Succession 1000/1000M, Succession Communication Server 2000, Succession Communication Server 3000 and MCS 5100	Succession Business Communications Manager, IP-Enabled Meridian 1 and Meridian SL-100 systems, Succession 1000/1000M, Succession Communication Server 2000, Succession Communication Server 3000 and MCS 5100
110 V wall mount supply delivering 16 VAC @500 mA	N/A
90/240 VAC, 50/60 Hz	N/A
-48 VDC LAN feed	N/A
N/A	N/A
4.5 Watts typical, 5 Watts max	N/A
+5°C to 40°C 40°F to 104°F	N/A
5% to 95% (non-condensing)	N/A
-40°C to 70°C -40°F to 158°F	N/A
G.711a and/or u law, G.723.1 and G.729a and annex b	G.711a and/or u law, G.723.1 and G.729a and annex b
UNISim subset over UDP w/reliability layer	UNISim subset over UDP w/reliability layer
Built-in amplifier for direct headset connection	Nortel Networks USB audio kit
N/A	MS Windows 98, 98SE, 2000
Private key challenge response	Private key challenge response
N/A	WAV standard 16-bit linear 8 KHz
Configurable, default is two frames	Configurable, default is two frames
N/A	40 ms
Integrated	N/A
Desktop or wall	Desktop PC or laptop
3 (1 internal, 2 external)	N/A
10/100 Mbps autosensing	N/A
IEEE 802.3, 802.3u	N/A
Auto-learning, auto-aging at 700 seconds	N/A
Fixed priority to phone port based on hardware	N/A
16 VAC by supplied AC adaptor or 48 VDC Power over LAN Hub	N/A
N/A	N/A
N/A	N/A

Ordering Information

For further information please contact your local Nortel Networks representative.

USB Headset Adapter

Overview

The USB Headset Adapter provides a high quality and low cost predictable audio interface for software based IP telephony clients such as the i2050 Software Phone. Highly optimised for telephony applications, the headset adapter offers a level of audio performance comparable to that of hard telephones. The USB Headset Adapter is part of the Nortel Networks Succession portfolio of Internet telephony solutions.

Ideal For

- Distributed workforces involving teleworkers and telecommuters requiring access to the telephony network
- Roaming staff that require access to the telephony network
- Businesses willing to increase their market awareness through the use of leading edge technology
- Call centre agents

Typical Applications

The USB Headset is used in conjunction with Nortel Networks i2050 Software Phone which is an ideal application for the telecommuter – someone who works from home a couple of days a week or who is always on the road and is wanting to extend the telephony features and functionality of their laptop or PC.

Key Points

- The USB Headset Adapter provides a controlled high quality audio environment
- This solution is superior to sound cards in that it offers the ability for a soft phone to have an absolute and predictable loss and level plan which is necessary to meet TIA-810, FCC part 68 and its international equivalents, as well as the ADA requirements for the hearing impaired
- Simple installation using standard Windows drivers (requires no additional software or drivers)

Features and Benefits

- It is fully compatible with the suspend and resume functions for effective use in battery operated laptops
- No drivers or software are required for installation
- Power is derived form the PC's USB power subsystem so there is no external power required
- The only connections are standard USB cable to the PC and an RJ-9 jack for a telecom style headset and handset
- The USB Headset Adapter is fully compliant with version 1.1 of the USB device specification and Windows plug and play specifications
- In-use lamp connector with in-use control provided by polarity
- Support on Windows 98, Windows 98SE, Windows 2000 Professional and ME

Ordering Information

For further information please contact your local Nortel Networks representative.

Meridian Digital Telephone IP Adapters

Overview

Meridian Digital Telephone IP Adapters provide the capability of IP enabling existing Meridian digital telephones for redeployment within an IP local area network (LAN). IP enabling existing telephones preserves investment and allows migration to the benefits of IP-based architecture, while maintaining familiar end-user access to features found in Meridian 1, Meridian SL-100, Succession 1000, Periphonics and Symposium Call Center applications.

Ideal For

Businesses with large installations of existing Meridian digital telephones that need or want to move to an IP LAN-based infrastructure, but do not want to give up their existing Meridian telephone sets.

Key Points

- Investment protection – provides a smooth migration path to new technologies
- More choices for IP phones – deploy existing Meridian Digital Telephones alongside IP telephones on an IP infrastructure
- Easy to install and support – easy to set up and administer with no end–user re–training, while getting all the benefits of moving to IP telephony based communications
- Feature rich – offers users full IP telephony access to the entire suite of Nortel Networks applications and many third party applications
- Scalable, flexible solution – telephones can be moved between digital and IP infrastructures as needed. As well, multiple reach line cards can be installed to scale up to very large numbers of IP telephony users

Features and Benefits

- The Meridian Digital Telephone IP Adapter comes in an internal and external version
- The internal IP Adapter is a small circuit-card that snaps inside the footstand of a Meridian M2008D, M2616D, M2008HFD, M2616CT, or M2216D telephone, allowing the phone to communicate with the host communication system over an IP-based Ethernet LAN.
  This greatly simplifies the wiring necessary to support office phones and makes moves, adds and changes far easier and quicker to implement
- The external IP Adapter is a small external device that operates exactly like the internal version, except it supports not only the M2000 sets, but also the Meridian M3902, M3903, M3904 and M3905 telephones. Since the external adapter works with a wider selection of phones, it does not fit into the footstand of any model of telephone
- The Meridian Digital Telephone IP Adapters communicate to the Meridian 1 or Succession 1000 systems via a 16-port or 32-port reach line card (which can also simultaneously support Remote Office 9150, 9110 and 9115 units).
  The single-slot 16-port reach line card can support up to 16 IP Adapters and the dual-slot 32-port reach line card can support up to 20 simultaneous IP Adapters.

Features	Nortel Networks Meridian Digital Telephone IP Adapters
Interfaces	• 10baseT Ethernet
Compatible handsets	• Supports M2000 and M3900 sets plus add–on modules, plus M3310 and M3820
Host site	• 16 and 32–port Meridian Internet gateway remote IPE line cards • Ethernet interface for VoIP
Meridian feature/application support	• All Meridian 1/Succession 1000 applications • Telephony features • Symposium Call Center • Supports first and third party CTI • CallPilot unified messaging • Meridian Mail
Audio compression	• G.711, G.729a, 30ms voice samples
Standards compliant	• TAPI via Symposium TAPI Service Provider (first party or third party mode) • IEEE 802.1p: layer 2 QoS • DiffServ: layer 3 QoS • NAT–P: network address translation
Capacity per card	• 16 simultaneous per single–slot RLC • 20 simultaneous per dual–slot RLC • Can simultaneously support Remote Office 9150 branch offices, 9110/ 9115 teleworkers, Meridian Digital Telephone IP Adapters and directly attached digital phones

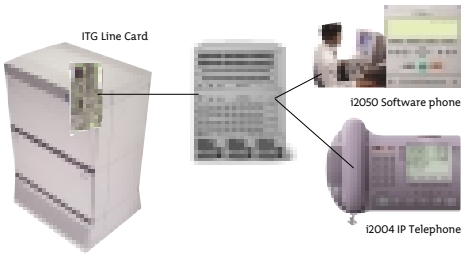
Market Information

There are few products that can be used to adapt a Meridian Digital telephone for operating over an IP network. An organisation's alternative to IP enabling existing phones is to replace the phones with IP based telephones, such as the Nortel Networks i2004, i2002 and i2001 Internet Telephone. If a business chooses to deploy Ethernet-based telephones from third-party vendors, they aren't really IP enabling existing digital phones, but are instead installing a second system, running in parallel to the first. This can greatly increase costs, as administering, maintaining and troubleshooting two networked systems is significantly more costly than administering, maintaining and troubleshooting a single system. Organisations may also lose some functionality when networking third-party switches. Organisations also need to beware of third-party quotes that do not mention the Meridian or Succession interface requirements for networking the Meridian or Succession with their third-party solution. Third-party Ethernet-based phones do not offer the sort of low end-user impact, hassle-free upgrade to IP infrastructure that is offered by the Meridian Digital Telephone IP Adapter.

Ordering Information

For further information please contact your local Nortel Networks representative.

Internet Telephony Gateway (ITG) Line Card



Overview

Internet protocol (IP) Line software supports the deployment of IP phones in Meridian 1 and Succession 1000/1000M networks, delivering feature and application rich telephony services over a single Ethernet connection. Working in conjunction with Succession media cards, ITG Line Cards or a Succession 1000/1000M signalling server, IP Line provides gateway functionality for bridging packet-switched and circuit-switching and acts as a terminal proxy server for IP phones.

Ideal For

- Any enterprise that wants a full IP telephony deployment or a hybrid mix of IP, digital and analogue phones to maximise the communications investment
- Businesses with an existing Meridian 1 – IP enabled Meridian 1 represents the smoothest, most cost effective route to IP telephony for the installed base of 43 million Meridian 1 users
- Early adopters who want the latest technology on the world's leading communications system
- Companies that want to expand their network either by adding new sites or adding new users
- Companies that have a large number of adds, moves and changes
- Remote workers - users that need to access their corporate data and voice services in exactly the same way, in the office, at home, or on the road

Typical Applications

IP Line is an important element of Nortel Networks Succession enterprise portfolio because it facilitates the convergence of voice and data by deploying telephony communications over a data network. Enterprises building a new site can wire for a single network versus wiring separately for voice and data. Enterprises may choose to implement a Meridian 1 or Succession 1000/1000M with 100% IP phones, or may choose to deploy IP phones in conjunction with digital and analogue phones. IP Lines are particularly beneficial in environments where there are frequent adds, move and changes and in environments with geographically distributed and/or mobile workforce (remote offices, telecommuters, field workers, travelling workers, etc). For example, the i2050 Software Phone runs on a PC and provides the same features and services as a desktop phone. IP phones such as the i2004, i2002 and i2001 can be deployed over any Ethernet connection with plug-and-play ease.

Key Points

- IP networking support of H.323 protocol that provide the link between IP and the traditional telephony world
- Provides support for IP phones connected to feature and application-rich telephony servers (Succession 1000/1000M and Meridian 1)
- Co-existence of IP phones with digital and analogue phones on Succession 1000/1000M and Meridian 1 allows migration to IP telephony at a pace that's appropriate to business requirements
- Supports standards-based layer 2 and 3 quality of service (QoS) to maintain high voice quality over any QoS-capable data network
- Reduces communications costs via converged communications network
- Excellent migration path to IP telephony and ROI extension for existing Meridian 1 systems
- Full access to Meridian 1 and Succession 1000/1000M suite of enterprise communications

features and applications

Features and Benefits

- Enables communication between a circuit-switched telephony network and IP clients
- Phones supported: Nortel Networks i2004, i2002 and i2001 Internet Telephones; i2050 Software Phones
- Increased choice and flexibility in providing desktop voice capability for campus and remote users
- Leverages the businesses' existing data network infrastructure (data/voice convergence)
- Enables smooth roll-out of IP telephony services building on the existing voice network
- Load balancing so IP phones can use a pool of DSP gateway resources
- Simplified network management and support costs
- Simplified moves, adds and changes through support of DHCP
- Builds on the reliability and feature-richness of the Meridian 1 and Succession 1000/1000M systems
- Complies with open standards, including standard codecs (G.711, G.723.1, G.729B, G.729AB)
- Consolidation of network services resulting in savings

Ordering Information

For further information please contact your local Nortel Networks representative.

Internet Telephony Gateway (ITG) Trunk Card

Overview

With today's widespread deployment of Internet protocol (IP) networks, organisations are looking for new ways to maximise their investments by converging their voice and data network infrastructures. IP Trunk is IP telephony gateway software for Meridian 1 that runs on a gateway card and converts real-time voice and fax information into IP packets, allowing Meridian 1 to network over an IP WAN (wide area network) or IP MAN (metropolitan area network) to other Meridian 1, Succession Business Communication Manager (BCM) and Succession 1000/1000M systems. IP Trunk provides an integrated solution for high-quality voice transmission over an IP network with the benefit of ISDN networking features. It allows Meridian 1 to migrate to IP telephony while preserving features, applications and reliability. Enterprises can incorporate IP telephony into their networks at a pace that makes sense for their business requirements.

Ideal For

- New and existing multi-site organisations with Meridian 1 systems that need to network to other Meridian 1, Succession BCM and/or Succession 1000/1000M systems
- International sites already connected via IP data networks can save money using IP telephony toll-bypass
- Organisations that pay high per-minute charges for local calls between sites can also use IP telephony as a lower cost alternative to PSTN calls
- Multi-site organisations that need additional signalling between sites, for feature-enabling and sharing of centralised resources (like voicemail)
- Organisations with sites already interconnected via both an IP network and multiple point-to-point tie lines
- Multi-site organisations interconnected via high-speed IP networks (MAN/optical)

Typical Applications

IP Trunk is an important element of Nortel Networks Succession enterprise portfolio because it facilitates the convergence of voice and data on the Meridian 1 system. With this product, an existing IP based data network can be used for voice and fax traffic. Since IP Trunk supports ISDN signalling, organisations are able to take advantage of productivity enhancers like network-wide calling party name and number display. Centralised access to powerful Meridian 1 services like CallPilot unified messaging and attendant services can also be used network-wide through support of ISDN.

Key Points

- Provides IP telephony with feature transparency including centralised and networked applications between Meridian 1, Succession 1000/1000M and Succession BCM systems
- Migration to IP telephony is transparent to the end-user as no change in dialling sequence or feature operation is necessary
- Installs neatly into an existing Meridian 1 shelf and is easily managed using Meridian 1 automatic least cost routing tables
- IP Trunk does not require a nailed up, dedicated connection between each system; IP Trunk hardware resources are shared across the network
- Carrier class reliability with resource pooling and redundancy with the IP Trunk hardware
- Nortel Networks provides the IP Trunk capability to enable customers to deploy IP telephony across an existing IP WAN infrastructure, while preserving their investment in their existing systems
- IP Trunk quickly IP enables all existing Meridian 1 phones for site-to-site IP telephony traffic, while seamlessly integrating with the PBX features and functions. Organisations can deploy multi-site IP telephony without any user re-training, installation of poorly integrated (and high administrative cost), external devices and still have access to all of the PBX features and functions they need for maximum flexibility and efficiency
- IP Trunk products also eliminate the worry of doing a "forklift" upgrade and cut-over to a different vendor's completely different IP based system, that may have unknown missing features, require user and administrator re-training and throw away the significant investment made in telephone sets, etc. Instead, IP Trunk products allow IP trunking to be used without having to replace all of the rest of the installed infrastructure

Features and Benefits

The IP Trunk capability offers enterprises the ability to reduce communication costs by network consolidation, since a single network infrastructure can now be built to support both the voice and data networking requirements of offices at various locations. Routing voice calls over existing IP network facilities allow cost savings to be realised by avoiding per-minute call charges on voice calls, faxes and voice messaging.

The IP Trunk solution compresses pulse code modulation (PCM) voice, demodulates group 3 fax and routes the packetised data over a private Intranet. It is a requirement that the organisation has already installed a corporate IP network and that routers are available for WAN connectivity between networked systems. 100/10baseT Ethernet interfaces to the Succession media card or ITG Trunk Card are required, as well as support of IP version 4 network layer and addressing in the WAN. There is no restriction on the physical medium of the WAN.

It includes ISDN D-channel for enhanced signalling between Meridian 1, Succession 1000/1000M and Succession BCM systems, allowing them to be networked. It uses ISDN protocols with H.323 signalling and voice over a standard IP protocol stack. IP Trunk 3.0 runs on both the single-slot Succession media card (32-port), as well as the dual-slot ITG-Pentium card (24-port). IP Trunk 3.0 on these cards can also place and receive calls from systems running older installations of ITG Trunk.

Operations, administration and maintenance (OAM) is performed using Optivity Telephony Manager (OTM). Meridian 1 X11 Release 25 software is required.

IP Trunk provides the following benefits:

- Allows sharing of centralised applications across an IP telephony network, increasing efficiency and customer satisfaction, while reducing costs:
  - Centralised voicemail (CallPilot unified messaging) with multiple branch offices over an IP WAN, including message-light notification over the IP network
  - Network-wide attendant service attendants answer calls from any site on the network
  - Network-based ACD allows multiple call centres to operate as a single coordinated resource
- Network-wide features available for all calls across the network, preserved when calls are transferred or forwarded:
  - Calling-line ID
  - Caller name display
  - Call park and call retrieve
  - ISDN, MCDN and H.323 signalling features
  - Reduces communications and support costs via converged architecture
  - Operates transparently to the end user when routing over the IP data network
  - Offers simple installation and maintenance via Optivity Telephony Manager (OTM) software
  - Integrated with automatic route selection features of the Meridian 1
  - Complies with standard codecs (G.711, G.723.1, G.729B, G.729AB)
  - Supports standards-based layer 2 and 3 quality of service (QoS) to maintain high voice quality over a busy IP network

Ordering Information

For further information please contact your local Nortel Networks representative.

ISDN (Integrated Services Digital Network)

Overview

ISDN (Integrated Services Digital Networking) is a set of international standards that have been adopted by the International Telegraph and Telephone Consultative Committee (CCITT). ISDN provides businesses with integrated communication services that optimise the flexibility and economy of digital networks worldwide. What this means to a business is that corporate users can transmit voice and data with increased speed, improved quality and greater economy and ease. As simple as placing a voice call to virtually anywhere in the world, ISDN can extend this capability to almost all forms of information in the future such as text, graphics, images and ultimately, full-motion video.

Ideal For

- Medium to large multi-site enterprises benefit the most from ISDN services. The ability to centralise services like voicemail to reduce cost and management expenses increases the productivity of the entire enterprise network
- ISDN services are supported on all of the systems within the Meridian 1 and Succession 1000/1000M portfolios. So, whether it's a branch office with an Option 11C chassis or a large corporate headquarters with an Option 81C, organisations can leverage the features, flexibility and power of Meridian 1 and Succession 1000/1000M and their ISDN services in an enterprise network environment.

Typical Applications

From the smallest system in the portfolio, Option 11C chassis, to the largest with Option 81C, businesses of all sizes can leverage Nortel Networks state-of-the-art MCDN features to lower costs, boost employee productivity and enhance the level of responsiveness provided to customers.

From centralised voicemail to reduced hardware and administration costs, to automatic call distribution (ACD) over the Meridian 1 corporate network to enhance business responsiveness to ISDN features over a VoIP network, an investment in Meridian 1 and Succession1000/1000M is a future-safe investment in the ability to network and interoperate with ISDN, ISDN Q.SIG and MCDN. So, as businesses expand, they can seamlessly integrate additional campus sites or branch offices, all with access to the same robust feature sets as their main campus.

Key Points

- ISDN PRI on Meridian 1 and Succession 1000/1000M offers an opportunity for PBX network growth at much lower cost to businesses in conjunction with far greater manageability
- By upgrading existing T1 or E1 spans with PRI to a central office, improvements in network performance can be obtained without adding any new leased line facilities
- The efficiency of PRI can reduce the number of physical trunks required to handle the current network traffic by as much as 30%, which in turn can lower PBX operating costs
- As a trunk interface to a DMS-100 central office, ISDN PRI on the Meridian 1 offers businesses switch access to multiple central office (CO) services and unprecedented flexibility in trunk usage. It also provides the platform for future service enhancements
- For added network reliability, ISDN PRI provides the advantage of a backup D-channel. This backup D-channel automatically takes over for a failed primary D-channel to prevent the loss of calls over the B-channels

Features and Benefits

	Features	Benefits
Backup D–channel	Provides redundancy for D–channel handler Interface (DCHI) cards with automatic switchover, if necessary, to the backup unit in the event of a failure	Boosts system resiliency and redundancy of the very important D–channel signalling information from Meridian 1 systems
Calling line identification	Sends a telephone's designated number through the ISDN PRI network to the digit display on the receiving device. Outgoing and incoming calls are supported and the CLID lasts for the duration of the call	Enhances business responsiveness
Network ACD (NACD)	Utilises ISDN primary rate interface or integrated serial link to quickly and efficiently route calls to available agents within a Meridian 1 network. Also supported over Q.SIG networks	Maximises customer responsiveness and boosts employee productivity thereby driving increased revenue opportunities for the business
Network call party name display	Provides network wide visual display of name and number within Meridian 1 and Q.SIG networks	Boosts the ability to personalise greetings thereby enhancing customer responsiveness with the passage of name and number information across these networks
Integrated service access (ISA) – call–by–call service selection	Dynamically allocates calls-by-call and service type including service identification and incoming digit conversion for all trunk types (TIE, CO, DID, WATS); supports private trunk types for DMS–100 systems	Provides greater maximisation of system and network resources along with additional information passage for enhanced customer responsiveness
Network attendant service (NAS)	Provides ability to distribute attendants throughout a network sharing the workload. Calls can be re-routed to an alternate attendant (at a remote location) based on a variety of conditions such as overflow, time of day, night service, etc)	Boosts business responsiveness and efficiency while reducing business costs offering seamless coverage to incoming callers while maximising the productivity of support staff

	Features contd...	Benefits contd...
Network call redirection	Extends the "hunt" and "busy" capabilities of the Meridian 1 to a Meridian 1 network via ISDN primary rate interface (PRI) or ISDN signalling link. The originally dialled number, the connected number and the reason for the redirection (busy or hunt) are displayed	Promotes greater business responsiveness with personalised greetings based on incoming ANI information being provided
MCDN alternate routing	Allows the MCDN network to re-route calls on alternate routes if the call cannot be connected over a primary route due to network congestion, temporary failure, etc	Maximises efficiency and productivity of the traffic in the MCDN network by providing for overflow situations
1.5/2.0 MB gateway	Provides connectivity between T1 and E1 networks	Offers more seamless integration of international networks
Public to private CLID conversion	Allows the correct CLID information to be displayed at a terminating set should a call leave the private network due to congestion. Applicable to extended switched network (ESN) and to interfaces such as DMS–100, DMS250, #4 ESS, #5 ESS, S100 and NI–2 TR–1268 interfaces	Promotes greater business responsiveness with correct CLID information being provided to the end destination even during "hop off" scenarios
Network message service (NMS)	Utilises ISDN signalling to provide messaging services across an ISDN network. Meridian 1 systems connected with PRI or ISL (ISDN signalling link) can extend supported message services to all users within the network from a single, central location	Reduces administrative costs with centralised messaging administration and boosts user productivity as feature activation from the messaging system is transparent to the user
Network ring again	Provides ring again capability within the PRI/ISL network. For example, a caller at location "A" who encounters a busy destination signal at location "B" can press the ring again key on their telephone and be notified when the busy station becomes idle. Supported on Meridian digital clients as well as 500/2500 sets	Boosts employee productivity and efficiency

	Features contd...	Benefits contd...
Network–wide remote call forward	Extends the capability of call forwarding to remotely forwarding a telephone over the network. Also provides an attendant with the ability to change the forwarding of a telephone and to verify forwarding status	Boosts employee productivity and enhances business responsiveness
Remote virtual queuing	Uses either ISDN primary rate interface or ISDN signalling link to allow for queuing of network calls when trunking facilities are blocked or busy	Ensures business responsiveness and maximises network utilisation
ISDN signalling link (ISL)	Provides the capability to replace both digital and analogue conventional trunk signalling with out-of-band ISDN D-channel signalling. Applications supported include calling line ID, calling line ID in CDR, ESN, network ring again, network call redirection, network message services, network ACD and network call party name display. ISL supports both TIE and ISA trunk types with Meridian 1 to Meridian 1 and Succession 1000 to Succession 1000 connectivity	Maximises productivity of facilities
Calling line identification in call detail records	Gives users the call telephone's ID in CDR records including through a tandem node. Enables businesses to charge the calling party for services rendered in connection with an incoming call (ie calls to an attorney could be charged)	Increases revenue with greater accuracy in billing and reporting
Integrated trunk access (ITA)	Allows common digital transmission facilities, to be shared by B-channel trunks (via PRI or ISL) and traditional A&B bit signalling trunks. Supported on Meridian 1 to Meridian 1 and Succession 1000 to Succession 1000	Maximises the efficiency and productivity of trunking facilities

	Features contd...	Benefits contd...
In–band automatic number identification (ANI)	Allows a carrier to send to the Meridian 1 the calling party's 10–digit telephone number via standard digital trunks (T1)	Promotes greater business responsiveness with personalised greetings based on incoming ANI information being provided
Call pickup network wide	In a Meridian 1 corporate network with multiple sites, enables call pickup feature to be used even if the two phones are connected to different Meridian 1 or Succession 1000 systems	Boosts personal productivity and promotes more efficient call handling for Meridian 1 networks with multiple campuses
Virtual network service (VNS)	Provides private ISDN networking features utilising public network facilities	Reduces costs by not requiring a dedicated private network
510 trunk route member expansion	Expands the number of ISDN bearer "B" channels that can be associated with a single D–channel up to 510 from 254 previously	Reduces costs in private networks by maximising D–channel capabilities
MCDN end to end transparency	Provides robust features of MCDN networks such as network attendant service (NAS), network automatic call distribution (NACD) and network message service (NMS) over standardised ISDN Q.SIG network interfaces	Leverages and maximises business investment in the rich services of MCDN within ISDN Q.SIG standardised networks
User to user information (UUI)	Provides supplementary information from the network to be transported over the ISDN to the Meridian 1 or Succession 1000/1000M system	The information transported can be passed to such applications as Symposium or third party applications via Meridian Link services. A typical example of this could be to transmit collected customer data in a network IVR to the Meridian 1 or Succession 1000/1000M system

Solution Sets:

Meridian 1 and Succession 1000/1000M ISDN basic rate interface (BRI)

ISDN BRI connects data terminals and telephones to public network switches, such as those used by local telephone companies, or private network switches, like the Meridian 1. ISDN BRI implementation into Meridian 1 software is in accordance with relevant CCITT standards at the physical, data link and network layers of the International Standards Organisation's open systems interconnect model. Feature activation is supported using CCITT-defined supplemental service elements. In addition, national ISDN support is provided, including the supplementary services "conference" and "call forward all calls"

Meridian 1 and Succession 1000/1000M ISDN primary rate applications

The link that connects corporate users to ISDN network services provides a platform for innovative networking services such as:

- Dynamically allocating trunks on a call-by-call basis
- Activating feature transparency such as ring again or call forward across a network
- Notification of a calling party's identity
- Improving customer service and productivity by automatically linking the calling party's number to a file in a host computer data base

Meridian 1 to Meridian 1 and Succession 1000 to Succession 1000 enterprise networking

Meridian 1 enterprise networking includes the public ISDN networking capabilities plus the following unique features:

- Network call party name display (NCPND)
- ISDN signalling link (ISL) with revert to conventional signalling
- Call forward/hunt override (across network)
- Non-associated signalling (nB+D)
- Network attendant service
- Network message service - Meridian Mail and CallPilot
- Network call redirection
- Remote virtual queuing
- Network ring again (NRAG)
- Backup D-channel
- Integrated trunk access (ITA)
- ESN over ISDN primary rate interface
- Network message service - message centre
- Network ACD
- Network-wide remote call forward
- Trunk optimisation

Meridian 1 and Succession 1000 QSIG networking

QSIG is oriented towards signalling and services that occur between two switches. For example, two PBXs, or a PBX and a Centrex switch could exchange signalling for services across a "Q" reference point. The QSIG interface will support the following services:

- Call establishment and tear down
- ETSI or ISO version of basic call
- 64 kbps clear data
- Overlap sending/receiving
- Channel negotiation
- Calling and connected parties information (CLIP/COLP)
- Calling and connected parties restriction (CLIR/COLR)
- Generic functional protocol (GF)
- Call diversion (CFSD)
- Path replacement (PR)
- Message waiting indication (MWI)
- Flexible numbering plan
- TIE call types
- nB+D with n ranging from 1 to 480 for PRI
- Transit count information transmitted when ISDN call connection limitation (ICCL) is present

Ordering Information

For further information please contact your local Nortel Networks representative.

Meridian 1 Remote Services Line-Side E1&T1 Interface

Overview

Meridian 1 Remote Services products allow businesses to distribute a single Meridian 1 system throughout their campus, across town, or across the continent, while maintaining the convenience and economy of centralised resources and control. The Line-Side E1 Interface Card and the Line-Side T1 Interface Card are complementary additions to the Meridian 1 remote services portfolio, which includes ISDN networking, fibre remote and carrier remote. The Line-Side E1 and T1 Interface Cards provide a cost effective connection between E1 or T1 compatible equipment (ie such as voicemail systems, integrated voice response units) and a Meridian 1 system. Used in these kinds of applications, the Line-Side E1 or T1 interfaces eliminate the need for expensive channel bank equipment.

Ideal For

- Businesses seeking "line side" functionality to support E1 or T1 compatible devices via a direct connection to the Meridian 1
- Businesses intending to connect IVR equipment to the Meridian 1 for contact centre applications

Typical Applications

An example where Line-Side E1 or T1 could be an ideal solution is with E1 or T1 compatible voice response units such as an IVR system. Using Line-Side E1 or T1, Meridian 1 can send a call directly to the IVR system and because the Line-Side E1 and T1 card supports 2500-type functionality, the IVR system can send the call back to the Meridian 1 for further handling. This is a significant improvement over previous alternatives. Previously, if a digital "trunk-side" connection was used to the IVR system, the IVR system could not transfer the call back to the Meridian 1. Analogue ports and channel bank equipment would have to be deployed for line side capability – a much more expensive solution.

Key Points

- The Line-Side E1 and T1 interfaces are appropriate for any application where both E1 or T1 connectivity and "line side" functionality is required. It provides a direct connection between the Meridian 1 and third party E1 or T1 compatible equipment. This results in a more robust, reliable and cost effective connection without the need for channel bank equipment
- For connecting to IVR equipment, Line-Side E1 and T1 interfaces simplify system configuration resulting in reduced installation time and easier maintenance of both the Meridian 1 and the IVR equipment

Features and Benefits

- The **Line-Side E1 Interface Card** is compatible with public or private CEPT type carrier facilities. Using channel associated A/B signalling, it supports CRC-4 or FAS only framing formats as well as AMI or HDB3 coding
- The **Line-Side T1 Interface Card** is compatible with standard DSX-1 type carrier facilities. Utilising A/B robbed bit signalling, the Line-Side T1 Interface Card supports D4 or ESF channel framing formats in addition to AMI and B8ZS coding
- The Line-Side E1 and T1 interfaces are intelligent peripheral equipment (IPE) line cards that are supported on Meridian 1 Option 11 through 81C systems
- Line-Side E1 and T1 emulate an analogue line card to Meridian 1 X11 software and require two card slots within the IPE (ie dual width card) to support 32 E1 or 24 T1 ports. With full analogue line card functionality in software, these line-side interfaces can provide 2500-type telephone set functionality (eg hook flash, ring back tones from the Meridian 1). This line side functionality is crucial when used with equipment such as voicemail systems, integrated voice response units and trading turrets (used in stock markets)
- Line-Side E1 and T1 can also support off-premise extensions over long distances (ie up to 800km from the Meridian 1 system). Analogue telephone functionality is extended over E1 and T1 facilities, providing a telephone at the remote site with access to 2500-type line functionalities. Audible message waiting indication can be supported as well
- While designed for remote services applications, Line-Side E1 and T1 interfaces are also used for interfacing to IVR equipment like the Nortel Networks Periphonics line of products or other third-party IVR equipment for enterprise contact centres and self-serve applications
- Eliminates the need for expensive channel bank equipment with support for third party E1 or T1 compatible devices
- Supports E1 and T1 monitoring and diagnostics

Ordering Information

For further information please contact your local Nortel Networks representative.

Meridian Release 25 Software

Overview

The Meridian Generic X11 Release 25 software is the current progressive evolution of releases designed to increase functionality and provide new features to increase end-user productivity. There are additional avenues of growth via increased real time capacity and a 60% increase in port capacity. These enhancements are accomplished with the availability of an Intel® Pentium® Processor used in the call processor PII (CPP II) that is now available in Meridian 1 Option 81C. With a 320,000 busy hour call completion (BHCC) rating, it far surpasses the processing capabilities of all major competitors. The additional port capacity is achieved using the dual fibre rings (based on a subset of SONET OC12c protocol) of the fibre network fabric (FNF). This bandwidth enhancement provides for three additional network groups (now totalling eight) for growth up to 16,000 ports with the added benefit of providing a non-blocking and redundant environment between network groups.

Ideal For

- Organisations looking for a reliable communication platform that supports both TDM and IP technology
- Businesses such as banking and finance, manufacturing, hospitality and governmental services, as well as those with multi-node networking needs, looking for cost-effective solutions
- Organisations with an existing Meridian 1 system would also benefit from a wide range of enhancements, by upgrading to Release 25

Typical Applications

- Applications range from basic POTS services to sophisticated applications like multi-node networking and contact centre solutions
- Virtual office with M3900s will allow organisations to save on workspace for teleworkers in the insurance and consultancy industries
- IP lines and trunks provide customers with mobility and remote access applications that reduce total cost of ownership via toll call savings, productivity increases and lower infrastructure cost

Key Points

- **Internet communications support** – via Internet telephony gateway line and trunk side
- **Increased capacity** – for larger multi-group systems
- **Proven experience** – builds on the reliability and feature-richness of the Meridian 1 system
- **Investment protection** – convergence of voice and data network infrastructures
- **System administration** – policy capability under Optivity Telephony Manager

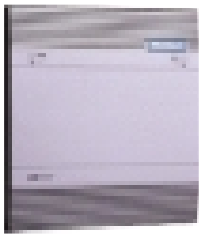
Features and Benefits

Feature	Nortel Networks Meridian Release 25
Capacity expansion	• Call Processor PII supporting up to 320,000 BHCC • Fibre network fabric provides M1 multi–group systems with dual internal SONET ring architecture (622 Mbps) • Logical D–channel applications increased from 64 to 255 • ACD DN expansion to 1000 ACD DN (for Option 81/81C)
Desktop	M3900 series Meridian digital telephones enhancements: • Flash download • Context sensitive soft keys • Display–based expansion module • Full duplex hands free module • Set–to–set messaging • Corporate directory • Virtual office • Agent greeting (for contact centre applications)
System administration	• Inventory reporting • Optivity Telephony Manager with Web interface (OTM 1.2 or later)
IP enabling	• IP trunks • IP lines • i2004, i2002 IP phones • i2050 software phone with USB headset • Wireless VoIP
Remote offering	• Remote Office 9150 • Remote Office 9110/19115 single user remote offering
Reliability	• Survivability for Option 11C networking • QSIG message waiting indication • QSIG enhancement on call treatments

Ordering Information

For further information please contact your local Nortel Networks representative.

Meridian 1 Option 11C



Overview

The Meridian 1 Option 11C is a powerful, cost-effective, high quality, reliable, small communications system supporting up to 800 ports. Option 11C supports the same first class desktop and system features as the larger Meridian 1 systems, including IP telephony, digital telephony, in-building wireless communications, voice messaging, call centre, PC-based system management, remote and teleworker solutions and multimedia applications. The Option 11C's modular design allows a business to easily and cost effectively add capacity and new capabilities on an as-needed basis while integrating advanced applications. Available in rack mountable chassis, or wall-mountable cabinets to optimise space requirements, the flexible and versatile Option 11C provides the perfect fit for small to medium-sized, single site enterprise businesses or networked branch offices.

Ideal For

- Single and multi-site enterprises requiring high reliability and quality, more than 30 lines, global connectivity, sophisticated telephony applications and the ability to expand services on an as-needed basis
- Small call centres and telemarketing environments seeking processing power and reliability to support current business needs and integrated IP telephony, multimedia and traditional telephony applications
- Cost-effective deployment of highly flexible, extremely functional robust telephony solutions

Typical Applications

- Advanced voice features, data connections, LAN communications, CTI and sophisticated information services for 30 to 800 ports; LAN and WAN IP telephony
- Efficient distribution of incoming calls through Meridian automatic call distribution (ACD) and/or Symposium Contact Center and self help interactive voice response (IVR)
- Network telephony services for global analogue and PSTN interfaces, ISDN and IP networks and seamlessly extended central or distributed applications nationally or internationally
- Integrated branch offices, remote workers and teleworkers extended via TDM or IP

Key Points

- Crafted to deliver all the functionality, rich application support and reliability of the larger Meridian 1 systems
- Best-in-class price performance
- Compact and lightweight
- Provides the power and versatility of larger systems
- Powerful networking features
- Cost effective solution for smaller locations/branches
- Scalable and upgradeable
- Reliability with self diagnostics and back up monitoring
- Easy to use, manage and integrate into an existing network environment
- Flexible communications solution that offers any combination of circuit or packet-switched capabilities in a small package

Features and Benefits

Features	Nortel Networks Option 11c
System capacity (ports)	800
I/O ports	64
Supports all Meridian 1 telephone sets	Yes
Unified messaging	Yes
Call centre technology	Yes
IP networking solution	Yes
ISDN and PSTN networking	Yes
Wireless capabilities	Yes
Wall or rack mountable	Yes

- **Networking:**
  - Analogue: loop or ground start, CO, FX, WATS, 2- or 4-wire E&M or 4-wire DX, DID, ITE, RAN, paging; Meridian 1 gateway
  - Digital: DTI, ISDN-PRI, (T1 & E1) ISDN-BRI, DPNSS, DASS
  - IP: Internet telephony gateway trunk; DPNSS-PRI, IP peer virtual trunking
- **Reliability and flexibility** – the Option 11C is crafted to deliver all the functionality, rich application support and reliability of the larger Meridian 1 systems, but in a smaller package. It has always used the same software, peripheral cards, desktop sets and offered the same applications. Option 11C can reduce operating costs using the latest integrated applications, such as the integrated recorded announcement, integrated personal call director, integrated call attendant and the integrated conference bridge
- **Best in class** – the Option 11C is widely regarded as industry best in class. It boasts a mean time between failure rate measured in decades. When we say that it is 99.999 percent reliable, we have the track record to prove it
- **Management** – Optivity Telephony Manager (OTM) is a PC-based administration tool that allows telephone adds, moves, changes, traffic analysis, reporting and more with point-and-click simplicity. OTM supports open standards such as LDAP and SNMP. Telephone programming is as easy as clicking on specific graphics. Web based help files offer simple instructions on how to use the phones and features. Operations, administration, maintenance (OA&M) and upgrades via OTM or command-line interface
- **Easy to use** – Meridian 1 Option 11C is easy for people to use. Meridian digital and IP telephones bring all the powerful features and services of the Meridian 1 Option 11C to each desktop in a company, helping employees communicate better and improving productivity company wide. Businesses can choose from a wide selection of real-time and multimedia applications to match the specific needs of each employee. They can choose from an application portfolio that includes a variety of business telephone configurations, customer engaging contact centre and self help portals, messaging and unified messaging, desktop SIP-based collaborative multimedia applications, simplified OA&M with reporting, tracking and billing, network-wide seamless feature inter-operation, WAN-based solutions for branch integration, teleworkers, home-based and mobile employees, dynamic scalable security and secure wireless LAN deployments
- **The advantage of unified messaging** – the Option 11C offers CallPilot messaging. CallPilot lets individuals manage all of their communications instantly from a single centralised mailbox. It combines voicemail, fax and email on a single, powerful, easy-to-use messaging system allowing users to:
  - Create and send voice messages to one or many people
  - Add a voice message attachment to a fax or email
  - Send and receive different message types from either a PC or a telephone
  - Access all messages hands free using simple voice commands
  - Web based access the messages
  - Speech-to-text for reading email over the phone/cell phone

If a business is looking for a traditional voice mail solution, the Option 11C also offers Meridian Mail. Meridian Mail voice menus guide the calls coming into a company's office, directing callers effortlessly to the appropriate person or department. The menus can be simple - such as prompts for an extension number - or more sophisticated, allowing callers to check account balances, place orders, or obtain a company address and hours of operation. And since Meridian Mail is fully integrated with the Option 11C, there is just a single user interface to manage. Meridian Mail supports hospitality specific features and PMS integration

- **Outstanding investment protection** – Option 11C is designed to accommodate future technological innovations and advances currently being pursued by our research and development teams. Nortel Networks takes pride in its record of protecting user investment in communications over the long term. All the performance, value, simplicity and unparalleled quality one would expect from Nortel Networks, the leading manufacturer of digital communication systems, is available with Meridian 1 Option 11C
- **Voice networking** – Meridian 1 Option 11C can help you take full advantage of integrated services digital networking (ISDN), a set of standards capable of transmitting fully digital communications (voice, data, fax and image) over the same facilities. Today, networking includes centralised (shared) applications such as attendants, call centres, messaging and call processing over circuit-switched or IP links, while adding seamless feature capabilities such as displaying a caller's name and the incoming phone number over a private network, call forwarding and conferencing, while at the same time providing a wide range of networking features. These features include facility restriction level based on time-of-day, network class-of-service, lower cost routes, malicious call trace, anti-tromboning (for elimination of duplicate routes in a forwarding scenario), and drop-back busy and network hunt, do-not-disturb and pilot DN groups for ACD queues and improved help-desk coverage. Option 11C with its increased processing power presents the strongest networking capacity in it's class so that businesses can fully take advantage of the power and economy of scale benefits of its networking regardless of their unique topology
- **IP solutions on demand** – the Meridian 1 Option 11C is fully IP-enabled. Companies can get server-based IP applications that can be integrated with their existing network, such as CallPilot, Symposium Call Center and Optivity Telephony Manager. And they can get the newest IP solutions designed to save money and keep them connected. With the Option 11C, businesses can add Internet telephony gateways that let them place voice calls over IP on their company's in-building LAN, or route calls over IP to remote offices. For small remote offices, Option 11C systems can use the Remote Office 9150, which can seamlessly extend all host features and applications to remote users of Meridian digital telephones over IP and/or circuit-switched connections. The newest IP solution for the Option 11C is called the IP Expansion Option. This is the easiest way to migrate users safely and gradually to IP telephony, using their managed LAN. It increases trunking capacity and allows the Option 11C to operate as a standalone unit. Power outages at a main location are not a problem since this remote system carries on alone until the outage is restored. These IP solutions can be added easily, whenever they are required. With the Meridian 1 Option 11C, as technology moves toward sophisticated IP solutions, customers can safely move with them
- **Call centre management** – Symposium Call Center products improve operating efficiency with functionality that also provides the best in customer service. If a business relies on telephone inquiries, order taking and collections, the Option 11C supports automatic call distribution and other call-handling software that allows a business offer unsurpassed customer service. These advanced and networked call centre services offer skills-

based routing to geographically distributed agents for 24/7 operation. Easy graphical user interface (GUI) management and reporting gives businesses an in-depth analysis of a call centre's operational efficiency, traffic and revenue generating capabilities. Symposium Call Center is a full-powered, state-of-the-art, server-based, flexible, scalable solution offering the best in customer relationship management

Ordering Information

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