



## Technical Specifications

### Nortel IP Phone 2002

Intermediate-level IP Phone delivers flexible solutions at your desktop

*The Nortel IP Phone 2002 brings new and powerful capabilities to IP Phone communications at the desktop.*

*Designed for office professionals and knowledge workers within moderate call activity environments, the multi-line IP Phone 2002 offers an integrated LCD display screen, capable of presenting data and web-centric applications that increase personal productivity.*

*The Nortel IP Phone 2002 is also very cost-effective, including features such as support of an integrated, auto-sensing*

*10/100 IEEE Ethernet switch. With both LAN and PC ports, this switch enables connection of a collocated PC and direct connection to the network with the benefit of a single cable drop to the desktop, thus reducing infrastructure costs.*

*Combined with the rich telephony feature sets delivered from Nortel Communication Servers, deployment of the Nortel IP Phone 2002 positions the enterprise to meet both today's and tomorrow's business communications needs.*

### Key features and benefits include:

- › Multi-line IP Phone supports four programmable line/feature keys and four context-sensitive soft label keys
- › High-quality 4 line x 24 character LCD display and Nortel Application Gateway 2000 support enhances user experience with a wide array of personal productivity tools
- › Fixed keys including Goodbye, Hold, Headset, Handsfree, Mute, Volume Bar, Directory, Quit, Services, Inbox and Outbox, Expand-PC and a four-way navigation cluster



Nortel IP Phone 2002



- › Intuitive interface provides fast access to menus and system features, call log scrolling and one-touch dialing
- › Integrated high-quality two-way audio speaker
- › Visual Ringing Alert/Message Waiting LED
- › Integrated headset jack with convenient on/off button
- › Supports 802.3af standards-based PoE and local AC power via power adapter
- › Dynamic IP addressing with a standard DHCP server offers a flexible, simplified solution for handling adds, moves and changes, reducing management costs
- › Secured communications with standards-based network authentication, signaling and media-path encryption
- › Tight linkage with Nortel Communication Servers offers a rich suite of reliable, quality-based telephony communications features
- › Added convenience and time savings with field-upgradable firmware using Trivial File Transfer Protocol (TFTP) or for sites requiring enhanced secure firmware upgrades: UNISim File Transfer Protocol (UFTP)<sup>1</sup>

<sup>1</sup> UNISim File Transfer Protocol (UFTP) is Nortel Communication Server dependent.

<sup>2</sup> Requires Signaling Server or Voice Gateway Media Cards for support.

<sup>3</sup> Number of modules supported is Nortel Communication Server dependent. Consult server documentation for number of module maximums.

<sup>4</sup> Third-party pre-standard switch support includes Cisco 4503 CATOS 7.6(3), 6503 CATOS 8.3(2), 3550 IOS 12.1(13)

## Technical specifications

### Platform support

- Nortel Communication Server 1000, 2000 and 2100
- Meridian 1<sup>2</sup>
- Business Communications Manager 50/200/400
- Multimedia Communication Server 5100/5200
- Application Server 5200
- Media Gateway 1000B Expansion Chassis
- Survivable Remote Gateway 50/200/400

### Phone features

- Four programmable line/feature keys
- Four context-sensitive soft label keys
- 4 line x 24 character LCD display
- Thirteen fixed keys including Hold, Goodbye, Mute, Volume Up/Down, Services, Expand-to-PC, Inbox, Headset, Handsfree, Directory, Outbox, Quit
- Four-way (left, right, up, down arrow) navigation cluster for content as presented on LCD display
- Integrated high-quality two-way audio speaker
- Integrated amplifier for direct connection to third-party headsets
- Supports Nortel Application Gateway 2000 for text-based data application and web transformation services
- Desk or wall mount options
- Text and Icon keycap models for global deployments

### Accessories

- Supports 24-button Expansion Module for IP Phone 2000 Series
- Two-to-seven Expansion Modules for IP Phone 2000 Series supported<sup>3</sup>
- Expansion Module for IP Phone 2000 Series supports Power over Ethernet and local AC powering options via IP Phone

## User selectable ring tones

### IP Call Recording

- Supports dual media stream IP Call Recording with Nortel Contact Recording and Quality Monitoring (CRQM)

### Color

- Charcoal with silver-metallic bezel finish

### Connectivity/data rates

- Integrated IEEE Ethernet 10/100 Mbps switch with auto-sensing LAN and PC ports connects directly to the network and supports a collocated PC
- Ability to manually disable PC port
- Manually configurable 10- and 100-Mbps speeds when used with Ethernet switches which do not autosense

### Dimensions and Weight

- Dimensions (WxDxH): 9.06 in x 6.77 in x 6.57 in/230mm x 172mm x 167mm; on footstand
- Weight 1.85 lbs/.84kg

### Power

- Supports IEEE 802.3af standards-based Power over Ethernet, Nortel and selected third-party pre-standard<sup>4</sup>
- AC power: Localized power adapter delivering 48V DC @ 520mA
- Power dissipation: 3.2 watts idle, 4.8 watts maximum – IEEE Power Class

## Administration and security

- 802.1x and Extensible Authentication Protocol (EAP-MD5) for user-based authentication<sup>5</sup>
- Static, Partial and Full Dynamic Host Control Protocol (DHCP) address assignment (Full DHCP factory default)
- 802.1ab Link Layer Discovery Protocol (LLDP) for network discovery and inventory management<sup>5</sup>
- Signaling encryption with support for the 128-bit Advanced Encryption Standard (AES)<sup>5,6</sup>
- RFC 3711 compliant Secure Real-Time Protocol (SRTP) Pre-shared Key and Public Key Infrastructure<sup>5,8</sup>
- Supports Proactive Voice Quality Management (PVQM) for enhanced administration and diagnostics

## Protocols

- E.164 dialing support

## Audio Quality of Service

- G.711 a-law and µ-law, G.723.1 and G.729a and Annex B
- 802.1p/Q, DiffServ and VLAN tagging for telephony port traffic
- Supports echo cancellation and silence suppression

## Operating temperature

- +5°C to 40°C/40°F to 104°F

## Relative humidity

- 5% to 95% (non-condensing)

## Storage temperature

- -40°C to 70°C/-40°F to 158°F

## EMC

- United States: FCC 47 CFR Part 15 Class B
- Canada: ICES-003 Class B
- Australia/New Zealand: AS/NZS 3548 Class B
  - CISPR 22

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## European community:

- EN55022 Class B:1998+A1+A2
- EN 55024:A1+A2
- EN 61000-3-2
- EN 61000-3-3

## Japan:VCCI

- Korea MIC
- China CCC

## Safety

- United States: UL 60950-1
- Canada: CSA 60950-1-03
- Australia/New Zealand: AS/NZS 60950.1:2003
- European Community: EN 60950-1 +A11
- Mexico NOM approvals

## Other

- FCC Part 68 HAC
- IC CS-03 HAC
- Australia AS/ACIF 004
- New Zealand PTC 220
- Complies with the essential requirements and other relevant provisions of 1999/5/EC<sup>7</sup>
- Complies with Reduction of Hazardous Substances (RoHS) – (6 of 6) as part of European Union Environmental Directive
- American Disabilities Act (ADA) compliant dialpad

<sup>5</sup> Phase II IP Phone 2002 only.

<sup>6</sup> Requires Secure Multimedia Controller 2450 (SMC 2450) and Phase II IP Phone 2002 for support on Communication Server 1000 and Multimedia Communication Server 5100.

<sup>7</sup> Product Engineering Codes (PEC) with an E5 or E6 appendage have been deemed RoHS compliant in response to the European Union Environmental Directive.

<sup>8</sup> Public Key Infrastructure is Nortel Communication Server dependent.

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