



## Technical Specifications

### Nortel IP Phone 2002

Intermediate-level IP Phone providing 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 text-based 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 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 4x24 LCD display and External Application Server (XAS) support enhances user experience with a wide array of personal productivity tools



IP Phone 2002



- › Fixed keys including Goodbye, Hold, Headset, Handsfree, Mute, Volume Bar, Directory, Quit, Services, Inbox and Outbox, Expand-PC and a four-way navigation cluster
- › Intuitive interface provides fast access to menus and system features, call log scrolling and one-touch dialing
- › Integrated high-quality audio speakerphone
- › Visual Ringing Alerter/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
- › 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: UNISstim File Transfer Protocol (UFTP)<sup>1</sup>

## Technical specifications

### Platform support

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

### Phone features

- Four programmable line/feature keys
- Four context-sensitive soft label keys
- 4x24 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 audio speakerphone
- Integrated amplifier for direct connection to third-party headsets
- Supports External Application Servers (XAS) 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 IP Key Expansion Module (IP KEM) for IP Phone 2000 Series
- Two-to-seven IP Key Expansion Modules supported<sup>3</sup>
- KEM supports Power over Ethernet and local AC powering options via IP Phone

### Color

- Charcoal with silver-metallic bezel

### 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/.84 kg

### 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 2

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

<sup>2</sup> Requires Signaling Server or Voice Gateway Media Card 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)

### Administration and security

- 802.1x and Extensible Authentication Protocol (EAP-MD5) for device authentication
- Static and Dynamic Host Control Protocol (DHCP) address assignment
- 802.1ab Link Discovery Protocol<sup>5</sup>
- Signaling security with support for the 128K Advanced Encryption Standard (AES)<sup>6</sup>
- Secure Real-Time Protocol (SRTP) standard (pre-shared key)<sup>5</sup>

### Protocols

- Call Control Protocol: UNISim subset over UDP with reliability layer
- E.164 dialing support

### Codecs/Quality of Service

- G.711 a- and/or  $\mu$ -law, G.723.1 and G.729a and Annex B
- 802.1p/Q, DiffServ and VLAN tagging for both PC and telephony port traffic

### 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

#### EMI/RFI

- United States: FCC 47 CFR Part 15 Class B
- Canada: ICES-003 Class B
- Australia/New Zealand: AS/NZS 3548 Class B
- European community:
  - EN55022 Class B
  - EN 55024
  - EN 61000-3-2
  - EN 61000-3-3
  - VCCI

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### Safety

- United States: UL 60950
- Canada: CSA 22.2 No. 60950, IEC 60950-1
- Australia/New Zealand: AS/NZS 60950-1
- European Community: EN 60950-1

### Other

- FCC Part 68 HAC
- IC CS-03 HAC
- Australia AS/ACIF S004
- New Zealand PTC 220
- Reduction of Hazardous Substances (RoHS) compliant<sup>7</sup>
- American Disabilities Act (ADA) compliant dialpad

<sup>5</sup> Phase II IP Phones only. Available via firmware update commencing Q3 2006.

<sup>6</sup> Requires Secure Multimedia Controller 2450 (SMC 2450) and Phase II IP Phones 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.

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