



## 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: UNISlim 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

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.



### 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.

**In the United States:**

Nortel  
35 Davis Drive  
Research Triangle Park, NC 27709 USA

**In Canada:**

Nortel  
8200 Dixie Road, Suite 100  
Brampton, Ontario L6T 5P6 Canada

**In Caribbean and Latin America:**

Nortel  
1500 Concorde Terrace  
Sunrise, FL 33323 USA

**In Europe:**

Nortel  
Maidenhead Office Park, Westacott Way  
Maidenhead Berkshire SL6 3QH UK  
Phone: 00800 8008 9009 or  
+44 (0) 870-907-9009

**In Asia Pacific:**

Nortel  
Nortel Networks Centre  
1 Innovation Drive  
Macquarie University Research Park  
Macquarie Park, NSW 2109  
Australia  
Tel +61 2 8870 5000

**In Greater China:**

Nortel  
Sun Dong An Plaza  
138 Wang Fu Jing Street  
Beijing 10000  
China  
Phone: (86) 10 6510 8000

Nortel is a recognized leader in delivering communications capabilities that enhance the human experience, ignite and power global commerce, and secure and protect the world's most critical information. Serving both service provider and enterprise customers, Nortel delivers innovative technology solutions encompassing end-to-end broadband, Voice over IP, multimedia services and applications, and wireless broadband designed to help people solve the world's greatest challenges. Nortel does business in more than 150 countries. For more information, visit Nortel on the Web at [www.nortel.com](http://www.nortel.com).

For more information, contact your Nortel representative, or call 1-800-4 NORTEL or 1-800-466-7835 from anywhere in North America.

Nortel, the Nortel logo and the Globemark are trademarks of Nortel Networks. All other trademarks are the property of their owners.

Copyright © 2006 Nortel Networks. All rights reserved. Information in this document is subject to change without notice. Nortel assumes no responsibility for any errors that may appear in this document.

