

1ST

Communications

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Technical Specifications

Nortel IP Phone 1535

IP videophone with innovative new communications features for a personal video endpoint

Nortel's IP Phone 1535 is a standards-based Session Initiation Protocol (SIP) deskset for enterprises or organizations looking for a cost-effective personal video endpoint. Key features include an integrated color video camera coupled with a high-resolution, pixel-based, color display.

Incorporating a number of advanced communication capabilities, the IP Phone 1535 includes an integrated web browser, a POP3-based or IMAP-based e-mail client, and supports personalization such as customized ringtones and backgrounds.

The IP Phone 1535 is ideal for environments where a desktop or laptop PC may not be available or suitable, yet IP telephony and video conferencing is desired. The IP Phone 1535 may also provide benefit to users requiring a simplified always-on operation, flexible deployment with Wi-Fi connectivity, and casual web browsing or e-mail access.



Nortel IP Phone 1535

Key features and benefits include:

- › Featured SIP-based videophone (single user login) with an advanced user interface featuring dedicated video function keys to simplify the interactive experience
- › Eight dedicated telephony-related icon-labeled keys (Send/Handsfree, Goodbye/Release, Video Start, Video Stop, Record, Video Mode, Favorites, Messages) and two context-sensitive soft-label keys for item selection
- › Enhanced navigation/input options with four-way navigation cluster for menu operations and two key “mouse” click (right/left) for web-browsing
- › Integrated multimedia for simple, easy-to-use video conferencing, personal audio recorder (up to 20 second recordings), still image capture (high/low resolution with camera timer) and video capture (up to 20 second recordings)
- › Integrated applications including a web browser, e-mail browser (for user to view inbox/outbox or create/send e-mail messages), calendar with alarms, Video Supervision for remote video monitoring and galleries (image, sound and video libraries)
- › “T9” (Text on 9 keys) dialpad support for predictive text entry¹

¹ Enhanced Text Entry capabilities available for English, French, German, Portuguese and Spanish languages



- › Integrated Directory/Phonebook for up to 300 contacts (stored in the local directory/phonebook)
- › Call history for the last 20 items for Missed, Received and Dialed calls
- › Customized Personalization Options including ringtone support (select from up to 50 local Polyphonic Ringtones), menu color and background image (for idle screen)
- › Support for Picture Caller ID² and enhanced display name support (for Caller ID and Call Logs)
- › Video standards interoperability support with Video Fast Update (for multi-party video conferencing server environments), H.264 SDP negotiation/interoperability (RFC3984), and interoperability with leading third-party H.263/H.264 SIP video conferencing endpoints and conferencing systems³
- › Memory Card slots for expandability and data input/storage with Subscriber Identity Module (SIM) Reader Slot (used to copy user directory/phonebook information from a SIM card) and Secure Digital (SD)/MultiMedia Card (MMC) slot⁴ (used for external storage and uploading of images or sounds)
- › Flexible connectivity options with traditional LAN wired Ethernet (10/100 Base-T Fast Ethernet) or Wireless LAN access with an integrated IEEE 802.11b/g (Wi-Fi) radio

² Supported with MCS 5100 Rls 3.5 and 4.0 systems

³ Includes interoperability with the TANDBERG Media Processing System (MPS) and MXP Video Conferencing Systems Family

⁴ Support for up to 1GB SD/MMC card size

⁵ Planned general availability - December 2007

Technical specifications

Platform support

- Nortel Multimedia Communication Server 5100 Rls 3.5 and 4.0
- Nortel Communication Server 2000⁵ Rls SN09U and SN10

Display

- High resolution, graphical, fully-backlit, 16-bit color (65,535 colors) Liquid Crystal Display (LCD) using TFT (Thin Film Transistor) technology
 - Quarter Video Graphics Array (QVGA) Resolution
 - Approximately 3.5" / 89mm diagonal
 - 2.80" x 2.09" / 71mm x 53mm (W x H)
 - 320 pixels x 240 pixels (W x H)
- Configurable backlight timer extends the quality of the display experience with a user-defined time setting (ten seconds to one hour)

Camera

- Image sensor: 1/4.5-inch Complementary Metal-Oxide Semiconductor (CMOS)
- Pixel resolution: 300K - VGA (Video Graphics Array)
- Captures still (JPG format) or video images (up to 15fps)

Processor and memory

- CPU: Intel PXA 270 processor @ 416 MHz
- SDRAM: 64 MB (Synchronous Dynamic Random Access Memory)
- Flash: 128 MB (NAND Memory)

IP Phone footstand/display adjustment

- Desktop footstand attachment (optional) raises the IP phone to an optimal angle for video camera usage
- Desktop viewing adjustments with full range tilt display (0 to 60 degrees)

Fixed and soft label keys

- Eight – Telephony-related keys (Send/Handsfree, Goodbye/Release, Video Start, Video Stop, Record, Video Mode, Favorites, Messages)
- Two – Context-sensitive soft keys

Navigation cluster

- Four-way navigation cluster (left, right, up, down arrows) plus right/left click keys (for web browsing)



IP Phone 1535 Main Menu

- **Messages** – Access to e-mail options and related account configuration
- **Call History** – Access to missed, dialed (outgoing) and received (incoming) calls history
- **Services** – Access to web browser, voice mail and video supervision (remote monitoring)
- **Images & Sounds** – Access to the multimedia tools including image, audio and video galleries
- **Settings** – Access to configuration parameters for connection profile, audio, video, phone, VoIP and system
- **Organizer** – Access to IP Phone 1535 local phonebook and calendar/alarm

Enhanced text entry capabilities

- “T9” (Text on 9 keys) dialpad support for predictive English, French, German, Portuguese or Spanish text entry

Card slots

- Subscriber Identity Module (SIM) Reader Slot
- Secure Digital (SD) / MultiMedia Card (MMC) slot for external device storage (Support for up to 1GB SD/MMC card size)

Administration

- Static and Dynamic Host Control Protocol (DHCP factory default)
- File Transfer Protocol (FTP)

Dimensions and weight (approximate)

- Size (W x D x H)
 - 7.48in x 4.88in x 7.48in / 190mm x 124mm x 190mm - without desktop footstand (Display fully raised – 60 degrees)
 - 7.48in x 6.01in x 7.76in / 190mm x 156mm x 197mm - with desktop footstand (Display fully raised – 60 degrees)

- Weight (phone, desktop footstand, handset and handset cord)
 - 2.06 lbs / 0.94kg

Color

- Silver metallic finish

Connectivity/data rates

- Wired connection
 - Integrated 10/100 Base-T Fast Ethernet (auto-negotiation)
- Wireless connection
 - Integrated IEEE 802.11b/g Wi-Fi radio with Wired Equivalent Privacy (WEP), Wi-Fi Protected Access (WPA), Wi-Fi Protected Access - Pre-Shared Key (WPA-PSK) and Wi-Fi Protected Access 2 – Pre-Shared Key (WPA2-PSK) support

Power

- Universal AC power supply input: 100V-240V AC, 50-60Hz at 0.22A delivering 5V DC at 3A
- Country-specific power cord with IEC-620 connector

Note: Remote powering of the IP Phone 1535 via IEEE 802.3af Power over Ethernet (PoE) is not supported.

Protocol support

- Transport:
 - User Datagram Protocol (UDP) - RFC 768

- Transmission Control Protocol (TCP) - RFC 793
- Simple Traversal of UDP through NAT (STUN) - RFC 3489

• TCP/IP:

- Dynamic Host Control Protocol (DHCP) - RFC 2131/RFC 2132
- Domain Name System (DNS) - RFC 1034 / RFC 1035
- Hypertext Transfer Protocol (HTTP) - RFC 2616
- File Transfer Protocol (FTP) - RFC 959
- Trivial File Transfer Protocol (TFTP) - RFC 783

• Signaling:

- Session Initiation Protocol (SIP) - RFC 3261
- Session Description Protocol (SDP) - RFC 2327
- Dual-Tone Multifrequency (DTMF) Digits - Telephony Tones & Signals - RFC 2833

• Voice / Video:

- Real-time Transport Protocol (RTP) - RFC 1889
- Real-time Transport Control Protocol (RTCP) - RFC 1890
- RTP Payload Format for H.264 Video - RFC 3984

• E-mail:

- Simple Mail Transfer Protocol (SMTP) - RFC 821
- Post Office Protocol - Version 3 (POP3) - RFC 1939
- Internet Message Access Protocol (IMAP) - partial support

Audio and video quality of service

• Audio:

- G.711 u-law, G.711 a-law, G.723, G.729 and Adaptive Multi-Rate Narrow-Band (AMR-NB)

• Video:

- H.263 (RFC 2190) and H.264
- QCIF (Quarter Common Intermediate Format) video formats

File format support

• Image file formats

- JPG (Joint Photographic Experts Group) - JFIF:1.01
- PNG (Portable Network Graphics) - PNG version 1.2
- GIF (Graphics Interchange Format) GIF87a, GIF89 (Does not support animated gif)

• Audio file formats

- MIDI (Musical Instrument Digital Interface) - Standard MIDI Files 1.0

IP Phone 1535 Interface and Features



- WAV (Waveform audio format) - CCITT u-law format, 8000Hz, 16bit Sampling, 1998 Windows PCM format, 8000Hz, 16bit Sampling
- IMY (iMelody Ringtone Format) - iMelody version v1.0, v1.1, v1.2
- Video file formats
 - 3GP (Third Generation Partnership Project) movie file format
 - 3GPP (Third Generation Partnership Project) TS.26.140 version 6 format

Menu language support

- English (US)
- French (Canadian)
- Spanish (LA)
- Korean
- Portuguese
- German

Operating temperature

- +0°C to +40°C / +32°F to +104°F

Relative humidity

- 5% to 95% (non-condensing)

Storage temperature

- -20°C to +65°C / -4°F to +149°F

EMC

- United States: FCC CFR 47 Part 15 Class B
- Canada: ICES-003 Class B
- European Union:
 - EN 55022:1998 + A1 & A2 (Class B)
 - EN 55024:1998 + A1 & A2
 - EN 61000-3-2
 - EN 61000-3-3
- China CCC
- Brazil Anatel Requirements
- Mexico (COFETEL)

Safety

- United States: UL 60950-1 1st Edition
- Canada: CSA 60950-1-03
- European Union: EN 60950-1
- International: IEC 60950-1
- China CCC
- Mexico NOM Approvals

Wireless regulatory identification/compliance (for Wi-Fi radio)

- United States: FCC Part 15 Wireless Certification
 - FCC ID: AB6IP1535
 - FCC Registration No.: US:AB6IP16BIP1535

- Canada: IC RSS 210 Wireless Certification
 - Canada IC No.: IC:332E-IP1535
- European Union:
 - EN 300 328 V1.6.1
 - EN 301 489-1 V1.6.1
 - EN 301 489-17 V1.2.1
- China CCC
- Brazil Anatel Requirements
- Mexico (COFETEL)

US/Canada/EU Countries

- United States/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68 and Industry Canada CS-03 Part V
- Compliant at general availability to the Reduction of Hazardous Substances - RoHS (6 of 6) requirement as part of the European Union Environmental Directive (EUED)
- Complies with CE Marking Requirements; this device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC
- American Disabilities Act (ADA) compliant dialpad

Nortel is a recognized leader in delivering communications capabilities that make the promise of Business Made Simple a reality for our customers. Our next-generation technologies, for both service provider and enterprise networks, support multimedia and business-critical applications. Nortel's technologies are designed to help eliminate today's barriers to efficiency, speed and performance by simplifying networks and connecting people to the information they need, when they need it. Nortel does business in more than 150 countries around the world. For more information, visit Nortel on the Web at www.nortel.com. For the latest Nortel news, visit www.nortel.com/news.

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NN123291-092807

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