



NORTEL

Technical Specification

Nortel IP Phone 1120E

Intermediate-level IP Phone brings innovative features and flexibility to desktop communications to desktop communications

The award-winning Nortel IP Phone 1120E with Gigabit Ethernet unveils an exciting array of innovative communication features and capabilities with the intermediate-level desktop IP Phone. Ideally suited for office workers and administrative personnel, the four-line Nortel IP Phone 1120E supports standards-based Session Initiation Protocol (SIP), delivering choice to customers in deployment options with support on either Nortel or third-party Communication Servers. The IP Phone 1120E also

enables the presentation of converged voice and data applications, leveraging its integrated high-resolution graphical, eight-level grayscale display. Navigation of applications is very flexible, with support of standard USB mice and keyboards powered from the phone's integrated USB port. With robust and tightly linked communications features from Nortel Communication Servers, the Nortel IP Phone 1120E positions customers to meet both today's and tomorrow's communications needs.

Key features and benefits include:

- › Multi-line IP Phone supports four line/programmable feature keys, 14 fixed keys and four context-sensitive soft-label keys
- › High-resolution, backlit, graphical, eight-level grayscale, pixel-based display, combined with a flexible five-position adjustable footstand placement, optimizes viewing in varied lighting conditions
- › Advanced collaborative communications support with graphical presence notification and secure instant messaging (SIP firmware only)¹



Nortel IP Phone 1120E



¹ Supported on selected Nortel Communication servers. See specification details.

- › Four-way navigation cluster with “Enter” key maximizes user choice and flexibility in navigation
- › Integrated USB port powers standard USB mice and keyboards, providing input and navigation options for application interaction and simpler menu selection
- › Integrated 10/100/1000 Base-T Ethernet switch with LAN and PC ports reduces costs, enabling a single cable drop to support both the phone and a collocated PC
- › Supports Gigabit Ethernet, positioning the phone’s internal switch to accommodate growing multimedia-intensive, PC-based applications, thus aligning with investment made at the wiring closet
- › 802.3af standard-based PoE and local AC power via power adapter
- › Secured communications with standards-based signaling encryption, media encryption and user-based authentication for network access control
- › Supports Unicode expanded language and complex font presentation on the IP Phone display²
- › Supports Proactive Voice Quality Management (PVQM) for enhanced administration and diagnostics³
- › Lockable Tools Menu offers local access to configuration, diagnostic and user preference options

- › Supports converged (voice and data) applications via the Nortel Application Gateway 1000/2000, enriching users’ experience with advanced multimedia interaction
- › Supports both Nortel Communication Server protocol (UNISim) and RFC 3261 compliant Session Initiation Protocol (SIP) firmware for business telephony feature integration⁴
- › Added convenience and time savings with field upgradeable firmware using Trivial File Transfer Protocol (TFTP) or for sites requiring enhanced secure firmware upgrades: UNISim File Transfer Protocol (UFTP)⁵

Technical specifications

Platform support

Nortel Communication Protocol

- Communication Server 1000, 2000 and 2100
- Media Gateway 1000B Expansion Chassis
- Business Communications Manager 50/200/400
- Survivable Remote Gateway 50/200/400
- Multimedia Communication Server 5100/5200

Session Initiation Protocol (SIP)

- Nortel Multimedia Communication Server 5100
- Nortel Communication Server 1500 (firmware release 1.1 and later)
- Nortel Communication Server 2000 planned for SN09U and later — October 2007

- Nortel Communication Server 2100 (initial support with SE10 and later)
- Nortel Application Server 5200
- BroadSoft BroadWorks Release 14

Display

- High-resolution, graphical, eight-level grayscale, monochrome Film Super Twist Nematic (FSTN) Liquid Crystal Display, 240 x 80 pixel, fully bitmapped, backlit screen
- Backlit LCD with local contrast settings enhances viewing
- Configurable backlight timer extends the quality in display experience with 5, 10, 15, 20 minute, 1 and 2 hour settings; “Sleep never” setting for 24x7 environments
- Supports Unicode for expanded language and complex font presentation on phone display⁶

IP Phone footstand adjustments

- Desktop viewing adjustments: 32.5, 40, 47.5 and 55 degree angles
- Wall mount adjustment: minus 5 degrees

Fixed and soft-label keys

- Fourteen fixed keys (Handsfree, Headset, Volume Up and Down, Mute, Hold, Goodbye, Directory, Inbox/Message, Outbox/Shift, Quit, Copy, Services and Expand)
- Four context-sensitive soft-label keys for easy-to-use navigation⁷

Navigation cluster

- Four-way navigation cluster (left, right, up, down arrows) plus Enter key⁸

USB port

- Single integrated USB port for standard USB mice, keyboards, keyboard emulation devices and powered hubs

Expansion Module

- Supports Expansion Module for IP Phone 1100 Series (18-button)⁹

Call Recording

- Supports transmission of duplicate media streams with Nortel Contact Recording and Quality Monitoring (CRQM)¹⁰

User Selectable Ringtones

Headset support

- Supports third-party wired headsets

² Nortel Communication Server protocol only. Nortel Communication Server/minimum release dependent. Consult server documentation for further details.

³ Nortel Communication Server protocol only.

⁴ SIP Firmware is available via factory installation or via subsequent firmware migration.

⁵ UNISim FTP (UFTP) support is Nortel Communication Server dependent.

⁶ Nortel Communication Server/minimum release dependent. Consult Nortel server documentation for further details.

⁷ Context-sensitive softkeys are Nortel Communication Server dependent. Consult server documentation of choice for details.

⁸ Enter key can be used to facilitate entry or data selection when engaged in converged applications leveraging the Nortel Application Gateway 1000/2000, with SIP Firmware and with the IP Phone 1120E Secure Tools Menu.

⁹ Supported on Nortel Communication Server protocol only.

¹⁰ Supported on Nortel Communication Server protocol only.

¹¹ Requires deployment of Secure Multimedia Controller 2450 (SMC 2450) with Nortel Communication Server 1000 and Multimedia Communication Server 5100.

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Languages supported

- Languages are platform and protocol dependent. Consult platform documentation of choice for further details.

Administration and Security

- Static, Partial and Full Dynamic Host Control Protocol (Full DHCP factory default)
- 802.1x and Extensible Authentication Protocol (EAP) for device authentication and network access control
- Standards-based signaling encryption with Advanced Encryption Standard (AES) 128-bit¹¹
- 802.1ab Link Layer Discovery Protocol for network auto-discovery and inventory management
- Media path encryption with RFC 3711 compliant Secure Real-time Protocol (sRTP) pre-shared key and public key infrastructure¹²

Dimensions and Weight (approximate)

- Size (W x D x H)
 - 7.9 in x 7.4 in x 8.1 in/200mm x 188mm x 207mm — 55 degree footstand desktop configuration
 - 7.9 in x 7.5 in x 6.4 in/200mm x 191mm x 163mm — 32.5 degree footstand desktop configuration
 - 7.9 in x 8.6 in x 4.0 in/200mm x 220mm x 101mm — minus 5 degree footstand desktop configuration
- Weight (phone, handset, and handset cord)
 - 2.29 lbs/1.04 kg

Color

- Graphite with silver metallic bezel finish

Connectivity/data rates

- Integrated 10/100/1000 Base-T Auto-Sensing Ethernet switch for shared PC access (one LAN port and one PC port)

- Manually configurable for 10 and 100 Mbps speeds when used with Ethernet Switches which do not support auto-sensing
- Minimum Category 5e cabling required for Gigabit Ethernet deployment (Category 5e cable included as standard)

Power

- Supports IEEE 802.3af Power over Ethernet, Nortel pre-standard
- Power dissipation: IEEE Power Class 3. Gigabit Ethernet — 8 watts idle; 10.5 watts full utilization (not including cable loss). 100 Mbps — 6 watts idle; 8 watts full utilization (not including cable loss)
- Optionally available universal local AC power adapter (“brick style”) supported (90-260 VAC, 50/60Hz power adapter delivering 48V DC @ 520mA max)
- AC power cable (country specific) — orderable separately

Protocols

- E.164 dialing
- SIP Protocols:
 - **RFC2327** — SDP: Session Description Protocol

- **RFC2617** — HTTP Authentication: Basic and Digest Access Authentication
- **RFC2976** — The SIP INFO Method
- **RFC3087** — Control of Service Context Using SIP Request-URI
- **RFC3108** — Conventions for the use of Session Description Protocol: ATM Bearer Connections
- **RFC3204** — MIME Media Types for ISUP and QSIG Objects
- **RFC3261** — Session Initiation Protocol (SIP)
- **RFC3262** — Reliability of Provisional Responses in the Session Initiation Protocol
- **RFC3263** — Session Initiation Protocol (SIP): Locating SIP Servers
- **RFC3264** — An Offer/Answer Model with Session Initiation Protocol (SIP)
- **RFC3265** — Session Initiation Protocol: Specific Event Notification
- **RFC3311** — Session Initiation Protocol (SIP) UPDATE Method
- **RFC3313** — Private Session Initiation Protocol (SIP) Extensions for Media Authorization

Special features (SIP Firmware only)

Presence

- Supports Presence Notification on phone display
- User Presence Selection

Instant Messaging

- Secure Instant Messaging from phone display
- Message Waiting indication of Instant Messages via blue LED illumination
- On/Off automatic pop-up notification of Instant Messages
- Instant Message log access via Expand Key
- Icons for read, unread, replied to Instant Messages
- Special character support for meaningful text entry

Other

- Graphical status for calls (calls missed, number for each user)
- Incoming and Outgoing Privacy Settings
- Selectable ringtones (up to five) via .wav file storable on set (administrator provisioned)
- Localized language support (up to five storable on deskset at one time)

¹² Available only on selected Nortel Communication Servers with Nortel Communication Server protocol. Consult Nortel Communication Server documentation for support details.

- **RFC3323** — A Privacy Mechanism for the Session Initiation Protocol
- **RFC3325** — Private Extensions to the Session Initiation Protocol for Asserted Identity within Trusted Networks
- **3329** — Security Mechanism Agreement for the Session Initiation Protocol
- **RFC3361** — Dynamic Configuration Host Protocol (DHCP-for IPV4) Option for Session Initiation Protocol Servers
- **RFC3420** — Internet Media Type Message/sipfrag
- **RFC3428** — Session Initiation Protocol Extension for Instant Messaging
- **RFC3489** — Simple Traversal of User Datagram Protocol (UDP) Through Network Address Translators
- **RFC3515** — The Session Initiation Protocol Refer Method
- **RFC3550** — RTP: A Transport Protocol for Real-Time Applications
- **RFC3551** — RTP Profile for Audio and Video Conferences with Minimal Control
- **RFC3556** — Session Description Protocol (SIP) Bandwidth Modifiers for RTP Control Protocol (RTCP) Bandwidth

- **RFC3605** — Real-Time Control Protocol (RTCP) attribute in Session Description Protocol (SDP)

Audio Quality of Service

- G.711 a-law, G.711 μ -law, G.729a and Annex B
- 802.1p/Q, DiffServ and VLAN tagging of telephony LAN 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° 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 Class B
- European community:
 - EN55022:1998: A1+A2 (Class B)
 - EN 55024:1998: A1 + A2
 - EN 61000-3-2
 - EN 61000-3-3

- Japan – VCCI
- Korea MIC
- China CCC

Safety

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

US/Canada/Australia/EU Countries

- US/Canada: Hearing Aid Compatibility (HAC) as per FCC Part 68 and Industry Canada CS-03 Part V
- Australia: AS/ACIF 004
- Complies with CE Marking Requirements: This device complies with the essential requirements and other relevant provisions of Directive 1999/5/EC
- Complies with Reduction of Hazardous Substances (RoHS) – (6 of 6) as part of European Union Environmental Directive
- 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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