

Cisco IP Phone 8851NR



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The Cisco® IP Phone 8851NR is a business-class collaboration endpoint that combines high-fidelity, reliable, secure, and scalable voice over IP communications without Bluetooth radio.



With the Cisco IP Phone 8851NR, you can increase personal productivity through an engaging user experience that is both powerful and easy to use. The IP Phone 8851NR combines an attractive, new ergonomic design with wideband audio for crystal-clear voice communications, always-on reliability, encrypted voice communications to enhance security, and access to a comprehensive suite of unified communication features from Cisco on-premises and hosted infrastructure platforms. The 8851NR (non-radio) model is for customers who still wish to have HD audio with flexibility to add Key Expansion Module (KEM) support but without integrated Bluetooth radio.

The IP Phone 8851NR also comes standard with a USB port so you can charge your smartphone when at your desk and stay connected when away from your desk.

The IP Phone 8851NR offers five programmable line keys. You can configure keys to support either multiple directory numbers or calling features such as speed dial. You can also boost productivity by handling multiple calls for each directory number using the multicall-per-line feature. Fixed-function keys give you one-touch access to applications, messaging, and directory, as well as often-used calling features such as hold/resume, transfer, and conference. A five-way navigation cluster helps you transition through menus more easily. Backlit acoustic keys provide flexibility for audio path selection and switching.

Additionally, Cisco has adopted circular design principles in our products by pioneering the use of post-consumer recycled plastic. The 8851NR is one of the models that now reduces the use of natural resources while closing the loop with its own electronic waste. Learn more about what this means at [Cisco's Circular Economy website](#).

Other key features of the IP Phone 8851NR:

- It offers a 5-inch, high-resolution (800 x 480), widescreen VGA backlit color display. Localized language support, including right-to-left on-screen text, meets the needs of global users.
- The phone supports a built-in Gigabit Ethernet switch for your PC connection.
- Support for Cisco EnergyWise™ technology makes the IP Phone 8851NR more energy-efficient and ecofriendly; the phone is qualified by the Energy Star organization.
- An optional wall-mount kit is orderable as a spare part for customers seeking this capability.
- Up to two optional IP Phone 8800 Key Expansion Modules with up to 56 additional line/feature keys are supported.

Features and benefits

Table 1 lists features and benefits of the IP Phone 8851NR.

Table 1. Features and benefits

Features	Benefits
Hardware features	
Ergonomic design	<ul style="list-style-type: none">• The phone offers an easy-to-use interface and provides a traditional telephony-like user experience.
Graphical display	<ul style="list-style-type: none">• The 800 × 480, 24-bit color, 5-inch WVGA display provides scrollable access to calling features and text-based XML applications.
Handset	<ul style="list-style-type: none">• The handset is a standard wideband-capable audio handset (connects through an RJ-9 port).• The standard coiled cord has a custom end for concealed cable routing beneath the phone (cord length is approximately 21 inches [55 cm] coiled and up to 72 inches (183 cm) extended).• The handset is Hearing Aid-Compatible (HAC) and meets Federal Communications Commission (FCC) loudness requirements for the Americans with Disabilities Act (ADA). You can achieve Section 508 loudness requirements by using industry-standard inline handset amplifiers such as Walker Equipment W-10 or CE-100 amplifiers. The dial pad is also ADA-compliant.
Speaker phone	<ul style="list-style-type: none">• A full-duplex speakerphone gives you flexibility in placing and receiving calls hands free. For added security, the audible Dual Tone Multifrequency (DTMF) tones are masked when the speakerphone mode is used.
Analog headset	<ul style="list-style-type: none">• The analog headset jack is a standard wideband-capable RJ-9 audio port.
AUX port	<ul style="list-style-type: none">• You can use an auxiliary port to support electronic hookswitch control with a third-party headset connected to it.
USB	<ul style="list-style-type: none">• A side USB port enhances the usability of call handling by enabling wired or wireless headsets, as well as provides up to 500-mA power output at 5V or 2.5W for smartphone charging.

Features	Benefits
Ethernet switch	<ul style="list-style-type: none"> • An internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network (IEEE 802.3i/802.3u/802.3ab) through an RJ-45 interface with single LAN connectivity for both the phone and a co-located PC. • The system administrator can designate separate VLANs (IEEE 802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic.
Keys	<ul style="list-style-type: none"> • The phone has the following keys: <ul style="list-style-type: none"> ◦ Line keys ◦ Soft keys ◦ Back and release keys ◦ Four-way navigation and select keys ◦ Hold/Resume, Transfer, and Conference keys ◦ Messaging, Application, and Directory keys ◦ Standard keypad ◦ Volume-control toggle key ◦ Speakerphone, headset, and mute keys
Backlit indicator	<ul style="list-style-type: none"> • The phone supports backlit indicators for the audio path keys (handset, headset, and speakerphone), select key, line keys, and message waiting.
Replaceable bezel	<ul style="list-style-type: none"> • The phone includes a black bezel; an optional silver bezel is also orderable separately.
Dual-position foot stand	<ul style="list-style-type: none"> • The display is easy-to-view and the buttons and keys are easy-to-use. The two-position foot stand supports viewing angles of 35 and 50 degrees; you can remove the foot stand for wall mounting, with mounting holes located on the base of the phone.
Wall-mountable	<ul style="list-style-type: none"> • You can install the phone on a wall using an optional wall-mount kit.
Key expansion module (KEM)	<ul style="list-style-type: none"> • The phone supports up to two KEMs to expand from 5 or 10 line buttons to 61 or 66 line buttons. You have the convenience of many speed dials or programmable features, or the necessity of following the activity of many lines.
Physical security	<ul style="list-style-type: none"> • The phone is compatible with the Kensington Security Slot (K-Slot) antitheft system.
Power features	
IEEE Power over Ethernet (PoE)	<ul style="list-style-type: none"> • The phone offers IEEE Power over Ethernet class 3 for hardware versions prior to V08 and class 4 for hardware versions V08 and above. In the case of PoE class 3, one KEM can be attached and powered through PoE together with the host 8851 phone. In the PoE class 4 case, two KEMs can be attached and powered through PoE together with the host 8851 phone. • The phone is compatible with both IEEE 802.3af and 802.3at switch blades and supports both Cisco Discovery Protocol and Link Layer Discovery Protocol - Power over Ethernet (LLDP-PoE).
Power Input Rating	<ul style="list-style-type: none"> • 0.917A, 48V DC
Cisco IP Phone Power Cube 4	<ul style="list-style-type: none"> • This optional power cube is used as an AC-to-DC (48V) power supply for non-PoE deployments. Use of the power cube 4 also requires the use of one of the corresponding AC country cords.

Features	Benefits
Call-control support	
Cisco Unified Communications Manager	<ul style="list-style-type: none"> • 12.5 and later
Cisco Unified Communications Manager Express (Unified CME)	<ul style="list-style-type: none"> • 10.0 and later through fast track
Cisco Business Edition 6000 (BE 6000)	<ul style="list-style-type: none"> • 8.6.2 • 9.1.2 • 10.5.2 • 11.0 and later
Cisco Hosted Collaboration Solution (HCS)	<ul style="list-style-type: none"> • 8.6.2 and later (using supported UCM versions)

Licensing

The Cisco IP Phone 8851NR requires an Enhanced User Connect License (UCL) in order to connect to Cisco Unified Communications Manager.

Product specifications

Table 2 lists the features and specifications of the Cisco IP Phone 8851NR.

Table 2. Features and specifications

Features	Specifications
Audio	<ul style="list-style-type: none"> • Automatic Gain Control • Comfort Noise Generation • Silence Suppression/Voice Activity Detection • Acoustic Echo Cancellation (AEC) • Dynamic Noise Reduction
Audio codec support	<ul style="list-style-type: none"> • G.711 (A-law and μ-law), G.722, G.722.2, G.729ab, iLBC, iSAC, OPUS
Key call features support	<ul style="list-style-type: none"> • + Dialing • Abbreviated dialing • Adjustable ring tones and volume levels • Adjustable display brightness • Agent greeting • Auto-answer • Auto-detection of headset

Features	Specifications
	<ul style="list-style-type: none"> • cBarge • Busy Lamp Field (BLF) • BLF pickup • BLF speed dial • Callback • Call forward • Call forward notification • Call filter • Call history lists • Call park • Call pickup • Call timer • Call waiting • Call chaperone • Caller ID • Corporate directory • Conference, including traditional Join feature • Cross Cluster Extension Mobility (EMCC) • Direct transfer • Extension mobility • Fast-dial service • Forced access codes and client matter codes • Group call pickup • Hold • Intercom • Immediate divert • Malicious-caller ID • Message Waiting Indicator (MWI) • Meet-me conference • Mobility • Music on Hold (MoH) • Mute • Network profiles (automatic) • On- and off-network distinctive ringing • Personal directory • Pickup • Predialing before sending • Privacy • Private Line Automated Ringdown (PLAR)

Features	Specifications
	<ul style="list-style-type: none"> • Redial • Ring tone per line appearance • Service Uniform Resource Locator (URL) • Shared line • Silent monitoring and recording • Speed dial • Time and date display • Transfer • Uniform Resource Identifier (URI) dialing • Visual voicemail • Voicemail • Whisper coaching
Electronic hookswitch	<ul style="list-style-type: none"> • You can control the hookswitch electronically with a third-party headset connected to either the USB port or auxiliary port, or directly paired with the phone through bluetooth.
Quality-of-Service (QoS) options	<ul style="list-style-type: none"> • The phone supports Cisco Discovery Protocol and 802.1Q/p standards, and can be configured with an 801.1Q VLAN header containing the VLAN ID overrides configured by the Admin VLAN ID.
Network features	<ul style="list-style-type: none"> • Session Initiation Protocol (SIP) for signaling • Session Description Protocol (SDP) • IPv4 and IPv6 • User Datagram Protocol (UDP) (used only for Real-Time Transport Protocol [RTP] streams) • Dynamic Host Configuration Protocol (DHCP) client or static configuration • Gratuitous Address Resolution Protocol (GARP) • Domain Name System (DNS) • Trivial File Transfer Protocol (TFTP) • Secure Hypertext Transfer Protocol (HTTPS) • VLAN • Real-Time Transport Protocol (RTP) • Real-Time Control Protocol (RTCP) • Cisco Peer-to-Peer Distribution Protocol (PPDP) • Cisco Discovery Protocol • LLDP (including LLDP-MED) • Switch speed auto-negotiation
Security features	<ul style="list-style-type: none"> • Secure boot • Secure credential storage • Device authentication • Configuration file authentication and encryption • Image authentication • Random bit generation

Features	Specifications
	<ul style="list-style-type: none"> • Hardware cryptographic acceleration • Certificate Authority Proxy Function (CAPF) • Manufacturer-Installed Certificates (MIC) • Locally Significant Certificates (LSC) • Ethernet 802.1x supplicant options: Extensible Authentication Protocol-Flexible Authentication via Secure Tunneling (EAP-FAST) and Extensible Authentication Protocol-Transport Layer Security (EAP-TLS) • Signaling authentication and encryption using TLS • Media authentication and encryption using SRTP • HTTPS for client and server • Secure Shell (SSH) Protocol server • Secure Sockets Layer (SSL)-based VPN client
Physical dimensions (H x W x D)	• 9.02 x 10.13 x 1.57 in. (229.1 x 257.34 x 40 mm) (excluding foot stand)
Weight (with handset)	• 2.62 lb (1.19 kg)
Phone-casing composition	• Polycarbonate Acrylonitrile Butadiene Styrene (ABS) textured plastic; Cosmetic class A
Operational temperature	• 32 to 104°F (0 to 40°C)
Nonoperational temperature shock	• 14 to 140°F (-10 to 60°C)
Humidity	<ul style="list-style-type: none"> • Operating 10 to 90%, noncondensing • Non-operating 10 to 95%, noncondensing
Language support	<ul style="list-style-type: none"> • Arabic (Arabic Area) • Bulgarian (Bulgaria) • Catalan (Spain) • Chinese (China) • Chinese (Hong Kong) • Chinese (Taiwan) • Croatian (Croatia) • Czech (Czech Republic) • Danish (Denmark) • Dutch (Netherlands) • English (United Kingdom) • Estonian (Estonia) • French (France) • French (Canada) • Finnish (Finland) • German (Germany)

Features	Specifications
	<ul style="list-style-type: none"> • Greek (Greece) • Hebrew (Israel) • Hungarian (Hungary) • Italian (Italy) • Japanese (Japan) • Latvian (Latvia) • Lithuanian (Lithuania) • Korean (Korea Republic) • Norwegian (Norway) • Polish (Poland) • Portuguese (Portugal) • Portuguese (Brazil) • Romanian (Romania) • Russian (Russian Federation) • Spanish (Columbia) • Spanish (Spain) • Slovak (Slovakia) • Swedish (Sweden) • Serbian (Republic of Serbia) • Serbian (Republic of Montenegro) • Slovenian (Slovenia) • Thai (Thailand) • Turkish (Turkey)
Certification and compliance	<ul style="list-style-type: none"> • Regulatory compliance <ul style="list-style-type: none"> ◦ CE Markings per directives 2004/108/EC and 2006/95/EC • Safety <ul style="list-style-type: none"> ◦ UL 60950 Second Edition ◦ CAN/CSA-C22.2 No. 60950 Second Edition ◦ EN 60950 Second Edition (including A11 and A12) ◦ IEC 60950 Second Edition (including A11 and A12) ◦ AS/NZS 60950 ◦ GB4943 • EMC - Emissions <ul style="list-style-type: none"> ◦ 47CFR Part 15 (CFR 47) Class B ◦ AS/NZS CISPR22 Class B ◦ CISPR22: 2005 w/Amendment 1: 2005 Class B ◦ EN55022: 2006 w/Amendment 1: 2007 Class B ◦ ICES003 Class B ◦ VCCI Class B

Features	Specifications
	<ul style="list-style-type: none"> ◦ EN61000-3-2 ◦ EN61000-3-3 ◦ KN22 Class B • EMC - Immunity <ul style="list-style-type: none"> ◦ EN55024 ◦ CISPR24 ◦ EN60601-1-2 ◦ KN24 ◦ Armadillo Light • Telecom <ul style="list-style-type: none"> ◦ FCC Part 68 HAC ◦ CS-03-HAC ◦ AS/ACIF S004 ◦ AS/ACIF S040 ◦ NZ PTC 220 ◦ Industry standards: TIA 810 and TIA 920 ◦ Industry standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at ◦ Korea (RRA Public Notification 2010-36, Nov 01, 2010) ◦ Korea (RRA Announce 2011-2, Feb 28, 2011) • Radio <ul style="list-style-type: none"> ◦ FCC Part 2.1093 (BT RF Exposure TR) ◦ RSS-102 (BT RF Exposure TR) ◦ RSS-210 ◦ EN 300.328 ◦ EN50385 (BT RF Exposure TR) ◦ EN 301-489-1 ◦ EN 301-489-17 ◦ NCC LP0002 ◦ Korea (RRL No. 2006-128, RRL No. 2006-129) ◦ Japan Bluetooth GFSK/EDR

Ordering information

Table 3 provides ordering information for the phone and its accessories.

Table 3. Ordering information

Product number	Description
CP-8851NR-K9=	• Cisco IP Phone 8851NR, Charcoal
CP-DX-HS=	• Spare Handset for Cisco IP Phone 7800, 8800, DX600 Series, Charcoal
CP-DX-CORD=	• Spare Handset Cord for Cisco IP Phone 8800, DX600 Series, Charcoal
CP-8800-A-KEM=	• Key Expansion Module for Cisco IP Phone 8800 Series
CP-8800-WMK=	• Spare Wallmount Kit for Cisco IP Phone 8800 Series
CP-8800-A-KEM-WMK=	• Spare Wallmount Kit for Cisco IP Phone 8800 Series with single KEM
CP-8800-FS=	• Spare Foot stand for Cisco IP Phone 8800 Series
CP-8800-B-BEZEL=	• Spare Black Bezel for Cisco IP Phone 8800 Series
CP-8800-S-BEZEL=	• Spare Silver Bezel for Cisco IP Phone 8800 Series
CP-PWR-CUBE-4=	• Cisco Power Cube 4
CP-PWR-CUBE-4-S=	• Cisco Power Cube 4 with power switch
CP-PWR-CORD-AP=	• Power Cord Asia Pacific
CP-PWR-CORD-AR=	• Power Cord Argentina
CP-PWR-CORD-AU=	• Power Cord Australia
CP-PWR-CORD-BZ=	• Power cord for Brazil
CP-PWR-CORD-CE=	• Power Cord European
CP-PWR-CORD-CN=	• Power Cord China
CP-PWR-CORD-JP=	• Power Cord Japan
CP-PWR-CORD-NA=	• Power Cord North America
CP-PWR-CORD-SW=	• Power Cord Switzerland
CP-PWR-CORD-UK=	• Power Cord United Kingdom

Warranty

Cisco IP Phone 8851NR phones are covered by a Cisco standard 1-year replacement warranty.

Product sustainability

Refer to the [CSR/Social Responsibility section](#) for more information on Cisco's environmental sustainability policies and initiatives.

Sustainability topic		Reference
General	Information on product material content laws and regulations	Materials
	Information on electronic waste laws and regulations, including our products, batteries, and packaging	WEEE compliance
	Sustainability inquiries	Contact: csr_inquiries@cisco.com
	Certification and compliance	Table 2. Features and specifications of Cisco IP Phone 8851NR
	Information on product takeback and resuse program	Cisco Takeback and Reuse Program
Power	Cisco EnergyWise	Key features
	Energy Star	Key features Energy Star website
	Power features	Table 1. Features and benefits
Material	Product packaging weight and materials	Contact: environment@cisco.com
	Physical dimensions and weight	Table 2. Features and specifications of Cisco IP Phone 8851NR
	Post-consumer recycled plastic	Circular design principles

CSR/Social Responsibility

Information about Cisco's Environmental, Social, and Governance (ESG) policies and initiatives can be found in Cisco's [Corporate Social Responsibility](#) (CSR) Report.

Cisco Unified Communications Services

Cisco and our certified partners can help you set up a secure, dependable Cisco Unified Communications Solution, meeting aggressive deployment schedules and accelerating business advantage. Cisco's portfolio of services is based on proven methodologies for unifying voice, video, data, and mobile applications on fixed and mobile networks.

Our unique lifecycle approach to services defines what's needed at each phase of the solution lifecycle. Customized planning and design services help you create a solution that meets your business needs. Award-winning technical support helps you boost your operational efficiency. Remote management services simplify day-to-day operations. And optimization services let you modify and improve your network solution when business needs change. Learn more about [Cisco Unified Communications Services](#).

Cisco Capital

Flexible payment solutions to help you achieve your objectives

Cisco Capital® financing makes it easier to get the right technology to achieve your objectives, enable business transformation, and help you stay competitive. We can help you reduce total cost of ownership, conserve capital, and accelerate growth. In more than 100 countries, our flexible payment solutions can help you acquire hardware, software, services, and complementary third-party equipment in easy, predictable payments. [Learn more](#).

More information

For additional details about the Cisco IP Phone 8800 Series, go to <https://www.cisco.com/go/ipphones/8800>.

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