Cisco Unified IP Phone 9971

Cisco® Unified Communications Solutions enable collaboration so that organizations can quickly adapt to market changes while increasing productivity, improving competitive advantage through speed and innovation, and delivering a rich-media experience across any workspace, securely and with optimal quality

Figure 1. Cisco Unified IP Phone 9971

Product Overview

The Cisco® Unified IP Phone 9971 is an advanced collaborative media endpoint that provides voice, video, applications, and accessories. Highlights include interactive multiparty video, high-resolution color touchscreen display, High-definition voice (HD voice), desktop Wi-Fi connectivity, Gigabit Ethernet and a new ergonomic design and user interface designed for simplicity and high usability. Accessories, sold separately, include the Cisco Unified Video Camera and the Cisco Unified IP Color Key Expansion Module.

Features and Benefits

Key attributes of the Cisco Unified IP Phone 9971 include:

- Newly developed ergonomic design and user experience designed specifically for use with the high-resolution, VGA, graphical, backlit, anti-glare, color touchscreen display
- H.264 video support for two-way standard-definition calling with USB support for the Cisco Unified Video Camera (Note: Multiparty video communications supported with Multipoint Control Unit)
- Choice of 802.11 a/b/g desktop Wi-Fi connectivity or Gigabit Ethernet network connectivity and switch port available for a downstream PC
- Embedded Bluetooth radio and 2 USB ports for added freedom and convenience, with support for both wireless and wired headsets
- Firmware support for XML and MIDlet-enabled applications

Table 1 lists the features and benefits of the Cisco Unified IP Phone 9971.

Table 1. Features and Benefits

Feature	Benefits
Hardware	
Industrial design	The phone offers a highly usable and intuitive arrangement of lines, features, and calls. Transfer, Conference, and Hold appear on hard keys to reduce the number of presented softkeys to a maximum of 4 per call state.
Customization	You can order this model in arctic white or charcoal gray. Handsets are available internationally as slimline (140g) or standard (170g), and you can mix and match them in your work environment to enable a feeling of customization and ownership among your team.
Display	The phone delivers VGA presentation for calling, video calling, and applications, in addition to a 5.6-inch (14-cm) graphical TFT color touchscreen display, 24-bit color depth, 640 x 480 effective pixel resolution, and backlighting. The display also supports localization, requiring double-byte Unicode encoding for fonts.
Ethernet	An internal 2-port Cisco Ethernet switch allows for a direct connection to a 10/100/1000BASE-T Ethernet network 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 (802.1Q) for the PC and phone, providing improved security and reliability of voice and data traffic.
Desktop Wi-Fi Ethernet	As an alternative to wired Ethernet, this model supports an onboard Wi-Fi radio and antenna that enables connectivity to Wi-Fi access for greater return on investment (ROI) with a voice-enabled Cisco Unified Wireless Network. Complete Wi-Fi specifications are included in Table 5.
Bluetooth	Mobility is possible for headset users within 10m/30 feet of their desktop, so you can go to the printer, a colleague's desk, or nearby private location while on a call.
USB	Two USB ports increase the usability of call handling and applications by enabling accessories such as the Cisco Unified Video Camera, and USB wired headsets
External audio ports	General-purpose audio-in and audio-out ports enable a relaxed speakerphone experience over external speakers and the microphone.
Six lines expanding to 114 with 3 key expansion modules	The phone offers many speed dials and programmable features, so you can follow the activity of many lines. Up to 200 calls per device are supported.
Buttons	• Six feature buttons with state-indicating LEDs • Six call-session buttons with state-indicating LEDs • Applications, Directories, and Voicemail • Conference, Transfer, and Hold • Volume Up or Down • Back-lit Mute, speakerphone, and headset [[stet caps if these are actual button names]] • Back, End Call, and 5-way navigation pad [[stet caps if this is actual button name]]
Industrial design	The phone offers a highly usable and intuitive arrangement of lines, features, and calls. Transfer, Conference, and Hold appear on hard keys to reduce the number of presented softkeys to a maximum of 4 per call state.
Accessories	
Cisco Unified IP Color Key Expansion Module	Available separately, the IP Color Key Expansion Module easy expansion and advanced use of lines, speed dials, and features.
Cisco Unified Video Camera	Available separately, the camera enables two-way video calling between phones or to a media conference unit.
Headset support	Off-the-shelf Bluetooth and USB headsets are supported. You can use your own Bluetooth headset that you use for your cell phone or smartphone. HD voice analog headset support is also provided through a dedicated RJ-9 headset port on the back of the phone.
Firmware	
New user experience	Advanced organization of lines, speed dials and programmable features separate from call appearances. Great for those who make few calls per day, and even for those who handle dozens of calls per hour.
Session Initiation Protocol (SIP) signaling	SIP interoperation with the call-control and partner applications enables a rich unified communications experience.
Application support	XML and MIDlet-enabled applications are provided by Cisco application development partners or customers' own development staff.

Cisco Unified Communications Manager Support

- Cisco Unified Communications Manager Version 7.1(3) or later

Licensing

Phone licensing is dependent on the call-control platform and its policies. For the Cisco Unified Communications Manager, the Cisco Unified IP Phone 9971 requires 4 Device License Units (DLUs). There are no special license-plus-phone bundles for tier 2 distributors. The phone is not supported on third-party call-control systems.

Product Specifications

Table 2 lists the specifications, Table 3 the calling features, Table 4 the Wi-Fi features and specifications, and Table 5 the video features and specifications of the Cisco Unified IP Phone 9971.

Table 2. Product Specifications

Feature	Specifications
Protocols	SIP for signaling H.264 for video
Connectivity	10/100/1000 wired Ethernet network port plus switched PC port 802.11a/b/g Wi-Fi
Options	Arctic white or charcoal gray color Slimline (140g) or standard (170g) handset
Language support	Arabic, Bulgarian, Catalan, Chinese (People's Republic of China, Hong Kong, and Taiwan), Croatian, Czech, Danish, Dutch, English—plus localized prompts for the United Kingdom, Estonian, French, Finnish, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Latvian, Lithuanian, Norwegian, Polish, Portuguese (Portugal and Brazil), Romanian, Russian, Spanish (Spain), Slovak, Swedish, Serbian (Republic of Serbia and Republic of Montenegro), Slovenian, Thai, and Turkish
Physical dimensions (H x W x D)	9.2 x 10.33 x 1.56 in. (23.4 x 26.25 x 3.97 cm) in slab mode with the foot stand removed
Power	IEEE Power over Ethernet 802.3af and 802.3at supported, class 4
Operating temperature	23 to 131°F (–5 to 55°C)
Nonoperating temperature shock	–13 to 158°F (–25 to 70°C)
Temperature: Altitude (operating)	140°F (40°C) ambient condition to 9843 ft (3000m)
Temperature: Altitude (nonoperating)	Ambient condition to 15,000 ft (4572m)
Relative humidity (nonoperating)	90% ± 5%
Nonoperating hot temperature (storage)	158°F (70°C) ± 2°C
Nonoperating cold temperature (storage)	–40°F (–40°C) ± 2°C
Quantity shipped per palate	320 units

Table 3. Hardware and Carton Weights

SKU	Description	Weight: Hardware lb (kg)	Weight: Single Carton lb (kg)	Weight: Master Pack of 8 Cartons lb (kg)
CP-9971-C-K9=	Cisco Unified IP Phone 9971, Charcoal, Standard Handset	3.48(1.577)	4.55(2.065)	38.00(17.235)
CP-9971-CL-K9=	Cisco Unified IP Phone 9971, Charcoal, Slimline Handset	3.41(1.546)	4.36(1.979)	36.62(16.610)
CP-9971-W-K9=	Cisco Unified IP Phone 9971, Arctic White, Standard Handset	3.66(1.660)	4.62(2.094)	38.65(17.530)
CP-9971-WL-K9=	Cisco Unified IP Phone 9971, Arctic White, Slimline Handset	3.59(1.629)	4.56(2.067)	38.17(17.315)
CP-89/9900-HS-C=	Spare Handset for 8900 or 9900 Series, Charcoal, Standard	0.39(0.177)		
CP-89/9900-HS-CL=	Spare Handset for 8900 or 9900 Series, Charcoal, Slimline	0.32(0.146)		
CP-89/9900-HS-W=	Spare Handset for 8900 or 9900 Series, Arctic White, Standard	0.41(0.187)		
CP-89/9900-HS-WL=	Spare Handset for 8900 or 9900 Series, Arctic White, Slimline	0.34(0.156)		

Table 4. Calling Features

Features	Description
Calling feature support	• Abbreviated dialing • Adjustable ringing and volume levels • Adjustable display brightness • Application launch pad • Auto-answer • Auto-detection of headset • Barge in • Callback • Call forward • Call history lists • Call park • Call pickup • Call timer • Call waiting • Caller ID • Corporate directory • Conference • Direct transfer • Extension mobility service • Fast-dial service • Group call pickup • Hold • Intercom • Immediate divert • Join • Last-number redial • Malicious-caller ID • Message-waiting indicator • Meet-me conference • Music on hold • Mute • Network profiles (automatic) • On- and off-network distinctive ringing • OPickUp • Personal directory • Predialing before sending • Privacy • Redial • Ring tone per line appearance • Service URL • Shared line • Time and date display • Transfer • Voicemail (single button access)
Audio codec support	G.711a, G.711u, G.729a, G.729ab, G.722, and Internet Low Bitrate (iLBC) audio compression codecs
Configuration options	• Dynamic Host Configuration Protocol (DHCP) client or static configuration • Support for online firmware upgrades using Trivial File Transfer Protocol (TFTP) • Domain Name System (DNS)
Network features	• Cisco Discovery Protocol • Transparent secure roaming • Provisioning of network parameters through DHCP

Security features	• Certificates • Image authentication • Device authentication • File authentication • Signaling authentication • Media encryption using Secure Real-Time Transfer Protocol (SRTP) • Signaling encryption using Transport Layer Security (TLS) Protocol • Certificate authority proxy function (CAPF) • Secure profiles • Encrypted configuration files
Provisioning and manufacturing	• Web server for configuration and statistics • Quality-of-service (QoS) reporting: Jitter, delay, dropped packets, and latency on a per-call basis • Real-Time Control Protocol (RTCP) support and monitoring • Syslog

Table 5. Wi-Fi Features and Specifications

Feature	Specifications		
Protocol	• IEEE 802.11a • IEEE 802.11b • IEEE 802.11g		
Frequency band and operating channels	Uses IEEE 802.11d to identify band ranges and channels		
Support mode	• IEEE 802.11a • IEEE 802.11b/g • Autosensing; IEEE 802.11b/g preferred over IEEE 802.11a • Received signal strength indicator (RSSI) (default)		
Data rates	IEEE 802.11a: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps	IEEE 802.11b: 1, 2, 5.5, and 11 Mbps	IEEE 802.11g: 6, 9, 12, 18, 24, 36, 48, and 54 Mbps
Nonoverlapping channels	• IEEE 802.11a: Up to 23 (including radar channels) • IEEE 802.11b/g: 3 (Japan uses 4) (Bluetooth 2.0 also uses the 2.4-GHz spectrum, so IEEE 802.11a is recommended when using Bluetooth 2.0.)		
Wireless modulation	• IEEE 802.11a: Orthogonal Frequency Division Multiplexing (OFDM) • IEEE 802.11b: Direct sequence spread spectrum (DSSS) • IEEE 802.11g: OFDM and DSSS		
Receiver sensitivity (typical)	IEEE 802.11a: 6 Mbps: –91 dBm 9 Mbps: –90 dBm 12 Mbps: –88 dBm 18 Mbps: –86 dBm 24 Mbps: –82 dBm 36 Mbps: –80 dBm 48 Mbps: –77 dBm 54 Mbps: –75 dBm	IEEE 802.11b: 1 Mbps: –96 dBm 2 Mbps: –95 dBm 5.5 Mbps: –90 dBm 11 Mbps: –87 dBm	v802.11g: 6 Mbps: –91 dBm 9 Mbps: –90 dBm 12 Mbps: –87 dBm 18 Mbps: –86 dBm 24 Mbps: –82 dBm 36 Mbps: –80 dBm 48 Mbps: –77 dBm 54 Mbps: –76 dBm

<table>
<tr><td>Transmitter output power</td><td>IEEE 802.11a OFDM:
40 mW (16 dBm)
32 mW (15 dBm)
20 mW (13 dBm)
8 mW (9 dBm)
3.2 mW (5 dBm)
1 mW (0 dBm)</td><td>IEEE 802.11b CCK:
50 mW (17 dBm)
20 mW (13 dBm)
8 mW (9 dBm)
3.2 mW (5 dBm)
1 mW (0 dBm)</td><td>IEEE 802.11g OFDM:
40 mW (16 dBm)
32 mW (15 dBm)
20 mW (13 dBm)
8 mW (9 dBm)
3.2 mW (5 dBm)
1 mW (0 dBm)</td></tr>
<tr><td rowspan="2">Range
(stated ranges are from measured open-site range testing)</td><td>IEEE 802.11a:
6 Mbps: 604ft (184m)
9 Mbps: 604 ft (184m)
12 Mbps: 551 ft (168m)
18 Mbps: 545 ft (166m)
24 Mbps: 512 ft (156m)
36 Mbps: 420 ft (128m)
48 Mbps: 322 ft (98m)
54 Mbps: 289 ft (88m)</td><td>IEEE 802.11b:
1 Mbps: 1,010 ft (308m)
2 Mbps: 951 ft (290m)
5.5 Mbps: 919 ft (280m)
11 Mbps: 902 ft (275m)</td><td>IEEE 802.11g:
6 Mbps: 709 ft (216m)
9 Mbps: 650 ft (198m)
12 Mbps: 623 ft (190m)
18 Mbps: 623 ft (190m)
24 Mbps: 623 ft (190m)
36 Mbps: 495 ft (151m)
48 Mbps: 413 ft (126m)
54 Mbps: 394 ft (120m)</td></tr>
<tr><td colspan="3">Ranges and actual throughput vary based on numerous environmental factors, so individual performance may differ.</td></tr>
<tr><td>Access-point support</td><td>• Cisco 500 Series Wireless Express Access Points
• Cisco Aironet® 1000 Series Lightweight Access Point
• Cisco Aironet 1100 Series Access Point
• Cisco Aironet 1130 AG Series
• Cisco Aironet 1200 Series
• Cisco Aironet 1140 AG Series
• Cisco Aironet 1230 AG Series
• Cisco Aironet 1240 AG Series
• Cisco Aironet 1250 Series
• Cisco Aironet 1300 Series</td><td colspan="2">Required versions: [[pls move text to align under bullets]]
• Cisco Wireless LAN Controller (lightweight)
◦ Minimum: Version 4.0.217.0
◦ Recommended: Version 5.1.151.0 or later
• Cisco IOS® Software access points (autonomous)
◦ Minimum: Version 12.3(8)JEA
◦ Recommended: Version12.3(4g)JA1 or later</td></tr>
<tr><td>Wireless security</td><td>Authentication:
• Cisco Wireless Security Suite; IEEE 802.1X
• Lightweight Extensible Authentication Protocol (LEAP) authentication
• Extensible Authentication Protocol and Flexible Authentication with Secure Tunneling (EAP-FAST)
• Wi-Fi Protected Access (WPA) Versions 1 and 2: Personal and Enterprise
• Cisco Centralized Key Management (CKM)</td><td colspan="2">Encryption:
• 40- and 128-bit static Wired Equivalent Privacy (WEP)
• Temporal Key Integrity Protocol (TKIP) and Message Integrity Check (MIC)
• Advanced Encryption Standard (AES)</td></tr>
<tr><td>QoS</td><td colspan="3">• IEEE 802.11e and Wi-Fi Multimedia (WMM)
• Traffic Specification (TSPEC)
• Enhanced Distributed Channel Access (EDCA)
• QoS Basic Service Set (QBSS)</td></tr>
<tr><td>Radar detection</td><td colspan="3">Dynamic frequency selection (DFS) and transmit power control (TPC) according to IEEE 802.11h</td></tr>
</table>

Table 6. Cisco Unified Video Camera

Feature	Specifications
Video standards	H.264/AVC
Frame rates	30 fps (maximum) using H.264/AVC for video
Frame or picture formats	• SQCIF (128 x 96 pixels) • QCIF (176 x 144 pixels) • QVGA (320 x 240 pixels) • SIF (352 x 240 pixels) • CIF (352 x 288 pixels) • VGA (640 x 480 pixels)

Ordering Information

To place an order, visit the Cisco Ordering Home Page and refer to Tables 7 through 8. To download software, visit the Cisco Software Center.

Table 7. Ordering Information

Product Name	Part Number
Cisco Unified IP Phone 9971, Charcoal, Standard Handset	CP-9971-C- K9=
Cisco Unified IP Phone 9971, Charcoal, Slimline Handset	CP-9971-CL-K9=
Cisco Unified IP Phone 9971, White, Standard Handset	CP-9971-W-K9=
Cisco Unified IP Phone 9971, White, Slimline Handset	CP-9971-WL-K9=
Spare Handset for 8900 or 9900 Series, White, Slimline	CP-89/9900-HS-WL=
Spare Handset for 8900 or 9900 Series, White, Standard	CP-89/9900-HS-W=
Spare Handset for 8900 or 9900 Series, Charcoal, Slimline	CP-89/9900-HS-CL=
Spare Handset for 8900 or 9900 Series, Charcoal, Standard	CP-89/9900-HS-C=
Spare Handset Cord, White	CP-HS-CORD-W=
Spare Handset Cord, Charcoal	CP-HS-CORD-C=
Locking Wallmount Kit for 8900 or 9900 Series, Charcoal	CP-89/9900-LWMK-C=
Locking Wallmount Kit for 8900 or 9900 Series, Arctic White	CP-89/9900-LWMK-W=
Locking Wallmount Kit for 8900 or 9900 Series and KEM, Charcoal	CP-89/9900-LK-K-C=
Locking Wallmount Kit for 8900 or 9900 Series and KEM, Arctic White	CP-89/9900-LK-K-W=
Spare footstand for 8900 or 9900 Series, White	CP-89/9900-FS-W=
Spare footstand for 8900 or 9900 Series, Charcoal	CP-89/9900-FS-C=

Table 8. Local Power Options: Cube and Regional Cords

The power cube is new for the Cisco Unified IP Phones 8900 and 9900 Series models, but the cords are the same cords as used with the Cisco Unified IP Phones 7900 Series. Power Cube 4 supports up to 44W and is internationally rated for different power grids worldwide.

Product Name	Part Number
Cisco Unified IP Endpoint Power Cube 4: 48V; 0.917A; 47-63Hz; 100-240V~0.8A	CP-PWR-CUBE-4=
Asia Pacific	CP-PWR-CORD-AP=
Argentina	CP-PWR-CORD-AR=
Australia	CP-PWR-CORD-AU=
European Community	CP-PWR-CORD-CE=
China	CP-PWR-CORD-CN=
Japan	CP-PWR-CORD-JP=

North America	CP-PWR-CORD-NA=
Switzerland	CP-PWR-CORD-SW=
United Kingdom	CP-PWR-CORD-UK=

Cisco Services

Using the Cisco Lifecycle Services approach, Cisco and our partners offer a broad portfolio of end-to-end services to support the Cisco Unified Communications System. These services are based on proven methodologies for deploying, operating, and optimizing IP communications solutions. Initial planning and design services, for example, can help you meet aggressive deployment schedules and minimize network disruption during implementation. Operate services reduce the risk of communications downtime with expert technical support. Optimize services enhance solution performance for operational excellence. Cisco and our partners offer a system-level service and support approach that can help you create and maintain a resilient, converged network that meets your business needs.

For More Information

For more information about the Cisco Unified IP Phone 9971, visit www.cisco.com/go/ipphones/9900 or contact your local Cisco account representative.

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