

## Cisco IP Phone 7800 Series

The Cisco® IP Phone 7800 Series is a cost-effective, high-fidelity voice communications portfolio designed to improve your organization's people-centric communications, while reducing your operating costs.

It combines an attractive new ergonomic design with “always-on” reliability and secure encrypted communications. The Cisco® IP Phone 7800 Series delivers advanced IP Telephony features and crystal clear wideband audio performance to deliver an easy-to-use, full-featured voice communications experience.

The Cisco® IP Phone 7800 Series introduces three models to the Cisco IP Phone portfolio. From left-to-right (Figure 1), they are:

- The IP Phone 7821 supporting two lines
- The IP Phone 7841 supporting four lines
- The IP Phone 7861 supporting sixteen lines

**Figure 1.** Cisco IP Phone 7800 Series



The line keys on each model are fully programmable. You can set up keys to support either lines, such as directory numbers, or call features like speed dialing. You can also boost productivity by handling multiple calls for each directory number, using the multi-call per-line appearance feature. Tri-color LEDs on the line keys support this feature and make the phone simpler and easy to use.

Fixed function keys on all models give you one-touch access to service, messaging, directory, hold/resume, transfer, and conference features. A full-duplex speakerphone lets you set up clear multi-party conferences for flexible, productive collaboration.

The Cisco® IP Phone 7800 Series sets a new standard in usability and delivers a context-sensitive user experience. It features a high resolution 3.5" (396x162) greyscale display, with white backlighting for easy reading. Localized language support, including right-to-left onscreen text, meets the needs of global users.

The Cisco® IP Phone 7800 Series is also more energy-efficient and eco-friendly, to support your green initiatives. Each phone supports Power-over-Ethernet (PoE) Class 1 and Cisco's EnergyWise™, and is Energy Star certified. A standard power-save option reduces power consumption during off-hours, to save money and maximize energy efficiency.

The IP Phone 7800 Series portfolio is ideal for any mid-sized to large enterprise company that wants to update its phone system from a traditional analog or digital-based system to an IP Communications system. It's also an excellent choice if you're seeking to expand your voice communications support with your current Cisco Unified Communications solution.

## Features and Benefits

Table 1 lists features and benefits of the Cisco® IP Phone 7800 Series

**Table 1.** Features and Benefits

Features	Benefits
<b>Hardware Features</b>	
<b>Ergonomic design</b>	<ul style="list-style-type: none"> <li>The phone offers an easy-to-use interface and provides a traditional telephony-like user experience.</li> </ul>
<b>Graphical display</b>	<ul style="list-style-type: none"> <li>White backlit, greyscale, 396x162 pixel-based display (3.5") provides scrollable access to calling features and text-based XML applications.</li> </ul>
<b>Backlit Indicator</b>	<ul style="list-style-type: none"> <li>The phone supports backlit indicators for the audio path keys (handset, headset and speakerphone), select key, line keys, and message waiting.</li> </ul>
<b>Volume control</b>	<ul style="list-style-type: none"> <li>A volume-control toggle provides easy decibel-level adjustments of the handset, monitor speaker, and ringer.</li> </ul>
<b>Full duplex speakerphone</b>	<ul style="list-style-type: none"> <li>Full-duplex speakerphone allows gives you flexibility in placing and receiving calls.</li> </ul>
<b>Replaceable bezel</b>	<ul style="list-style-type: none"> <li>Phone includes a black bezel. Optional silver bezel is also available separately.</li> </ul>
<b>Dual-position foot stand</b>	<ul style="list-style-type: none"> <li>The display is easy to view and the buttons and keys are easy to use. The two-position foot stand supports viewing angles of 30 degrees and 45 degrees; you can remove the foot stand for wall mounting, with mounting holes located on the base of the phone.</li> </ul>
<b>Wall-mountable</b>	<ul style="list-style-type: none"> <li>The phone can be installed on a wall using optional wall-mount kit (available separately).</li> </ul>
<b>Electronic hook switch</b>	<ul style="list-style-type: none"> <li>The hookswitch can be controlled electronically with a third party headset connected to the auxiliary port.</li> </ul>
<b>Keys</b>	<ul style="list-style-type: none"> <li>The phone has the following keys <ul style="list-style-type: none"> <li>Line keys</li> <li>Soft-keys</li> <li>Two-way navigation and select keys</li> <li>Hold/Resume, Transfer and Conference keys</li> <li>Messaging, Service and Directory keys</li> <li>Standard key pads</li> <li>Volume control toggle key</li> <li>Speakerphone, headset and mute keys</li> </ul> </li> </ul>
<b>Power Features</b>	
<b>IEEE PoE class 1</b>	<ul style="list-style-type: none"> <li>The phone supports IEEE 802.3af PoE (Class 1); power consumption does not exceed 3.84 watts.</li> </ul>
<b>Cisco power cube 3</b>	<ul style="list-style-type: none"> <li>This power cube is used as a standard Cisco IP Phone Power Supply for non-PoE deployments.</li> </ul>
<b>Call-Control Support</b>	
<b>Cisco Unified Communications Manager</b>	<ul style="list-style-type: none"> <li>8.5.1</li> <li>8.6.2</li> <li>9.1.2</li> <li>10.x and later</li> </ul>
<b>Cisco Business Edition 6000</b>	<ul style="list-style-type: none"> <li>8.6.2</li> <li>9.1.2</li> <li>10.x and later</li> </ul>

Features	Benefits
<b>Cisco Hosted Collaboration Solution</b>	<ul style="list-style-type: none"> <li>• 8.6.2 and later (using supported UCM versions above)</li> </ul>

## Licensing

The Cisco® IP Phone 7821 requires a Basic User Connect License (UCL) in order to connect to Cisco Unified Communications Manager. The Cisco® IP Phone 7841 and 7861 require 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 7800 Series.

**Table 2.** Features and Specifications

Features	Specifications
<b>Signaling protocol support</b>	<ul style="list-style-type: none"> <li>• Session Initiation Protocol (SIP)</li> </ul>
<b>Codec support</b>	<ul style="list-style-type: none"> <li>• G.711a/μ, G.722, G.729a, iLBC</li> </ul>
<b>Key call features support</b>	<ul style="list-style-type: none"> <li>• + Dialing (E.164)</li> <li>• Adjustable ringing and volume levels</li> <li>• Adjustable display contrast</li> <li>• Auto-answer</li> <li>• Auto-detection of headset</li> <li>• Call forward</li> <li>• Call history</li> <li>• Call timer</li> <li>• Call waiting</li> <li>• Caller ID</li> <li>• cBarge</li> <li>• Corporate directory</li> <li>• Conference</li> <li>• Dial from the list</li> <li>• Direct transfer</li> <li>• Do not disturb</li> <li>• Hold/resume</li> <li>• Immediate divert</li> <li>• Join</li> <li>• Message-waiting indicator</li> <li>• Music on hold</li> <li>• Mute</li> <li>• Network profiles (automatic)</li> <li>• On- and off-network distinctive ringing</li> <li>• Personal directory</li> <li>• Privacy</li> <li>• Ring tone per line appearance</li> <li>• Shared line</li> <li>• Silent monitoring and recording</li> <li>• Speed dial</li> <li>• Time and date display</li> <li>• Transfer</li> <li>• Voicemail</li> </ul>
<b>Language support</b>	<ul style="list-style-type: none"> <li>• Arabic (Arabic Area)</li> <li>• Bulgarian (Bulgaria)</li> <li>• Catalan (Spain)</li> <li>• Chinese (China)</li> </ul>

Features	Specifications
	<ul style="list-style-type: none"> <li>• Chinese (Hong Kong)</li> <li>• Chinese (Taiwan)</li> <li>• Croatian (Croatia)</li> <li>• Czech (Czech Republic)</li> <li>• Danish (Denmark)</li> <li>• Dutch (Netherlands)</li> <li>• English (United Kingdom)</li> <li>• Estonian (Estonia)</li> <li>• French (France)</li> <li>• Finnish (Finland)</li> <li>• German (Germany)</li> <li>• Greek (Greece)</li> <li>• Hebrew (Israel)</li> <li>• Hungarian (Hungary)</li> <li>• Italian (Italy)</li> <li>• Japanese (Japan)</li> <li>• Latvian (Latvia)</li> <li>• Lithuanian (Lithuania)</li> <li>• Korean (Korea Republic)</li> <li>• Norwegian (Norway)</li> <li>• Polish (Poland)</li> <li>• Portuguese (Portugal)</li> <li>• Portuguese (Brazil)</li> <li>• Romanian (Romania)</li> <li>• Russian (Russian Federation)</li> <li>• Spanish (Columbia)</li> <li>• Spanish (Spain)</li> <li>• Slovak (Slovakia)</li> <li>• Swedish (Sweden)</li> <li>• Serbian (Republic of Serbia)</li> <li>• Serbian (Republic of Montenegro)</li> <li>• Slovenian (Slovenia)</li> <li>• Thai (Thailand)</li> <li>• Turkish (Turkey)</li> </ul>
<b>Multiple ring tones</b>	<ul style="list-style-type: none"> <li>• The phone supports user-adjustable ring tones</li> </ul>
<b>Directories</b>	<ul style="list-style-type: none"> <li>• The phone identifies incoming messages and categorizes them for users on the screen. This makes it fast and easy to return calls using direct dial-back capability. The corporate directory integrates with the Lightweight Directory Access Protocol (LDAP) standard directory</li> </ul>
<b>Quality-of-service (QoS) options</b>	<ul style="list-style-type: none"> <li>• The phone supports CDP 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</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>• Certificates</li> <li>• Image authentication</li> <li>• Device authentication</li> <li>• File authentication</li> <li>• Signaling authentication</li> <li>• Media encryption using Secure Real-Time Transfer Protocol (SRTP) using AES-128</li> <li>• Signaling encryption using Transport Layer Security (TLS) Protocol using AES-128 or AES-256</li> <li>• Encrypted configuration files</li> <li>• 802.1X authentication</li> <li>• Cryptography</li> </ul>
<b>Configuration options</b>	<ul style="list-style-type: none"> <li>• The user can configure IP address assignment statically or through the DHCP client</li> </ul>
<b>Physical dimensions (HxWxD)</b>	<ul style="list-style-type: none"> <li>• CP-7821: 207 x 206 x 28mm (exclude foot stand)</li> <li>• CP-7841: 207 x 206 x 28mm (exclude foot stand)</li> <li>• CP-7861: 207 x 265 x 28mm (exclude foot stand)</li> </ul>

Features	Specifications
<b>Weight</b>	<ul style="list-style-type: none"> <li>• CP-7821: 867g</li> <li>• CP-7841: 868g</li> <li>• CP-7861: 1053g</li> </ul>
<b>Display</b>	<ul style="list-style-type: none"> <li>• 3.5" 396x162 pixels</li> </ul>
<b>Ethernet switch</b>	<ul style="list-style-type: none"> <li>• The phone has a 10/100BASE-T (The Cisco® IP Phone 7821 &amp; 7861) or a 10/100/1000BASE-T (The Cisco® IP Phone 7841) Ethernet connection through two RJ-45 ports, one for the LAN connection and the other for a downstream Ethernet device connection like a PC</li> </ul>
<b>Phone casing composition</b>	<ul style="list-style-type: none"> <li>• Polycarbonate acrylonitrile butadiene styrene (ABS) textured plastic</li> </ul>
<b>Power requirements</b>	<ul style="list-style-type: none"> <li>• The phone is an interoperable IEEE 802.3af PoE (Class 1 device); 48 VDC is required; it can be supplied locally at the desktop using an optional AC-to-DC power supply (CP-PWR-CUBE-3=). Use of the power supply also requires the use of one of the corresponding AC country cords</li> </ul>
<b>Operational temperature</b>	<ul style="list-style-type: none"> <li>• 32 to 104°F (0 to 40°C)</li> </ul>
<b>Nonoperational temperature shock</b>	<ul style="list-style-type: none"> <li>• 14 to 140°F (-10 to 60°C)</li> </ul>
<b>Humidity</b>	<ul style="list-style-type: none"> <li>• Operating 10% to 90%, non-condensing</li> <li>• Non-operating 10% to 95%, non-condensing</li> </ul>
<b>Cosmetic</b>	<ul style="list-style-type: none"> <li>• Cisco cosmetic class A</li> </ul>
<b>Certification and compliance</b>	<ul style="list-style-type: none"> <li>• Regulatory Compliance <ul style="list-style-type: none"> <li>◦ CE Markings per directives 2004/108/EC and 2006/95/EC</li> </ul> </li> <li>• Safety <ul style="list-style-type: none"> <li>◦ UL 60950 Second Edition</li> <li>◦ CAN/CSA-C22.2 No. 60950 Second Edition</li> <li>◦ EN 60950 Second Edition (including A11 &amp; A12)</li> <li>◦ IEC 60950 Second Edition (including A11 &amp; A12)</li> <li>◦ AS/NZS 60950</li> <li>◦ GB4943</li> </ul> </li> <li>• EMC - Emissions <ul style="list-style-type: none"> <li>◦ 47CFR Part 15 (CFR 47) Class B</li> <li>◦ AS/NZS CISPR22 Class B</li> <li>◦ CISPR22: 2005 w/Amendment 1: 2005 Class B</li> <li>◦ EN55022: 2006 w/Amendment 1: 2007 Class B</li> <li>◦ ICES003 Class B</li> <li>◦ VCCI Class B</li> <li>◦ EN61000-3-2</li> <li>◦ EN61000-3-3</li> <li>◦ KN22 Class B</li> </ul> </li> <li>• EMC - Immunity <ul style="list-style-type: none"> <li>◦ EN55024</li> <li>◦ CISPR24</li> <li>◦ EN60601-1-2</li> <li>◦ KN24</li> <li>◦ Armadillo Light</li> </ul> </li> <li>• Telecom <ul style="list-style-type: none"> <li>◦ FCC Part 68 HAC</li> <li>◦ CS-03-HAC</li> <li>◦ AS/ACIF S004</li> <li>◦ AS/ACIF S040</li> <li>◦ NZ PTC 220</li> <li>◦ Industry Standards: TIA 810 and TIA 920</li> <li>◦ Industry Standards: IEEE 802.3 Ethernet, IEEE 802.3af and 802.3at</li> </ul> </li> </ul>

## Product Specifications

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

**Table 3.** Ordering Information

Product Number	Description
CP-7821-K9=	• Cisco IP Phone 7821
CP-7841-K9=	• Cisco IP Phone 7841
CP-7861-K9=	• Cisco IP Phone 7861
CP-DX-HS=	• Spare Handset for Cisco IP Phone 7800 Series
CP-7800-HS-CORD=	• Spare Handset Cord for Cisco IP Phone 7800 Series
CP-7800-HS-HOOK=	• Spare Handset Hook for Cisco IP Phone 7800 Series, 20 Pieces
CP-7800-WMK=	• Spare Wallmount Kit for Cisco IP Phone 7800 Series
CP-7861-WMK=	• Spare Wallmount Kit for Cisco IP Phone 7861
CP-7800-FS=	• Spare Foot stand for Cisco IP Phone 7800 Series
CP-7861-FS=	• Spare Foot stand for Cisco IP Phone 7861
CP-7821-B-BEZEL=	• Spare Black Bezel for Cisco IP Phone 7821
CP-7821-S-BEZEL=	• Spare Silver Bezel for Cisco IP Phone 7821
CP-7841-B-BEZEL=	• Spare Black Bezel for Cisco IP Phone 7841
CP-7841-S-BEZEL=	• Spare Silver Bezel for Cisco IP Phone 7841
CP-7861-B-BEZEL=	• Spare Black Bezel for Cisco IP Phone 7861
CP-7861-S-BEZEL=	• Spare Silver Bezel for Cisco IP Phone 7861
CP-PWR-CUBE-3	• Cisco Power Cube 3
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

The Cisco® IP Phone 7800 Series are covered by a Cisco standard 1-year replacement warranty.

## 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.

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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.

### More Information

For additional details on the Cisco® IP Phone 7800 Series, go to <http://www.cisco.com/go/ipphones/7800>.




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