



INDEX

Numerics

802.11a standard [2-3](#)

802.11b standard [2-3](#)

802.11g standard [2-3](#)

A

active mode [3-26](#)

adding

users to Cisco Unified Communications Manager [7-29](#)

advanced encryption standard, See AES

AES

description [2-8](#)

encryption description [2-22](#)

AP

associating [2-13](#)

Cisco Aironet Access Point [2-12](#)

Cisco IOS version for wireless voice [2-28](#)

description [2-12](#)

troubleshooting [10-3](#)

AP settings, identifying [10-12](#)

audience, for this document [1-xviii](#)

authenticated call [1-16](#)

authentication [1-10, 5-17](#)

selecting type [4-18, 5-14](#)

wireless network setting [5-14](#)

auto-pickup [7-4](#)

auto-registration

using [3-4](#)

using with TAPS [3-4](#)

auxiliary VLAN, description [2-17](#)

B

barge [1-17, 7-4](#)

BAT (Bulk Administration Tool) [3-5](#)

battery

charging times with desktop charger [3-20](#)

charging times with power supply [3-11](#)

description [3-10](#)

figure, installing in phone [3-13](#)

installing and removing [3-10](#)

types available [3-10](#)

battery caution [3-9](#)

charging [3-9](#)

damaged [3-9](#)

- disposal [3-9](#)
- replacement re [3-9](#)
- temperature [3-9](#)
- battery safety notices [3-8](#)
- battery warning
 - disposal [3-8](#)
 - explosion [3-8](#)
- block external to external transfer [7-5](#)
- Busy Lamp Field (BLF) speed dial [7-5](#)

C

- call
 - authenticated [1-16](#)
 - encrypted [1-16](#)
- call display restrictions [7-5](#)
- caller ID [7-8](#)
- call forward [7-6](#)
- call forward display, configuring [7-10](#)
- call park [7-6](#)
- call pickup [7-7](#)
- call statistics screen [8-1, 8-19](#)
- call waiting [7-7](#)
- CAPF (Certificate Authority Proxy Function) [1-14, 5-18](#)
- cautions
 - for battery pack [3-9](#)
 - for charging battery pack [3-9](#)
 - for damaged battery [3-9](#)
 - for disposing of battery pack [3-9](#)
 - for exposing battery pack to high temperatures [3-9](#)
 - for replacing battery pack [3-9](#)
 - for replacing power supply [3-10](#)
 - translations [3-7](#)
- CCKM
 - description [2-8](#)
- CDP
 - description [2-9](#)
- CDP settings [5-10](#)
- change password web page [4-52](#)
- Cisco Call Back [7-8](#)
- Cisco Centralized Key Management, See CCKM
- Cisco Discovery Protocol, See CDP
- Cisco IOS version, supporting wireless voice LAN [2-28](#)
- Cisco Unified Communications Manager
 - adding phone to database of [3-3](#)
 - configuring DHCP settings [2-26](#)
 - interacting with [2-25](#)
 - restricting phone settings access [5-2, 5-3, 5-15](#)
 - verifying settings [10-8](#)
- Cisco Unified Communications Manager Administration
 - adding telephony features [7-2](#)
- Cisco Unified IP Phone
 - configuration requirements [D-1](#)
 - configuring user services [7-26](#)
 - installation overview [1-17, D-1](#)

- installation requirements [D-1](#)
- modifying phone button templates [7-25](#)
- online help for [A-4](#)
- using LDAP directories [7-28](#)
- Cisco Unified Wireless IP Phone
 - configuration requirements [1-17](#)
 - installation requirements [1-17](#)
 - overview [1-1](#)
 - web page [4-1, 9-1](#)
- Cisco Unified Wireless IP Phone, See also wireless IP phone
- Cisco Unified Wireless IP Phone specifications [C-1](#)
- client matter codes [7-8](#)
- conference [7-9](#)
- configurable call forward display [7-10](#)
- configuration
 - phones in Cisco Unified Communications Manager [1-18](#)
- configuration file
 - creating new [10-10](#)
 - encrypted [1-14](#)
 - overview [2-25](#)
 - SEPxxxxxxxxxxxx.cnf.xml [2-26](#)
 - XMLDefault.cnf.xml [2-26](#)
- configuring
 - AP tasks [D-2](#)
 - LDAP directories [7-28](#)
 - network features on phone [1-9](#)
 - overview [1-17, D-1](#)

- personal directories [7-28](#)
- phone book [4-42](#)
- phone button templates [7-25](#)
- softkey templates [7-23](#)
- user features [7-29](#)
- Wavelink settings [4-41, 6-1](#)

CTL file

- unlocking [8-5](#)

CTL file screen [8-4](#)

current configuration

- viewing [8-12, 8-16](#)

D

data VLAN [2-17](#)

desktop charger

- description [3-20](#)

- figure [3-19](#)

- using [3-20](#)

device authentication [1-13](#)

device information menu, about [8-1](#)

device information web page [9-3, 9-9](#)

DHCP

- description [2-9](#)

- displaying settings [5-8](#)

- enable, network setting [5-6](#)

- gateway [2-26](#)

- interacting with [2-26](#)

- IP address [2-26](#)

- modifying settings [5-8](#)
- priority for TFTP server [2-26](#)
- scope settings [2-26](#)
- subnet mask [2-26](#)
- troubleshooting [10-13](#)
- directed call park [7-10](#)
- directory numbers, assigning manually [3-6](#)
- direct-sequence spread spectrum (DSSS) [2-4](#)
- direct transfer [7-10](#)
- displaying, network statistics [8-17](#)
- disposal warning [3-8](#)
- DNS server
 - settings for TFTP server [2-26](#)
 - troubleshooting [10-14](#)
 - verifying settings [10-8](#)
- documentation
 - additional [1-xix](#)
 - for users [A-5](#)
 - localized versions [B-1](#)
- dynamic host configuration protocol, See DHCP

E

- EAP, description [2-9](#)
- EAP-FAST, description [2-9](#)
- editing configuration values, guidelines [5-5](#)
- encrypted call [1-16](#)
- encrypted configuration file [1-14](#)
- encryption

- media [1-10, 1-14](#)
- signaling [1-10, 1-14](#)
- WEP key [4-23](#)
- erase configuration, procedure [10-28](#)
- explosive gas warning [3-7](#)
- Extensible Authentication Protocol, See EAP
- extensible authentication protocol-flexible authentication via secure tunneling, See EAP-FAST
- extension mobility [7-11](#)

F

- features
 - configuring with Cisco Unified Communications Manager [1-7](#)
 - informing users about [1-9](#)
 - See also telephony features
- file
 - creating new configuration [10-10](#)
- file authentication [1-13](#)
- firmware
 - verifying version [8-23](#)
- forced authorization codes [7-12](#)

G

- group call pickup [7-12](#)

H

help, using [A-4](#)
 hold [7-12](#)
 hold reversion [7-13](#)
 hunt group [7-13](#)

I

image authentication [1-13](#)
 immediate divert [7-13](#)
 Immediate Divert enhanced feature [7-14](#)
 installation
 AP configuration tasks [D-2](#)
 network requirements [3-2](#)
 preparing [3-3](#)
 installation warning [3-7](#)
 installing
 requirements, overview [1-17, D-1](#)
 intercom [7-14](#)
 Internet Protocol (IP) [2-10](#)
 IP, description [2-10](#)
 IP address [2-27, 4-34, 5-9](#)
 troubleshooting [10-7](#)

J

join [7-14](#)

L

LDAP directories, using with Cisco Unified IP Phone [7-28](#)
 LEAP
 description [2-10](#)
 light extensible authentication protocol, See LEAP
 local configuration, erasing [10-28](#)
 Locale Installer [B-1](#)
 localization
 Installing the Cisco Unified Communications Manager Locale Installer [B-1](#)
 Locally Significant Certificate (LSC) [5-17](#)

M

MAC address
 determining [3-3, 3-5](#)
 malicious caller identification (MCID) [7-15](#)
 manufacturing installed certificate (MIC) [1-13](#)
 media encryption [1-14](#)
 meet-me conference [7-15](#)
 message waiting [7-15](#)
 metrics, voice quality [8-22, 9-18](#)
 MIC [1-13](#)
 mobile connect [7-16](#)
 mobile voice access [7-16](#)
 model information screen [8-1](#)
 music-on-hold [7-16](#)

N

- native VLAN [2-17](#)
- neighbor list utility [2-31](#)
- network configuration menu
 - displaying [5-3](#)
 - displaying WLAN configuration menu [5-12](#)
 - editing options [5-5](#)
- network configuration web page [9-3, 9-4](#)
- network connectivity, verifying [10-6](#)
- network features, configuring overview [1-9](#)
- networking protocol
 - AES [2-8](#)
 - CCKM [2-8](#)
 - CDP [2-9](#)
 - DHCP [2-9](#)
 - IP [2-10](#)
 - RTP [2-10](#)
 - SCCP [2-10](#)
 - supported [2-8](#)
 - TCP [2-11](#)
 - TFTP [2-11](#)
 - TKIP [2-10](#)
 - TLS [2-11](#)
 - U-APSD [2-11](#)
 - UDP [2-11](#)
 - WEP [2-12](#)
 - WiFi (802.11) [2-11](#)
 - WPA [2-12](#)

- network outages, identifying [10-12](#)
- network protocol
 - EAP [2-9](#)
 - EAP-FAST [2-9](#)
 - LEAP [2-10](#)
 - PS-Poll [2-10](#)
 - RTCP [2-10](#)
- network requirements, for installation [3-2](#)
- network settings
 - accessing on phone [5-2](#)
 - configuring [5-1](#)
 - DHCP enable [5-6](#)
- network statistics [9-13](#)
- network statistics, viewing [8-17](#)
- network statistics web page [9-3](#)

O

- on hook call transfer [7-16](#)
- online help, using [A-4](#)
- open authentication, description [2-19](#)
- orthogonal frequency division multiplexing (OFDM) [2-3, 2-4](#)
- other group pickup [7-17](#)

P

- personal directories, configuring [7-28](#)
- phone audio, troubleshooting [10-15](#)
- phone book, using [4-42](#)

phone button templates, modifying [7-25](#)

phone mode

active [3-26](#)

standby [3-26](#)

phone operation for users [A-2](#)

phone resets, resolving problems [10-12](#)

phone roaming, troubleshooting [10-16](#)

phones, installing [1-19](#)

phone settings

access restrictions [5-2, 5-3, 5-15](#)

menu [5-15](#)

phone upgrade web page [4-51](#)

phone web page

about [4-1, 9-1](#)

accessing [4-7, 9-2](#)

change password [4-52](#)

device information [9-3, 9-9](#)

installing drivers [4-2](#)

network configuration [9-4](#)

network configuration web page [9-3](#)

network statistics [9-3, 9-13](#)

phone upgrade [4-51](#)

profile settings [4-11](#)

summary information [4-9, 9-3](#)

system settings [4-46](#)

trace logs [4-47](#)

trace settings [4-38](#)

USB settings [4-37](#)

plug-socket warning [3-8](#)

powering on phone [3-21, 3-24](#)

power outage warning [3-7](#)

power save poll, See PS-Poll

power supply

connecting [3-15](#)

figure, connected [3-16, 3-17](#)

power supply replacement caution [3-10](#)

power supply warning [3-8](#)

presence-enabled directories [7-17](#)

primary DNS server [2-27, 4-34, 5-9](#)

primary gateway [2-27, 4-34, 5-9](#)

primary TFTP server [5-9](#)

privacy [7-18](#)

profile settings web page [4-11](#)

PS-Poll, description [2-10](#)

Push to Talk service [7-18](#)

Q

QBSS, description [2-13](#)

QoS basis service set, See QBSS

QRT softkey [7-18](#)

Quality of Service (QoS) [2-16](#)

Quality Reporting Tool (QRT) [7-18](#)

R

RADIUS server authentication,
description [2-20, 2-21](#)

real-time control protocol, See RTCP

real-time transport protocol, See RTP
 received signal strength indicator, See RSSI
 redial [7-18](#)
 registering, resolving problems with Cisco Unified Communications Manager [10-5](#)
 resetting, phones [10-13](#)
 resolving startup problems [10-1 to 10-11](#)
 resolving voice quality problems [10-11 to 10-18](#)
 ring activity [7-19](#)
 ringlist.xml [7-32](#)
 ring tone, creating custom [7-32](#)
 roaming [2-15](#)

- description [2-14](#)
- fast and secure with CCKM [2-15](#)
- layer 3 [2-15](#)
- Layer 3 with WLSM [2-15](#)
- mid-call [2-15](#)
- pre-call [2-14](#)
- resolving problems [10-11](#)

RSSI, description [2-13](#)
 RTCP, description [2-10](#)
 RTP description [2-10](#)

S

SCCP description [2-10](#)
 secure SRST reference [1-14](#)
 security

- AES encryption [2-22](#)

CAPF (Certificate Authority Proxy Function) [1-14, 5-18](#)
 device authentication [1-13](#)
 encrypted configuration file [1-14](#)
 file authentication [1-13](#)
 image authentication [1-13](#)
 manufacturing installed certificate (MIC) [1-13](#)
 media encryption [1-14](#)
 open authentication [2-19](#)
 RADIUS server authentication [2-20, 2-21](#)
 secure SRST reference [1-14](#)
 security profiles [1-14, 1-15](#)
 shared key authentication [2-19](#)
 signaling authentication [1-13](#)
 signaling encryption [1-14](#)
 static WEP encryption [2-21](#)
 TKIP encryption [2-22](#)
 WLAN overview [2-6](#)
 WPA authentication [2-21](#)
 WPA-Pre-shared key authentication [2-19](#)
 security configuration menu, about [8-1](#)
 security profiles [1-14, 1-15](#)
 SEPxxxxxxxxxxxx.cnf.xml configuration file [2-26](#)
 services

- configuring for users [7-26](#)
- description [7-19](#)
- subscribing to [7-26](#)

service set identifier, See SSID

- shared key authentication, description [2-19](#)
- shared lines [7-19](#)
- short circuit protection warning [3-8](#)
- signaling authentication [1-13](#)
- signaling encryption [1-14](#)
- site survey
 - performing [2-30](#)
 - verification steps [2-31](#)
- site survey utility
 - accessing with phone menu [2-32](#)
 - display values [2-32](#)
- skinny client control protocol, See SCCP
- softkey templates, configuring [7-23](#)
- software license
 - Open SSL project [1-20](#)
- specifications
 - operating environment [C-1](#)
 - physical [C-1](#)
- speed dial
 - default buttons for [7-26](#)
 - hot key, assigning [4-45](#)
- speed dialing [7-3, 7-20](#)
- SRST [9-7](#)
 - secure reference [1-14](#)
- SSID
 - associating to an AP [2-13](#)
 - description [5-13](#)
 - wireless network setting [5-13](#)
- standby mode [3-26](#)
- startup
 - failure [10-2](#)
 - resolving problems with [10-1](#)
- startup process
 - contacting Cisco Unified Communications Manager [3-30](#)
 - DHCP disabled [2-27](#)
 - steps and description [3-27](#)
- static settings
 - IP address [2-27, 4-34, 5-9](#)
 - primary DNS server [2-27, 4-34, 5-9](#)
 - primary gateway [2-27, 4-34, 5-9](#)
 - primary TFTP server [5-9](#)
 - subnet mask [2-27, 4-34, 5-9](#)
- statistics
 - call [8-19, 9-16](#)
 - network [9-13](#)
- statistics, network [8-17](#)
- status information [8-12, 8-16](#)
- status menu [8-1, 8-12](#)
- streaming statistics [9-16](#)
- subnet mask [2-27, 4-34, 5-9](#)
- summary information web page [4-9](#)
- survivable remote site telephony (SRST)
 - IP address of router [8-5](#)
- symptom
 - phone does not associate with AP [10-3](#)
 - phone does not register [10-5](#)
 - phone does not start [10-2](#)
 - phone has audio problems [10-15](#)

- phone has roaming problems [10-16](#)
- phone resets [10-12](#)
- phone screen does not display [10-2](#)
- system log server [10-27](#)

T

TAPS (Tool for Auto-Registered Phones Support) [3-4](#)

TCP

- description [2-11](#)

telephone receiver warning [3-8](#)

telephony features

- auto-pickup [7-4](#)
- barge [1-17, 7-4](#)
- block external to external transfer [7-5](#)
- Busy Lamp Field (BLF) speed dial [7-5](#)
- call display restrictions [7-5](#)
- caller ID [7-8](#)
- call forward [7-6](#)
- call park [7-6](#)
- call pickup [7-7](#)
- call waiting [7-7](#)
- Cisco Call Back [7-8](#)
- client matter codes [7-8](#)
- conference [7-9](#)
- configurable call forward display [7-10](#)
- configuration references [7-3](#)
- descriptions [7-3](#)
- directed call park [7-10](#)

- direct transfer [7-10](#)
- extension mobility [7-11](#)
- forced authorization codes [7-12](#)
- group call pickup [7-12](#)
- hold [7-12](#)
- hold reversion [7-13](#)
- hunt group [7-13](#)
- immediate divert [7-13](#)
- join [7-14](#)
- malicious caller identification (MCID) [7-15](#)
- meet-me conference [7-15](#)
- mobile connect [7-16](#)
- mobile voice access [7-16](#)
- music-on-hold [7-16](#)
- no not disturb (DND) [7-11](#)
- on hook call transfer [7-16](#)
- other group pickup [7-17](#)
- presence-enabled directories [7-17](#)
- Push to Talk service (XML application) [7-18](#)
- redial [7-18](#)
- ring activity [7-19](#)
- services [7-19](#)
- shared lines [7-19](#)
- speed dialing [7-20](#)
- supported [7-3](#)
- Time-of-Day Routing [7-20](#)
- transfer [7-21](#)
- voice messaging system [7-21](#)

- template
 - phone button, modifying [7-25](#)
 - temporal key integrity protocol, *See* TKIP
 - TFTP
 - description [2-11](#)
 - troubleshooting [10-6](#)
 - TFTP server
 - assigning to phone [4-35, 5-10](#)
 - options [4-35, 5-10](#)
 - Time-of-Day Routing [7-20](#)
 - TKIP
 - description [2-10](#)
 - encryption description [2-22](#)
 - trace logs web page [4-47](#)
 - trace route
 - option on phone [10-27](#)
 - trace settings web page [4-38](#)
 - transfer [7-21](#)
 - transmission control protocol, *See* TCP
 - transport layer security
 - See* TLS
 - trivial file transfer protocol, *See* TFTP
 - troubleshooting
 - AP settings [10-3, 10-12](#)
 - Cisco Unified Communications Manager settings [10-8](#)
 - DHCP [10-13](#)
 - DNS [10-14](#)
 - DNS settings [10-8](#)
 - general information [10-21](#)
 - IP addressing and routing [10-7](#)
 - logging information [10-27](#)
 - network connectivity [10-6](#)
 - network outages [10-12](#)
 - phones resetting [10-13](#)
 - services on Cisco Unified Communications Manager [10-9](#)
 - TFTP settings [10-6](#)
 - VLAN configuration [10-13](#)
 - wireless IP phone [10-1](#)
 - Trust List screen [8-5](#)
- ## U
-
- U-APSD description [2-11](#)
 - UDP description [2-11](#)
 - unscheduled asynchronous power save delivery, *See* U-APSD
 - USB configuration [4-2](#)
 - displaying menu [5-19](#)
 - USB settings web page [4-37](#)
 - user datagram protocol, *See* UDP
 - User Options web page
 - description [7-30](#)
 - giving users access to [7-31](#)
 - specifying options that appear [7-31](#)
 - users
 - accessing voice messages [A-7](#)
 - adding to Cisco Unified Communications Manager [7-29](#)

documentation for [A-5](#)
 international, supporting [B-1](#)
 required information [A-1](#)
 wireless IP phone information [A-2](#)

V

verifying

Cisco Unified Communications Manager
 settings [10-8](#)
 firmware version [8-23](#)
 network settings [10-6](#)

VLAN

assigning separate SSIDs [2-17](#)
 auxiliary, for voice traffic [2-17](#)
 native, for data traffic [2-17](#)
 separate voice for QoS [2-16](#)
 verifying [10-13](#)

voice messaging system [7-21](#)

voice quality, resolving problems [10-11](#)

voice quality metrics [8-22, 9-18](#)

voice VLAN [2-17](#)

W

warnings

definition [3-7](#)
 for battery disposal [3-8](#)
 for battery explosion [3-8](#)
 for disposal [3-8](#)

for explosive gas [3-7](#)
 for installation [3-7](#)
 for plug socket [3-8](#)
 for power outages [3-7](#)
 for power supply [3-8](#)
 for short circuit protection [3-8](#)
 for telephone receiver [3-8](#)
 translations [3-7](#)

Wavelink software, using [4-41, 6-1](#)

WDS, wireless domain server [2-16](#)

web page

configuring phone settings [4-1](#)

WEP

description [2-12](#)

WEP encryption, description [2-21](#)

WEP key

setting up encryption [4-23](#)

WiFi (802.11)

description [2-11](#)

Wi-Fi (802.11b) [2-3](#)

wired equivalent privacy, See WEP

wireless domain server (WDS) [2-16](#)

wireless IP phone

adding manually to Cisco Unified
 Communications Manager [3-6](#)

adding to Cisco Unified Communications
 Manager [3-3](#)

adding using auto-registration [3-4](#)

adding using auto-registration with
 TAPS [3-4](#)

- adding using BAT [3-5](#)
- battery [3-10](#)
- configuration file [2-26](#)
- feature overview [1-6](#)
- figure [1-3](#)
- keys [1-3](#)
- phone modes, active and standby [3-26](#)
- powering on [3-21, 3-24](#)
- registering [3-3](#)
- registering with Cisco Unified Communications Manager [3-4, 3-5](#)
- supported networking protocols [2-8](#)
- troubleshooting [10-1](#)
- troubleshooting tips [10-21](#)
- wireless IP phone, See also Cisco Unified Wireless IP Phone
- wireless local area network, See WLAN
- wireless network settings
 - authentication [5-14](#)
 - SSID [5-13](#)
- wireless protected access, See WPA
- Wireless standard, See WiFi (802.11)
- WLAN
 - components [2-8](#)
 - roaming [2-14](#)
 - security [2-6](#)
 - security mechanisms [2-19](#)
 - voice quality [2-16](#)
- WLAN configuration menu [5-12](#)
- WLAN security mode
 - authentication types [4-18](#)
 - WLSM, wireless LAN services module [2-15](#)
 - WPA
 - description [2-12](#)
 - encryption with TKIP, description [2-22](#)
 - WPA authentication, description [2-21](#)
 - WPA-pre-shared key authentication, description [2-19](#)

X

- XMLDefault.cnf.xml configuration file [2-26](#)

