



A

authentication

See also device authentication

See also digest authentication

interactions [1-5](#), [1-6](#)

overview [1-14](#)

restrictions [1-5](#)

with CTI/JTAPI/TAPI applications [11-2](#)

authentication string [6-2](#), [11-4](#)

entering on phone [6-9](#)

finding phones using [6-8](#)

authorization [1-14](#)

configuration settings (table)

for SIP trunk [14-3](#)

configuring for SIP trunk [14-2](#)

interactions [1-6](#)

overview [1-14](#)

B

barge

encryption restrictions with [1-11](#)

C

Certificate Authority Proxy Function (CAPF)

activating service [6-5](#), [11-8](#)

authentication string [6-2](#)

entering on phone [6-9](#)

CAPF service [3-4](#)

configuration checklist (table) [6-4](#)

configuration settings (table)

for CTI/JTAPI/TAPI applications [11-12](#)

for phones [6-7](#)

configuring an application user or end user CAPF profile [11-10](#)

configuring in Cisco Unified CallManager Serviceability [6-4](#)

deleting an application user or end user CAPF profile [11-13](#)

finding an application user or end user CAPF profile [11-10](#)

finding phones using LSC or authentication string [6-8](#)

generating CAPF report [6-8](#)

installing [1-11](#)

interactions and requirements [6-3](#)

with CTI/JTAPI/TAPI applications [11-5](#)

interaction with Cisco Unified IP Phone [6-2](#)

overview [6-2](#)

for CTI/JTAPI/TAPI applications [11-4](#)

updating service parameters [6-6](#)

for CTI/JTAPI/TAPI [11-9](#)

using for phone certificate operations [6-6](#)

viewing certificate operation status for application user or end user [11-15](#)

certificates

Internet Explorer certificate [2-2](#)

Netscape certificate [2-5](#)

types [1-12](#)

Cisco Unified IP Phone

See also encrypted configuration file

authentication string

entering on phone [6-9](#)

configuration checklist (table) for security [4-2](#)

configuration settings (table)

for CAPF [6-7](#)

configuration tips for phone security profiles [5-1](#)

- deleting CTL file [3-14](#)
- disabling the GARP setting [9-1](#)
- disabling the PC Port setting [9-2](#)
- disabling the PC Voice VLAN Access setting [9-2](#)
- disabling the Setting Access setting [9-2](#)
- disabling the Web Access setting [9-1](#)
- interaction with CAPF [6-2](#)
- security icons [1-5](#)
 - restrictions [1-9](#)
- understanding security [4-1](#)
- viewing security settings [4-2](#)
- computer telephony integration (CTI)
 - configuration checklist (table) for securing [11-5](#)
 - secure user groups
 - adding application users and end users [11-7](#)
- configuration file encryption
 - See encrypted configuration file
- CTL client
 - CAPF service [3-4](#)
 - clusterwide security mode
 - updating [3-11](#)
 - configuration checklist (table) [3-3](#)
 - configuration settings (table) [3-11](#)
 - configuration tips [3-2](#)
 - configuring [3-7](#)
 - TLS ports [3-4](#)
 - CTL Provider service [3-3](#)
 - deleting CTL file on phone [3-14](#)
 - installing [1-11, 3-6](#)
 - migrating [3-7](#)
 - overview [3-2](#)
 - security mode
 - verifying [3-13](#)
 - security token password
 - changing [3-14](#)
 - setting the Smart Card service [3-13](#)
 - uninstalling [3-16](#)
 - upgrading [3-7](#)
 - verifying [3-16](#)

- version
 - determining [3-15](#)
- CTL file
 - deleting entry [3-11](#)
 - deleting on phone [3-14](#)
 - updating [3-9](#)
- CTL Provider
 - activating service [3-3](#)

D

- device authentication [1-14](#)
 - configuration settings (table)
 - for SCCP phone [5-4](#)
 - for SIP phones [5-6](#)
 - for SIP trunk [14-3](#)
 - configuring for phones [5-3](#)
 - configuring for SIP trunk [14-2](#)
- digest authentication [1-14](#)
 - associating digest user with a phone [8-4](#)
- cluster ID [15-2](#)
- configuration checklist (table)
 - for phones [8-1](#)
 - for SIP trunk [15-1](#)
- configuration settings (table)
 - for application user digest credentials [15-3](#)
 - for end user [8-3](#)
 - for SIP phones [5-6](#)
 - for SIP realm [15-5](#)
 - for SIP trunk [14-3](#)
- configuring a SIP realm [15-4](#)
- configuring digest credentials
 - for application user [15-2](#)
 - for end user [8-3](#)
- configuring for phones [5-3](#)
- configuring for SIP trunk [14-2](#)
- configuring service parameters [8-2](#)
- deleting a SIP realm [15-5](#)
- finding a SIP realm [15-3](#)

document

- audience [xii](#)
- conventions [xiv](#)
- organization [xii](#)
- purpose [xii](#)
- related documentation [xiv](#)

E

encrypted configuration file

- configuration checklist (table) [7-5](#)
- configuration settings (table)
 - for manual key [7-7](#)
- configuration tips [7-4](#)
- configuring manual key distribution [7-6](#)
- disabling [7-9](#)
- enabling [7-6](#)
- entering symmetric key [7-8](#)
- manual key configuration checklist (table) [7-7](#)
- manual key distribution [7-2](#)
- phone support [7-4](#)
- symmetric key encryption with public key [7-3](#)
- understanding
- using symmetric key encryption w/public key [7-8](#)
- verifying [7-8](#)

encryption

- configuration checklist (table) for gateways and trunks [13-4](#)
- configuration settings (table)
 - for SCCP phone [5-4](#)
 - for SIP phone security profiles [5-6](#)
 - for SIP trunk [14-3](#)
- configuring for phones [5-3](#)
- configuring SRTP allowed check box [13-6](#)
- configuring with barge [1-11](#)
- installing [1-11](#)
- interactions [1-5, 1-6](#)
- overview [1-18](#)
- overview for H.323/H.225/H.245 trunk [13-2](#)

overview for H.323 gateway [13-2](#)

overview for MGCP gateway [13-1](#)

overview for SIP trunk [13-3](#)

restrictions [1-5, 1-6](#)

with authentication [1-7](#)

with barge [1-7](#)

with media resources [1-8](#)

with packet capturing [1-9](#)

with phone and trunk devices [1-8](#)

with security icons [1-9](#)

signaling

configuring for phones [5-3](#)

configuring for SIP trunk [14-2](#)

with CTI/JTAPI/TAPI applications [11-3](#)

etoken

changing password [3-14](#)

F

file authentication [1-14](#)

configuring for phones [5-3](#)

H

HTTPS

overview [2-1](#)

virtual directories (table) [2-1](#)

with Internet Explorer [2-2](#)

with Netscape [2-5](#)

I

image authentication [1-14](#)

integrity

overview [1-14](#)

IP Phone

see Cisco Unified IP Phone

IPSec [1-12](#)

configuration checklist (table) for IPSec [13-4](#)
 configuring [13-5](#)
 gateway or trunk considerations [13-5](#)
 infrastructure considerations [13-5](#)
 recommendations [13-5](#)

J

JTAPI

configuration checklist (table) for securing [11-5](#)
 configuring security service parameters [11-14](#)

L

locally significant certificate (LSC)

finding phones using [6-8](#)
 with CTI/JTAPI/TAPI applications [11-4](#)

M

media encryption (see also encryption)

overview [1-18](#)

MGCP gateway

configuration checklist (table) for security [13-4](#)
 configuring [13-5](#)

mode

mixed [1-9](#)
 nonsecure [1-9](#)

P

phone hardening

configuring [9-3](#)
 disabling the GARP setting [9-1](#)
 disabling the PC Port setting [9-2](#)
 disabling the PC Voice VLAN Access setting [9-2](#)
 disabling the Setting Access setting [9-2](#)
 disabling the Web Access setting [9-1](#)

port

CTL Provider [3-4](#)
 Ethernet phone [3-4](#)
 SIP secure [3-4](#)

S

secure sockets layer (SSL)

installing [1-11](#)
 with HTTPS [2-1](#)

security

authentication overview [1-14](#)
 authorization overview [1-14](#)
 best practices [1-10](#)
 certificate types [1-12](#)
 configuration checklist for authentication and encryption (table) [1-20](#)
 CTL client overview [3-2](#)
 encryption overview
 features list [1-4](#)
 features list (table) [1-5](#)
 HTTPS [2-1](#)
 installing [1-11](#)
 interactions [1-5, 1-6](#)
 rebooting the cluster [1-10](#)
 rebooting the server [1-10](#)
 resetting devices [1-10](#)
 restarting Cisco Unified CallManager service [1-10](#)
 restrictions [1-5, 1-6](#)
 system requirements [1-4](#)
 terminology (table) [1-2](#)
 tokens [3-2, 3-6, 3-7, 3-9, 3-14](#)
 using barge with encryption [1-11](#)
 where to find more information [1-24](#)

security mode

clusterwide
 configuring [3-11](#)
 verifying [3-13](#)
 restrictions

- cluster and device modes [1-9](#)
- security profile
 - applying for SIP trunk [14-7](#)
 - applying to phones [5-9](#)
 - configuration settings (table)
 - for SCCP phone [5-4](#)
 - for SIP phones [5-6](#)
 - for SIP trunk [14-3](#)
 - configuration tips for phones [5-1](#)
 - configuring for phones [5-3](#)
 - configuring for SIP trunk [14-2](#)
 - deleting for phones [5-10](#)
 - deleting for SIP trunk [14-8](#)
 - finding for phones [5-2](#)
 - finding for SIP trunk [14-2](#)
 - finding phones that use [5-11](#)
 - overview for phones [5-1](#)
 - overview for SIP trunk [14-1](#)
- signaling authentication
 - overview [1-14](#)
- signaling encryption
 - overview [1-18](#)
- Site Administrator Security Token (SAST) [3-2](#)
- SRST
 - configuration checklist (table) for securing [12-3](#)
 - configuration tips for securing [12-2](#)
 - overview for securing [12-1](#)
 - troubleshooting
 - certificate deleted on gateway [12-5](#)
- SRST reference
 - configuration settings (table) for security [12-5](#)
 - configuring [12-3](#)
 - troubleshooting
 - deleting secured reference [12-5](#)
- configuring security service parameters [11-14](#)
- TFTP services [3-2](#)
- transport layer security (TLS) [1-12](#)
 - port [3-4](#)
- transport security
 - and real-time protocol (RTP) [1-12](#)
 - and secure real-time protocol (SRTP) [1-12](#)
 - configuration settings (table)
 - for SCCP phone [5-4](#)
 - for SIP phone [5-6](#)
 - for SIP trunk [14-3](#)
 - configuring for SIP phones [5-3](#)
 - configuring for SIP trunk [14-2](#)
 - IPSec [1-12](#)
 - TLS [1-12](#)
- troubleshooting
 - deleting CTL file on phone [3-14](#)
 - SRST certificate deleted on gateway [12-5](#)

V

- voice messaging
 - configuration checklist (table) for security [10-2](#)
 - security overview [10-1](#)
 - security requirements [10-1](#)
- voice messaging port
 - applying a security profile [10-3](#)
 - applying a security profile using the Wizard [10-4](#)
 - configuration checklist (table) for security [10-2](#)
 - security overview [10-1](#)

T

TAPI

- configuration checklist (table) for securing [11-5](#)

