



A

AAA 1

See also AAA clients

See also AAA servers

pools for IP address assignment 7

AAA clients 1

adding and configuring 11

configuring 7

deleting 14

editing 13

IP pools 7

multiple IP addresses for 8

number of 20

searching for 6

table 1

timeout values 6

AAA protocols

TACACS+ and RADIUS 3

AAA servers 3

adding 16

configuring 15

deleting 19

editing 18

enabling in interface (table) 6

functions and concepts 2

in distributed systems 2

master 2

overview 15

primary 2

replicating 2

searching for 6

secondary 2

troubleshooting 1

accessing Cisco Secure ACS

how to 3

URL 18

with SSL enabled 18

access policies

See administrative access policies

accountActions table 19,20

account disablement

Account Disabled check box 3

manual 38

resetting 39

setting options for 13

accounting

See also logging

administrative 15

overview 14

RADIUS 15

TACACS+ 15

ACLs

See downloadable IP ACLs

ACS

additional features 4

extended replication components 5

features, functions and concepts 2

internal database 3

introduction to 1

managing and administrating 15

scalability improvements 5

specifications 19

Windows Services 20

ACS internal database

See also databases

- overview [1](#)
- password encryption [2](#)
- ACS internal database replication
 - See replication
- action codes
 - for creating and modifying user accounts [4](#)
 - for initializing and modifying access filters [9](#)
 - for modifying network configuration [17](#)
 - for modifying TACACS+ and RADIUS settings [12](#)
 - for setting and deleting values [4](#)
 - in accountActions [3](#)
- Active Service Management
 - See Cisco Secure ACS Active Service Management
- adding
 - external servers [24](#)
- ADF
 - importing for vendors [5](#)
- Administration Audit log
 - configuring [9](#)
 - CSV file directory [11](#)
 - viewing [12](#)
- Administration Control
 - See also administrators
 - audit policy setup [12](#)
- administrative access policies
 - See also administrators
 - configuring [9](#)
 - limits [8](#)
 - options [8](#)
 - overview [8](#)
- administrative accounting [15](#)
- administrative sessions
 - and HTTP proxy [2](#)
 - network environment limitations of [1](#)
 - session policies [11](#)
 - through firewalls [2](#)
 - through NAT (network address translation) [2](#)
- administrators
 - See also Administration Audit log
 - See also Administration Control
 - See also administrative access policies
 - adding [4](#)
 - deleting [7](#)
 - editing [5](#)
 - locked out [7](#)
 - locking out [11](#)
 - overview [1](#)
 - privileges [2](#)
 - separation from general users [9](#)
 - troubleshooting [2](#)
 - unlocking [7](#)
- advanced options in interface [7](#)
- AES 128 algorithm [2](#)
- age-by-date rules for groups [18](#)
- Aironet
 - AAA client configuration [9](#)
 - RADIUS parameters for group [30](#)
 - RADIUS parameters for user [28](#)
- ARAP [9](#)
 - in User Setup [4](#)
- attribute definition file
 - see also ADF [5](#)
- attributes
 - enabling in interface [4](#)
 - group-specific (table) [24](#)
 - logging of user data [2](#)
 - per-group [4](#)
 - per-user [4](#)
 - user-specific (table) [24](#)
- attribute-value pairs
 - See AV (attribute value) pairs
- audit policies
 - See also Administration Audit log
 - overview [12](#)
- audit server
 - functionality [40](#)
- audit servers
 - setting up [25](#)

- authentication [6](#)
 - configuration [19](#)
 - configuring policies [27](#)
 - considerations [6](#)
 - denying unknown users [9](#)
 - functionality [12](#)
 - options [19](#)
 - overview [6](#)
 - protocol-database compatibility [7](#)
 - request handling [3](#)
 - user databases [7](#)
 - via external user databases [4](#)

- Windows [8](#)
- authorization [12](#)
 - configuring policies [43](#)
 - ordering rules [46](#)
 - rules [43](#)
 - sets See command authorization sets

AV (attribute value) pairs

See also RADIUS VSAs (vendor specific attributes)

RADIUS

- Cisco IOS [3](#)

- IETF [11](#)

TACACS+

- accounting [3](#)

- general [1](#)

Available Credentials [38](#)

B

Backup and Restore log directory

See Cisco Secure ACS Backup and Restore log

backups

- components backed up [8](#)

- directory management [8](#)

- disabling scheduled [10](#)

- filenames [11](#)

- locations [8](#)

- manual [9](#)

- options [9](#)
- overview [7](#)
- reports [8](#)
- scheduled vs. manual [7](#)
- scheduling [9](#)
- vs. replication [6](#)
- with CSUtil.exe [3](#)
- browsers
 - troubleshooting [3](#)

C

cached users

See discovered users

CA configuration [28](#)

callback options

- in Group Setup [5](#)

- in User Setup [6](#)

cascading replication [4, 9](#)

cautions

- significance of [27](#)

certificate authority, trusted root [13](#)

certificate trust list

- see CTL

certification

- See also EAP-TLS

- See also PEAP

- adding certificate authority certificates [28](#)

- background [1](#)

- backups [8](#)

- Certificate Revocation Lists [29](#)

- certificate signing request generation [32](#)

- editing the certificate trust list [28](#)

- replacing certificate [36](#)

- self-signed certificates

- configuring [35](#)

- NAC [5](#)

- overview [34](#)

- server certificate installation [26](#)

- updating certificate [36](#)
- Certification Revocation List (CRL) [5](#)
- CHAP [9](#)
 - in User Setup [4](#)
- Cisco
 - Identity-Based Networking Services (IBNS) [2](#)
- Cisco IOS
 - RADIUS
 - AV (attribute value) pairs [2](#)
 - group attributes [28](#)
 - user attributes [26](#)
 - TACACS+ AV (attribute value) pairs [1](#)
 - troubleshooting [3](#)
- Cisco NAC support [4](#)
- Cisco Secure ACS Active Service Management
 - event logging configuration [15](#)
 - overview [13](#)
 - system monitoring
 - configuring [14](#)
 - custom actions [14](#)
- Cisco Secure ACS Active Service Monitoring logs
 - file location [11](#)
 - viewing [12](#)
- Cisco Secure ACS administration overview [15](#)
- Cisco Secure ACS Backup and Restore log
 - CSV (comma-separated values) file directory [11](#)
 - viewing [12](#)
- Cisco Secure ACS backups
 - See backups
- Cisco Secure ACS system restore
 - See restore
- CiscoSecure Authentication Agent [16](#)
- CLID-based filters [19](#)
- cloning
 - Network Access Profiles [9](#)
 - policies or rules [21](#)
- codes
 - See action codes
- command authorization sets
 - See also shell command authorization sets
 - adding [28](#)
 - configuring [24, 28](#)
 - deleting [30](#)
 - editing [29](#)
 - overview [24](#)
 - pattern matching [27](#)
 - PIX command authorization sets [24](#)
- command-line database utility
 - See CSUtil.exe
- condition sets, defining [19](#)
- configuring
 - internal policies [18](#)
- configuring advanced filtering
 - Network Access Profiles [7](#)
- conventions [26](#)
- copying
 - policies or rules [21](#)
- creating
 - external servers [24](#)
- Credential Validation Databases [30](#)
- CRLs [29](#)
- CSAdmin
 - Windows Services [20](#)
- CSAuth
 - Windows Services [20](#)
- CSDBSync [19](#)
 - Windows Services [20](#)
- CSLog
 - Windows Services [20](#)
- CSMon
 - See also Cisco Secure ACS Active Service Management
 - Cisco Secure ACS Service Monitoring logs [23](#)
 - configuration [4](#)
 - log [5](#)
 - windows Services [20](#)
- CSNTacctInfo [40, 41, 42](#)
- CSNTAuthUserPap [38](#)
- CSNTerrorString [40, 41, 42](#)

CSNTEExtractUserClearTextPw [39](#)
 CSNTFindUser [39](#)
 CSNTgroups [40, 41, 42](#)
 CSNTpasswords [40, 41](#)
 CSNTresults [40, 41, 42](#)
 CSNTusernames [40, 41, 42](#)
 CSRadius [6](#)
 Windows Services [20](#)
 CSTacacs [6](#)
 Windows Services [20](#)
 CSUtil.exe
 decoding error numbers with [17](#)
 import text file (example) [15](#)
 overview [1](#)
 CSV (comma-separated values) files
 downloading [12](#)
 filename formats [10](#)
 logging format [1](#)
 viewing [12](#)
 CTL
 external policy servers
 CTL editing [28](#)
 custom attributes
 in group-level TACACS+ settings [22](#)
 in user-level TACACS+ settings [16](#)
 customer support
 collecting data for [25](#)

D

database group mappings
 configuring
 for token servers [2](#)
 for Windows domains [6](#)
 no access groups [4](#)
 order [8](#)
 deleting
 group set mappings [7](#)
 Windows domain configurations [7](#)
 Database Replication log
 CSV (comma-separated values) file directory [11](#)
 viewing [12](#)
 databases
 See also external user databases
 ACS internal database [1](#)
 authentication search process [3](#)
 compacting [8](#)
 deleting [54](#)
 deployment considerations [10](#)
 external
 See also external user databases
 See also Unknown User Policy
 replication
 See replication
 search order [7](#)
 search process [7](#)
 selecting user databases [1](#)
 synchronization
 See RDBMS synchronization
 token cards
 See token servers
 troubleshooting [6, 14](#)
 types
 See generic LDAP user databases
 See LEAP proxy RADIUS user databases
 See Novell NDS user databases
 See ODBC features
 See RADIUS user databases
 See RSA user databases
 unknown users [1](#)
 user databases [2](#)
 user import methods [2](#)
 Windows user databases [5](#)
 data source names
 configuring for ODBC logging [17](#)
 for RDMBS synchronization [24](#)
 using with ODBC databases [34, 43, 44](#)
 data types, NAC attribute [8](#)

- date format control [3](#)
 - DbSync log directory [11](#)
 - debug logs
 - detail levels [24](#)
 - frequency [24](#)
 - default group
 - in Group Setup [2](#)
 - mapping for Windows [4](#)
 - default time-of-day/day-of-week specification [6](#)
 - default time-of-day access settings for groups [5](#)
 - deleting [10](#)
 - external audit servers [27](#)
 - external servers [25](#)
 - logged-in users [7](#)
 - Network Access Profiles [10](#)
 - policies or rules [23](#)
 - deployment
 - overview [1](#)
 - sequence [11](#)
 - device command sets
 - See command authorization sets
 - device management applications support [13](#)
 - DHCP with IP pools [29](#)
 - dial-in permission to users in Windows [18](#)
 - dial-in troubleshooting [8](#)
 - dial-up networking clients [7](#)
 - dial-up topologies [2](#)
 - digital certificates
 - See certification
 - Disabled Accounts report
 - viewing [8](#)
 - Disabled Accounts reports
 - description [6](#)
 - discovered users [2](#)
 - Distinguished Name Caching [26](#)
 - distributed systems
 - See also proxy
 - AAA servers in [2](#)
 - overview [2](#)
 - settings
 - configuring [23](#)
 - default entry [3](#)
 - enabling in interface [6](#)
 - distribution table
 - See Proxy Distribution Table
 - DNIS-based filters [19](#)
 - documentation
 - conventions [26](#)
 - objectives [25](#)
 - online [18](#)
 - related [28](#)
 - Domain List
 - configuring [21](#)
 - inadvertent user lockouts [9, 21](#)
 - overview [9](#)
 - unknown user authentication [5](#)
 - domain names
 - Windows operating systems [9](#)
 - downloadable IP ACLs [5](#)
 - adding [15](#)
 - assigning to groups [22](#)
 - assigning to users [14](#)
 - deleting [17](#)
 - editing [16](#)
 - enabling in interface
 - group-level [6](#)
 - user-level [5](#)
 - overview [13](#)
 - draft-ietf-radius-tunnel-auth [3](#)
 - dump files
 - loading a database from a dump file [7](#)
 - dynamic usage quotas [13](#)
 - dynamic users
 - removing [40](#)
-
- E**
- EAP (Extensible Authentication Protocol)

- Configuration [29](#)
 - overview [9](#)
 - supported protocols [9](#)
 - with Windows authentication [10](#)
- EAP authentication
 - protocol [8](#)
- EAP-FAST [9](#)
 - enabling [17](#)
 - identity protection [10](#)
 - logging [9](#)
 - master keys
 - definition [10](#)
 - states [10](#)
 - master server [16](#)
 - overview [9](#)
- PAC
 - automatic provisioning [13](#)
 - definition [11](#)
 - manual provisioning [14](#)
 - refresh [15](#)
 - states [13](#)
- password aging [20](#)
- phases [9](#)
- replication [15](#)
- EAP-Flexible Authentication via Secure Tunneling (FAST) [5](#)
- EAP-TLS [9](#)
 - See also certification
 - authentication configuration [19](#)
 - comparison methods [3](#)
 - domain stripping [10](#)
 - enabling [4](#)
 - limitations [4](#)
 - options [22, 25](#)
 - overview [2](#)
- editing
 - external audit servers [26](#)
 - external posture validation servers [25](#)
 - internal policies [20](#)
 - Network Access Profiles [9](#)
 - enable password options for TACACS+ [23](#)
 - enable privilege options for groups [13](#)
 - entity field [8](#)
 - error number decoding with CSUtil.exe [17](#)
- Event log
 - configuring [15](#)
 - exception events [5](#)
- exception events [5](#)
- exemption list
 - external audit [15](#)
- exports
 - of user lists [15](#)
- Extensible Authentication Protocol
 - See EAP (Extensible Authentication Protocol)
- Extensible Authentication Protocol (EAP) [2](#)
- external audit policy
 - what triggers an [15](#)
- external audit server
 - setting up [25](#)
- external audit servers
 - about [14](#)
 - deleting [27](#)
 - editing [26](#)
- external policies [11](#)
 - exemption list support [15](#)
- external servers
 - creating [24](#)
 - deleting [25](#)
 - editing [25](#)
- external token servers
 - See token servers
- external user databases
 - See also databases
 - authentication via [4](#)
 - configuring [3](#)
 - deleting configuration [54](#)
 - latency factors [6](#)
 - search order [6, 8](#)

supported 7
 Unknown User Policy 1

F

Failed Attempts log

configuring
 CSV (comma-separated values) 14
 ODBC 17
 CSV (comma-separated values) file directory 11
 enabling
 log 11
 ODBC 17
 viewing 12

failed log-on attempts 5

failure events

customer-defined actions 5
 predefined actions 5

fallbacks on failed connection 4

finding users 37

G

gateways 2

Generic LDAP 7

generic LDAP user databases

authentication 22
 configuring
 database 30
 options 26
 directed authentications 24
 domain filtering 24
 failover 25
 mapping database groups to AAA groups 3
 mutiple instances 23
 organizational units and groups 23

Global Authentication Setup 19

global authentication setup

enabling posture validation 5
 grant dial-in permission to users 6, 18
 greeting after login 18

group-level interface enabling

downloadable IP ACLs 6
 network access restrictions 6
 network access restriction sets 6
 password aging 6

group-level network access restrictions

See network access restrictions

groups

See also network device groups

assigning users to 5
 configuring RADIUS settings for
 See RADIUS

Default Group 2, 4

enabling VoIP (Voice-over-IP) support for 4

exporting group information 16

listing all users in 40

mapping order 8

mappings 1

no access groups 4

overriding settings 4

relationship to users 4

renaming 40

resetting usage quota counters for 40

settings for

callback options 5
 configuration-specific 12
 configuring common 3
 device management command authorization sets 26
 enable privilege 13
 IP address assignment method 21
 management tasks 39
 max sessions 9
 network access restrictions 6
 password aging rules 15
 PIX command authorization sets 25
 shell command authorization sets 24

- TACACS+ [2, 3, 22](#)
- time-of-day access [5](#)
- token cards [14](#)
- usage quotas [10](#)
- setting up and managing [1](#)
- specifications by ODBC authentications [40, 41, 42](#)

H

- handle counts [5](#)
- hard disk space [4](#)
- host system state [4](#)
- HTML interface
 - encrypting [9](#)
 - logging off [3](#)
- HTTP port allocation
 - configuring [9](#)
 - for administrative sessions [16](#)
- HTTPS [9](#)

I

- IEEE 802.1x [2](#)
- IETF 802.1x [9](#)
- IETF RADIUS attributes [4](#)
- importing passwords [9](#)
- imports with CSUtil.exe [9](#)
- inbound
 - authentication [10](#)
 - password configuration [10](#)
- installation
 - related documentation [28](#)
 - troubleshooting [11](#)
- Interface Configuration
 - See also HTML interface
 - advanced options [5](#)
 - configuring [1](#)
 - customized user data fields [4](#)

- security protocol options [9](#)
- internal architecture [1](#)
- internal policies
 - configuration options [10](#)
 - editing [20](#)
 - rules [10](#)
 - steps to set up [18](#)
- IP ACLs
 - See downloadable IP ACLs
- IP addresses
 - in User Setup [7](#)
 - multiple IP addresses for AAA client [8](#)
 - requirement for CSTacacs and CSRADIUS [6](#)
 - setting assignment method for user groups [21](#)
- IP pools
 - address recovery [33](#)
 - deleting [32](#)
 - DHCP [29](#)
 - editing IP pool definitions [31](#)
 - enabling in interface [6](#)
 - overlapping [29, 30](#)
 - refreshing [30](#)
 - resetting [32](#)
 - servers
 - adding IP pools [30](#)
 - overview [28](#)
 - replicating IP pools [29](#)
 - user IP addresses [7](#)

L

- LAN manager [9](#)
- latency in networks [10](#)
- LDAP
 - Admin Logon Connection Management [26](#)
 - Distinguished Name [26](#)
- LEAP [9](#)
- LEAP proxy RADIUS user databases
 - configuring external databases [47](#)

- group mappings [1](#)
 - overview [46](#)
 - RADIUS-based group specifications [8](#)
 - list all users
 - in Group Setup [40](#)
 - in User Setup [37](#)
 - local policies
 - see internal policies
 - log files
 - storage directory [3](#)
 - Logged-In Users report
 - deleting logged-in users [7](#)
 - description [6](#)
 - viewing [7](#)
 - logging
 - See also Reports and Activity
 - accounting logs [4](#)
 - Administration Audit log [9](#)
 - administration reports [6](#)
 - configuring [15](#)
 - CSV (comma-separated values) files [1](#)
 - custom RADIUS dictionaries [2](#)
 - debug logs
 - detail levels [24](#)
 - frequency [24](#)
 - Disabled Accounts reports [6](#)
 - domain names [2](#)
 - external user databases [2](#)
 - Failed Attempts logs [4](#)
 - formats [1](#)
 - Logged-In Users reports [6](#)
 - ODBC logs
 - enabling in interface [7](#)
 - overview [1](#)
 - working with [16](#)
 - overview [4](#)
 - Passed Authentication logs [4](#)
 - RADIUS logs [4](#)
 - RDBMS synchronization [2](#)
 - remote logging
 - centralized [20](#)
 - configuring [21](#)
 - disabling [22](#)
 - enabling in interface [6](#)
 - logging hosts [19](#)
 - options [21](#)
 - overview [19](#)
 - service logs [12](#)
 - services
 - configuring service logs [24](#)
 - list of logs generated [23](#)
 - system logs [8](#)
 - TACACS+ logs [4](#)
 - troubleshooting [12](#)
 - user data attributes [2](#)
 - VoIP logs [4](#)
 - watchdog packets [3](#)
 - login process test frequency [13](#)
 - logins
 - greeting upon [18](#)
 - password aging dependency [17](#)
 - logs
 - See logging
 - See Reports and Activity
-
- ## M
- MAC-Authentication Bypass [29](#)
 - Machine Access Restrictions (MAR) [6](#)
 - machine authentication
 - enabling [16](#)
 - overview [11](#)
 - with Microsoft Windows [14](#)
 - management application support [13](#)
 - mappings
 - database groups to AAA groups [3](#)
 - databases to AAA groups [1](#)
 - master AAA servers [2](#)

- master key
 - definition [10](#)
 - states [10](#)
- max sessions [12](#)
 - enabling in interface [6](#)
 - group [12](#)
 - in Group Setup [9](#)
 - in User Setup [11](#)
 - overview [12](#)
 - troubleshooting [11](#)
 - user [12](#)
- memory utilization [4](#)
- monitoring
 - configuring [14](#)
 - CSMon [4](#)
 - overview [13](#)
- MS-CHAP [9](#)
 - configuring [19](#)
 - overview [9](#)
 - protocol supported [8](#)
- multiple IP addresses for AAA clients [8](#)

N

- NAC [2](#)
 - agentless host see also NAH [14](#)
 - attributes
 - about [7](#)
 - adding [28](#)
 - data types [8](#)
 - deleting [28](#)
 - exporting [28](#)
 - configuring ACS for support for [4](#)
 - credentials
 - about [7](#)
 - implementing [4](#)
 - logging [5](#)
 - overview
 - policies
 - about [18](#)
 - external [11](#)
 - internal [9](#)
 - results [18](#)
 - remediation server
 - url-redirect attribute [6](#)
 - rules
 - about [10, 6](#)
 - default [11](#)
 - operators [6](#)
 - self-signed certificates [5](#)
 - tokens
 - definition [3](#)
 - descriptions of [3](#)
 - returned by internal policies [9](#)
- NAC Agentless Host [25](#)
- NAC L2 IP [17](#)
- NAC L3 IP [15](#)
- NAFs
 - See network access filters
- NAH
 - policies [14](#)
- NAR
 - See network access restrictions
- NAS
 - See AAA clients
- Network Access Filter (NAF)
 - editing [5](#)
- Network Access Filters (NAF) [6, 4](#)
 - adding [3](#)
 - deleting [6](#)
 - overview [2](#)
- Network Access Profiles [5, 1, 10, 28](#)
 - cloning [9](#)
 - configuring advanced filtering [7](#)
 - editing [9](#)
 - setting up [3](#)
- network access quotas [13](#)
- network access restrictions

- deleting [23](#)
- editing [22](#)
- enabling in interface
 - group-level [6](#)
 - user-level [5](#)
- in Group Setup [6](#)
- interface configuration [6](#)
- in User Setup [6, 8](#)
- non-IP-based filters [19](#)
- overview [18](#)
- network access servers
 - See AAA clients
- Network Admission Control
 - see NAC
- network configuration [1](#)
- network device groups
 - adding [20](#)
 - assigning AAA clients to [21](#)
 - assigning AAA servers to [21](#)
 - configuring [19](#)
 - deleting [22](#)
 - enabling in interface [6](#)
 - reassigning AAA clients to [21](#)
 - reassigning AAA servers to [21](#)
 - renaming [22](#)
- network devices
 - searches for [6](#)
- networks
 - latency [10](#)
 - reliability [10](#)
- network topologies
 - deployment [2](#)
 - wireless [4](#)
- noncompliant devices [2](#)
- non-EAP authentication
 - protocol [7](#)
- Novell NDS user databases
 - mapping database groups to AAA groups [3](#)

O

- ODBC features
 - accountActions table [21](#)
 - authentication
 - CHAP [37](#)
 - EAP-TLS [37](#)
 - overview [34](#)
 - PAP [37](#)
 - preparation process [36](#)
 - process with external user database [35](#)
 - result codes [43](#)
 - case-sensitive passwords [38](#)
 - CHAP authentication sample procedure [39](#)
 - configuring [44](#)
 - data source names [17, 34](#)
 - DSN (data source name) configuration [43](#)
 - EAP-TLS authentication sample procedure [39](#)
 - features supported [35](#)
 - group mappings [1](#)
 - group specifications
 - CHAP [41](#)
 - EAP-TLS [42](#)
 - PAP [40](#)
 - vs. group mappings [2](#)
 - PAP authentication sample procedures [38](#)
 - password case sensitivity [38](#)
 - stored procedures
 - CHAP authentication [41](#)
 - EAP-TLS authentication [42](#)
 - implementing [37](#)
 - PAP authentication [40](#)
 - type definitions [38](#)
 - user databases [34](#)
- ODBC logs
 - See logging
- One-time Passwords (OTPs) [6](#)
- online documentation [18](#)
- online help [18](#)

- location in HTML interface [17](#)
- using [18](#)
- online user guide [19](#)
- Open Database Connectivity (ODBC) [7](#)
- ordering rules, in policies [10](#)
- outbound password configuration [10](#)
- overview of Cisco Secure ACS [1](#)

P

PAC

- automatic provisioning [13](#)
- definition [11](#)
- manual provisioning [14](#)
- refresh [15](#)

- package.cab file [25](#)

PAP

- in User Setup [4](#)
- vs. ARAP [9](#)
- vs. CHAP [9](#)

Passed Authentications log

- configuring CSV (comma-separated values) [14](#)
- CSV (comma-separated values) file directory [11](#)
- enabling CSV (comma-separated values) logging [11](#)
- viewing [12](#)

password

- automatic change password configuration [16](#)

password aging

- age-by-uses rules [17](#)
- Cisco IOS release requirement for [16](#)
- EAP-FAST [17](#)
- interface configuration [6](#)
- in Windows databases [19](#)
- MS-CHAP [17](#)
- overview [11](#)
- PEAP [17](#)
- rules [15](#)

password configurations

- basic [10](#)

passwords

- See also password aging
- case sensitive [38](#)
- CHAP/MS-CHAP/ARAP [5](#)
- configurations
 - caching [10](#)
 - inbound passwords [10](#)
 - outbound passwords [10](#)
 - separate passwords [10](#)
 - single password [10](#)
 - token caching [10](#)
 - token cards [10](#)
- encryption [2](#)
- expiration [17](#)
- import utility [9](#)
- local management [4](#)
- password change log management [5](#)
- post-login greeting [18](#)
- protocols supported [8](#)
- remote change [5](#)
- user-changeable [11](#)
- validation options in System Configuration [4](#)

pattern matching in command authorization [27](#)

PEAP

[9](#)

- See also certification
- configuring [19](#)
- enabling [8](#)
- identity protection [6](#)
- options [21](#)
- overview [6](#)
- password aging [19](#)
- phases [6](#)
- with Unknown User Policy [7](#)

performance monitoring [4](#)

performance specifications [19](#)

per-group attributes

- See also groups
- enabling in interface [4](#)

per-user attributes

- enabling in interface [4](#)
- TACACS+/RADIUS in Interface Configuration [5](#)
- PIX ACLs
 - See downloadable IP ACLs
- PIX command authorization sets
 - See command authorization sets
- PKI (public key infrastructure)
 - See certification
- Point-to-Point Protocol (PPP) [20](#)
- policies
 - cloning [21](#)
 - configuring [17](#)
 - copying [21](#)
 - deleting [23](#)
 - external [11](#)
 - configuration options [12](#)
 - internal [9](#)
 - local
 - see internal policies
 - NAH [14](#)
 - overview [7](#)
 - renaming [22](#)
 - rule order [10](#)
 - setting up an external audit server [25](#)
 - setting up external servers [24](#)
- Populate from Global [28](#)
 - Network Access Profiles [28](#)
- port 2002
 - in HTTP port ranges [9](#)
 - in URLs [18](#)
- port allocation
 - See HTTP port allocation
- ports
 - See also HTTP port allocation
 - See also port 2002
- RADIUS [3](#)
- TACACS+ [3](#)
- Posture Validation
 - for Agentless Hosts [41](#)
- posture validation
 - attributes [7](#)
 - configuring ACS for [4](#)
 - credentials [7](#)
 - CTL [5](#)
 - enabling [5](#)
 - failed attempts log [5](#)
 - implementing [4](#)
 - internal policy configuration options [10](#)
 - options [17](#)
 - passed authentications log [5](#)
 - policy overview [7](#)
 - process flow [6](#)
 - and profile-based policies [27](#)
 - profiles, adding user groups [5](#)
 - rule
 - assigning posture tokens [6](#)
 - rules, about [10](#)
 - server certificate requirement [4](#)
- Posture Validation Policies
 - configuring [35](#)
- PPP password aging [16](#)
- privileges
 - See administrators
- processor utilization [4](#)
- profile [1](#)
- Profile-based Policies [2](#)
- profile components
 - See shared profile components
- profiles [47](#)
- profile templates [13](#)
- protocols supported [8](#)
- protocol support
 - EAP authentication [8](#)
 - non-EAP authentication
 - [7](#)
- protocol types
 - Network Access Profiles [5](#)
- proxy

See also Proxy Distribution Table

character strings

defining 4

stripping 4

configuring 23

in enterprise settings 5

overview 3

sending accounting packets 5

troubleshooting 11

Proxy Distribution Table

See also proxy

adding entries 24

configuring 23

default entry 3, 24

deleting entries 26

editing entries 25

match order sorting 25

overview 23

Q

quotas

See network access quotas

See usage quotas

R

RAC and Groups 47

RADIUS 3

See also RADIUS VSAs (vendor specific attributes)

accounting 15

attributes

See also RADIUS VSAs (vendor specific attributes)

in User Setup 24

AV (attribute value) pairs

See also RADIUS VSAs (vendor specific attributes)

Cisco IOS 3

IETF 11

overview 1

Cisco Aironet 9

compliant token servers 7

IETF

in Group Setup 27

interface configuration 12

in User Setup 25

interface configuration overview 9

password aging 19

ports 3

specifications 3

token servers 49

troubleshooting 15

tunneling packets 12

vs. TACACS+ 3

RADIUS Accounting log

configuring

CSV (comma-separated values) 14

ODBC 17

configuring CSV (comma-separated values) 12

CSV (comma-separated values) file directory 11

enabling

ODBC 17

enabling CSV (comma-separated values) 11

RADIUS user databases

configuring 50

group mappings 1

RADIUS-based group specifications 8

RADIUS VSAs (vendor specific attributes)

Ascend

in Group Setup 32

in User Setup 29

supported attributes 21

Cisco Aironet

in Group Setup 30

in User Setup 28

Cisco BBSM (Building Broadband Service Manager)

in Group Setup 38

in User Setup 35

- supported attributes [10](#)
- Cisco IOS/PIX
 - in Group Setup [28](#)
 - interface configuration [13](#)
 - in User Setup [26](#)
 - supported attributes [4](#)
- Cisco VPN 3000
 - in Group Setup [33](#)
 - in User Setup [30](#)
 - supported attributes [6](#)
- Cisco VPN 5000
 - in Group Setup [34](#)
 - in User Setup [31](#)
 - supported attributes [10](#)
- custom
 - about [19](#)
 - in Group Setup [39](#)
 - in User Setup [35](#)
- Juniper
 - in Group Setup [37](#)
 - in User Setup [34](#)
 - supported attributes [28](#)
- Microsoft
 - in Group Setup [35](#)
 - in User Setup [32](#)
 - supported attributes [19](#)
- Nortel
 - in Group Setup [36](#)
 - in User Setup [33](#)
 - supported attributes [28](#)
- overview [1](#)
- user-defined
 - about [19, 18](#)
 - action codes for [12](#)
 - adding [18](#)
 - deleting [19](#)
 - import files [21](#)
 - listing [20](#)
 - replicating [19, 18](#)
- RDBMS synchronization
 - accountActions table as transaction queue [21](#)
 - configuring [26](#)
 - data source name configuration [23, 24](#)
 - disabling [28](#)
 - enabling in interface [6](#)
 - group-related configuration [18](#)
 - import definitions [1](#)
 - log
 - CSV (comma-separated values) file directory [11](#)
 - viewing [12](#)
 - manual initialization [25](#)
 - network configuration [19](#)
 - overview [17](#)
 - partners [25](#)
 - preparing to use [22](#)
 - report and error handling [22](#)
 - scheduling options [25](#)
 - user-related configuration [18](#)
- Registry [2](#)
- Regular Expressions Syntax [14](#)
- rejection mode
 - general [3](#)
 - Windows user databases [4](#)
- related documentation [28](#)
- reliability of network [10](#)
- remote access policies [7](#)
- remote logging
 - See logging
- Remove Dynamic Users [40](#)
- removing
 - external audit servers [27](#)
 - external servers [25](#)
 - policies or rules [23](#)
- removing dynamic users [40](#)
- renaming
 - policies [22](#)
- replication
 - ACS Service Management page [2](#)

- auto change password settings [16](#)
 - backups recommended (Caution) [7](#)
 - cascading [4,9](#)
 - certificates [2](#)
 - client configuration [11](#)
 - components
 - overwriting (Caution) [11](#)
 - overwriting (Note) [7](#)
 - selecting [8](#)
 - configuring [14](#)
 - corrupted backups (Caution) [7](#)
 - custom RADIUS dictionaries [2](#)
 - disabling [15,16](#)
 - EAP-FAST [15](#)
 - encryption [4](#)
 - external user databases [2](#)
 - frequency [5](#)
 - group mappings [2](#)
 - immediate [12](#)
 - implementing primary and secondary setups [10](#)
 - important considerations [5](#)
 - in System Configuration [14](#)
 - interface configuration [6](#)
 - IP pools [2,29](#)
 - logging [7](#)
 - manual initiation [12](#)
 - master AAA servers [2](#)
 - notifications [16](#)
 - options [7](#)
 - overview [2](#)
 - partners
 - configuring [15](#)
 - options [9](#)
 - process [3](#)
 - scheduling [14](#)
 - scheduling options [9](#)
 - selecting data [8](#)
 - unsupported [2](#)
 - user-defined RADIUS vendors [6](#)
 - vs. backup [6](#)
 - Reports and Activity
 - See also logging
 - configuration privileges [4](#)
 - configuring [15](#)
 - CSV (comma-separated values) logs [8](#)
 - in interface [17](#)
 - overview [4](#)
 - request handling
 - general [3](#)
 - Windows user databases [4](#)
 - Required Credential Types [38](#)
 - resource consumption [5](#)
 - restarting services [2](#)
 - restore
 - components restored
 - configuring [12](#)
 - overview [12](#)
 - filenames [11](#)
 - in System Configuration [11](#)
 - on a different server [11](#)
 - overview [11](#)
 - performing [12](#)
 - reports [12](#)
 - with CSUtil.exe [4](#)
 - RFC2138 [3](#)
 - RFC2139 [3](#)
 - RSA SecurID Token Server [7](#)
 - RSA user databases
 - configuring [53](#)
 - group mappings [1](#)
 - rules
 - about [10](#)
 - internal policy [10](#)
-
- S**
- search order of external user databases [8](#)
 - security policies [8](#)

- security protocols
 - CSRADIUS 6
 - CSTacacs 6
 - interface options 9
 - RADIUS 3,1
 - TACACS+
 - custom commands 8
 - overview 3
 - time-of-day access 8
- Selected Credentials 38
- server certificate installation 26
- service control in System Configuration 24
- Service Monitoring logs
 - See Cisco Secure ACS Service Monitoring logs
- services
 - determining status of 2
 - logs
 - configuring 24
 - list of logs generated 23
 - management 13
 - starting 2
 - stopping 2
- session policies
 - configuring 11
 - options 11
 - overview 11
- setting up
 - Network Access Profiles 3
- shared profile components
 - See also command authorization sets
 - See also downloadable IP ACLs
 - See also network access filters
 - See also network access restrictions
 - overview 1
- Shared Profile Components (SPC) 13
- Shared RAC 46
- shared secret 6
- shell command authorization sets
 - See also command authorization sets
- in Group Setup 24
- in User Setup 17
- Simple Network Management Protocol (SNMP) 12
- single password configurations 10
- SMTP (simple mail-transfer protocol) 5
- specifications
 - RADIUS
 - RFC2138 3
 - RFC2139 3
 - system performance 19
 - TACACS+ 3
- SSL (secure socket layer) 9
- starting services 2
- static IP addresses 7
- stopping services 2
- stored procedures
 - CHAP authentication
 - configuring 45
 - input values 41
 - output values 41
 - result codes 43
 - EAP-TLS authentication
 - configuring 46
 - input values 42
 - output values 42
 - implementing 37
 - PAP authentication
 - configuring 45
 - input values 40
 - output values 40
 - result codes 43
 - sample procedures 38
 - type definitions
 - integer 38
 - string 38
- supplementary user information
 - in User Setup 4
 - setting 4
- support

- Cisco Device-Management Applications **13**
- supported password protocols **8**
- synchronization
 - See RDBMS synchronization
- system
 - configuration
 - advanced **1**
 - authentication **1**
 - basic **1**
 - certificates **1**
 - privileges **3**
 - health **4**
 - messages in interface **17**
 - monitoring
 - See monitoring
 - performance specifications **19**
 - services
 - See services
- system performance
 - specifications **19**

T

- TACACS+ **3**
 - accounting **15**
 - advanced TACACS+ settings
 - in Group Setup **2, 3**
 - in User Setup **22**
 - AV (attribute value) pairs
 - accounting **3**
 - general **1**
 - custom commands **8**
 - enable password options for users **23**
 - enable privilege options **22**
 - interface configuration **7**
 - interface options **9**
 - outbound passwords for users **24**
 - ports **3**
 - SENDAUTH **10**

- settings
 - in Group Setup **2, 3, 22**
 - in User Setup **15, 16**
- specifications **3**
- time-of-day access **8**
- troubleshooting **15**
- vs. RADIUS **3**
- TACACS+ Accounting log
 - configuring
 - CSV (comma-separated values) **14**
 - ODBC **17**
 - CSV (comma-separated values) file directory **11**
 - enabling CSV (comma-separated values) **11**
 - enabling for ODBC **17**
 - viewing **12**
- TACACS+ Administration log
 - configuring
 - CSV (comma-separated values) **14**
 - ODBC **17**
 - CSV (comma-separated values) file directory **11**
 - enabling
 - ODBC **17**
 - enabling CSV (comma-separated values) **11**
 - viewing **12**
- Telnet
 - See also command authorization sets
 - password aging **16**
- test login frequency internally **13**
- thread used **5**
- time-of-day/day-of-week specification
 - See also date format control
 - enabling in interface **6**
- timeout values on AAA clients **6**
- TLS (transport level security)
 - See certification
- token caching **10, 49**
- token cards **20**
 - password configuration **10**
 - settings in Group Setup **14**

token servers

- ISDN terminal adapters [49](#)
- overview [49](#)
- RADIUS-enabled [49](#)
- RADIUS token servers [50](#)
- RSA [53](#)
- supported servers [7](#)
- token caching [49](#)

topologies

- See network topologies

troubleshooting [47](#)

- AAA servers [1](#)
- administration issues [2](#)
- browser issues [3](#)
- Cisco IOS issues [3](#)
- database issues [6](#)
- debug logs [23](#)
- dial-in issues [8](#)
- installation issues [11](#)
- max sessions issues [11](#)
- proxy issues [11](#)
- RADIUS issues [15](#)
- report issues [12](#)
- TACACS+ issues [15](#)
- third-party server issues [14](#)
- upgrade issues [11](#)
- user issues [14](#)

trusted root certificate authority [13](#)

trust lists

- See certification

trust relationships [7](#)**U**UNIX passwords [12](#)unknown service user setting [21](#)Unknown User Policy [18](#)

- See also unknown users
- configuring [8](#)

in external user databases [2,7](#)turning off [9](#)

unknown users

See also Unknown User Policy

- authentication [3](#)
- authentication performance [6](#)
- authentication processing [6](#)
- network access authorization [6](#)

unmatched user requests [10](#)

update packets

- See watchdog packets

upgrade troubleshooting [11](#)

usage quotas

- in Group Setup [10](#)
- in Interface Configuration [6](#)
- in User Setup [12](#)
- overview [13](#)

resetting

- for groups [40](#)
- for single users [39](#)

user-changeable passwords

- overview [11](#)
- with Windows user databases [17](#)

user databases

- See databases

User Data Configuration [4](#)

user groups

- See groups

user guide

- online [19](#)

user-level

- downloadable ACLs interface [5](#)
- network access restrictions
 - See also network access restrictions
 - enabling in interface [5](#)

User Password Changes log location [11](#)

users

- See also User Setup
- adding

- basic steps [3](#)
- methods [2](#)
- assigning client IP addresses to [7](#)
- assigning to a group [5](#)
- callback options [6](#)
- configuring [1](#)
- configuring device management command authorization sets for [20](#)
- configuring PIX command authorization sets for [19](#)
- configuring shell command authorization sets for [17](#)
- customized data fields [4](#)
- data configuration
 - See User Data Configuration
- deleting [7](#)
- deleting accounts [38](#)
- disabling accounts [3](#)
- finding [37](#)
- import methods [2](#)
- in multiple databases [4](#)
- listing all users [37](#)
- number allowed [10](#)
- number of [20](#)
- RDBMS synchronization [18](#)
- relationship to groups [4](#)
- removing dynamic [40](#)
- resetting accounts [39](#)
- saving settings [41](#)
- supplementary information [4](#)
- troubleshooting [14](#)
- types
 - discovered [2](#)
 - known [2](#)
 - unknown [2](#)
- VPDN dialup [1](#)

User Setup

- account management tasks [36](#)
- basic options [2](#)
- configuring [1](#)
- deleting user accounts [38](#)

- saving settings [41](#)
- Users in Group button [40](#)

V

- validation of passwords [4](#)
- vendors
 - adding audit [25](#)
- vendor-specific attributes
 - See RADIUS VSAs (vendor specific attributes)
- vendor-specific attributes (VSAs) [4](#)
- viewing logs and reports
 - See logging
- Virtual Private Dial-Up Networks (VPDNs) [12](#)
- Voice-over-IP
 - See VoIP (Voice-over-IP)
- VoIP (Voice-over-IP)
 - accounting configuration [7, 15](#)
 - Accounting log
 - enabling csv log [11](#)
 - viewing [12](#)
 - enabling in interface [6](#)
 - group settings in Interface Configuration [6](#)
 - in Group Setup [4](#)
- VoIP (Voice-over-IP) Accounting log
 - configuring
 - CSV (comma-separated values) [14](#)
 - ODBC [17](#)
 - CSV (comma-separated values) file directory [11](#)
 - enabling
 - ODBC [17](#)
- VPDN
 - advantages [6](#)
 - authentication process [1](#)
 - domain authorization [2](#)
 - home gateways [2](#)
 - IP addresses [2](#)
 - tunnel IDs [2](#)
 - users [1](#)

VSAs

See RADIUS VSAs (vendor specific attributes)

W

warning events [4, 5](#)

warnings

significance of [27](#)

watchdog packets

configuring on AAA clients [12](#)

configuring on AAA servers [17](#)

logging [3](#)

web interface

See also Interface Configuration

layout [16](#)

security [15](#)

uniform resource locator [18](#)

Windows Callback [18](#)

Windows Database Callback [18](#)

Windows operating systems

authentication order [5](#)

Cisco Secure ACS-related services

services [2](#)

dial-up networking [7](#)

dial-up networking clients

domain field [7](#)

password field [7](#)

username field [7](#)

Domain List effect [5](#)

domains

domain names [9, 4](#)

Event logs [5](#)

Registry [2](#)

Windows Services [20](#)

CSAdmin [20](#)

CSAuth [20](#)

CSDBSync [20](#)

CSLog [20](#)

CSMon [20](#)

CSRADIUS [20](#)

CSTacacs [20](#)

overview [20](#)

Windows user database [7](#)

passwords [8](#)

Windows user databases

See also databases

Active Directory [18](#)

configuring [21](#)

Domain list

inadvertent user lockouts [21](#)

domain mapping [6](#)

domains

trusted [7](#)

grant dial-in permission to users [6, 18](#)

group mappings

editing [6](#)

limitations [3](#)

no access groups [4](#)

remapping [6](#)

mapping database groups to AAA groups [3](#)

overview [5](#)

password aging [19](#)

rejection mode [4](#)

request handling [4](#)

trust relationships [7](#)

user-changeable passwords [17](#)

user manager [18](#)

wireless network topologies [4](#)