



# CLI Reference Guide for Cisco Secure Access Control System 5.8

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# Preface

This guide describes how you can configure and maintain Cisco Secure Access Control System (ACS) 5.8 by using the command-line interface (CLI). Each topic provides a high-level summary of the tasks required for using the CLI in the Cisco Application Deployment Engine (ADE) OS 2.2 which, in combination with ACS 5.8, runs on the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance.

- [Who Should Read This Guide, page iii](#)
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**Note:** Use this guide in conjunction with the documentation listed in [Related Documentation, page iv](#).

## Who Should Read This Guide

The majority of the instructions in this guide are straightforward; however, a few are complex. Therefore, only experienced users should use these instructions.

**Note:** Use this guide in conjunction with the documentation listed in [Related Documentation, page iv](#).

## How to Use This Guide

Cisco recommends the following:

- Read the document in its entirety. Subsequent sections build on information and recommendations discussed in previous sections.
- Use this document for all-inclusive information about the ACS appliance.
- Do not vary from the command-line conventions (see [Document Conventions, page iv](#)).

## How This Guide Is Organized

Title	Description
<a href="#">Overview of the ACS CLI, page 1</a>	Provides an overview of the ACS CLI environment and command modes.
<a href="#">Using the ACS CLI, page 1</a>	Describes how you can access and administer ACS from the CLI.
<a href="#">ACS Command Reference, page 1</a>	Provides a complete description of all the commands.

## Document Conventions

Convention	Description
<b>bold font</b>	Commands and keywords.
<i>italic font</i>	Variables for which you supply values.
[ ]	Keywords or arguments that appear within square brackets are optional.
{x   y   z}	A choice of required keywords appears in braces separated by vertical bars. You must select one.
<code>courier font</code>	Examples of information displayed on the screen.
<b><code>courier font</code></b>	Examples of information you must enter.
< >	Nonprinting characters (for example, passwords) appear in angle brackets.
[ ]	Default responses to system prompts appear in square brackets.

**Note:** Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.

**Note:** Means *the following information will help you solve a problem*. A tip might not consist of an action or troubleshooting help, but could still contain useful information.

**Caution:** Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

## Documentation Updates

**Table 1 Updates to CLI Reference Guide for Cisco Secure Access Control System 5.8**

Date	Description
09/29/2015	Cisco Secure Access Control System, Release 5.8

## Related Documentation

**Note:** It is possible for the printed and electronic documentation to be updated after original publication. Therefore, you should also review the documentation on <http://www.cisco.com> for any updates.

**Table 2 on page v** lists the product documentation that is available for ACS 5.8. To find end-user documentation for all the products on Cisco.com, go to: <http://www.cisco.com/go/techdocs>

Select **Products > Security > Access Control and Policy > Policy and Access Management > Cisco Secure Access Control System**.

**Table 2 Product Documentation**

Document Title	Available Formats
<i>Cisco Secure Access Control System In-Box Documentation and China RoHS Pointer Card</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-documentation-roadmaps-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-documentation-roadmaps-list.html</a>
<i>Migration Guide for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-installation-guides-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-installation-guides-list.html</a>
<i>User Guide for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-user-guide-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-user-guide-list.html</a>
<i>Supported and Interoperable Devices and Software for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-device-support-tables-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-device-support-tables-list.html</a>
<i>Installation and Upgrade Guide for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-installation-guides-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-installation-guides-list.html</a>
<i>Release Notes for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-release-notes-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-release-notes-list.html</a>
<i>Software Developer's Guide for Cisco Secure Access Control System 5.8</i>	<a href="http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-programming-reference-guides-list.html">http://www.cisco.com/c/en/us/support/security/secure-access-control-system/products-programming-reference-guides-list.html</a>
<i>Regulatory Compliance and Safety Information for Cisco Secure Access Control System</i>	<a href="http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-6/regulatory/compliance/csacsrcsi.html">http://www.cisco.com/c/en/us/td/docs/net_mgmt/cisco_secure_access_control_system/5-6/regulatory/compliance/csacsrcsi.html</a>

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to the *What's New in Cisco Product Documentation* as an RSS feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service. Cisco currently supports RSS Version 2.0.





# Overview of the ACS CLI

Cisco Secure Access Control System (ACS) 5.8 uses the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance running the Cisco Application Deployment Engine (ADE) OS 2.2.2.011. This chapter provides an overview of how to access the ACS CLI, the different command modes, and the commands that are available in each mode.

You can configure and monitor ACS 5.8 through the web interface. You can also use the CLI to perform the configuration and monitoring tasks that this guide describes.

The following sections describe the ACS CLI:

- [Accessing the ACS Command Environment, page 1](#)
- [User Accounts and Modes in ACS, page 1](#)
- [Types of Command Modes in ACS, page 4](#)
- [CLI Audit, page 12](#)

## Accessing the ACS Command Environment

You can access the ACS CLI through a secure shell (SSH) client or the console port using one of the following machines:

- Windows PC running Windows 7/XP/Vista.
- Apple computer running Mac OS X 10.4 or later.
- PC running Linux.

For detailed information on accessing the CLI, see [Using the ACS CLI, page 1](#)

## User Accounts and Modes in ACS

Two different types of accounts are available on the ACS server:

- Admin (administrator)
- Operator (user)

When you power up the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance for the first time, you are prompted to run the **setup** utility to configure the appliance. During this setup process, an administrator user account, also known as an Admin account, is created.

After you enter the initial configuration information, the appliance automatically reboots and prompts you to enter the username and the password that you specified for the Admin account. It is this Admin account that you must use to log in to the ACS CLI for the first time.

While an Admin can create and manage Operator (user) accounts (which have limited privileges and access to the ACS server), an Admin account provides you the functionality you require to use the ACS CLI. In ACS 5.8, you have one more role, called R/O Admin (read only Admin). R/O Admin can run all the **show** commands but cannot modify the configurations.

To create more users (with admin and operator privileges) with SSH access to the ACS CLI, you must run the **username** command in the configuration mode (see [Types of Command Modes in ACS, page 4](#)).

[Table 1 on page 2](#) lists the command privileges for each type of user account: Admin and Operator (user).

**Table 1 Command Privileges**

Command	User Account	
	Admin	Operator (User)
access-setting accept-all	✓	
acs commands	✓	
acs config	✓	
acs-config-web-interface	✓	
application commands	✓	
backup	✓	
backup-logs	✓	
banner	✓	
cdp run	✓	
clock	✓	
configure terminal	✓	
copy commands	✓	
crypto	✓	✓
debug	✓	
debug-adclient	✓	
debug-log	✓	
delete	✓	
dir	✓	
end	✓	
exit	✓	✓
export-data	✓	
export-data-message-catalog	✓	
forceout	✓	
halt	✓	
hostname	✓	
icmp	✓	
import-data	✓	
import-export-abort	✓	
import-export-status	✓	
interface	✓	
ip default-gateway	✓	
ip domain-name	✓	
ip domain round-robin	✓	
ip domain timeout	✓	
ip name-server	✓	

**Table 1 Command Privileges (continued)**

Command	User Account	
	Admin	Operator (User)
ip route	✓	
ipv6 enable	✓	
ipv6 route	✓	
kron	✓	
logging commands	✓	
mkdir	✓	
nslookup	✓	✓
ntp	✓	
password	✓	✓
password policy	✓	
patch	✓	
ping	✓	✓
reload	✓	
replication	✓	
repository	✓	
reset-management-interface-certificate	✓	
restore commands	✓	
rmdir	✓	
service	✓	
show acs-cores	✓	✓
show acs-config-web-interface	✓	
show acs-logs	✓	✓
show application	✓	✓
show backup	✓	
show cdp	✓	✓
show clock	✓	✓
show cpu	✓	✓
show crypto	✓	✓
show debug-adclient	✓	
show debug-log	✓	
show disks	✓	✓
show icmp_status	✓	✓
show interface	✓	✓
show inventory	✓	✓
show ip route	✓	
show ipv6 route	✓	
show logging	✓	✓

**Table 1 Command Privileges (continued)**

Command	User Account	
	Admin	Operator (User)
show logins	✓	✓
show memory	✓	✓
show ntp	✓	✓
show ports	✓	✓
show process	✓	✓
show repository	✓	
show restore	✓	
show running-configuration	✓	
show startup-configuration	✓	
show tac	✓	
show tech-support	✓	
show terminal	✓	✓
show timezone	✓	✓
show timezones	✓	✓
show udi	✓	✓
show uptime	✓	✓
show users	✓	
show version	✓	✓
snmp-server commands	✓	
ssh	✓	✓
tcp	✓	
tech	✓	
telnet	✓	✓
terminal	✓	✓
traceroute	✓	✓
undebug	✓	
username	✓	
write	✓	

When you log in to the ACS server, it places you in the Operator (user) mode or the Admin (EXEC) mode. Typically, logging in requires a username and password.

You can always tell when you are in the Operator (user) mode or Admin (EXEC) mode by looking at the prompt. A right angle bracket (>) appears at the end of the Operator (user) mode prompt; a pound sign (#) appears at the end of the Admin mode prompt, regardless of the submode.

ACS configuration mode requires a specific, authorized user role to execute each ACS configuration command; see [ACS Configuration Commands, page 8](#).

## Types of Command Modes in ACS

ACS supports these command modes:

## Types of Command Modes in ACS

- EXEC—Use the commands in this mode to perform system-level configuration. In addition, certain EXEC mode commands have ACS-specific abilities. See [EXEC Commands, page 5](#).
- ACS configuration—Use the commands in this mode to import or export configuration data, synchronize configuration information between the primary and secondary ACS, reset IP address filtering and management interface certificate, define debug logging and show the logging status.

This mode requires an administrator user account to log in and perform the ACS configuration-related commands. See [ACS Configuration Commands, page 8](#).

- Configuration—Use the commands in this mode to perform additional configuration tasks in ACS. See [Configuration Commands, page 10](#).

## EXEC Commands

EXEC commands primarily include system-level commands such as **show** and **reload** (for example, application installation, application start and stop, copy files and installations, restore backups, and display information).

In addition, certain EXEC-mode commands have ACS-specific abilities (for example, start an ACS instance, display and export ACS logs, and reset an ACS configuration to factory default settings).

- [Table 2 on page 5](#) lists the EXEC commands and provides a short description of each.
- [Table 3 on page 7](#) lists the show commands in the EXEC mode and provides a short description of each.

For detailed information on EXEC commands, see [Understanding the Command Modes, page 7](#).

## EXEC or System-Level Commands

**Table 2 Summary of EXEC Commands**

Command	Description
<code>acs start   stop</code>	Starts or stops an ACS server.
<code>acs start   stop process</code>	Starts or stops a process in ACS.
<code>acs backup</code>	Performs a backup of an ACS configuration.
<code>acs-config</code>	Enters the ACS Configuration mode.
<code>acs delete core</code>	Deletes an ACS run-time core file or JVM core log.
<code>acs delete log</code>	Deletes an ACS run-time core file or JVM core log excluding the latest log.
<code>acs config-web-interfac e</code>	Enables or disables an interface for ACS configuration web.
<code>acs patch</code>	Installs and removes ACS patches.
<code>acs reset-config</code>	Resets the ACS configuration to factory defaults.
<code>acs reset-password</code>	Resets the 'acsadmin' administrator password to the default setting.
<code>acs restore</code>	Restores an ACS configuration.
<code>acs support</code>	Gathers information for ACS troubleshooting.
<code>acs zeorize-machine</code>	Starts the zeroization; deletes key and sensitive files, running memory, and swap files.
<code>application install</code>	Installs a specific application bundle.
<code>application remove</code>	Removes a specific application.

**Table 2 Summary of EXEC Commands (continued)**

Command	Description
application reset-config	Resets an ACS configuration to factory defaults.
application start	Starts or enables a specific application.
application stop	Stops or disables a specific application.
application upgrade	Upgrades a specific application bundle.
backup	Performs a backup and places the backup in a repository.
backup-logs	Performs a backup of all the logs on ACS to a remote location.
banner	Displays the banner text before and after logging in to ACS CLI.
clock	Sets the system clock on the ACS server.
configure	Enters the Configuration mode.
copy	Copies any file from a source to a destination.
crypto	Performs crypto key operations.
debug	Displays any errors or events for various command situations; for example, backup and restore, configuration, copy, resource locking, file transfer, and user management.
delete	Deletes a file in the ACS server.
dir	Lists the files in the ACS server.
exit	Exits from the EXEC mode.
forceout	Forces the logout of all the sessions of a specific ACS server system user.
halt	Disables or shuts down the ACS server.
help	Describes the help utility and how to use it in the ACS server.
mkdir	Creates a new directory.
nslookup	Queries the IPv4 address or hostname of a remote system.
ping	Determines the network connectivity to a remote system.
password	Updates the CLI password.
reload	Reboots the ACS server.
restore	Restores a previous backup.
rmdir	Removes an existing directory.
show	Provides information about the ACS server.
ssh	Starts an encrypted session with a remote system.
tech	Provides Technical Assistance Center (TAC) commands.
telnet	Telnets to a remote system.
terminal length	Sets terminal line parameters.
terminal session-timeout	Sets the inactivity timeout for all terminal sessions.
terminal session-welcome	Sets the welcome message on the system for all terminal sessions.
terminal terminal-type	Specifies the type of terminal connected to the current line of the current session.

**Table 2 Summary of EXEC Commands (continued)**

Command	Description
traceroute	Traces the route of a remote IP address.
undebug	Disables the output (display of errors or events) of the <b>debug</b> command for various command situations. For example, backup and restore, configuration, copy, resource locking, file transfer, and user management.
write	Copies, displays, or erases the running ACS server information.

## Show Commands

The show commands are used to view the ACS settings and are among the most useful commands. See [Table 3 on page 7](#) for a summary of the **show** commands.

The commands in [Table 3 on page 7](#) require the **show** command to be followed by a keyword; for example, **show application**. Some **show** commands require an argument or variable after the keyword to function; for example, **show application version**.

**Table 3 Summary of Show Commands**

Command	Description
acs-cores	Displays ACS run-time core files and JVM core logs.
acs-logs	Displays ACS server debug logs.
acs config-web-interface	Indicates whether an interface is disabled or enabled for ACS configuration web.
application (requires keyword)	Displays information about the installed application. For example, status information or version information.
backup (requires keyword)	Displays information about the backup.
cdp (requires keyword)	Displays information about the enabled Cisco Discovery Protocol (CDP) interfaces.
clock	Displays the day, date, time, time zone, and year of the system clock.
cpu	Displays CPU information.
crypto	Displays crypto key information.
disks	Displays file-system information of the disks.
icmp_status	Displays the Internet Control Message Protocol (ICMP) echo/response configuration information.
interface	Displays statistics for all the interfaces configured on ACS.
inventory	Displays information about the hardware inventory, including the ACS appliance model and serial number.
logging (requires keyword)	Displays ACS server logging information.
ip route	Displays the static ip routes.
ipv6 route	Displays the ipv6 routes.
logins (requires keyword)	Displays the login history of an ACS server.
memory	Displays memory usage by all running processes.

**Table 3 Summary of Show Commands**

Command	Description
ntp	Displays the status of the Network Time Protocol (NTP) servers.
ports	Displays all the processes listening on the active ports.
process	Displays information about the active processes of the ACS server.
repository (requires keyword)	Displays the file contents of a specific repository.
restore (requires keyword)	Displays the restore history in ACS.
running-config	Displays the contents of the configuration file that currently runs in ACS.
startup-config	Displays the contents of the startup configuration in ACS.
tech-support	Displays system and configuration information that you can provide to the Cisco Technical Assistance Center (TAC) when you report a problem.
terminal	Displays information about the terminal configuration parameter settings for the current terminal line.
timezone	Displays the current time zone in ACS.
timezones	Displays all the time zones available for use in ACS.
udi	Displays information about the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 Unique Device Identifier (UDI).
uptime	Displays how long the system you are logged in to has been up and running.
users	Displays information about the system users.
version	Displays information about the currently loaded software version, along with hardware and device information.

## ACS Configuration Commands

Use ACS configuration commands to set the debug log level for the ACS management and runtime components, to show system settings, to reset server certificates and IP address access lists, and to manage import and export processes.

The ACS configuration mode requires a specific, authorized user role to execute each ACS configuration command. These commands are briefly described in [Table 4 on page 9](#). For detailed information on the roles in ACS 5.8, see the *User Guide for Cisco Secure Access Control System 5.8*.

To access the ACS configuration mode, enter the **acs-config** command in EXEC mode.

[Table 4 on page 9](#) lists the ACS configuration commands and provides a short description of each.

**Table 4 Summary of ACS Configuration Commands**

Command	Description	Required User Role
access-setting accept-all	Resets IP address filtering to allow all IP addresses to access the management pages of an ACS server.	Only the super admin can run this command on a primary ACS node.
acsview-db-compress	Compresses the ACS View database by rebuilding each table in the database and releasing the unused space. As a result, the physical size of the database is reduced.	Any authorized user, irrespective of role, can run this command.
acsview merge-from-supportbundle	Merges the ACS View database with the specified support bundle data.	Only the super admin or system admin can run this command.
acsview rebuild-database	Rebuilds the ACS View database and keeps the log data only for the specified number of days.	Only the super admin or system admin can run this command.
acsview replace-clean-activesessionsdb	Removes the active session information from the ACS View database and makes it as a fresh database.	Only the super admin or system admin can run this command.
acsview replace-cleandb	Removes all data from the ACS View database and makes the current View database as a fresh View database.	Only the super admin or system admin can run this command.
acsview show-dbsize	Displays the physical and actual size of the ACS view database and the transaction log files.	Only the super admin or system admin can run this command.
acsview truncate-log	Truncates the ACS view database transaction logs.	Only the super admin or system admin can run this command.
database-compress	Reduces the ACS database size by removing unused disk space from within the ACS database file.	Any authorized user, irrespective of role, can run this command.
debug-adclient	Enables debug logging of an Active Directory client.	Only the network-device admin can run this command.
debug-log	Defines the local debug logging level for the ACS components.	Any authorized user, irrespective of role, can run this command.
export-data	Exports configuration data from an ACS local store to a remote repository.	Only users who have Read permission to a specific configuration object in the web interface can export that particular configuration data to a remote repository.
export-data-message-catalog	Exports the message catalog messages from the ACS message catalog to a remote repository.	Only users who have Read permission to the message catalog messages in ACS web interface can export those particular log messages to a remote repository.
import-data	Imports configuration data from a remote repository to an ACS local store.	Only users who have Create, Read, Update, and Delete (CRUD) permissions to a specific configuration object in the web interface can import that particular configuration data to an ACS local store.

**Table 4 Summary of ACS Configuration Commands (continued)**

Command	Description	Required User Role
import-export-abort	Aborts specific (or all) import and export processes.	Only the super admin can simultaneously abort a running process and all pending import and export processes.  However, a user who owns a particular import or export process can terminate that particular process by using the process ID, or by stopping the process when it is in progress.
import-export-status	Displays the status of the import and export processes.	Any authorized user, irrespective of role, can run this command.
no debug-adclient	Disables debug logging of an Active Directory client.	Only the network-device admin can run this command.
no debug-log	Restores the default local debug logging level of the ACS components.	Any authorized user, irrespective of role, can run this command.
replication force-sync	Synchronizes configuration information between the primary and secondary ACS.	Only the super admin or system admin can run this command on a secondary ACS node.
replication status	Shows the replication status of the ACS database.	Only the super admin or system admin can run this command.
reset-management-interface-certificate	Resets the management interface certificate to the default self-signed certificate.	Only the super admin or system admin can run this command.
show debug-adclient	Displays debug logging status for an Active Directory client.	Any authorized user, irrespective of role, can run this command.
show debug-log	Displays the local debug logging status for subsystems.	Any authorized user, irrespective of role, can run this command.

For detailed information on ACS Configuration mode commands, see [Understanding the Command Modes, page 7](#).

## Configuration Commands

Configuration commands include **interface** and **repository**. To access the configuration mode, run the **configure** command in the EXEC mode.

Some of the configuration commands will require you to enter the configuration submode to complete the configuration.

[Table 5 on page 10](#) lists the configuration commands and provides a short description of each.

**Table 5 Summary of Configuration Commands**

Command	Description
backup-staging-url	Specifies a Network File System (NFS) temporary space or staging area for the remote directory for backup and restore operations.
cdp holdtime	Specifies the amount of time the receiving device should hold a CDP packet from the ACS server before discarding it.
cdp run	Enables CDP.
cdp timer	Specifies how often the ACS server sends CDP updates.
clock	Sets the time zone for display purposes.
conn-limit	Configures the TCP connection limit from the source IP.

**Table 5 Summary of Configuration Commands (continued)**

Command	Description
do	Executes an EXEC-level command from the configuration mode or any configuration submode.  To initiate, the <b>do</b> command precedes the EXEC command.
end	Returns to EXEC mode.
exit	Exits the configuration mode.
hostname	Sets the hostname of the system.  <b>Note:</b> When you intend to use the AD ID store and set up multiple ACS instances with the same name prefix, use a maximum of 19 characters for the hostname, so that it does not affect AD functionality.
icmp echo	Configures the ICMP echo requests.
interface	Configures an interface type and enters the interface configuration mode.
ip address	Sets the IP address and netmask for the Ethernet interface.  This is an interface configuration command.
ipv6 address	Sets the IPv6 address and prefix length for the Ethernet interface. This is an interface configuration command.
ipv6 address autoconfig	Enables IPv6 stateless autoconfiguration in the interface configuration mode.
ip default-gateway	Defines or sets a default gateway with an IP address.
ip domain-name	Defines a default domain name that an ACS server uses to complete hostnames.
ip domain round-robin	Defines a round robin selection of name servers from the available list of name servers.
ip domain timeout	Defines a default amount of time the resolver will wait for a response from a remote name server before retrying the query via a different name server
ip name-server	Sets the Domain Name System (DNS) servers for use during a DNS query.
ip route	Configures the static IPv4 address routes.
ipv6 enable	Enables the IPv6 stack globally or for a specific interface.
ipv6 route	Configures the static IPv6 address routes.
kron occurrence	Schedules one or more Command Scheduler commands to run at a specific date and time or at a recurring level.
kron policy-list	Specifies a name for a Command Scheduler policy.
logging	Enables the system to forward logs to a remote system.
logging loglevel	Configures the log level for the <b>logging</b> command.
max-ssh	Configures the number of concurrent SSH sessions with a remote system.
no	Disables or removes the function associated with the command.
ntp	Synchronizes the software clock through the NTP server for the system.
ntp authenticate	Enables authentication of all time sources.
ntp authentication-key	Adds Message Digest 5 (MD5)-type authentication keys for trusted time sources.
ntp server	Specifies an NTP server to use.
ntp trusted-key	Specifies the key numbers for trusted time sources.
password-policy	Enables and configures the password policy.
rate-limit	Configures the TCP/UDP/ICMP packet-rate limit from the source IP.

**Table 5 Summary of Configuration Commands (continued)**

Command	Description
repository	Enters the repository submode.
service	Specifies the type of service to manage.
snmp-server community	Sets up the community access string to permit access to the Simple Network Management Protocol (SNMP).
snmp-server contact	Configures the SNMP contact MIB value on the system.
snmp-server host	Sends SNMP traps to a remote system.
snmp-server location	Configures the SNMP location MIB value on the system.
snmp-server trap dskThresholdLimit	Configures the SNMP server to receive traps when a ACS partition reaches its disk threshold utilization value.
synflood-limit	Configures the TCP SYN packet limit from the source IP.
tcp	Enables fast recycling of TIME_WAIT sockets, enables reuse of TIME_WAIT sockets, and configures the timeout value for TCP final packets.
username	Adds a user to the system with a password and a privilege level.

For detailed information on configuration mode and submode commands, see [Understanding the Command Modes, page 7](#).

## CLI Audit

You must have administrator access to execute ACS configuration commands. Whenever an administrator logs in to the configuration mode and executes a command that causes configuration changes in the ACS server, the information related to those changes is logged in the ACS operational logs.

[Table 6 on page 12](#) lists the configuration mode commands that, when executed, generate operational logs.

**Table 6 Configuration Mode Commands for the Operation Log**

Command	Description
clock	Sets the system clock on the ACS server.
hostname	Sets the hostname of the system.
ip address	Sets the IP address and netmask for the Ethernet interface.
ip name-server	Sets the DNS servers for use during a DNS query.
ntp	Specifies NTP configuration.
ntp server	Allows synchronization of the software clock by the NTP server for the system.

You can view these logs using the **show acs-logs** command. For more information on log file types and the information that is stored in each log file, see [show acs-logs, page 90](#).

In addition to the configuration mode commands, there are some commands in the EXEC and ACS configuration mode that generate operational logs, as listed in [Table 7 on page 12](#) and [Table 8 on page 13](#):

**Table 7 EXEC Mode Commands for the Operation Log**

Command	Description
acs (Instance)	Starts or stops an ACS instance.
acs (Process)	Starts or stops an ACS process.
acs backup	Performs a backup of an ACS configuration.

**Table 7 EXEC Mode Commands for the Operation Log (continued)**

Command	Description
acs delete core	Deletes an ACS run-time core file or JVM core log.
acs delete log	Deletes an ACS run-time core file or JVM core log excluding the latest log.
acs patch	Installs and removes ACS patches.
acs restore	Performs a restoration of an ACS configuration.
acs reset-config	Resets the ACS configuration to factory defaults.
acs support	Gathers information for ACS troubleshooting.
backup	Performs a backup (ACS and ADE OS) and places the backup in a repository. If View exists, View data will also get backed up.
backup-logs	Backs up system logs.
restore	Restores from backup the file contents of a specific repository.

**Table 8 ACS Configuration Mode Commands for the Operation Log**

Command	Description
access-setting accept-all	Resets the IP address filtering to allow all IP addresses to access the management pages of an ACS server.
debug-adclient	Enables debug logging of an Active Directory client.
debug-log	Defines the local debug logging level for the ACS components.
export-data	Exports configuration data from an ACS local store to a remote repository.
export-data-message -catalog	Exports the message catalog messages from ACS message catalog to a remote repository.
import-data	Imports configuration data from a remote repository to an ACS local store.
import-export-abort	Aborts specific (or all) import and export processes.
replication	Synchronizes configuration information between the primary and secondary ACS.
reset-management-in terface-certificate	Resets the management interface certificate to the default self-signed certificate.





# Using the ACS CLI

This chapter provides helpful tips for understanding and configuring the Cisco Secure ACS 5.8 from the CLI.

- [Before Accessing the ACS CLI, page 1](#)
- [Accessing the ACS CLI, page 5](#)
- [Understanding the Command Modes, page 7](#)
- [Navigating the CLI Commands, page 11](#)
- [Where to Go Next, page 14](#)

## Before Accessing the ACS CLI

Before logging in to the ACS CLI, review the tasks that you should have completed during hardware installation:

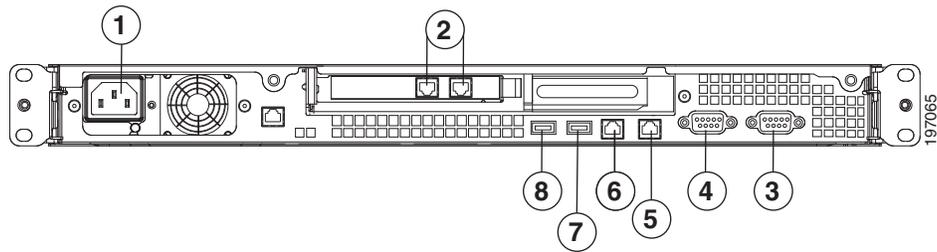
**Note:** These sections only provide an overview of the installation and configuration process for the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliances. For detailed information, see the [Installation and Upgrade Guide for Cisco Secure Access Control System 5.8](#).

1. [Starting the CSACS-1121 Appliance, page 1](#)
2. [Starting the Cisco SNS-3415 and Cisco SNS-3495 Appliances, page 2](#)
3. [Running Setup to Configure ACS, page 4](#)

## Starting the CSACS-1121 Appliance

Complete these steps before you configure the CSACS-1121 appliance:

1. Connect the power cord to the CSACS-1121 (see [Figure 1 on page 2](#)).

**Figure 1 Rear View of CSACS-1121**

1	AC power receptacle	5	(Blocked) GigabitEthernet 1
2	(Blocked) GigabitEthernet	6	(In Use) GigabitEthernet 0
3	Serial connector	7	USB 3 connector
4	Video connector	8	USB 4 connector

2. Connect the network cable to the GigabitEthernet 0 connector (see [Figure 1 on page 2](#)).

The setup utility (that appears when the CSACS-1121 boots) only configures the GigabitEthernet 0 port. For information on connecting cables, see the *Installation and Upgrade Guide for Cisco Secure Access Control System 5.8*.

3. Power up the CSACS-1121.

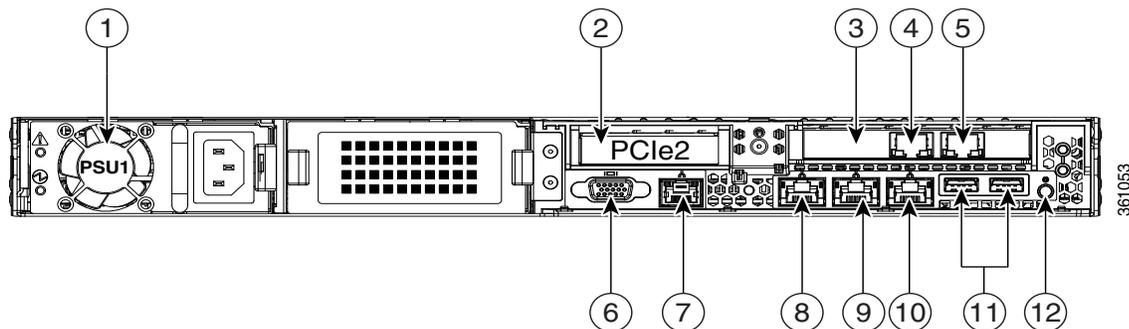
The appliance boots automatically, and the setup utility appears (see [Running Setup to Configure ACS, page 4](#)).

## Starting the Cisco SNS-3415 and Cisco SNS-3495 Appliances

Complete these steps before you configure the Cisco SNS-3415 or Cisco SNS-3495 appliance:

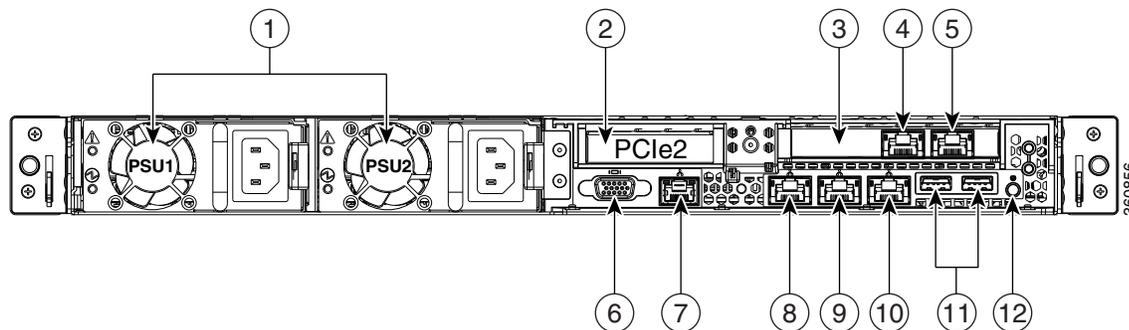
1. Connect the power cord to the Cisco SNS-3415 or Cisco SNS-3495 appliance (see [Figure 2 on page 3](#)).

**Figure 2 Cisco SNS-3415 Appliance Rear View**



1	Power supply	7	Serial port (RJ-45 connector)
2	Slot 2: Low-profile PCIe slot on riser (half-height, half-length, x16 connector, x8 lane width)	8	1-GB Ethernet dedicated management port used to access CIMC (labeled M)
3	Slot 1: PCIe1 card containing 1-GB Ethernet ports (GigE2 and GigE3)	9	1-GB Ethernet port 1 (GigE0) for Cisco Secure ACS management communication
4	1-GB Ethernet port 3 (GigE2)	10	1-GB Ethernet port 2 (GigE1)
5	1-GB Ethernet port 4 (GigE3)	11	USB ports
6	VGA video connector	12	Rear identification button

**Figure 3 Cisco SNS-3495 Appliance Rear View**



1	Power supplies (up to two)	7	Serial port (RJ-45 connector)
2	Slot 2: Low-profile Peripheral Component Interconnect Express (PCIe) slot on riser (half-height, half-length, x16 connector, x16 lane width)	8	1-GB Ethernet dedicated management port used to access CIMC (labeled M)
3	Slot 1: PCIe1 card containing 1-GB Ethernet ports (GigE2 and GigE3)	9	1-GB Ethernet port 1 (GigE0) for Cisco Secure ACS management communication
4	1-GB Ethernet port 3 (GigE2)	10	1-GB Ethernet port 2 (GigE1)
5	1-GB Ethernet port 4 (GigE3)	11	USB ports
6	VGA video connector	12	Rear identification button

2. Connect the network cable to the GigabitEthernet 0 connector (see [Figure 2 on page 3](#) and [Figure 3 on page 3](#)).

---

## Before Accessing the ACS CLI

The setup utility (which appears when the Cisco SNS-3415 or Cisco SNS-3495 appliances boots) only configures the GigabitEthernet 0 port. For information on connecting cables, see the *Installation and Upgrade Guide for Cisco Secure Access Control System 5.8*.

### 3. Power up the appliance.

The appliance boots automatically, and the setup utility appears (see [Running Setup to Configure ACS, page 4](#)).

## Running Setup to Configure ACS

When you power up the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance for the first time, you are prompted to run the setup utility to configure the appliance. Before you run the utility using the **setup** command, ensure that you have values for the following network configuration prompts:

- Hostname
- IP address
- Netmask
- Gateway
- Domain
- Nameserver
- User ID
- Password

This example shows sample output of the **setup** command.

```
*****
Please type 'setup' to configure the appliance
*****
localhost login: setup

Last login: Mon Jul  2 08:45:24 on ttyS0

Press 'Ctrl-C' to abort setup
Enter hostname[]: acs
Enter IP address[]: 172.16.0.0
Enter IP default netmask[]: 255.255.255.224
Enter IP default gateway[]: 172.16.0.1
Enter default DNS domain[]: example.com
Enter Primary nameserver[]: 172.16.12.33
Add secondary nameserver? Y/N : n
Add primary NTP server [time.nist.gov]: 172.16.12.33
Add secondary NTP server? Y/N : n
Enter system timezone[UTC]:
Enable SSH Service? Y/N [N] : Y
Enter username[admin]:
Enter password:
Enter password again:
Pinging the gateway...
Pinging the primary nameserver...
Do not use 'Ctrl-C' from this point on...
Appliance is configured
Installing applications...
Installing acs ...
/opt/CSCOacs/bin...
...
```

---

## Accessing the ACS CLI

```
...
The system is going down for reboot NOW!
Application bundle (acs) installed successfully
INIT: Sending processes the TERM signal...
```

After you enter the required information, the appliance automatically reboots and the following login prompt appears:

```
machine_name login:
```

where *machine\_name* identifies the hostname that you specified.

In this example, the following prompt appears:

```
ACS login:
```

To log in, use the administrator user account (and the corresponding password) that you created during the setup process. You must also use this Admin account to log in to the ACS CLI for the first time. See [Accessing the ACS CLI, page 5](#).

After accessing the CLI as an administrator, you can create more users (with admin and operator privileges) with SSH access to the CLI by running the `username`, [page 233](#) command in the configuration mode.

**Note:** Any users that you create from the ACS web interface cannot automatically log in to the ACS CLI. You must explicitly create users with access to the CLI. To create these users, you must log in to the CLI using the Admin account that you created during setup; then, enter the configuration mode, and run the `username` command.

## Accessing the ACS CLI

Before logging in to the ACS CLI, ensure that you have completed the hardware installation and configuration process outlined in [Before Accessing the ACS CLI, page 1](#).

To log into ACS server and access the CLI, use an SSH secure shell client or the console port. You can log in from:

- A PC running Windows XP/Vista.
- A PC running Linux.
- An Apple computer running Mac OS X 10.4 or later.
- Any terminal device compatible with VT100 or ANSI characteristics. On the VT100-type and ANSI devices, you can use cursor-control and cursor-movement key.

Keys include left arrow, up arrow, down arrow, right arrow, Delete, and Backspace. The CLI senses the use of the cursor-control keys and automatically uses the optimal device characteristics (see [Supported Hardware and Software Platforms, page 5](#), for more information).

To exit the CLI, use the `exit` command from the EXEC mode. If currently in one of the configuration modes and you want to exit the CLI, enter the `end`, `exit`, `Ctrl-d` or `Ctrl-z` command to return to the EXEC mode, and then enter the `exit` command (see [EXEC Mode, page 7](#)).

## Supported Hardware and Software Platforms

The following valid terminal types can access ACS CLI:

- 1178
- 2621
- 5051

## Accessing the ACS CLI

- 6053
- 8510
- altos5
- amiga
- ansi
- apollo
- Apple\_Terminal
- att5425
- ibm327x
- kaypro
- vt100

See the terminfo database for a complete listing.

You can also access ACS through an SSH client or the console port.

## Opening the CLI with Secure Shell

**Note:** To access the ACS CLI environment, use any SSH client that supports SSH v2.

The following example shows you how to log in with a Secure Shell (SSH) client (connecting to a wired WAN) via a PC by using Windows XP. Assuming that ACS is preconfigured through the setup utility to accept an Admin (administrator) user, log in as Admin.

1. Use any SSH client and start an SSH session.

The SSH window appears.

2. Press **Enter** or **Spacebar** to connect.

The Connect to Remote Host window appears.

3. Enter a hostname, username, port number, and authentication method.

In this example, you enter **acs** for the hostname, **admin** for the username, and **22** for the port number; and, for the authentication method, choose **Password** from the drop-down list.

4. Click **Connect**, or press **Enter**.

The Enter Password window appears, overlapping the Connect to Remote Host window.

5. Enter your assigned password for the administrator.

The SSH with the Add Profile window appears.

6. (Optional) Enter a profile name in the text box and click **Add to Profile**.

7. Click **Close** on the Add Profile window.

The ACS prompt `acs/admin#` appears. You can now enter ACS CLI commands.

## Opening the CLI Using a Local PC

If you need to configure ACS locally (without connecting to a wired LAN), you can connect a PC to the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance's console port (see [Figure 1 on page 2](#)) by using a null-modem cable.

The serial console connector (port) provides access to the CLI locally by connecting a terminal—a PC running terminal-emulation software or an ASCII terminal—to the console port. The console port (EIA/TIA-232 asynchronous) requires only a null-modem cable.

To connect a PC running terminal-emulation software to the console port, use a DB-9 female to DB-9 female null-modem cable.

To connect an ASCII terminal to the console port, use a DB-9 female to DB-25 male straight-through cable with a DB-25 female to DB-25 female gender changer.

The default parameters for the console port are 9600 baud, 8 data bits, no parity, 1 stop bit, and no hardware flow control.

**Note:** If using a Cisco switch on the other side of the connection, set the switchport to duplex auto, speed auto (the default).

To open the CLI by connecting to the console port:

1. Connect a null-modem cable to the console port on the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance and to the COM port on your PC.
2. Set up a terminal emulator to communicate with ACS. Use the following settings for the terminal emulator connection: 9600 baud, 8 data bits, no parity, 1 stop bit, and no flow control.
3. When the terminal emulator activates, press **Enter**.
4. At the window, enter your username, and press **Enter**.
5. Enter the password, and press **Enter**.

When the CLI activates, you can enter CLI commands to configure ACS.

## Understanding the Command Modes

This section describes the ACS command modes in detail. The primary modes of operation are:

- [EXEC Mode, page 7](#)
- [ACS Configuration Mode, page 9](#)
- [Configuration Mode, page 9](#)
- [Configuration Submodes, page 10](#)

### EXEC Mode

When you start a session on ACS, you begin in the Admin or EXEC mode. From the EXEC mode, you can enter the configuration mode. Most of the EXEC commands (one-time commands), such as **show** commands, display the current configuration status. The Admin or EXEC mode prompt consists of the device name or hostname before a pound sign (#), as shown:

```
acs/admin# (Admin or EXEC mode)
```

**Note:** Throughout this guide, the ACS server uses the name *acs* in place of the ACS server's hostname and *admin* for the user account.

You can always tell when you are in the EXEC mode, the ACS configuration mode, or the configuration mode by looking at the prompt. In the:

- EXEC mode, a pound sign (#) appears after the ACS server hostname and your username. For example:

```
acs/admin#
```

- ACS configuration mode, the (config-acs) keyword and the pound sign (#) appear after the hostname of the ACS server and your username.

You must have privileges to enter the ACS configuration mode, and must supply the username and the password that you use to log in to the ACS web interface. See [ACS Configuration Mode, page 9](#).

For example:

```
acs/admin# acs-config  
Escape character is CRTL/D.
```

```
Username: acsadmin  
Password: <pwd>
```

```
acs/acsadmin(config-acs)# (ACS configuration mode)
```

- Configuration mode, the (config) keyword and a pound sign (#) appear after the hostname of the ACS server and your username.

For example:

```
acs/admin# configure  
Enter configuration commands, one per line. End with CRTL/Z.  
acs/admin(config)# (configuration mode)
```

If you are familiar with UNIX, you can equate the EXEC mode to *root* access. You could also equate it to the administrator level in Windows NT or the supervisor in NetWare. In this mode, you have permission to access everything in the ACS server, including the configuration commands.

However, you cannot enter configuration commands directly. Before you can change the ACS server's actual configuration, you must enter the configuration mode by running the **configure** or **configure terminal (conf t)** command. Enter this command only when in the EXEC mode.

For example:

```
acs/admin# configure  
Enter configuration commands, one per line. End with CRTL-Z.  
acs(config)# (configuration mode)
```

The configuration mode has several submodes; each has its own prompt. To enter these submodes, you must first enter the configuration mode by entering the **configure terminal** command.

To exit the configuration mode, enter the **end**, **exit**, or **Ctrl-z** command. To exit the EXEC mode, enter the **exit** command.

To exit both configuration and EXEC modes, enter this sequence of commands:

```
acs/admin(config)# exit  
acs/admin# exit
```

To obtain a listing of commands in the EXEC mode, enter a question mark (?):

```
acs/admin# ?
```

## ACS Configuration Mode

Use the ACS configuration mode to set the debug log level for the ACS management and runtime components, show system settings, reset server certificate and IP address access list, and manage import and export processes.

You must have privileges to enter the ACS configuration mode. To do so, run the **acs-config** command in the EXEC mode; then, enter the administrative username and password that you use to log in to the ACS web interface.

The default username and password to access the ACS web interface are **acsadmin** and **default**, and the first time you log in to the web interface, you will be prompted to change the default password. Cisco recommends that you do so for security reasons. You can change your password for the first time only by logging into the web interface. You will also be prompted to install the license.

**Note:** You cannot delete the default **acsadmin** user. You can, however, create other users with admin privileges from the web interface.

After resetting your password and installing a valid license, use the default username (**acsadmin**) and changed password, or the username and password for a newly created admin user, to access the ACS CLI in the ACS configuration mode.

When in the ACS configuration mode, ACS expects ACS configuration commands.

From this level, you can enter commands directly into the ACS configuration. To obtain a list of commands in this mode, enter a question mark (?). For example:

```
acs/admin(config-acs)# ?
```

You can enter **exit** or press **Ctrl-d** to leave the ACS configuration mode and return to the EXEC mode.

Some ethernet interface related attributes will be missing in the output while executing the CLI command **ethernet-interface show-configuration** in **acs-config mode** on the ESX machine. This is because the ESX does not support displaying all regular interface attributes.

For example:

```
Output in ESX server:
acs243-254/acsadmin(config-acs)# ethernet-interface show-configuration
Settings for eth0:
    Current message level: 0x00000007 (7)
    Link detected: yes
acs243-254/acsadmin(config-acs)#
```

## Configuration Mode

Use the configuration mode to make changes to the existing configuration. When you save the configuration, these commands remain across ACS server reboots, but only if you run either of these commands:

- copy running-config startup-config
- write memory

To enter the configuration mode, run the **configure** or **configure terminal (conf t)** command in the EXEC mode. When in the configuration mode, ACS expects configuration commands.

For example:

```
acs/admin# configure
Enter configuration commands, one per line. End with CNTL-Z.
acs/admin(config)# (configuration mode)
```

## Understanding the Command Modes

From this level, you can enter commands directly into the ACS configuration. To obtain a listing of commands in this mode, enter a question mark (?):

```
acs/admin(config)# ?
```

The configuration mode has several configuration submodes. Each of these submodes places you deeper in the prompt hierarchy. When you enter **exit**, ACS backs you out one level and returns you to the previous level. When you enter **exit** again, ACS backs you out to the EXEC level.

**Note:** In the configuration mode, you can alternatively enter **Ctrl-z** instead of the **end** or **exit** command.

## Configuration Submodes

In the configuration submodes, you can enter commands for specific configurations. For example:

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)#
```

To obtain a list of commands in this mode, enter a question mark (?):

```
acs/admin(config-GigabitEthernet)# ?
```

Use the **exit** or **end** command to exit this prompt and return to the configuration prompt.

For the previous example, [Table 1 on page 10](#) lists the commands in that configuration submode. There are other configuration submodes, including those specific to the **kron**, **repository**, and **password policy** commands.

**Table 1 Command Options for Configuration Submodes**

Command	Comment
<pre>acs/admin(config)# <b>interface GigabitEthernet 0</b> acs/admin(config-GigabitEthernet)# ? Configure ethernet interface: do      EXEC command end      Exit from configure mode exit     Exit from this submode ip       Configure IP features ipv6     Configure IPv6 features no       Negate a command or set its defaults shutdown Shutdown the interface acs/admin(config-ethernet)#</pre>	<p>Enter the command that you want to configure for the interface. This example uses the <b>interface GigabitEthernet</b> command.</p> <p>Enter ? to display what you can enter next on the command line.</p> <p>This example shows the available <b>interface GigabitEthernet</b> configuration submode commands.</p>
<pre>acs/admin(config-GigabitEthernet)# <b>ip ?</b> address Configure IP address acs/admin(config-GigabitEthernet)# <b>ip</b>  acs/admin(config-GigabitEthernet)# <b>ipv6 ?</b> address Configure IPv6 address Enable/Disable IPv6 for the interface</pre>	<p>Enter the command that you want to configure for the interface. This example uses the <b>ip</b> and <b>ipv6</b> commands.</p> <p>Enter ? to display what you can enter next on the command line.</p> <p>This example shows the available <b>ip</b> and <b>ipv6</b> configuration submode commands.</p>

**Table 1 Command Options for Configuration Submodes (continued)**

Command	Comment
<pre>acs/admin(config-GigabitEthernet)# ip address ? &lt;A.B.C.D&gt; IPv4 address acs/admin(config-GigabitEthernet) ip address  acs/admin(config-GigabitEthernet)# ipv6 address ? &lt;X:X:X::X(/n)&gt; Configure IPv6 address autoconfig Configure IPv6 auto-configuration address acs/admin(config-GigabitEthernet) ip address</pre>	<p>Enter the command that you want to configure for the interface. This example uses the <b>ip address</b> and <b>ipv6 address</b> command.</p> <p>Enter <b>?</b> to display what you must enter next on the command line. In this example, you must enter the required IPv4 and IPv6 addresses.</p> <p>A carriage return &lt;cr&gt; does not appear; therefore, you must enter additional arguments to complete the command.</p>
<pre>acs/admin(config-GigabitEthernet)# ip address 172.16.0.1 ? &lt;A.B.C.D&gt; Network mask acs/admin(config-GigabitEthernet)# ip address 172.16.0.1  acs/admin(config-GigabitEthernet)# ipv6 address 2001:DB8::21/64 ? &lt;cr&gt; Carriage Return acs/admin(config-GigabitEthernet)# ipv6 address 2001:DB8::21/64  acs/admin(config-GigabitEthernet)# ipv6 address autoconfig ? &lt;cr&gt; Carriage Return acs/admin(config-GigabitEthernet)# ipv6 address autoconfig</pre>	<p>Enter the keyword or argument that you want to use. This example uses the 172.16.0.1 IPv4 address and 2001:DB8::21/64 IPv6 address.</p> <p>Enter <b>?</b> to display what you can enter next on the command line.</p> <p>A carriage return &lt;cr&gt; does not display; therefore, you must enter additional arguments to complete the command.</p>
<pre>acs/admin(config-GigabitEthernet)# ip address 172.16.0.1 255.255.255.224 ? &lt;cr&gt; Carriage Return acs/admin(config-GigabitEthernet)# ip address 172.16.0.1 255.255.255.224</pre>	<p>Enter the network mask. This example uses 255.255.255.224.</p> <p>Enter <b>?</b> to display what you can enter next on the command line.</p> <p>Press <b>Enter</b>. A carriage return &lt;cr&gt; displays; press <b>Enter</b> again to complete the command.</p>

## Navigating the CLI Commands

This section describes how to navigate the commands and modes on ACS.

- [Getting Help, page 11](#)
- [Using the No and Default Forms of Commands, page 12](#)
- [Command-Line Conventions, page 12](#)

## Getting Help

Use the question mark (**?**) and the arrow keys to help you enter commands:

- For a list of available commands, enter a question mark (**?**):

```
acs/admin# ?
```

- To complete a command, enter a few known characters before **?** (with no space):

```
acs/admin# s?
```

- To display keywords and arguments for a command, enter **?** at the prompt or after entering part of a command followed by a space:

```
acs/admin# show ?
```

ACS displays a list and brief description of available keywords and arguments.

The `<cr>` symbol in command help stands for “carriage return” (**Return** or **Enter** key). The `<cr>` at the end of command help output indicates that you have the option to press **Enter** to complete the command and that the arguments and keywords in the list preceding the `<cr>` symbol are optional.

The `<cr>` symbol by itself indicates that no more arguments or keywords are available, and that you must press **Enter** to complete the command.

- To redisplay a command that you previously entered, press the **Up Arrow** key. Continue to press the **Up Arrow** key to see more commands.

## Using the No and Default Forms of Commands

Some EXEC or configuration commands have a **no** form. In general, use the **no** form to disable a function. Use the command without the **no** keyword to re-enable a disabled function or to enable a function disabled by default; for example, an IP address enabled by default. To disable the IP address, use the **no ip address** command; to re-enable the IP address, use the **ip address** command.

Configuration commands can also have a **default** form, which returns the command settings to the default values. Most commands disable by default, so in such cases using the **default** form has the same result as using the **no** form of the command.

However, some commands are enabled by default and have variables set to certain default values. In these cases, the **default** form of the command enables the command and sets the variables to their default values.

See [Chapter 3, “ACS Command Reference,”](#) for a description of the complete syntax of the configuration commands, and the **no** and default forms of a command.

## Command-Line Conventions

While reading this document, you might not understand some of the information if you do not know certain basic conventions of CLI usage.

Note the following sections:

- [Command-Line Editing Key Conventions, page 12](#)
- [Command-Line Completion, page 13](#)
- [Continuing Output at the --More-- Prompt, page 14](#)

## Command-Line Editing Key Conventions

ACS provides a number of keyboard shortcuts that you can use to edit an entered line.

### Tab

Tries to finish the current command.

Pressing the **Tab** key:

- At the beginning of a line, lists all the short-form options.
- When you enter a partial command, the system lists all the short form options beginning with those characters.
- When only one possible option is available, the system fills in the option automatically.

#### Ctrl-C

Aborts the sequence. Breaks out of any executing command and returns to the previous mode.

#### Ctrl-D

Exits the ACS configuration mode and returns to the EXEC mode.

#### Ctrl-Z

Exits the configuration mode and returns to the previous configuration mode.

#### ?

You can get a list of the available commands by entering a question mark (?) at the prompt (see [Getting Help, page 11](#)).

## Command-Line Completion

Command-line completion makes the ACS CLI more user-friendly. It saves you extra key strokes and helps out when you cannot remember a command's syntax.

For example, in the **show running-config** command:

```
acs/admin# show running-config
```

You could have used:

```
acs/admin# sh run
```

ACS expands the command **sh run** to **show running-config**.

Another shortcut is pressing the **Tab** key after you type **sh**; the ACS CLI fills in the best completion, in this case **show**.

If the ACS CLI does not understand a command, it repeats the entire command line and places a caret symbol (^) under the point at which it could not parse the command.

For example:

```
acs/admin# show running-config
                ^
% Invalid input detected at '^' marker.
```

The caret symbol (^) points to the first letter in the command line that ACS does not understand. Usually, this means that you need to provide additional arguments to complete the command or you misspelled the command. In this case, you omitted the "r" in the "unning" command. To fix the error, retype the command.

In another form of command-line completion, you can start a command by entering the first few characters, and pressing the **Tab** key. As long as you can match one command, the ACS CLI will complete the command.

For example, if you type **sh** and press **Tab**, ACS completes the **sh** with **show**. If ACS does not complete the command, you can enter a few more letters and press **Tab** again. For more information, see [Tab, page 12](#).

## Continuing Output at the --More-- Prompt

When working with the ACS CLI, output often extends beyond the visible screen length. For cases where output continues beyond the bottom of the screen, such as with the output of many **?** or **show** commands, the output pauses and a **--More--** prompt appears at the bottom of the screen.

To resume output, press **Return** to scroll down one line, or press the **space bar** to display the next full screen of output.

**Note:** If output pauses on your screen but you do not see the **--More--** prompt, try entering a smaller value for the screen length by using the **terminal length** EXEC command. Command output will not pause if you set the length value to zero (0).

## Where to Go Next

Now that you are familiar with some of the ACS CLI basics, you can begin to configure ACS by using the CLI.

Remember that:

- You can use the question mark (**?**) and arrow keys to help you enter commands.
- Each command mode restricts you to a set of commands. If you have difficulty entering a command, check the prompt and then enter the question mark (**?**) to see a list of available commands.
- To disable a feature, enter the keyword **no** before the command; for example, **no ip address**.
- You must save your configuration changes so that you preserve them during a system reload or power outage.

Proceed to [Chapter 3, “ACS Command Reference,”](#) for command listings, descriptions, syntax, usage guidelines, and sample output.



# ACS Command Reference

This chapter contains an alphabetical listing of the commands that are specific to Cisco Secure ACS 5.8. The following modes are available with these commands:

- EXEC
  - System-level
  - Show
- ACS Configuration

Use the EXEC mode system-level **acs-config** command to access ACS configuration mode.
- Configuration
  - Configuration submode

Use the EXEC mode system-level **configure** command to access configuration mode.

Each of the commands in this chapter is followed by a brief description of its use, command syntax, usage guidelines, and one or more examples. Throughout this chapter, the ACS server uses the name *acs* in place of the ACS server's hostname.

**Note:** If an error occurs in any command usage, use the **debug** command to determine the cause of the error.

Before proceeding to use the ACS CLI commands, familiarize yourself with disk space management in the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance. This section describes disk space management for the purpose of managing logs that you can view or download from the ACS CLI and includes:

- Debug logs
- Debug backup logs
- Platform logs

Managing disk space on the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 is important to enable you to use ACS efficiently. [Table 1 on page 1](#) describes the disk space allocated for each set of log files.

**Table 1 Disk Space Allocation for ACS Process Logs**

Process	Log File	Maximum Disk Space (in MB)
ADE OS 2.2	/var/log/ade/ADE.log	50
Monit	/opt/CSCOacs/logs/monit.log	55
Management	/opt/CSCOacs/logs/ACSManagementAudit.log	55
	/opt/CSCOacs/logs/ACSManagement.log	1000
	/opt/CSCOacs/mgmt/apache-tomcat-6.0.37/logs/*	55

**Table 1 Disk Space Allocation for ACS Process Logs**

Process	Log File	Maximum Disk Space (in MB)
Runtime	/opt/CSCOacs/logs/acsRuntime.log*	1000
	/opt/CSCOacs/runtime/config/startup_cache	1000
	/opt/CSCOacs/runtime/core.*	2000
	/opt/CSCOacs/logs/localStore/*	95,000
Config Database	/opt/CSCOacs/db/acs.db	> 5120
	/opt/CSCOacs/db/acs*.log	100
	/opt/CSCOacs/db/dberr.log	100
Viewer	/opt/CSCOacs/logs/*	155
Viewer database	/opt/CSCOacs/view/data/db/acsvview.db	150,000
	/opt/CSCOacs/view/data/db/acsvview.log	100
	/opt/CSCOacs/view/data/db/acsvview.errlog	100
AD Agent	/var/log/centrifydc.log	50
	/opt/CSCOacs/logs/ACSADAgent.log	55
Backup	Packaged files within a temporary directory	105,000
	/var/log/backup.log	50
	/var/log/backup-success.log	50
Upgrade/Patch	/opt/CSCOacs/patches/*	500
	/opt/CSCOacs/logs/acsupgrade.log	50

Log files in ACS are managed using various utilities, such as log rotate, log4j, and log4cxx. The log files are numbered and rolled over based on a configured maximum file size. Once a log file touches the configured limit, the data is rolled over to another file. This file is renamed in the *XXX.N.log* format, where:

- *XXX*—Specifies the name of the log file.
- *N*—Specifies any value from 1 to 10. This value varies depending on the log file. While some utilities roll over up to 10 log files, others roll over up to 9 log files. For information on these log files, see [Table 2 on page 2](#).

For instance, the default maximum file size for log files that log rotate manages is 5 MB. When a log file (for example, acsupgrade.log) reaches the 5-MB limit, it is renamed as acsupgrade.log.1. With every 5-MB increase in file size, the latest file is renamed as acsupgrade.log.2, acsupgrade.log.3, and so on.

Log rotate stores up to 10 log files at a given time. The latest log information, however, is always stored in acsupgrade.log. In ACS, log rotate runs as an hourly cron job and verifies the disk space allocated for the log files.

**Table 2 Log File Rotation**

Process	Log File	Number of Rotated Versions
Monit	/opt/CSCOacs/logs/monit.log	10
Upgrade	/opt/CSCOacs/logs/acsupgrade.log	10

**Table 2 Log File Rotation**

Process	Log File	Number of Rotated Versions
Management	/opt/CSCOacs/mgmt/apache-tomcat-5.5.20/logs/catalina.out	10
	/opt/CSCOacs/logs/ACSManagement.log	9
	/opt/CSCOacs/logs/ACSManagementAudit.log	10
	/opt/CSCOacs/logs/MonitoringAndReportingProcess.log	10
AD Agent	/opt/CSCOacs/logs/ACSADAgent.log	10
Runtime	/opt/CSCOacs/logs/acsRuntime.log	9

For detailed information on logging in ACS 5.8, refer to the *User Guide for Cisco Secure Access Control System 5.8*.

This chapter describes:

- [EXEC Commands, page 3](#)
- [Show Commands, page 87](#)
- [ACS Configuration Commands, page 139](#)
- [Configuration Commands, page 176](#)

## EXEC Commands

Each EXEC command includes a brief description of its use, command syntax, usage guidelines, and sample output.

[Table 3 on page 4](#) lists the EXEC commands that this section describes.

**Table 3 List of EXEC Commands**

■ <a href="#">acs (instance), page 5 *</a>	■ <a href="#">application stop, page 37</a>	■ <a href="#">password, page 67</a>
■ <a href="#">acs (process), page 7 *</a>	■ <a href="#">application upgrade, page 38</a>	■ <a href="#">ping, page 65</a>
■ <a href="#">acs backup, page 9 *</a>	■ <a href="#">backup, page 39 *</a>	■ <a href="#">reload, page 68</a>
■ <a href="#">acs-config, page 11 *</a>	■ <a href="#">backup-logs, page 41</a>	■ <a href="#">restore, page 69 *</a>
■ <a href="#">acs config-web-interface, page 15</a>	■ <a href="#">banner, page 42</a>	■ <a href="#">rmdir, page 71</a>
■ <a href="#">acs delete core, page 16 *</a>	■ <a href="#">clock, page 43</a>	■ <a href="#">show, page 72 (see Show Commands, page 87)</a>
■ <a href="#">acs delete log, page 17 *</a>	■ <a href="#">configure, page 44</a>	■ <a href="#">shutdown, page 74</a>
■ <a href="#">acs patch, page 18 *</a>	■ <a href="#">copy, page 45 *</a>	■ <a href="#">ssh, page 75</a>
■ <a href="#">acs reset-config, page 19 *</a>	■ <a href="#">crypto, page 48</a>	■ <a href="#">tech, page 76</a>
■ <a href="#">acs reset-password, page 21 *</a>	■ <a href="#">debug, page 51</a>	■ <a href="#">telnet, page 77</a>
■ <a href="#">acs restore, page 23 *</a>	■ <a href="#">delete, page 55</a>	■ <a href="#">terminal length, page 78</a>
■ <a href="#">acs support, page 26 *</a>	■ <a href="#">dir, page 56</a>	■ <a href="#">terminal session-timeout, page 79</a>
■ <a href="#">acs zeroize-machine, page 31 *</a>	■ <a href="#">exit, page 58</a>	■ <a href="#">terminal session-welcome, page 80</a>
■ <a href="#">application install, page 33</a>	■ <a href="#">forceout, page 59</a>	■ <a href="#">terminal terminal-type, page 81</a>
■ <a href="#">application remove, page 34</a>	■ <a href="#">halt, page 60</a>	■ <a href="#">traceroute, page 82</a>
■ <a href="#">application reset-config, page 35</a>	■ <a href="#">help, page 61</a>	■ <a href="#">undebug, page 83</a>
■ <a href="#">application start, page 36</a>	■ <a href="#">mkdir, page 62</a>	■ <a href="#">write, page 86</a>
	■ <a href="#">nslookup, page 63</a>	

**Note:** Commands marked with an asterisk (\*) represent those that are specific to ACS functionality.

## acs (instance)

To start or stop an ACS instance, use the **acs** command in the EXEC mode.

```
acs {start | stop}
```

### Syntax Description

<b>start</b>	Starts an ACS instance.
<b>stop</b>	Stops an ACS instance.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

If you use the **acs stop** command to stop any ACS process, it automatically starts after the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance boots up.

### Examples

#### Example 1

```
acs/admin# acs start
```

```
Starting ACS.....
```

To verify that ACS processes are running, use the 'show application status acs' command.

#### Example 2

```
acs/admin#
```

```
acs/admin# acs stop
```

```
Stopping ACS.....
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.

## EXEC Commands

Command	Description
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs (process)

To start or stop an individual process of an ACS instance, use the **acs** command in the EXEC mode.

```
acs {start | stop} {adclient | database | management | runtime | view-logprocessor | view-alertmanager |
view-collector | view-database | view-jobmanager}
```

### Syntax Description

start	Starts an ACS process.
stop	Stops an ACS process.
adclient	Starts or stops the adclient process of an ACS server.
database	Starts or stops the database process of an ACS server.
management	Starts or stops the management process of an ACS server.
runtime	Starts or stops the runtime process of an ACS server.
view-logprocessor	Starts or stops the view-logprocessor process of an ACS server.
view-alertmanager	Starts or stops the view-alertmanager process of an ACS server.
view-collector	Starts or stops the view-collector process of an ACS server.
view-database	Starts or stops the view-database process of an ACS server.
view-jobmanager	Starts or stops the view-jobmanager process of an ACS server.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

If you use the **acs stop** command to stop any ACS process, it automatically starts after the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance boots up.

When ACS cannot start or stop the ACS process that you want to start or stop, it prompts you with a relevant message.

The ACS processes may fail to start or stop in the following scenarios:

- Watchdog is not running.
- If you do not configure an active directory and you start the **adclient** process, the CLI displays the following message:

```
'adclient' is not configured, therefore will not be started.
```
- If you do not configure an active directory and you stop the **adclient** process, the CLI displays the following message:

```
'adclient' is not configured. Attempting to stop it anyway.
```
- If you start a view-based ACS process on an ACS server that is not a log collector, the CLI displays the following error message:

```
% Error: This is not a log collector node. Cannot start 'proc-name'.
```

Where *proc-name* refers to the specific view process that you attempted to start.

- If you stop a view-based ACS process on an ACS server that is not a log collector, the CLI displays the following message:

```
This is not a log collector node. Attempting to stop 'proc-name' anyway.
```

Where *proc-name* refers to the specific view process that you attempted to stop.

**Caution:** Use this command only when you need to troubleshoot the operations of an ACS node; otherwise, Cisco recommends that you maintain all of the ACS processes in running status, because ACS has high dependency on the ACS processes.

## Examples

### Example 1

```
acs/admin# acs start database
```

```
Starting database  
acs/admin#
```

### Example 2

```
acs/admin# acs stop database
```

```
Stopping database  
acs/admin#
```

## Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">show application, page 93</a>	Shows application status and version information.

## acs backup

To back up an ACS configuration (not including the ADE OS data), use the **acs backup** command in the EXEC mode.

**acs backup** *backup-filename* **repository** *repository-name*

### Syntax Description

<i>backup-filename</i>	Name of the backup file. This can be a maximum of 100 alphanumeric characters.
<b>repository</b>	Repository command.
<i>repository-name</i>	Location where files should be backed up to. This can be a maximum of 80 alphanumeric characters.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Performs a backup of ACS data and places the backup in a repository.

**Note:** Before you use this command, you may want to create an NFS staging area as a temporary location to perform your backup packaging, because backing up data requires a lot of disk space. For more information, see [backup-staging-url, page 179](#).

When you are using the **acs backup** command, the backup files include:

- Database—Database files include data related to ACS as well as the ADE OS. You can view backup files of the ADE-OS at:
  - /storedconfig
  - /storeddata
- Database password file—dbcred.cal, located at */opt/CSCOacs/db*.
- Certificate store—Located at */opt/CSCOacs/conf*.

You can access the */opt/CSCOacs/logs/acsbackup\_instance.log* file for information about the last backup operation.

ACS prompts for an encryption password when you run the full backup from ACS CLI. ACS again prompts for a confirmation of the encryption password.

You can use the **show backup history** command to display the backup operations and determine whether they succeeded. If the backup fails, you may be able to use the **show logging** command (or the **show acs-logs** command if you are backing up ACS logs) to view troubleshooting information. Failures in the ACS aspect of the backup are clearly described on the terminal.

If you use this command on a secondary ACS, no backup occurs. You can use the ACS web interface to designate an ACS node to collect logs.

After you use this command, a time stamp is added to the end of the *backup-name* filename, to enable periodic backups. For more information, see [acs restore, page 23](#).

**Examples**

```
acs/admin# acs backup mybackup repository myrepository
% backup in progress: Starting Backup...10% completed
% Creating backup with timestamped filename: mybackup-081007-2055.tar.gpg
Please enter backup encryption password [8-32 chars]: xxxxxxxxxx
Please enter the password again: xxxxxxxxxx
ACS backup file 'mybackup-081007-2055.tar.gpg' successfully copied to repository 'myrepository'
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">backup-staging-url, page 179</a>	Configures a Network File System (NFS) location that backup and restore operations will use as a staging area to package and unpackage backup files.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">delete, page 55</a>	Deletes a file from the ACS server.
<a href="#">dir, page 56</a>	Lists a file from the ACS server.
<a href="#">kron occurrence, page 207</a>	Schedules one or more Command Scheduler commands to run at a specific date and time or a recurring level.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">reload, page 68</a>	Reboots the system.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log-level status for subsystems (enabled or disabled).
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## acs-config

To enter the ACS Configuration mode, use the **acs-config** command in the EXEC mode.

### acs-config

#### Syntax Description

No arguments or keywords.

#### Defaults

No default behavior or values.

#### Command Modes

EXEC

#### Usage Guidelines

You must have privileges to enter ACS configuration mode, and you must supply the username and the password that you use to log in to the ACS web interface. The default username and password to access the ACS web interface are **acsadmin** and **default**, and the first time you log in to the web interface, you will be prompted to change the default password.

It is recommended that you do so for security reasons. You can change your password for the first time only by logging into the web interface. You will also be prompted to install the license.

**Note:** You cannot delete the default **acsadmin** user. You can, however, create other users with admin privileges from the web interface.

After resetting your password and installing a valid license, use the default username (**acsadmin**) and changed password, or the username and password for a newly created admin user, to access the ACS CLI in the ACS Configuration mode.

Up to six users can access the ACS Configuration mode at a time; six users equal six sessions. When one of the six sessions ends, you must wait up to five minutes for the session to be available to another user.

To leave the ACS Configuration mode, type **exit** or press **Ctrl-d**.

After you provide valid login credentials, ACS prompts you to change your password for any of the following reasons:

- Password expiration.
- Account inactivity.
- **acs reset-password** command run.
- Super administrator has selected **Change password on next login** for an admin account through GUI.

When ACS prompts you to change your password, enter your old password, then a new password (conforming to the password policy), and confirm your new password (repeat the new password that you specified).

If you fail to change your password when you are requested to, you cannot log in to ACS Configuration mode.

#### Examples

##### Example 1 - Success

```
acs/admin# acs-config  
Escape character is CNTL/D.
```

```
Username: user1
```

## EXEC Commands

```
Password:
```

```
acs/admin(config-acs)#
```

**Example 2 - Failure**

```
acs/admin# acs-config
```

```
Escape character is CNTL/D.
```

```
This command requires ACS to be running.  
Issue 'acs start' command and try again.
```

```
acs/admin
```

**Example 3 - Failure**

```
acs/admin# acs-config
```

```
Escape character is CNTL/D.
```

```
Username: user1
```

```
Password:
```

```
Authentication failed.
```

```
Username:
```

**Example 4 - Failure**

```
acs/admin# acs-config
```

```
Escape character is CNTL/D.
```

```
Username: acsadmin
```

```
Password:
```

```
Failed to login with the default password.  
Use the web interface to modify the default password
```

```
acs/admin#
```

**Example 5 - Success**

```
acs/admin# acs-config
```

```
Escape character is CNTL/D.
```

```
Username: acsadmin
```

```
Password:
```

```
Administrator must change password.  
Old password:  
New password:  
Confirm new password:
```

```
acs/admin(config-acs)#
```

**Example 6 - Failure**

```
acs/admin# acs-config
```

```
Escape character is CNTL/D.
```

```
Username: acsadmin
```

```
Password:
```

```
Administrator must change password.  
Old password:
```

```
Invalid value.
```

## EXEC Commands

```
acs/admin#
```

**Example 7 - Failure**

```
acs/admin# acs-config
Escape character is CNTL/D.
```

```
Username: acsadmin
Password:
```

```
Administrator must change password.
Old password:
New password:
Confirm new password:
```

```
Cannot change password:
Password and confirm password must be the same
```

```
acs/admin#
```

**Example 8 - Failure**

```
acs/admin# acs-config
Escape character is CNTL/D.
```

```
Username: acsadmin
Password:
```

```
Administrator must change password.
Old password:
New password:
Confirm new password:
```

```
Cannot change password:
Value is out of range (8 - 32)
```

```
acs/admin#
```

If the new password does not conform with the password policy, ACS displays the password policy details as shown in the previous example.

**Related Commands**

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.

<b>Command</b>	<b>Description</b>
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs config-web-interface

To enable or disable an interface for ACS configuration web, use the **acs config-web-interface** command in the EXEC mode.

**acs config-web-interface** [**migration** | **ucp** | **view** | **rest**] {**enable** | **disable**}

### Syntax Description

<b>migration</b>   <b>ucp</b>   <b>view</b>   <b>rest</b>	(Optional) Specify one of the interfaces, to enable or disable that specific interface alone.
<b>enable</b>	Enables the interface for ACS migration, password change, or Representational State Transfer (REST) services for the user.
<b>disable</b>	Disables the interface for ACS migration, password change, or REST services for the user.

### Defaults

Disabled.

### Command Modes

EXEC

### Usage Guidelines

Enables or disables an interface to migrate the ACS database, change the user password, or use REST services through the CLI.

If you do not want to migrate your ACS database, change the user password or use REST services. Cisco recommends that you disable these interfaces.

### Examples

#### Example 1

```
acs/admin# acs config-web-interface migration enable
acs/admin#
```

#### Example 2

```
acs/admin# acs config-web-interface [migration | ucp | view | rest] disable
acs/admin#
```

### Related Commands

Command	Description
<a href="#">show</a> <a href="#">acs-config-web-interface</a> , <a href="#">page 88</a>	Indicates whether the ACS configuration web interface is enabled or disabled.

## acs delete core

To delete an ACS run-time core file or JVM core log, use the **acs delete core** command in the EXEC mode.

```
acs delete core {filename}
```

### Syntax Description

<i>filename</i>	Name of the run-time core file or JVM core log. You can use up to 255 alphanumeric characters to specify the filename.
-----------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

To view the list of available run-time core files and JVM core logs, use **show acs-cores** command.

### Examples

#### Example 1

```
acs/admin# acs delete core xyz.log

% Error: Invalid core file 'xyz.log'
Use 'show acs-cores' to list the core files
acs/admin(config-acs)#
```

#### Example 2

```
acs/admin# acs delete core hs_err_pid12477.log

Core file 'hs_err_pid12477.log' deleted successfully
acs/admin
```

### Related Commands

Command	Description
<a href="#">acs delete log, page 17</a>	Deletes an ACS run-time core file or JVM core log excluding the latest one.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show acs-cores, page 89</a>	Displays ACS run-time core files and JVM core logs.

## acs delete log

To delete an ACS run-time core file or JVM core log excluding the latest one, use the **acs delete log** command in the EXEC mode.

```
acs delete log {filename}
```

### Syntax Description

<i>filename</i>	Name of the run-time core file or JVM core log. You can use up to 255 alphanumeric characters to specify the filename.
-----------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

To view the list of available run-time core files and JVM core logs, use the **show acs-cores** command. To delete the latest run-time core file or JVM core log, use the **acs delete core** command.

### Examples

#### Example 1

```
acs/admin# acs delete log xyz.log

% Error: Invalid log file 'xyz.log'
Use 'show acs-logs' to list the log files
acs/admin
```

#### Example 2

```
acs/admin# acs delete log catalina.out

% Error: most recent log files cannot be deleted, only older logs.
acs/admin
```

#### Example 3

```
acs/admin# acs delete log catalina.2008-12-10.log

Log file 'catalina.2008-12-10.log' deleted successfully
acs/admin
```

### Related Commands

Command	Description
<a href="#">acs delete core, page 16</a>	Deletes an ACS run-time core file or JVM core log.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show acs-cores, page 89</a>	Displays ACS run-time core files and JVM core logs.

## acs patch

To install and remove ACS patches, use the **acs patch** command in the EXEC mode.

```
acs patch {install | remove} patch-name.tar.gpg repository repository-name
```

### Syntax Description

<code>install</code>	Install command.
<code>remove</code>	Remove command.
<code>patch-name.tar.gpg</code>	Name of the patch, which always has the .tar.gpg filename extension.
<code>repository</code>	Repository command.
<code>repository-name</code>	Location where files should installed from or removed to. This can be a maximum of 80 alphanumeric characters.

### Defaults

Patch installations and removals are logged to `/opt/CSCOacs/logs/acsupgrade.log`.

### Command Modes

EXEC

### Usage Guidelines

ACS patches contain small fixes that include isolated files, not a full version of the ACS software. ACS patch installations and removals require that you restart ACS.

### Examples

#### Example 1

```
acs/admin# acs patch install acspatch.tar.gpg repository myrepository
Save the Current ADE-OS running configuration? (yes/no) [yes] ? yes
Generating configuration...
Saved the ADE-OS running configuration to startup successfully
Getting bundle to local machine...
md5: aa45b77465147028301622e4c590cb84
sha256: 3b7f30d572433c2ad0c4733a1d1fb55cceb62dc1419b03b1b7ca354feb8bbcfa
% Please confirm above crypto hash with what is posted on download site.
% Continue? Y/N [Y]?
% Installing an ACS patch requires a restart of ACS services.
Would you like to continue? yes/no
```

#### Example 2

```
acs/admin# acs patch remove acspatch
Removing an ACS patch requires a restart of ACS services.
Would you like to continue? Y/N
```

### Related Commands

Command	Description
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs reset-config

To reset the ACS configuration to factory defaults, use the **acs reset-config** command in the EXEC mode.

### acs reset-config

#### Syntax Description

No arguments or keywords.

#### Defaults

No default behavior or values.

#### Command Modes

EXEC

#### Usage Guidelines

If you use the **acs reset-config** command to reset your ACS to the factory default configuration, any configurations you have performed are lost; however, the appliance settings (such as network settings and backup repositories) are not affected.

ACS does not need to be running when you use this command.

#### Examples

```
acs/admin# acs reset-config
This command will reset the ACS configuration.
Would you like to continue? Y/N
```

#### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">application reset-config, page 35</a>	Resets an application configuration to factory defaults.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).

## EXEC Commands

<b>Command</b>	<b>Description</b>
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs reset-password

To reset any administrator account password to its default setting, use the **acs reset-password** command in EXEC mode. In ACS 5.8, you need to specify the username of the administrator account next to the **acs reset password** command to provide additional security to the command.

**acs reset-password *username***

### Syntax Description

<i>username</i>	Username of the administrator account whose password needs to be reset. This can be a maximum of 100 alphanumeric characters.
-----------------	---

### Defaults

This command resets the specified ACS administrator password to its default setting (**default**) and enables the account if it is a recovery account. If the administrator account is not a recovery account, then you need to enable the account manually. Resetting this password does not affect other ACS administrators.

### Command Modes

EXEC

### Usage Guidelines

You cannot use this command on a secondary ACS node.

After you use this command, you must access your primary ACS node via the web interface and change the password. If you use the default password for the web interface (**default**) to access the ACS Configuration mode (which requires you to provide the web interface username and password), the login fails and the system prompts you to change the default password.

### Examples

```
acs/admin# acs reset-password admin1
```

```
This command resets the 'ACS Administrator' password to its original value and enables the account if it is a recovery admin.
```

```
Are you sure you want to continue? (yes/no) y
```

```
Password was reset successfully
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Backs up the system (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.

<b>Command</b>	<b>Description</b>
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs restore

To restore an ACS configuration (not including the ADE OS data) from one ACS node to another, use the **acs restore** command in the EXEC mode.

**acs restore** *backup-file-name* **repository** *repository-name*

### Syntax Description

<i>backup-file-name</i>	<p>Name of backup file. This can be a maximum of 100 alphanumeric characters.</p> <p>A time stamp in the format <code>-yymmdd-hhMM.tar.gpg</code> is added to the backup filename to generate a unique backup filename, where:</p> <ul style="list-style-type: none"> <li>■ yy—Two-digit representation of the year (the last two digits).</li> <li>■ mm—Two-digit representation of the month. Single-digit months are preceded by zero (0).</li> <li>■ dd—Two-digit representation of the day of the month. Single digit months are preceded by zero (0).</li> <li>■ hh—Two-digit representation of the hour of the day of a 24-hour clock. Single-digit hours are preceded by zero (0).</li> <li>■ MM—Two-digit representation of the minute of the hour. Single-digit minutes are preceded by zero (0).</li> </ul> <p>For example, if you type <code>dailyBackup</code> as the filename, the resulting file may be named <code>dailyBackup-080229-2335.tar.gpg</code>.</p>
<b>repository</b>	Repository command.
<i>repository-name</i>	Location where files should be restored from. This can be a maximum of 80 alphanumeric characters.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Restores an ACS configuration from one ACS node to another. The restoration is performed from a temporary directory (the repository). ACS prompts for a decryption password when you restore the ACS backup from ACS CLI.

If you are restoring an primary ACS node configuration to a secondary, you must configure the secondary to local mode before you use this command (deregister from the primary node).

**Caution: ACS gets restarted when you run the acs restore command in ACS CLI.**

If you are restoring the backup file on a node that was part of the ACS deployment when the backup was performed, ACS replaces the database. This includes:

- Old certificates and certificate requests, if any exist
- Database password file
- Viewer database

The `prikeypwd.key` is not included, because this file can be associated only with the private keys of the original ACS primary node.

**Note:** In ACS 5.8, the ACS database does not contain the `prikeypwd.key`; it is available only in the file system.

You need not restore the backup file on a node that was *not* part of the deployment when the backup was performed, as the new ACS node might not have any local certificates to associate with.

After a restoration is complete, you must use the ACS web interface to designate an ACS node as a log collector.

ACS backup is now encrypted using a dynamic encryption password. Therefore ACS prompts for an encryption password when you run a backup that contains ACS data. The user is prompted for a decryption password while restoring a backup that contains ACS data.

**Note:** ACS does not prompt for a decryption password when you restore ACS 5.5 version's backup in ACS 5.8.

### Examples

```
acs/admin# acs restore mybackup-080229-2335.tar.gpg repository myrepository
Restore requires a restart of ACS services. Continue? (yes/no)yes
%Warning: Do not use Ctrl-C or close this terminal window until the restore completes.
Initiating restore. Please wait...
%restore in progress: Starting Restore...10% completed
%restore in progress: Retrieving backup file from Repository...20% completed
Please enter backup decryption password [8 - 32 chars]:xxxxxxxxx
% restore in progress: Decrypting backup data...40% completed
% restore in progress: Decrypting backup data...50% completed
Calculating disk size for /opt/backup/restore-mybackup-080229-2335.tar.gpg
Total size of the restore files are 24 M.
Max size defined for restore files are 97887 M.
Restoring the data base will affect the distributed setup. For example, replication between primary and
secondary will be broken. It is recommended to schedule a downtime to carry out the restore operation.
After restore, you will have to configure each secondary to local mode and then re-connect with
primary. Do you want to continue with restore operation?. <yes/no>: yes
% Application restore successful.
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">backup-staging-url, page 179</a>	Configures a Network File System (NFS) location that backup and restore operations use as a staging area to package and unpackage backup files.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.

Command	Description
<a href="#">delete, page 55</a>	Deletes a file from the ACS server.
<a href="#">dir, page 56</a>	Lists a file in the ACS server.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">reload, page 68</a>	Reboots the system.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log-level status for subsystems (enabled or disabled).
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## acs support

To gather information for ACS troubleshooting, use the **acs support** command in the EXEC mode.

```
acs support filename repository repository-name encryption-passphrase <password> [description {“text”}]  
  [include-cores {number-days}] [include-db {original | secure}] [include-debug-logs {number-logs}]  
  [include-local-logs {number-logs}] [include-system-logs {number-logs}] [include-logs {number-days}  
  {all-categories | log-categories [aaa-accounting | aaa-audit | aaa-diagnostics | administrative-audit |  
  system-diagnostics]}]
```

**Syntax Description**

<i>filename</i>	The filename (up to 100 characters) of the support file; ACS stores the file in the format <i>filename.tar.gz</i> to the repository.
repository	Repository command.
<i>repository-name</i>	Location where files should be restored from. This can be a maximum of 80 alphanumeric characters.
<b>encryption-passphrase</b>	Encryption command to encrypt the support bundle.
password	Password to encrypt the support bundle.
description	Description command.
"text"	Text, between quotation marks, which is saved in a readme.txt file that is included in the ACS support bundle.
include-cores	Includes core files in the ACS support bundle.
<i>number-older-days</i>	Includes core files in the ACS support bundle that are older than the number of days that you specify with this argument. By default, or if you specify 0, the core files are not included. Specify a value between 0 and 365.
include-db	Includes the ACS database in the ACS support bundle.
Original	Includes all the data from the ACS database.
Secure	Includes the data from the ACS database excluding any sensitive information.
include-debug-logs	Includes debug log files in the ACS support bundle.
<i>number-logs</i>	Includes the number of recent debug log files in the ACS support bundle of ACS management and runtime subsystems and the ACS Viewer that you specify with this argument.  For example, if you specify 1, the most recent logs are included. Specify a value between 0 and 999.
include-local-logs	Includes logs that a customer can view via the CLI or the ACS web interface in the ACS support bundle.
<i>number-logs</i>	Includes the number of log files in the ACS support bundle that you specify with this argument. By default, logs are not included. Specify a value between 0 and 999.
include-system-logs	Includes recent system logs in the ACS support bundle.
<i>number-logs</i>	Includes the number of recent system log files from each node in the ACS support bundle that you specify with this argument. By default, or if you specify 0, the core files are not included. Specify a value between 0 and 365.
include-logs	Includes logs from the Viewer database in the ACS support bundle.
<i>number-recent-days</i>	Includes Viewer database logs of the most recent number of days that you specify with this argument in the ACS support bundle. Specify a value between 0 and 365. If you specify 0, no logs are included.
all-categories	Includes messages from all logging categories in the ACS support bundle.
log-categories	Includes messages from a subset of logging categories in the ACS support bundle.
aaa-accounting	Includes messages from the AAA accounting logging category in the ACS support bundle.
aaa-audit	Includes messages from the AAA audit logging category in the ACS support bundle.

aaa-diagnostics	Includes messages from the AAA diagnostic logging category in the ACS support bundle.
administrative-audit	Includes messages from the administrative audit logging category in the ACS support bundle.
system-diagnostics	Includes messages from the system diagnostics logging category in the ACS support bundle.

### Defaults

The command generates a tar.gz file, which can contain the following components:

- ACS (non-sensitive data) and Viewer (as text) configuration data.
- All core files, if any exist.
- The output of **show version**, **show udi**, **show tech-support**, **show running-config**, and **show startup-config** commands.
- The log files, as you specify in your command structure.
- The monitoring and reporting logs, if any exist.
- The most recent copy of system logs from each node.
- A readme.txt file.
- The encrypted support bundle with .tar.gpg as the file extension (if you have used the **encryption-passphrase command**)

### Command Modes

EXEC

### Usage Guidelines

**Note:** Before you use this command, you may want to create an Network File System (NFS) staging area as a temporary location to perform your backup packaging, because backing up data requires a lot of disk space. For more information, see [backup-staging-url, page 179](#).

You are prompted for a username and password that can access the remote location.

ACS 5.8 encrypts the support bundle if the **encryption-passphrase command is used**. **You can decrypt the support bundle outside the ACS 5.8 machine, using the password provided.**

To decrypt the support bundle outside the ACS 5.8 machine, you should have a decrypter program that can decrypt the .gpg files, for example, the GnuPG program. If you do not want to encrypt the support bundle, you can enter the password value as *null*.

Possible errors are standard FTP and SCP error messages.

**Table 4 Protocol Prefix Keywords**

Keyword	Source of Destination
<b>ftp</b>	Source or destination URL for FTP network server. The syntax for this alias: <b>ftp:[[//username [:password]@]location]/directory]/filename</b>
<b>scp</b>	Source or destination URL for SCP network server. The syntax for this alias: <b>scp:[[//username [:password]@]location]/directory]/filename</b>
<b>sftp</b>	Source or destination URL for an SFTP network server. The syntax for this alias: <b>sftp:[[//location]/directory]/filename</b>
<b>tftp</b>	Source or destination URL for a TFTP network server. The syntax for this alias: <b>tftp:[[//location]/directory]/filename</b>

**Note:** The protocol keywords sftp and tftp are not available for ACS file transfers.

### Examples

```
acs/admin# acs support file01 repository myrepository encryption-passphrase xyz description "files to
bundle for assistance" include-cores 3 include-db secure include-debug-logs 10 include-local-logs 5
include-system-logs 1 include-logs 7 log-categories aaa-audit administrative-audit
Collecting support information ... (file01.tar.gz)
ACS support file 'file01.tar.gz' successfully copied to repository 'myrepository'
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).

## EXEC Commands

<b>Command</b>	<b>Description</b>
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## acs zeroize-machine

To trigger the zeroization and delete the keys, sensitive files, the running memory, and the swap files, use the **acs zeroize-machine** command in the EXEC mode. This command securely deletes the partition on which ACS is installed.

It also securely deletes the swap partition and restarts the machine to clear all information in RAM. After the command executes, ACS will no longer function on the appliance. You must reinstall ACS on the appliance.

### **acs zeroize-machine**

#### **Syntax Description**

No arguments or keywords.

#### **Defaults**

None.

#### **Command Modes**

EXEC

#### **Usage Guidelines**

When you enter this command, ACS will prompt you for confirmation for three times before running the command. The command performs the following steps:

1. Stops ACS processes so that the device is not busy and secure deletion happens.
2. Deletes the following devices:
  - /dev/smosvg/home
  - /dev/smosvg/localdiskvol
  - /dev/smosvg/optvol
  - /dev/smosvg/recvol
  - /dev/smosvg/storedatavol
  - /dev/smosvg/tmpvol
  - /dev/smosvg/swapvol

The optvol is the partition on which ACS is installed and all the sensitive information in ACS is stored here. The swap is maintained in swapvol.

3. Scans each partition type internally, using the fstab file.
4. Turns off the journaling; otherwise data zeroization might not happen.
5. Overwrites each partition twice with random bytes and zeroes at the end.
6. Restarts the machine to delete the RAM content.

It is recommended not to use the ACS machine after you run this command.

#### **Examples**

```
acs/admin# acs zeroize-machine
```

This command performs key zeroization of the ACS machine

Warning: This operation is irreversible - it completely deletes the ACS machine!

EXEC Commands

```
Are you sure you want to perform key zeroization now? (yes/no)
Please enter 'yes' or 'no'
Are you sure you want to perform key zeroization now? (yes/no) yes
Are you absolutely sure you want to perform key zeroization now? (yes/no) no
```

## application install

To install a specific application, use the **application install** command in the EXEC mode. To remove this function, use the **application remove** command.

**application install** *application-bundle remote-repository-name*

### Syntax Description

<b>install</b>	Installs a specific application.
<i>application-bundle</i>	Application bundle filename. This can be a maximum of 255 alphanumeric characters.
<i>remote-repository-name</i>	Remote repository name. This can be a maximum of 255 alphanumeric characters.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Installs the specified application bundle on the appliance. The application bundle file is pulled from the specified repository.

If you run the **application install** or **application remove** command when another installation or removal operation of an application is in progress, you will see the following warning message:

```
An existing application install, remove, or upgrade is in progress. Try again shortly.
```

The ACS machine will be rebooted automatically soon after the installation gets completed.

### Examples

```
acs/admin# application install acs.tar.gz myremoterepository
```

```
Do you want to save the current configuration ? (yes/no) [yes] ?
Generating configuration...
Saved the running configuration to startup successfully
acs/admin#
```

### Related Commands

Command	Description
<a href="#">application remove, page 34</a>	Removes or uninstalls an application.
<a href="#">application start, page 36</a>	Starts or enables an application.
<a href="#">application stop, page 37</a>	Stops or disables an application.
<a href="#">show application, page 93</a>	Shows application information for the installed application packages on the system.

## application remove

To remove or uninstall a specific application, use the **application remove** command in the EXEC mode. To remove this function, use the **no** form of this command.

**application remove** *application-name*

### Syntax Description

<i>application-name</i>	Application name. This can be a maximum of 255 alphanumeric characters.
-------------------------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None

### Examples

```
acs/admin# application remove acs
acs/admin#
```

### Related Commands

Command	Description
<a href="#">application install, page 33</a>	Installs an application bundle.
<a href="#">application start, page 36</a>	Starts or enables an application.
<a href="#">application stop, page 37</a>	Stops or disables an application.
<a href="#">show application, page 93</a>	Shows application information for the installed application packages on the system.

## application reset-config

To reset an application configuration to factory defaults, use the **application reset-config** command in the EXEC mode.

**application reset-config** *application-name*

### Syntax Description

<i>application-name</i>	Name of the application to reset its configuration to factory defaults. Up to 255 alphanumeric characters.
-------------------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

You can use the **application reset-config** command to reset the ACS configuration to factory defaults without reimaging the ACS appliance or VM.

### Examples

```
acs/admin# application reset-config acs
```

```
Application successfully reset configuration
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.

## application start

To enable a specific application, use the **application start** command in the EXEC mode.

**application start** *application-name*

### Syntax Description

<i>application-name</i>	Name of the predefined application that you want to enable. This can be a maximum of 255 alphanumeric characters.
-------------------------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Enables an application.

You cannot use this command to start ACS.

### Examples

```
acs/admin# application start acs
acs/admin#
```

### Related Commands

Command	Description
<a href="#">application install, page 33</a>	Installs an application bundle.
<a href="#">application remove, page 34</a>	Removes or uninstalls an application.
<a href="#">application stop, page 37</a>	Stops or disables an application.
<a href="#">show application, page 93</a>	Shows application information for the installed application packages on the system.

## application stop

To disable a specific application, use the **application stop** command in the EXEC mode.

**application stop** *application-name*

### Syntax Description

<i>application-name</i>	Name of the predefined application that you want to disable. This can be a maximum of 255 alphanumeric characters.
-------------------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Disables an application.

You cannot use this command to stop ACS.

### Examples

```
acs/admin# application stop acs
acs/admin#
```

### Related Commands

Command	Description
<a href="#">application install, page 33</a>	Installs an application bundle.
<a href="#">application remove, page 34</a>	Removes or uninstalls an application.
<a href="#">application start, page 36</a>	Starts or enables an application.
<a href="#">show application, page 93</a>	Shows application information for the installed application packages on the system.

## application upgrade

To upgrade a specific application bundle, use the **application upgrade** command in the EXEC mode. To remove this function, use the **application remove** command.

**application upgrade** *application-bundle remote-repository-name*

### Syntax Description

application-bundle	Application name. Up to 255 alphanumeric characters.
remote-repository-name	Remote repository name. Up to 255 alphanumeric characters.

### Command Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The **application upgrade** command upgrades the application using the specified application bundle and preserves the application configuration data.

If you issue the **application upgrade** command when another application upgrade operation is in progress, you will see the following warning message:

An existing application install, remove, or upgrade is in progress. Try again shortly.

**Note:** The ACS appliance is rebooted during the application upgrade process.

**Note:** It is recommended not to upgrade ACS during aggregation time. If you upgrade ACS during the aggregation time, ACS View upgrade will fail.

**Note:** You can use the application upgrade command to upgrade from ACS 5.5, 5.6 or 5.7 patch releases to ACS 5.8. You can perform an ACS upgrade only on a standalone machine. To learn more about the upgrade process, see the [Installation and Upgrade Guide for Cisco Secure Access Control System 5.8](#).

## backup

To perform a backup (including the ADE OS data like hostname, IP address) and place the backup in a repository, use the **backup** command in EXEC mode.

**backup** *backup-name* **repository** *repository-name*

### Syntax Description

<i>backup-name</i>	Name of backup file. This can be a maximum of 100 alphanumeric characters.
<b>repository</b>	Repository command.
<i>repository-name</i>	Location where the files should be backed up to. This can be a maximum of 80 alphanumeric characters.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The **backup** command performs a backup of ACS data and places the backup in a repository.

When you are using this command for ACS, the backup files include:

- Database—Database files include data related to ACS.
- Database password file—dbcred.cal, located at /opt/CSCOacs/conf.
- Certificate store—Located at /opt/CSCOacs/conf.
- Viewer database—If the ACS node you are backing up has Viewer enabled.

ACS prompts for an encryption password when you run the full backup from ACS CLI. ACS again prompts for a confirmation of the encryption password.

You can use the **show backup history** command to display the backup operations and determine whether they succeeded.

If the backup fails, you may be able to use the **show logging** command (or the **show acs-logs** command if you are backing up ACS logs) to view troubleshooting information. Failures in the ACS aspect of the backup are clearly described in messages that are displayed on the terminal.

### Examples

```
acs/admin# backup mybackup repository myrepository
% backup in progress: Starting Backup...10% completed
% Creating backup with timestamped filename: myback2-081007-2129.tar.gpg
Please enter backup encryption password [8-32 chars]: xxxxxxxxxxxx
Please enter the password again: xxxxxxxxxxxx
% backup in progress: Backing up ADEOS configuration...55% completed
Calculating disk size for /opt/backup/backup-mybackup2-081007-2129
Total size of backup files are 16 M.
Max Size defined for backup files are 97887 M.
% backup in progress: Moving Backup file to the repository...75% completed
% backup in progress: Completing Backup...100% completed
acs/admin#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">delete, page 55</a>	Deletes a file from the ACS server.
<a href="#">dir, page 56</a>	Lists a file from the ACS server.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">reload, page 68</a>	Reboots the system.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log-level status for subsystems (enabled or disabled).
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## backup-logs

To back up system logs, use the **backup-logs** command in the EXEC mode.

**backup-logs** *backup-name* **repository** *repository-name*

### Syntax Description

<i>backup-name</i>	Name of one or more files to back up. This can be a maximum of 100 alphanumeric characters.
<b>repository</b>	Repository command.
<i>repository-name</i>	Location where files should be backed up. This can be a maximum of 80 alphanumeric characters.

### Defaults

This command backs up the following log files, which are located in specific directories:

- ACS server files located in the `/var/log` directory.
- ACS debug, audit, and diagnostic files located in the `/opt/CSCSacs/logs` directory.
- ACS Tomcat files located in the `/opt/CSCOacs/mgmt/apache/<version>/logs` directory, where `<version>` identifies the Tomcat version that you are running.
- ACS database files located in the `/opt/CSCOacs/db` directory.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# backup-logs mysyslogs repository myrepository
% Creating log backup with timestamped filename: mysyslogs-081007-2130.tar.gz
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## banner

To display a banner text before and after logging in to ACS CLI, use the **banner** command in the EXEC mode.

**banner** {install | remove} {post-login | pre-login} *file-name* repository *repository-name*

### Syntax Description

install	Command to display the banner text.
remove	Command to remove the banner text.
post-login	Command to display the banner after logging in.
<i>pre-login</i>	Command to display the banner before logging in.
file-name	Name of the file from which the banner text is copied. The name can be a maximum of 256 alphanumeric characters.
repository	Repository command.
<i>repository-name</i>	Location where the banner text file is present. This can be a maximum of 256 alphanumeric characters.

### Defaults

None

### Command Modes

EXEC

### Usage Guidelines

You must create a text file with the banner text and save that text file in a repository before executing this command. If you want to display different banners for post- and pre-logins, you must create two different banner text files. The banners that are configured using the **banner** command from ACS CLI do not reflect in ACS web interface, whereas the banners that are configured in ACS web interface impacts the ACS CLI banners.

[Table 5 on page 42](#) displays the supported repositories to store the banner text files.

**Table 5 Supported Repositories to Store Banner Text**

Banner	NFS	SFTP	FTP	CDROM	TFTP	HTTP	Local disk
Pre-Login	Yes	Yes	No	Yes	No	No	No
Post-Login	Yes	Yes	Yes	Yes	Yes	Yes	Yes

### Examples

```
acs/admin# banner install post-login myfile1 repository myrepository
acs/admin#
```

### Related Commands

Command	Description
<a href="#">show clock, page 99</a>	Displays the time and date set on the system software clock.
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.

## clock

To set the system clock, use the **clock** command in the EXEC mode.

**clock set** [*month day hh:min:ss yyyy*]

### Syntax Description

<b>set</b>	Sets the system clock.
<i>month</i>	Current month of the year by name. This can be a maximum of three alphabetic characters. For example, Jan for January.
<i>day</i>	Current day (by date) of the month. Value = 1 to 31. Up to two numbers.
<i>hh:mm:ss</i>	Current time in hours (24-hour format), minutes, and seconds.
<i>yyyy</i>	Current year (no abbreviation).

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Sets the system clock. You must restart the ACS server to take effect of the changes after setting the clock.

### Examples

```
acs/admin# clock set Jan 4 05:05:05 2007
Clock was modified. You must restart ACS.
Do you want to restart ACS now? (yes/no) yes
Stopping ACS .....
Starting ACS .....
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">show clock, page 99</a>	Displays the time and date set on the system software clock.

## configure

To enter the Configuration mode, use the **configure** command in the EXEC mode. If using the **replace** option, this command copies a remote configuration to the system, overwriting the existing configuration.

**configure {terminal}**

### Syntax Description

terminal	Runs configuration commands from the terminal.
----------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Use this command to enter the Configuration mode. Note that commands in this mode write to the running configuration file as soon as you enter them (press **Enter**).

To exit the Configuration mode and return to the EXEC mode, enter **end**, **exit**, or **Ctrl-z**.

To view the changes that you have made to the configuration, use the **show running-config** command in the EXEC mode.

### Examples

```
acs/admin# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">show running-configuration, page 126</a>	Displays the contents of the currently running configuration file or the configuration.
<a href="#">show startup-configuration, page 128</a>	Displays the contents of the startup configuration file or the configuration.

## copy

To copy any file from a source to a destination, use the **copy** command in the EXEC mode. The **copy** command in ACS copies a configuration (running or startup).

### Running Configuration

The ACS active configuration stores itself in the ACS RAM. Every configuration command you enter resides in the running configuration. If you reboot your ACS server, you lose the configuration. If you make changes that you want to save, you must copy the running configuration to a safe location, such as a network server, or save it as the ACS server startup configuration.

### Startup Configuration

You cannot edit a startup configuration directly. All commands that you enter store themselves in the running configuration, which you can copy into the startup configuration.

In other words, when you boot an ACS server, the startup configuration becomes the initial running configuration. As you modify the configuration, the two diverge:

- The startup configuration remains the same.
- The running configuration reflects the changes that you have made.

If you want to make your changes permanent, you must copy the running configuration to the startup configuration.

The following command lines show some of the **copy** command scenarios available:

```
copy running-configuration startup-configuration
```

Copies the running configuration to the startup configuration. Replaces the startup-configuration with the running configuration.

**Note:** If you do not save the running configuration, you will lose all your configuration changes during the next reboot of the ACS server. Once you are satisfied that the current configuration is correct, copy your configuration to the startup configuration with the preceding command.

```
copy startup-configuration running-configuration
```

Copies the startup configuration to the running configuration. Merges the startup configuration on top of the running configuration.

```
copy [protocol://hostname/location] startup-configuration
```

Copies but does not merge a remote file to the startup configuration.

```
copy [protocol://hostname/location] running-configuration
```

Copies and merges a remote file to the running configuration.

```
copy startup-configuration [protocol://hostname/location]
```

Copies the startup configuration to a remote system.

```
copy running-configuration [protocol://hostname/location]
```

Copies the running configuration to a remote system.

```
copy logs [protocol://hostname/location]
```

Copies log files from the system to another location.

**Note:** The **copy** command is supported only for the local disk and not for a repository.

### Syntax Description

<code>running-configuration</code>	Represents the current running configuration file.
<code>startup-configuration</code>	Represents the configuration file used during initialization (startup).
<i>protocol</i>	See <a href="#">Table 4 on page 29</a> for protocol keyword options.
<i>hostname</i>	Hostname of destination.
<i>location</i>	Location of destination.
<code>logs</code>	System log files.
<code>acs-logs</code>	ACS log files.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The fundamental function of the **copy** command allows you to copy a file (such as a system image or configuration file) from one location to another location. The source and destination for the file specified uses the ACS file system, through which you can specify any supported local or remote file location. The file system being used (a local memory source or a remote system) dictates the syntax used in the command.

You can enter on the command line all necessary source and destination information and the username and password to use, or you can enter the **copy** command and have the ACS server prompt you for any missing information.

**Note:** Aliases reduce the amount of typing that you need to do. For example, type **copy run start** (the abbreviated form of the **copy running-config startup-config** command).

The entire copying process might take several minutes and differs from protocol to protocol and from network to network.

Use the filename relative to the directory for file transfers.

### Examples

#### Example 1

```
acs/admin# copy run start
Generating configuration...
acs/admin#
```

#### Example 2

```
acs/admin# copy logs ftp://host01/ldir01
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs support, page 26</a>	Gathers information for troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.

<b>Command</b>	<b>Description</b>
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">delete, page 55</a>	Deletes a file from the ACS server.
<a href="#">dir, page 56</a>	Lists a file from the ACS server.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">reload, page 68</a>	Reboots the system.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## crypto

To generate a new public key pair, export the current public key to a repository, and import a public key to the authorized keys list, use the **crypto** command in EXEC mode. It is also possible to view the public key information and delete selected keys.

**crypto host\_key {add | delete} host {hostname | IP-address}**

**crypto key [delete {hash | authorized-keys | rsa}]**

**crypto key {export | import} filename repository repository-name**

**crypto key generate rsa**

### Syntax Description

host_key	Allows you to perform crypto host-key operations.
add	Adds trusted host keys.
delete	Deletes trusted host keys.
host	Hostname command.
hostname   IP-address	IP address or hostname of the server on which you perform the crypto host-key operations.
key	Allows you to perform crypto key operations.
delete	(Optional) Deletes a public/private key pair.
hash	Hash value. Supports up to 80 characters.
authorized-keys	Authorized key(s) that you want to delete.
rsa	RSA key pair that you want to delete.
export	Exports a public/private key pair to a remote repository.
import	Imports a public/private key pair from a remote repository.
filename	The filename to which the public key is exported to or imported. Supports up to 80 characters.
repository	Repository command.
repository-name	The repository to which the public key is exported to or imported.
generate	Generates a public/private key pair.
rsa	RSA key pair that you want to generate.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The Cisco ADE OS supports public key authentication without the password for SSH access to administrators and user identities.

Use the **crypto key generate rsa** command to generate a new public or private key pair with a 2048-bit length for the current user. The key attributes are fixed and support RSA key types. If the key pair already exists, you will be prompted to permit an over-write before continuing with a passphrase. If you provide the passphrase, you will be prompted for the passphrase whenever you access the public or private key. If the passphrase is empty, no subsequent prompts for the passphrase occur.

## Examples

### Example 1

```
acs/admin# crypto host_key add host acs
host key fingerprint added
# Host acs found: line 1 type RSA
2048 dd:df:e9:2f:4b:6f:cb:95:4e:47:0f:3a:a4:36:43:98 10.77.241.75 (RSA)
acs/admin#
```

### Example 2

```
acs/admin# crypto host_key delete host acs
host key fingerprint for acs removed.
acs/admin#
```

### Example 3

```
acs/admin# crypto key generate rsa
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
acs/admin#
acs/admin# show crypto key
admin public key: ssh-rsa 85:4a:70:d8:ea:b1:66:d0:32:31:57:52:aa:e0:a0:a2 admin@acs
acs/admin# crypto key generate rsa
Private key for user admin already exists. Overwrite? y/n [n]: y
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
acs/admin# show crypto key
admin public key: ssh-rsa 65:a5:b8:2c:86:d4:d4:65:41:63:b7:d5:4c:a0:59:36 admin@acs
acs/admin#
```

### Example 4

```
acs/admin# crypto key export mykey_rsa repository myrepository
acs/admin# show crypto key
admin public key: ssh-rsa f8:7f:8a:79:44:b8:5d:5f:af:e1:63:b2:be:7a:fd:d4 admin@acs
acs/admin#
```

### Example 5

```
acs/admin# crypto key delete rsa
acs/admin#
acs/admin# show crypto key
acs/admin#
```

### Example 6

```
acs/admin# show crypto authorized_keys
Authorized keys for admin
acs/admin# crypto key delete authorized_keys
acs/admin#
acs/admin# show crypto authorized_keys
acs/admin#
```

### Example 7

```
acs/admin# crypto key import mykey_rsa repository myrepository
acs/admin# show crypto key
admin public key: ssh-rsa f8:7f:8a:79:44:b8:5d:5f:af:e1:63:b2:be:7a:fd:d4 admin@acs
acs/admin#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">show crypto, page 102</a>	Displays information about the public keys and authorized keys for the administrators and users who are logged in currently.

## debug

To display errors or events for command situations, use the **debug** command in the EXEC mode.

```
debug {all | application | backup-restore | cdp | | config | icmp | copy | locks | logging | snmp  
| system | transfer | user | utils}
```

## Syntax Description

all	Enables all debugging.
application	<p>Application files.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all application debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>install</i>—Enables application install debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>operation</i>—Enables application operation debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>uninstall</i>—Enables application uninstall debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>
backup-restore	<p>Backs up and restores files.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>backup</i>—Enables backup debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>backup-logs</i>—Enables backup-logs debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>history</i>—Enables history debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>restore</i>—Enables restore debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>
cdp	<p>CDP configuration files.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all CDP configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>config</i>—Enables configuration debug output for CDP. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>infra</i>—Enables infrastructure debug output for CDP. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>

config	<p>Configuration files.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>backup</i>—Enables backup configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>clock</i>—Enables clock configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>infra</i>—Enables configuration infrastructure debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>kron</i>—Enables command scheduler configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>network</i>—Enables network configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>repository</i>—Enables repository configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>service</i>—Enables service configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>
copy	Copy commands. Set level between 0 and 7 with 0 being severe and 7 being all.
locks	<p>Resource locking.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all resource locking debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>file</i>—Enables file locking debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>
logging	<p>Logging configuration files.</p> <p><i>all</i>—Enables all logging configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</p>
snmp	<p>SNMP configuration files.</p> <p><i>all</i>—Enables all SNMP configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</p>
system	<p>System files.</p> <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all system files debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>id</i>—Enables system ID debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>info</i>—Enables system info debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>init</i>—Enables system init debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>

transfer	File transfer. Set level between 0 and 7 with 0 being severe and 7 being all.
user	User management. <ul style="list-style-type: none"> <li>■ <i>all</i>—Enables all user management debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</li> <li>■ <i>password-policy</i>—Enables user management debug output for password-policy. Set level between 0 and 7 with 0 being severe and 7 being all.</li> </ul>
utils	Utilities configuration files. <p><i>all</i>—Enables all utilities configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.</p>

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Use the **debug** command to identify various failures within the ACS server; for example, setup failures or configuration failures.

### Examples

```
acs/admin# debug all
acs/admin# mkdir disk:/1
acs/admin# 6 [7178]: utils: vsh_root_stubs.c[2301]: mkdir operation success

acs/admin# rmdir disk:/1
acs/admin# 6 [7180]: utils: vsh_root_stubs.c[2171]: Invoked Remove Directory disk:/1 command 6 [7180]:
utils: vsh_root_stubs.c[2228]: Remove Directory operation success

acs/admin# undebug all
acsvw-test8/admin# 7 [2826]: cdp:infra: ether-write.c[87]: WriteEther(): wrote len: 192
7 [2826]: cdp:infra: ether-write.c[112]: cdpd write succeed...
7 [2826]: cdp:infra: main.c[128]:
Writing with retransmissiontime 60...
```

### Related Commands

Command	Description
<a href="#">undebug, page 83</a>	Disables the output (display of errors or events) of the <b>debug</b> command for various command situations.

## delete

To delete a file from the ACS server, use the **delete** command in the EXEC mode. To remove this function, use the **no** form of this command.

**delete** *filename*

### Syntax Description

<i>filename</i>	Filename. This can be a maximum of 240 alphanumeric characters.
-----------------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

If you attempt to delete the configuration file or image, the system prompts you to confirm the deletion. Also, if you attempt to delete the last valid system image, the system prompts you to confirm the deletion.

### Examples

```
acs/admin# delete myfile
acs/admin#
```

### Related Commands

Command	Description
<a href="#">dir, page 56</a>	Lists all the files on the ACS server.

## dir

To list a file from the ACS server, use the **dir** command in the EXEC mode. To remove this function, use the **no** form of this command.

```
dir [word] [recursive]
```

### Syntax Description

<i>word</i>	Directory name. This can be a maximum of 80 alphanumeric characters. Requires <b>disk:/</b> preceding the directory name.
<i>recursive</i>	Lists a local directory or filename recursively.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# dir

Directory of disk:/

   16384 Jul 02 2008 08:34:49 lost+found/
   4096 Jul 16 2008 02:10:20 mytest/
   4096 Jul 11 2008 09:12:12 save-config/

Usage for disk: filesystem
      49741824 bytes total used
      6815842304 bytes free
      7233003520 bytes available

acs/admin#
```

#### Example 2

```
acs/admin# dir disk:/mytest

Directory of disk:/mytest

Usage for disk: filesystem
      49741824 bytes total used
      6815842304 bytes free
      7233003520 bytes available

acs/admin#
```

#### Example 3

```
acs/admin# dir recursive

Directory of disk:/

   4096 Jul 16 2008 02:10:20 mytest/
  16384 Jul 02 2008 08:34:49 lost+found/
   4096 Jul 11 2008 09:12:12 save-config/
```

## EXEC Commands

```
Directory of disk:/mytest
```

```
No files in directory
```

```
Directory of disk:/lost+found
```

```
No files in directory
```

```
Directory of disk:/save-config
```

```
555 Jul 11 2008 09:12:12 running-config
```

```
Usage for disk: filesystem
49741824 bytes total used
6815842304 bytes free
7233003520 bytes available
```

**Related Commands**

Command	Description
<a href="#">delete, page 55</a>	Deletes a file from the ACS server.

## exit

To close an active terminal session by logging out of the ACS server or to move up one mode level from the Configuration mode, use the **exit** command in the EXEC mode.

### **exit**

#### **Syntax Description**

No arguments or keywords.

#### **Defaults**

No default behavior or values.

#### **Command Modes**

EXEC

#### **Usage Guidelines**

Use the **exit** command in EXEC mode to exit an active session (log out of the ACS server) or to move up from the Configuration mode.

#### **Examples**

```
acs/admin# exit
```

#### **Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">end, page 189</a>	Exits the Configuration mode.
<a href="#">exit, page 190</a>	Exits the Configuration mode or EXEC mode.
<b>Ctrl-z</b>	Exits the Configuration mode.

## forceout

To force users out of an active terminal session by logging them out of the ACS server, use the **forceout** command in the EXEC mode.

**forceout** *username*

### Syntax Description

<i>username</i>	Name of the user. This can be a maximum of 31 alphanumeric characters.
-----------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Use the **forceout** command in EXEC mode to force a user from an active session.

### Examples

```
acs/admin# forceout user1
```

## halt

To shut down and power off the system, use the **halt** command in EXEC mode.

```
halt
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Before you run the **halt** command, ensure that ACS is not performing any backup, restore, installation, upgrade, or remove operation. If you run the halt command while ACS is performing any of these operations, you will get one of the following warning messages:

```
WARNING: A backup or restore is currently in progress! Continue with halt?
```

```
WARNING: An install/upgrade/remove is currently in progress! Continue with halt?
```

If you get any of these warnings, enter **yes** to halt the operation, or enter **no** to cancel the halt.

If no processes are running when you use the **halt** command or you enter **yes** in response to the warning message displayed, ACS asks you to respond to the following option:

```
Do you want to save the current configuration ?
```

Enter **yes** to save the existing ACS configuration. ACS displays the following message:

```
Saved the running configuration to startup successfully
```

### Examples

```
acs/admin# halt
acs/admin#
```

### Related Commands

Command	Description
<a href="#">reload, page 68</a>	Reboots the system.

## help

To describe the interactive help system for the ACS server, use the **help** command in the EXEC mode.

**help**

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

All configuration modes

### Usage Guidelines

The **help** command provides a brief description of the context-sensitive help system. To:

- List all commands available for a particular command mode, enter a question mark (?) at the system prompt.
- Obtain a list of commands that begin with a particular character string, enter the abbreviated command entry immediately followed by a question mark (?). This form of help is called word help, because it lists only the keywords or arguments that begin with the abbreviation that you entered.
- List the keywords and arguments associated with a command, enter a question mark (?) in place of a keyword or argument on the command line. This form of help is called command syntax help, because it lists the keywords or arguments that apply based on the command, keywords, and arguments that you have already entered.

### Examples

```
acs/admin# help
```

Help may be requested at any point in a command by entering a question mark '?'. If nothing matches, the help list will be empty and you must backup until entering a '?' shows the available options.

Two styles of help are provided:

1. Full help is available when you are ready to enter a command argument (e.g. 'show ?') and describes each possible argument.
2. Partial help is provided when an abbreviated argument is entered and you want to know what arguments match the input (e.g. 'show pr?'.)

```
acs/admin#
```

## mkdir

To create a new directory on the ACS server, use the **mkdir** command in the EXEC mode.

```
mkdir directory-name [disk:/path]
```

### Syntax Description

<i>directory-name</i>	Name of the directory to create. Use <i>disk:/path</i> with the directory name. This can be a maximum of 80 alphanumeric characters.
-----------------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Use *disk:/path* with the directory name; otherwise, an error indicating that the *disk:/path* must be included appears.

### Examples

```
acs/admin# mkdir disk:/test/
acs/admin# dir
```

```
Directory of disk:/
```

```
 16384 Jun 28 2007 00:09:50 lost+found/
  4096 Jun 28 2007 14:34:27 test/
```

```
Usage for disk: filesystem
      88150016 bytes total used
 44585803776 bytes free
 47064707072 bytes available
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">dir, page 56</a>	Displays a list of files on the ACS server.
<a href="#">rmdir, page 71</a>	Removes an existing directory.

## nslookup

To look up the hostname of a remote system and its services on the ACS server, use the **nslookup** command in the EXEC mode.

```
nslookup word
```

### Syntax Description

<i>word</i>	IPv4 or IPv6 address or hostname of a remote system. This can be a maximum of 64 alphanumeric characters.
-------------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# nslookup 1.2.3.4
Trying "4.3.2.1.in-addr.arpa"
Host 4.3.2.1.in-addr.arpa not found: 3(NXDOMAIN) Received 105 bytes from 209.165.200.225#53 in 5 ms
```

#### Example 2

```
acs/admin# nslookup 209.165.200.225
Trying "225.200.165.209.in-addr.arpa"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 15007 ;; flags: qr aa rd ra; QUERY: 1, ANSWER: 1,
AUTHORITY: 2, ADDITIONAL: 2

;; QUESTION SECTION:
;225.200.165.209.in-addr.arpa.      IN      PTR

;; ANSWER SECTION:
225.200.165.209.in-addr.arpa. 86400 IN      PTR      ACS.cisco.com.

;; AUTHORITY SECTION:
165.209.in-addr.arpa.      86400 IN      NS       ns2.cisco.com.
165.209.in-addr.arpa.      86400 IN      NS       ns1.cisco.com.

;; ADDITIONAL SECTION:
ns1.cisco.com.             86400 IN      A        209.165.200.225
ns2.cisco.com.             86400 IN      A        209.165.200.225

Received 146 bytes from 172.69.2.133#53 in 5 ms
```

#### Example 3

```
acs149/admin# nslookup _finger._tcp.child1.apkacs-dev.com
Trying "_finger._tcp.child1.apkacs-dev.com"
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 34964
```

## EXEC Commands

```
;; flags: qr aa rd ra; QUERY: 1, ANSWER: 2, AUTHORITY: 0, ADDITIONAL: 0
```

```
;; QUESTION SECTION:
```

```
;;_finger._tcp.child1.apkacs-dev.com. IN ANY
```

```
;; ANSWER SECTION:
```

```
_finger._tcp.child1.apkacs-dev.com. 3600 IN SRV 0 0 79.
```

```
_finger._tcp.child1.apkacs-dev.com. 3600 IN SRV 10 0 79.
```

```
Received 90 bytes from 10.77.243.169#53 in 0 ms
```

```
acs/admin#
```

## ping

To diagnose basic network connectivity to a remote system, use the **ping** command in the EXEC mode.

```
ping ip {ipv4-address | hostname} [df df] [packetsize packetsize] [pingcount pingcount]
```

```
ping ipv6 {ipv6-address | hostname} [GigabitEthernet GigabitEthernet] [pingcount pingcount]
```

### Syntax Description

<i>ipv4-address</i>	IPv4 address of the system to ping. This can be a maximum of 64 alphanumeric characters.
<i>ipv6-address</i>	IPv6 address of the system to ping. This can be a maximum of 64 alphanumeric characters.
<i>hostname</i>	Hostname of the system to ping. This can be a maximum of 64 alphanumeric characters.
<i>df</i>	Specification for packet fragmentation.
<i>df</i>	Specify the value as <b>1</b> to prohibit packet fragmentation, or <b>2</b> to fragment the packets locally, or <b>3</b> to not set DF.
<i>packetsize</i>	Specify the size of the ping packet; the value can be between 0 and 65507.
<i>pingcount</i>	Specify the number of ping echo requests; the value can be between 1 and 10.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The **ping** command sends an echo request packet to an address, then awaits a reply. The ping output can help you evaluate path-to-host reliability, delays over the path, and whether you can reach a host.

### Examples

#### Example 1

```
acs/admin# ping 172.16.0.1 df 2 packetsize 10 pingcount 2
PING 172.16.0.1 (172.16.0.1) 10(38) bytes of data.
18 bytes from 172.16.0.1: icmp_seq=0 ttl=40 time=306 ms
18 bytes from 172.16.0.1: icmp_seq=1 ttl=40 time=300 ms

--- 172.16.0.1 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 300.302/303.557/306.812/3.255 ms, pipe 2
acs/admin#
```

#### Example 2

```
ACS143/admin# ping ip 10.56.24.191 df 2 packetsize 10 pingcount 2
PING 10.56.24.191 (10.56.24.191) 10(38) bytes of data.
18 bytes from 10.56.24.191: icmp_seq=0 ttl=43 time=259 ms
18 bytes from 10.56.24.191: icmp_seq=1 ttl=43 time=259 ms

--- 10.56.24.191 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 259.376/259.450/259.525/0.514 ms
acs/admin#
```

## EXEC Commands

**Example 3**

```
ACS143/admin# ping ipv6 5abe::20c:29ff:feac:cbbe gigabitEthernet 0 packet size 10 pingcount 2
PING 5abe::20c:29ff:feac:cbbe (5abe::20c:29ff:feac:cbbe) from 5abe::bd1d:4b94:8884:27ca etho 10 data
bytes.
18 bytes from 5abe::20c:29ff:feac:cbbe: icmp_seq=0 ttl=64 time=3.41 ms
18 bytes from 5abe::20c:29ff:feac:cbbe: icmp_seq=1 ttl=64 time=0.856 ms

--- 5abe::20c:29ff:feac:cbbe ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 999ms
rtt min/avg/max/mdev = 0.856/2.134/3.412/1.278 ms pipe 2
acs/admin#
```

## password

To update the ACS CLI account password, use the **password** command in EXEC mode.

### **password**

#### **Syntax Description**

This command has no arguments or keywords.

#### **Defaults**

None

#### **Command Modes**

EXEC

#### **Usage Guidelines**

None

#### **Examples**

```
acs/admin# password
Enter old password:xxxxxxxx
Enter new password:xxxxxxxx
Confirm new password:xxxxxxxx
acs/admin#
```

#### **Related Commands**

Command	Description
<a href="#">password-policy, page 220</a>	Enables and configures the password policy.

## reload

To reload the ACS operating system, use the **reload** command in the EXEC mode.

**reload**

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

The **reload** command halts the system. Use the command after you enter configuration information into a file and save it to the startup configuration.

Before you run the **reload** command, ensure that ACS is not performing any backup, restore, installation, upgrade, or remove operation. If ACS performs any of these operations and you try to run the **reload** command, you will see any of the following warning messages:

```
WARNING: A backup or restore is currently in progress! Continue with reload?
```

```
WARNING: An install/upgrade/remove is currently in progress! Continue with reload?
```

If you get any of these warnings, enter **yes** to halt the operation, or enter **no** to cancel the halt.

If no processes are running when you use the **reload** command or you enter **yes** in response to the warning message displayed, ACS asks you to respond to the following option:

```
Do you want to save the current configuration ?
```

Enter **yes** to save the existing ACS configuration. ACS displays the following message:

```
Saved the running configuration to startup successfully
```

### Examples

```
acs/admin# reload
Continue with reboot? [y/n] y
```

```
Broadcast message from root (pts/0) (Tue Oct 7 23:01:46 2008):
```

```
The system is going down for reboot NOW!
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">halt, page 60</a>	Disables the system.

## restore

To perform a restore of a previous backup, use the **restore** command in the EXEC mode. A restore operation restores data related to ACS as well as the ADE OS. To remove this function, use the **no** form of this command.

**restore** *filename repository repository-name*

### Syntax Description

<i>filename</i>	Name of the backed-up file that resides in the repository. This can be a maximum of 120 alphanumeric characters.  <b>Note:</b> You must add the .tar.gpg extension after the filename (for example, myfile.tar.gpg).
<i>repository-name</i>	Name of the repository you want to restore from backup.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

When you use this command for ACS, the ACS server reboots automatically. ACS prompts for a decryption password when you restore the full backup from ACS CLI.

### Examples

```
acs/admin# restore backup1.tar.gpg repository repository1
Restore may require a reboot to successfully complete. Continue? (yes/no) [yes] ? yes
%Warning: Do not use Ctrl-C or close this terminal window until the restore completes.
Initiating restore. Please wait...
%restore in progress: Starting Restore...10% completed
%restore in progress: Retrieving backup file from Repository...20% completed
Please enter backup decryption password [8 - 32 chars]:xxxxxxxxx
% restore in progress: Decrypting backup data...40% completed
% restore in progress: Decrypting backup data...50% completed
Calculating disk size for /opt/backup/restore-backup1.tar.gpg-1367921805
Total size of the restore files are 24 M.
Max size defined for restore files are 97887 M.
Restoring the data base will affect the distributed setup. For example, replication between primary and
secondary will be broken. It is recommended to schedule a downtime to carry out the restore operation.
After restore, you will have to configure each secondary to local mode and then re-connect with
primary. Do you want to continue with restore operation?. <yes/no>: yes
% Application restore successful.
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.

Command	Description
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.

## rmdir

To remove an existing directory, use the **rmdir** command in the EXEC mode.

**rmdir** *word*

### Syntax Description

<i>word</i>	Directory name. This can be a maximum of 80 alphanumeric characters.
-------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# mkdir disk:/test/
acs/admin# dir
```

Directory of disk:/

```
16384 Jun 28 2007 00:09:50 lost+found/
4096 Jun 28 2007 14:34:27 test/
```

```
Usage for disk: filesystem
      88150016 bytes total used
44585803776 bytes free
47064707072 bytes available CAM/admin#
```

```
acs/admin# rmdir disk:/test
acs/admin# dir
```

Directory of disk:/

```
16384 Jun 28 2007 00:09:50 lost+found/
```

```
Usage for disk: filesystem
      88145920 bytes total used
44585807872 bytes free
47064707072 bytes available CAM/admin#
```

### Related Commands

Command	Description
<a href="#">dir, page 56</a>	Displays a list of files on the ACS server.
<a href="#">mkdir, page 62</a>	Creates a new directory.

## show

To show the running system information, use the **show** command in the EXEC mode. For detailed information on all the ACS **show** commands, see [Show Commands, page 87](#).

**show** keyword

### Syntax Description

[Table 7 on page 87](#) provides a summary of the **show** commands.

**Table 6 Summary of Show Commands**

Command <sup>1</sup>	Description
<b>application</b> (requires keyword) <sup>2</sup>	Displays information about the installed application; for example, status or version.
<b>backup</b> (requires keyword)	Displays information about the backup.
<b>cdp</b> (requires keyword)	Displays information about the enabled Cisco Discovery Protocol (CDP) interfaces.
<b>clock</b>	Displays the day, date, time, time zone, and year of the system clock.
<b>cpu</b>	Displays CPU information.
<b>crypto</b>	Displays crypto key information.
<b>disks</b>	Displays file-system information of the disks.
<b>interface</b>	Displays statistics for all the interfaces configured on the ADE OS 1.0.2 system.
<b>logging</b> (requires keyword)	Displays system logging information.
<b>logins</b> (requires keyword)	Displays login history.
<b>memory</b>	Displays memory usage by all running processes.
<b>ntp</b>	Displays the status of the Network Time Protocol (NTP).
<b>ports</b>	Displays all the processes listening on the active ports.
<b>process</b>	Displays information about the active processes of the ACS server.
<b>repository</b> (requires keyword)	Displays the file contents of a specific repository.
<b>restore</b> (requires keyword)	Displays restore history on the ACS server.
<b>running-config</b>	Displays the contents of the currently running configuration file on the ACS server.
<b>startup-config</b>	Displays the contents of the startup configuration on the ACS server.
<b>tech-support</b>	Displays system and configuration information that you can provide to the Cisco Technical Assistance Center (TAC) when reporting a problem.
<b>terminal</b>	Displays information about the terminal configuration parameter settings for the current terminal line.
<b>timezone</b>	Displays the time zone of the ACS server.
<b>timezones</b>	Displays all the time zones available for use on the ACS server.
<b>udi</b>	Displays information about the system's Unique Device Identifier (UDI).
<b>uptime</b>	Displays how long the system you are logged in to has been up and running.
<b>users</b>	Displays information for currently logged in users.
<b>ip route</b>	Displays information for specific IP addresses, network masks or protocols.

## EXEC Commands

1. The commands in this table require that the **show** command precedes a keyword; for example, **show application**.
2. Some **show** commands require an argument or variable after the keyword to function; for example, **show application version**. This **show** command displays the version of the application that is installed on the system (see [show application, page 93](#)).

**Defaults**

No default behavior or values.

**Command Modes**

EXEC

**Usage Guidelines**

All **show** commands require at least one keyword to function.

**Examples**

```
acs/admin# show application
<name>                <Description>
acs                    Cisco Secure Access Control System 5.8
acs/admin#
```

## shutdown

To shut down an interface, use the **shutdown** command in the interface configuration mode. To disable this function, use the **no** form of this command.

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

Interface Configuration

### Usage Guidelines

When you shut down an interface using this command, you lose connectivity to the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 appliance through that interface (even though the appliance is still powered on). However, if you have configured the second interface on the appliance with a different IP and have not shut down that interface, you can access the appliance through that second interface.

To shut down an interface, you can also modify the ifcfg-eth[0,1] file, which is located at */etc/sysconfig/network-scripts*, using the ONBOOT parameter:

- Disable an interface, set ONBOOT="no"
- Enable an interface, set ONBOOT="yes"

You can also use the **no shutdown** command to enable an interface.

### Examples

```
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# shutdown
```

### Related Commands

Command	Description
<a href="#">interface, page 193</a>	Configures an interface type and enters the interface mode.
<a href="#">ip address, page 195</a> (interface configuration mode)	Sets the IP address and netmask for the Ethernet interface.
<a href="#">show interface, page 108</a>	Displays information about the system IP interfaces.
<a href="#">ip default-gateway, page 198</a>	Sets the IP address of the default gateway of an interface.

## ssh

To start an encrypted session with a remote system, use the **ssh** command in the EXEC mode.

**Note:** An Admin or Operator (user) can use this command (see [Table 1 on page 2](#)).

```
ssh <host ip-address | hostname> <username> port <port number> version <version number>
```

or

```
ssh delete <username> port <port number> version <version number>
```

### Syntax Description

<i>host ip-address</i>	IP address of the remote system. This can be a maximum of 64 alphanumeric characters.
<i>hostname</i>	Hostname of the remote system. This can be a maximum of 64 alphanumeric characters.
<i>username</i>	Username of the user logging in through SSH.
<b>port</b> [ <i>number</i> ]	(Optional) Indicates the port number of the remote host. From 0 to 65,535. Default 22.
<b>version</b> [1   2]	(Optional) Indicates the version number. Default 2.
<b>delete</b>	Deletes the SSH fingerprint of a specific host.

### Defaults

Disabled.

### Command Modes

EXEC (Admin or Operator)

### Usage Guidelines

The **ssh** command enables a system to make a secure, encrypted connection to another remote system or server. This connection provides functionality similar to that of an outbound Telnet connection except that the connection is encrypted. With authentication and encryption, the SSH client allows for secure communication over an insecure network.

### Examples

#### Example 1

```
acs/admin# ssh delete acs123
acs/admin#
```

#### Example 2

```
acs/admin# ssh acs2 admin
admin@acs2's password:
Last login: Wed Jul 11 05:53:20 2008 from ACS.cisco.com

acs2/admin#
```

## tech

To dump a TCP package to the console, use the **tech** command in EXEC mode.

**tech** {**dump tcp** | **mpstat** | **netstat** | **iostat** | **vmstat** | **top**} {*interface-number* | *count* | *package-count*}

### Syntax Description

<b>dump tcp</b>	Logs the TCP packages to console.
<i>interface-number</i>	Gigabit Ethernet interface number (0 to 3).
<i>count</i>	Specifies a maximum package count. The default is continuous (no limit).
<i>package-count</i>	Specifies the package count. The valid entries are form 1 to 10000.
<b>mpstat</b>	Logs processor-related information sent to the console. See the Linux <b>mpstat</b> command.
<b>netstat</b>	Logs network-related information that are sent to the console for every 5 seconds. See the Linux <b>netstat</b> command.
<b>iostat</b>	Logs CPU statistics and I/O statistics for devices and partitions that are sent to the console for every 5 seconds. See the Linux <b>iostat</b> command.
<b>vmstat</b>	Logs memory, processes, and paging summary that sent every 5 seconds. See the Linux <b>vmstat</b> command.
<b>top</b>	Logs a dynamic real-time view of a running system, which runs in batch mode every 5 seconds. See the Linux <b>top</b> command.

### Defaults

Disabled.

### Command Modes

EXEC

### Usage Guidelines

If you see bad **UDP** checksum warnings in the **tech dump tcp** output, it may not be a cause for concern. The **tech dump tcp** command examines outgoing packets before they exit the Ethernet microprocessor. Most modern Ethernet chips calculate checksums on outgoing packets, and so the operating system software stack does not. Hence, it is normal to see outgoing packets declared as bad **UDP** checksums.

**Note:** Press **Ctrl+C** to return to the working mode after you run the any of the **tech** commands.

### Examples

#### Example 1

```
acs/admin# tech dump tcp ?
--help Print dump tcp options
<WORD> Provide dump tcp options (in double quotes) (Max Size - 1024)
acs/admin# tech dump tcp --help
tcpdump version 3.9.4
libpcap version 0.9.4
Usage: tcpdump [-aAdDeflLnNOpqRStuUvxX] [-c count] [ -C file_size ]
               [ -E algo:secret ] [ -F file ] [ -i interface ] [ -M secret ]
               [ -r file ] [ -s snaplen ] [ -T type ] [ -w file ]
               [ -W filecount ] [ -y datalinktype ] [ -Z user ]
               [ expression ]
```

#### Example 2

```
acs/admin# tech dump tcp "-i eth0"
Invoking tcpdump. Press Control-C to interrupt.
tcpdump: verbose output suppressed, use -v or -vv for full protocol decode
```

## EXEC Commands

```

listening on eth0, link-type EN10MB (Ethernet), capture size 96 bytes
11:41:18.114665 IP ACS.cisco.com.ssh > 10.126.186.172.61962: Flags [P.], seq 392426823:392427019, ack
2813472237, win 148, length 196
1 packets captured
40 packets received by filter
0 packets dropped by kernel
acs/admin#

```

## telnet

To log in to a host that supports Telnet, use the **telnet** command in Operator (user) or EXEC mode.

**telnet** [*ip-address* | *hostname*] **port number**

## Syntax Description

<i>ip-address</i>	IP address of the remote system. Can be a maximum of 64 alphanumeric characters.
<i>hostname</i>	Hostname of the remote system. Can be a maximum of 64 alphanumeric characters.
<i>port number</i>	(Optional) Indicates the port number of the remote host. From 0 to 65,535.

## Defaults

No default behavior or values.

## Command Modes

Operator

EXEC

## Usage Guidelines

None.

## Examples

```

acs/admin# telnet 172.16.0.11 port 23
ACS.cisco.com login: admin
password:
Last login: Mon Jul  2 08:45:24 on ttyS0
acs/admin#

```

**Note:** When authentication is done from ACS server, customized prompts work only with Telnet connection.

## terminal length

To set the number of lines on the current terminal screen for the current session, use the **terminal length** command in the EXEC mode.

**terminal length** *integer*

### Syntax Description

<i>integer</i>	Number of lines on the screen. Contains between 0 to 511 lines, inclusive. A value of zero (0) disables pausing between screens of output.
----------------	--

### Defaults

24 lines

### Command Modes

EXEC

### Usage Guidelines

The system uses the length value to determine when to pause during multiple-screen output.

### Examples

```
acs/admin# terminal length 0
acs/admin#
```

## terminal session-timeout

To set the inactivity timeout for all sessions, use the **terminal session-timeout** command in the EXEC mode.

**terminal session-timeout** *minutes*

### Syntax Description

<i>minutes</i>	Sets the number of minutes for the inactivity timeout. From 0 to 525,600. Zero (0) disables the timeout.
----------------	--

### Defaults

30 minutes

### Command Modes

EXEC

### Usage Guidelines

Setting the **terminal session-timeout** command to zero (0) results in no timeout being set.

### Examples

```
acs/admin# terminal session-timeout 40  
acs/admin#
```

### Related Commands

Command	Description
<a href="#">terminal session-welcome</a> , <a href="#">page 80</a>	Sets a welcome message on the system for all users who log in to the system.

## terminal session-welcome

To set a welcome message on the system for all users who log in to the system, use the **terminal session-welcome** command in EXEC mode.

**terminal session-welcome** *string*

### Syntax Description

<i>string</i>	Welcome message. This can be a maximum of 2,023 alphanumeric characters. XML reserved characters are not allowed.
---------------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Specify a message using up to 2,023 characters.

### Examples

```
acs/admin# terminal session-welcome Welcome
acs/admin#
```

### Related Commands

Command	Description
<a href="#">terminal session-timeout, page 79</a>	Sets the inactivity timeout for all sessions.

## terminal terminal-type

To specify the type of terminal connected to the current line for the current session, use the **terminal terminal-type** command in EXEC mode.

**terminal terminal-type** *type*

### Syntax Description

<i>type</i>	Defines the terminal name and type, and permits terminal negotiation by hosts that provide that type of service. This can be a maximum of 80 alphanumeric characters.
-------------	---

### Defaults

VT100

### Command Modes

EXEC

### Usage Guidelines

Indicate the terminal type if it is different from the default of VT100.

### Examples

```
acs/admin# terminal terminal-type vt220  
acs/admin#
```

## traceroute

To discover the routes that packets take when traveling to their destination address, use the **traceroute** command in EXEC mode.

```
traceroute {ip | ipv6} [ip-address | hostname]
```

**Note:** ACS will not respond to unknown UDP ports, so source host must use ICMP traceroute instead of UDP traceroute from Nexus or Cisco IOS to ACS.

### Syntax Description

<i>ip-address</i>	IP address of the remote system. This can be a maximum of 64 alphanumeric characters.
<i>hostname</i>	Hostname of the remote system. This can be a maximum of 64 alphanumeric characters.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# traceroute 172.16.0.1
traceroute to 172.16.0.1 (172.16.0.1), 30 hops max, 38 byte packets
 1 172.16.0.1 0.067 ms 0.036 ms 0.032 ms
acs/admin#
```

#### Example 2

```
ACS143/admin# traceroute ip 10.77.243.152
traceroute to 10.77.243.152 (10.77.243.152), 30 hops max, 40 byte packets
 1 10.77.243.152 ms 2.661 ms 2.666 ms 2.661 ms
acs/admin#
```

#### Example 3

```
ACS143/admin# traceroute ipv6 5abe::20c:29ff:feac:cbbe
traceroute to 5abe::20c:29ff:feac:cbbe (5abe::20c:29ff:feac:cbbe), 30 hops max, 40 byte packets
 1 5abe::20c:29ff:feac:cbbe 2.684 ms 2.681 ms 2.676 ms
acs/admin#
```

## undebug

To disable debugging functions, use the undebug command in EXEC mode.

**undebug** { **all** | **application** | **backup-restore** | **cdp** | **config** | **copy** | **icmp** | **locks** | **logging** | **snmp** | **system** | **transfer** | **user** | **utils** } *level*

## Syntax Description

all	Disables all debugging.
application	Application files. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all application debug output.</li> <li>■ <i>install</i>—Disables application install debug output.</li> <li>■ <i>operation</i>—Disables application operation debug output.</li> <li>■ <i>uninstall</i>—Disables application uninstall debug output.</li> </ul>
backup-restore	Backs up and restores files. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all debug output for backup-restore.</li> <li>■ <i>backup</i>—Disables backup debug output for backup-restore.</li> <li>■ <i>backup-logs</i>—Disables backup-logs debug output for backup-restore.</li> <li>■ <i>history</i>—Disables history debug output for backup-restore.</li> <li>■ <i>restore</i>—Disables restore debug output for backup-restore.</li> </ul>
cdp	CDP configuration files. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all CDP configuration debug output.</li> <li>■ <i>config</i>—Disables configuration debug output for CDP.</li> <li>■ <i>infra</i>—Disables infrastructure debug output for CDP.</li> </ul>
config	Configuration files. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all configuration debug output.</li> <li>■ <i>backup</i>—Disables backup configuration debug output.</li> <li>■ <i>clock</i>—Disables clock configuration debug output.</li> <li>■ <i>infra</i>—Disables configuration infrastructure debug output.</li> <li>■ <i>kron</i>—Disables command scheduler configuration debug output.</li> <li>■ <i>network</i>—Disables network configuration debug output.</li> <li>■ <i>repository</i>—Disables repository configuration debug output.</li> <li>■ <i>service</i>—Disables service configuration debug output.</li> </ul>
copy	Copy commands.
icmp	ICMP echo response configuration. all—Disables all debug output for ICMP echo response configuration.
locks	Resource locking. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all resource locking debug output.</li> <li>■ <i>file</i>—Disables file locking debug output.</li> </ul>
logging	Logging configuration files. all—Disables all debug output for logging configuration.

snmp	SNMP configuration files. <i>all</i> —Disables all debug output for SNMP configuration.
system	System files. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all system files debug output.</li> <li>■ <i>id</i>—Disables system ID debug output.</li> <li>■ <i>info</i>—Disables system info debug output.</li> <li>■ <i>init</i>—Disables system init debug output.</li> </ul>
transfer	File transfer.
user	User management. <ul style="list-style-type: none"> <li>■ <i>all</i>—Disables all user management debug output.</li> <li>■ <i>password-policy</i>—Disables user management debug output for password-policy.</li> </ul>
utils	Utilities configuration files. <i>all</i> —Disables all utilities configuration debug output.
<i>level</i>	Number of the priority level at which you set the undebug output. Set level between 0 and 7 with 0 being severe and 7 being all.

**Defaults**

No default behavior or values.

**Command Modes**

EXEC

**Usage Guidelines**

None.

**Examples**

```
acs/admin# undebug all
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">debug, page 51</a>	Displays errors or events for command situations.

## write

To copy, display, or erase ACS server configurations, use the **write** command with the appropriate argument in the EXEC mode.

```
write {erase | memory | terminal}
```

### Syntax Description

<b>erase</b>	Erases the startup-configuration.
<b>memory</b>	Copies running-configuration to startup-configuration.
<b>terminal</b>	Copies the running-configuration to console.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# write memory
Generating configuration...
acs/admin#
```

#### Example 2

```
acs/admin# write terminal
Generating configuration...
!
hostname ACS
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
 ip address 209.165.200.225 255.255.255.224
!
interface GigabitEthernet 1
 shutdown
!
ip name-server 209.165.201.1
!
ip default-gateway 209.165.202.129
!
clock timezone UTC
!
username admin password hash $1$UMCQIJy1$8Z.9tkp01QzCo4zyc1jso0 role admin
!
service sshd
!
password-policy
 lower-case-required
 upper-case-required
 digit-required
 no-username
 disable-cisco-passwords
```

## Show Commands

```

    min-password-length 6
!
logging localhost
logging loglevel 6
!
acs/admin#

```

## Show Commands

Each **show** command includes a brief description of its use, command syntax, usage guidelines, and sample output.

[Table 7 on page 87](#) lists the Show commands in the EXEC mode, which are described in this section. The command marked with an asterisk (\*) represents those that are specific to ACS functionality.

**Table 7 List of EXEC Show Commands**

■ <a href="#">show acs-config-web-interface, page 88</a>	■ <a href="#">show logins, page 117</a>
■ <a href="#">show acs-cores, page 89</a>	■ <a href="#">show memory, page 118</a>
■ <a href="#">show acs-logs, page 90 *</a>	■ <a href="#">show ntp, page 119</a>
■ <a href="#">show application, page 93 *1</a>	■ <a href="#">show ports, page 120</a>
■ <a href="#">show backup history, page 96</a>	■ <a href="#">show process, page 122</a>
■ <a href="#">show banner, page 97</a>	■ <a href="#">show repository, page 124</a>
■ <a href="#">show cdp, page 98</a>	■ <a href="#">show restore, page 125</a>
■ <a href="#">show clock, page 99</a>	■ <a href="#">show running-configuration, page 126</a>
■ <a href="#">show cpu, page 100</a>	■ <a href="#">show startup-configuration, page 128</a>
■ <a href="#">show crypto, page 102</a>	■ <a href="#">show tech-support, page 129</a>
■ <a href="#">show disks, page 104</a>	■ <a href="#">show terminal, page 131</a>
■ <a href="#">show icmp_status, page 106</a>	■ <a href="#">show timezone, page 132</a>
■ <a href="#">show interface, page 108</a>	■ <a href="#">show timezones, page 133</a>
■ <a href="#">show inventory, page 110</a>	■ <a href="#">show udi, page 135</a>
■ <a href="#">show ip route, page 112</a>	■ <a href="#">show uptime, page 136</a>
■ <a href="#">show ipv6 route, page 113</a>	■ <a href="#">show users, page 137</a>
■ <a href="#">show logging, page 114</a>	■ <a href="#">show version, page 138 *</a>

1. The **show application status acs** and **show application version acs** commands are specific to ACS.

## show acs-config-web-interface

To see whether an interface is disabled or enabled for ACS configuration web, use the **show acs-config-web-interface** command in the EXEC mode.

```
show acs-config-web-interface
```

### Syntax Description

No arguments or keywords.

### Defaults

The interface for ACS configuration web is enabled by default.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show acs-config-web-interface  
migration interface is enabled  
ucp interface is disabled  
view interface is disabled
```

### Related Commands

<a href="#">acs config-web-interface, page 15</a>	Enables or disables an interface for ACS configuration web.
---	---

## show acs-cores

To display the list of ACS run-time core files and Java Virtual Machine (JVM) core logs, use the **show acs-cores** command in the EXEC mode.

```
show acs-cores [details]
```

### Syntax Description

details	Displays the modification time and size (in KB) for each core and log file.
---------	---

### Defaults

The ACS core files are located at /opt/CSCOacs/runtime/core and the JVM core logs are located at /hs\_err\_pid.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show acs-cores
```

```
core.2464
core.3535
hs_err_pid12477.log
acs/admin#
```

#### Example 2

```
acs/admin# show acs-cores details
```

```
Filesize (kb)  Date   Time   Filename
-----
4562           Nov 18 13:45 core.2464
6788           Nov 10 12:33 core.3535
1193           Apr 29 11:59 hs_err_pid12477.log
acs/admin#
```

#### Example 3

```
acs/admin# show acs-cores
```

```
No ACS core files exist
acs/admin#
```

### Related Commands

Command	Description
<a href="#">acs delete core, page 16</a>	Deletes an ACS run-time core file or JVM core log.
<a href="#">acs delete log, page 17</a>	Deletes an ACS run-time core file or JVM core log excluding the latest log.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.

## show acs-logs

To display ACS server debug logs, use the **show acs-logs** command in the EXEC mode.

```
show acs-logs {details | filename [filename]}
```

### Syntax Description

details	Displays the modification time and size (in KB) for each log file. Also lists the available logfiles.
filename	Specifies a file whose contents you want to view.
<i>filename</i>	Name of the logfile (up to 255 characters) whose contents you want to view.
	Output modifier variables: <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. Up to 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> <li> —Output modifier variables (see <a href="#">Table 9 on page 93</a>).</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>

### Defaults

The ACS logs are located at /opt/CSCOacs/logs, and include the logs displayed in [Table 8 on page 90](#):

**Table 8 ACS Logs**

Logs	Description
ACSADAgent.log*	Stores the logs of an Active Directory client.
acsLogForward.log	Stores the debug log of log-forwarding processes.
ACSManagementAudit.log	Stores the details of the operations and configuration that are performed by administrators when using the ACS web interface or CLI.
ACSManagement.log	Stores information, warning, and debug messages from ACS web interface, CLI, and UCP web-service components.
acsRuntime.log	Stores the debug logs from runtime subsystem.
acsupgrade.log	Stores the patch installation and upgrade operation logs.

**Table 8 ACS Logs**

Logs	Description
monit.log	Stores information about the health of various ACS processes. These include: <ul style="list-style-type: none"> <li>■ Web interface</li> <li>■ Runtime process that processes the authentication and authorization requests</li> <li>■ ACS database</li> <li>■ ACS Monitoring and Report Viewer</li> </ul>
MonitoringAndReportingAlert.log	Stores the logs from view-alertmanager process.
MonitoringAndReportingCollector.log	Stores the logs from view-logprocessor process.
MonitoringAndReportingDatabase.log	Stores the logs from view-database process.
MonitoringAndReportingExpertTrouble shooting.log	Stores the debug logs from the expert-troubleshooting feature of the Monitoring and Report Viewer web interface.
MonitoringAndReportingProcess.log	Stores the logs from all of the ACS view processes.
MonitoringAndReportingScheduler.log	Stores the logs from view-jobmanager process.
MonitoringAndReportingUI.log	Stores the logs from Monitoring and Report Viewer web interface.
acsLocalStore.log*	Stores the logs from the local system.
catalina.out*	Stores information and debug messages from ACS, and Monitoring and Report Viewer web interfaces of the web server.
dberr.log	Stores the error logs from ACS database.

The log files that are marked with an asterisk (\*) are numbered and rolled over based on a configured maximum file size. Once a log file touches the configured limit, the data is rolled over to another file. The new files are named by suffixing the time stamp or sequential numbers to the log filename.

Using the **show acs-logs** and **show acs-logs details** commands, you can view the list of available logfiles. To view the contents of a specific logfile, use the **show acs-logs filename filename** command.

### Command Modes

EXEC

### Usage Guidelines

You can use this command when ACS is not running.

### Examples

#### Example 1

```
acs/admin# show acs-logs
ACSADAgent.log
ACSManagementAudit.log
ACSManagement.log
acsRuntime.log
monit.log
MonitoringAndReportingAlert.log
MonitoringAndReportingCollector.log
MonitoringAndReportingDatabase.log
MonitoringAndReportingProcess.log
```

## Show Commands

```
MonitoringAndReportingScheduler.log
MonitoringAndReportingUI.log
reportService.0.acs.2008Oct08_20_02_37_Pacific_Daylight_Time.0.log
acsLocalStore.log
catalina.out
acs/admin#
```

**Example 2**

```
acs/admin# show acs-logs details
Filesize (kb)  Date  Time  Filename
-----
26             Oct 7  19:32 ACSManagementAudit.log
65             Oct 7  19:32 ACSManagement.log
12             Oct 7  19:32 acsRuntime.log
6             Oct 7  19:33 monit.log
0             Oct 7  19:17 MonitoringAndReportingAlert.log
2             Oct 7  19:34 MonitoringAndReportingCollector.log
6             Oct 7  19:32 MonitoringAndReportingDatabase.log
3             Oct 7  19:33 MonitoringAndReportingProcess.log
0             Oct 7  19:17 MonitoringAndReportingScheduler.log
0             Oct 7  19:18 MonitoringAndReportingUI.log
0             Oct 8  20:02
reportService.0.acs.2008Oct08_20_02_37_Pacific_Daylight_Time.0.log
8             Oct 7  19:32 acsLocalStore.log
19            Oct 7  19:32 catalina.out
acs/admin#
```

**Example 3**

```
acs/admin# show acs-logs filename acsRuntime.log
MessageBus,07/10/2008,19:16:40:569,ERROR,66497456,MessageBusSender::connect: unable to connect to the
management;exception=Connection refused,MessageBusSender.cpp:131
Handler,07/10/2008,19:17:35:273,WARN ,67550128,NIL-CONTEXT,Posture Server did not have any ca cert
configured,PostureServerHandler.cpp:63
Handler,07/10/2008,19:17:35:274,WARN ,67550128,NIL-CONTEXT,AcsNode does *not* have an Https
Certificate,PostureServerHandler.cpp:100
--More-- (press Spacebar to continue)
```

**Related Commands**

Command	Description
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.

## show application

To show application information of the installed application packages on the system, use the **show application** command in the EXEC mode.

```
show application [status | version [app_name]]
```

### Syntax Description

status	Displays the status of the installed application.  For ACS usage, the display includes whether the ACS is the primary or secondary, and the status of the services.
version	Displays the application version for an installed application—the ACS.
app_name	Name of installed application. The application name is case-sensitive.
	Output modifier variables: <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> <li> —Output modifier variables (see <a href="#">Table 9 on page 93</a>).</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>

**Table 9 Output Modifier Variables for Count or Last**

	Output modifier variables: <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	---

## Show Commands

**Defaults**

No default behavior or values.

**Command Modes**

EXEC

**Usage Guidelines**

Here is a list of various application status displayed and their interpretation.

**Note:** When you stop an ACS process, the process status is displayed as "not monitored". When you start the same process again, ACS displays the status as "changed" approximately for 30 seconds for few processes and then it will be moved to running.

Status	Description
Running	When the application is in running state.
Execution Failed	When the process has failed to start but still trying to start the process.
Not Monitored	After watchdog failed to start the process as configured.
Restarting	When either the process cannot be found or the process ID file is missing and the watchdog restarts the process.
Initializing	Intermediate state when the watchdog comes up or watchdog starts again to monitor a process. This is shown also when any of the processes has failed to pass the active test.

**Examples****Example 1**

```
acs/admin# show application
<name>          <Description>
acs              Cisco Secure Access Control System 5.8
acs/admin#
```

**Example 2**

```
acs/admin# show application version acs
```

```
Cisco ACS VERSION INFORMATION
-----
Version : 5.8.0.28
Internal Build ID : B.221
```

```
acs/admin#
```

**Example 3**

```
acs/admin# show application status acs
ACS role: PRIMARY
```

```
Process 'database'           running
Process 'management'        running
Process 'runtime'            running
Process 'adclient'           running
Process 'ntpd'               running
Process 'view-database'      running
Process 'view-jobmanager'    running
Process 'view-alertmanager'  running
Process 'view-collector'     running
Process 'view-logprocessor'  running
```

## Show Commands

```
acs/admin#
```

**Example 4**

```
acs/admin# show application status acs
ACS role: PRIMARY
```

```
"ACS is busy applying a recent configuration change
requiring enabling/disabling of processes.
Status is unavailable.
Please check again in a minute."
```

```
acs/admin#
```

This message appears when a set of processes change because of a view node selection or Active Directory configuration.

**Example 5**

```
acs/admin# show application status acs
```

```
ACS is not running.
Issue 'application start acs' command to start ACS.
```

```
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">application install, page 33</a>	Installs an application bundle.
<a href="#">application remove, page 34</a>	Removes or uninstalls an application.
<a href="#">application start, page 36</a>	Starts or enables an application.
<a href="#">application stop, page 37</a>	Stops or disables an application.
<a href="#">application upgrade, page 38</a>	Upgrades an application bundle.

## show backup history

To display the backup history of the system, use the **show backup** command in the EXEC mode.

```
show backup history
```

### Syntax Description

history	Displays history information about any backups on the system.
---------	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show backup history
Wed Jul 18 12:55:21 UTC 2007: backup logs logs-0718.tar.gz to repository fileserver007: success
Wed Jul 18 12:55:53 UTC 2007: backup full-0718.tar.gpg to repository fileserver007: success
acs/admin#
```

#### Example 2

```
acs/admin# show backup history
backup history is empty
```

### Related Commands

Command	Description
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">restore, page 69</a>	Restores from backup the file contents of a specific repository.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## show banner

To display pre-login and post-login banners, use the **show banner** command in the EXEC mode.

```
show banner {post-login | pre-login}
```

### Syntax Description

post-login	Displays the post-login information that is configured in the Cisco Secure ACS server for the current CLI session.
pre-login	Displays the pre-login information that is configured in the Cisco Secure ACS server for the current CLI session.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show banner pre-login
Copyright(c) 2015 Cisco Systems, Inc. All rights Reserved
acs/admin#
```

#### Example 2

```
acs/admin# show banner post-login
No post-login banner installed
acs/admin#
```

### Related Commands

Command	Description
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## show cdp

To display information about the enabled CDP interfaces, use the **show cdp** command in the EXEC mode.

```
show cdp {all | neighbors}
```

### Syntax Description

all	Shows enabled CDP interfaces.
neighbors	Shows CDP neighbors.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show cdp all
```

```
CDP protocol is enabled ...
    broadcasting interval is every 60 seconds.
    time-to-live of cdp packets is 180 seconds.

    CDP is enabled on port GigabitEthernet0.
```

```
acs/admin#
```

#### Example 2

```
acs/admin# show cdp neighbors
```

```
CDP Neighbor : acs-test2
    Local Interface      : GigabitEthernet0
    Device Type          : cisco WS-C3560G-48PS
    Port                 : GigabitEthernet0/36
    Address               : 209.165.200.225
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">cdp holdtime, page 180</a>	Specifies the length of time that the receiving device should hold a CDP packet from your router before discarding it.
<a href="#">cdp run, page 181</a>	Enables the CDP.
<a href="#">cdp timer, page 182</a>	Specifies how often the ACS server sends CDP updates.

## show clock

To display the day, month, date, time, time zone, and year of the system software clock, use the **show clock** command in the EXEC mode.

```
show clock
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show clock  
Tue Oct 7 20:13:22 UTC 2008  
acs/admin#
```

**Note:** The **show clock** output in the previous example includes Coordinated Universal Time (UTC) or Greenwich Mean Time (GMT), Great Britain, or Zulu time (see [Table 18 on page 183](#), [Table 19 on page 184](#), and [Table 20 on page 184](#) on pages A-94 and A-95 for sample time zones).

### Related Commands

Command	Description
<a href="#">clock, page 43</a>	Sets the system clock for display purposes.

## show cpu

To display CPU information, use the **show cpu** command in the EXEC mode.

```
show cpu [statistics] [!] [!]
```

### Syntax Description

statistics	Displays CPU statistics.
	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 10 on page 100</a>).</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 10 on page 100</a>).</p>

**Table 10 Output Modifier Variables for Count or Last**

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables.</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

## Show Commands

**Usage Guidelines**

None.

**Examples****Example 1**

```
acs/admin# show cpu
processor : 0
model    : Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
speed(MHz): 2133.737
cache size: 2048 KB

processor : 1
model    : Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
speed(MHz): 2133.737
cache size: 2048 KB
```

```
acs/admin#
```

**Example 2**

```
acs/admin# show cpu statistics
user time:          8312
kernel time:       3200
idle time:         15510748
i/o wait time:     5295
irq time:          972
```

```
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">show disks, page 104</a>	Displays the system information of all disks.
<a href="#">show memory, page 118</a>	Displays the amount of system memory that each system process uses.

## show crypto

To display information about the public keys and authorized keys for the administrators and users who are logged in, use the **show crypto** command in EXEC mode.

```
show crypto {authorized-keys | host-keys | key} {[ > file ] | [ | ] }
```

### Syntax Description

authorized-keys	Displays authorized key information for the user who is currently logged in.
host-keys	Displays host key information for the user who is currently logged in.
key	Displays key information for the user who is currently logged in.
>	Redirects output to the specified file.
	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <b>begin</b>—Matched pattern. This can be a maximum of 80 alphanumeric characters. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> <li>■ <b>count</b>—Count the number of lines in the output. Add number after the word <i>count</i>. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> <li>■ <b>end</b>—End with line that matches. This can be a maximum of 80 alphanumeric characters. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> <li>■ <b>exclude</b>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> <li>■ <b>include</b>—Include lines that match. This can be a maximum of 80 alphanumeric characters. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> <li>■ <b>last</b>—Display the last few lines of output. Add a number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default is 10. <ul style="list-style-type: none"> <li>&gt;—Output redirection.</li> <li> —Output modifier variables.</li> </ul> </li> </ul>

### Defaults

No default behavior or values.

## Show Commands

**Command Modes**

EXEC

**Usage Guidelines**

None

**Examples**

```
acs/admin# show crypto authorized_keys
Authorized keys for admin.
acs/admin#
acs/admin# show crypto host_keys
Host keys for admin.
acs/admin#
acs/admin# show crypto key
admin public key: ssh-rsa f8:7f:8a:79:44:b8:5d:5f:af:e1:63:b2:be:7a:fd:d4 admin@acs
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">crypto, page 48</a>	Performs crypto key operations.
<a href="#">show cpu, page 100</a>	Displays CPU information.
<a href="#">show memory, page 118</a>	Displays the amount of system memory that each system process uses.

## show disks

To display file-system information about the disks, use the **show disks** command in the EXEC mode.

**show disks** [!] [!]

### Syntax Description

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 11 on page 104</a>).</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 11 on page 104</a>).</p>
--	---

**Table 11 Output Modifier Variables for Count or Last**

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables.</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul> <p> —Output modifier variables.</p>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

## Show Commands

**Usage Guidelines**

Only platforms that have a disk file system support the **show disks** command.

**Examples**

```
acs/admin# show disks
disk: 1% used (48564 of 7063480)
temp. space 2% used (35844 of 2031952)

Internal filesystems:
  all internal filesystems have sufficient free space

acs/admin#
```

**Related Commands**

Command	Description
<a href="#">show cpu, page 100</a>	Displays CPU information.
<a href="#">show memory, page 118</a>	Displays the amount of system memory that each system process uses.

## show icmp\_status

To display file-system information about the disks, use the **show icmp\_status** command in EXEC mode.

```
show icmp_status {> file | |}
```

### Syntax Description

>	Output direction.
<i>file</i>	Name of file to redirect standard output (stdout).
	Output modifier commands: <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. <ul style="list-style-type: none"> <li>—  —Output modifier commands (see <a href="#">Table 12 on page 106</a>).</li> </ul> </li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10. <ul style="list-style-type: none"> <li>—  —Output modifier commands (see <a href="#">Table 12 on page 106</a>).</li> </ul> </li> </ul>

**Table 12 Output Modifier Variables for Count or Last**

	Output modifier variables: <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. <ul style="list-style-type: none"> <li> —Output modifier variables.</li> </ul> </li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10. <ul style="list-style-type: none"> <li> —Output modifier variables.</li> </ul> </li> </ul>
--	---

### Defaults

No default behavior or values.

## Show Commands

**Command Modes**

EXEC

**Usage Guidelines**

None.

**Examples****Example 1**

```
acs/admin# show icmp_status
icmp echo response is turned on
acs/admin#
```

**Example 2**

```
acs/admin# show icmp_status
icmp echo response is turned off
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">icmp echo, page 192</a>	Configures the Internet Control Message Protocol (ICMP) echo requests.

## show interface

To display the usability status of interfaces configured for IP, use the **show interface** command in the EXEC mode.

```
show interface [GigabitEthernet] |
```

### Syntax Description

GigabitEthernet	Shows the Gigabit Ethernet interface. Either 0 or 1.
	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show interface
eth0      Link encap:Ethernet  HWaddr 00:16:36:56:61:D2
          inet addr:209.165.200.225 Bcast:209.165.200.255 Mask:255.255.255.224
          inet6 addr: fe80::216:36ff:fe56:61d2/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:8783423 errors:0 dropped:0 overruns:0 frame:0
          TX packets:4178157 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:574274908 (547.6 MiB)  TX bytes:268869567 (256.4 MiB)
          Interrupt:169

eth1      Link encap:Ethernet  HWaddr 00:16:36:56:61:D1
          inet6 addr: fe80::216:36ff:fe56:61d1/64 Scope:Link
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:177

lo        Link encap:Local Loopback
          inet addr:209.165.201.1 Mask:255.255.255.224
          inet6 addr: ::1/128 Scope:Host
```

## Show Commands

```
UP LOOPBACK RUNNING MTU:16436 Metric:1
RX packets:21617 errors:0 dropped:0 overruns:0 frame:0
TX packets:21617 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:3587148 (3.4 MiB) TX bytes:3587148 (3.4 MiB)

sit0 Link encap:IPv6-in-IPv4
NOARP MTU:1480 Metric:1
RX packets:0 errors:0 dropped:0 overruns:0 frame:0
TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:0
RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)

acs/admin#
```

**Related Commands**

Command	Description
<a href="#">interface, page 193</a>	Configures an interface type and enters the interface configuration submode.

## show inventory

To display information about the hardware inventory, including the ACS appliance model and serial number, use the **show inventory** command in the EXEC mode.

```
show inventory |
```

### Syntax Description

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show inventory
```

```
NAME: "CSACS1121-K9      chassis", DESCR: "CSACS1121-K9      chassis"
PID: CSACS1121-K9      , VID: V01 , SN: CAM12345678
Total RAM Memory: 4149500 kB
CPU Core Count: 2
CPU 0: Model Info: Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
CPU 1: Model Info: Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
Hard Disk Count(*): 2
Disk 0: Device Name: /dev/sda
Disk 0: Capacity: 250.00 GB
Disk 0: Geometry: 255 heads 63 sectors/track 30401 cylinders
Disk 1: Device Name: /dev/sdb
Disk 1: Capacity: 250.00 GB
Disk 1: Geometry: 255 heads 63 sectors/track 30401 cylinders
NIC Count: 2
NIC 0: Device Name: eth0
NIC 0: HW Address: 00:15:17:59:73:81
NIC 0: Driver Descr: e1000: eth0: e1000_probe: Intel(R) PRO/1000 Network Connect
ion
NIC 1: Device Name: eth1
NIC 1: HW Address: 00:15:17:59:73:82
NIC 1: Driver Descr: e1000: eth1: e1000_probe: Intel(R) PRO/1000 Network Connect
```

Show Commands

ion

(\*) Hard Disk Count may be Logical.

acs/admin#

## show ip route

To display the route information for specific IP addresses, network masks or protocols, use the **show ip route** command in the EXEC mode.

```
show ip route |
```

### Syntax Description

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC.

### Usage Guidelines

None.

### Examples

```
acs/admin# show ip route
Kernel IP routing table
Destination      Gateway          Genmask          Flags Metric Ref    Use Iface
10.77.247.64     0.0.0.0         255.255.255.224 U        0      0      0 eth0
0.0.0.0          10.77.247.65   0.0.0.0         UG       0      0      0 eth0
```

### Related Commands

Command	Description
<a href="#">ip address, page 195</a>	Sets the IP address and netmask for the Ethernet interface.
<a href="#">ip route, page 203</a>	Configures the static routes.

## show ipv6 route

To display the available IPv6 routes on the server, use the **show ipv6 route** command in the EXEC mode.

```
show ipv6 route |
```

### Syntax Description

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC.

### Usage Guidelines

None.

### Examples

```
acs/admin# show ipv6 route
Kernel IPv6 routing table
Destination                Next                Hop      Flags  Metric Ref  Use Iface
2001::/6                   ::                 UA      256   1058  0    eth0
2001::/64                  2001::212:44ff:fe30:bc0a UG      1024  0    0    eth0
fe80::/64                  ::                 U       256   0    0    eth0
::/0                       fe80::212:44ff:fe30:bc0a UGDA   1024  7    0    eth0
::1/128                    ::                 U       0     24   9    lo
2001::215:17ff:fe7f:7780/128 ::                 U       0     0    1    lo
2001::9893:fc06:19ee:6453/128 ::                 U       0     0    1    lo
2001::c0bf:f906:75e9:9868/128 ::                 U       0     4    1    lo
2001::c996:dafc:1419:73f3/128 ::                 U       0     0    1    lo
fe80::215:17ff:fe7f:7780/128 ::                 U       0     3    1    lo
ff00::/8                   ::                 U      256   0    0    eth0
acs240-228/admin#
```

### Related Commands

Command	Description
<a href="#">ip address, page 195</a>	Sets the IP address and netmask for the Ethernet interface.
<a href="#">ip route, page 203</a>	Configures the static routes.

## show logging

To display the state of system logging (syslog) and the contents of the standard system logging buffer, use the **show logging** command in the EXEC mode. Using this command, you can also view messages from a specific log file within ACS application log directory and system logs.

```
show logging { application [application-name] } { internal } { system[system-logfile-name] } |
```

### Syntax Description

application	<p>Displays application logs.</p> <p><i>application-name</i>—Application name. This can be a maximum of 255 alphanumeric characters.</p> <ul style="list-style-type: none"> <li>– <i>tail</i>—Tail system syslog messages.</li> <li>– <i>count</i>—Tail last count messages. From 0 to 4,294,967,295.</li> </ul> <p> —Output modifier variables (see below).</p>
internal	Displays the syslogs configuration.
system	<p>Displays the system syslogs.</p> <p><i>system-logfile-name</i>—System log file name. This can be a maximum of 255 alphanumeric characters.</p>
	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

This command displays the state of syslog error and event logging, including host addresses, and for which logging destinations (console, monitor, buffer, or host), logging is enabled.

### Examples

#### Example 1

```
acs/admin# show logging system
775 Aug 27 2015 07:10:01 backup-success.log
```

## Show Commands

```

58148 Aug 19 2015 11:53:14 anaconda.program.log
62871 Aug 19 2015 11:53:14 anaconda.log
4488859 Aug 24 2015 19:31:50 messages
2778 Aug 19 2015 12:11:19 boot.log
32064 Aug 24 2015 19:22:39 tallylog
138018 Aug 19 2015 11:53:14 anaconda.syslog
5941481 Aug 24 2015 19:33:01 cron
203300 Aug 19 2015 11:53:14 anaconda.storage.log
331301 Aug 19 2015 12:04:59 dracut.log
10897 Aug 24 2015 14:43:25 maillog
0 Aug 23 2015 04:59:35 spooler
36855 Aug 19 2015 12:09:12 pbis-open-install.log
5147 Aug 19 2015 11:53:14 anaconda.yum.log
850 Aug 24 2015 16:12:16 backup.log
0 Aug 19 2015 11:47:25 spooler.1
72432 Aug 19 2015 12:10:37 dmesg
15 Aug 24 2015 19:33:01 prev-passwd-lock-info.txt
16064 Aug 19 2015 12:08:16 faillog
29568 Aug 24 2015 19:22:39 wtmp
6881 Aug 22 2015 07:42:09 maillog.1
3072 Aug 24 2015 19:22:34 btmp
40368 Aug 22 2015 07:29:40 secure.1
0 Aug 19 2015 12:08:17 restore-success.log
146584 Aug 24 2015 19:22:39 lastlog
71737 Aug 19 2015 11:54:35 dmesg.old
0 Aug 19 2015 12:08:17 restore.log
--More--

```

**Example 2**

```

acs/admin# show logging internal

log server:          localhost
Global loglevel:    6
Status:             Enabled

acs/admin#

```

**Example 3**

```

ACS166/admin# show logging application
13466 Apr 22 2013 13:46:02 acsupgrade.log
2451 Apr 22 2013 13:45:18 MonitoringAndReportingCollector.log
0 Apr 17 2013 13:26:45 MonitoringAndReportingExpertTroubleshooting.log
2617 Apr 22 2013 14:44:33 ACSManagementAudit.log
7817 Apr 22 2013 13:47:02 monit.log
140082 Apr 23 2013 13:01:05 ACSManagement.log
3314 Apr 22 2013 13:43:58 acsLogForward.log
0 Apr 17 2013 13:27:29 MonitoringAndReportingUI.log
34409 Apr 23 2013 13:00:31 MonitoringAndReportingDatabase.log
8399 Apr 22 2013 13:45:03 acsRuntime.log
9923 Apr 23 2013 04:00:00 MonitoringAndReportingProcess.log
0 Apr 17 2013 13:27:17 MonitoringAndReportingAlert.log
0 Apr 17 2013 13:27:45 MonitoringAndReportingScheduler.log
2658 Apr 23 2013 11:45:38 ACSADAgent.log

```

**Example 4**

```

ACS166/admin# show logging application ACSManagement.log
Apr 17 2013 13:28:11 CisACS_34001 1 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=1

```

## Show Commands

```

Apr 17 2013 13:28:12 CisACS_52000 2 1 1 AUDIT Added configuration , inLocalMode=false, TransactionID=1,
ObjectID=1, ObjectName=ACS, AdminName=SERVICE, ObjectType=Service Selection Policy
Apr 17 2013 13:28:12 CisACS_34001 3 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=2
Apr 17 2013 13:28:13 CisACS_34001 4 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=3
Apr 17 2013 13:28:13 CisACS_34001 5 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=4
Apr 17 2013 13:28:13 CisACS_41007 6 1 1 DISTMGMT ACS Node record found , AdminName=SERVICE
Apr 17 2013 13:28:13 CisACS_34001 7 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=5
Apr 17 2013 13:28:13 CisACS_34001 8 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=6
Apr 17 2013 13:28:14 CisACS_34000 9 1 1 REPLICATION Appending transaction , AdminName=SERVICE,
1/ConfigTransactionID=19
Apr 17 2013 13:28:14 CisACS_52000 10 1 1 AUDIT Added configuration , inLocalMode=false,
TransactionID=4, ObjectID=1, ObjectName=ACS166, AdminName=SERVICE, ObjectType=ACS Instance

```

**Example 5**

```

ACS166/admin# show logging system
    29186 Apr 17 2013 13:11:26 anaconda.syslog
      0 Apr 21 2013 00:00:01 boot.log
    25536 Apr 19 2013 19:41:30 secure.1
      23 Apr 22 2013 13:47:01 snmpd.log
    12024 Apr 23 2013 11:45:30 faillog
      384 Apr 18 2013 21:32:14 bttmp
    13898 Apr 23 2013 12:56:35 secure
      0 Apr 21 2013 00:00:01 spooler
    1246 Apr 22 2013 14:40:04 backup-success.log
    146292 Apr 22 2013 17:14:40 lastlog
    1246 Apr 22 2013 14:40:04 backup.log
    1597631 Apr 20 2013 23:59:31 messages.1

```

**Example 6**

```

ACS166/admin# show logging system ade/ADE.log
Apr 17 13:20:47 localhost ADE-SERVICE[2450]: [2586]:[info] config:network: main.c[252] [setup]: Setup
is complete
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: hangup signal caught, configuration read
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[notice] icmp: icmputils_cli.c[139] [setup]:
Generating icmp echo response config
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[info] icmp: cars_icmpcfg.c[118] [setup]: Got the
current ICMP Echo response config as : enabled
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[info] icmp: icmputils_cli.c[160] [setup]: Got ICMP
echo config: on
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[notice] icmp: icmputils_cli.c[167] [setup]:
Finished icmp echo response config generation
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[notice] logging: fwlimits_cli.c[853] [setup]:
Finished limits config generation
Apr 17 13:20:51 localhost ADE-SERVICE[2450]: [4641]:[info] config:infra: cm_generate.c[223] [setup]:
generate error: Empty list retrieved without an error

```

## show logins

To display the state of system logins, use the **show logins** command in the EXEC mode.

```
show logins cli
```

### Syntax Description

cli	Lists the login history.
-----	--------------------------

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

Requires the **cli** keyword; otherwise, an error occurs.

### Examples

```
acs/admin# show logins cli
admin pts/0 dhcp-64-102-82-1 Thu May 3 05:23 still logged in
admin pts/0 dhcp-64-102-82-1 Thu May 3 04:31 - 05:11 (00:39)
admin pts/0 dhcp-64-102-82-1 Thu May 3 04:16 - 04:17 (00:00)
admin pts/0 dhcp-64-102-82-1 Thu May 3 03:53 - 04:16 (00:22)
```

```
wtmp begins Tue Oct 7 13:21:14 2008
```

```
acs/admin#
```

## show memory

To display the memory usage of all the running processes, use the **show memory** command in the EXEC mode.

```
show memory
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show memory  
total memory:    2074924 kB  
free memory:    1687324 kB  
cached:         162984 kB  
swap-cached:    0 kB
```

```
acs/admin#
```

## show ntp

To show the status of the Network Time Protocol (NTP) associations, use the **show ntp** command in the EXEC mode.

```
show ntp
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show ntp  
Primary NTP   : 1.ntp.esl.cisco.com  
Secondary NTP : 2.ntp.esl.cisco.com
```

```
synchronised to NTP server (209.165.202.129) at stratum 2  
  time correct to within 37 ms  
  polling server every 128 s
```

```
acs/admin#
```

### Related Commands

Command	Description
<a href="#">ntp, page 212</a>	Allows synchronization of the software clock by the NTP server for the system.

## show ports

To display information about all the processes listening on active ports, use the **show ports** command in the EXEC mode.

```
show ports [!] [!]
```

### Syntax Description

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 13 on page 120</a>).</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul> <p> —Output modifier variables (see <a href="#">Table 13 on page 120</a>).</p>
--	--

**Table 13 Output Modifier Variables for Count or Last**

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li> </ul> <p> —Output modifier variables.</p> <ul style="list-style-type: none"> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul> <p> —Output modifier variables.</p>
--	---

### Defaults

No default behavior or values.

### Command Modes

EXEC

## Show Commands

**Usage Guidelines**

When you run the **show ports** command, the port must have an associated active session.

Cisco Secure ACS grants the administrative session and assigns the new session to choose a random TCP port from the range of TCP ports.

The ports 52454, 60186, 8999 and 51515 belong to the child process started by main JSVC process. Some of these ports are fixed and some are picked up randomly from the available TCP ports range.

**Table 14**

Ports	Description
8999	This port is used by the management process for the internal monitoring purpose.
51515	This port is used by Tomcat for communication between internal processes.
52454 and 60186	Random ports. Check the system to know about the process which has opened this port.
61616	This port is used for Replication over the Message Bus.

**Examples**

```
acs/admin# show ports
```

```
Process : dbsrv10 (9253)
  tcp: 0.0.0.0:2638, :::2638
Process : portmap (2615)
  tcp: 0.0.0.0:111
  udp: 0.0.0.0:111
Process : dbsrv10 (10019)
  tcp: 0.0.0.0:43216, :::43216
Process : rt_daemon (9450)
  tcp: 172.23.245.28:49
  udp: 0.0.0.0:32771, 0.0.0.0:1812, 0.0.0.0:1813, 0.0.0.0:1645, 0.0.0.0:1646
Process : monit (6933)
  tcp: 127.0.0.1:2812
Process : java (9756)
  tcp: :::2020, ::ffff:127.0.0.1:8005, :::6666, :::2030, :::61616, :::80, ::ffff:127.0.0.1:51515,
  :::443
Process : sshd (2776)
  tcp: :::22
Process : java (10023)
  udp: :::20514
acs/admin#
```

## show process

To display information about active processes, use the **show process** command in the EXEC mode.

```
show process |
```

### Syntax Description

	<p>(Optional) Output modifier variables:</p> <ul style="list-style-type: none"> <li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>count</i>—Count the number of lines in the interface. Add number after the word <i>count</i>.</li> <li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li> <li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li> </ul>
--	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

See [Table 15 on page 123](#) for process field descriptions.

```
acs/admin# show process
```

```

USER      PID      TIME TT      COMMAND
root      1 00:00:00 ?      init
root      2 00:00:00 ?      migration/0
root      3 00:00:00 ?      ksoftirqd/0
root      4 00:00:00 ?      migration/1
root      5 00:00:00 ?      ksoftirqd/1
root      6 00:00:00 ?      events/0
root      7 00:00:00 ?      events/1
root      8 00:00:00 ?      khelper
root      9 00:00:00 ?      kacpid
root      36 00:00:00 ?      kblockd/0
root      37 00:00:00 ?      kblockd/1
root      55 00:00:00 ?      pdflush
root      58 00:00:00 ?      aio/0
root      59 00:00:00 ?      aio/1
root      38 00:00:00 ?      khubd
root      57 00:00:00 ?      kswapd0
root      203 00:00:00 ?      kseriod
root      320 00:00:00 ?      ata/0
root      321 00:00:00 ?      ata/1

```

## Show Commands

```
root      325 00:00:00 ?          scsi_eh_0
root      326 00:00:00 ?          scsi_eh_1
--More-- (press Spacebar to continue)
```

**Table 15 Show Process Field Descriptions**

Field	Description
USER	Logged-in user.
PID	Process ID.
TIME	The time the command was last used.
TT	Terminal that controls the process.
COMMAND	Type of process or command used.

**Note:** Use the show process | include jsvc command to get the list of Java processes running on the ACS.

## show repository

To display the file contents of the repository, use the **show repository** command in the EXEC mode.

```
show repository repository-name
```

### Syntax Description

<i>repository-name</i>	Name of the repository whose contents you want to view. This can be a maximum of 80 alphanumeric characters.
------------------------	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show repository myrepository
back1.tar.gpg
back2.tar.gpg
acs/admin#
```

### Related Commands

Command	Description
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">restore, page 69</a>	Restores from backup the file contents of a specific repository.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.

## show restore

To display the restore history, use the **show restore** command in the EXEC mode.

```
show restore {history}
```

### Syntax Description

history	Displays the restore history.
---------	-------------------------------

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show restore history
Tue Sep  4 03:42:48 PDT 2008: restore 11backup_Local.File2.tar.gpg from repository executeBackupRepo:
success Tue Sep  4 03:46:15 PDT 2008: restore 11backup_Local.File2.tar.gpg from repository
executeBackupRepo: success Tue Sep  4 03:51:07 PDT 2008: restore 11backup_Local.File2.tar.gpg from
repository executeBackupRepo: success Tue Sep  4 03:54:35 PDT 2008: restore
11backup_Local.File2.tar.gpg from repository executeBackupRepo: success Wed Sep  5 12:31:21 UTC 2008:
restore cdromRestore.tar.gpg from repository cdrom1: success admin#
```

```
acs/admin#
```

#### Example 2

```
acs/admin# show restore history
restore history is empty
acs/admin#
```

### Related Commands

Command	Description
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">restore, page 69</a>	Restores from backup the file contents of a specific repository.
<a href="#">repository, page 222</a>	Enters the repository submode for configuration of backups.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.

## show running-configuration

To display the contents of the currently running configuration file or the configuration, use the **show running-configuration** command in the EXEC mode.

```
show running-configuration
```

### Syntax Description

No arguments or keywords.

### Defaults

The **show running-configuration** command displays all of the configuration information.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show running-configuration

Generating configuration...
!
hostname acs
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
  ip address 209.165.200.225 255.255.255.224
!
interface GigabitEthernet 1
  shutdown
!
!

clock timezone UTC
!
!
username admin password groove role admin
!
service sshd
!
repository myrepository
  url ftp://209.165.200.234/backup
  user bubba password gump
!
password-policy
  lower-case-required
  upper-case-required
  digit-required
  no-username
  disable-cisco-passwords
  min-password-length 6
!
logging localhost
logging loglevel 6
!
cdp timer 60
cdp holdtime 180
cdp run GigabitEthernet 0
```

## Show Commands

```
!  
icmp echo on  
!  
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">configure, page 44</a>	Enters the Configuration mode.
<a href="#">show startup-configuration, page 128</a>	Displays the contents of the startup configuration file or the configuration.

## show startup-configuration

To display the contents of the startup configuration file or the configuration, use the **show startup-configuration** command in the EXEC mode.

```
show startup-configuration
```

### Syntax Description

No arguments or keywords.

### Defaults

The **show startup-configuration** command displays all of the startup configuration information.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show startup-configuration

Generating configuration...
!
hostname acs
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
  ip address 209.165.200.225 255.255.255.224
!
interface GigabitEthernet 1
  shutdown
!
!

clock timezone UTC
!
!
username admin password groove role admin
!
service sshd
!
repository myrepository
  url ftp://209.165.200.234/backup
  user bubba password gump
!
--More-- (press Spacebar to continue)
```

### Related Commands

Command	Description
<a href="#">configure, page 44</a>	Enters the Configuration mode.
<a href="#">show running-configuration, page 126</a>	Displays the contents of the currently running configuration file or the configuration.

## show tech-support

To display technical support information, including e-mail, use the **show tech-support** command in the EXEC mode.

```
show tech-support file [word]
```

### Syntax Description

<b>file</b>	Save any technical support data as a file in the local disk.
<i>word</i>	Filename to save. This can be a maximum of 80 alphanumeric characters.

### Defaults

Passwords and other security information do not appear in the output.

### Command Modes

EXEC

### Usage Guidelines

The **show tech-support** command is useful for collecting a large amount of information about your ACS server for troubleshooting purposes. You can then provide output to technical support representatives when reporting a problem.

### Examples

```
acs/admin# show tech-support
#####
Application Deployment Engine(ADE) - Release 1.0
Technical Support Debug Info follows...
#####

*****
Checking dmidcode Serial Number(s)
*****
    0x0736C7F6
    0x0736C803
    0x0736C808
    0x0736C81F
    AZAX74601334

*****
Displaying System Uptime...
*****
    20:41:46 up 6:42, 1 user, load average: 0.45, 0.20, 0.12

*****
Display Memory Usage(KB)
*****
            total      used      free      shared    buffers    cached
Mem:      4148032    2951612    1196420         0      59440    1873920
-/+ buffers/cache:    1018252    3129780
Swap:      8191992         0      8191992

*****
Displaying Processes(ax --forest)...
*****
    PID TTY          STAT       TIME COMMAND
     1 ?            S          0:00 init [3]
     2 ?            S          0:00 [migration/0]
     3 ?            SN         0:00 [ksoftirqd/0]
```

## Show Commands

```
4 ?      S      0:00 [migration/1]
5 ?      SN     0:00 [ksoftirqd/1]
```

--More-- (Press Enter or Spacebar.)

**Related Commands**

Command	Description
<a href="#">show interface, page 108</a>	Displays the usability status of the interfaces.
<a href="#">show process, page 122</a>	Displays information about active processes.
<a href="#">show running-configuration, page 126</a>	Displays the contents of the current running configuration.

## show terminal

To obtain information about the terminal configuration parameter settings, use the **show terminal** command in the EXEC mode.

```
show terminal
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show terminal
TTY: /dev/pts/0 Type: "vt100"
Length: 25 lines, Width: 80 columns
Session Timeout: 30 minutes
acs/admin#
```

[Table 16 on page 131](#) describes the fields of the **show terminal** output.

**Table 16 Show Terminal Field Descriptions**

Field	Description
TTY: /dev/pts/0	Displays standard output to type of terminal.
Type: "vt100"	Type of current terminal used.
Length: 24 lines	Length of the terminal display.
Width: 80 columns	Width of the terminal display, in character columns.
Session Timeout: 30 minutes	Length of time, in minutes, for a session, after which the connection closes.

## show timezone

To display the time zone as set on the system, use the **show timezone** command in the EXEC mode.

```
show timezone
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show timezone  
UTC  
acs/admin#
```

### Related Commands

Command	Description
<a href="#">clock timezone, page 183</a>	Sets the time zone on the system.
<a href="#">show timezones, page 133</a>	Displays the time zones available on the system.

## show timezones

To obtain a list of time zones from which you can select, use the **show timezones** command in the EXEC mode.

```
show timezones
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

See [clock timezone, page 183](#), for examples of the time zones available for the ACS server.

### Examples

```
acs/admin# show timezones  
PST8PDT  
Hongkong  
Etc/GMT-7  
Etc/GMT-12  
Etc/GMT-4  
Etc/GMT-13  
Etc/GMT-11  
Etc/GMT-1  
Etc/GMT+5  
Etc/GMT-14  
Etc/GMT+11  
Etc/GMT+6  
Etc/Zulu  
Etc/GMT+7  
Etc/Universal  
Etc/GMT-2  
Etc/GMT+10  
Etc/GMT-8  
Etc/GMT+8  
Etc/GMT+1  
Etc/GMT0  
Etc/GMT+9  
Etc/GMT+3  
Etc/GMT-3  
Etc/GMT  
Etc/GMT-5  
Etc/GMT-0  
Etc/GMT-6  
Etc/GMT+4  
Etc/GMT-9  
Etc/GMT+12  
Etc/GMT+2  
Etc/UCT  
Etc/GMT-10  
Etc/GMT+0  
Etc/Greenwich  
Etc/UTC  
Pacific/Norfolk  
--More-- (Press Enter or Spacebar)
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">show timezone, page 132</a>	Displays the time zone set on the system.
<a href="#">clock timezone, page 183</a>	Sets the time zone on the system.

## show udi

To display information about the CSACS-1121's, Cisco SNS-3415's, or Cisco SNS-3495's UDI, use the **show udi** command in the EXEC mode.

```
show udi
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin# show udi  
SPID: ADE-1010  
VPID: V01  
Serial: 123455  
acs/admin#
```

#### Example 2

```
acs/admin# sh udi  
SPID:: Cisco-VM-SPID  
VPID: V01  
Serial: Cisco-VM-SN
```

This output appears when you run the **show udi** command on VMware servers running VMware ESXi 4.1.0.

## show uptime

To display the length of time that you have been logged in to the ACS server, use the **show uptime** command in the EXEC mode.

```
show uptime |
```

### Syntax Description

	<p>(Optional) Output modifier variables:</p> <ul style="list-style-type: none"><li>■ <i>begin</i>—Matched pattern. This can be a maximum of 80 alphanumeric characters.</li><li>■ <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>.</li><li>■ <i>end</i>—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li><li>■ <i>exclude</i>—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li><li>■ <i>include</i>—Include lines that match. This can be a maximum of 80 alphanumeric characters.</li><li>■ <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. This can be a maximum of 80 lines to display. Default 10.</li></ul>
--	--

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show uptime
4 day(s), 16:36:58
acs/admin#
```

## show users

To display the list of users logged in to the ACS server, use the **show users** command in the EXEC mode.

**show users**

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

None.

### Examples

```
acs/admin# show users
```

```
USERNAME ROLE HOST TTY LOGIN DATETIME  
admin Admin tty1 Tue Apr 21 10:50:10 2015
```

```
-----  
DETACHED SESSIONS:  
-----
```

```
USERNAME ROLE STARTDATE
```

```
% No disconnected user sessions present  
acs130/admin#
```

## show version

To display information about the software version of the system, use the **show version** command in the EXEC mode.

```
show version
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

EXEC

### Usage Guidelines

This command displays information about the ADE-OS 2.0 software version running on the ACS server, and the ACS version.

### Examples

```
acs/admin# sh version  
Cisco Application Deployment Engine OS Release: 2.2  
ADE-OS Build Version: 2.2.2.010  
ADE-OS System Architecture: x86_64
```

```
Copyright (c) 2005-2015 by Cisco Systems, Inc.  
All rights reserved.  
Hostname: acs
```

```
Version information of installed applications  
-----
```

```
Cisco ACS VERSION INFORMATION  
-----
```

```
Version: 5.8.0.15  
Internal Build ID: B.257  
acs/admin#
```

## ACS Configuration Commands

Each ACS Configuration command includes a brief description of its use, command syntax, usage guidelines, and sample output.

To access the ACS Configuration mode, you must use the **acs-config** command in the EXEC mode.

This section describes the following Configuration commands.

- [access-setting accept-all, page 140](#)
- [acsview-db-compress, page 141](#)
- [acsview merge-from-supportbundle, page 142](#)
- [acsview rebuild-database, page 143](#)
- [acsview replace-clean-activesessionsdb, page 144](#)
- [acsview replace-cleandb, page 145](#)
- [acsview show-dbsize, page 146](#)
- [acsview truncate-log, page 147](#)
- [database-compress, page 148](#)
- [debug-adclient, page 149](#)
- [debug-log, page 150](#)
- [ethernet-interface, page 153](#)
- [export-data, page 154](#)
- [export-data-message-catalog, page 156](#)
- [import-data, page 157](#)
- [import-export-abort, page 159](#)
- [import-export-status, page 161](#)
- [no debug-adclient, page 163](#)
- [no debug-log, page 164](#)
- [replication force-sync, page 167](#)
- [replication status, page 169](#)
- [reset-management-interface-certificate, page 170](#)
- [show debug-adclient, page 172](#)
- [show debug-log, page 173](#)

## access-setting accept-all

To reset the IP address filtering to allow any IP address to access the management pages of an ACS server, use the **access-setting accept-all** command in the ACS Configuration mode. Only the super admin has the privilege to use this command on a primary ACS node.

```
access-setting accept-all
```

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

Use the **access-setting accept-all** command when all system administrators' access to an ACS node through the GUI is blocked. This problem occurs when an administrator defines an access list that includes all IP addresses and blocks access to the GUI.

When you run this command, IP address filtering is set to allow all IP addresses to connect the management pages, but the IP addresses defined in the IP Ranges table to allow or reject the IP addresses to access the management pages are not reset; therefore, you can reuse this table to set IP address filtering.

### Examples

```
acs/admin(config-acs) # access-setting accept-all
```

```
access setting allows all IP addresses to connect  
acs/admin(config-acs) #
```

## acsview-db-compress

Use the `acsview-db-compress` command to compress the ACS View database file size. This command compresses the ACS View database by rebuilding each table in the database and releasing the unused space. As a result, the physical size of the database is reduced.

`acsview-db-compress`

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

ACS is stopped during the database compression process. ACS restarts automatically after the database compression. Database compression takes sometime, based on the database size. If the database size is large, then the compression happens in hours. This CLI command needs to be executed only in the log collector server.

It is strongly recommended to execute this CLI only during maintenance hours, as it requires restarting the ACS services. The option to compress the view database is also mentioned in the description of one of the alerts that is sent when the database reaches a certain limit.

### Examples

```
acs242-197/acsadmin(config-acs)# acsview-db-compress
```

```
You can choose to compress ACS View database. This operation will take more time if the size of the database is big. During this operation, ACS services will be stopped. Services will be started automatically when the compression is over. Do you want to continue (y/n)?
```

```
Please wait till ACS services return after the ACS View database is compressed. Refer to ADE.log for more details about the ACS View db compress.
```

## acsview merge-from-supportbundle

Use the `acsview merge-from-supportbundle` command to merge the existing ACS view database with the information given in the specified support bundle.

```
acsview merge-from-supportbundle support-file-name
```

### Syntax Description

<i>support-file-name</i>	Holds the support bundle file name which is to be merged with the existing ACS view database. This support bundle file should be present in the local disk.
--------------------------	---

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

ACS view services are stopped during the support bundle merge operation. ACS view services restart automatically after the merge operation is successful.

You should copy the decrypted support bundle of the same version which we have specified in the support file name of the merge command including the patch version. You should copy this file using the copy command in CLI.

### Examples

```
acs242-197/acsadmin(config-acs)# acsview merge-from-supportbundle clisupport.tar.gz
Do you want to clean the data first?[y/n]
```

Please wait till database merge operation is completed. Refer ADE.log for more details about the status.

### Related Commands

Command	Description
<a href="#">acsview rebuild-database, page 143</a>	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
<a href="#">acsview replace-clean-activesession sdb, page 144</a>	Removes the active session information from the ACS view database and make it as a fresh database.
<a href="#">acsview replace-cleandb, page 145</a>	Removes all data from the ACS view database and makes the current view database as a fresh view database.
<a href="#">acsview show-dbsize, page 146</a>	Displays the physical and actual size of the ACS view database and the transaction log files.
<a href="#">acsview truncate-log, page 147</a>	Truncates the ACS view database transaction logs.

## acsview rebuild-database

Use the `acsview rebuild-database` command to rebuild the database with the log information up to the specified number of days. If you specify to rebuild the database for 10 days, then ACS view database keeps only the last 10 days data and erases the remaining data.

```
acsview rebuild-database noofdays
```

### Syntax Description

<i>number-of-days</i>	Holds a integer value for number of days.
-----------------------	---

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

ACS view services are stopped during the database rebuild operation. ACS view services restart automatically after rebuild operation is successful.

You need to clean up the unwanted files and have enough disk space before executing the `rebuild-database` command in ACS view.

### Examples

```
acs242-197/acsadmin(config-acs)# acsview rebuild-database 10
```

This operation will take more time if the number of records are more in the database. During this operation, ACSview unloads the data for given number of days to localdisk or opt which one is having more space, Stops view services, replaces with clean db, restart view services and reload the data. Do you want to continue (y/n)?

Please wait till database reload operation is completed. Refer ADE.log for more details.

### Related Commands

Command	Description
<a href="#">acsview merge-from-supportbundle</a> , page 142	Merges the ACS view database with the specified support bundle data.
<a href="#">acsview replace-clean-activesession sdb</a> , page 144	Removes the active session information from the ACS view database and make it as a fresh database.
<a href="#">acsview replace-cleandb</a> , page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
<a href="#">acsview show-dbsize</a> , page 146	Displays the physical and actual size of the ACS view database and the transaction log files.
<a href="#">acsview truncate-log</a> , page 147	Truncates the ACS view database transaction logs.

## acsview replace-clean-activesessionsdb

Use the `acsview replace-clean-activesessionsdb` command to clean up the active session information in the ACS view database. This command removes the active session information in the ACS view database.

`acsview replace-clean-activesessionsdb`

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

ACS view services are stopped during database active sessions clean up process. ACS view services restart automatically after the active sessions clean up operation is successful.

### Examples

```
acs242-197/acsadmin(config-acs) # acsview replace-clean-activesessionsdb
acs242-197/acsadmin(config-acs) #
```

### Related Commands

Command	Description
<a href="#">acsview merge-from-supportbundle, page 142</a>	Merges the ACS view database with the specified support bundle data.
<a href="#">acsview rebuild-database, page 143</a>	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
<a href="#">acsview replace-cleandb, page 145</a>	Removes all data from the ACS view database and makes the current view database as a fresh view database.
<a href="#">acsview show-dbsize, page 146</a>	Displays the physical and actual size of the ACS view database and the transaction log files.
<a href="#">acsview truncate-log, page 147</a>	Truncates the ACS view database transaction logs.

## acsview replace-cleandb

Use the `acsview replace-cleandb` command to clean up the information in the ACS view database. This command removes all data from the ACS view database. That is, this command replaces the current database with a fresh view database.

`acsview replace-cleandb`

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

ACS view services are stopped during database clean up process. ACS view services restart automatically after the database clean up operation is successful.

### Examples

```
acs242-197/acsadmin(config-acs) # acsview replace-cleandb
acs242-197/acsadmin(config-acs) #
```

### Related Commands

Command	Description
<a href="#">acsview merge-from-supportbundle, page 142</a>	Merges the ACS view database with the specified support bundle data.
<a href="#">acsview rebuild-database, page 143</a>	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
<a href="#">acsview replace-clean-activesession sdb, page 144</a>	Removes the active session information from the ACS view database and make it as a fresh database.
<a href="#">acsview show-dbsize, page 146</a>	Displays the physical and actual size of the ACS view database and the transaction log files.
<a href="#">acsview truncate-log, page 147</a>	Truncates the ACS view database transaction logs.

## acsview show-dbsize

Use the `acsview show-dbsize` command to display the physical and active size of the ACS view database. It also displays the physical size of the ACS view transaction log files.

`acsview show-dbsize`

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

None.

### Examples

```
acs242-197/acsadmin(config-acs)# acsview show-dbsize
Actual DB Size (bytes) : 63692800
Actual DB Size (GBs) :0.06
Physical DB Size (bytes):64667648
Physical DB Size (GBs) :0.06
Physical ACSviewlog file Size (GBs) :0
acs242-197/acsadmin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">acsview merge-from-supportbundle, page 142</a>	Merges the ACS view database with the specified support bundle data.
<a href="#">acsview rebuild-database, page 143</a>	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
<a href="#">acsview replace-clean-activesession sdb, page 144</a>	Removes the active session information from the ACS view database and make it as a fresh database.
<a href="#">acsview replace-cleandb, page 145</a>	Removes all data from the ACS view database and makes the current view database as a fresh view database.
<a href="#">acsview truncate-log, page 147</a>	Truncates the ACS view database transaction logs.

## acsview truncate-log

Use the `acsview truncate-log` command to truncate the ACS view database transaction log messages.

`acsview truncate-log`

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (`acs-config`)

### Usage Guidelines

None.

### Examples

```
acs242-197/acsadmin(config-acs)# acsview truncate-log
acs242-197/acsadmin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">acsview merge-from-supportbundle, page 142</a>	Merges the ACS view database with the specified support bundle data.
<a href="#">acsview rebuild-database, page 143</a>	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
<a href="#">acsview replace-clean-activesession sdb, page 144</a>	Removes the active session information from the ACS view database and make it as a fresh database.
<a href="#">acsview replace-cleandb, page 145</a>	Removes all data from the ACS view database and makes the current view database as a fresh view database.
<a href="#">acsview show-dbsize, page 146</a>	Displays the physical and actual size of the ACS view database and the transaction log files.

## database-compress

To reduce the ACS database size by removing unused disk space from within the ACS database file, use the **database-compress** command in the ACS Configuration mode. This command has the option to truncate ACS transaction history.

This command does not erase or modify any information during the database compression, except for the transaction history if the truncate flag is used.

When you run this command, ACS is stopped, and the process of compressing the ACS database is executed. ACS starts automatically after the process is done.

The progress of the command execution is logged in the ADE.log file.

```
database-compress [truncate_log]
```

### Syntax Description

<i>truncate_log</i>	Truncates the transaction history.
---------------------	------------------------------------

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None.

### Examples

```
acs/admin(config-acs) # database-compress
```

### Related Commands

Command	Description
<a href="#">debug-adclient, page 149</a>	Enables debug logging for an Active Directory client.
<a href="#">no debug-adclient, page 163</a>	Disables debug logging for an Active Directory client.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).

## debug-adclient

To enable debug logging for an Active Directory client, use the **debug-adclient** command in the ACS Configuration mode. To disable debug logging for an Active Directory client, use the **no** form of this command. Only the network-device admin can enable or disable debug logging for an Active Directory client.

```
debug-adclient enable
```

### Syntax Description

No arguments or keywords.

### Defaults

Disabled.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

When you set the log level of debug logs to DEBUG for the following components, the active directory client logs are automatically enabled. Similarly, when you disable the DEBUG log level on one of these components, the active directory logs are disabled:

- all
- mgmt
- runtime
- runtime-idstores

### Examples

```
acs/admin(config-acs)# debug-adclient enable
acs/admin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">no debug-adclient, page 163</a>	Disables debug logging for an Active Directory client.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">show debug-log, page 173</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for an Active Directory client (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.

## debug-log

To set the local debug logging level for all or specific ACS components, use the debug-log command in the ACS Configuration mode. Any user, irrespective of role, can run this command.

```
debug-log {component | all} level {debug | info | warn | error | fatal | none}
```

### Syntax Description

<i>component</i>	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.
<b>all</b>	Selects local debug logging on all components.
<b>level</b>	Selects local debug logging level. The options are: <ul style="list-style-type: none"> <li>■ <b>debug</b>—Selects logging messages with the DEBUG severity level.</li> <li>■ <b>info</b>—Selects logging messages with the INFO severity level.</li> <li>■ <b>warn</b>—Selects logging messages with the WARN severity level.</li> <li>■ <b>error</b>—elects logging messages with the ERROR severity level.</li> <li>■ <b>fatal</b>—Selects logging messages with the FATAL severity level.</li> <li>■ <b>none</b>—Selects logging messages with the no severity level.</li> </ul>

### Defaults

All ACS debug logging is set to warn.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

You can select any of the following options (including suboptions) as a component:

- **runtime**—If you select this component, all runtime subcomponents are included; see *runtime*- items in the list below.
  - runtime-admin
  - runtime-authenticators
  - runtime-authorization
  - runtime-config-manager
  - runtime-config-notification-flow
  - runtime-customerlog
  - runtime-crypto
  - runtime-dataaccess
  - runtime-dbpassword
  - runtime-eap
  - runtime-event-handler
  - runtime-idstores

- runtime-infrastructure
- runtime-logging
- runtime-logging-notification-flow
- runtime-message-bus
- runtime-message-catalog
- runtime-radius
- runtime-rule-engine
- runtime-state-manager
- runtime-tacacs
- runtime-xml-config
- mgmt (management)—If you select this component, all other mgmt subcomponents are included; see *mgmt-* items in the list below.
  - mgmt-audit
  - mgmt-common
  - mgmt-aac
  - mgmt-bl
  - mgmt-cli
  - mgmt-gui
  - mgmt-system
  - mgmt-notification
  - mgmt-bus
  - mgmt-dbal
  - mgmt-replication
  - mgmt-distmgmt
  - mgmt-validation
  - mgmt-changepassword
  - mgmt-license
  - mgmt-acsvview

The debug logging configuration remains in effect even after a reboot. To reconfigure, use the **debug-log** command again or the **no debug-log** command.

When you set the log level of debug logs to DEBUG for the following components, the active directory client logs are automatically enabled. Similarly, when you disable the DEBUG log level on one of these components, the active directory logs are disabled:

- all
- mgmt
- runtime
- runtime-idstores

### Examples

```
acs/admin(config-acs) # debug-log mgmt level warn
acs/admin(config-acs) #
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## ethernet-interface

To change the ethernet interface configuration in ACS, use the **ethernet-interface** command in ACS configuration mode.

**ethernet-interface configure [on | off]**

**ethernet-interface set-to-default**

**ethernet-interface show-configuration**

### Syntax Description

configure	Updates the ethernet interface configuration.
set-to-default	Sets the current ethernet interface configuration to default.
show-configuration	Displays the current ethernet interface configurations.
Auto-negotiation (On or Off)	Automatically negotiates the link speed of the ethernet interface.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None

### Examples

```
acs/admin(config-acs)# ethernet-interface show-configuration
Settings for eth0:
    Current message level: 0x00000007 (7)
                        drv probe link
    Link detected: yes
acs/admin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">interface, page 193</a>	Displays statistics for all the interfaces configured on ACS.

## export-data

To export the configuration data from an ACS local store to a remote repository, use the **export-data command** in ACS configuration mode. Only users who have read permission to a specific configuration object in the GUI can export that data to a remote repository.

```
export-data { user | host | device | identity-group | network-device-group-device-type |
network-device-group-location | downloadable-acl | command-set | administrator } repository filename
result-filename { full secret-phrase | none | only-sec-repo | only-sec-file secret-phrase }
```

### Syntax Description

<i>user</i>	Exports the user configuration data to the remote repository.
<i>host</i>	Exports the host configuration data to the remote repository.
<i>device</i>	Exports the device configuration information to the remote repository.
<i>identity-group</i>	Exports the identity groups data to the remote repository.
<i>network-device-group-device-type</i>	Exports the network device groups and network device types data to the remote repository.
<i>network-device-group-location</i>	Exports the network device group location information to the remote repository.
<i>downloadable-acl</i>	Exports the downloadable acls data to the remote repository.
<i>command-set</i>	Exports the command sets information to the remote repository.
<i>administrator</i>	Exports the administrator accounts to the remote repository.
<i>repository</i>	The remote repository to which to export the configuration data.
<i>filename</i>	The filename for the configuration data to be stored in the remote repository.
<i>result-filename</i>	The filename to use when downloading the results of the export process to the remote repository. By default, the ACS server concatenates a unique process ID with the <i>result-filename</i> that you provide.
<b>full</b>	Encrypts the export file using the GNU Privacy Guard (GPG) encryption mechanism and uses a remote repository to export the file securely. If you specify the security type as <b>full</b> , you must specify a repository of the type SFTP.
<i>secret-phrase</i>	A secret phrase to encrypt the export file. If you specify the security type as <b>full</b> or <b>only-sec-files</b> , you must specify the secret phrase.
<b>none</b>	Neither encrypts the import file nor uses a secured remote repository for export.
<b>only-sec-repo</b>	Uses the secured remote repository to export the file. If you specify the security type as <b>only-sec-repo</b> , you must specify a repository of the type SFTP.
<b>only-sec-file</b>	Encrypts the export file using the GPG encryption mechanism.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

When you run this command, the ACS server starts a process to export the configuration data from the local ACS node to the specified remote repository and provides you a unique process ID to track the progress of the export operation. Use the **import-export-status** command to learn the status of export operations.

If the export process violates the security constraints defined in the security type parameters (**full**, **none**, **only-sec-repo**, and **only-sec-files**), the ACS server returns a validation error similar to the following:

Repository 'ftp01' has low security level

The **export-data** command is asynchronous, which allows you to execute other CLI commands when the export operation is in progress.

### Examples

```
acs/admin(config-acs)# export-data user repository01 file01 resultfile01 full password
```

```
Export process Id is: 1
```

```
acs/admin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">export-data-message-catalog, page 156</a>	Exports the messages from the ACS message catalog to a remote repository.
<a href="#">import-data, page 157</a>	Imports configuration data from a remote repository to an ACS local store.
<a href="#">import-export-abort, page 159</a>	Aborts all or specific import or export processes.
<a href="#">import-export-status, page 161</a>	Displays the status of all or specific import or export processes.

## export-data-message-catalog

To export the log messages from the ACS message catalog to a remote repository, use the **export-data-message-catalog command** in ACS configuration mode. Only users who have read permission to the message catalog log messages in the ACS web interface can export that specific configuration data to a remote repository.

```
export-data-message-catalog root export-filename result-filename { full secret-phrase | none | only-sec-repo | only-sec-file secret-phrase }
```

### Syntax Description

<i>root</i>	The root repository to which the exported file is saved.
<i>export-filename</i>	The filename to download the configuration data and store it in the remote repository.
<i>result-filename</i>	The filename to use when downloading the results of the export process to the remote repository. By default, the ACS server concatenates a unique process ID with the <i>result-filename</i> that you provide.
<b>full</b>	Encrypts the export file using the GNU Privacy Guard (GPG) encryption mechanism and uses remote repository to export the file securely. If you specify the security type as <b>full</b> , you must specify a repository of the type SFTP.
<i>secret-phrase</i>	A secret phrase to encrypt the export file. If you specify the security type as <b>full</b> or <b>only-sec-files</b> , you must specify the secret phrase.
<b>none</b>	Neither encrypts the import file nor uses the secured remote repository for export.
<b>only-sec-repo</b>	Uses the secured remote repository to export the file. If you specify the security type as <b>only-sec-repo</b> , you must specify a repository of the type SFTP.
<b>only-sec-file</b>	Encrypts the export file using the GPG encryption mechanism.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

When you run this command, the ACS server writes the message catalog log messages in the filename specified in the command and saves it in the root repository.

### Examples

```
acs/admin(config-acs) # export-data-message-catalog root exportfile1 resultfile2 full password
acs/admin(config-acs) #
```

### Related Commands

Command	Description
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">import-data, page 157</a>	Imports configuration data from a remote repository to an ACS local store.
<a href="#">import-export-status, page 161</a>	Displays the status of all or specific import or export processes.

## import-data

To update, delete, or add an ACS configuration data to the ACS local store from the import file of the remote repository, use the command **import-data** in the ACS Configuration mode. Only users who have CRUD permissions to a specific configuration object in ACS web interface can import that particular configuration data to an ACS local store.

```
import-data { update | delete | add } { user | host | device | idgroup | ndg | dacl | cmdset } repository file-name
result-file-name { abort-on-error | cont-on-error } { full secret-phrase | none | only-sec-repo | only-sec-files
secret-phrase }
```

### Syntax Description

update	Updates the records in the ACS local store that match the records in the specified remote repository.
delete	Deletes the records in the ACS local store that match the records in the specified remote repository.
add	Adds the records that do not match the records of the import file in the remote repository to the ACS local store.
user   host   device   idgroup   ndg   dacl   cmdset	Imports the specified type of configuration data from the import file in the remote repository.
<i>repository</i>	Remote repository from which to import the configuration data.
<i>file-name</i>	Import filename in the remote repository.
<i>result-file-name</i>	Filename to use when downloading the results of the import process to the remote repository. By default, the ACS server concatenates a unique process ID with the <i>result-file-name</i> .
abort-on-error	Aborts the import operation if an error occurs during the import process.
cont-on-error	Ignores errors, if any occur, and continues the import process.
full	Encrypts the import file using the GPG encryption mechanism and uses secured remote repository to import the file. If you specify the security type as full, you must specify a repository of the type SFTP.
none	Neither encrypts the import file nor uses the secured remote repository for import.
<i>secret-phrase</i>	Provide the secret phrase to decrypt the import file. If you specify the security type as full or only-sec-files, you must specify the secret phrase.
only-sec-repo	Uses the secured remote repository to import the file. If you specify the security type as only-sec-repo, you must specify a repository of the type SFTP.
only-sec-files	Encrypts the import file using GPG encryption mechanism.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

When you run this command, the ACS server starts a process to import the ACS configuration data to the local ACS node from the specified remote repository and provides you a unique process ID to track the progress of the import operation. Use the **import-export-status** command to learn the status of import operations.

If the import process violates the security constraints defined in the security type parameters (full, none, only-sec-repo, and only-sec-files), the ACS server returns a validation error similar to the following:

```
Repository 'ftp01' has low security level
```

The **import-data** command is asynchronous, which allows you to execute other CLI commands when the import operation is in progress.

### Examples

```
acs/admin(config-acs)# import-data add user repository01 file01 resultfile01 abort-on-error full password
```

```
Import process Id is: 2  
acs/admin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">import-export-abort, page 159</a>	Aborts all or specific import or export processes.
<a href="#">import-export-status, page 161</a>	Displays the status of all or specific import or export processes.

## import-export-abort

To abort currently running, queued, or all import and export processes, use the **import-export-abort** command in the ACS Configuration mode. Only the super admin can simultaneously abort a running process and all pending import and export processes.

However, a user who owns a particular import or export process can abort that particular process by using the process ID, or by stopping the process when it is in progress.

```
import-export-abort {running | all | id id}
```

### Syntax Description

<i>running</i>	Aborts if any import or export processes is in progress.
<i>all</i>	Aborts if any import or export processes is in progress or waiting in queue to be processed.
<i>id</i>	Aborts the import or export processes with the specified ID, whether it is in progress or waiting in queue to be processed. You must specify the process ID.
<i>id</i>	To abort a specific import or export processes, specify the process ID.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin(config-acs)# import-export-abort running
```

```
Aborted process ID #5
acs/admin(config-acs)#
```

#### Example 2

```
acs/admin(config-acs)# import-export-abort running
```

```
No running processes.
acs/admin(config-acs)#
```

#### Example 3

```
acs/admin(config-acs)# import-export-abort all
```

```
Aborted process ID #20, 50 pending processes are removed.
acs/admin(config-acs)#
```

#### Example 4

```
acs/admin(config-acs)# import-export-abort id 3
```

```
Removed pending process ID #3 from queue.
acs/admin(config-acs)#
```

**Example 5**

```
acs/admin(config-acs)# import-export-abort id 201
```

```
No such process ID #201.
```

```
acs/admin(config-acs)#
```

**Related Commands**

Command	Description
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">import-data, page 157</a>	Imports configuration data from a remote repository to an ACS local store.
<a href="#">import-export-status, page 161</a>	Displays the status of all or specific import or export processes.

## import-export-status

To view the status of running import and export processes and to verify whether there are any pending processes, use the **import-export-status** command in the ACS Configuration mode. Any user, irrespective of role, can run this command.

```
import-export-status {current | all | id id}
```

### Syntax Description

<b>current</b>	Displays the status of the currently running processes.
<b>all</b>	Displays the status of all the import and export processes, including any pending processes.
<b>id</b>	Displays the status of an import or export process with the specified ID. You must specify the process ID.
<i>id</i>	To view the import or export status based on a particular process, specify the process ID.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None.

### Examples

#### Example 1

```
acs/admin(config-acs)# import-export-status current
```

```
20 out of 30 records are processed, 0 failed.[]
acs/admin(config-acs)#
```

#### Example 2

```
acs/admin(config-acs)# import-export-status id 3
```

```
Process id# 3 completed; 10 out of 10 records are processed, 0 failed.[]
acs/admin(config-acs)#
```

#### Example 3

```
acs/admin(config-acs)# import-export-status id 4
```

```
Process id# 3 is pending; its number in the pending queue is 8.
acs/admin(config-acs)#
```

#### Example 4

```
acs/admin(config-acs)# import-export-status all
```

```
Process id# is running; 10 out of 10 records are processed, 0 failed; 0 are pending.
acs/admin(config-acs)#
```

#### Example 5

```
acs/admin(config-acs)# import-export-status all
```

```
No process is running.  
acs/admin(config-acs)#
```

**Related Commands**

Command	Description
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">import-data, page 157</a>	Imports configuration data from a remote repository to an ACS local store.
<a href="#">import-export-abort, page 159</a>	Aborts all or specific import or export processes.

## no debug-adclient

To disable debug logging for an Active Directory client, use the **no debug-adclient** command in the ACS Configuration mode. Only the network-device admin can enable or disable debug logging for an Active Directory client.

```
no debug-adclient enable
```

### Syntax Description

No arguments or keywords.

### Defaults

Disabled.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None.

### Examples

```
acs/admin(config-acs)# no debug-adclient enable  
acs/admin(config-acs)#
```

### Related Commands

Command	Description
<a href="#">debug-adclient, page 149</a>	Enables debug logging for an Active Directory client.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for an Active Directory client (enabled or disabled).

## no debug-log

To return debug logging to the default configuration for all components or specific ACS components, use the **no debug-log** command in the ACS Configuration mode. Any user, irrespective of role, can run this command.

```
no debug-log { component | all } [level [debug | info | warn | error | fatal | none]]
```

### Syntax Description

<i>component</i>	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.
<b>all</b>	Selects local debug logging on all components.

### Defaults

All debug logging is disabled.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

You can select any of the following as a component:

- **runtime**—If you select this component, all other runtime subcomponents are included; see *runtime-* items in the list below:
  - runtime-admin
  - runtime-authenticators
  - runtime-authorization
  - runtime-config-manager
  - runtime-config-notification-flow
  - runtime-customerlog
  - runtime-crypto
  - runtime-dataaccess
  - runtime-dbpassword
  - runtime-eap
  - runtime-event-handler
  - runtime-idstores
  - runtime-infrastructure
  - runtime-logging
  - runtime-logging-notification-flow
  - runtime-message-bus
  - runtime-message-catalog
  - runtime-radius

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- runtime-rule-engine
- runtime-state-manager
- runtime-tacacs
- runtime-xml-config
- **mgmt (management)**—If you select this component, all other mgmt subcomponents are included; see *mgmt-* items in the list below:
  - mgmt-audit
  - mgmt-common
  - mgmt-aac
  - mgmt-bl
  - mgmt-cli
  - mgmt-gui
  - mgmt-system
  - mgmt-notification
  - mgmt-bus
  - mgmt-dbal
  - mgmt-replication
  - mgmt-distmgmt
  - mgmt-validation
  - mgmt-changepassword
  - mgmt-license
  - mgmt-acsvview

**Examples**

```
acs/admin(config-acs)# no debug-log all
```

**Related Commands**

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs support, page 26</a>	Gathers information for troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.

<b>Command</b>	<b>Description</b>
<a href="#">replication force-sync, page 167</a>	Synchronizes the secondary ACS database to the primary ACS database.
<a href="#">restore, page 69</a>	Restores from backup the file contents of a specific repository.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Shows application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## replication force-sync

To synchronize the ACS database (configuration information) of a secondary ACS with the database of the primary ACS, use the **replication force-sync** command in the ACS Configuration mode. Only the super admin or system admin can run this command on a secondary ACS node.

```
replication force-sync
```

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

You can use this command only on a secondary ACS. If you use this command on the primary ACS, this message appears:

```
Replication synchronization must be done on a SECONDARY instance.
```

This command stops the ACS application, which remains unavailable for the duration of the synchronization process. The duration of the synchronization process depends on the size of the ACS database—it could take a significant amount of time to complete. Ensure that you use this command when you do not need to access your ACS.

ACS restarts after the primary-to-secondary synchronization is complete.

### Examples

```
acs/admin(config-acs)# replication force-sync
```

Success.

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	Enables debug logging for components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.

<b>Command</b>	<b>Description</b>
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Displays application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## replication status

To check the **replication status** ACS database (configuration information), use the command replication status.

```
replication staus
```

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

You can use this command to check the replication status of the ACS database.

### Examples

```
acs205/acsadmin(config-acs)# replication_status
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.

## reset-management-interface-certificate

To reset the management interface certificate to a default self-signed certificate, use the **reset-management-interface-certificate** command in the ACS Configuration mode. Only the super admin and system admin can run this command.

```
reset-management-interface-certificate
```

### Syntax Description

No arguments or keywords.

### Defaults

None.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

run this command when you assign an invalid GUI certificate for the management interface and your login to ACS GUI is denied, or when you want to reset the existing management interface certificate to the default self-signed certificate.

When you run this command, the ACS server performs the following process:

1. For first-time management interface certificate reset:
  - a. Disconnects the association of the invalid certificate with the management interface.  
The disconnected invalid certificate remains in the database.
  - b. Creates a new self-signed certificate with the subject name *host--reset*.
  - c. Associates the new self-signed certificate with the management interface.
2. For subsequent resets (for an existing certificate with the subject name *host--reset*):
  - a. Disconnects all the associations (the management interface, external policy server, and EAP server associations from the invalid certificate).
  - b. Creates a new self-signed certificate with the subject name *host--reset*.
  - c. Associates the new self-signed certificate with the management interface and establishes the connections between the new certificate and external policy and EAP servers.

In the subject name of the certificate *host--reset*, *host* refers to the ACS server name. If the hostname is *lnx-01*, then the certificate's subject name would be *lnx-01--reset*.

### Examples

#### Example 1 - Success

```
acs/admin(config-acs) # reset-management-interface-certificate

Resetting ACS Management Interface Certificate...
Management Interface Certificate Reset Completed.
acs/admin(config-acs) #
```

#### Example 2 - Failure

```
acs/admin(config-acs) # reset-management-interface-certificate

Resetting ACS Management Interface Certificate...
Failed to Reset Management Interface Certificate.
```

ACS Configuration Commands

See the logs for more details  
acs/admin(config-acs)#

## show debug-adclient

To display the debug logging status for an Active Directory client, use the **show debug-adclient** command in the ACS Configuration mode. Any user, irrespective of role, can run this command.

```
show debug-adclient
```

### Syntax Description

No arguments or keywords.

### Defaults

Disabled.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

None.

### Examples

```
acs/admin(config-acs)# show debug-adclient  
Active Directory client debug is disabled
```

### Related Commands

Command	Description
<a href="#">debug-adclient, page 149</a>	Enables debug logging for an Active Directory client.
<a href="#">no debug-adclient, page 163</a>	Disables debug logging for an Active Directory client.
<a href="#">debug-log, page 150</a>	Defines the local debug logging level for the ACS components.
<a href="#">show debug-adclient, page 172</a>	Shows the debug log level status for subsystems (enabled or disabled).

## show debug-log

To display the local debug logging status for all components or for specific ACS components, use the **show debug-log** command in the ACS Configuration mode. Any user, irrespective of role, can run this command.

**show debug-log** [*component* | **all**]

### Syntax Description

<i>component</i>	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.
<b>all</b>	Displays the currently configured local debug logging status for all components.

### Defaults

All ACS debug logging is set to warn.

### Command Modes

ACS configuration (acs-config)

### Usage Guidelines

You can select any of the following (including the suboptions) as a component:

- runtime—If you select this component, all other runtime subcomponents are included; see *runtime-* items in the list below:
  - runtime-admin
  - runtime-authenticators
  - runtime-authorization
  - runtime-config-manager
  - runtime-config-notification-flow
  - runtime-customerlog
  - runtime-crypto
  - runtime-dataaccess
  - runtime-dbpassword
  - runtime-eap
  - runtime-event-handler
  - runtime-idstores
  - runtime-infrastructure
  - runtime-logging
  - runtime-logging-notification-flow
  - runtime-message-bus
  - runtime-message-catalog

- runtime-radius
- runtime-rule-engine
- runtime-state-manager
- runtime-tacacs
- runtime-xml-config
- **mgmt (management)**—If you select this component, all other mgmt subcomponents are included; see *mgmt-* items in the list below:
  - mgmt-audit
  - mgmt-common
  - mgmt-aac
  - mgmt-bl
  - mgmt-cli
  - mgmt-gui
  - mgmt-system
  - mgmt-notification
  - mgmt-bus
  - mgmt-dbal
  - mgmt-replication
  - mgmt-distmgmt
  - mgmt-validation
  - mgmt-changepassword
  - mgmt-license
  - mgmt-acsvview

### Examples

```
ACS/admin(config-acs)# sh debug-log mgmt
mgmt                               warn
mgmt-acsvview                       warn
```

```
ACS/admin(config-acs)# sh debug-log runtime
runtime                             warn
```

```
ACS/admin(config-acs)# sh debug-log mgmt-acsvview
mgmt-acsvview                       warn
```

### Related Commands

Command	Description
<a href="#">acs (instance), page 5</a>	Starts or stops an ACS instance.
<a href="#">acs (process), page 7</a>	Starts or stops an ACS process.
<a href="#">acs backup, page 9</a>	Performs a backup of an ACS configuration.

Command	Description
<a href="#">acs-config, page 11</a>	Enters the ACS Configuration mode.
<a href="#">acs patch, page 18</a>	Installs and removes ACS patches.
<a href="#">acs reset-config, page 19</a>	Resets the ACS configuration to factory defaults.
<a href="#">acs reset-password, page 21</a>	Resets the 'acsadmin' administrator password to the default setting.
<a href="#">acs restore, page 23</a>	Performs a restoration of an ACS configuration.
<a href="#">acs support, page 26</a>	Gathers information for ACS troubleshooting.
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">backup-logs, page 41</a>	Backs up system logs.
<a href="#">debug-log, page 150</a>	To set the local debug logging level for all or specific ACS components.
<a href="#">export-data, page 154</a>	Exports configuration data from an ACS local store to a remote repository.
<a href="#">restore, page 69</a>	Restores the file contents of a specific repository from the backup.
<a href="#">show acs-logs, page 90</a>	Displays ACS server debug logs.
<a href="#">show application, page 93</a>	Displays application status and version information.
<a href="#">show version, page 138</a>	Displays information about the software version of the system.

## Configuration Commands

Each Configuration command includes a brief description of its use, command syntax, usage guidelines, and sample output.

Configuration commands include **interface** and **repository**.

**Note:** Some of the Configuration commands require you to enter the configuration submode to complete the command configuration.

To access the Configuration mode, you must use the **configure** command in the EXEC mode.

Table 17 on page 176 lists the Configuration commands that are described in this section.

**Table 17 List of Configuration Commands**

■ <a href="#">backup interface, page 177</a>	■ <a href="#">ipv6 route, page 206</a>
■ <a href="#">backup-staging-url, page 179</a>	■ <a href="#">kron occurrence, page 207</a>
■ <a href="#">cdp holdtime, page 180</a>	■ <a href="#">kron policy-list, page 209</a>
■ <a href="#">cdp run, page 181</a>	■ <a href="#">logging, page 210</a>
■ <a href="#">cdp timer, page 182</a>	■ <a href="#">max-ssh, page 211</a>
■ <a href="#">clock timezone, page 183</a>	■ <a href="#">ntp, page 212</a>
■ <a href="#">conn-limit, page 185</a>	■ <a href="#">ntp authenticate, page 213</a>
■ <a href="#">do, page 186</a>	■ <a href="#">ntp authentication-key, page 214</a>
■ <a href="#">end, page 189</a>	■ <a href="#">ntp server, page 216</a>
■ <a href="#">exit, page 190</a>	■ <a href="#">ntp trusted-key, page 219</a>
■ <a href="#">hostname, page 191</a>	■ <a href="#">password-policy, page 220</a>
■ <a href="#">icmp echo, page 192</a>	■ <a href="#">rate-limit, page 221</a>
■ <a href="#">interface, page 193</a>	■ <a href="#">repository, page 222</a>
■ <a href="#">ip address, page 195</a>	■ <a href="#">service, page 224</a>
■ <a href="#">ipv6 address, page 196</a>	■ <a href="#">snmp-server community, page 225</a>
■ <a href="#">ipv6 address autoconfig, page 197</a>	■ <a href="#">snmp-server contact, page 226</a>
■ <a href="#">ip default-gateway, page 198</a>	■ <a href="#">snmp-server host, page 227</a>
■ <a href="#">ip domain-name, page 199</a>	■ <a href="#">snmp-server location, page 228</a>
■ <a href="#">ip domain round-robin, page 200</a>	■ <a href="#">snmp-server trap dskThresholdLimit, page 229</a>
■ <a href="#">ip domain timeout, page 201</a>	■ <a href="#">synflood-limit, page 230</a>
■ <a href="#">ip name-server, page 202</a>	■ <a href="#">tcp, page 231</a>
■ <a href="#">ip route, page 203</a>	■ <a href="#">username, page 233</a>
■ <a href="#">ipv6 enable, page 204</a>	

## backup interface

To configure interface bonding, use the **backup interface** command in interface configuration mode. To remove the interface bonding, use the **no** form of this command.

```
backup interface GigabitEthernet ethernet-port-number
no backup interface GigabitEthernet ethernet-port-number
```

### Syntax Description

GigabitEthernet	Configures the Gigabit Ethernet interface.
<b>ethernet-port-number</b>	Number of the Gigabit Ethernet port to configure. The valid options are 0, 1, 2, 3, 4, and 5.

### Defaults

No default behavior or values.

### Command Modes

Interface Configuration (config-GigabitEthernet)

### Usage Guidelines

Use this command in interface configuration mode to create interface bondings.

### Examples

#### Example 1 (Configuring Bond 0)

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# no shutdown
acs/admin(config-GigabitEthernet)# backup interface GigabitEthernet 1
WARN: IP address of interface eth1 will be removed once NIC bonding is enabled.
Configuring backup interface may result in undesired side effects on any installed
application(s).
Are you sure you want to proceed? Y/N [N]:y
Shutting down ntpd: [ OK ]
ntpd: Synchronizing with time server: [ OK ]
Starting ntpd: [ OK ]
Bonding Interface was modified.
ACS is restarting and a new HTTP certificate will be generated.
Stopping ACS.
Stopping Management and View.....
acs/admin(config-GigabitEthernet)# exit
acs/admin(config)# exit
acs/admin#
```

#### Example 2 (Configuring Bond 1)

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 2
acs/admin(config-GigabitEthernet)# no shutdown
acs/admin(config-GigabitEthernet)# backup interface GigabitEthernet 3
WARN: IP address of interface eth1 will be removed once NIC bonding is enabled.
Configuring backup interface may result in undesired side effects on any installed
application(s).
Are you sure you want to proceed? Y/N [N]:y
Shutting down ntpd: [ OK ]
ntpd: Synchronizing with time server: [ OK ]
Starting ntpd: [ OK ]
```

## Configuration Commands

```

Bonding Interface was modified.
ACS is restarting and a new HTTP certificate will be generated.
Stopping ACS.
Stopping Management and View.....
acs/admin(config-GigabitEthernet)# exit
acs/admin(config)# exit
acs/admin#

```

**Example 4 (Removing Bond 1)**

```

acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 2
acs/admin(config-GigabitEthernet)# no backup interface GigabitEthernet 3
Removing backup interface configuration may result in undesired side effects on any
installed application(s).
Are you sure you want to proceed? Y/N [N]:y
Shutting down ntpd: [ OK ]
ntpd: Synchronizing with time server: [ OK ]
Starting ntpd: [ OK ]
Bonding Interface was modified.
ACS is restarting and a new HTTP certificate will be generated.
ACS is not running.
To start ACS type 'application start acs'.
Starting ACS .....
To verify that ACS processes are running, use the
'show application status acs' command.
acs/admin(config-GigabitEthernet)# exit
acs/admin(config)# exit
acs/admin#

```

**Related Commands**

Command	Description
<a href="#">show interface, page 108</a>	Displays information about the system interfaces.
<a href="#">ip address, page 195</a> (interface configuration mode)	Sets the IP address and netmask for the interface.
<a href="#">shutdown, page 74</a> (interface configuration mode)	Shuts down the interface.

## backup-staging-url

To allow you to configure a Network File System (NFS), the backup or restore operations use the NFS as a staging area to package or unpackage backup files, use the **backup-staging-url** command in Configuration mode.

```
backup-staging-url word
```

### Syntax Description

<i>word</i>	NFS URL for staging area. This can be a maximum of 2048 alphanumeric characters. Use <b>nfs://server:path</b> <sup>1</sup> .
-------------	--

1. Server is the server name and path refers to /subdir/subsubdir. Remember that a colon (:) is required after the server.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

The URL is NFS only. The format of the command is **backup-staging-url nfs://server:path**.

**Note:** You cannot back up any data when the staging server is down. When the staging server is down, you cannot perform backup and restore operations using any of the configured repositories as they use the same staging server to create the backup file. You have to bring the staging server up or delete the backup staging URL so that the repositories work properly. The backup.tar.gpg file is created under /opt during backup operation when the NFS staging URL is not configured. So, before deleting the backup staging URL, you need to make sure that you have enough space in the /opt location. The backup operation will fail if ACS does not have enough space in /opt location.

**Note:** You must provide full permission to NFS directory when you configure the NFS location using the **backup-staging-url** command in ACS 5.8 to perform a successful On Demand Backup:

```
chmod -R 777 nfs-directory-name
```

**Warning:** Ensure that you secure your NFS server in such a way that the directory can be accessed only by the IP address of the ACS server.

### Examples

```
acs/admin(config)# backup-staging-url nfs://loc-filer02a:/vol/local1/private1/jdoe
acs/admin(config)#
```

## cdp holdtime

To specify the amount of time for which the receiving device should hold a CDP packet from the ACS server before discarding it, use the **cdp holdtime** command in the Configuration mode. To revert to the default setting, use the **no** form of this command.

```
cdp holdtime seconds
```

### Syntax Description

<i>seconds</i>	Specifies the hold time, in seconds. Value from 10 to 255 seconds.
----------------	--

### Defaults

180 seconds

### Command Modes

Configuration

### Usage Guidelines

CDP packets transmit with a time to live, or hold time, value. The receiving device will discard the CDP information in the CDP packet after the hold time has elapsed.

The **cdp holdtime** command takes only one argument; otherwise, an error occurs.

### Examples

```
acs/admin(config)# cdp holdtime 60  
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">cdp timer, page 182</a>	Specifies how often the ACS server sends CDP updates.
<a href="#">cdp run, page 181</a>	Enables the CDP.

## cdp run

To enable the CDP, use the **cdp run** command in Configuration mode. To disable the CDP, use the **no** form of this command.

```
cdp run [GigabitEthernet]
```

### Syntax Description

GigabitEthernet	Specifies the GigabitEthernet interface on which to enable CDP.
-----------------	---

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

The command has one optional argument, an interface name. Without an optional interface name, the command enables CDP on all interfaces.

**Note:** The default for this command is on interfaces that are already up and running. When you are bringing up an interface, stop CDP first; then, start CDP again.

### Examples

```
acs/admin(config)# cdp run GigabitEthernet 0  
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">cdp holdtime, page 180</a>	Specifies the length of time that the receiving device should hold a CDP packet from the ACS server before discarding it.
<a href="#">cdp timer, page 182</a>	Specifies how often the ACS server sends CDP updates.

## cdp timer

To specify how often the ACS server sends Cisco Discovery Protocol (CDP) updates, use the **cdp timer** command in Configuration mode. To revert to the default setting, use the **no** form of this command.

```
cdp timer seconds
```

### Syntax Description

<i>seconds</i>	Specifies how often, in seconds, the ACS server sends CDP updates. Value from 5 to 254 seconds.
----------------	---

### Defaults

60 seconds

### Command Modes

Configuration

### Usage Guidelines

CDP packets transmit with a time to live, or hold time, value. The receiving device will discard the CDP information in the CDP packet after the hold time has elapsed.

The **cdp timer** command takes only one argument; otherwise, an error occurs.

### Examples

```
acs/admin(config)# cdp timer 60
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">cdp holdtime, page 180</a>	Specifies the amount of time that the receiving device should hold a CDP packet from the ACS server before discarding it.
<a href="#">cdp run, page 181</a>	Enables CDP.

## clock timezone

To set the time zone, use the **clock timezone** command in Configuration mode. To disable this function, use the **no** form of this command.

```
clock timezone timezone
```

### Syntax Description

<i>timezone</i>	Name of the time zone visible when in standard time. This can be a maximum of 64 alphanumeric characters.
-----------------	---

### Defaults

UTC

### Command Modes

Configuration

### Usage Guidelines

The system internally keeps time in UTC. If you do not know your specific time zone, you can enter the region, country, and city (see Tables [Table 18 on page 183](#), [Table 19 on page 184](#), and [Table 20 on page 184](#) for sample time zones to enter on your system).

**Table 18 Common Time Zones**

Acronym or name	Time Zone Name
Europe	
GMT, GMT0, GMT-0, GMT+0, UTC, Greenwich, Universal, Zulu	Greenwich Mean Time, as UTC
GB	British
GB-Eire, Eire	Irish
WET	Western Europe Time, as UTC
CET	Central Europe Time, as UTC + 1 hour
EET	Eastern Europe Time, as UTC + 2 hours
United States and Canada	
EST, EST5EDT	Eastern Standard Time, as UTC -5 hours
CST, CST6CDT	Central Standard Time, as UTC -6 hours
MST, MST7MDT	Mountain Standard Time, as UTC -7 hours
PST, PST8PDT	Pacific Standard Time, as UTC -8 hours
HST	Hawaiian Standard Time, as UTC -10 hours

**Table 19 Australia Time Zones**

Australia <sup>1</sup>			
ACT <sup>2</sup>	Adelaide	Brisbane	Broken_Hill
Canberra	Currie	Darwin	Hobart
Lord_Howe	Lindeman	LHI <sup>3</sup>	Melbourne
North	NSW <sup>4</sup>	Perth	Queensland
South	Sydney	Tasmania	Victoria
West	Yancowinna		

1. Enter the country and city together with a forward slash (/) between them; for example, Australia/Currie.
2. ACT = Australian Capital Territory.
3. LHI = Lord Howe Island
4. NSW = New South Wales

**Table 20 Asia Time Zones**

Asia <sup>1</sup>			
Aden <sup>2</sup>	Almaty	Amman	Anadyr
Aqtau	Aqtobe	Ashgabat	Ashkhabad
Baghdad	Bahrain	Baku	Bangkok
Beirut	Bishkek	Brunei	Calcutta
Choibalsan	Chongqing	Columbo	Damascus
Dhakar	Dili	Dubai	Dushanbe
Gaza	Harbin	Hong_Kong	Hovd
Irkutsk	Istanbul	Jakarta	Jayapura
Jerusalem	Kabul	Kamchatka	Karachi
Kashgar	Katmandu	Kuala_Lumpur	Kuching
Kuwait	Krasnoyarsk		

1. The Asia time zone includes cities from East Asia, Southern Southeast Asia, West Asia, and Central Asia.
2. Enter the region and city or country together separated by a forward slash (/); for example, Asia/Aden.

**Note:** Several more time zones are available to you. On your ACS server, enter **show timezones**. A list of all the time zones available in the ACS server appears. Choose the most appropriate one for your time zone.

### Examples

```
acs/admin(config)# clock timezone EST
Time zone was modified. You must restart ACS.
Do you want to restart ACS now? (yes/no)
Stopping ACS .....
Starting ACS .....
acs/admin(config)# exit
acs/admin# show timezone
EST
acs/admin#
```

### Related Commands

Command	Description
<a href="#">show timezones, page 133</a>	Displays a list of available time zones on the system.
<a href="#">show timezone, page 132</a>	Displays the current time zone set on the system.

## conn-limit

To configure the limit of incoming TCP connections from a source IP address, use the **conn-limit** command in configuration mode. To remove this function, use the **no** form of this command.

**conn-limit** *number-of-connections* **ip** *ip-address* **mask** *mask* **port** *port-number*

### Syntax Description

<i>number-of-connections</i>	Number of TCP connections
<i>ip-address</i>	(Optional). Source IP address to which to apply the TCP connection limit.
<i>mask</i>	(Optional). Source IP mask to which to apply the TCP connection limit.
<i>port-number</i>	(Optional). Destination port number to which to apply the TCP connection limit.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

Use a greater value for the number of TCP connections when you execute the **conn-limit** command. You might experience performance issues when you have fewer TCP connections.

**Note:** If you set **conn-limit** for all the protocols, it affects the management to management communication. This will affect the distributed deployment connection.

### Examples

```
acs/admin(config)# conn-limit 25000 ip 192.0.2.24 port 22
```

### Related Commands

Command	Description
<a href="#">rate-limit, page 221</a>	Configures a limit for TCP/UDP/ICMP packets from a source IP.
<a href="#">synflood-limit, page 230</a>	Configures a limit to TCP SYN packets from a source IP.

## do

To execute an EXEC-level command from Configuration mode or any configuration submode, use the **do** command in any configuration mode.

**do** *arguments*

## Syntax Description

<i>arguments</i>	The EXEC command to execute (see <a href="#">Table 22 on page 222</a> ).
------------------	--

**Table 21 Command Options for Do Command**

Command	Description
<b>acs backup</b>	Performs a backup of an ACS configuration.
<b>acs-config</b>	Enters the ACS Configuration mode.
<b>acs config-web-interface</b>	Enables or disables an interface for ACS configuration web.
<b>acs patch</b>	Installs and removes ACS patches.
<b>acs reset-config</b>	Resets the ACS configuration to factory defaults.
<b>acs reset-password</b>	Resets the 'acsadmin' administrator password to the default setting.
<b>acs restore</b>	Performs a restoration of an ACS configuration.
<b>acs start</b>	Starts an ACS instance.
<b>acs stop</b>	Stops an ACS instance.
<b>acs support</b>	Gathers information for ACS troubleshooting.
<b>application install</b>	Installs a specific application.
<b>application remove</b>	Removes a specific application.
<b>application start</b>	Starts or enables a specific application
<b>application stop</b>	Stops or disables a specific application.
<b>application upgrade</b>	Upgrades a specific application.
<b>backup</b>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<b>backup-logs</b>	Performs a backup of all the logs on the ACS server to a remote location.
<b>clock</b>	Sets the system clock on the ACS server.
<b>configure</b>	Enters Configuration mode.
<b>copy</b>	Copies any file from a source to a destination.
<b>debug</b>	Displays any errors or events for various command situations; for example, backup and restore, configuration, copy, resource locking, file transfer, and user management.
<b>delete</b>	Deletes a file on the ACS server.
<b>dir</b>	Lists files on the ACS server.
<b>forceout</b>	Forces the logout of all the sessions of a specific ACS node user.
<b>halt</b>	Disables or shuts down the ACS server.
<b>help</b>	Describes the help utility and how to use it on the ACS server.
<b>mkdir</b>	Creates a new directory.
<b>nslookup</b>	Queries the IPv4 address or hostname of a remote system.

**Table 21 Command Options for Do Command (continued)**

Command	Description
<b>ping</b>	Determines the network activity on a remote system.
<b>reload</b>	Reboots the ACS server.
<b>restore</b>	Performs a restore and retrieves the backup out of a repository.
<b>rmdir</b>	Removes an existing directory.
<b>show</b>	Provides information about the ACS server.
<b>ssh</b>	Starts an encrypted session with a remote system.
<b>tech</b>	Provides Technical Assistance Center (TAC) commands.
<b>telnet</b>	Telnets to a remote system.
<b>terminal length</b>	Sets terminal line parameters.
<b>terminal session-timeout</b>	Sets the inactivity timeout for all terminal sessions.
<b>terminal session-welcome</b>	Sets the welcome message on the system for all terminal sessions.
<b>terminal terminal-type</b>	Specifies the type of terminal connected to the current line of the current session.
<b>traceroute</b>	Traces the route of a remote IP address.
<b>undebug</b>	Disables the output (display of errors or events) of the <b>debug</b> command for various command situations; for example, backup and restore, configuration, copy, resource locking, file transfer, and user management.
<b>write</b>	Copies, displays, or erases the running ACS server information.

**Command Defaults**

No default behavior or values.

**Command Modes**

Configuration or any configuration submode

**Usage Guidelines**

Use this command to execute EXEC commands (such as **show**, **clear**, and **debug** commands) while configuring your server. After the EXEC command executes, the system will return to the configuration mode you were using.

**Examples**

```
acs/admin(config)# do show run
Generating configuration...
!
hostname ems-lnx106
ip domain-name cisco.com
interface ethernet 0
 ip address 209.165.200.225 255.255.255.224
interface ethernet 1
 shutdown
ip name-server 209.165.201.1
ip default-gateway 209.165.202.129
clock timezone Cuba
!
!
username admin password hash $1$hB$MxIZHvecMiey/P9mM9PvN0 role admin
!
!
```

Configuration Commands

```
logging localhost
logging loglevel 6
!
acs/admin(config)#
```

## end

To end the current configuration session and return to the EXEC mode, use the **end** command in Configuration mode.

**end**

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

This command brings you back to EXEC mode regardless of what configuration mode or submode you are in.

Use this command when you finish configuring the system and you want to return to EXEC mode to perform verification steps.

### Examples

```
acs/admin(config)# end  
acs/admin#
```

### Related Commands

Command	Description
<a href="#">exit, page 190</a>	Exits Configuration mode.
<a href="#">exit, page 58</a> (EXEC)	Closes the active terminal session by logging out of the ACS server.

## exit

To exit any configuration mode to the next-highest mode in the CLI mode hierarchy, use the **exit** command in Configuration mode.

**exit**

### Syntax Description

No arguments or keywords.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

The **exit** command is used in the ACS server to exit the current command mode to the next highest command mode in the CLI mode hierarchy.

For example, use the **exit** command in Configuration mode to return to the EXEC mode. Use the **exit** command in the configuration submodes to return to Configuration mode. At the highest level, EXEC mode, the **exit** command exits the EXEC mode and disconnects from the ACS server (see [exit, page 58](#) for a description of the **exit** [EXEC] command).

### Examples

```
acs/admin(config)# exit  
acs/admin#
```

### Related Commands

Command	Description
<a href="#">end, page 189</a>	Exits Configuration mode.
<a href="#">exit, page 58</a> (EXEC)	Closes the active terminal session by logging out of the ACS server.

## hostname

To set the hostname of the system, use the **hostname** command in Configuration mode. To delete the hostname from the system, use the **no** form of this command. This resets the system to localhost.

**hostname** *word*

### Syntax Description

<i>word</i>	Name of the host. Contains at least 2 to 19 alphanumeric characters and an underscore ( _ ). The hostname must begin with a character that is not a space.
-------------	--

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

A single instance type of command, **hostname** only occurs once in the configuration of the system. The hostname must contain one argument; otherwise, an error occurs.

### Examples

```
acs/admin(config)# hostname myserver-1
Hostname was modified.
ACS is restarting and a new HTTP certificate will be generated.
Stopping ACS .....
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
myserver-1/admin(config)#
```

## icmp echo

To configure the Internet Control Message Protocol (ICMP) echo responses, use the **icmp echo** command in Configuration mode.

```
icmp echo {off | on}
```

### Syntax Description

echo	Configures ICMP echo response.
off	Disables ICMP echo response
on	Enables ICMP echo response.

### Defaults

The system will behave as if the ICMP echo response is on (enabled).

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# icmp echo off
```

### Related Commands

Command	Description
<a href="#">show icmp_status, page 106</a>	Display ICMP echo response configuration information.

## interface

To configure an interface type and enter the interface configuration mode, use the **interface** command in configuration mode. This command does not have a **no** form.

```
interface GigabitEthernet ethernet-port-number
```

### Syntax Description

GigabitEthernet	Configures the GigabitEthernet interface.
<b>ethernet-port-number</b>	Number of the GigabitEthernet port to configure. The valid options are 0, 1, 2, 3, 4, and 5.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

You can use this command to configure subinterfaces to support various requirements.

**Note:** After you enter the Gigabit Ethernet port number in the **interface** command, you enter Gigabit Ethernet configuration submode (see the following Syntax Description).

do	EXEC command. Allows you to perform any EXEC commands in this mode (see <a href="#">do</a> , page 186).
end	Exits the Gigabit Ethernet configuration submode and returns you to the EXEC mode.
exit	Exits the Gigabit Ethernet configuration submode.
ip	Sets the IP address and netmask for the Ethernet interface (see <a href="#">ip address</a> , page 195).
no	Negates the command in this mode. Two keywords are available: <ul style="list-style-type: none"> <li>■ <b>ip</b>—Sets the IP address and netmask for the interface.</li> <li>■ <b>shutdown</b>—Shuts down the interface.</li> </ul>
shutdown	Shuts down the interface (see <a href="#">shutdown</a> , page 74).

### Examples

#### Example 1

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)#
```

**Related Commands**

Command	Description
<a href="#">show interface, page 108</a>	Displays information about the system interfaces.
<a href="#">ip address, page 195</a> (interface configuration mode)	Sets the IP address and netmask for the interface.
<a href="#">shutdown, page 74</a> (interface configuration mode)	Shuts down the interface (see <a href="#">shutdown, page 74</a> ).

## ip address

To set the IP address and netmask for the Ethernet interface, use the **ip address** command in interface Configuration mode. To remove an IP address or disable IP processing, use the **no** form of this command.

```
ip address ip-address netmask
```

**Note:** You can configure the same IP address on multiple interfaces. You might want to do this to limit the configuration steps required to switch from using one interface to another.

### Syntax Description

<i>ip-address</i>	IPv4 or IPv6 version IP address.
<i>netmask</i>	Mask of the associated IP subnet.

### Defaults

Enabled.

### Command Modes

Interface configuration (config-GigabitEthernet)

### Usage Guidelines

Requires exactly one address and one netmask; otherwise, an error occurs.

### Examples

```
acs/admin(config)# interface GigabitEthernet 1
acs/admin(config-GigabitEthernet)# ip address 209.165.200.227 255.255.255.224
IP Address was modified.
ACS is restarting and a new HTTP certificate will be generated.
Stopping ACS .....
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
acs/admin(config-GigabitEthernet)#
```

### Related Commands

Command	Description
<a href="#">shutdown, page 74</a> (interface configuration mode)	Disables an interface.
<a href="#">ip default-gateway, page 198</a>	Sets the IP address of the default gateway of an interface.
<a href="#">show interface, page 108</a>	Displays information about the system IP interfaces.
<a href="#">interface, page 193</a>	Configures an interface type and enters the interface mode.

## ipv6 address

To set the IPv6 address and prefix length for the Ethernet interface, use the `ipv6 address` command in interface Configuration mode. To remove an IPv6 address or disable IPv6 processing, use the `no` form of this command.

```
ipv6 address ip-address/prefix
```

**Note:** You can configure the same IPv6 address on multiple interfaces. You might want to do this to limit the configuration steps required to switch from using one interface to another.

### Syntax Description

<i>ip-address</i>	IPv6 version IP address.
<i>prefix</i>	Prefix of ipv6 address.

### Defaults

Enabled.

### Command Modes

Interface configuration (config-GigabitEthernet)

### Usage Guidelines

Requires exactly one address and one prefix; otherwise, an error occurs.

### Examples

```
ACS154/admin# configure
Enter configuration commands, one per line. End with CNTL/Z.
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# ipv6 address 1901::20c:29ff:feb8:e4c/64
Changing the IPV6 address may result in undesired side effects on
any installed application(s).
Are you sure you want to proceed? Y/N [N]: Y
Shutting down ntpd: [ OK ]
ntpd: Synchronizing with time server: [ OK ]
Starting ntpd: [ OK ]
IP Address was modified.
ACS is restarting and a new HTTP certificate will be generated.
Stopping ACS.
Stopping Management and View.....
Stopping Runtime.....
Stopping Database.....
Stopping Ntpd.....
Cleanup..
Starting ACS ....
```

To verify that ACS processes are running, use the `'show application status acs'` command.

```
acs/admin(config-GigabitEthernet)
```

### Related Commands

Command	Description
<a href="#">shutdown, page 74</a> (interface configuration mode)	Disables an interface (see <a href="#">shutdown, page 74</a> ).
<a href="#">ip default-gateway, page 198</a>	Sets the IP address of the default gateway of an interface.
<a href="#">show interface, page 108</a>	Displays information about the system IP interfaces.
<a href="#">interface, page 193</a>	Configures an interface type and enters the interface mode.

## ipv6 address autoconfig

To enable IPv6 stateless autoconfiguration, use the **ipv6 address autoconfig** command in interface configuration mode. This command does not have a **no** form.

### **ipv6 address autoconfig**

#### Syntax Description

No arguments or keywords.

#### Defaults

IPv6 address autoconfiguration is enabled by default in Linux.

#### Command Modes

Interface configuration (config-GigabitEthernet)

#### Usage Guidelines

IPv6 address autoconfiguration is enabled by default in Linux. Cisco ADE 2.0 shows the IPv6 address autoconfiguration in the running configuration for any interface that is enabled.

**Note:** In a setup like full autoconfiguration IPv6, it takes time to load the static IPv6 routes to running configuration after reload. Workaround for this is to re-configure static route after the server is assigned with auto config IPv6 address.

#### Examples

```
acs/admin# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# ipv6 address autoconfig
acs/admin(config-GigabitEthernet)# end
acs/admin#
```

#### Related Commands

Command	Description
<a href="#">ip address, page 195</a> (interface configuration mode)	Sets the IP address and netmask for the Ethernet interface.

## ip default-gateway

To define or set a default gateway with an IP address, use the **ip default-gateway** command in Configuration mode. To disable this function, use the **no** form of this command.

```
ip default-gateway ip-address
```

### Syntax Description

<i>ip-address</i>	IP address of the default gateway.
-------------------	------------------------------------

### Defaults

Disabled.

### Command Modes

Configuration

### Usage Guidelines

If you enter more than one argument or no arguments at all, an error occurs.

### Examples

```
acs/admin(config)# ip default-gateway 209.165.202.129  
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">ip address, page 195</a> (interface configuration mode)	Sets the IP address and netmask for the Ethernet interface.

## ip domain-name

To define a default domain name that the ACS server uses to complete hostnames, use the **ip domain-name** command in Configuration mode. To disable this function, use the **no** form of this command.

```
ip domain-name word
```

### Syntax Description

<i>word</i>	Default domain name used to complete the hostnames. Contains at least 2 to 64 alphanumeric characters.
-------------	--

### Defaults

Enabled.

### Command Modes

Configuration

### Usage Guidelines

If you enter more or fewer arguments, an error occurs.

### Examples

```
acs/admin(config)# ip domain-name cisco.com  
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">ip name-server, page 202</a>	Sets the DNS servers for use during a DNS query.

## ip domain round-robin

To set RES\_ROTATE in “\_res.options”, which performs the round robin selection of the name servers from the available list of name servers, use the **ip domain round-robin** command in Configuration mode. This command distributes the incoming queries among all the available servers, rather than communicating the first available server in the list every time. To disable this function, use the **no** form of this command

```
ip domain round-robin
```

### Defaults

Disabled

### Command Modes

Configuration

### Usage Guidelines

The **ip domain round-robin** does not require any arguments.

### Examples

```
acs/admin(config)# ip domain round-robin
Name Server Options was modified. You must restart ACS.
Do you want to restart ACS now? (yes/no)
```

### Related Commands

Command	Description
<a href="#">ip domain timeout, page 201</a>	Defines a default amount of time the resolver will wait for a response from a remote name server

## ip domain timeout

To define a default amount of time the resolver will wait for a response from a remote name server before retrying the query via a different name server, use the **ip domain timeout** in Configuration mode. To disable this function, use the **no** form of this command.

```
ip domain timeout seconds
```

### Syntax Description

<i>Seconds</i>	Specifies amount of time the resolver will wait for response before retrying the query via a different name server. The valid values are 1 to 10 seconds.
----------------	---

### Defaults

5 seconds

### Command Modes

Configuration

### Usage Guidelines

The **ip domain timeout** command execute only one argument at a time. If you enter multiple arguments, then the command displays an error.

### Examples

```
acs/admin(config)# ip domain timeout 1
Name Server Options was modified. You must restart ACS.
Do you want to restart ACS now? (yes/no)
```

### Related Commands

Command	Description
<a href="#">ip domain-name, page 199</a>	Defines a default domain name that an ACS server uses to complete hostnames.

## ip name-server

To set the Domain Name Server (DNS) servers for use during a DNS query, use the **ip name-server** command in Configuration mode. You can configure one to three DNS servers. To disable this function, use the **no** form of this command.

**Note:** Using the **no** form of this command removes all the name servers from the configuration. Using the **no** form of this command and one of the IP names removes only that IP name.

```
ip name-server ip-address [ip-address*]
```

### Syntax Description

<i>ip-address</i>	Address of a name server.
<i>ip-address*</i>	(Optional) IP addresses of additional name servers.  <b>Note:</b> You can configure a maximum of three name servers.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

The first name server added with the **ip name-server** command will occupy the first position and the system will first use that server in resolving the IP addresses.

You can add name servers to the system one at a time or all at once, until you reach the maximum (3). If you already configured the system with three name servers, you must remove at least one server to add additional name servers.

To place a name server in the first position so that the subsystem uses it first, you must remove all name servers with the **no** form of this command before you proceed.

### Examples

```
acs/admin(config)# ip name-server 209.165.201.1
Name Server was modified. You must restart ACS.
Do you want to restart ACS now? (yes/no) yes
Stopping ACS .....
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
acs/admin(config)#
```

You can choose not to restart the ACS server; nevertheless, the changes will take effect.

### Related Commands

Command	Description
<a href="#">ip route, page 203</a>	Configures the static routes.

## ip route

To configure the static routes, use the **ip route** command in Configuration mode. To remove static routes, use the **no** form of this command.

```
ip route prefix mask gateway ip-address
```

```
no ip route prefix mask
```

### Syntax Description

<i>prefix</i>	IP route prefix for the destination.
<i>mask</i>	Prefix mask for the destination.
<i>ip-address</i>	IP address of the next hop that can be used to reach that network.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

Static routes are manually configured. This makes them inflexible (they cannot dynamically adapt to network topology changes) but extremely stable. Static routes optimize bandwidth utilization, because no routing updates need to be sent to maintain them. They also make it easy to enforce routing policy.

### Examples

```
acs/admin(config)# ip route 192.168.0.0 255.255.0.0 gateway 172.23.90.2
```

## ipv6 enable

To enable IPv6 usage in ACS, use **ipv6 enable** command in configuration mode. To disable ipv6 stack, use the **no** form of this command.

**ipv6 enable**

**no ipv6 enable**

### Syntax Description

None

### Defaults

The IPv6 stack is enabled for all interfaces.

### Command Modes

Configuration.

### Usage Guidelines

By default, ipv6 stack is enabled on all interfaces. ACS allows you to disable the IPv6 stack globally or for a specific interface using the **no ipv6 enable** command.

To enable the IPv6 stack globally, use the **ipv6 enable** command in configuration mode. If you would like to enable the IPv6 stack for a specific interface, use the **ipv6 enable** command in interface configuration mode.

To disable the IPv6 stack globally, use **no ipv6 enable** command in configuration mode. If you would like to disable the IPv6 stack for a specific interface, use the **no ipv6 enable** command in interface configuration mode.

When you disable IPv6 globally, you cannot enable it for a specific interface. Conversely, when you enable IPv6 globally, you can disable it for a specific interface.

When you disable IPv6, ACS allows IPv6 static address configuration and the same is displayed in the running configuration. However, it will not be used.

### Examples

#### Example 1

```
acs/admin# configure terminal
acs/admin(config)# ipv6 enable
acs/admin(config)# exit
acs/admin#
```

#### Example 2

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# ipv6 enable
acs/admin(config-GigabitEthernet)# exit
acs/admin(config)# exit
acs/admin#
```

#### Example 3

```
acs/admin# configure terminal
acs/admin(config)# no ipv6 enable
acs/admin(config)# exit
acs/admin#
```

**Example 4**

```
acs/admin# configure terminal
acs/admin(config)# interface GigabitEthernet 0
acs/admin(config-GigabitEthernet)# no ipv6 enable
acs/admin(config-GigabitEthernet)# end
acs/admin#
```

**Related Commands**

Command	Description
<a href="#">ipv6 route, page 206</a>	Configures static IPv6 routes.

## ipv6 route

To configure the static IPv6 routes, use the **ipv6 route** command in Configuration mode. To remove static routes, use the **no** form of this command.

The **ipv6 route** command is meant for adding only the IPv6 default gateway. ACS acts as end host, hence, adding multiple static routes is not supported

```
ipv6 route prefix mask gateway ip-address
```

```
no ipv6 route prefix mask
```

### Syntax Description

<i>prefix</i>	IPv6 route prefix for the destination.
<i>mask</i>	Prefix mask for the destination.
<i>ip-address</i>	IPv6 address of the next hop that can be used to reach that network.

### Defaults

No default behavior or values.

### Command Modes

Configuration.

### Examples

```
acs/admin(config)# ipv6 route 2001::/64 gateway 2001::212:44ff:fe30:bc0a
```

```
acs/admin(config)#
```

## kron occurrence

To schedule one or more Command Scheduler commands to run at a specific date and time or a recurring level, use the **kron occurrence** command in Configuration mode. To delete this, use the **no** form of this command.

**kron {occurrence} occurrence-name**

### Syntax Description

occurrence	Schedules Command Scheduler commands.
occurrence-name	Name of the occurrence. This can be a maximum of 80 alphanumeric characters. (See following note and Syntax Description.)

**Note:** After you enter the *occurrence-name* in the **kron occurrence** command, you enter the config-occurrence configuration submode (see the following Syntax Description).

at	Identifies that the occurrence is to run at a specified calendar date and time. Usage: at [hh:mm] [day-of-week   day-of-month   month day-of-month].
do	EXEC command. Allows you to perform any EXEC commands in this mode (see <a href="#">do</a> , <a href="#">page 186</a> ).
end	Exits the kron-occurrence configuration submode and returns you to the EXEC mode.
exit	Exits the kron-occurrence configuration mode.
no	Negates the command in this mode.  Three keywords available: <ul style="list-style-type: none"> <li>■ at—Usage: at [hh:mm] [day-of-week   day-of-month   month day-of-month].</li> <li>■ policy-list—Specifies a policy list to be run by the occurrence. This can be a maximum of 80 alphanumeric characters.</li> <li>■ recurring—Execution of the policy lists should be repeated.</li> </ul>
policy-list	Specifies a Command Scheduler policy list to be run by the occurrence.
recurring	Identifies that the occurrences run on a recurring basis.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

Use the **kron occurrence** and **policy-list** commands to schedule one or more policy lists to run at the same time or interval.

Use the **kron policy-list** command in conjunction with the **cli** command to create a Command Scheduler policy containing EXEC CLI commands to be scheduled to run on the ACS server at a specified time. See [kron policy-list](#), [page 209](#).

## Examples

**Note:** When you run the **kron** command, support bundles are downloaded with a unique name (by adding a time stamp), to ensure that the files do not overwrite each other.

```
acs/admin(config)# kron occurrence daily_occurrence  
acs/admin(config-Occurrence)# at 14:35  
acs/admin(config-Occurrence)# policy-list daily_support  
acs/admin(config-Occurrence)# recurring  
acs/admin(config-Occurrence)# exit  
acs/admin(config)#
```

## Related Commands

Command	Description
<a href="#">kron policy-list, page 209</a>	Specifies a name for a Command Scheduler policy.
<a href="#">acs backup, page 9</a>	Backs up an ACS configuration.

## kron policy-list

To specify a name for a Command Scheduler policy and enter the kron-Policy List configuration submode, use the **kron policy-list** command in Configuration mode. To delete this, use the **no** form of this command.

**kron {policy-list} list-name**

### Syntax Description

policy-list	Specifies a name for Command Scheduler policies.
list-name	Name of the policy list. This can be a maximum of 80 alphanumeric characters.

**Note:** After you enter the *list-name* in the **kron policy-list** command, you enter the config-Policy List configuration submode (see the following Syntax Description).

cli	Command to be executed by the scheduler. This can be a maximum of 80 alphanumeric characters.
do	EXEC command. Allows you to perform any EXEC commands in this mode (see <a href="#">do</a> , page 186).
end	Exits from the config-Policy List configuration submode and returns you to the EXEC mode.
exit	Exits this submode.
no	Negates the command in this mode. One keyword available: <ul style="list-style-type: none"> <li>■ cli-Command to be executed by the scheduler.</li> </ul>

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

Use the **kron policy-list** command in conjunction with the **cli** command to create a Command Scheduler policy containing EXEC CLI commands to be scheduled to run on the ACS server at a specified time. Use the **kron occurrence** and **policy list** commands to schedule one or more policy lists to run at the same time or interval. See [kron occurrence](#), page 207.

**Note:** ACS backup is now encrypted using a dynamic encryption password. Therefore in ACS 5.8, you cannot schedule backup using the **kron policy-list** command in ACS CLI.

### Examples

```
acs/admin(config)# kron policy-list daily_support
acs/admin(config-Policy List)# cli acs support acssupport repository local encryption-passphrase null
acs/admin(config-Policy List)# exit
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">kron occurrence</a> , page 207	Specifies schedule parameters for a Command Scheduler occurrence and enters the config-Occurrence configuration mode.

## logging

To enable the system to forward logs to a remote system or to configure the log level, use the **logging** command in Configuration mode. To disable this function, use the **no** form of this command.

```
logging {ip-address | hostname} {loglevel level}
```

### Syntax Description

<i>ip-address</i>	IP address of remote system to which you forward logs. This can be a maximum of 42 alphanumeric characters.
<i>hostname</i>	Hostname of remote system to which you forward logs. This can be a maximum of 42 alphanumeric characters.
<b>loglevel</b>	Configures the log level for the <b>logging</b> command.
<i>level</i>	Number of the desired priority level at which you set the log messages. Priority levels are (enter the number for the keyword): <ul style="list-style-type: none"> <li>■ 0-emerg—Emergencies: System unusable.</li> <li>■ 1-alert—Alerts: Immediate action needed.</li> <li>■ 2-crit—Critical: Critical conditions.</li> <li>■ 3-err—Error: Error conditions.</li> <li>■ 4-warn—Warning: Warning conditions.</li> <li>■ 5-notif—Notifications: Normal but significant conditions.</li> <li>■ 6-inform—Informational messages. Default.</li> <li>■ 7-debug—Debugging messages.</li> </ul>

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

This command requires an IP address or hostname or the **loglevel** keyword; an error occurs if you enter two or more of these arguments.

### Examples

#### Example 1

```
acs/admin(config)# logging 209.165.200.225
acs/admin(config)#
```

#### Example 2

```
acs/admin(config)# logging loglevel 0
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">show logging, page 114</a>	Displays list of logs for the system.

## max-ssh

To configure the maximum number of concurrent SSH sessions that you can open with a remote system for each of the nodes in the distributed deployment, use the **max-ssh-sessions** command in configuration mode.

**max-ssh-session** *number\_of\_sessions*

### Syntax Description

number_of_sessions	Number of concurrent SSH sessions. The range is 1 to 10.
--------------------	--

### Defaults

None

### Command Modes

Configuration

### Usage Guidelines

The **max-ssh-sessions** command allows you to configure the maximum number of concurrent ssh sessions you can open with a remote system.

### Examples

```
acs/admin(config) # max-ssh-sessions 3
```

### Related Commands

Command	Description
<a href="#">show logging, page 114</a>	Displays list of logs for the system.
<a href="#">ssh, page 75</a>	Starts an encrypted session with a remote system.

## ntp

To specify an NTP configuration, use the **ntp** command in configuration mode with the **authenticate**, **authentication-key**, **server**, and **trusted-key** commands. To terminate NTP service on a device, use the **no ntp** command with the **authenticate**, **authentication-key**, **server**, and **trusted-key** keywords or arguments.

```
ntp {authenticate | authentication-key | server | trusted-key}
```

```
no ntp
```

## Syntax Description

<b>authenticate</b>	Enables authentication of all time sources.
<b>authentication-key</b>	Specifies authentication keys for trusted time sources.
<b>server</b>	Specifies the NTP server to use.
<b>trusted-key</b>	Specifies key numbers for trusted time sources.

## Defaults

None

## Command Modes

Configuration

## Usage Guidelines

Use the **ntp** command to specify an NTP configuration.

To terminate NTP service on a device, you must enter the **no ntp** command with keywords or arguments such as **authenticate**, **authentication-key**, **server**, and **trusted-key**. For example, if you previously issued the **ntp server** command, use the **no ntp** command with **server**. For more information on how to configure an NTP server, see [ntp server, page 216](#).

## Examples

```
acs/admin(config)# ntp ?
  authenticate      Authenticate time sources
  authentication-key Authentication key for trusted time sources
  server            Specify NTP server to use
  trusted-key       Key numbers for trusted time sources
acs/admin(config)#
acs/admin(config)# no ntp server
The NTP server was modified.
If this action resulted in a clock modification, you must restart ACS.
acs/admin(config)# do show ntp
% no NTP servers configured
```

## Related Commands

Command	Description
<a href="#">ntp authenticate, page 213</a>	Enables authentication of all time sources.
<a href="#">ntp authentication-key, page 214</a>	Configures authentication keys for trusted time sources.
<a href="#">ntp server, page 216</a>	Allows synchronization of the software clock by the NTP server for the system.
<a href="#">ntp trusted-key, page 219</a>	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
<a href="#">show ntp, page 119</a>	Displays the status information about the NTP associations.

## ntp authenticate

To enable authentication of all time sources, use the **ntp authenticate** command in configuration mode. Time sources without NTP authentication keys will not be synchronized. To disable this capability, use the **no** form of this command.

**ntp authenticate**

**no ntp authenticate**

### Syntax Description

No arguments or keywords

### Defaults

None

### Command Modes

Configuration

### Usage Guidelines

Use the **ntp authenticate** command to enable authentication of all time sources. This command is optional, and authentication will work even without this command.

If you want to authenticate in a mixed mode where only some servers require authentication, that is, only some servers need to have keys configured for authentication, then this command should not be executed.

### Examples

```
acs/admin(config)# ntp authenticate
```

### Related Commands

Command	Description
<a href="#">ntp</a> , page 212	Synchronizes the software clock through the NTP server for the system.
<a href="#">ntp authentication-key</a> , page 214	Configures authentication keys for trusted time sources.
<a href="#">ntp server</a> , page 216	Allows synchronization of the software clock by the NTP server for the system.
<a href="#">ntp trusted-key</a> , page 219	Specifies key numbers for trusted time sources that need to be defined as NTP authentication keys.
<a href="#">show ntp</a> , page 119	Displays the status information about the NTP associations.

## ntp authentication-key

To specify an authentication key for a time source, use the `ntp authentication-key` command in configuration mode. To disable this capability, use the `no` form of this command.

**`ntp authentication-key key-id md5 {hash | plain} key-value`**

**`no ntp authentication-key key-id`**

### Syntax Description

key-id	The identifier that you want to assign to the key. Range is from 1-65535.
md5	Message Digest 5 algorithm encryption type for the authentication key.
hash	Hashed key for authentication. Specifies an encrypted (hashed) key that follows the encryption type. Supports up to 40 characters.
plain	Plain text key for authentication. Specifies an unencrypted plain text key that follows the encryption type. Supports up to 15 characters.
key-value	The key value in the format matching either <b>md5 plain</b> or <b>md5 hash</b> , above.

### Defaults

None

### Command Modes

Configuration

### Usage Guidelines

Use the **ntp authentication-key** command to set up a time source with an authentication key for NTP authentication and to specify its pertinent key identifier, key encryption type, and key value settings. Add this key to the trusted list before you add this key to the **ntp server** command.

Time sources without the NTP authentication keys that are added to the trusted list will not be synchronized.

### Examples

```
acs/admin(config)# ntp authentication-key 1 md5 plain SharedWithServe
acs/admin(config)# ntp authentication-key 2 md5 plain SharedWithServ
acs/admin(config)# ntp authentication-key 3 md5 plain SharedWithSer
acs/admin(config)#
(Removes authentication key 3)
acs/admin(config)# no ntp authentication-key 3
acs/admin(config)#
(Removes all authentication keys)
acs/admin(config)# no ntp authentication-key
acs/admin(config)#
```

**Note:** The **show running-config** command will always show keys that are entered in MD5 plain format converted into hash format for security. For example, **ntp authentication-key 1 md5 hash ee18afc7608ac7ecdbefc5351ad118bc9ce1ef3**.

### Related Commands

Command	Description
<a href="#">ntp, page 212</a>	Synchronizes the software clock through the NTP server for the system.
<a href="#">ntp authenticate, page 213</a>	Enables authentication of all time sources.

Command	Description
<a href="#">ntp server, page 216</a>	Allows synchronization of the software clock by the NTP server for the system.
<a href="#">ntp trusted-key, page 219</a>	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
<a href="#">show ntp, page 119</a>	Displays the status information about the NTP associations.

## ntp server

To allow for software clock synchronization by the NTP server for the system, use the **ntp server** command in configuration mode. Allows up to three servers each with a key in a separate line. The key is an optional parameter but the key is required for NTP authentication. The Cisco Secure ACS always requires a valid and reachable NTP server. Although key is an optional parameter, it must be configured if you need to authenticate an NTP server. To disable this capability, use the **no** form of this command only when you want to remove an NTP server and add another one.

**ntp server** {*ip-address* | *hostname*} **key** *peer-key-number*

**no ntp server**

### Syntax Description

<b>ip-address   hostname</b>	IP address or hostname of the server that provides the clock synchronization. Arguments are limited to 255 alphanumeric characters.
<b>key</b>	(Optional) Peer key number. Supports up to 65535 numeric characters.  This key needs to be defined with a key value, by using the <b>ntp authentication-key</b> command, and also needs to be added as a trusted key by using the <b>ntp trusted-key</b> command. For authentication to work, the key and the key value should be the same as that is defined on the actual NTP server.

**Note:** If you are using windows server as NTP server, the LocalClockDispersion value needs to be modified from 10 to 0.

### Defaults

None

### Command Modes

Configuration

### Usage Guidelines

This command allows up to two servers each with a key in a separate line. Use this **ntp server** command with a trusted key if you want to allow the system to synchronize with a specified server.

The key is optional, but it is required for NTP authentication. ACS always requires a valid and reachable NTP server. Although **key** is an optional parameter, it must be configured if you need to authenticate an NTP server. Define this key in the **ntp authentication-key** command first and add this key to the **ntp trusted-key** command before you add it to the **ntp server** command.

The **show ntp** command displays the status of synchronization. If none of the configured NTP servers are reachable or not authenticated (if NTP authentication is configured), then this command displays synchronization to local system timezone with the least stratum. If an NTP server is not reachable or is not properly authenticated, its reach as per this command statistics will be 0.

**Note:** The **ntp server** command will give conflicting information during the sync process. The sync process can take up to 20 minutes to complete.

### Examples

#### Example 1

```
acs/admin(config)# ntp server ntp.es1.cisco.com key 1
% WARNING: Key 1 needs to be defined as a ntp trusted-key.
acs/admin(config)#
acs/admin(config)# ntp trusted-key 1
% WARNING: Key 1 needs to be defined as a ntp authentication-key.
acs/admin(config)#
acs/admin(config)# ntp authentication-key 1 md5 plain SharedWithServe
```

## Configuration Commands

```

acs/admin(config)#
acs/admin(config)# ntp server ntp.esl.cisco.com 1
acs/admin(config)# ntp server 192.2.0.80 key 2
acs/admin(config)# ntp server 192.2.0.150 key 3
acs/admin(config)#
acs/admin(config)# do show running-config
Generating configuration...
!
hostname acs
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
  ip address 192.21.79.246 255.255.255.0
  ipv6 address autoconfig
!
ip name-server 192.70.168.183
!
ip default-gateway 192.21.79.1
!
clock timezone UTC
!
ntp authentication-key 1 md5 hash ee18afc7608ac7ecdbbeefc5351ad118bc9ce1ef3
ntp authentication-key 2 md5 hash f1ef7b05c0d1cd4c18c8b70e8c76f37f33c33b59
ntp authentication-key 3 md5 hash ee18afc7608ac7ec2d7ac6d09226111dce07da37
ntp trusted-key 1
ntp trusted-key 2
ntp trusted-key 3
ntp authenticate
ntp server ntp.esl.cisco.com key 1
ntp server 192.68.10.80 key 2
ntp server 192.68.10.150 key 3
!
--More--
acs/admin# show ntp
Primary NTP   : ntp.esl.cisco.com
Secondary NTP : 192.68.10.80
Tertiary NTP  : 192.68.10.150
synchronised to local net at stratum 11
  time correct to within 1024 ms
  polling server every 64 s
    remote      refid      st t when poll reach  delay  offset  jitter
=====
*192.127.1.0    .LOCL.          10 1  46  64  37   0.000   0.000   0.001
 192.68.10.80   .RMOT.          16 u  46  64   0   0.000   0.000   0.000
 192.68.10.150  .INIT.          16 u  47  64   0   0.000   0.000   0.000
Warning: Output results may conflict during periods of changing synchronization.
acs/admin#

```

**Example 2**

```

acs/admin# show ntp
Primary NTP   : ntp.esl.cisco.com
Secondary NTP : 192.68.10.150
Tertiary NTP  : 192.68.10.80
synchronised to NTP server (192.68.10.150) at stratum 3
  time correct to within 16 ms
  polling server every 64 s
    remote      refid      st t when poll reach  delay  offset  jitter
=====
 192.127.1.0    .LOCL.          10 1  35  64  377   0.000   0.000   0.001
+192.68.10.80   144.254.15.122  2 u  36  64  377   1.474   7.381   2.095
*192.68.10.150  144.254.15.122  2 u  33  64  377   0.922  10.485   2.198

```

Warning: Output results may conflict during periods of changing synchronization.  
acs/admin#

**Related Commands**

Command	Description
<a href="#">ntp, page 212</a>	Synchronizes the software clock through the NTP server for the system.
<a href="#">ntp authenticate, page 213</a>	Enables authentication of all time sources.
<a href="#">ntp authentication-key, page 214</a>	Configures authentication keys for trusted time sources.
<a href="#">ntp trusted-key, page 219</a>	Specifies key numbers for trusted time sources that need to be defined as NTP authentication keys.
<a href="#">show ntp, page 119</a>	Displays the status information about the NTP associations.

## ntp trusted-key

To add a time source to a trusted list, use the `ntp trusted-key` command with a unique identifier in configuration mode. To disable this capability, use the `no` form of this command.

**ntp trusted-key key**

**no ntp trusted-key key**

### Syntax Description

key	Specifies key number for trusted time sources that needs to be defined as NTP authentication keys. Supports up to 65535 numeric characters.
-----	---

### Defaults

None

### Command Modes

Configuration

### Usage Guidelines

Define a key as an NTP authentication key, and then add this key to the trusted list before you add this key to an NTP server. ACS allows only the keys that are added to the trusted list for synchronization by the NTP server with the system.

### Examples

```
acs/admin(config)# ntp trusted-key 1
acs/admin(config)# ntp trusted-key 2
acs/admin(config)# ntp trusted-key 3
acs/admin(config)#
(Removes key 2 from the trusted list)
acs/admin(config)# no ntp trusted-key 2
acs/admin(config)#
(Removes all keys from the trusted keys)
acs/admin(config)# no ntp trusted-key
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">ntp</a> , page 212	The command to specify NTP configuration.
<a href="#">ntp authenticate</a> , page 213	Enables authentication of all time sources.
<a href="#">ntp authentication-key</a> , page 214	Configures authentication keys for trusted time sources.
<a href="#">ntp server</a> , page 216	Allows synchronization of the software clock by the NTP server for the system.
<a href="#">show ntp</a> , page 119	Displays the status information about the NTP associations.

## password-policy

To enable or configure the passwords on the system, use the **password-policy** command in Configuration mode. To disable this function, use the **no** form of this command.

**password-policy** *option*

**Note:** The **password-policy** command requires a policy option (see Syntax Description). You must enter the **password-expiration-enabled** command before the other password-expiration commands.

### Syntax Description

**Note:** After you enter the **password-policy** command, you enter the config-password-policy configuration submode.

digit-required	Requires a digit in the password.
disable-repeat-characters	Disables the password's ability to contain more than four identical characters.
disable-cisco-password	Disables the ability to use the word Cisco or any combination as the password.
lower-case-required	Requires a lowercase letter in the password.
min-password-length	Specifies a minimum number of characters for a valid password. Integer length from 1 to 40.
no-previous-password	Prevents users from reusing a part of their previous password.
no-username	Prohibits users from reusing their username as a part of a password.
password-expiration-days	Number of days until a password expires. Integer length from 1 to 3650.
password-expiration-enabled	Enables password expiration.  <b>Note:</b> You must enter the <b>password-expiration-enabled</b> command before the other password-expiration commands.
password-expiration-warning	Number of days before expiration that warnings of impending expiration begin. Integer length from 0 to 3650.
password-lock-enabled	Locks a password after several failures.
password-lock-retry-count	Number of failed attempts before password locks. Integer length from 1 to 20.
upper-case-required	Requires an uppercase letter in the password.
special-required	Requires a special character in the password.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# password-policy
acs/admin(config-password-policy)# password-expiration-days 30
acs/admin(config-password-policy)# exit
acs/admin(config)#
```

## rate-limit

To configure the limit of TCP, UDP, or ICMP packets from a source IP address, use the **rate-limit** command in configuration mode. To remove this limit, use the **no** form of this command.

**rate-limit** *number-of-connections* **ip** *ip-address* **mask** *mask* **port** *port-number*

**no rate-limit** *number-of-connections* **ip** *ip-address* **mask** *mask* **port** *port-number*

**Note:** If you set a low rate-limit value for all the protocols, it affects the management to management communication. This will affect the distributed deployment connection.

### Syntax Description

<i>numberofconnections</i>	Number of TCP connections.
<b>ip</b>	IP address keyword.
<i>ipaddress</i>	Source IP address to which to apply the packet connection limit.
<b>mask</b>	The <b>mask</b> keyword.
<i>mask</i>	Source IP mask to which to apply the packet connection limit.
<b>port</b>	The <b>port</b> keyword.
<i>portnumber</i>	Destination port number to which to apply the packet connection limit.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# rate-limit 25000 ip 192.10.122.133 port 22
acs/admin(config)# end
acs/admin#
```

### Related Commands

Command	Description
<a href="#">conn-limit, page 185</a>	Configures a limit to TCP packet connections from a source IP.
<a href="#">synflood-limit, page 230</a>	Configures a limit to TCP SYN packets from a source IP.

## repository

To enter the repository submode for configuration of backups, use the **repository** command in Configuration mode.

**repository** *repository-name*

### Syntax Description

<i>repository-name</i>	Name of repository. This can be a maximum of 80 alphanumeric characters.
------------------------	--

**Note:** After you enter the name of the repository in the **repository** command, you enter the config-Repository configuration submode (see the Syntax Description).

do	EXEC command. Allows you to perform any of the EXEC commands in this mode (see <a href="#">do</a> , <a href="#">page 186</a> ).
end	Exits the config-Repository mode and returns you to the EXEC mode.
exit	Exits this mode.
no	Negates the command in this mode.  Two keywords available: <ul style="list-style-type: none"> <li>■ url-Repository URL.</li> <li>■ user-Repository username and password for access.</li> </ul>
url	URL of the repository. This can be a maximum of 300 alphanumeric characters (see <a href="#">Table 22 on page 222</a> ).
user	Configure username and password for access. This can be a maximum of 30 alphanumeric characters.

**Table 22 URL Keywords**

Keyword	Source of Destination
<i>word</i>	Enter repository URL, including server and path info. This can be a maximum of 80 alphanumeric characters.
<b>cdrom:</b>	Local CD-ROM drive (read only).
<b>disk:</b>	Local storage.  All local repositories are created on the /localdisk partition. When you specify disk:// in the repository URL, the system creates directories in a path that is relative to /localdisk.  For example, if you entered <b>disk://backup</b> , the directory is created at /localdisk/backup.  You can run the <b>show repository repository_name</b> to view all the files in the local repository.
<b>ftp:</b>	Source or destination URL for an FTP network server. Use url ftp://server/path <sup>1</sup> .
<b>nfs:</b>	Source or destination URL for an NFS network server. Use url nfs://server:path <sup>1</sup> .
<b>sftp:</b>	Source or destination URL for an SFTP network server. Use url sftp://server/path <sup>1</sup> .
<b>tftp:</b>	Source or destination URL for a TFTP network server. Use url tftp://server/path <sup>1</sup> .  <b>Note:</b> You cannot use a TFTP repository for performing ACS upgrade.
<b>http:</b>	Source or destination URL for a HTTP network server. Use url http://server/path <sup>1</sup> .
<b>https:</b>	Source or destination URL for a HTTPS network server. Use url https://server/path <sup>1</sup> .

1. Server is the server name and path refers to /subdir/subsubdir. Remember that a colon (:) is required after the server for an NFS network server.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

In ACS 5.4 or 5.5, when you create an SFTP repository using the url `sftp://server/path` and use the "root" username, the backup that you take gets stored in the `root/path` directory of this repository.

ACS 5.8 uses the absolute path, and for the same commands, the backup is stored in the `/path` directory. You should have permission to access this directory.

**Note:** If you restore an ACS 5.5 ADE OS backup on ACS 5.8, the SFTP repositories that are created in ACS 5.5 do not work in ACS 5.8 because of this change in behavior.

You must use the absolute path to fetch the backup file. For windows SFTP server, the virtual path "/" should be mapped to any of the folders in the windows drive.

**Note:** ACS 5.8 does not support HTTPS repository.

### Examples

```
acs/admin# configure terminal
acs/admin(config)# repository sftp
% Warning: Host key of the server must be added using 'crypto host_key add' exec command before sftp
repository can be used.
acs/admin(config-Repository)# url sftp://starwars.test.com/repository/system1
acs/admin(config-Repository)# user luke password plain skywalker
acs/admin(config-Repository)# end
% Warning: Host key of the server must be added using 'crypto host_key add' exec command before sftp
repository can be used.
acs/admin# crypto host_key add host starwars.test.com
host key fingerprint added
# Host 10.77.241.75 found: line 1 type RSA
2048 dd:df:e9:2f:4b:6f:cb:95:4e:47:0f:3a:a4:36:43:98 10.77.241.75 (RSA)
acs/admin # write memory
Generating Configuration...
acs/admin #
```

### Related Commands

Command	Description
<a href="#">backup, page 39</a>	Performs a backup (ACS and ADE OS) and places the backup in a repository.
<a href="#">restore, page 69</a>	Performs a restore and takes the backup out of a repository.
<a href="#">show backup history, page 96</a>	Displays the backup history of the system.
<a href="#">show repository, page 124</a>	Displays the available backup files located on a specific repository.

## service

To specify a service to manage, use the **service** command in Configuration mode. To disable this function, use the **no** form of this command.

**service sshd**

### Syntax Description

sshd	Secure Shell Daemon. The daemon program for SSH.
------	--

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# service sshd  
acs/admin(config)#
```

## snmp-server community

To set up the community access string to permit access to the Simple Network Management Protocol (SNMP), use the **snmp-server community** command in Configuration mode. To disable this function, use the **no** form of this command.

**snmp-server community** *word* **ro**

### Syntax Description

<i>word</i>	Accessing string that functions much like a password, allowing access to SNMP. No blank spaces allowed. This can be a maximum of 255 alphanumeric characters.
<b>ro</b>	Specifies read-only access.

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

The **snmp-server community** command requires a community string and the **ro** argument; otherwise, an error occurs.

### Examples

```
acs/admin(config)# snmp-server community new ro
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">snmp-server host, page 227</a>	Sends traps to a remote system.
<a href="#">snmp-server location, page 228</a>	Configures the SNMP location MIB value on the system.
<a href="#">snmp-server contact, page 226</a>	Configures the SNMP contact MIB value on the system.

## snmp-server contact

To configure the SNMP contact MIB value on the system, use the **snmp-server contact** command in Configuration mode. To remove the system contact information, use the **no** form of this command.

**snmp-server contact** *word*

### Syntax Description

<i>word</i>	String that describes the system contact information of the node. This can be a maximum of 255 alphanumeric characters.
-------------	---

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# snmp-server contact Luke
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">snmp-server host, page 227</a>	Sends traps to a remote system.
<a href="#">snmp-server community, page 225</a>	Sets up the community access string to permit access to the SNMP.
<a href="#">snmp-server location, page 228</a>	Configures the SNMP location MIB value on the system.

## snmp-server host

To send SNMP traps to a remote user, use the **snmp-server host** command in Configuration mode. To remove trap forwarding, use the **no** form of this command. This command does not display any output on the CLI.

```
snmp-server host {ip-address | hostname} version {1 | 2c} community
```

### Syntax Description

<i>ip-address</i>	IP address of the SNMP notification host. This can be a maximum of 64 alphanumeric characters.
<i>hostname</i>	Name of the SNMP notification host. This can be a maximum of 64 alphanumeric characters.
version { <b>1</b>   <b>2c</b> }	(Optional) Version of the SNMP used to send the traps. Default = 1.  If you use the version keyword, specify one of the following keywords: <ul style="list-style-type: none"> <li>■ 1—SNMPv1.</li> <li>■ 2c—SNMPv2C.</li> </ul>
<i>community</i>	Password-like community string that is sent with the notification operation.

### Defaults

Disabled.

### Command Modes

Configuration

### Usage Guidelines

The command takes arguments as listed; otherwise, an error occurs.

### Examples

```
acs/admin(config)# snmp-server community new ro 10
acs/admin(config)# snmp-server host 209.165.202.129 version 1 password
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">snmp-server community</a> , <a href="#">page 225</a>	Sets up the community access string to permit access to SNMP.
<a href="#">snmp-server location</a> , <a href="#">page 228</a>	Configures the SNMP location MIB value on the system.
<a href="#">snmp-server contact</a> , <a href="#">page 226</a>	Configures the SNMP contact MIB value on the system.

## snmp-server location

To configure the SNMP location MIB value on the system, use the **snmp-server location** command in Configuration mode. To remove the system location information, use the **no** form of this command.

**snmp-server location** *word*

### Syntax Description

<i>word</i>	String that describes the system's physical location information. This can be a maximum of 255 alphanumeric characters.
-------------	---

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

Cisco recommends that you use underscores (\_) or hyphens (-) between the terms within the *word* string. If you use spaces between terms within the *word* string, you must enclose the string in quotation marks (").

### Examples

#### Example 1

```
acs/admin(config)# snmp-server location Building_3/Room_214
acs/admin(config)#
```

#### Example 2

```
acs/admin(config)# snmp-server location "Building 3/Room 214"
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">snmp-server host, page 227</a>	Sends traps to a remote system.
<a href="#">snmp-server community, page 225</a>	Sets up the community access string to permit access to SNMP.
<a href="#">snmp-server contact, page 226</a>	Configures the SNMP location MIB value on the system.

## snmp-server trap dskThresholdLimit

To configure the SNMP server to receive traps if one of the ACS partitions reaches its threshold disk utilization limit, use the **snmp-server trap dskThresholdLimit** command in Configuration mode. To stop sending disk threshold utilization limit traps, use the **no** form of this command.

**snmp-server trap dskThresholdLimit** *value*

### Syntax Description

<i>value</i>	Number that represents the percentage of available disk space. The value ranges from 1 to 100.
--------------	--

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

This configuration is common for all the partitions in ACS. If you configure the threshold limit as 40, then you will receive a trap as soon as a partition utilizes 60% of its disk space and only 40% of the disk space is available. That is, a trap is sent when the configured amount of free space is reached.

After you configure this command from ACS CLI, a cron job starts running every minute and monitors the ACS partitions one by one. If any one of the partitions reaches its threshold limit, then ACS sends a trap to the configured SNMP server with the disk path and the threshold limit value. Multiple traps are sent if multiple partitions are reached its threshold limit. You can view the SNMP traps using the traps receiver in a MIB browser.

### Examples

#### Example 1

```
acs/admin(config)# snmp-server trap dskThresholdLimit 40
acs/admin(config)#
```

### Related Commands

Command	Description
<a href="#">snmp-server host, page 227</a>	Sends traps to a remote system.
<a href="#">snmp-server community, page 225</a>	Sets up the community access string to permit access to SNMP.
<a href="#">snmp-server contact, page 226</a>	Configures the SNMP location MIB value on the system.

## synflood-limit

To configure the limit of TCP SYN packets from any source IP address, use the **synflood-limit** command in configuration mode. To remove this limit, use the **no** form of this command.

**synflood-limit** *number-of-packets*

**no synflood-limit** *number-of-packets*

### Syntax Description

<i>number-of-packets</i>	Number of TCP SYN packets.
--------------------------	----------------------------

### Defaults

No default behavior or values.

### Command Modes

Configuration

### Usage Guidelines

None.

### Examples

```
acs/admin(config)# synflood-limit 12  
acs/admin(config)# end  
acs/admin#
```

### Related Commands

Command	Description
<a href="#">conn-limit, page 185</a>	Configures a limit to TCP connection from a source IP.
<a href="#">rate-limit, page 221</a>	Configures a limit for TCP, UDP, or ICMP packets from a source IP.

## tcp

To enable fast recycling of TIME\_WAIT sockets, use the **tcp recycle** command in configuration mode. To disable fast recycling, use the **no** form of this command.

**tcp recycle enable**

To reuse sockets in TIME\_WAIT state for new connections, use the **tcp reuse** command in configuration mode. To disable fast recycling, use the **no** form of this command.

**tcp reuse enable**

To set the time in seconds that ACS must wait for a final packet before TCP/IP can release a closed connection and reuse its resources, use the **tcp timeout** command in configuration mode. To disable timeout option, use the **no** form of this command.

**tcp timeout** *timeout*

### Syntax Description

<i>timeout</i>	The TCP final packet timeout value in seconds. The valid range is 0 to 180 seconds. The default value is 60 seconds. The
----------------	--

### Defaults

Disabled.

### Command Modes

Configuration

### Usage Guidelines

All three commands are disabled by default.

**tcp recycle:** It is not recommended to use this command if you use Network Address Translation. Contact your network administrator before implementing this recycle operation.

**tcp timeout:** If you try to reopen the connection during the TIME\_WAIT state, it is equal to establishing a new connection. You can reduce the timeout value so that TCP/IP can release the closed connections faster and make the resources available for new connections.

### Examples

#### Example 1

```
acs/admin(config)# tcp recycle enable
TCP recycle parameter will be enabled which requires ACS restart.
ACS228/admin(config)# to proceed? Y/N [N]: Y
Stopping ACS.
Stopping Management and View.....
Stopping Runtime.....
Stopping Database.....
Stopping Ntpd...
Cleanup...
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
acs/admin(config)#
```

**Example 2**

```
acs/admin(config)# tcp reuse enable
TCP reuse parameter will be enabled which requires ACS restart.
Are you sure you want to proceed? Y/N [N]: Y
Stopping ACS.
Stopping Management and View.....
Stopping Runtime.....
Stopping Database.....
Stopping Ntpd...
Cleanup...
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
acs/admin(config)#
```

**Example 3**

```
acs/admin(config)# tcp timeout 30
TCP fin_timeout parameter will be changed which requires ACS restart.
Are you sure you want to proceed? Y/N [N]: Y
Stopping ACS.
Stopping Management and View.....
Stopping Runtime.....
Stopping Database.....
Stopping Ntpd...
Cleanup...
Starting ACS ....
```

To verify that ACS processes are running, use the 'show application status acs' command.

```
acs/admin(config)#
```

## username

To add a user who can access the CSACS-1121, Cisco SNS-3415, or Cisco SNS-3495 using SSH, use the **username** command in configuration mode. If the user already exists, the password, the privilege level, or both change with this command. To delete the user from the system, use the **no** form of this command.

```
username username password { hash | plain } password role { admin | user } [disabled [email email-address]] [email email-address]
```

For an existing user, use the following syntax:

```
username username password role { admin | user } password
```

### Syntax Description

<b>username</b>	Only one word for the username argument. Blank spaces and quotation marks (") are not allowed. The username can be a maximum of 31 alphanumeric characters.
<b>password</b> <i>password</i>	Password character length. This can be a maximum of 127 alphanumeric characters. You must specify a password for all new users.
<b>hash</b>   <b>plain</b>	Type of password. This can be a maximum of 34 alphanumeric characters.
<b>role</b> <b>admin</b>   <b>user</b>	Sets the privilege level for the user.
<b>disabled</b>	(Optional) Disables the user according to the user's email address.
<b>email</b> <i>email-address</i>	(Optional) The user's email address. For example, <i>user1@mydomain.com</i> .

### Defaults

The initial user during setup.

### Command Modes

Configuration

### Usage Guidelines

The **username** command requires that the **username** and **password** keywords precede the **hash** or **plain** and the **admin** or **user** options.

**Note:** The **username** command fails at the parsing level, and ACS displays the "% invalid redirect detected at '^' marker." error message when you use the characters |, \, ", <, >, or / in username.

### Examples

#### Example 1

```
acs/admin(config)# username admin password hash ##### role admin
acs/admin(config)#
```

#### Example 2

```
acs/admin(config)# username admin password plain Secr3tp@swd role admin
acs/admin(config)#
```

#### Example 3

```
acs/admin(config)# username admin password plain Secr3tp@swd role admin email admin123@mydomain.com
acs/admin(config)#
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">password-policy, page 220</a>	Enables and configures the password policy.
<a href="#">show users, page 137</a>	Displays a list of users and their privilege level. It also displays a list of logged-in users.