CISCO

ACS Command Reference

This chapter contains an alphabetical listing of the commands that are specific to Cisco Secure ACS 5.8.1. 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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 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/acsview.db	150,000
	/opt/CSCOacs/view/data/db/acsview.log	100
	/opt/CSCOacs/view/data/db/acsview.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 kron 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/ 10 logs/catalina.out	
	/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 5.8.1, refer to the User Guide for Cisco Secure Access Control System 5.8.1.

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

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

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

start	Starts an ACS instance.
stop	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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 appliance boots up.

Examples

Example 1

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

Command	Description
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
backup-logs, page 41	Backs up system logs.
debug-log, page 150	Defines the local debug logging level for the ACS components.
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
replication force-sync, page 167	Synchronizes the secondary ACS database to the primary ACS database.
restore, page 69	Restores the file contents of a specific repository from the backup.
show debug-adclient, page 172	Shows the debug log level status for subsystems (enabled or disabled).
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Shows application status and version information.
show version, page 138	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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 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#

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
show application, page 93	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

backup-filename	Name of the backup file. This can be a maximum of 100 alphanumeric characters.
repository	Repository command.
repository-name	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.
- 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]: xxxxxxxxx
Please enter the password again: xxxxxxxxxx
```

ACS backup file 'mybackup-081007-2055.tar.gpg' successfully copied to repository 'myrepository' acs/admin#

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

Invalid value.

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
Administrator must change password.
Old password:
```

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 {\tt 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.

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

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

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

Command	Description
show acs-config-web-interface, page 88	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

filename	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

Command	Description
acs delete log, page 17	Deletes an ACS run-time core file or JVM core log excluding the latest one.
show acs-logs, page 90	Displays ACS server debug logs.
show acs-cores, page 89	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

filename	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
```

```
\mbox{\%} Error: most recent log files cannot be deleted, only older logs. \mbox{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
```

Command	Description
acs delete core, page 16	Deletes an ACS run-time core file or JVM core log.
show acs-logs, page 90	Displays ACS server debug logs.
show acs-cores, page 89	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

install	Install command.
remove	Remove command.
patch-name.tar.gpg	Name of the patch, which always has the .tar.gpg filename extension.
repository	Repository command.
repository-name	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: 3b7f30d572433c2ad0c4733ald1fb55cceb62dc1419b03b1b7ca354feb8bbcfa
% 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
```

Command	Description
show application, page 93	Shows application status and version information.
show version, page 138	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
```

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

Command	Description
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Shows application status and version information.
show version, page 138	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 5.8.1, 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

username	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#

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

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

backup-file-name	Name of backup file. This can be a maximum of 100 alphanumeric characters.
	A time stamp in the format -yymmdd-hhMM.tar.gpg is added to the backup filename to generate a unique backup filename, where:
	yy-Two-digit representation of the year (the last two digits).
	 mm–Two-digit representation of the month. Single-digit months are preceded by zero (0).
	dd—Two-digit representation of the day of the month. Single digit months are preceded by zero (0).
	hh—Two-digit representation of the hour of the day of a 24-hour clock. Single-digit hours are preceded by zero (0).
	MM—Two-digit representation of the minute of the hour. Single-digit minutes are preceded by zero (0).
	For example, if you type dailyBackup as the filename, the resulting file may be named dailyBackup-080229-2335.tar.gpg.
repository	Repository command.
repository-name	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 5.8.1, 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 5.8.1.

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]:xxxxxxxx
% 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#
```

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

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

filename	The filename (up to 100 characters) of the support file; ACS stores the file in the format <i>filename</i> .tar.gz to the repository.
repository	Repository command.
repository-name	Location where files should be restored from. This can be a maximum of 80 alphanumeric characters.
encryption-passphra se	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.
number-older-days	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.
number-logs	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.
number-logs	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.
number-logs	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.
number-recent-days	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 5.8.1 encrypts the support bundle if the **encryption-passphrase command is used. You can decrypt the support bundle outside the ACS 5.8.1 machine, using the password provided.**

To decrypt the support bundle outside the ACS 5.8.1 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
ftp	Source or destination URL for FTP network server. The syntax for this alias:
	ftp:[[[//username [:password]@]location]/directory]/filename
scp	Source or destination URL for SCP network server. The syntax for this alias:
	scp:[[[//username [:password]@]location]/directory]/filename
sftp	Source or destination URL for an SFTP network server. The syntax for this alias:
	sftp:[[//location]/directory]/filename
tftp	Source or destination URL for a TFTP network server. The syntax for this alias:
	tftp:[[//location]/directory]/filename

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-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#

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

Command	Description
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Shows application status and version information.
show version, page 138	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/storeddatavol
 - /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!

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

install	Installs a specific application.
application-bundle	Application bundle filename. This can be a maximum of 255 alphanumeric characters.
remote-repository-nam e	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#
```

Command	Description
application remove, page 34	Removes or uninstalls an application.
application start, page 36	Starts or enables an application.
application stop, page 37	Stops or disables an application.
show application, page 93	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

application-name	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#

Command	Description
application install, page 33	Installs an application bundle.
application start, page 36	Starts or enables an application.
application stop, page 37	Stops or disables an application.
show application, page 93	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

application-name	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#

Command	Description
acs reset-config, page 19	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

application-name	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#

Command	Description
application install, page 33	Installs an application bundle.
application remove, page 34	Removes or uninstalls an application.
application stop, page 37	Stops or disables an application.
show application, page 93	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

application-name	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#

Command	Description
application install, page 33	Installs an application bundle.
application remove, page 34	Removes or uninstalls an application.
application start, page 36	Starts or enables an application.
show application, page 93	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, 5.7, or 5.8 patch releases to ACS 5.8.1. 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 5.8.1.*

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

backup-name	Name of backup file. This can be a maximum of 100 alphanumeric characters.
repository	Repository command.
repository-name	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 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/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 fron 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]: xxxxxxxx
Please enter the password again: xxxxxxxx
% 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#
```

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

backup-name	Name of one or more files to back up. This can be a maximum of 100 alphanumeric characters.
repository	Repository command.
repository-name	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/</ri>
 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#
```

Command	Description
acs backup, page 9	Performs a backup of an ACS configuration.
acs-config, page 11	Enters the ACS Configuration mode.
acs patch, page 18	Installs and removes ACS patches.
acs restore, page 23	Performs a restoration of an ACS configuration.
acs support, page 26	Gathers information for ACS troubleshooting.
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
restore, page 69	Restores the file contents of a specific repository from the backup.
repository, page 222	Enters the repository submode for configuration of backups.
show backup history, page 96	Displays the backup history of the system.
show repository, page 124	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.
pre-login	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.
repository-name	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-Logi n	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Examples

 $\verb|acs/admin#| \textbf{banner install post-login myfile1 repository myrepository| acs/admin#|}$

Command	Description
show clock, page 99	Displays the time and date set on the system software clock.
show repository, page 124	Displays the available backup files located on a specific repository.
repository, page 222	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

set	Sets the system clock.
month	Current month of the year by name. This can be a maximum of three alphabetic characters. For example, Jan for January.
day	Current day (by date) of the month. Value = 1 to 31. Up to two numbers.
hh:mm:ss	Current time in hours (24-hour format), minutes, and seconds.
уууу	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#

Command	Description
show clock, page 99	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)#
```

Command	Description
show running-configuration, page 126	Displays the contents of the currently running configuration file or the configuration.
show startup-configuration, page 128	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

running-configuration	Represents the current running configuration file.
startup-configuration	Represents the configuration file used during initialization (startup).
protocol	See Table 4 on page 29 for protocol keyword options.
hostname	Hostname of destination.
location	Location of destination.
logs	System log files.
acs-logs	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

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

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

Command	Description
show crypto, page 102	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.

Syntax Description

all	Enables all debugging.
application	Application files.
	all—Enables all application debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	 install—Enables application install debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	 operation—Enables application operation debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	 uninstall—Enables application uninstall debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
backup-restore	Backs up and restores files.
	all—Enables all debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.
	backup—Enables backup debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.
	backup-logs—Enables backup-logs debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.
	history—Enables history debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.
	restore—Enables restore debug output for backup-restore. Set level between 0 and 7 with 0 being severe and 7 being all.
cdp	CDP configuration files.
	all—Enables all CDP configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	config—Enables configuration debug output for CDP. Set level between 0 and 7 with 0 being severe and 7 being all.
	infra—Enables infrastructure debug output for CDP. Set level between 0 and 7 with 0 being severe and 7 being all.

config	Configuration files.
	all—Enables all configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	backup—Enables backup configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	clock—Enables clock configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	infra—Enables configuration infrastructure debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	kron-Enables command scheduler configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	network—Enables network configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	repository—Enables repository configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	 service—Enables service configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
сору	Copy commands. Set level between 0 and 7 with 0 being severe and 7 being all.
locks	Resource locking.
	all—Enables all resource locking debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	file—Enables file locking debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
logging	Logging configuration files.
	all—Enables all logging configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
snmp	SNMP configuration files.
	all—Enables all SNMP configuration debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
system	System files.
	 all—Enables all system files debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	id—Enables system ID debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	info-Enables system info debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	init—Enables system init debug output. Set level between 0 and 7 with 0 being severe and 7 being all.

transfer	File transfer. Set level between 0 and 7 with 0 being severe and 7 being all.
user	User management.
	all—Enables all user management debug output. Set level between 0 and 7 with 0 being severe and 7 being all.
	password-policy—Enables user management debug output for password-policy. Set level between 0 and 7 with 0 being severe and 7 being all.
utils	Utilities configuration files.
	all—Enables all utilities configuration debug 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

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...
```

Command	Description
undebug, page 83	Disables the output (display of errors or events) of the debug 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

filename	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#

Command	Description
dir, page 56	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

word	Directory name. This can be a maximum of 80 alphanumeric characters. Requires disk:/ preceding the directory name.
recursive	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/
```

```
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
```

Command	Description
delete, page 55	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

Command	Description
end, page 189	Exits the Configuration mode.
exit, page 190	Exits the Configuration mode or EXEC mode.
Ctrl-z	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

username	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#

Command	Description
reload, page 68	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

directory-name	Name of the directory to create. Use disk:/path 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#

Command	Description
dir, page 56	Displays a list of files on the ACS server.
rmdir, page 71	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

word	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:
                                            PTR
;225.200.165.209.in-addr.arpa.
                                    IN
;; 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:
                                                209.165.200.225
ns1.cisco.com.
                        86400
                                IN
                                        Α
ns2.cisco.com.
                        86400
                                IN
                                                209.165.200.225
                                        Α
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</pre>
```

```
;; 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

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

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 tt1=64 time=3.41 ms

18 bytes from 5abe::20c:29ff:feac:cbbe: icmp_seq=1 tt1=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

Command	Description
password-policy, page 220	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#
```

Command	Description
halt, page 60	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

filename	Name of the backed-up file that resides in the repository. This can be a maximum of 120 alphanumeric characters. Note: You must add the .tar.gpg extension after the filename (for example, myfile.tar.gpg).
repository-name	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 decyption 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#
```

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

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

word	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#
```

Command	Description
dir, page 56	Displays a list of files on the ACS server.
mkdir, page 62	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.

 $\verb"show" keyword"$

Syntax Description

Table 7 on page 87 provides a summary of the **show** commands.

Table 6 Summary of Show Commands

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

- 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

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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 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
```

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

 \mathbf{or}

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

Syntax Description

host ip-address	IP address of the remote system. This can be a maximum of 64 alphanumeric characters.
hostname	Hostname of the remote system. This can be a maximum of 64 alphanumeric characters.
username	Username of the user logging in through SSH.
port [number]	(Optional) Indicates the port number of the remote host. From 0 to 65,535. Default 22.
version [1 2]	(Optional) Indicates the version number. Default 2.
delete	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 {dumptcp | mpstat | netstat | iostat | vmstat | top} {interface-number | count | package-count}

Syntax Description

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

Defaults

Disabled.

Command Modes

EXEC

Usage Guidelines

If you see bad **UDP** checksum warnings in the **tech dumptcp** output, it may not be a cause for concern. The **tech dumptcp** 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

```
acs/admin# tech dumptcp 0
140816:141088(272) ack 1921 win 14144
08:26:12.034630 IP ACS.cisco.com.ssh > dhcp-64-102-82-153.cisco.com.2221: P 141088:141248(160) ack 1921
08:26:12.034635 IP dhcp-64-102-82-153.cisco.com.2221 > ACS.cisco.com.ssh: . ack 139632 win 64656
08:26:12.034677 IP ACS.cisco.com.ssh > dhcp-64-102-82-153.cisco.com.2221: P 141248:141520(272) ack 1921
win 14144
08:26:12.034713 IP ACS.cisco.com.ssh > dhcp-64-102-82-153.cisco.com.2221: P 141520:141680(160) ack 1921
win 14144
08:26:12.034754 IP ACS.cisco.com.ssh > dhcp-64-102-82-153.cisco.com.2221: P 141680:141952(272) ack 1921
08:26:12.034756 IP dhcp-64-102-82-153.cisco.com.2221 > ACS.cisco.com.ssh: . ack 140064 win 65520
08:26:12.034796 IP ACS.cisco.com.ssh > dhcp-64-102-82-153.cisco.com.2221: P 141952:142112(160) ack 1921
win 14144
1000 packets captured
1000 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

ip-address	IP address of the remote system. Can be a maximum of 64 alphanumeric characters.
hostname	Hostname of the remote system. Can be a maximum of 64 alphanumeric characters.
port number	(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#

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

integer	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

minutes	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#

Command	Description
terminal session-welcome, page 80	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

string	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#

Command	Description
terminal session-timeout, page 79	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

type	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]

Syntax Description

ip-address	IP address of the remote system. This can be a maximum of 64 alphanumeric characters.
hostname	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 2.661 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.

 $undebug \{ all \mid application \mid backup\text{-restore} \mid cdp \mid config \mid copy \mid icmp \mid locks \mid logging \mid snmp \mid system \mid transfer \mid user \mid utils \} \ \mathit{level}$

Syntax Description

all	Disables all debugging.	
application	Application files.	
арриосион		
	 all—Disables all application debug output. 	
	install—Disables application install debug output.	
	 operation—Disables application operation debug output. 	
	uninstall—Disables application uninstall debug output.	
backup-restore	Backs up and restores files.	
	all—Disables all debug output for backup-restore.	
	backup—Disables backup debug output for backup-restore.	
	backup-logs—Disables backup-logs debug output for backup-restore.	
	history—Disables history debug output for backup-restore.	
	restore—Disables restore debug output for backup-restore.	
cdp	CDP configuration files.	
	all—Disables all CDP configuration debug output.	
	config—Disables configuration debug output for CDP.	
	infra—Disables infrastructure debug output for CDP.	
config	Configuration files.	
	all—Disables all configuration debug output.	
	backup—Disables backup configuration debug output.	
	clock—Disables clock configuration debug output.	
	infra—Disables configuration infrastructure debug output.	
	kron-Disables command scheduler configuration debug output.	
	network—Disables network configuration debug output.	
	repository—Disables respository configuration debug output.	
	service—Disables service configuration debug output.	
сору	Copy commands.	
icmp	ICMP echo response configuration.	
	all-Disables all debug output for ICMP echo response configuration.	
locks	Resource locking.	
	all—Disables all resource locking debug output.	
	■ file—Disables file locking debug output.	
logging	Logging configuration files.	
	all-Disables all debug output for logging configuration.	

snmp	SNMP configuration files.		
	all-Disables all debug output for SNMP configuration.		
system System files.			
	all—Disables all system files debug output.		
	■ id—Disables system ID debug output.		
	info-Disables system info debug output.		
	init-Disables system init debug output.		
transfer	File transfer.		
user	User management.		
	all—Disables all user management debug output.		
	password-policy—Disables user management debug output for password-policy.		
utils	Utilities configuration files.		
	all-Disables all utilities configuration debug output.		
level	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#

Command	Description
debug, page 51	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

erase	Erases the startup-configuration.
memory	Copies running-configuration to startup-configuration.
terminal 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.9tkpO1QzCo4zyc1jso0 role admin
service sshd
password-policy
 lower-case-required
 upper-case-required
  digit-required
  no-username
  disable-cisco-passwords
```

```
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

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

^{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

acs config-web-interface,	Enables or disables an interface for ACS configuration web.
page 15	

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

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#

Command	Description
acs delete core, page 16	Deletes an ACS run-time core file or JVM core log.
acs delete log, page 17	Deletes an ACS run-time core file or JVM core log excluding the latest log.
show acs-logs, page 90	Displays ACS server debug logs.

# show acs-logs

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

 $\verb| show acs-logs {details} | \verb| filename [filename]| \\$ 

# **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.	
filename	Name of the logfile (up to 255 characters) whose contents you want to view.	
1	Output modifier variables:	
	begin—Matched pattern. Up to 80 alphanumeric characters.	
	count—Count the number of lines in the output. Add number after the word count.	
	-Output modifier variables (see Table 9 on page 93).	
	<ul> <li>end-End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> </ul>	
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.	
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.	
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.	

## **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:		
	■ Web interface		
	Runtime process that processes the authentication and authorization requests		
	ACS database		
	<ul> <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

```
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 Oct 7 19:32 ACSManagementAudit.log Oct 7 19:32 ACSManagement.log 65 12 Oct 7 19:32 acsRuntime.log 6 Oct 7 19:33 monit.log Oct 7 19:17 MonitoringAndReportingAlert.log Oct 7 19:34 MonitoringAndReportingCollector.log 2 Oct 7 19:32 MonitoringAndReportingDatabase.log 6 Oct 7 19:33 MonitoringAndReportingProcess.log 3 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 Oct 7 19:32 acsLocalStore.log

# acs/admin# Example 3

```
acs/admin# show acs-logs filename acsRuntime.log
```

Oct 7 19:32 catalina.out

```
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 calcent 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)
```

Command	Description
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
replication force-sync, page 167	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.

 $\verb|show| application [status | version [app_name]]|$ 

# **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.
1	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables (see Table 9 on page 93).
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

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

I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	<ul> <li>exclude  -Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **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**

#### Example 2

acs/admin# show application version acs

```
Cisco ACS VERSION INFORMATION
------
Version: 5.8.1.0.28
Internal Build ID: B.221
```

# acs/admin# Example 3

 $\begin{tabular}{lll} acs/admin\# & show application & status & acs \\ ACS & role: & PRIMARY \\ \end{tabular}$ 

```
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
```

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#
```

Command	Description
application install, page 33	Installs an application bundle.
application remove, page 34	Removes or uninstalls an application.
application start, page 36	Starts or enables an application.
application stop, page 37	Stops or disables an application.
application upgrade, page 38	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

Command	Description
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
restore, page 69	Restores from backup the file contents of a specific repository.
repository, page 222	Enters the repository submode for configuration of backups.
show repository, page 124	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#

Command	Description
show repository, page 124	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**

#### 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#

Command	Description
cdp holdtime, page 180	Specifies the length of time that the receiving device should hold a CDP packet from your router before discarding it.
cdp run, page 181	Enables the CDP.
cdp timer, page 182	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 Tables Table 17 on page 183, Table 18 on page 184, and Table 19 on page 184 on pages A-94 and A-95 for sample time zones).

Command	Description
clock, page 43	Sets the system clock for display purposes.

# show cpu

To display CPU information, use the  ${\bf show}\ {\bf cpu}$  command in the EXEC mode.

show cpu [statistics] [|] [|]

# **Syntax Description**

statistics	Displays CPU statistics.
I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables (see Table 10 on page 100).
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables (see Table 10 on page 100).

# **Table 10 Output Modifier Variables for Count or Last**

1	Output modifier variables:
	■ begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **Defaults**

No default behavior or values.

## **Command Modes**

**EXEC** 

# **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

speed(MHz): 2133.737 cache size: 2048 KB

processor : 1

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#

Command	Description
show disks, page 104	Displays the system information of all disks.
show memory, page 118	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.

 $\textbf{show crypto} \; \{\textit{authorized-keys} \; | \; \textit{host-keys} \; | \; \textit{key} \} \; \{[\; > \text{file} \; ] \; | \; [\; |\; ] \; \}$ 

# **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.
T	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	>-Output redirection.
	-Output modifier variables.
	count—Count the number of lines in the output. Add number after the word count.
	>-Output redirection.
	-Output modifier variables.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	>-Output redirection.
	-Output modifier variables.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	>-Output redirection.
	-Output modifier variables.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	>-Output redirection.
	-Output modifier variables.
	last-Display the last few lines of output. Add a number after the word last. This can be a maximum of 80 lines to display. Default is 10.
	>-Output redirection.
	-Output modifier variables.

#### **Defaults**

No default behavior or values.

#### **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#
```

Command	Description
crypto, page 48	Performs crypto key operations.
show cpu, page 100	Displays CPU information.
show memory, page 118	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 [l] [l]

# **Syntax Description**

	Output modifier variables:
	begin-Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables (see Table 11 on page 104).
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables (see Table 11 on page 104).

# **Table 11 Output Modifier Variables for Count or Last**

1	Output modifier variables:
	■ begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables.

#### **Defaults**

No default behavior or values.

# **Command Modes**

**EXEC** 

# **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#
```

Command	Description
show cpu, page 100	Displays CPU information.
show memory, page 118	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.

 $show\ icmp_status\ \{>\mathit{file}\ |\ |\}$ 

# **Syntax Description**

>	Output direction.
file	Name of file to redirect standard output (stdout).
	Output modifier commands:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	<ul> <li> -Output modifier commands (see Table 12 on page 106).</li> </ul>
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	<ul> <li> -Output modifier commands (see Table 12 on page 106).</li> </ul>

**Table 12 Output Modifier Variables for Count or Last** 

I	Output modifier variables:
	begin-Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables.
	<ul> <li>end—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables.

# **Defaults**

No default behavior or values.

#### **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#

Command	Description
icmp echo, page 192	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, 1, 2, 3, 4, or 5.
I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the interface. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	<ul> <li>exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **Defaults**

No default behavior or values.

#### **Command Modes**

**EXEC** 

#### **Usage Guidelines**

None.

# **Examples**

```
acs/admin# show interface
GigabitEthernet 0
        Link encap: Ethernet HWaddr A4:4C:11:2A:40:F2
          inet addr:10.56.53.142 Bcast:10.56.53.255 Mask:255.255.255.0
          inet6 addr: 2001:420:4482:2453:7490:94c6:8ff7:c8c8/64 Scope:Global
          inet6 addr: 2001:420:4482:2453:a64c:11ff:fe2a:40f2/64 Scope:Global
          inet6 addr: fe80::a64c:11ff:fe2a:40f2/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:6775 errors:0 dropped:0 overruns:0 frame:0
          TX packets:570 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:661488 (645.9 KiB) TX bytes:73094 (71.3 KiB)
          Memory:fab00000-fac00000
GigabitEthernet 1
        Link encap: Ethernet HWaddr A4:4C:11:2A:40:F3
          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)
          Memory: faa00000-fab00000
```

```
GigabitEthernet 2
       Link encap:Ethernet HWaddr 00:10:18:C3:E5:9C
          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:106 Memory:f6000000-f6012800
GigabitEthernet 3
       Link encap:Ethernet HWaddr 00:10:18:C3:E5:9E
          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:114 Memory:f4000000-f4012800
10
         Link encap:Local Loopback
          inet addr:127.0.0.1 Mask:255.0.0.0
          inet6 ad
```

acs/admin#

Command	Description
interface, page 193	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**

O	utput modifier variables:
	begin-Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count-Count the number of lines in the interface. Add number after the word count.
	end-End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
•	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **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"
NAME: "CSACS1121-K9 chassis", DESCR: "CSACS111.
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
```

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**

I	Output modifier variables:
	■ begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count-Count the number of lines in the interface. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

# **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	Rei	Use	liace
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

Command	Description
ip address, page 195	Sets the IP address and netmask for the Ethernet interface.
ip route, page 203	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**

I	Output modifier variables:
	■ begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the interface. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **Defaults**

No default behavior or values.

# **Command Modes**

EXEC.

# **Usage Guidelines**

None.

# Examples

acs/admin# <b>show ipv6 route</b>						
Kernel IPv6 routing table						
Destination	Next	Нор	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	10
2001::215:17ff:fe7f:7780/128	::	U	0	0	1	10
2001::9893:fc06:19ee:6453/128	::	U	0	0	1	10
2001::c0bf:f906:75e9:9868/128	::	U	0	4	1	10
2001::c996:dafc:1419:73f3/128	::	U	0	0	1	10
fe80::215:17ff:fe7f:7780/128	::	U	0	3	1	10
ff00::/8	::	U	256	0	0	eth0
acs240-228/admin#						

Command	Description
ip address, page 195	Sets the IP address and netmask for the Ethernet interface.
ip route, page 203	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	Displays application logs.
	application-name—Application name. This can be a maximum of 255 alphanumeric characters.
	<ul> <li>tail-Tail system syslog messages.</li> </ul>
	<ul><li>count–Tail last count messages. From 0 to 4,294,967,295.</li></ul>
	-Output modifier variables (see below).
internal	Displays the syslogs configuration.
system	Displays the system syslogs.
	system-logfile-name—System log file name. This can be a maximum of 255 alphanumeric characters.
I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	<ul> <li>count-Count the number of lines in the interface. Add number after the word count.</li> </ul>
	<ul><li>end-End with line that matches. This can be a maximum of 80 alphanumeric characters.</li></ul>
	<ul> <li>exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **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

```
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 MonitoringAndReportingScheduler.log
```

### Example 4

```
ACS166/admin# show logging application ACSManagement.log
```

2658 Apr 23 2013 11:45:38 ACSADAgent.log

Apr 17 2013 13:28:11 CisACS_34001 1 1 1 REPLICATION Dispatching transaction , 1/ConfigTransactionID=1

```
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 btmp

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 14:40:04 backup.log

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#

Command	Description
ntp, page 212	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.

 $\mathtt{show\ ports}\ [|]\ [|]$ 

# **Syntax Description**

I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the interface. Add number after the word count.
	-Output modifier variables (see Table 13 on page 120).
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables (see Table 13 on page 120).

# **Table 13 Output Modifier Variables for Count or Last**

I	Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	-Output modifier variables.
	<ul> <li>end—End with line that matches. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	<ul> <li>exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.</li> </ul>
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last-Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.
	-Output modifier variables.

### **Defaults**

No default behavior or values.

# **Command Modes**

**EXEC** 

# **Usage Guidelines**

When you run the show ports command, the port must have an associated active session.

#### **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**

I	(Optional) Output modifier variables:
	begin—Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the interface. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

#### **Defaults**

No default behavior or values.

#### **Command Modes**

**EXEC** 

# **Usage Guidelines**

None.

# **Examples**

See Table 14 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

```
root 325 00:00:00 ? scsi_eh_0
root 326 00:00:00 ? scsi_eh_1
--More-- (press Spacebar to continue)
```

# **Table 14 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.	

# 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**

repository-name	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#

Command	Description
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
restore, page 69	Restores from backup the file contents of a specific repository.
repository, page 222	Enters the repository submode for configuration of backups.
show backup history, page 96	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#

Command	Description
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
restore, page 69	Restores from backup the file contents of a specific repository.
repository, page 222	Enters the repository submode for configuration of backups.
show backup history, page 96	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

acs/admin# 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**

```
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

```
!
icmp echo on
!
acs/admin#
```

Command	Description
configure, page 44	Enters the Configuration mode.
show startup-configuration, page 128	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)
```

Command	Description
configure, page 44	Enters the Configuration mode.
show running-configuration, page 126	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**

file	Save any technical support data as a file in the local disk.
word	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 dmidecode 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 -/+ buffers/cache: 1018252 3129780 Swap: 8191992 0 8191992
                            0 59440
                                            1873920
Mem:
*********
Displaying Processes (ax --forest)...
********
 PID TTY STAT TIME COMMAND
1 ? S 0:00 init [3]
         S 0:00 [migration/0] SN 0:00 [ksoftirqd/0]
             0:00 [migration/0]
  2 ?
```

```
4 ? S 0:00 [migration/1]
5 ? SN 0:00 [ksoftirqd/1]
--More--(Press Enter or Spacebar.)
```

Command	Description
show interface, page 108	Displays the usability status of the interfaces.
show process, page 122	Displays information about active processes.
show running-configuration, page 126	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 15 on page 131 describes the fields of the **show terminal** output.

# **Table 15 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#

Command	Description
clock timezone, page 183	Sets the time zone on the system.
show timezones, page 133	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.

acs/admin# show timezones

#### **Command Modes**

**EXEC** 

# **Usage Guidelines**

See clock timezone, page 183, for examples of the time zones available for the ACS server.

#### **Examples**

```
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)
```

Command	Description
show timezone, page 132	Displays the time zone set on the system.
clock timezone, page 183	Sets the time zone on the system.

# show udi

To display information about the CSACS-1121's, Cisco SNS-3415's, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595'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: VO1
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**

1	(Optional) Output modifier variables:
	begin-Matched pattern. This can be a maximum of 80 alphanumeric characters.
	count—Count the number of lines in the output. Add number after the word count.
	end—End with line that matches. This can be a maximum of 80 alphanumeric characters.
	exclude—Exclude lines that match. This can be a maximum of 80 alphanumeric characters.
	include—Include lines that match. This can be a maximum of 80 alphanumeric characters.
	last—Display last few lines of output. Add number after the word last. This can be a maximum of 80 lines to display. Default 10.

# **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#

# **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
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# 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 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 chose 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**

support-file-name	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.

Command	Description
acsview rebuild-database, page 143	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
acsview replace-clean-activesession sdb, page 144	Removes the active session information from the ACS view database and make it as a fresh database.
acsview replace-cleandb, page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
acsview show-dbsize, page 146	Displays the physical and actual size of the ACS view database and the transaction log files.
acsview truncate-log, page 147	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**

number-of-days	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.

Command	Description
acsview merge-from-supportbundle, page 142	Merges the ACS view database with the specified support bundle data.
acsview replace-clean-activesession sdb, page 144	Removes the active session information from the ACS view database and make it as a fresh database.
acsview replace-cleandb, page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
acsview show-dbsize, page 146	Displays the physical and actual size of the ACS view database and the transaction log files.
acsview truncate-log, 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)#
```

Command	Description
acsview merge-from-supportbundle, page 142	Merges the ACS view database with the specified support bundle data.
acsview rebuild-database, page 143	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
acsview replace-cleandb, page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
acsview show-dbsize, page 146	Displays the physical and actual size of the ACS view database and the transaction log files.
acsview truncate-log, page 147	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**

```
\verb|acs242-197/acsadmin(config-acs)#| \textbf{acsview replace-cleandb}| \\ \verb|acs242-197/acsadmin(config-acs)#| \\
```

Command	Description
acsview merge-from-supportbundle, page 142	Merges the ACS view database with the specified support bundle data.
acsview rebuild-database, page 143	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
acsview replace-clean-activesession sdb, page 144	Removes the active session information from the ACS view database and make it as a fresh database.
acsview show-dbsize, page 146	Displays the physical and actual size of the ACS view database and the transaction log files.
acsview truncate-log, page 147	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)#
```

Command	Description
acsview merge-from-supportbundle, page 142	Merges the ACS view database with the specified support bundle data.
acsview rebuild-database, page 143	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
acsview replace-clean-activesession sdb, page 144	Removes the active session information from the ACS view database and make it as a fresh database.
acsview replace-cleandb, page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
acsview truncate-log, page 147	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)#
```

Command	Description
acsview merge-from-supportbundle, page 142	Merges the ACS view database with the specified support bundle data.
acsview rebuild-database, page 143	Rebuilds the ACS view database and keeps the log data only for the specified number of days.
acsview replace-clean-activesession sdb, page 144	Removes the active session information from the ACS view database and make it as a fresh database.
acsview replace-cleandb, page 145	Removes all data from the ACS view database and makes the current view database as a fresh view database.
acsview show-dbsize, page 146	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**

truncate_log	Truncates the transaction history.
	•

### **Defaults**

None.

### **Command Modes**

ACS configuration (acs-config)

### **Usage Guidelines**

None.

## **Examples**

acs/admin(config-acs)# database-compress

Command	Description
debug-adclient, page 149	Enables debug logging for an Active Directory client.
no debug-adclient, page 163	Disables debug logging for an Active Directory client.
debug-log, page 150	Defines the local debug logging level for the ACS components.
show debug-adclient, page 172	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)#
```

Command	Description
no debug-adclient, page 163	Disables debug logging for an Active Directory client.
debug-log, page 150	Defines the local debug logging level for the ACS components.
show debug-log, page 173	Shows the debug log level status for subsystems (enabled or disabled).
show debug-adclient, page 172	Shows the debug log level status for an Active Directory client (enabled or disabled).
show acs-logs, page 90	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**

component	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.	
all	Selects local debug logging on all components.	
level	Selects local debug logging level. The options are:	
	debug–Selects logging messages with the DEBUG severity level.	
	info-Selects logging messages with the INFO severity level.	
	warn-Selects logging messages with the WARN severity level.	
	error—elects logging messages with the ERROR severity level.	
	fatal—Selects logging messages with the FATAL severity level.	
	none–Selects logging messages with the no severity level.	

### **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-acsview

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)#
```

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
acs (process), page 7	Starts or stops an ACS process.
acs backup, page 9	Performs a backup of an ACS configuration.
acs-config, page 11	Enters the ACS Configuration mode.
acs patch, page 18	Installs and removes ACS patches.
acs reset-config, page 19	Resets the ACS configuration to factory defaults.
acs reset-password, page 21	Resets the 'acsadmin' administrator password to the default setting.
acs restore, page 23	Performs a restoration of an ACS configuration.
acs support, page 26	Gathers information for ACS troubleshooting.
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
backup-logs, page 41	Backs up system logs.
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
replication force-sync, page 167	Synchronizes the secondary ACS database to the primary ACS database.
restore, page 69	Restores the file contents of a specific repository from the backup.
show debug-adclient, page 172	Shows the debug log level status for subsystems (enabled or disabled).
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Shows application status and version information.
show version, page 138	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**

Command	Description
interface, page 193	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**

user	Exports the user configuration data to the remote repository.
host	Exports the host configuration data to the remote repository.
device	Exports the device configuration information to the remote repository.
identity-group	Exports the identity groups data to the remote repository.
network-device-group -device-type	Exports the network device groups and network device types data to the remote repository.
network-device-group -location	Exports the network device group location information to the remote repository.
downloadable-acl	Exports the downloadable acls data to the remote repository.
command-set	Exports the command sets information to the remote repository.
administrator	Exports the administrator accounts to the remote repository.
repository	The remote repository to which to export the configuration data.
filename	The filename for the configuration data to be stored in the remote repository.
result-filename	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 result-filename that you provide.
full	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.
secret-phrase	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.
none	Neither encrypts the import file nor uses a secured remote repository for export.
only-sec-repo	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.
only-sec-file	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 repostiory01 file01 resultfile01 full password
Export process Id is: 1
acs/admin(config-acs)#
```

Command	Description
export-data-message-catal og, page 156	Exports the messages from the ACS message catalog to a remote repository.
import-data, page 157	Imports configuration data from a remote repository to an ACS local store.
import-export-abort, page 159	Aborts all or specific import or export processes.
import-export-status, page 161	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**

root	The root repository to which the exported file is saved.
export-filename	The filename to download the configuration data and store it in the remote repository.
result-filename	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 result-filename that you provide.
full	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.
secret-phrase	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.
none	Neither encrypts the import file nor uses the secured remote repository for export.
only-sec-repo	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.
only-sec-file	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)#

Command	Description
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
import-data, page 157	Imports configuration data from a remote repository to an ACS local store.
import-export-status, page 161	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.
repository	Remote repository from which to import the configuration data.
file-name	Import filename in the remote repository.
result-file-name	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 result-file-name.
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.
secret-phrase	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)#

Command	Description
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
import-export-abort, page 159	Aborts all or specific import or export processes.
import-export-status, page 161	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**

running	Aborts if any import or export processes is in progress.
all	Aborts if any import or export processes is in progress or waiting in queue to be processed.
id	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.
id	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)#

Command	Description
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
import-data, page 157	Imports configuration data from a remote repository to an ACS local store.
import-export-status, page 161	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**

current	Displays the status of the currently running processes.
all	Displays the status of all the import and export processes, including any pending processes.
id	Displays the status of an import or export process with the specified ID. You must specify the process ID.
id	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)#

Command	Description
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
import-data, page 157	Imports configuration data from a remote repository to an ACS local store.
import-export-abort, page 159	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)#
```

Command	Description
debug-adclient, page 149	Enables debug logging for an Active Directory client.
debug-log, page 150	Defines the local debug logging level for the ACS components.
show debug-adclient, page 172	Shows the debug log level status for subsystems (enabled or disabled).
show debug-adclient, page 172	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**

component	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.
all	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

- 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-acsview

## **Examples**

acs/admin(config-acs)# no debug-log all

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
acs (process), page 7	Starts or stops an ACS process.
acs-config, page 11	Enters the ACS Configuration mode.
acs reset-config, page 19	Resets the ACS configuration to factory defaults.
acs support, page 26	Gathers information for troubleshooting.
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
debug-log, page 150	Defines the local debug logging level for the ACS components.

Command	Description
replication force-sync, page 167	Synchronizes the secondary ACS database to the primary ACS database.
restore, page 69	Restores from backup the file contents of a specific repository.
show debug-adclient, page 172	Shows the debug log level status for subsystems (enabled or disabled).
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Shows application status and version information.
show version, page 138	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.

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
acs (process), page 7	Starts or stops an ACS process.
acs backup, page 9	Performs a backup of an ACS configuration.
acs-config, page 11	Enters the ACS Configuration mode.
acs patch, page 18	Installs and removes ACS patches.
acs reset-config, page 19	Resets the ACS configuration to factory defaults.
acs reset-password, page 21	Resets the 'acsadmin' administrator password to the default setting.
acs restore, page 23	Performs a restoration of an ACS configuration.
acs support, page 26	Gathers information for ACS troubleshooting.
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
backup-logs, page 41	Backs up system logs.
debug-log, page 150	Enables debug logging for components.
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.

Command	Description
restore, page 69	Restores the file contents of a specific repository from the backup.
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Displays application status and version information.
show version, page 138	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

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
acs (process), page 7	Starts or stops an ACS process.
acs backup, page 9	Performs a backup of an ACS configuration.
acs-config, page 11	Enters the ACS Configuration mode.
acs patch, page 18	Installs and removes ACS patches.
acs reset-config, page 19	Resets the ACS configuration to factory defaults.
acs reset-password, page 21	Resets the 'acsadmin' administrator password to the default setting.
acs restore, page 23	Performs a restoration of an ACS configuration.
acs support, page 26	Gathers information for ACS troubleshooting.
backup, page 39	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.
```

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

Command	Description
debug-adclient, page 149	Enables debug logging for an Active Directory client.
no debug-adclient, page 163	Disables debug logging for an Active Directory client.
debug-log, page 150	Defines the local debug logging level for the ACS components.
show debug-adclient, page 172	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**

component	Selects local debug logging on the components you want, where <i>component</i> can be any of the components described in the Usage Guidelines.
all	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-acsview

### **Examples**

```
ACS/admin(config-acs)# sh debug-log mgmt
mgmt warn
mgmt-acsview warn

ACS/admin(config-acs)# sh debug-log runtime
runtime warn

ACS/admin(config-acs)# sh debug-log mgmt-acsview
mgmt-acsview warn
```

Command	Description
acs (instance), page 5	Starts or stops an ACS instance.
acs (process), page 7	Starts or stops an ACS process.
acs backup, page 9	Performs a backup of an ACS configuration.

Command	Description
acs-config, page 11	Enters the ACS Configuration mode.
acs patch, page 18	Installs and removes ACS patches.
acs reset-config, page 19	Resets the ACS configuration to factory defaults.
acs reset-password, page 21	Resets the 'acsadmin' administrator password to the default setting.
acs restore, page 23	Performs a restoration of an ACS configuration.
acs support, page 26	Gathers information for ACS troubleshooting.
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
backup-logs, page 41	Backs up system logs.
debug-log, page 150	To set the local debug logging level for all or specific ACS components.
export-data, page 154	Exports configuration data from an ACS local store to a remote repository.
restore, page 69	Restores the file contents of a specific repository from the backup.
show acs-logs, page 90	Displays ACS server debug logs.
show application, page 93	Displays application status and version information.
show version, page 138	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 16 on page 176 lists the Configuration commands that are described in this section.

# **Table 16 List of Configuration Commands**

Table 16 List of Configuration Commands	
■ backup interface, page 177	ipv6 route, page 206
■ backup-staging-url, page 179	■ kron occurrence, page 207
cdp holdtime, page 180	■ kron policy-list, page 209
cdp run, page 181	logging, page 210
cdp timer, page 182	max-ssh, page 211
clock timezone, page 183	ntp, page 212
conn-limit, page 185	■ ntp authenticate, page 213
do, page 186	■ ntp authentication-key, page 214
end, page 189	■ ntp server, page 216
exit, page 190	■ ntp trusted-key, page 219
hostname, page 191	■ password-policy, page 220
■ icmp echo, page 192	■ rate-limit, page 221
■ interface, page 193	■ repository, page 222
■ ip address, page 195	service, page 224
■ ipv6 address, page 196	■ snmp-server community, page 225
■ ipv6 address autoconfig, page 197	■ snmp-server contact, page 226
■ ip default-gateway, page 198	■ snmp-server host, page 227
■ ip domain-name, page 199	■ snmp-server location, page 228
■ ip domain round-robin, page 200	snmp-server trap dskThresholdLimit,
■ ip domain timeout, page 201	page 229
■ ip name-server, page 202	synflood-limit, page 230
■ ip route, page 203	tcp, page 231
■ ipv6 enable, page 204	username, page 233

# 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.
ethernet-port-numbe	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 ]
```

```
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
```

Command	Description
show interface, page 108	Displays information about the system interfaces.
ip address, page 195 (interface configuration mode)	Sets the IP address and netmask for the interface.
shutdown, page 74 (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**

word	NFS URL for staging area. This can be a maximum of 2048 alphanumeric
	characters. Use <b>nfs://</b> server:path ¹ .

^{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 5.8.1 to perform a sucessful 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**

seconds	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)#
```

Command	Description
cdp timer, page 182	Specifies how often the ACS server sends CDP updates.
cdp run, page 181	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)#
```

Command	Description
cdp holdtime, page 180	Specifies the length of time that the receiving device should hold a CDP packet from the ACS server before discarding it.
cdp timer, page 182	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**

seconds	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)#
```

Command	Description
cdp holdtime, page 180	Specifies the amount of time that the receiving device should hold a CDP packet from the ACS server before discarding it.
cdp run, page 181	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**

timezone	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 17 on page 183, Table 18 on page 184, and Table 19 on page 184 for sample time zones to enter on your system).

# **Table 17 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 18 Australia Time Zones** 

Australia ¹			
ACT ²	Adelaide	Brisbane	Broken_Hill
Canberra	Currie	Darwin	Hobart
Lord_Howe	Lindeman	LHI ³	Melbourne
North	NSW ⁴	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 19 Asia Time Zones**

Asia ¹			
Aden ²	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**

Command	Description
show timezones, page 133	Displays a list of available time zones on the system.
show timezone, page 132	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**

number-of-connection s	Number of TCP connections
ip-address	(Optional). Source IP address to which to apply the TCP connection limit.
mask	(Optional). Source IP mask to which to apply the TCP connection limit.
port-number	(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

Command	Description
rate-limit, page 221	Configures a limit for TCP/UDP/ICMP packets from a source IP.
synflood-limit, page 230	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  $\bf{do}$  command in any configuration mode.

do arguments

# **Syntax Description**

arguments	The EXEC command to execute (see Table 21 on page 222).
-----------	---------------------------------------------------------

# **Table 20 Command Options for Do Command**

Command	Description
acs backup	Performs a backup of an ACS configuration.
acs-config	Enters the ACS Configuration mode.
acs config-web-interface	Enables or disables an interface for ACS configuration web.
acs patch	Installs and removes ACS patches.
acs reset-config	Resets the ACS configuration to factory defaults.
acs reset-password	Resets the 'acsadmin' administrator password to the default setting.
acs restore	Performs a restoration of an ACS configuration.
acs start	Starts an ACS instance.
acs stop	Stops an ACS instance.
acs support	Gathers information for ACS troubleshooting.
application install	Installs a specific application.
application remove	Removes a specific application.
application start	Starts or enables a specific application
application stop	Stops or disables a specific application.
application upgrade	Upgrades a specific application.
backup	Performs a backup (ACS and ADE OS) and places the backup in a repository.
backup-logs	Performs a backup of all the logs on the ACS server to a remote location.
clock	Sets the system clock on the ACS server.
configure	Enters Configuration mode.
сору	Copies any file from a source to a destination.
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 on the ACS server.
dir	Lists files on the ACS server.
forceout	Forces the logout of all the sessions of a specific ACS node user.
halt	Disables or shuts down the ACS server.
help	Describes the help utility and how to use it on the ACS server.
mkdir	Creates a new directory.
nslookup	Queries the IPv4 address or hostname of a remote system.

Table 20 Command Options for Do Command (continued)

Command	Description
ping	Determines the network activity on a remote system.
reload	Reboots the ACS server.
restore	Performs a restore and retrieves the backup out of a repository.
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.
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.

## **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
!
```

```
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#
```

Command	Description
exit, page 190	Exits Configuration mode.
exit, page 58 (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#

Command	Description
end, page 189	Exits Configuration mode.
exit, page 58 (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**

word	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.
```

# 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

Command	Description
show icmp_status, page 106	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.
ethernet-port-numbe Number of the GigabitEthernet port to configure. The valid options are 0, 1, 2, 3, 4, and	
r	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 do, 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 ip address, page 195).
no	Negates the command in this mode. Two keywords are available:  ip—Sets the IP address and netmask for the interface.  shutdown—Shuts down the interface.
shutdown	Shuts down the interface (see shutdown, page 74).

## **Examples**

# **Example 1**

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

Command	Description
show interface, page 108	Displays information about the system interfaces.
ip address, page 195 (interface configuration mode)	Sets the IP address and netmask for the interface.
shutdown, page 74 (interface configuration mode)	Shuts down the interface (see shutdown, page 74).

# 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**

ip-address	IPv4 or IPv6 version IP address.
netmask	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 209.165.200.227 255.255.224
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)#
```

Command	Description
shutdown, page 74 (interface configuration mode)	Disables an interface.
ip default-gateway, page 198	Sets the IP address of the default gateway of an interface.
show interface, page 108	Displays information about the system IP interfaces.
interface, page 193	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**

ip-address	IPv6 version IP address.
prefix	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 ]
                                                       OK
ntpd: Synchronizing with time server:
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)
```

Command	Description
shutdown, page 74 (interface configuration mode)	Disables an interface (see shutdown, page 74).
ip default-gateway, page 198	Sets the IP address of the default gateway of an interface.
show interface, page 108	Displays information about the system IP interfaces.
interface, page 193	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#
```

Command	Description
ip address, page 195 (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**

ip-address IP	P 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)#
```

Command	Description
ip address, page 195(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**

word	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)#
```

Command	Description
ip name-server, page 202	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)
```

Command	Description
ip domain timeout, page 201	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**

Seconds	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)
```

Command	Description
ip domain-name, page 199	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**

ip-address	Address of a name server.
ip-address*	(Optional) IP addresses of additional name servers.
	Note: 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.

Command	Description
ip route, page 203	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**

prefix	IP route prefix for the destination.
mask	Prefix mask for the destination.
ip-address	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#

Command	Description
ipv6 route, page 206	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**

prefix	IPv6 route prefix for the destination.
mask	Prefix mask for the destination.
ip-address	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 do, page 186).
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:  at-Usage: at [hh:mm] [day-of-week   day-of-month   month day-of-month].  policy-list-Specifies a policy list to be run by the occurrence. This can be a maximum of 80 alphanumeric characters.  recurring-Execution of the policy lists should be repeated.
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)#
```

Command	Description
kron policy-list, page 209	Specifies a name for a Command Scheduler policy.
acs backup, page 9	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 do, 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:
	cli-Command to be executed by the scheduler.

#### **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 5.8.1, 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)#
```

Command	Description
kron occurrence, 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**

ip-address	IP address of remote system to which you forward logs. This can be a maximum of 42 alphanumeric characters.
hostname	Hostname of remote system to which you forward logs. This can be a maximum of 42 alphanumeric characters.
loglevel	Configures the log level for the <b>logging</b> command.
level	Number of the desired priority level at which you set the log messages. Priority levels are (enter the number for the keyword):
	0-emerg-Emergencies: System unusable.
	■ 1-alert–Alerts: Immediate action needed.
	2-crit-Critical: Critical conditions.
	■ 3-err-Error: Error conditions.
	4-warn-Warning: Warning conditions.
	5-notif-Notifications: Normal but significant conditions.
	■ 6-inform-Informational messages. Default.
	7-debug-Debugging messages.

#### **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)#
```

Command	Description
show logging, page 114	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

Command	Description
show logging, page 114	Displays list of logs for the system.
ssh, page 75	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**

authenticate	Enables authentication of all time sources.
authentication-key	Specifies authentication keys for trusted time sources.
server	Specifies the NTP server to use.
trusted-key	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**

Command	Description
ntp authenticate, page 213	Enables authentication of all time sources.
ntp authentication-key, page 214	Configures authentication keys for trusted time sources.
ntp server, page 216	Allows synchronization of the software clock by the NTP server for the system.
ntp trusted-key, page 219	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
show ntp, page 119	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

Command	Description
ntp, page 212	Synchronizes the software clock through the NTP server for the system.
ntp authentication-key, page 214	Configures authentication keys for trusted time sources.
ntp server, page 216	Allows synchronization of the software clock by the NTP server for the system.
ntp trusted-key, page 219	Specifies key numbers for trusted time sources that need to be defined as NTP authentication keys.
show ntp, 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 md5 plain or md5 hash, 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 ee18afc7608ac7ecdbeefc5351ad118bc9ce1ef3.

Command	Description
ntp, page 212	Synchronizes the software clock through the NTP server for the system.
ntp authenticate, page 213	Enables authentication of all time sources.

Command	Description
ntp server, page 216	Allows synchronization of the software clock by the NTP server for the system.
ntp trusted-key, page 219	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
show ntp, page 119	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**

ip-address   hostname	IP address or hostname of the server that provides the clock synchronization. Arguments are limited to 255 alphanumeric characters.
key	(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.

#### **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.esl.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
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 ee18afc7608ac7ecdbeefc5351ad118bc9ce1ef3
\verb| ntp authentication-key 2 md5 hash flef7b05c0d1cd4c18c8b70e8c76f37f33c33b59| \\
ntp authentication-key 3 md5 hash ee18afc7608ac7ec2d7ac6d09226111dce07da37
ntp trusted-kev 1
ntp trusted-key 2
ntp trusted-key 3
ntp authenticate
\verb"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
                  refid
                            st t when poll reach delay offset jitter
______
                            10 1 46 64 37 0.000 0.000 0.001
*192.127.1.0 .LOCL.
             .RMOT.
                                               0.000
                                                                0.000
192.68.10.80
                             16 u 46 64 0
                                                         0.000
 192.68.10.150 .INIT.
                             16 u 47
                                      64
                                            0
                                                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
                refid
                            st t when poll reach delay offset jitter
    remote
______
                           10 1 35 64 377 0.000 0.000 0.001
192.127.1.0 .LOCL.
+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#
```

Command	Description
ntp, page 212	Synchronizes the software clock through the NTP server for the system.
ntp authenticate, page 213	Enables authentication of all time sources.
ntp authentication-key, page 214	Configures authentication keys for trusted time sources.
ntp trusted-key, page 219	Specifies key numbers for trusted time sources that need to be defined as NTP authentication keys.
show ntp, page 119	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)# no ntp trusted-key
```

Command	Description
ntp, page 212	The command to specify NTP configuration.
ntp authenticate, page 213	Enables authentication of all time sources.
ntp authentication-key, page 214	Configures authentication keys for trusted time sources.
ntp server, page 216	Allows synchronization of the software clock by the NTP server for the system.
show ntp, 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 1to 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**

numberofconnections	Number of TCP connections.
ip	IP address keyword.
ipaddress	Source IP address to which to apply the packet connection limit.
mask	The mask keyword.
mask	Source IP mask to which to apply the packet connection limit.
port	The <b>port</b> keyword.
portnumber	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#
```

Command	Description
conn-limit, page 185	Configures a limit to TCP packet connections from a source IP.
synflood-limit, page 230	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**

repository-name	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 do, page 186).
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:  url-Repository URL.
	<ul><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 Table 21 on page 222).
user	Configure username and password for access. This can be a maximum of 30 alphanumeric characters.

# Table 21 URL Keywords

Keyword	Source of Destination
word	Enter repository URL, including server and path info. This can be a maximum of 80 alphanumeric characters.
cdrom:	Local CD-ROM drive (read only).
disk:	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 disk://backup, the directory is created at /localdisk/backup.  You can run the show repository repository_name to view all the files in the local repository.
ftp:	Source or destination URL for an FTP network server. Use url ftp://server/path1.
nfs:	Source or destination URL for an NFS network server. Use url nfs://server:path1.
sftp:	Source or destination URL for an SFTP network server. Use url sftp://server/path1.
tftp:	Source or destination URL for a TFTP network server. Use url tftp://server/path ¹ .  Note: You cannot use a TFTP repository for performing ACS upgrade.
http:	Source or destination URL for a HTTP network server. Use url http://server/path1.
https:	Source or destination URL for a HTTPS network server. Use url https://server/path1.

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 5.8.1 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 5.8.1, the SFTP repositories that are created in ACS 5.5 do not work in ACS 5.8.1 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 5.8.1 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 #
```

Command	Description
backup, page 39	Performs a backup (ACS and ADE OS) and places the backup in a repository.
restore, page 69	Performs a restore and takes the backup out of a repository.
show backup history, page 96	Displays the backup history of the system.
show repository, page 124	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**

word	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.
ro	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)#
```

Command	Description
snmp-server host, page 227	Sends traps to a remote system.
snmp-server location, page 228	Configures the SNMP location MIB value on the system.
snmp-server contact, page 226	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**

word	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)#
```

Command	Description
snmp-server host, page 227	Sends traps to a remote system.
snmp-server community, page 225	Sets up the community access string to permit access to the SNMP.
snmp-server location, page 228	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**

ip-address	IP address of the SNMP notification host. This can be a maximum of 64alphanumeric characters.
hostname	Name of the SNMP notification host. This can be a maximum of 64 alphanumeric characters.
version {1   2c}	(Optional) Version of the SNMP used to send the traps. Default = 1.  If you use the version keyword, specify one of the following keywords:  1-SNMPv1.  2c-SNMPv2C.
community	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)#
```

Command	Description
snmp-server community, page 225	Sets up the community access string to permit access to SNMP.
snmp-server location, page 228	Configures the SNMP location MIB value on the system.
snmp-server contact, page 226	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**

word	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)#
```

Command	Description
snmp-server host, page 227	Sends traps to a remote system.
snmp-server community, page 225	Sets up the community access string to permit access to SNMP.
snmp-server contact, page 226	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**

value	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 kron 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)#
```

Command	Description
snmp-server host, page 227	Sends traps to a remote system.
snmp-server community, page 225	Sets up the community access string to permit access to SNMP.
snmp-server contact, page 226	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**

number-of-packets	Number of TCP SYN packets.
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# **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#
```

Command	Description
conn-limit, page 185	Configures a limit to TCP connection from a source IP.
rate-limit, page 221	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 recyle 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**

timeout	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**

# 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, Cisco SNS-3495, Cisco SNS-3515, or Cisco SNS-3595 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**

username	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.
password password	Password character length. This can be a maximum of 127 alphanumeric characters. You must specify a password for all new users.
hash   plain	Type of password. This can be a maximum of 34 alphanumeric characters.
role admin   user	Sets the privilege level for the user.
disabled	(Optional) Disables the user according to the user's email address.
email email-address	(Optional) The user's email address. For example, user1@mydomain.com.

#### **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)#
```

Command	Description
password-policy, page 220	Enables and configures the password policy.
show users, page 137	Displays a list of users and their privilege level. It also displays a list of logged-in users.