



CDA Command Reference

This chapter contains an alphabetical listing of the commands specific to the Cisco Context Directory Agent (CDA).

The commands comprise these modes:

- EXEC
 - System-level
 - Show
- Configuration
 - Configuration submode



Note Use the EXEC mode system-level **config** or **configure** command to access the 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 CDA server uses the name *CDA* in place of the CDA server's hostname.



Note

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

This appendix describes:

- [EXEC Commands, page 4-2](#)
- [Show Commands, page 4-48](#)
- [Configuration Commands, page 4-81](#)

EXEC Commands

This section lists each EXEC command and includes a brief description of its use, command syntax, usage guidelines, and sample output.

Table 4-1 lists the EXEC commands that this section describes.

Table 4-1 List of EXEC Commands

<ul style="list-style-type: none"> application install application remove application reset-config application reset-passwd application start application stop application upgrade backup backup-logs clock configure copy debug 	<ul style="list-style-type: none"> delete dir exit forceout halt help mkdir nslookup patch install patch remove ping ping6 reload 	<ul style="list-style-type: none"> restore rmdir show (see Show Commands) ssh tech telnet terminal length terminal session-timeout terminal session-welcome terminal terminal-type traceroute undebug write
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application install



Note

You are not allowed to run the **application install** command from the CLI under normal operations because the CDA application is preinstalled with the provided ISO image on all supported appliances and VMware.

To install a specific application other than the CDA, 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

application	The application command for an application install and administration.
install	Installs a specific application.
<i>application-bundle</i>	Application bundle filename. Supports up to 255 alphanumeric characters.
<i>remote-repository-name</i>	Remote repository name. Supports up to 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 issue 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.

Examples /admin# **application install cda-appbundle-1.0.0.011.i386.tar.gz myrepository**

```
Save the current ADE-OS running configuration? (yes/no) [yes] ?
Generating configuration...
Saved the ADE-OS running configuration to startup successfully
Initiating Application installation...
```

```
Application successfully installed
/admin#
```

Related Commands

Command	Description
application install	Configures an application.
application remove	Removes or uninstalls an application.
application reset-config	Resets an application configuration to factory defaults.
application reset-passwd	Resets an application password for a specified user.
application start	Starts or enables an application.
application stop	Stops or disables an application.
application upgrade	Upgrades an application bundle.
show application	Shows application information for the installed application packages on the system.

application remove

**Note**

You are not allowed to run the **application remove** command from the CLI to remove the CDA application unless you are explicitly instructed for an upgrade.

To remove a specific application other than the CDA, 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	The application command for an application install and administration.
remove	Removes or uninstalls an application.
<i>application-name</i>	Application name. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Removes or uninstalls an application.

Examples

```
/admin# application remove cda
Continue with application removal? [y/n] y

Application successfully uninstalled
/admin#
```

Related Commands	Command	Description
	application install	Configures an application.
	application install	Installs an application bundle.
	application reset-config	Resets an application configuration to factory defaults.
	application reset-passwd	Resets an application password for a specified user.
	application start	Starts or enables an application.
	application stop	Stops or disables an application.
	application upgrade	Upgrades an application bundle.
	show application	Shows application information for the installed application packages on the system.

application reset-config

To reset the CDA application configuration and clear the CDA database, use the **application reset-config** command in the EXEC mode. (This command does not reset your initial chassis configuration settings like the IP Address, netmask, administrator user interface password, and so on.) Part of this reset function requires you to enter new CDA administrator name and passwords.

application reset-config *application-name*

Syntax Description	application	The application command for an application install and administration.
	reset-config	Resets the CDA application configuration and clears the CDA database.
	<i>application-name</i>	Name of the application configuration you want to reset. Supports 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 CDA configuration and clear the CDA database without reimaging the CDA appliance or VMware, and reset the CDA username and passwords.



Note Although the **application reset-config** command resets the CDA configuration to factory defaults, the operating system (Cisco ADE-OS) configuration still remains intact. The Cisco ADE-OS configuration includes items such as the network settings, CLI password policy, and backup history.

Examples

Example 1

```
/admin# application reset-config cda
The existing configuration will be lost. Are you sure? [Y/n] Y
Stopping CDA Watchdog...
Stopping CDA Application Server...
Stopping AD Context Manager...
Stopping AD Context Observer...
Stopping CDA Logger...
Enter the CDA administrator username to create[admin]:
Enter the password for 'admin':
Re-enter the password for 'admin':
Starting CDA...
/admin#
```

Related Commands

Command	Description
application install	Configures an application.
application install	Installs an application bundle.
application remove	Removes or uninstalls an application.
application reset-passwd	Resets an application password for a specified user.
application start	Starts or enables an application.
application stop	Stops or disables an application.
application upgrade	Upgrades an application bundle.
show application	Shows application information for the installed application packages on the system.

application reset-passwd

To reset the administrator user interface login password for a specified user account (usually an existing administrator account) in CDA after you have lost the user account credentials, use the **application reset-passwd** command in the EXEC mode.

application reset-passwd *application-name administrator-ID*

application	The application command for an application install and administration.
reset-passwd	Resets the administrator account password.
<i>application-name</i>	Application name. Supports up to 255 alphanumeric characters.
<i>administrator-ID</i>	The name of an existing administrator account that has been disabled and for which you want to reset the password.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Resets administrator password.

Examples

```
admin# application reset-passwd cda admin
Enter new password: *****
Confirm new password: *****

Password reset successfully.
/admin#
```

Related Commands	Command	Description
	application install	Configures an application.
	application installs	Installs an application bundle.
	application remove	Removes or uninstalls an application.
	application reset-config	Resets an application configuration to factory defaults.
	application start	Starts or enables an application.
	application stop	Stops or disables an application.
	application upgrade	Upgrades an application bundle.
	show application	Shows application information for the installed application packages on the system.

application start

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

application start *application-name*

Syntax Description	application	The application command for an application install and administration.
	start	Enables an application bundle.
	<i>application-name</i>	Name of the predefined application that you want to enable. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Enables an application.

You cannot use this command to start the CDA application. If you use this command to start the application, you can see that the CDA is already running.

Examples

```
/admin# application start cda
Starting CDA...
```

You can check the status of CDA using the **show application status cda** command. If you are checking the status right after starting CDA, it will show the following output:

```
/admin# show application status cda
CDA Application Server process is not running.
```

But after a short while the output will be similar to:

```
/admin# show application status cda
CDA Application Server is running, PID: 16420
```

Related Commands	Command	Description
	application install	Configures an application.
	application install	Installs an application bundle.
	application remove	Removes or uninstalls an application.
	application reset-config	Resets an application configuration to factory defaults.
	application reset-passwd	Resets an application password for a specified user.
	application stop	Stops or disables an application.

Command	Description
application upgrade	Upgrades an application bundle.
show application	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	The application command for application install and administration.
	stop	Disables an application.
	<i>application-name</i>	Name of the predefined application that you want to disable. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Disables an application.

Examples

```
/admin# application stop cda

Stopping CDA Watchdog...
Stopping CDA Application Server...
Stopping AD Context Manager...
Stopping AD Context Observer...
Stopping CDA Logger...

/admin#
```

Related Commands	Command	Description
	application install	Configures an application.
	application install	Installs an application bundle.
	application remove	Removes or uninstalls an application.
	application reset-config	Resets an application configuration to factory defaults.
	application reset-passwd	Resets an application password for a specified user.
	application start	Starts or enables an application.

Command	Description
application upgrade	Upgrades an application bundle.
show application	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.

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

Syntax Description		
	application	The application command for application install and administration.
	upgrade	Upgrades a specific application bundle in the remote repository.
	<i>application-bundle</i>	Application name. Supports up to 255 alphanumeric characters.
	<i>remote-repository-name</i>	Remote repository name. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Upgrades an application bundle, and preserves any 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.



Caution

Do not issue the **backup** or **restore** commands when the upgrade is in progress. This action might cause the database to be corrupted.



Note

Before attempting to use this application upgrade command to upgrade to a newer release, you must read the upgrade instructions in the release notes supplied with that newer release. The release notes contains important instructions updated for upgrading to the newer release, which must be followed.

Examples

```
/admin# application upgrade cda-appbundle-1.1.0.362.i386.tar.gz http
Save the current ADE-OS running configuration? (yes/no) [yes]? yes
Generating configuration...
Saved the ADE-OS running configuration to startup successfully
Initiating Application Upgrade...
Stopping CDA application before upgrade...
Running CDA Database upgrade...
Upgrading CDA Database schema...
CDA Database schema upgrade completed.
```

```
Application upgrade successful
/admin#
```

Related Commands	Command	Description
	application install	Configures an application.
	application install	Installs an application bundle.
	application remove	Removes or uninstalls an application.
	application reset-config	Resets an application configuration to factory defaults.
	application reset-passwd	Resets an application password for a specified user.
	application start	Starts or enables an application.
	application stop	Stops or disables an application.
	show application	Shows application information for the installed application packages on the system.

backup

To perform a backup of the CDA configuration data and place the backup in a repository, use the **backup** command in the EXEC mode. To perform a backup of only the CDA application data without the Cisco ADE OS data, use the **application** command.



Note

Before attempting to use this **backup** command in the EXEC mode, you must copy the running configuration to a safe location, such as a network server, or save it as the CDA server startup configuration. You can use this startup configuration when you restore or troubleshoot your CDA application from the backup and system logs. For more information of copying the running configuration to the startup configuration, see the “[copy](#)” section on page 4-14.

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

Syntax Description		
	backup	The command to perform a backup the CDA and Cisco ADE OS and place the backup in a repository.
	<i>backup-name</i>	Name of backup file. Supports up to 100 alphanumeric characters.
	repository	Repository command.
	<i>repository-name</i>	Location where the files should be backed up to. Supports up to 80 alphanumeric characters.
	application	Application command (application-only backup, excludes the Cisco ODE OS system data).
	<i>application-name</i>	Application name. Supports up to 255 alphanumeric characters.

Defaults

No default behavior or values.

Command Modes EXEC

Usage Guidelines Performs a backup of the CDA and Cisco ADE OS data and places the backup in a repository. To perform a backup of only the CDA application data without the Cisco ADE OS data, use the **application** command.

Examples

Example 1

```
/admin# backup mybackup repository myrepository
% Creating backup with timestamped filename: backup-111125-1252.tar.gz.gpg
/admin#
```

Example 2

```
/admin# backup mybackup repository myrepository application cda
% Creating backup with timestamped filename: backup-111125-1235.tar.gz.gpg
/admin#
```

Related Commands

Command	Description
backup-logs	Backs up system logs.
delete	Deletes a file from the CDA server.
dir	Lists a file from the CDA server.
reload	Reboots the system.
repository	Enters the repository submode for configuration of backups.
restore	Restores from backup the file contents of a specific repository.
show backup history	Displays the backup history of the system.
show repository	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-logs	The command to back up the system and application logs to a repository.
<i>backup-name</i>	Name of one or more files to back up. Supports up to 100 alphanumeric characters.
repository	Repository command.
<i>repository-name</i>	Location where files should be backed up to. Supports up to 80 alphanumeric characters.

Defaults

No default behavior or values.

Command Modes EXEC

Usage Guidelines Backs up system logs with an encrypted (hashed) or unencrypted plaintext password.

Examples

```
/admin# backup-logs mybackup repository myrepository password plain Lab12345
% Creating log backup with timestamped filename: mybackup-111125-1117.tar.gz.gpg
/admin#
```

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	restore	Restores from backup the file contents of a specific repository.
	repository	Enters the repository submode for configuration of backups.
	show backup history	Shows the backup history of the system.
	show repository	Shows the available backup files located on a specific repository.

clock

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

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

Syntax Description	clock set	The command that sets the system clock.
	<i>month</i>	Current month of the year by name. Supports up to three alphabetic characters. For example, Jan for January.
	<i>day</i>	Current day (by date) of the month. Value = 0 to 31. Supports up to two numbers.
	<i>hh:mm:ss</i>	Current time in hours (24-hour format), minutes, and seconds.
	<i>yyyy</i>	Current year (no abbreviation).

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Sets the system clock. You must restart the CDA server after you reset the clock for the change to take effect. Under normal circumstances (with NTP configured), there is no reason to manually set the system clock using this command.

**Warning**

Changing the system time on a CDA appliance causes the CDA application to be unusable in the deployment.

**Note**

To ensure that you have the correct system time set at the time of installation, the setup wizard prompts for an NTP server and tries to sync with it. You must ensure that the configured NTP server during setup is always reachable so that the system time is always kept accurate, especially in rare situations where the BIOS time can get corrupted because of power failure or CMOS battery failure and this in turn can corrupt the ADE-OS system time during reboot.

Examples

```
/admin# clock set May 5 18:07:20 2010
/admin# show clock
Thu May 5 18:07:26 UTC 2010
/admin#
```

Related Commands

Command	Description
show clock	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 the **replace** option is used with this command, copies a remote configuration to the system which overwrites the existing configuration.

configure terminal**Syntax Description**

configure	The command that allows you to enter the Configuration mode.
terminal	Executes 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

Example 1

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

Example 2

```
/admin# configure terminal
Enter configuration commands, one per lineAug.nd with CNTL/Z.
/admin(config)#
```

Related Commands

Command	Description
show running-config	Displays the contents of the currently running configuration file or the configuration.
show startup-config	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 the CDA copies a configuration (running or startup).

Running Configuration

The CDA active configuration stores itself in the CDA RAM. Every configuration command you enter resides in the running configuration. If you reboot your CDA server, you lose the running 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 CDA 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 a CDA 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-config startup-config—Copies the running configuration to the startup configuration.

copy run start—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 CDA server. When you are satisfied that the current configuration is correct, copy your configuration to the startup configuration with the **copy run start** command.

copy startup-config running-config—Copies the startup configuration to the running configuration.

copy start run—Merges the startup configuration on top of the running configuration.

copy [*protocol://hostname/location*] **startup-config**—Copies but does not merge a remote file to the startup configuration.

copy [*protocol://hostname/location*] **running-config**—Copies and merges a remote file to the running configuration.

copy startup-config [*protocol://hostname/location*]—Copies the startup configuration to a remote system.

copy running-config [*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

copy	The command that copies items.
running-config	Represents the current running configuration file.
startup-config	Represents the configuration file used during initialization (startup).
<i>protocol</i>	See Table 4-2 for protocol keyword options.
<i>hostname</i>	Hostname of destination.
<i>location</i>	Location of destination.
logs	The system log files.
all	Copies all CDA log files from the system to another location. All logs are packaged as cdalogs.tar.gz and transferred to the specified directory on the remote host.
filename	Allows you to copy a single CDA log file and transfer it to the specified directory on the remote host, with its original name.
<i>log_filename</i>	Name of the CDA log file, as displayed by the show logs command (up to 255 characters).
mgmt	Copies the CDA management debug logs and Tomcat logs from the system, bundles them as mgmtlogs.tar.gz , and transfers them to the specified directory on the remote host.
runtime	Copies the CDA runtime debug logs from the system, bundles them as runtimelogs.tar.gz , and transfers them to the specified directory on the remote host.

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 CDA 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 the necessary source and destination information and the username and password to use; or, you can enter the **copy** command and have the server prompt you for any missing information.



Timesaver

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.

Possible errors are standard FTP or SCP error messages.

Table 4-2 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

Examples

Example 1

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

Example 2

```
/admin# copy running-config startup-config
Generating configuration...
/admin#
```

Example 3

```
/admin# copy start run
/admin#
```

Example 4

```
/admin# copy startup-config running-config
/admin#
```


Example 5

```
/admin# copy logs disk:/
Collecting logs...
/admin#
```

Example 6

```
/admin# copy disk://mybackup-100805-1910.tar.gz ftp://myftpserver/mydir
Username:
Password:
/admin#
```

Related Commands

Command	Description
application install	Starts or stops a CDA instance.
backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
delete	Deletes a file from the CDA server.
dir	Lists a file from the CDA server.
reload	Reboots the system.
restore	Restores from backup the file contents of a specific repository.
show application	Shows application status and version information.
show version	Displays information about the software version of the system.

debug

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

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

Syntax Description

debug	The command to identify various failures with the CDA server.
all	Enables all debugging.
application	Application files. <ul style="list-style-type: none"> <i>all</i>—Enables all application debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>install</i>—Enables application install debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>operation</i>—Enables application operation debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>uninstall</i>—Enables application uninstall debug output. Set level between 0 and 7, with 0 being severe and 7 being all.

backup-restore	<p>Backs up and restores files.</p> <ul style="list-style-type: none"> • <i>all</i>—Enables all debug output for backup-restore. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>backup</i>—Enables backup debug output for backup-restore. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>backup-logs</i>—Enables backup-logs debug output for backup-restore. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>history</i>—Enables history debug output for backup-restore. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>restore</i>—Enables restore debug output for backup-restore. Set level between 0 and 7, with 0 being severe and 7 being all.
cdp	<p>Cisco Discovery Protocol configuration files.</p> <ul style="list-style-type: none"> • <i>all</i>—Enables all Cisco Discovery Protocol configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>config</i>—Enables configuration debug output for Cisco Discovery Protocol. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>infra</i>—Enables infrastructure debug output for Cisco Discovery Protocol. Set level between 0 and 7, with 0 being severe and 7 being all.
config	<p>Configuration files.</p> <ul style="list-style-type: none"> • <i>all</i>—Enables all configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>backup</i>—Enables backup configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>clock</i>—Enables clock configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>infra</i>—Enables configuration infrastructure debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>kron</i>—Enables command scheduler configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>network</i>—Enables network configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>repository</i>—Enables repository configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all. • <i>service</i>—Enables service configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all.
icmp	<p>Internet Control Message Protocol (ICMP) echo response configuration.</p> <p><i>all</i>—Enable all debug output for ICMP echo response configuration. Set level between 0 and 7, with 0 being severe and 7 being all.</p>
copy	<p>Copy commands. Set level between 0 and 7, with 0 being severe and 7 being all.</p>

locks	<p>Resource locking.</p> <ul style="list-style-type: none"> <i>all</i>—Enables all resource locking debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>file</i>—Enables file locking debug output. Set level between 0 and 7, with 0 being severe and 7 being all.
logging	<p>Logging configuration files.</p> <p><i>all</i>—Enables all logging configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all.</p>
snmp	<p>SNMP configuration files.</p> <p><i>all</i>—Enables all SNMP configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all.</p>
system	<p>System files.</p> <ul style="list-style-type: none"> <i>all</i>—Enables all system files debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>id</i>—Enables system ID debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>info</i>—Enables system info debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>init</i>—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	<p>User management.</p> <ul style="list-style-type: none"> <i>all</i>—Enables all user management debug output. Set level between 0 and 7, with 0 being severe and 7 being all. <i>password-policy</i>—Enables user management debug output for password-policy. Set level between 0 and 7, with 0 being severe and 7 being all.
utils	<p>Utilities configuration files.</p> <p><i>all</i>—Enables all utilities configuration debug output. Set level between 0 and 7, with 0 being severe and 7 being all.</p>

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

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

Examples

```
/admin# debug all
/admin# mkdir disk:/1
/admin# 6 [15347]: utils: vsh_root_stubs.c[2742] [admin]: mkdir operation success
```

```

/admin# rmdir disk:/1
6 [15351]: utils: vsh_root_stubs.c[2601] [admin]: Invoked Remove Directory disk:/1 command
6 [15351]: utils: vsh_root_stubs.c[2663] [admin]: Remove Directory operation success
/admin#

/admin# undebg all
/admin#

```

Related Commands	Command	Description
	undebg	Disables the output (display of errors or events) of the debug command for various command situations.

delete

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

delete *filename* [*disk:/path*]

Syntax Description		
	delete	The command to delete a file from the CDA server.
	<i>filename</i>	Filename. Supports up to 80 alphanumeric characters.
	<i>disk:/path</i>	Location.

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	<pre> /admin# delete disk:/hs_err_pid19962.log /admin# </pre>
----------	---

Related Commands	Command	Description
	dir	Lists all the files on the CDA server.

dir

To list a file from the CDA 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	dir	The command to list files on a local system.
	<i>word</i>	Directory name. Supports up to 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

```
/admin# dir
```

```
Directory of disk:/
```

```

2034113 Aug 05 2010 19:58:39 ADElogs.tar.gz
 4096 Jun 10 2010 02:34:03 activemq-data/
 4096 Aug 04 2010 23:14:53 logs/
16384 Jun 09 2010 02:59:34 lost+found/
2996022 Aug 05 2010 19:11:16 mybackup-100805-1910.tar.gz
 4096 Aug 04 2010 23:15:20 target/
 4096 Aug 05 2010 12:25:55 temp/
```

```

Usage for disk: filesystem
 8076189696 bytes total used
 6371618816 bytes free
15234142208 bytes available
```

```
/admin#
```

Example 2

```
/admin# dir disk:/logs
```

```
0 Aug 05 2010 11:53:52 usermgmt.log
```

```

Usage for disk: filesystem
 8076189696 bytes total used
 6371618816 bytes free
15234142208 bytes available
```

```
/admin#
```

Example 3

```
/admin# dir recursive
```

```
Directory of disk:/
```

```
2034113 Aug 05 2010 19:58:39 ADElogs.tar.gz
2996022 Aug 05 2010 19:11:16 mybackup-100805-1910.tar.gz
4096 Aug 04 2010 23:14:53 logs/
4096 Aug 05 2010 12:25:55 temp/
4096 Jun 10 2010 02:34:03 activemq-data/
4096 Aug 04 2010 23:15:20 target/
16384 Jun 09 2010 02:59:34 lost+found/
```

```
Directory of disk:/logs
```

```
0 Aug 05 2010 11:53:52 usermgmt.log
```

```
Directory of disk:/temp
```

```
281 Aug 05 2010 19:12:45 RoleBundles.xml
6631 Aug 05 2010 19:12:34 PipDetails.xml
69 Aug 05 2010 19:12:45 GroupRoles.xml
231 Aug 05 2010 19:12:34 ApplicationGroupTypes.xml
544145 Aug 05 2010 19:12:35 ResourceTypes.xml
45231 Aug 05 2010 19:12:45 UserTypes.xml
715 Aug 05 2010 19:12:34 ApplicationGroups.xml
261 Aug 05 2010 19:12:34 ApplicationTypes.xml
1010 Aug 05 2010 19:12:34 Pdps.xml
1043657 Aug 05 2010 19:12:44 Groups.xml
281003 Aug 05 2010 19:12:38 Resources.xml
69 Aug 05 2010 19:12:45 GroupUsers.xml
2662 Aug 05 2010 19:12:44 RoleTypes.xml
79 Aug 05 2010 19:12:34 UserStores.xml
4032 Aug 05 2010 19:12:38 GroupTypes.xml
1043 Aug 05 2010 19:12:34 Organization.xml
58377 Aug 05 2010 19:12:46 UserRoles.xml
300 Aug 05 2010 19:12:45 Contexts.xml
958 Aug 05 2010 19:12:34 Applications.xml
28010 Aug 05 2010 19:12:45 Roles.xml
122761 Aug 05 2010 19:12:45 Users.xml
```

```
Directory of disk:/activemq-data
```

```
4096 Jun 10 2010 02:34:03 localhost/
```

```
Directory of disk:/activemq-data/localhost
```

```
0 Jun 10 2010 02:34:03 lock
4096 Jun 10 2010 02:34:03 journal/
4096 Jun 10 2010 02:34:03 kr-store/
4096 Jun 10 2010 02:34:03 tmp_storage/
```

```
Directory of disk:/activemq-data/localhost/journal
```

```
33030144 Aug 06 2010 03:40:26 data-1
2088 Aug 06 2010 03:40:26 data-control
```

```
Directory of disk:/activemq-data/localhost/kr-store
```

```
4096 Aug 06 2010 03:40:27 data/
4096 Aug 06 2010 03:40:26 state/
```

```
Directory of disk:/activemq-data/localhost/kr-store/data
```

```

102 Aug 06 2010 03:40:27 index-container-roots
0 Aug 06 2010 03:40:27 lock

Directory of disk:/activemq-data/localhost/kr-store/state

3073 Aug 06 2010 03:40:26 hash-index-store-state_state
51 Jul 20 2010 21:33:33 index-transactions-state
204 Aug 06 2010 03:40:26 index-store-state
306 Jun 10 2010 02:34:03 index-kaha
290 Jun 10 2010 02:34:03 data-kaha-1
71673 Aug 06 2010 03:40:26 data-store-state-1
0 Jun 10 2010 02:34:03 lock

Directory of disk:/activemq-data/localhost/tmp_storage

No files in directory

Directory of disk:/target

4096 Aug 04 2010 23:15:20 logs/

Directory of disk:/target/logs

0 Aug 04 2010 23:15:20 ProfilerPDP.log
2208 Aug 05 2010 11:54:26 ProfilerSensor.log

Directory of disk:/lost+found

No files in directory

Usage for disk: filesystem
8076189696 bytes total used
6371618816 bytes free
15234142208 bytes available

/admin#

```

Related Commands

Command	Description
delete	Deletes a file from the CDA server.

exit

To close an active terminal session by logging out of the CDA 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 CDA server) or to move up from the Configuration mode.

Examples

```
/admin# exit
/admin#
```

Related Commands	Command	Description
	end	Exits the Configuration mode.
	exit	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 CDA server, use the **forceout** command in the EXEC mode.

forceout *username*

Syntax Description	forceout	The command that enforces logout of all the sessions of a specific system user.
	<i>username</i>	The name of the user. Supports up to 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

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

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	<p>Before you issue the halt command, ensure that the CDA is not performing any backup, restore, installation, upgrade, or remove operation. If you issue the halt command while the CDA is performing any of these operations, you will get one of the following warning messages:</p> <pre>WARNING: A backup or restore is currently in progress! Continue with halt?</pre> <pre>WARNING: An install/upgrade/remove is currently in progress! Continue with halt?</pre> <p>If you get any of these warnings, enter Yes to halt the operation, or enter No to cancel the halt.</p> <p>If no processes are running when you use the halt command or if you enter Yes in response to the warning message displayed, the CDA asks you to respond to the following option:</p> <pre>Do you want to save the current configuration?</pre> <p>Enter Yes to save the existing CDA configuration. The CDA displays the following message:</p> <pre>Saved the running configuration to startup successfully</pre>

Examples	<pre>/admin# halt /admin#</pre>
-----------------	---------------------------------

Related Commands	Command	Description
	reload	Reboots the system.

help

To describe the interactive help system for the CDA 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.
- To 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.
- To 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

```
/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?'.)

/admin#
```

mkdir

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

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

Syntax Description

mk dir	The command to create directory.
<i>directory-name</i>	The name of the directory to create. Supports up to 80 alphanumeric characters.
<i>disk:/path</i>	Use <i>disk:/path</i> with the directory name.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

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

Examples

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

Directory of disk:/

    4096 May 06 2010 13:34:49 activemq-data/
    4096 May 06 2010 13:40:59 logs/
   16384 Mar 01 2010 16:07:27 lost+found/
    4096 May 06 2010 13:42:53 target/
    4096 May 07 2010 12:26:04 test/

Usage for disk: filesystem
      181067776 bytes total used
      19084521472 bytes free
      20314165248 bytes available

/admin#
```

Related Commands

Command	Description
dir	Displays a list of files on the CDA server.
rmdir	Removes an existing directory.

nslookup

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

nslookup *word*

Syntax Description

nslookup	The command to search the IP Address or hostname of a remote system.
<i>word</i>	IPv4 address or hostname of a remote system. Supports up to 64 alphanumeric characters.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

None.

Examples

Example 1

```
/admin# nslookup 1.2.3.4
Trying "4.3.2.1.in-addr.arpa"
Received 127 bytes from 171.70.168.183#53 in 1 ms
Trying "4.3.2.1.in-addr.arpa"
Host 4.3.2.1.in-addr.arpa. not found: 3(NXDOMAIN)
Received 127 bytes from 171.70.168.183#53 in 1 ms

/admin#
```

Example 2

```
/admin# nslookup 209.165.200.225
Trying "225.200.165.209.in-addr.arpa"
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 65283
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 2, ADDITIONAL: 0

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

;; ANSWER SECTION:
225.200.165.209.in-addr.arpa. 86400 IN PTR 209-165-200-225.got.net.

;; AUTHORITY SECTION:
200.165.209.in-addr.arpa. 86400 IN NS ns1.got.net.
200.165.209.in-addr.arpa. 86400 IN NS ns2.got.net.

Received 119 bytes from 171.70.168.183#53 in 28 ms

/admin#
```

patch install

The **patch install** command installs a patch bundle of the application only on a specific node where you run the **patch install** command from the CLI.

To install a patch bundle of the application, use the **patch** command in the EXEC mode.

patch install *patch-bundle* **repository**

Syntax Description		
patch		The command to install System or Application patch.
install		The command that installs a specific patch bundle of the application.
<i>patch-bundle</i>		The patch bundle file name. Supports up to 255 alphanumeric characters.
repository		Repository name. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Installs a specific patch bundle of the application.

If you attempt to install a patch that is an older version of the existing patch, then you receive the following error message:

```
% Patch to be installed is an older version than currently installed version.
```



Note

Before attempting to use this patch install command to install a patch, you must read the patch installation instructions in the release notes supplied with that patch. The release notes contains important instructions updated for installing that patch, which must be followed.

Example 1

```
/admin# patch install cda-patchbundle-1.0.0.011-2.i386.tar.gz myrepository
Do you want to save the current configuration? (yes/no) [yes]? yes
Generating configuration...
Saved the ADE-OS running configuration to startup successfully
Initiating Application Patch installation...
```

```
Patch successfully installed
/admin#
```

Example 2

```
/admin# patch install cda-patchbundle-1.0.0.011-2.i386.tar.gz myrepository
Do you want to save the current configuration? (yes/no) [yes]? no
Initiating Application Patch installation...
```

```
Patch successfully installed
/admin#
```

Example 3

```
/admin# patch install cda-patchbundle-1.0.0.011-2.i386.tar.gz disk
Do you want to save the current configuration? (yes/no) [yes]? yes
Generating configuration...
Saved the running configuration to startup successfully
Initiating Application Patch installation...
% Patch to be installed is an older version than currently installed version.
/admin#
```

Related Commands	Command	Description
	patch remove	The command that removes a specific patch bundle version of the application.
	show version	Displays information about the currently loaded software version, along with hardware and device information.

patch remove

To remove a specific patch bundle version of the application, use the **patch** command in the EXEC mode.

patch remove *word word*

Syntax Description	patch	The command to install System or Application patch.
	remove	The command that removes a specific patch bundle version of the application.

<i>word</i>	The name of the application for which the patch is to be removed. Supports up to 255 alphanumeric characters.
<i>word</i>	The patch version number to be removed. Supports up to 255 alphanumeric characters.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

Removes a specific patch bundle of the application.

If you attempt to remove a patch that is not installed, then you receive the following error message:

```
% Patch is not installed
```



Note

Before attempting to use this patch remove command to rollback a patch, you must read the rollback instructions of the patch in the release notes supplied with that patch. The release notes contains important instructions updated for rolling back the previously installed patch, which must be followed.

Examples

Example 1

```
/admin# patch remove cda 2
Continue with application patch uninstall? [y/n] y
Application patch successfully uninstalled
/admin#
```

Example 2

```
/admin# patch remove cda 3
Continue with application patch uninstall? [y/n] y
% Patch is not installed
/admin#
```

Related Commands

Command	Description
patch install	The command that installs a specific patch bundle of the application.
show version	Displays information about the currently loaded software version, along with hardware and device information.

ping

To diagnose the basic IPv4 network connectivity to a remote system, use the **ping** command in the EXEC mode.

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

Syntax Description	ping	The command to ping a remote IP Address.
	<i>ip-address</i>	IP Address of the system to ping. Supports up to 32 alphanumeric characters.
	<i>hostname</i>	Hostname of the system to ping. Supports up to 32 alphanumeric characters.
	df	Specification for packet fragmentation.
	<i>df</i>	Specify the value as 1 to prohibit packet fragmentation, or 2 to fragment the packets locally, or 3 to not set df.
	packetsize	Size of the ping packet.
	<i>packetsize</i>	Specify the size of the ping packet; the value can be between 0 and 65507.
	pingcount	Number of ping echo requests.
	<i>pingcount</i>	Specify the number of ping echo requests; the value can be between 1 and 10.

Defaults No default behavior or values.

Command Modes EXEC

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

Examples

```

/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
/admin#

```

Related Commands	Command	Description
	ping6	Ping a remote IPv6 address.

ping6

Similar to the IPv4 **ping**, use the IPv6 **ping6** command in the EXEC mode.

ping6 {*ip-address* | *hostname*} [**GigabitEthernet** 0-3][*packetsize packetsize*] [*pingcount pingcount*]

Syntax Description	ping	The command to ping a remote IPv6 address.
	<i>ip-address</i>	IP Address of the system to ping. Supports up to 64 alphanumeric characters.

<i>hostname</i>	Hostname of the system to ping. Supports up to 64 alphanumeric characters.
GigabitEthernet	Ethernet interface.
0-3	Select an Ethernet interface.
packetsize	Size of the ping packet.
<i>packetsize</i>	Specify the size of the ping packet; the value can be between 0 and 65507.
pingcount	Number of ping echo requests.
<i>pingcount</i>	Specify the number of ping echo requests; the value can be between 1 and 10.

Command Default No default behavior or values.

Command Modes EXEC

Usage Guidelines The IPv6 **ping6** 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.

The IPv6 **ping6** command is similar to the existing IPv4 ping command. The ping 6 command does not support the IPv4 ping fragmentation (df in IPv4) options, but it allows an optional specification of an interface. The interface option is primarily useful for pinning with link-local addresses that are interface-specific. The packetsize and pingcount options work the same as they do with the IPv4 command.

Examples

Example 1

```
/admin# ping6 3ffe:302:11:2:20c:29ff:feaf:da05
PING 3ffe:302:11:2:20c:29ff:feaf:da05(3ffe:302:11:2:20c:29ff:feaf:da05) from
3ffe:302:11:2:20c:29ff:feaf:da05 eth0: 56 data bytes
64 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=0 ttl=64 time=0.599 ms
64 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=1 ttl=64 time=0.150 ms
64 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=2 ttl=64 time=0.070 ms
64 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=3 ttl=64 time=0.065 ms

--- 3ffe:302:11:2:20c:29ff:feaf:da05 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3118ms
rtt min/avg/max/mdev = 0.065/0.221/0.599/0.220 ms, pipe 2

/admin#
```

Example 2

```
/admin# ping6 3ffe:302:11:2:20c:29ff:feaf:da05 GigabitEthernet 0 packetsize 10 pingcount 2
PING 3ffe:302:11:2:20c:29ff:feaf:da05(3ffe:302:11:2:20c:29ff:feaf:da05) from
3ffe:302:11:2:20c:29ff:feaf:da05 eth0: 10 data bytes
18 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=0 ttl=64 time=0.073 ms
18 bytes from 3ffe:302:11:2:20c:29ff:feaf:da05: icmp_seq=1 ttl=64 time=0.073 ms

--- 3ffe:302:11:2:20c:29ff:feaf:da05 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1040ms
rtt min/avg/max/mdev = 0.073/0.073/0.073/0.000 ms, pipe 2

/admin#
```


Related Commands	Command	Description
	ping	Ping a remote ip address.

reload

To reload the CDA 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 reboots the system. Use the **reload** command after you enter configuration information into a file and save the running-configuration to the persistent startup-configuration on the CLI and save any settings in the web Administration user interface session.

Before you issue the **reload** command, ensure that the CDA is not performing any backup, restore, installation, upgrade, or remove operation. If the CDA performs any of these operations and you issue the **reload** command, you will notice 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, the CDA asks you to respond to the following option:

Do you want to save the current configuration?

Enter **Yes** to save the existing CDA configuration. The CDA displays the following message:

Saved the running configuration to startup successfully

Examples

```
/admin# reload
Do you want to save the current configuration? (yes/no) [yes]? yes
Generating configuration...
Saved the running configuration to startup successfully
Continue with reboot? [y/n] y

Broadcast message from root (pts/0) (Fri Aug 7 13:26:46 2010):

The system is going down for reboot NOW!

/admin#
```

Related Commands	Command	Description
	<code>halt</code>	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 the CDA as well as the Cisco ADE OS. To perform a restore of a previous backup of the application data of the CDA only, add the **application** command to the **restore** command in the EXEC mode. To remove this function, use the **no** form of this command.

Use the following command to restore data related to the CDA application and Cisco ADE OS:

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

Use the following command to restore data related only to the CDA application:

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

Syntax Description		
<code>restore</code>		The command to restore the system.
<i>filename</i>		Name of the backed-up file that resides in the repository. Supports up to 120 alphanumeric characters. Note You must add the .tar.gpg extension after the filename (for example, myfile.tar.gpg).
<code>repository</code>		The repository command.
<i>repository-name</i>		Name of the repository you want to restore from backup.
<code>application</code>		The application command.
<i>application name</i>		The name of the application data to be restored. Supports up to 255 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines When you use restore commands in CDA, the CDA server restarts automatically.

The encryption key is optional while restoring data. To support restoring earlier backups where you have not provided encryption keys, you can use the **restore** command without the encryption key.

Examples

```
/admin# restore mybackup-100818-1502.tar.gpg repository myrepository application cda
Restore may require a restart of application services. Continue? (yes/no) [yes] ? yes
Initiating restore. Please wait...
CDA application restore is in progress.
This process could take several minutes. Please wait...
Stopping CDA Watchdog...
```

```

Stopping CDA Application Server...
Stopping AD Context Manager...
Stopping AD Context Observer...
Stopping CDA Logger...
Starting CDA Watchdog...
Starting CDA Application Server...
Starting AD Context Manager...
Starting AD Context Observer...
Starting CDA Logger...
Note: CDA Processes are initializing. Use 'show application status cda'
      CLI to verify all processes are in running state.
/admin#

```

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	backup-logs	Backs up system logs.
	repository	Enters the repository submode for configuration of backups.
	show repository	Displays the available backup files located on a specific repository.
	show backup history	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	rmdir	The command to remove an existing directory.
	<i>word</i>	Directory name. Supports up to 80 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

```

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

```

Directory of disk:/

```

 4096 May 06 2010 13:34:49 activemq-data/
 4096 May 06 2010 13:40:59 logs/

```

```

16384 Mar 01 2010 16:07:27 lost+found/
4096 May 06 2010 13:42:53 target/
4096 May 07 2010 12:26:04 test/

Usage for disk: filesystem
      181067776 bytes total used
      19084521472 bytes free
      20314165248 bytes available

/admin#

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

Directory of disk:/

      4096 May 06 2010 13:34:49 activemq-data/
      4096 May 06 2010 13:40:59 logs/
16384 Mar 01 2010 16:07:27 lost+found/
      4096 May 06 2010 13:42:53 target/

Usage for disk: filesystem
      181063680 bytes total used
      19084525568 bytes free
      20314165248 bytes available

/admin#

```

Related Commands

Command	Description
dir	Displays a list of files on the CDA server.
mkdir	Creates a new directory.

show

To show the running system information, use the **show** command in the EXEC mode. The **show** commands are used to display the CDA settings and are among the most useful commands.

The commands in [Table 4-3](#) require the **show** command to be followed by a keyword; for example, **show application status**. Some **show** commands require an argument or variable after the keyword to function; for example, **show application version**.

For detailed information on all the CDA **show** commands, see [Show Commands, page 4-48](#).

show *keyword*

Syntax Description

[Table 4-3](#) provides a summary of the **show** commands.

Table 4-3 *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.

Table 4-3 Summary of show Commands (continued)

Command ¹	Description
cdp (requires keyword)	Displays information about the enabled Cisco Discovery Protocol interfaces.
clock	Displays the day, date, time, time zone, and year of the system clock.
cpu	Displays CPU information.
disks	Displays file-system information of the disks.
interface	Displays statistics for all the interfaces configured on the Cisco ADE OS.
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 CDA server.
repository (requires keyword)	Displays the file contents of a specific repository.
restore (requires keyword)	Displays restore history on the CDA server.
running-config	Displays the contents of the currently running configuration file on the CDA server.
startup-config	Displays the contents of the startup configuration on the CDA server.
tech-support	Displays system and configuration information that you can provide to the TAC when you report a problem.
terminal	Displays information about the terminal configuration parameter settings for the current terminal line.
timezone	Displays the time zone of the CDA server.
timezones	Displays all the time zones available for use on the CDA server.
udi	Displays information about the unique device identifier (UDI) of the CDA.
uptime	Displays how long the system you are logged in to has been up and running.
users	Displays information for currently logged in users.
version	Displays information about the installed application version.

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 installed on the system (see [show application](#), page 4-48).

Defaults

No default behavior or values.

Command Modes EXEC

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

Examples

```

/admin# show application
<name>           <Description>
CDA               Cisco Context Directory Agent
/admin#

```

ssh

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

ssh [*ip-address* | *hostname*] *username* **port** [*number*] **version** [1 | 2] **delete hostkey** *word*

Syntax Description	ssh	The command to start an encrypted session with a remote system.
	<i>ip-address</i>	IP Address of the remote system. Supports up to 64 alphanumeric characters.
	<i>hostname</i>	Hostname of the remote system. Supports up to 64 alphanumeric characters.
	<i>username</i>	Username of the user logging in through SSH.
	port [<i>number</i>]	(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 hostkey	Deletes the SSH fingerprint of a specific host.
	<i>word</i>	IPv4 address or hostname of a remote system. Supports up to 64 alphanumeric characters.

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

```

/admin# ssh cda1 admin
admin@cda1's password:
Last login: Wed Jul 11 05:53:20 2008 from cda.cisco.com

```

```
cda1/admin#
```

Example 2

```
/admin# ssh delete host cda
/admin#
```

tech

To dump traffic on a selected network interface, use the **tech** command in the EXEC mode.

tech dumptcp <0-3> *count* <*package count*>

Syntax Description		
	tech	TAC commands.
	dumptcp	The command to dump a TCP package to the console.
	0-3	Gigabit Ethernet interface number (0 to 3).
	count	Specifies a maximum package count, and default is continuous (no limit).
	package count	Supports 1–10000.

Defaults

Disabled.

Command Modes

EXEC

Usage Guidelines

If you see bad udp cksum warnings in the tech dumptcp output, it may not be a cause for concern. The **tech dumptcp** command examines outgoing packets before they exit through 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 cksum.

Examples

```
cd-pos-dev17/admin# tech dumptcp 0 count 30
Invoking tcpdump. Press Control-C to interrupt.
tcpdump: listening on eth0, link-type EN10MB (Ethernet), capture size 96 bytes
10:27:32.923319 IP (tos 0x10, ttl 64, id 1377, offset 0, flags [DF], proto: TCP (6),
length: 92) 10.77.122.201.22 > 10.77.204.132.3142: P 165
9025089:1659025141(52) ack 793752673 win 12144
10:27:32.923613 IP (tos 0x10, ttl 64, id 1378, offset 0, flags [DF], proto: TCP (6),
length: 156) 10.77.122.201.22 > 10.77.204.132.3142: P 52
:168(116) ack 1 win 12144
10:27:32.940203 IP (tos 0x0, ttl 55, id 12075, offset 0, flags [none], proto: UDP (17),
length: 123) 72.163.128.140.53 > 10.77.122.201.43876:
13150 NXDomain* q: AAAA? cda-201.cisco.com. 0/1/0 ns: cisco.com. SOA[|domain]
10:27:32.952693 IP (tos 0x0, ttl 119, id 52324, offset 0, flags [DF], proto: TCP (6),
length: 40) 10.77.204.132.3142 > 10.77.122.201.22: ., ck
sum 0x4ed3 (correct), 1:1(0) ack 168 win 64192
10:27:33.201646 IP (tos 0x0, ttl 64, id 39209, offset 0, flags [DF], proto: UDP (17),
length: 63) 10.77.122.201.50340 > 72.163.128.140.53: [b
ad udp cksum b8a2!] 49140+ AAAA? cda-201.cisco.com. (35)
```

```

10:27:33.226571 IP (tos 0x0, ttl 55, id 26568, offset 0, flags [none], proto: UDP (17),
length: 123) 72.163.128.140.53 > 10.77.122.201.50340:
 49140 NXDomain* q: AAAA? cda-201.cisco.com. 0/1/0 ns: cisco.com. SOA[domain]
10:27:33.415173 IP (tos 0x0, ttl 64, id 39423, offset 0, flags [DF], proto: UDP (17),
length: 63) 10.77.122.201.56578 > 72.163.128.140.53: [b
ad udp cksum 8854!] 62918+ AAAA? cda-201.cisco.com. (35)
10:27:33.453429 IP (tos 0x0, ttl 55, id 12076, offset 0, flags [none], proto: UDP (17),
length: 123) 72.163.128.140.53 > 10.77.122.201.56578:
 62918 NXDomain* q: AAAA? cda-201.cisco.com. 0/1/0 ns: cisco.com. SOA[domain]
10:27:33.579551 arp who-has 10.77.122.120 tell 10.77.122.250
10:27:33.741303 IP (tos 0x0, ttl 128, id 21433, offset 0, flags [DF], proto: UDP (17),
length: 306) 0.0.0.0.68 > 255.255.255.255.67: BOOTP/DHC
P, Request from e4:1f:13:77:13:34, length: 278, xid:0x1377f72b, flags: [Broadcast]
(0x8000)

Client Ethernet Address: e4:1f:13:77:13:34 [|bootp]
10:27:33.788119 IP (tos 0x0, ttl 64, id 39796, offset 0, flags [DF], proto: UDP (17),
length: 63) 10.77.122.201.43779 > 72.163.128.140.53: [b
ad udp cksum 2ffc!] 32798+ AAAA? cda-201.cisco.com. (35)
10:27:33.812961 IP (tos 0x0, ttl 55, id 26569, offset 0, flags [none], proto: UDP (17),
length: 123) 72.163.128.140.53 > 10.77.122.201.43779:
 32798 NXDomain* q: AAAA? cda-201.cisco.com. 0/1/0 ns: cisco.com. SOA[domain]
10:27:34.003769 IP (tos 0x0, ttl 64, id 40011, offset 0, flags [DF], proto: UDP (17),
length: 63) 10.77.122.201.23267 > 72.163.128.140.53: [b
ad udp cksum 2e85!] 18240+ AAAA? cda-201.cisco.com. (35)
10:27:34.038636 IP (tos 0x0, ttl 55, id 26570, offset 0, flags [none], proto: UDP (17),
length: 123) 72.163.128.140.53 > 10.77.122.201.23267:
 18240 NXDomain* q: AAAA? cda-201.cisco.com. 0/1/0 ns: cisco.com. SOA[domain]
10:27:34.579054 arp who-has 10.77.122.120 tell 10.77.122.250
10:27:34.927369 arp who-has 10.77.122.42 tell 10.77.122.40
10:27:35.727151 IP (tos 0x0, ttl 255, id 64860, offset 0, flags [none], proto: UDP (17),
length: 317) 0.0.0.0.68 > 255.255.255.255.67: BOOTP/D
HCP, Request from 3c:df:1e:58:0f:c0, length: 289, xid:0x161504, flags: [Broadcast]
(0x8000)

Client Ethernet Address: 3c:df:1e:58:0f:c0 [|bootp]
10:27:36.190658 CDPv2, ttl: 180s, checksum: 692 (unverified), length 384
Device-ID (0x01), length: 12 bytes: 'hyd04-lab-SW' [|cdp]
30 packets captured
30 packets received by filter
0 packets dropped by kernel
cda-201/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

telnet	The command to log in to a host that supports Telnet.
<i>ip-address</i>	IP Address of the remote system. Supports up to 64 alphanumeric characters.
<i>hostname</i>	Hostname of the remote system. Supports up to 64 alphanumeric characters.
<i>port number</i>	(Optional) Indicates the port number of the remote host. From 0 to 65,535.

Defaults

No default behavior or values.

Command Modes	Operator EXEC
----------------------	------------------

Usage Guidelines	None.
-------------------------	-------

Examples	<pre>/admin# telnet 172.16.0.11 port 23 cda.cisco.com login: admin password: Last login: Mon Jul 2 08:45:24 on ttyS0 /admin#</pre>
-----------------	--

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	terminal	The command to set the terminal line parameters.
	length	The command that sets the number of lines on the current terminal screen for the current session.
	<i>integer</i>	Number of lines on the screen. Contains between 0 to 511 lines, inclusive. A value of zero (0) disables pausing between screens of output.

Defaults	24 lines
-----------------	----------

Command Modes	EXEC
----------------------	------

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

Examples	<pre>/admin# terminal length 0 /admin#</pre>
-----------------	--

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	terminal	The command to set the terminal line parameters.
	session-timeout	The command that sets the inactivity time out of all the sessions.
	<i>minutes</i>	Sets the number of minutes for the inactivity timeout. From 0 to 525,600. Zero (0) disables the timeout.

Defaults 30 minutes

Command Modes EXEC

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

Examples

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

Related Commands	Command	Description
	terminal session-welcome	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	terminal	The command to set the terminal line parameters.
	session-welcome	The command that sets a welcome message on the system for all users who log in to the system.
	<i>string</i>	Welcome message. Supports up to 2,048 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines Specify a message using up to 2,048 characters.

Examples

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

Related Commands	Command	Description
	terminal session-timeout	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		
	terminal	The command to set the terminal line parameters.
	terminal-type	The command that specifies the type of terminal connected. The default terminal type is VT100.
	<i>type</i>	Defines the terminal name and type, and permits terminal negotiation by hosts that provide that type of service. Supports up to 80 alphanumeric characters.

Defaults VT100

Command Modes EXEC

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

Examples

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

traceroute

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

traceroute [*ip-address* | *hostname*]

Syntax Description	traceroute	The command to discover the routes of the packets to their destination address.
	<i>ip-address</i>	IP Address of the remote system. Supports up to 32 alphanumeric characters.
	<i>hostname</i>	Hostname of the remote system. Supports up to 32 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

```
/admin# traceroute 172.16.0.11
traceroute to 172.16.0.11 (172.16.0.11), 30 hops max, 38 byte packets
 1 172.16.0.11 0.067 ms 0.036 ms 0.032 ms

/admin#
```

undebug

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

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

Syntax Description	undebug	The command to disable identifying various failures with the CDA server.
	all	Disables all debugging.
	application	Application files. <ul style="list-style-type: none"> <i>all</i>—Disables all application debug output. <i>install</i>—Disables application install debug output. <i>operation</i>—Disables application operation debug output. <i>uninstall</i>—Disables application uninstall debug output.

backup-restore	<p>Backs up and restores files.</p> <ul style="list-style-type: none"> • <i>all</i>—Disables all debug output for backup-restore. • <i>backup</i>—Disables backup debug output for backup-restore. • <i>backup-logs</i>—Disables backup-logs debug output for backup-restore. • <i>history</i>—Disables history debug output for backup-restore. • <i>restore</i>—Disables restore debug output for backup-restore.
cdp	<p>Cisco Discovery Protocol configuration files.</p> <ul style="list-style-type: none"> • <i>all</i>—Disables all Cisco Discovery Protocol configuration debug output. • <i>config</i>—Disables configuration debug output for Cisco Discovery Protocol. • <i>infra</i>—Disables infrastructure debug output for Cisco Discovery Protocol.
config	<p>Configuration files.</p> <ul style="list-style-type: none"> • <i>all</i>—Disables all configuration debug output. • <i>backup</i>—Disables backup configuration debug output. • <i>clock</i>—Disables clock configuration debug output. • <i>infra</i>—Disables configuration infrastructure debug output. • <i>kron</i>—Disables command scheduler configuration debug output. • <i>network</i>—Disables network configuration debug output. • <i>repository</i>—Disables repository configuration debug output. • <i>service</i>—Disables service configuration debug output.
copy	Copy commands.
icmp	<p>ICMP echo response configuration.</p> <p><i>all</i>—Disable all debug output for ICMP echo response configuration. Set level between 0 and 7, with 0 being severe and 7 being all.</p>
locks	<p>Resource locking.</p> <ul style="list-style-type: none"> • <i>all</i>—Disables all resource locking debug output. • <i>file</i>—Disables file locking debug output.
logging	<p>Logging configuration files.</p> <p><i>all</i>—Disables all debug output for logging configuration.</p>
snmp	<p>SNMP configuration files.</p> <p><i>all</i>—Disables all debug output for SNMP configuration.</p>
system	<p>System files.</p> <ul style="list-style-type: none"> • <i>all</i>—Disables all system files debug output. • <i>id</i>—Disables system ID debug output. • <i>info</i>—Disables system info debug output. • <i>init</i>—Disables system init debug output.
transfer	File transfer.

EXEC Commands

user	User management. <ul style="list-style-type: none"> <i>all</i>—Disables all user management debug output. <i>password-policy</i>—Disables user management debug output for password-policy.
utils	Utilities configuration files. <i>all</i> —Disables all utilities configuration debug output.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

None.

Examples

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

Related Commands

Command	Description
debug	Displays errors or events for command situations.

write

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

write {erase | memory | terminal}

Syntax Description

write	The command to write running system information.
erase	Erases the startup configuration. This option is disabled in CDA.
memory	Copies the running configuration to the startup configuration.
terminal	Copies the running configuration to console.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

Using this write command with the erase option is disabled in CDA.

If you use the write command with the erase option, CDA displays the following error message:

```
% Warning: 'write erase' functionality has been disabled by application: cda
```

Examples**Example 1**

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

Example 2

```
/admin# write terminal

Generating configuration...
!
hostname cda
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
  ip address 10.201.2.121 255.255.255.0
  ipv6 address autoconfig
!
interface GigabitEthernet 1
  shutdown
!
interface GigabitEthernet 2
  shutdown
!
interface GigabitEthernet 3
  shutdown
!
ip name-server 171.68.226.120
!
ip default-gateway 10.201.2.1
!
clock timezone UTC
!
ntp server clock.cisco.com
!
username admin password hash $1$6yQQaFXM$UBgbp7ggD1bG3kpExywwZ0 role admin
!
service sshd
!
repository myrepository
  url disk:
  user admin password hash 2b50ca94445f240f491e077b5f49fa0375942f38
!
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
!

/admin#

```

Show Commands

This section lists each **show** command and includes a brief description of its use, command syntax, usage guidelines, and sample output.

Table 4-4 lists the show commands in the EXEC mode that this section describes.

Table 4-4 List of EXEC show Commands

<ul style="list-style-type: none"> show application show backup history show cdp show clock show cpu show disks show icmp-status show interface show inventory show logging 	<ul style="list-style-type: none"> show logins show memory show ntp show ports show process show repository show restore show running-config show startup-config 	<ul style="list-style-type: none"> show tech-support show terminal show timezone show timezones show udi show uptime show users show version
---	---	--

show application

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

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

Syntax Description

show application	The command to display the CDA application information.
status	Displays the status of the installed application.
version	Displays the application version for an installed application—the CDA.
<i>app_name</i>	Name of the installed application.

	<p>Output modifier variables:</p> <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. —Output modifier variables (see Table 4-5). • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10. —Output modifier variables (see Table 4-5).
--	--

Table 4-5 **Output Modifier Variables for Count or Last**

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

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

Example 1

```
/admin# show application
<name>          <Description>
cda             Cisco Context Directory Agent

/admin#
```

Example 2

```
/admin# show application version cda

Cisco Context Directory Agent
-----
Version       : 1.0.0.11
Build Date    : Sun Apr  8 14:04:41 2012
Install Date  : Sun Apr  8 14:11:45 2012

/admin#
```

Example 3

```
/admin# show application status cda

CDA application server is running PID:2840

/admin#
```

Related Commands

Command	Description
application install	Configures an application.
application install	Installs an application bundle.
application reset-config	Resets an application configuration to factory defaults.
application reset-passwd	Resets an application password for a specified user.
application remove	Removes or uninstalls an application.
application start	Starts or enables an application.
application stop	Stops or disables an application.
application upgrade	Upgrades an application bundle.

show backup history

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

show backup history

Syntax Description

show backup	The command to display the CDA backup information.
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

```
/admin# show backup history
Wed Aug 18 12:55:21 UTC 2010: backup logs logs-0718.tar.gz to repository fileserver007:
success
Wed Aug 18 12:55:53 UTC 2010: backup full-0718.tar.gpg to repository fileserver007:
success
/admin#
```

Example 2

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

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	restore	Restores from backup the file contents of a specific repository.
	repository	Enters the repository submode for configuration of backups.
	show repository	Displays the available backup files located on a specific repository.

show cdp

To display information about the enabled Cisco Discovery Protocol interfaces, use the **show cdp** command in the EXEC mode.

show cdp {all | neighbors}

Syntax Description	Command	Description
	show cdp	The command to display Cisco Discovery Protocol show commands.
	all	Shows all the enabled Cisco Discovery Protocol interfaces.
	neighbors	Shows the Cisco Discovery Protocol neighbors.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

Example 1

```
/admin# show cdp all
CDP protocol is enabled...
    broadcasting interval is every 60 seconds.
    time-to-live of cdp packets is 180 seconds.

    CDP is enabled on port GigabitEthernet0.
/admin#
```

Example 2

```
/admin# show cdp neighbors
CDP Neighbor : pmbu-ibf-sw-ins
    Local Interface      : GigabitEthernet0
    Device Type          : E-24TDWS-C3750
    Port                 : GigabitEthernet1/0/17
    Address              : 192.168.100.254

/admin#
```

Related Commands

Command	Description
cdp holdtime	Specifies the length of time that the receiving device should hold a Cisco Discovery Protocol packet from your router before discarding it.
cdp run	Enables the Cisco Discovery Protocol.
cdp timer	Specifies how often the CDA server sends Cisco Discovery Protocol 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

```
/admin# show clock
Tue May 8 08:33:50 IDT 2012
/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 4-13, 4-14, and 4-15 on pages A-84 and A-85 for sample time zones).

Related Commands

Command	Description
clock	Sets the system clock for display purposes.

show cpu

To display CPU information, use the **show cpu** command in the EXEC mode.

show cpu [*statistics*] [*l*] [*l*]

Syntax Description

show cpu	The command to display CPU information.
statistics	Displays CPU statistics.
<i>l</i>	<p>Output modifier variables:</p> <ul style="list-style-type: none"> <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. <ul style="list-style-type: none"> —Output modifier variables (see Table 4-6). <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10. <ul style="list-style-type: none"> —Output modifier variables (see Table 4-6).

Table 4-6 *Output Modifier Variables for Count or Last*

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

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines

None.

Examples

Example 1

```
/admin# show cpu

processor : 0
model      : Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
speed(MHz): 1596.000
cache size: 2048 KB

processor : 1
model      : Intel(R) Core(TM)2 CPU          6400 @ 2.13GHz
speed(MHz): 1596.000
cache size: 2048 KB

/admin#
```

Example 2

```
/admin# show cpu statistics
user time:          265175
kernel time:        166835
idle time:          5356204
i/o wait time:      162676
irq time:           4055
```

```
/admin#
```

Related Commands	Command	Description
	show disks	Displays the system information of all disks.
	show memory	Displays the amount of system memory that each system process uses.

show disks

To display the disks file-system information, use the **show disks** command in the EXEC mode.

```
show disks [i] [j]
```

Syntax Description	show disks	The command to display the disks and the file-system information
		<p>Output modifier variables:</p> <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. <ul style="list-style-type: none"> —Output modifier variables (see Table 4-7). • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10. <ul style="list-style-type: none"> —Output modifier variables (see Table 4-7).

Table 4-7 *Output Modifier Variables for Count or Last*

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

```
/admin# show disks

temp. space 2% used (36460 of 1984044)
disk: 2% used (208816 of 14877060)

Internal filesystems:
  all internal filesystems have sufficient free space

/admin#
```

Related Commands

Command	Description
show cpu	Displays CPU information.
show memory	Displays the amount of system memory that each system process uses.

show icmp-status

To display the Internet Control Message Protocol echo response configuration information, use the **show icmp_status** command in EXEC mode.

```
show icmp_status [> file |]
```

Syntax Description

show icmp_status	The command to display the Internet Control Message Protocol echo response configuration information.
>	Output direction.
file	Name of file to redirect standard output (stdout).
	Output modifier commands: <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word count. <ul style="list-style-type: none"> – —Output modifier commands (see Table 4-8). • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word last. Supports up to 80 lines to display. Default 10. <ul style="list-style-type: none"> – —Output modifier commands (see Table 4-8).

Table 4-8 Output Modifier Variables for Count or Last

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

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

Example 1

```
/admin# show icmp_status
icmp echo response is turned on
/admin#
```

Example 2

```
/admin# show icmp_status
icmp echo response is turned off
/admin#
```

Related Commands	Command	Description
	icmp echo	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	show interface	The command to display interface information.
	<i>GigabitEthernet</i>	Shows the Gigabit Ethernet interface. Enter <0-3>.
		Output modifier variables: <ul style="list-style-type: none"> <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10.

Defaults	No default behavior or values.
Command Modes	EXEC
Usage Guidelines	In the show interface GigabitEthernet 0 output, you can find that the interface has three IPv6 addresses. The first internet address (starting with 3ffe) is the result of using stateless autoconfiguration. For this to work, you need to have IPv6 route advertisement enabled on that subnet. The next address (starting with fe80) is a link local address that does not have any scope outside the host. You always see a link local address regardless of the IPv6 autoconfiguration or DHCPv6 configuration. The last address (starting with 2001) is the result obtained from a IPv6 DHCP server.

Examples

Example 1

```
/admin# show interface
eth0    Link encap:Ethernet  HWaddr 00:0C:29:6A:88:C4
        inet addr:172.23.90.113  Bcast:172.23.90.255  Mask:255.255.255.0
        inet6 addr: fe80::20c:29ff:fe6a:88c4/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:48536 errors:0 dropped:0 overruns:0 frame:0
        TX packets:14152 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:6507290 (6.2 MiB)  TX bytes:12443568 (11.8 MiB)
        Interrupt:59 Base address:0x2000

lo      Link encap:Local Loopback
        inet addr:127.0.0.1  Mask:255.0.0.0
        inet6 addr: ::1/128 Scope:Host
        UP LOOPBACK RUNNING  MTU:16436  Metric:1
        RX packets:1195025 errors:0 dropped:0 overruns:0 frame:0
        TX packets:1195025 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:0
        RX bytes:649425800 (619.3 MiB)  TX bytes:649425800 (619.3 MiB)

sit0    Link encap:IPv6-in-IPv4
        NOARP  MTU:1480  Metric:1
        RX packets:0 errors:0 dropped:0 overruns:0 frame:0
        TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:0
        RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)

/admin#
```

Example 2

```
/admin# show interface GigabitEthernet 0
eth0    Link encap:Ethernet  HWaddr 00:0C:29:AF:DA:05
        inet addr:172.23.90.116  Bcast:172.23.90.255  Mask:255.255.255.0
        inet6 addr: 3ffe:302:11:2:20c:29ff:feaf:da05/64 Scope:Global
        inet6 addr: fe80::20c:29ff:feaf:da05/64 Scope:Link
        inet6 addr: 2001:558:ff10:870:8000:29ff:fe36:200/64 Scope:Global
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:77848 errors:0 dropped:0 overruns:0 frame:0
        TX packets:23131 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:10699801 (10.2 MiB)  TX bytes:3448374 (3.2 MiB)
        Interrupt:59 Base address:0x2000

/admin#
```

Related Commands	Command	Description
	interface	Configures an interface type and enters the interface configuration submode.
	ipv6 address autoconfig	Enables IPv6 stateless autoconfiguration on an interface.
	ipv6 address dhcp	Enables IPv6 address DHCP on an interface.

show inventory

To display information about the hardware inventory, including the CDA appliance model and serial number, use the **show inventory** command in the EXEC mode.

show inventory |

Syntax Description	show inventory	The command to display hardware inventory information.
		Output modifier variables: <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

```
/admin# show inventory

NAME: "CSACS-1121-K9      chassis", DESCR: "CSACS-1121-K9      chassis"
PID: CSACS-1121-K9      , VID: V01 , SN: LAB11122278
Total RAM Memory: 4017680 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: 00:15:17:29:68:A2
NIC 0: Driver Descr: Intel(R) PRO/1000 Network Driver
NIC 1: Device Name: eth1
NIC 1: HW Address: 00:15:17:29:68:A3
NIC 1: Driver Descr: Intel(R) PRO/1000 Network Driver

(*) Hard Disk Count may be Logical.

/admin#

```

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.

show logging { **application** [*application-name*] } { **internal** } { **system** } |

Syntax Description

show logging	The command to display system logging information.
application	Displays application logs. <i>application-name</i> —Application name. Supports up to 255 alphanumeric characters. <ul style="list-style-type: none"> – <i>tail</i>—Tail system syslog messages. – <i>count</i>—Tail last count messages. From 0 to 4,294,967,295. —Output modifier variables (see below).
internal	Displays the syslogs configuration.
system	Displays the system syslogs.
	Output modifier variables: <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 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	<p>Example 1</p> <pre> /admin# show logging system ADEOS Platform log: ----- Apr 18 11:03:57 localhost debugd[1756]: [2170]: config:network: main.c[252] [setup]: Setup is complete Apr 18 14:04:13 localhost debugd[1756]: [3005]: application:install cars_install.c[245] [setup]: Install initiated with bundle - cda.tar.gz, r epo - SystemDefaultPkgRepos Apr 18 14:04:13 localhost debugd[1756]: [3005]: application:install cars_install.c[259] [setup]: Stage area - /storeddata/Installing/.13347470 53 Apr 18 14:04:13 localhost debugd[1756]: [3005]: application:install cars_install.c[263] [setup]: Getting bundle to local machine Apr 18 14:04:13 localhost debugd[1756]: [3005]: transfer: cars_xfer.c[58] [setup]: local copy in of cda.tar.gz requested Apr 18 14:04:15 localhost debugd[1756]: [3005]: application:install cars_install.c[272] [setup]: Got bundle at - /storeddata/Installing/.13347 47053/cda.tar.gz Apr 18 14:04:15 localhost debugd[1756]: [3005]: application:install cars_install.c[282] [setup]: Unbundling package cda.tar.gz Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[294] [setup]: Unbundling done. Verifying input parameters.. . Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[316] [setup]: Manifest file is at - /storeddata/Installing/ .1334747053/manifest.xml Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[326] [setup]: Manifest file appname - cda Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[389] [setup]: Manifest file pkgtype - CARS Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[401] [setup]: Verify dependency list - Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[413] [setup]: Verify app license - Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[423] [setup]: Verify app RPM's Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[431] [setup]: No of RPM's - 1 Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[442] [setup]: Disk - 50 Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[325] [setup]: Disk requested = 51200 KB Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[345] [setup]: More disk found Free = 211595264, req_disk = 51200 Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[453] [setup]: Mem requested by app - 100 </pre>

```

Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[369]
[setup]: Mem requested = 102400
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[384]
[setup]: Found MemFree = MemFree:      1284664 kB
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[390]
[setup]: Found MemFree value = 1284664
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[393]
[setup]: Found Inactive = Inactive:      1361456 kB
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[399]
[setup]: Found Inactive MemFree value = 1361456
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[409]
[setup]: Sufficient mem found
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install ci_util.c[415]
[setup]: Done checking memory...
Apr 18 14:04:22 localhost debugd[1756]: [3005]: application:install cars_install.c[475]
[setup]: Verifying RPM's...
--More--
(press Spacebar to continue)

```

```
/admin#
```

Example 2

```
/admin# show logging internal
```

```

log server:      localhost
Global loglevel: 6
Status:          Enabled
/admin#

```

Example 3

```
/admin# show logging internal
```

```

log server:      localhost
Global loglevel: 6
Status:          Disabled
/admin#

```

show logins

To display the state of system logins, use the **show logins** command in the EXEC mode.

show logins cli

Syntax Description	show logins	The command to display system login history.
	cli	Lists the cli login history.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines Requires the **cli** keyword; otherwise, an error occurs.

Examples

```
/admin# show logins cli
admin pts/1 10.77.203.182 Tue May 8 08:32 still logged in
admin pts/1 10.77.203.182 Mon May 7 14:05 - 14:58 (00:53)
admin pts/1 10.77.203.182 Mon May 7 12:23 - 13:29 (01:06)
root pts/0 64.103.124.254 Mon Apr 23 11:54 still logged in
root ttyS0 Thu Apr 19 17:57 still logged in
admin ttyS0 Thu Apr 19 17:57 - 17:57 (00:00)
admin ttyS0 Thu Apr 19 17:23 - 17:56 (00:32)
admin ttyS0 Thu Apr 19 18:28 - 15:59 (-2:-29)
admin ttyS0 Wed Apr 18 20:43 - 21:16 (00:32)
admin ttyS0 Wed Apr 18 14:58 - 15:28 (00:30)

wtmp begins Wed Apr 18 13:59:32 2012

/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

```
/admin# show memory
total memory: 1035164 kB
free memory: 27128 kB
cached: 358888 kB
swap-cached: 142164 kB

/admin#
```


show ntp

To show the status of the 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

Example:1

```
/admin# show ntp
Primary NTP : cd-acis-ntp.cisco.com
```

```
synchronised to NTP server (10.56.60.29) at stratum 3
time correct to within 64 ms
polling server every 1024 s
```

remote	refid	st	t	when	poll	reach	delay	offset	jitter
127.127.1.0	.LOCL.	10	1	5	64	377	0.000	0.000	0.001
*10.56.60.29	64.103.34.15	2	u	98	1024	377	0.001	0.205	0.054

Warning: Output results may conflict during periods of changing synchronization.
/admin#

Example:2

```
/admin# show ntp
% no NTP servers configured
/admin#
```

Related Commands

Command	Description
ntp	Allows you to configure NTP configuration up to three NTP servers.
ntp server	Allows synchronization of the software clock by the NTP server for the system.

show ports

To display information about all the processes listening on active ports, use the **show ports** command in the EXEC mode.

show ports [*l*] [*l*]

Syntax Description

show ports	The command to display all the processes listening on open ports in the CDA.
	Output modifier variables: <ul style="list-style-type: none">• <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters.• <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. —Output modifier variables (see Table 4-9).• <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters.• <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters.• <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters.• <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10. —Output modifier variables (see Table 4-9).

Table 4-9 Output Modifier Variables for Count or Last

	Output modifier variables: <ul style="list-style-type: none">• <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters.• <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. —Output modifier variables.• <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters.• <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters.• <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters.• <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 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

```

/admin# show ports
Process : portmap (2560)
      tcp: 0.0.0.0:111
      udp: 0.0.0.0:111
Process : sshd (3312)
      tcp: 0.0.0.0:22, :::22
Process : rpc.statd (2600)
      tcp: 0.0.0.0:662
      udp: 0.0.0.0:656, 0.0.0.0:659
Process : java (18838)
      tcp: ::ffff:127.0.0.1:8005, :::8009, :::80, :::443, :::8092
Process : java (18811)
      tcp: :::54826, :::8091
Process : java (18849)
      tcp: :::8020, :::8090
      udp: :::1812, :::1813, :::1645, :::1646, :::50672
Process : java (18787)
      tcp: :::8093
Process : ntpd (4213)
      udp: 192.168.100.156:123, 10.56.14.156:123, 127.0.0.1:123, 0.0.0.0:123,
fe80::215:17ff:fe29:123, fd00:1234:5678:abcd:123, 2001:420:44ff:1
4:21:123, fe80::215:17ff:fe29:123, ::1:123, :::123
/admin#

```

show process

To display information about active processes, use the **show process** command in the EXEC mode.

show process |

Syntax Description

show process	The command to display system processes.
	(Optional) Output modifier variables: <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10.

Defaults

No default behavior or values.

Command Modes

EXEC

Usage Guidelines None.

Examples See [Table 4-10](#) for process field descriptions.

```
/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 ?      watchdog/0
root       5 00:00:00 ?      migration/1
root       6 00:00:01 ?      ksoftirqd/1
root       7 00:00:00 ?      watchdog/1
root       8 00:00:00 ?      events/0
root       9 00:00:00 ?      events/1
root      10 00:00:00 ?      khelper
root      11 00:00:00 ?      kthread
root      15 00:00:00 ?      kblockd/0
root      16 00:00:01 ?      kblockd/1
root      17 00:00:00 ?      kacpid
root     113 00:00:00 ?      cqueue/0
root     114 00:00:00 ?      cqueue/1
root     117 00:00:00 ?      khubd
root     119 00:00:00 ?      kseriod
root     186 00:00:00 ?      pdflush
root     187 00:00:02 ?      pdflush
root     188 00:00:02 ?      kswapd0
root     189 00:00:00 ?      aio/0
root     190 00:00:00 ?      aio/1
root     351 00:00:00 ?      kpsmoused
root     382 00:00:00 ?      ata/0
root     383 00:00:00 ?      ata/1
root     384 00:00:00 ?      ata_aux
root     388 00:00:00 ?      scsi_eh_0
root     389 00:00:00 ?      scsi_eh_1
root     396 00:00:00 ?      kstriped
root     409 00:00:36 ?      kjournald
root     436 00:00:00 ?      kauditd
root     469 00:00:00 ?      udevd
root    1011 00:00:00 ?      kedac
--More--
/admin#
```

Table 4-10 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	
show repository	The command to display the repository contents.
<i>repository-name</i>	Name of the repository whose contents you want to view. Supports up to 30 alphanumeric characters.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

```
/admin# show repository myrepository
back1.tar.gpg
back2.tar.gpg
/admin#
```

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	restore	Restores from backup the file contents of a specific repository.
	repository	Enters the repository submode for configuration of backups.
	show backup history	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	show restore	The command to display the restore information.
	history	Displays the restore history.

Defaults	No default behavior or values.
-----------------	--------------------------------

Command Modes	EXEC
----------------------	------

Usage Guidelines	None.
-------------------------	-------

Examples	Example 1 /admin# show restore history /admin#
	Example 2 /admin# show restore history restore history is empty /admin#

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	restore	Restores from backup the file contents of a specific repository.
	repository	Enters the repository submode for configuration of backups.
	show backup history	Displays the backup history of the system.

show running-config

To display the contents of the currently running configuration file or the configuration, use the **show running-config** command in the EXEC mode.

show running-config

Syntax Description	No arguments or keywords.
Defaults	The show running-config command displays all of the configuration information.
Command Modes	EXEC
Usage Guidelines	None.
Examples	<pre> /admin# show running-config Generating configuration... ! hostname pmbu-ibf-pip06 ! ip domain-name cisco.com ! interface GigabitEthernet 0 ip address 192.168.100.156 255.255.255.0 ipv6 address autoconfig ! interface GigabitEthernet 1 ip address 10.56.14.156 255.255.255.0 ipv6 address autoconfig ! ip name-server 192.168.100.100 10.56.60.150 ! ip default-gateway 10.56.14.1 ! ip route 192.168.209.0 255.255.255.0 gateway 192.168.100.1 ip route 192.180.209.0 255.255.255.0 gateway 192.168.100.1 ip route 192.168.218.0 255.255.255.0 gateway 192.168.100.1 ip route 192.168.204.0 255.255.255.0 gateway 192.168.100.1 ! clock timezone Asia/Jerusalem ! ntp server cd-acis-ntp.cisco.com ! username admin password hash \$1\$00jG7EQh\$gDjDJKlSZWx5ImaUEqZAO1 role admin ! service sshd ! repository rp url ftp://10.56.61.75/ACS_AUTO_VMS/OLD-ACS.5.0.FCS/ user anonymous password hash 37f90f7eb86fb8e00895b133c6de3278ff545c54 repository tftp url tftp://192.168.100.153 ! password-policy lower-case-required upper-case-required digit-required no-username disable-cisco-passwords min-password-length 6 ! </pre>

```
logging localhost
logging loglevel 6
!
cdp timer 60
cdp holdtime 180
cdp run GigabitEthernet 0
!
icmp echo on
!
/admin#
```

Related Commands	Command	Description
	configure	Enters the Configuration mode.
	show startup-config	Displays the contents of the startup configuration file or the configuration.

show startup-config

To display the contents of the startup configuration file or the configuration, use the **show startup-config** command in the EXEC mode.

show startup-config

Syntax Description	No arguments or keywords.
Defaults	The show startup-config command displays all of the startup configuration information.
Command Modes	EXEC
Usage Guidelines	None.
Examples	<pre>/admin# show startup-config ! hostname pmbu-ibf-pip06 ! ip domain-name cisco.com ! interface GigabitEthernet 0 ip address 192.168.100.156 255.255.255.0 ipv6 address autoconfig ! interface GigabitEthernet 1 ip address 10.56.14.156 255.255.255.0 ipv6 address autoconfig ! ip name-server 192.168.100.100 10.56.60.150 !</pre>


```

ip default-gateway 10.56.14.1
!
ip route 192.168.209.0 255.255.255.0 gateway 192.168.100.1
ip route 192.180.209.0 255.255.255.0 gateway 192.168.100.1
ip route 192.168.218.0 255.255.255.0 gateway 192.168.100.1
ip route 192.168.204.0 255.255.255.0 gateway 192.168.100.1
!
clock timezone Asia/Jerusalem
!
ntp server cd-acs-ntp.cisco.com
!
username admin password hash $1$00jG7EQh$gDjDJKlSZWx5ImaUEqZAO1 role admin
!
service sshd
!
repository rp
  url ftp://10.56.61.75/ACS_AUTO_VMS/OLD-ACS.5.0.FCS/
  user anonymous password hash 37f90f7eb86fb8e00895b133c6de3278ff545c54
repository tftp
  url tftp://192.168.100.153
!
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
!
/admin#

```

Related Commands	Command	Description
	configure	Enters the Configuration mode.
	show running-config	Displays the contents of the currently running configuration file or the configuration.

show tech-support

To display technical support information, including email, use the **show tech-support** command in the EXEC mode.

show tech-support file *[word]*

Syntax Description	show tech-support	The command to display the technical support information.
--------------------	-------------------	---

<i>file</i>	Save any technical support data as a file in the local disk.
<i>word</i>	Filename to save. Supports up to 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 CDA server for troubleshooting purposes. You can then provide output to technical support representatives when reporting a problem.

Examples

```
/admin# show tech-support

#####
Application Deployment Engine(ADE) - 2.0.2.057
Technical Support Debug Info follows...
#####

*****
Checking dmidecode Serial Number(s)
*****
None
VMware-56 4d 14 cb 54 3d 44 5d-49 ee c4 ad a5 6a 88 c4

*****
Displaying System Uptime...
*****
12:54:34 up 18:37, 1 user, load average: 0.14, 0.13, 0.12

*****
Display Memory Usage(KB)
*****
              total        used        free      shared    buffers    cached
Mem:          1035164      1006180       28984          0       10784      345464
-/+ buffers/cache:      649932       385232
Swap:         2040244       572700      1467544

*****
Displaying Processes(ax --forest)...
*****
  PID TTY          STAT       TIME COMMAND
    1 ?           Ss        0:02 init [3]
    2 ?           S<        0:00 [migration/0]
    3 ?           SN        0:00 [ksoftirqd/0]
    4 ?           S<        0:00 [watchdog/0]
    5 ?           S<        0:00 [events/0]
--More--
(press Spacebar to continue)

/admin#
```

Related Commands	Command	Description
	show interface	Displays the usability status of the interfaces.
	show process	Displays information about active processes.
	show running-config	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

```
/admin# show terminal
TTY: /dev/pts/0 Type: "vt100"
Length: 27 lines, Width: 80 columns
Session Timeout: 30 minutes
/admin#
```

[Table 4-11](#) describes the fields of the **show terminal** output.

Table 4-11 *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

```
/admin# show timezone
UTC
/admin#
```

Related Commands	Command	Description
	clock timezone	Sets the time zone on the system.
	show timezones	Displays the time zones available on the system.

show timezones

To obtain a list of time zones from which you can select, use the **show timezones** command in the EXEC mode.

show timezones

Syntax Description No arguments or keywords.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines

See the “[clock timezone](#)” section on page 4-85, for examples of the time zones available for the CDA server.

Examples

```
/admin# show timezones
Africa/Blantyre
Africa/Dar_es_Salaam
Africa/Dakar
Africa/Asmara
Africa/Timbuktu
Africa/Maputo
Africa/Accra
Africa/Kigali
Africa/Tunis
Africa/Nouakchott
Africa/Ouagadougou
Africa/Windhoek
Africa/Douala
Africa/Johannesburg
Africa/Luanda
Africa/Lagos
Africa/Djibouti
Africa/Khartoum
Africa/Monrovia
Africa/Bujumbura
Africa/Porto-Novo
Africa/Malabo
Africa/Ceuta
Africa/Banjul
Africa/Cairo
Africa/Mogadishu
Africa/Brazzaville
Africa/Kampala
Africa/Sao_Tome
Africa/Algiers
Africa/Addis_Ababa
Africa/Ndjamena
Africa/Gaborone
Africa/Bamako
Africa/Freetown
--More--
(press Spacebar to continue)

/admin#
```

Related Commands

Command	Description
show timezone	Displays the time zone set on the system.
clock timezone	Sets the time zone on the system.

show udi

To display information about the UDI of the CDA appliance, 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

```
/admin# show udi

SPID: CSACS-1121-K9
VPID: V01
Serial: LAB11122278

/admin#
```

The following output appears when you run the **show udi** command on VMware servers.

Example 2

```
/admin# show udi

SPID: CDA-VM-K9
VPID: V01
Serial: 5C79C84ML9H

/admin#
```

show uptime

To display the length of time that you have been logged in to the CDA server, use the **show uptime** command in the EXEC mode.

show uptime |

Syntax Description	show uptime	The command to display the period that you have been logged into the CDA server.
		Output modifier variables: <ul style="list-style-type: none"> • <i>begin</i>—Matched pattern. Supports up to 80 alphanumeric characters. • <i>count</i>—Count the number of lines in the output. Add number after the word <i>count</i>. • <i>end</i>—End with line that matches. Supports up to 80 alphanumeric characters. • <i>exclude</i>—Exclude lines that match. Supports up to 80 alphanumeric characters. • <i>include</i>—Include lines that match. Supports up to 80 alphanumeric characters. • <i>last</i>—Display last few lines of output. Add number after the word <i>last</i>. Supports up to 80 lines to display. Default 10.

Defaults No default behavior or values.

Command Modes EXEC

Usage Guidelines None.

Examples

```
/admin# show uptime
3 day(s) , 18:55:02
/admin#
```

show users

To display the list of users logged in to the CDA 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

```
/admin# show users
USERNAME          ROLE    HOST          TTY    LOGIN DATETIME
-----
admin             Admin   10.77.137.60   pts/0   Fri Aug  6 09:45:47 2010
/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 version information about the Cisco ADE-OS software running on the CDA server, and displays the CDA version.

Examples

```
/admin# show version

Cisco Application Deployment Engine OS Release: 2.0
ADE-OS Build Version: 2.0.2.057
ADE-OS System Architecture: i386

Copyright (c) 2005-2011 by Cisco Systems, Inc.
All rights reserved.
Hostname: pmbu-ibf-pip06

Version information of installed applications
-----

Cisco Context Directory Agent
-----
Version      : 3.0.0.11
Build Date   : Tue Apr 10 13:05:05 2012
Install Date : Mon May  7 12:06:23 2012

/admin#
```


Configuration Commands

This section lists each Configuration command and 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 4-12 lists the Configuration commands that this section describes.

Table 4-12 *List of Configuration Commands*

<ul style="list-style-type: none"> • backup-staging-url • cdp holdtime • cdp run • cdp timer • clock timezone • do • end • exit • hostname • icmp echo • interface • ipv6 address autoconfig • ipv6 address dhcp • ip address • ip default-gateway • ip domain-name • ip name-server • ip route 	<ul style="list-style-type: none"> • kron occurrence • kron policy-list • logging • ntp • ntp authenticate • ntp authentication-key • ntp server • ntp trusted-key • password-policy • repository • service • shutdown • snmp-server community • snmp-server contact • snmp-server host • snmp-server location • username
---	--

backup-staging-url

To allow you to configure a Network File System (NFS) location that the backup and restore operations will use as a staging area to package and unpack backup files, use the **backup-staging-url** command in Configuration mode.

backup-staging-url *word*


Syntax Description	backup-staging-url	The command to configure a Network File System (NFS) location as a staging area that the backup and restore operations use.
	<i>word</i>	NFS URL for staging area. Supports up to 2048 alphanumeric characters. Use nfs://server:path¹ .

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**.



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 CDA server.

Examples

```

/admin(config)# backup-staging-url nfs://loc-filer02a:/vol/local1/private1/jdoe
/admin(config)#

```

cdp holdtime

To specify the amount of time for which the receiving device should hold a Cisco Discovery Protocol packet from the CDA 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	cdp	The command to configure the Cisco Discovery Protocol parameters.
	holdtime	The Cisco Discovery Protocol hold time specified.
	<i>seconds</i>	Specifies the hold time, in seconds. Value from 10 to 255 seconds.

Defaults 180 seconds

Command Modes Configuration

Usage Guidelines Cisco Discovery Protocol packets transmit with a time to live, or hold time, value. The receiving device will discard the Cisco Discovery Protocol information in the Cisco Discovery Protocol packet after the hold time has elapsed.

The **cdp holdtime** command takes only one argument; otherwise, an error occurs.

Examples

```
/admin(config)# cdp holdtime 60
/admin(config)#
```

Related Commands	Command	Description
	cdp timer	Specifies how often the CDA server sends Cisco Discovery Protocol updates.
	cdp run	Enables the Cisco Discovery Protocol.

cdp run

To enable the Cisco Discovery Protocol, use the **cdp run** command in Configuration mode. To disable the Cisco Discovery Protocol, use the **no** form of this command.

cdp run [*GigabitEthernet*]

Syntax Description	cdp	The command to configure the Cisco Discovery Protocol parameters.
	run	The command to enable or disable the Cisco Discovery Protocol.
	GigabitEthernet	Specifies the GigabitEthernet interface on which to enable the Cisco Discovery Protocol.

Defaults No default behavior or values.

Command Modes Configuration

Usage Guidelines The command has one optional argument, which is an interface name. Without an optional interface name, the command enables the Cisco Discovery Protocol 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 the Cisco Discovery Protocol first; then, start the Cisco Discovery Protocol again.

Examples

```
/admin(config)# cdp run GigabitEthernet 0
/admin(config)#
```

Related Commands

Command	Description
cdp holdtime	Specifies the length of time that the receiving device should hold a Cisco Discovery Protocol packet from the CDA server before discarding it.
cdp timer	Specifies how often the CDA server sends Cisco Discovery Protocol updates.

cdp timer

To specify how often the CDA server sends Cisco Discovery Protocol 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

cdp	The command to configure the Cisco Discovery Protocol parameters.
timer	The command that refreshes the time interval of the Cisco Discovery Protocol.
<i>seconds</i>	Specifies how often, in seconds, the CDA server sends Cisco Discovery Protocol updates. Value from 5 to 254 seconds.

Defaults

60 seconds

Command Modes

Configuration

Usage Guidelines

Cisco Discovery Protocol packets transmit with a time to live, or hold time, value. The receiving device will discard the Cisco Discovery Protocol information in the Cisco Discovery Protocol packet after the hold time has elapsed.

The **cdp timer** command takes only one argument; otherwise, an error occurs.

Examples

```
/admin(config)# cdp timer 60
/admin(config)#
```

Related Commands	Command	Description
	<code>cdp holdtime</code>	Specifies the amount of time that the receiving device should hold a Cisco Discovery Protocol packet from the CDA server before discarding it.
	<code>cdp run</code>	Enables the Cisco Discovery Protocol.

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	clock	The command to configure time zone.
	<i>timezone</i>	The command to configure system timezone.
	<i>timezone</i>	Name of the time zone visible when in standard time. Supports up to 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 4-13, 4-14, and 4-15 for sample time zones to enter on your system).
------------------	---

Table 4-13 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

Table 4-13 Common Time Zones (continued)

Acronym or name	Time Zone Name
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 4-14 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 4-15 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 CDA server, enter **show timezones**. A list of all the time zones available in the CDA server appears. Choose the most appropriate one for your time zone.

**Warning**

Changing the time zone on a CDA appliance after installation causes the CDA application on that node to be unusable. However, the preferred time zone (default UTC) can be configured during the installation when the initial setup wizard prompts you for the time zone.

Examples

```
/admin(config)# clock timezone EST
/admin(config)# exit
/admin# show timezone
EST
/admin#
```

Related Commands

Command	Description
show timezones	Displays a list of available time zones on the system.
show timezone	Displays the current time zone set on the system.

do

To execute an EXEC-level command from Configuration mode or any configuration submode, use the **do** command in any configuration mode.

do *arguments*

Syntax Description

do	The EXEC command to execute an EXEC-level command from Configuration mode or any configuration submode
<i>arguments</i>	The EXEC command to execute an EXEC-level command (see Table 4-16).

Table 4-16 Command Options for Do Command

Command	Description
application configure	Configures a specific application.
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 (CDA and Cisco ADE OS) and places the backup in a repository.

Table 4-16 Command Options for Do Command (continued)

Command	Description
backup-logs	Performs a backup of all the logs on the CDA server to a remote location.
clock	Sets the system clock on the CDA server.
configure	Enters Configuration mode.
copy	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 CDA server.
dir	Lists files on the CDA server.
forceout	Forces the logout of all the sessions of a specific CDA node user.
halt	Disables or shuts down the CDA server.
mkdir	Creates a new directory.
nslookup	Queries the IPv4 address or hostname of a remote system.
patch	Installs System or Application patch.
pep	Configures the Inline Posture node.
ping	Determines the IPv4 network activity on a remote system.
ping6	Determines the IPv6 network activity on a IPv6 remote system.
reload	Reboots the CDA server.
restore	Performs a restore and retrieves the backup out of a repository.
rmdir	Removes an existing directory.
show	Provides information about the CDA server.
ssh	Starts an encrypted session with a remote system.
tech	Provides Technical Assistance Center (TAC) commands.
telnet	Establishes a Telnet connection 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.
undebg	Disables the output (display of errors or events) of the debug command for various command situations; for example, backup and restore, configuration, copy, resource locking, file transfer, and user management.
write	Erases the startup configuration that forces to run the setup utility and prompt the network configuration, copies the running configuration to the startup configuration, displays the running configuration on the console.

Command Default	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

```

/admin(config)# do show run
Generating configuration...
!
hostname cda
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
  ip address 172.23.90.113 255.255.255.0
  ipv6 address autoconfig
!
ip name-server 171.70.168.183
!
ip default-gateway 172.23.90.1
!
clock timezone EST
!
ntp server time.nist.gov
!
username admin password hash $1$JbbHvKVG$xMZ/XL4tH15Knf.FfcZZr. role admin
!
service sshd
!
backup-staging-url nfs://loc-filer02a:/vol/local1/private1/jdoe
!
password-policy
  lower-case-required
  upper-case-required
  digit-required
  no-username
  disable-cisco-passwords
  min-password-length 6
!
logging localhost
logging loglevel 6
!
--More--

/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

```
/admin(config)# end
/admin#
```

Related Commands	Command	Description
	exit	Exits Configuration mode.
	exit (EXEC)	Closes the active terminal session by logging out of the CDA 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 CDA 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 CDA server (see the “**exit**” [section on page 4-23](#), for a description of the **exit** (EXEC) command).

Examples

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

Related Commands

Command	Description
end	Exits Configuration mode.
exit (EXEC)	Closes the active terminal session by logging out of the CDA 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, which resets the system to localhost.

hostname *word*

Syntax Description

hostname	The command to configure the hostname.
<i>word</i>	Name of the host. Contains at least 2 to 64 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

```
/admin(config)# hostname cda-1
Changing the hostname or IP may result in undesired side effects,
such as installed application(s) being restarted.
Are you sure you want to proceed? [y/n] y
.
.
.
cda-1/admin#
```

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		
icmp		The command to configure Internet Control Message Protocol echo requests.
echo		Configures ICMP echo response.
<i>off</i>		Disables ICMP echo response
<i>on</i>		Enables ICMP echo response.

Defaults The system behaves as if the ICMP echo response is on (enabled).

Command Modes Configuration

Usage Guidelines None.

Examples

```
/admin(config)# icmp echo off
/admin(config)#
```

Related Commands	Command	Description
	show icmp-status	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.



Note

VMware virtual machine may have a number of interfaces available that depends on how many network interfaces (NIC) are added to the virtual machine.

interface GigabitEthernet [*0* | *1* | *2* | *3*]

Syntax Description		
interface		The command to configure an interface.
GigabitEthernet		Configures the Gigabit Ethernet interface.
<i>0 - 3</i>		Number of the Gigabit Ethernet port to configure.

**Note**

After you enter the Gigabit Ethernet port number in the **interface** command, you enter the config-GigabitEthernet configuration submode (see the following Syntax Description).

do	EXEC command. Allows you to perform any EXEC commands in this mode (see the “do” section on page 4-87).
end	Exits the config-GigabitEthernet submode and returns you to the EXEC mode.
exit	Exits the config-GigabitEthernet configuration submode.
ip	Sets the IP Address and netmask for the Ethernet interface (see the “ip address” section on page 4-97).
ipv6	Configures IPv6 autoconfiguration address and IPv6 address from DHCPv6 server. (see the “ipv6 address autoconfig” section on page 4-93 and the “ipv6 address dhcp” section on page 4-95)
no	Negates the command in this mode. Two keywords are available: <ul style="list-style-type: none"> ip—Sets the IP Address and netmask for the interface. shutdown—Shuts down the interface.
shutdown	Shuts down the interface (see the “shutdown” section on page 4-115).

Defaults

No default behavior or values.

Command Modes

Configuration

Usage Guidelines

You can use the **interface** command to configure subinterfaces to support various requirements.

Examples

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

Related Commands

Command	Description
show interface	Displays information about the system interfaces.
ip address (interface configuration mode)	Sets the IP Address and netmask for the interface.
shutdown (interface configuration mode)	Shuts down the interface (see “shutdown” section on page 4-115).

ipv6 address autoconfig

To enable IPv6 stateless autoconfiguration, use the **interface GigabitEthernet 0** command in Configuration mode. This command does not have a **no** form.

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.

interface GigabitEthernet 0

Syntax Description	interface	The command to configure an interface.
	GigabitEthernet	Configures the Gigabit Ethernet interface.
	<0 - 3>	Number of the Gigabit Ethernet port to configure.

Defaults No default behavior or values.

Command Modes Configuration

Usage Guidelines IPv6 stateless autoconfiguration has the security downfall of having predictable IP Addresses. This downfall is resolved with privacy extensions. You can verify that the privacy extensions feature is enabled using the **show** command.

Example 1

```
/admin# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
/admin(config)# interface GigabitEthernet 0
/admin(config)# (config-GigabitEthernet)# ipv6 address autoconfig
/admin(config)# (config-GigabitEthernet)# end
/admin#
```

When IPv6 autoconfiguration is enabled, the running configuration shows the interface settings similar to the following:

```
!
interface GigabitEthernet 0
 ip address 172.23.90.116 255.255.255.0
 ipv6 address autoconfig
!
```

You can use the **show interface GigabitEthernet 0** command to display the interface settings. In example 2, you can see that the interface has three IPv6 addresses. The first address (starting with 3ffe) is obtained using the stateless autoconfiguration. For the stateless autoconfiguration to work, you must have IPv6 route advertisement enabled on that subnet. The next address (starting with fe80) is a link-local address that does not have any scope outside the host. You will always see a link local address regardless of the IPv6 autoconfiguration or DHCPv6 configuration. The last address (starting with 2001) is obtained from a IPv6 DHCP server.

Example 2

```
/admin# show interface GigabitEthernet 0
eth0      Link encap:Ethernet  HWaddr 00:0C:29:AF:DA:05
          inet addr:172.23.90.116  Bcast:172.23.90.255  Mask:255.255.255.0
          inet6 addr: 3ffe:302:11:2:20c:29ff:feaf:da05/64 Scope:Global
          inet6 addr: fe80::20c:29ff:feaf:da05/64 Scope:Link
          inet6 addr: 2001:558:ff10:870:8000:29ff:fe36:200/64 Scope:Global
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
```

```

RX packets:77848 errors:0 dropped:0 overruns:0 frame:0
TX packets:23131 errors:0 dropped:0 overruns:0 carrier:0
collisions:0 txqueuelen:1000
RX bytes:10699801 (10.2 MiB) TX bytes:3448374 (3.2 MiB)
Interrupt:59 Base address:0x2000

```

/admin#

The following RFC provides the IPv6 stateless autoconfiguration privacy extensions:

<http://www.ietf.org/rfc/rfc3041.txt>

To verify that the privacy extensions feature is enabled, you can use the **show interface GigabitEthernet 0** command. You can see two autoconfiguration addresses: one address is without the privacy extensions, and the other is with the privacy extensions.

In the example 3 below, the MAC is 3ffe:302:11:2:20c:29ff:feaf:da05/64 and the non-RFC3041 address contains the MAC, and the privacy-extension address is 302:11:2:9d65:e608:59a9:d4b9/64.

The output appears similar to the following:

Example 3

```

/admin# show interface GigabitEthernet 0
eth0      Link encap:Ethernet  HWaddr 00:0C:29:AF:DA:05
          inet addr:172.23.90.116 Bcast:172.23.90.255 Mask:255.255.255.0
          inet6 addr: 3ffe:302:11:2:9d65:e608:59a9:d4b9/64 Scope:Global
          inet6 addr: 3ffe:302:11:2:20c:29ff:feaf:da05/64 Scope:Global
          inet6 addr: fe80::20c:29ff:feaf:da05/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
          RX packets:60606 errors:0 dropped:0 overruns:0 frame:0
          TX packets:2771 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:9430102 (8.9 MiB) TX bytes:466204 (455.2 KiB)
          Interrupt:59 Base address:0x2000

```

/admin#

Related Commands

Command	Description
show interface	Displays information about the system interfaces.
ip address (interface configuration mode)	Sets the IP Address and netmask for the interface.
shutdown (interface configuration mode)	Shuts down the interface (see “ shutdown ” section on page 4-115).
ipv6 address dhcp	Enables IPv6 address DHCP on an interface.
show running-config	Displays the contents of the currently running configuration file or the configuration.

ipv6 address dhcp

To enable IPv6 address DHCP, use the **interface GigabitEthernet 0** command in Configuration mode. This command does not have a **no** form.

interface GigabitEthernet 0

Syntax Description	interface	The command to configure an interface.
	GigabitEthernet	Configures the Gigabit Ethernet interface.
	0	Gigabit Ethernet port number to be configured.

Defaults No default behavior or values.

Command Modes Configuration

Usage Guidelines None.

Examples

```
/admin# configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
/admin(config)# interface GigabitEthernet 0
/admin(config-GigabitEthernet)# ipv6 address dhcp
/admin(config-GigabitEthernet)# end
/admin#
```

When IPv6 DHCPv6 is enabled, the running configuration shows the interface settings similar to the following:

```
!
interface GigabitEthernet 0
 ip address 172.23.90.116 255.255.255.0
 ipv6 address dhcp
!
```



Note

The IPv6 stateless autoconfiguration and IPv6 address DHCP are not mutually exclusive. It is possible to have both IPv6 stateless autoconfiguration and IPv6 address DHCP on the same interface. You can use the **show interface** to display what IPv6 addresses are in use for a particular interface.

When both the IPv6 stateless autoconfiguration and IPv6 address DHCP are enabled, the running configuration shows the interface settings similar to the following:

```
!
interface GigabitEthernet 0
 ip address 172.23.90.116 255.255.255.0
 ipv6 address dhcp
!
```

Related Commands	Command	Description
	show interface	Displays information about the system interfaces.
	ip address (interface configuration mode)	Sets the IP Address and netmask for the interface.
	shutdown (interface configuration mode)	Shuts down the interface (see “shutdown” section on page 4-115).

Command	Description
ipv6 address autoconfig	Enables IPv6 stateless autoconfiguration on an interface.
show running-config	Displays the contents of the currently running configuration file or the configuration.

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 network mask*



Note

You can configure the same IP Address on multiple interfaces. You might want to do this to limit the configuration steps that are needed to switch from using one interface to another.

Syntax Description

<code>ip address</code>	The command to configure IP Address and netmask for the GigabitEthernet interface.
<i>ip-address</i>	IPv4 version IP Address.
<i>network mask</i>	Mask of the associated IP subnet.

Defaults

Enabled.

Command Modes

Interface configuration

Usage Guidelines

Requires exactly one address and one netmask; otherwise, an error occurs.

Examples

```
/admin(config)# interface GigabitEthernet 1
/admin(config-GigabitEthernet)# ip address 209.165.200.227 255.255.255.224
Changing the hostname or IP may result in undesired side effects,
such as installed application(s) being restarted.
.....
To verify that CDA processes are running, use the
'show application status cda' command.
/admin(config-GigabitEthernet)#
```

Related Commands	Command	Description
	shutdown (interface configuration mode)	Disables an interface (see “ shutdown ” section on page 4-115).
	ip default-gateway	Sets the IP Address of the default gateway of an interface.
	show interface	Displays information about the system IP interfaces.
	interface	Configures an interface type and enters the interface mode.

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		
	<code>ip default-gateway</code>	The command to define a default gateway with an IP Address.
	<i>ip-address</i>	IP Address of the default gateway.

Defaults	Disabled.
----------	-----------

Command Modes	Configuration
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Usage Guidelines	If you enter more than one argument or no arguments at all, an error occurs.
------------------	--

Examples	<pre>/admin(config)# ip default-gateway 209.165.202.129 /admin(config)#</pre>
----------	---

Related Commands	Command	Description
	ip address (interface configuration mode)	Sets the IP Address and netmask for the Ethernet interface.

ip domain-name

To define a default domain name that the CDA 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	<code>ip domain-name</code>	The command to define a default domain name.
	<i>word</i>	Default domain name used to complete the hostnames. Contains at least 2 to 64 alphanumeric characters.

Defaults Enabled.

Command Modes Configuration

Usage Guidelines If you enter more or fewer arguments, an error occurs.

Examples

```
/admin(config)# ip domain-name cisco.com
/admin(config)#
```

Related Commands	Command	Description
	ip name-server	Sets the DNS servers for use during a DNS query.

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 name server.

ip name-server *ip-address* [*ip-address**

Syntax Description	<code>ip name-server</code>	The command to configure IP Addresses of name server(s) to use.
	<i>ip-address</i>	Address of a name server.
	<i>ip-address</i> *	(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 that is added with the **ip name-server** command occupies the first position and the system uses that server first to resolve 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

```
/admin(config)# ip name-server 209.165.201.1
```

To verify that CDA processes are running, use the 'show application status cda' command.

```
/admin(config)#
```

You can choose not to restart the CDA server; nevertheless, the changes will take effect.

Related Commands

Command	Description
ip domain-name	Defines a default domain name that the server uses to complete hostnames.

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.

Static routes are manually configured, which 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.

ip route *prefix mask gateway ip-address*

no ip route *prefix mask*

Syntax Description

ip route	The command to configure IP routes.
<i>prefix</i>	IP route prefix for the destination.
<i>mask</i>	Prefix mask for the destination.
<i>ip-address</i>	IP Address of the next hop that can be used to reach that network.

Defaults

No default behavior or values.

Command Modes

Configuration

Examples

```
/admin(config)# ip route 192.168.0.0 255.255.0.0 gateway 172.23.90.2
/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 schedule, use the **no** form of this command.

kron {occurrence} occurrence-name

Syntax Description

kron	The command to schedule the Command Scheduler commands.
occurrence	Schedules Command Scheduler commands.
occurrence-name	Name of the occurrence. Supports up to 80 alphanumeric characters. (See the 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 the “do” section on page 4-87).
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 are available: <ul style="list-style-type: none"> 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. Supports up to 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.

**Note**

If kron occurrence is not recurring, then the kron occurrence configuration for the scheduled backup is removed after it has run.

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 that contains the EXEC CLI commands to be scheduled to run on the CDA server at a specified time. See the “[kron policy-list](#)” section on page 4-102.



Examples **Note** When you run the **kron** command, backup bundles are created with a unique name (by adding a time stamp) to ensure that the files do not overwrite each other.

Example 1: Weekly Backup

```
/admin(config)# kron occurrence WeeklyBackup
/admin(config-Occurrence)# at 14:35 Monday
/admin(config-Occurrence)# policy-list SchedBackupPolicy
/admin(config-Occurrence)# recurring
/admin(config-Occurrence)# exit
/admin(config)#
```

Example 2: Daily Backup

```
/admin(config)# kron occurrence DailyBackup
/admin(config-Occurrence)# at 02:00
/admin(config-Occurrence)# exit
/admin(config)#
```

Example 3: Weekly Backup

```
/admin(config)# kron occurrence WeeklyBackup
/admin(config-Occurrence)# at 14:35 Monday
/admin(config-Occurrence)# policy-list SchedBackupPolicy
/admin(config-Occurrence)# no recurring
/admin(config-Occurrence)# exit
/admin(config)#
```

Related Commands	Command	Description
	kron policy-list	Specifies a name for a Command Scheduler policy.

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 a Command Scheduler policy, use the **no** form of this command.

kron {policy-list} list-name

Syntax Description	kron	The command to schedule the Command Scheduler commands.
--------------------	------	---

<code>policy-list</code>	Specifies a name for Command Scheduler policies.
<code>list-name</code>	Name of the policy list. Supports up to 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).

<code>cli</code>	Command to be executed by the scheduler. Supports up to 80 alphanumeric characters.
<code>do</code>	EXEC command. Allows you to perform any EXEC commands in this mode (see “do” section on page 4-87).
<code>end</code>	Exits from the config-Policy List configuration submode and returns you to the EXEC mode.
<code>exit</code>	Exits this submode.
<code>no</code>	Negates the command in this mode. One keyword is available: <ul style="list-style-type: none"> <code>cli</code>—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 that contains the EXEC CLI commands to be scheduled to run on the CDA 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 the “ip route” section on page 4-100.

Examples

```
/admin(config)# kron policy-list SchedBackupMonday
/admin(config-Policy List)# cli backup SchedBackupMonday repository SchedBackupRepo
/admin(config-Policy List)# exit
/admin(config)#
```

Related Commands

Command	Description
ip route	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	logging	The command to configure system logging.
	<i>ip-address</i>	IP Address of remote system to which you forward logs. Supports up to 32 alphanumeric characters.
	<i>hostname</i>	Hostname of remote system to which you forward logs. Supports up to 32 alphanumeric characters.
	loglevel	The command to configure the log level for the logging command.
	<i>level</i>	Number of the desired priority level at which you set the log messages. Priority levels are (enter the number for the keyword): <ul style="list-style-type: none"> • 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—(Default) Informational messages. • 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

```
/admin(config)# logging 209.165.200.225
/admin(config)#
```

Example 2

```
/admin(config)# logging loglevel 0
/admin(config)#
```

Related Commands	Command	Description
	show logging	Displays list of logs for the system.

ntp

To specify an NTP configuration, use the **ntp** command in configuration mode with **authenticate**, **authentication-key**, **server**, and **trusted-key** commands.

ntp authenticate

ntp authentication-key <key id> *md5 hash* | *plain* <key value>

ntp server {*ip-address* | *hostname*} *key* <peer key number>

ntp trusted-key <key>

Syntax Description	ntp	The command to specify an NTP configuration.
---------------------------	-----	--

Defaults	None
-----------------	------

Command Modes	Configuration.
----------------------	----------------

Usage Guidelines	<p>Use the ntp command to specify an NTP configuration.</p> <p>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.</p> <p>For more information on how to configure an NTP server, see ntp server, page 4-108.</p>
-------------------------	--

Examples	<pre> /admin(config)# ntp ? authenticate Authenticate time sources authentication-key Authentication key for trusted time sources server Specify NTP server to use trusted-key Key numbers for trusted time sources /admin(config)# /admin(config)# no ntp server /admin(config)# do show ntp % no NTP servers configured /admin(config)# </pre>
-----------------	--

Related Commands	Command	Description
	ntp authenticate	Enables authentication of all time sources.
	ntp authentication-key	Configures authentication keys for trusted time sources.
	ntp server	Allows synchronization of the software clock by the NTP server for the system.

Command	Description
ntp trusted-key	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
show ntp	Displays the status information about the NTP associations.

ntp authenticate

To enable authentication of all time sources, use the **ntp authenticate** command. Time sources without the NTP authentication keys will not be synchronized.

To disable this capability, use the **no** form of this command.

ntp authenticate

Syntax Description

ntp	The command to specify NTP configuration.
authenticate	Enables authentication of all time sources.

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

```
/admin(config)# ntp ?
  authenticate      Authenticate time sources
  authentication-key Authentication key for trusted time sources
  server            Specify NTP server to use
  trusted-key       Key numbers for trusted time sources
/admin(config)#

/admin(config)# ntp authenticate
/admin(config)#
```

Related Commands

Command	Description
ntp	The command to specify NTP configuration.
ntp authentication-key	Configures authentication keys for trusted time sources.
ntp server	Allows synchronization of the software clock by the NTP server for the system.

Command	Description
ntp trusted-key	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
show ntp	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 command with a unique identifier and a key value.

To disable this capability, use the **no** form of this command.

ntp authentication-key <key id> md5 hash | plain <key value>

Syntax Description

ntp	The command to specify NTP configuration.
authentication-key	Configures authentication keys for trusted time sources.
key id	The identifier that you want to assign to this key. Supports numeric values from 1–65535.
md5	The encryption type for the authentication key.
hash <word>	Hashed key for authentication. Specifies an <i>encrypted</i> (hashed) key that follows the encryption type. Supports up to 40 characters.
plain <word>	Plaintext key for authentication. Specifies an <i>unencrypted</i> plaintext key that follows the encryption type. Supports up to 15 characters.
<key value>	The key value in the format matching either md5 plain 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 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

```
/admin# configure
/admin(config)#
/admin(config)# ntp authentication-key 1 md5 plain SharedWithServe
/admin(config)# ntp authentication-key 2 md5 plain SharedWithServ
/admin(config)# ntp authentication-key 3 md5 plain SharedWithSer
```



Note The **show running-config** command will always show keys that are entered in Message Digest 5 (MD5) plain format converted into hash format for security. For example, **ntp authentication-key 1 md5 hash ee18afc7608ac7ecdbeefc5351ad118bc9ce1ef3**.

```
/admin(config)# no ntp authentication-key 3
(Removes authentication key 3.)
```

```
/admin(config)# no ntp authentication-key
(Removes all authentication keys.)
```

Related Commands

Command	Description
ntp	The command to specify NTP configuration.
ntp authenticate	Enables authentication of all time sources.
ntp server	Allows synchronization of the software clock by the NTP server for the system.
ntp trusted-key	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
show ntp	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 CDA 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*>

Syntax Description

<i>ntp</i>	The command to specify NTP configuration.
<i>server</i>	Allows the system to synchronize with a specified server.
<i>ip-address</i> <i>hostname</i>	IP Address or hostname of the server providing the clock synchronization. Arguments are limited to 255 alphanumeric characters.
<i>key</i>	(Optional) Peer key number. Supports up to 65535 numeric characters. This key needs to be defined with a key value, by using the ntp authentication-key command, and also needs to be added as a trusted-key by using the ntp trusted-key command. For authentication to work, the key and the key value should be the same as that which is defined on the actual NTP server.

Defaults

No servers are configured by default.

Command Modes Configuration.

Usage Guidelines 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. Define this key in the **ntp authentication-key** command first and add this key to the **ntp trusted-key** command before you can 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 with the least stratum. If an NTP server is not reachable or is not properly authenticated, then its reach as per this command statistics will be 0.

To define an NTP server configuration and authentication in the CDA admin user interface, see the System Time and NTP Server Settings section in the [Cisco Identity Services Engine User Guide, Release 1.1.1](#).



Note

This command gives conflicting information during the synchronization process. The synchronization process can take up to 20 minutes to complete.

Examples

Example 1

```
/admin(config)# ntp server ntp.esl.cisco.com key 1
% WARNING: Key 1 needs to be defined as a ntp trusted-key.
/admin(config)#
/admin(config)# ntp trusted-key 1
% WARNING: Key 1 needs to be defined as a ntp authentication-key.
/admin(config)#
/admin(config)# ntp authentication-key 1 md5 plain SharedWithServe
/admin(config)#

/admin(config)# ntp server ntp.esl.cisco.com 1
/admin(config)# ntp server 171.68.10.80 2
/admin(config)# ntp server 171.68.10.150 3
/admin(config)#
/admin(config)# do show running-config
Generating configuration...
!
hostname cda
!
ip domain-name cisco.com
!
interface GigabitEthernet 0
    ip address 172.21.79.246 255.255.255.0
    ipv6 address autoconfig
!
ip name-server 171.70.168.183
!
ip default-gateway 172.21.79.1
!
clock timezone UTC
!
ntp authentication-key 1 md5 hash ee18afc7608ac7ecdbbeefc5351ad118bc9ce1ef3
ntp authentication-key 2 md5 hash f1ef7b05c0d1cd4c18c8b70e8c76f37f33c33b59
ntp authentication-key 3 md5 hash ee18afc7608ac7ec2d7ac6d09226111dce07da37
ntp trusted-key 1
```

```

ntp trusted-key 2
ntp trusted-key 3
ntp authenticate
ntp server ntp.esl.cisco.com key 1
ntp server 171.68.10.80 key 2
ntp server 171.68.10.150 key 3
!
--More--
/admin# show ntp
Primary NTP      : cd-acs-ntp.cisco.com

synchronised to local net at stratum 11
  time correct to within 448 ms
  polling server every 64 s

      remote          refid      st t when poll reach  delay  offset  jitter
=====
*127.127.1.0        .LOCL.           10 l  46   64   37   0.000   0.000   0.001
 171.68.10.80       .RMOT.           16 u  46   64    0   0.000   0.000   0.000
 171.68.10.150      .INIT.           16 u  47   64    0   0.000   0.000   0.000

Warning: Output results may conflict during periods of changing synchronization.

/admin#

```

Related Commands	Command	Description
	ntp	The command to specify NTP configuration.
	ntp authenticate	Enables authentication of all time sources.
	ntp authentication-key	Configures authentication keys for trusted time sources.
	ntp trusted-key	Specifies key numbers for trusted time sources that needs to be defined as NTP authentication keys.
	show ntp	Displays the status information about the NTP associations.

ntp trusted-key

To add a time source to the trusted list, use the **ntp trusted-key** command with a unique identifier. To disable this capability, use the **no** form of this command.

ntp trusted-key <key>

Syntax Description		
	ntp	The command to specify NTP configuration.
	trusted-key	The identifier that you want to assign to this key.
	key	Specifies key numbers 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 this key as an NTP authentication key and then add this key to the trusted list before you add this key to an NTP server. Keys that are added to the trusted list can only be used that allows synchronization by the NTP server with the system.

Examples

```
/admin# configure
/admin(config)#
/admin(config)# ntp trusted-key 1
/admin(config)# ntp trusted-key 2
/admin(config)# ntp trusted-key 3

/admin(config)# no ntp trusted-key 2
(Removes key 2 from the trusted list.)

/admin(config)# no ntp trusted-key
(Removes all keys from the trusted list.)
```

Related Commands

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

password-policy	The command to configure the password policy.
-----------------	---

**Note**

After you enter the **password-policy** command, you can enter the config-password-policy configuration submenu.

digit-required	Requires a digit in the password.
disable-repeat-characters	Disables the ability of the password to contain more than four identical characters.

disable-cisco-password	Disables the ability to use the word Cisco or any combination as the password.
do	Exec command.
end	Exit from configure mode.
exit	Exit from this submode.
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 0 to 4,294,967,295.
no	Negate a command or set its defaults.
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 0 to 80.
password-expiration-enabled	Enables password expiration. Note You must enter the password-expiration-enabled 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 4,294,967,295.
password-lock-enabled	Locks a password after several failures.
password-lock-retry-count	Number of failed attempts before password locks. Integer length from 0 to 4,294,967,295.
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

```

/admin(config)# password-policy
/admin(config-password-policy)# password-expiration-days 30
/admin(config-password-policy)# exit
/admin(config)#

```

repository

To enter the repository submode for configuration of backups, use the **repository** command in Configuration mode.

repository *repository-name*

Syntax Description

repository	The command to configure the repository.
<i>repository-name</i>	Name of repository. Supports up to 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 the “do” section on page 4-87).
end	Exits the config-Repository submode and returns you to the EXEC mode.
exit	Exits this mode.
no	Negates the command in this mode. Two keywords are available: <ul style="list-style-type: none"> url—Repository URL. user—Repository username and password for access.
url	URL of the repository. Supports up to 80 alphanumeric characters (see Table 4-17).
user	Configure the username and password for access. Supports up to 30 alphanumeric characters.

Table 4-17 URL Keywords

Keyword	Source of Destination
<i>word</i>	Enter the repository URL, including server and path information. Supports up to 80 alphanumeric characters.
cdrom:	Local CD-ROM drive (read only).
disk:	Local storage. You can run the show repository repository_name to view all the files in the local repository. Note 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.
ftp:	Source or destination URL for an FTP network server. Use url ftp://server/path ¹ .
nfs:	Source or destination URL for an NFS network server. Use url nfs://server:path ¹ .
tftp:	Source or destination URL for an TFTP network server. Use url tftp://server:path ¹ . Note You cannot use a TFTP repository for performing CDA upgrade.

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

When configuring **url sftp:** in the submode, you must provide the host-key under repository configuration through CLI and the RSA fingerprint is added to the list of SSH known hosts.

To disable this function, use the **no** form of **host-key host** command in the submode.

CDA displays the following warning when you configure a secure ftp repository in the administration user interface in Administration > System > Maintenance > Repository > Add Repository.

The host key of the SFTP server must be added through the CLI by using the host-key option before this repository can be used.

A corresponding error is thrown in the Cisco ADE logs when you try to back up into a secure FTP repository without configuring the host-key.

Example 1

```
/admin# configure terminal
/admin(config)# repository myrepository
/admin(config-Repository)# url sftp://cda
/admin(config-Repository)# host-key host cda
host key fingerprint added
# Host cda found: line 1 type RSA
2048 f2:e0:95:d7:58:f2:02:ba:d0:b8:cf:d5:42:76:1f:c6 cda (RSA)

/admin(config-Repository)# exit
/admin(config)# exit
/admin#
```

Related Commands	Command	Description
	backup	Performs a backup (CDA and Cisco ADE OS) and places the backup in a repository.
	restore	Performs a restore and takes the backup out of a repository.
	show backup history	Displays the backup history of the system.
	show repository	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	service	The command to specify a service to be managed.
	sshd	Secure Shell Daemon. The daemon program for SSH.

Defaults No default behavior or values.

Command Modes Configuration

Usage Guidelines None.

Examples

```
/admin(config)# service sshd
/admin(config)#
```

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 CDA 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

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

Related Commands	Command	Description
	interface	Configures an interface type and enters the interface mode.
	ip address (interface configuration mode)	Sets the IP Address and netmask for the Ethernet interface.
	show interface	Displays information about the system IP interfaces.
	ip default-gateway	Sets the IP Address of the default gateway of an interface.

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	snmp-server community	The command to configure the SNMP server.
	<i>word</i>	Accessing string that functions much like a password and allows access to SNMP. No blank spaces allowed. Supports up to 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.

The SNMP Agent on the CDA provides read-only SNMP v1 and SNMP v2c access to the following MIBs:

- SNMPv2-MIB
- RFC1213-MIB
- IF-MIB
- IP-MIB
- IP-FORWARD-MIB
- TCP-MIB
- UDP-MIB
- HOST-RESOURCES-MIB
- ENTITY-MIB—Only 3 MIB variables are supported on the ENTITY-MIB:
 - Product ID: entPhysicalModelName
 - Version ID: entPhysicalHardwareRev
 - Serial Number: entPhysicalSerialNumber
- DISMAN-EVENT-MIB
- NOTIFICATION-LOG-MIB
- CISCO-CDP-MIB

Examples

```
/admin(config)# snmp-server community new ro
/admin(config)#
```

Related Commands

Command	Description
snmp-server host	Sends traps to a remote system.
snmp-server location	Configures the SNMP location MIB value on the system.
snmp-server contact	Configures the SNMP contact MIB value on the system.

snmp-server contact

To configure the SNMP contact Management Information Base (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

snmp-server contact	The command to identify the contact person for this managed node. Supports up to 255 alphanumeric characters.
<i>word</i>	String that describes the system contact information of the node. Supports up to 255 alphanumeric characters.

Defaults

No default behavior or values.

Command Modes

Configuration

Usage Guidelines

None.

Examples

```
/admin(config)# snmp-server contact Luke
/admin(config)#
```

Related Commands

Command	Description
snmp-server host	Sends traps to a remote system.
snmp-server community	Sets up the community access string to permit access to the SNMP.
snmp-server location	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.

snmp-server host {*ip-address* | *hostname*} **version** {*1* | *2c*} *community*

Syntax Description

snmp-server host	The command to configure hosts to receive SNMP notifications.
<i>ip-address</i>	IP Address of the SNMP notification host. Supports up to 32 alphanumeric characters.
<i>hostname</i>	Name of the SNMP notification host. Supports up to 32 alphanumeric characters.
version { <i>1</i> <i>2c</i> }	(Optional) Version of the SNMP used to send the traps. Default = 1. If you use the version keyword, specify one of the following keywords: <ul style="list-style-type: none"> <i>1</i>—SNMPv1. <i>2c</i>—SNMPv2C.
<i>community</i>	Password-like community string that is sent with the notification operation.

Defaults

Disabled.

Command Modes

Configuration

Usage Guidelines

The command takes arguments as listed; otherwise, an error occurs. SNMP traps are not supported.

Examples

```
/admin(config)# snmp-server community new ro
/admin(config)# snmp-server host 209.165.202.129 version 1 password
/admin(config)#
```

Related Commands

Command	Description
snmp-server community	Sets up the community access string to permit access to SNMP.
snmp-server location	Configures the SNMP location MIB value on the system.
snmp-server contact	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	snmp-server location	The command to configure the physical location of this managed node. Supports up to 255 alphanumeric characters.
	<i>word</i>	String that describes the physical location information of the system. Supports up to 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

```
/admin(config)# snmp-server location Building_3/Room_214
/admin(config)#
```

Example 2

```
/admin(config)# snmp-server location "Building 3/Room 214"
/admin(config)#
```

Related Commands	Command	Description
	snmp-server host	Sends traps to a remote system.
	snmp-server community	Sets up the community access string to permit access to SNMP.
	snmp-server contact	Configures the SNMP location MIB value on the system.

username

To add a user who can access the CDA appliance 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 command option:

```
username username password role {admin | user} password
```

Syntax Description	username	The command to create a user to access the CDA appliance using SSH.
	<i>username</i>	Only one word for the username argument. Blank spaces and quotation marks (“”) are not allowed. Supports up to 31 alphanumeric characters.
	password	The command to use specify password and user role.
	<i>password</i>	Password character length up to 40 alphanumeric characters. You must specify the password for all new users.
	hash plain	Type of password. Supports up to 34 alphanumeric characters.
	role admin user	Sets the privilege level for the user.
	disabled	Disables the user according to the user’s email address.
	email <i>email-address</i>	The user’s email address. For example, <i>user1@mydomain.com</i> .

Defaults The initial user during setup.

Command Modes Configuration

Usage Guidelines The **username** command requires that the username and password keywords precede the hash | plain and the admin | user options.

Examples

Example 1

```
/admin(config)# username admin password hash ##### role admin
/admin(config)#
```

Example 2

```
/admin(config)# username admin password plain Secr3tp@swd role admin
/admin(config)#
```

Example 3

```
/admin(config)# username admin password plain Secr3tp@swd role admin email
admin123@mydomain.com
/admin(config)#
```

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