



Using Shell Commands

This chapter contains the following sections:

- [General Administration](#), on page 1
- [Working with Databases](#), on page 16
- [Importing Certificates](#), on page 19
- [Accessing Root Privileges](#), on page 22

General Administration

This section describes how to execute common administration tasks such as changing your password, stopping and starting services, generating log and report data, as well as other common system administration tasks.

Changing ShellAdmin Password

Choose **Change ShellAdmin Password** to change the Cisco IMC Supervisor user's password.

Procedure

- Step 1** From the **Cisco IMC Supervisor Shell Menu**, choose **Change ShellAdmin Password** and press **Enter**.

Information similar to the following is displayed:

```
Changing password for user shelladmin.  
New UNIX password:
```

- Step 2** Enter the password and press **Enter**.
-

Displaying the Status of Your Services

The **Display Services** option displays all executed services. The **Display Services** option also displays the status of any associated databases and disks.

- Broker - An ActiveMQ JMS broker used for inter-process communication using JMS messages. All infra services use the broker to communicate between them.
- Controller
- Eventmgr
- Idaccessmgr - Provides authentication service for Cisco IMC Supervisor users (local, AD imported through LDAP). When you log in through the GUI, tomcat receives the login request and queries idaccessmgr to authenticate the user.
- Inframgr - The back-end server that proves APIs over JMS and REST. Tomcat (GUI) uses these back-end APIs.
- Websock (VNC interface) - VNC proxy. Cisco UCS Director provides browser based VNC access to the VM console. The websock service acts as a VNC proxy to the VM console.
- Tomcat - Hosts Cisco UCS Director GUI web app.
- Flashpolicyd
- Mysqld



Note Ensure that all of the above services are up and operating. If a service is not executed on Cisco IMC Supervisor, restart the service through the shell client.

Procedure

From the **Cisco IMC Supervisor Shell Menu**, choose **Display Services Status**.

The following list of services appears:

```

Service          State          PID
-----          -
broker           RUNNING       18718
controller       RUNNING       18758
eventmgr         RUNNING       18792
idaccessmgr      RUNNING       18938
inframgr         RUNNING       18997
websock          RUNNING       9548
TOMCAT           RUNNING       9515
flashpolicyd    RUNNING       9545
mysqld           RUNNING       8069
 2693 ?          00:00:00 mysql_safe
 3170 ?          01:10:16 mysql

```

Press return to continue ...

Note The corresponding status and process ID (PID) of each service is also displayed in the menu.

Stopping Cisco Services

You can stop all Cisco services that are part of the Cisco IMC Supervisor appliance by choosing **Stop Services**. You can verify that all services are stopped by choosing **Display Services Status**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Stop Services**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```
Do you want to stop services [y/n]? : y
Stopping service broker... [ OK ]
Stopping service controller... [ OK ]
Stopping service eventmgr... [ OK ]
Stopping service client... [ OK ]
Stopping service idaccessmgr... [ OK ]
Stopping service inframgr... [ OK ]
Stopping service websock... [ OK ]
Stopping service tomcat... [ OK ]
Stopping service flashpolicyd... [ OK ]
Press return to continue ...
```

Step 3 Press **Enter** to complete the procedure.

Starting Cisco Services

You can execute all services that are part of Cisco IMC Supervisor by choosing **Start Services**.

After using this option, you can choose **Display Services Status** to verify that all services have started and are running.



Note Services started in the background are not displayed.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Start Services**.

Information similar to the following is displayed:

```
Services are being started. Use "Display Services Status" option to check the status
Press return to continue ...
```

Step 2 Press **Enter** to complete the process.

Step 3 Choose **Display Service Status** to verify that the services are executed.

Synchronizing the System Time

You can synchronize the system time to the hardware time as well as the NTP server by choosing **Time Sync**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Time Sync**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```
Time Sync.....
System time is Tue Sep 17 15:57:34 UTC 2013
Hardware time is Tue Sep 17 15:57:35 2013 -0.849104 seconds
Do you want to sync systemtime [y/n]? y
NTP Server IP Address: 172.25.168.203
5 Dec 03:24:02 ntpdate[5017]: step time server 172.25.168.203 offset 25510.954857 sec
Sync'ed with NTP SERVER 172.25.168.203
Press return to continue ...
```

Step 3 Press **y** and press **Enter** to synchronize to system time.

Step 4 Press **y** and press **Enter** to synchronize to the NTP server.

Step 5 Press **Enter** to complete the process.

Pinging the Hostname and IP Address

You can ping a hostname or IP address to test your connectivity by choosing **Ping Hostname/IP address**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Ping Hostname/IP address** and press **Enter**.

Step 2 Enter the IP address to ping and press **Enter**.

Information similar to the following is displayed:

```
Enter IP Address : 209.165.200.224
PING 209.165.200.224 (209.165.200.224) 56(84) bytes of data.
64 bytes from 209.165.200.224: icmp_seq=1 ttl=64 time=9.90 ms
64 bytes from 209.165.200.224: icmp_seq=2 ttl=64 time=0.316 ms
64 bytes from 209.165.200.224: icmp_seq=3 ttl=64 time=0.254 ms
64 bytes from 209.165.200.224: icmp_seq=4 ttl=64 time=0.198 ms
64 bytes from 209.165.200.224: icmp_seq=5 ttl=64 time=0.267 ms
```

```
--- 209.165.200.224 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 3999ms
```

```
rtt min/avg/max/mdev = 0.198/2.187/9.901/3.857 ms
Press return to continue ...
```

Step 3 Press **Enter** to exit out of the operation.

Examining the Version Information

You can verify the Cisco IMC Supervisor version and build number by choosing **Show Version**. This information is required for debugging purposes.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Show Version** and press **Enter**.

Information similar to the following is displayed:

```
Cisco UCS Director Platform
-----
Platform Version      : 5.1.0.1
Platform build Number : 51143
Product Name         : Cisco IMC Supervisor
Product Version      : 1.1.0.0
Press return to continue ...
```

Step 2 Press **Enter** to complete the process.

Configuring a Network Interface

You can configure a network interface for the Cisco IMC Supervisor appliance by choosing **Configure Network Interface**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Configure Network Interface** and press **Enter**.

Information similar to the following is displayed:

```
Do you want to Configure DHCP/STATIC IP [D/S] ? : S
```

Step 2 Choose one of the following configuration selections:

- Choose **D** to configure a DHCP IP address.
- Choose **S** to configure a static IP address.

Step 3 Enter **s** to configure a static IP address and press **Enter**.

Information similar to the following is displayed:

```
Configuring STATIC configuration..
Enter the ethernet interface that you want configure E.g. eth0 or eth1:
```

Step 4 Enter the Ethernet interface to configure (for example, eth1) and press **Enter**.

Information similar to the following is displayed:

```
Configuring STATIC IP for eth1...
  IP Address: 209.165.200.224
  Netmask: 255.255.255.0
  Gateway: 209.187.108.1
  DNS Server1: 198.51.100.1
  DNS Server2: 203.0.113.1
Configuring Network with : INTERACE(eth1), IP(209.165.200.224), Netmask(255.255.255.0),
Gateway(209.187.108.1),
DNS Server1(198.51.100.1), DNS Serverx 2(203.0.113.1)

Do you want to continue [y/n]? :
```

Step 5 Enter **n** to discontinue the configuration process.

Step 6 Press **y** to return to complete the process.

Displaying Appliance Network Details

You can display the Cisco IMC Supervisor appliance network details by choosing **Display Network Details**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose option **Display Network Details** and press **Enter**.

Information similar to the following is displayed:

```
Network details...
eth0    Link encap:Ethernet  HWaddr 00:50:56:97:1E:2D
        inet addr:192.0.2.23  Bcast:192.0.2.255  Mask:255.255.255.0
        inet6 addr: fe80::230:56gg:fe97:1e2d/64 Scope:Link
        UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
        RX packets:189818223 errors:14832 dropped:17343 overruns:0 frame:0
        TX packets:71520969 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:1000
        RX bytes:105749301003 (98.4 GiB)  TX bytes:27590555706 (25.6 GiB)
        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:1821636581 errors:0 dropped:0 overruns:0 frame:0
        TX packets:1821636581 errors:0 dropped:0 overruns:0 carrier:0
        collisions:0 txqueuelen:0
        RX bytes:327846827946 (305.3 GiB)  TX bytes:327846827946 (305.3 GiB)

Press return to continue ...
```

Step 2 Press **Enter** to complete the process.

Viewing Tail Inframgr Logs

The **Tail Inframgr Logs** option enables you to see inframgr (Infrastructure Manager) log data, which are generated behind the scenes by using the Unix tail command. When you are debugging, you can trace problems by using this log data. Use the **Tail Inframgr Logs** option to immediately tail the most recent inframgr logs. The results are displayed on your screen directly after you select this option.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Tail Inframgr Logs** and press **Enter**.

Following are a few sample lines, typical of the results displayed immediately after you use the **Tail Inframgr Logs** option:

```
2015-05-04 09:51:31,569 [pool-15-thread-16] INFO run(SystemTaskExecutor.java:55) - Preparing
to execute task: LeafAgentConnectivityCheckPeriodicTask; frequency=5 minutes; Priority=5
2015-05-04 09:51:31,577 [pool-15-thread-16] INFO
isSystemTaskRemotable(SystemTaskExecutor.java:282) - Task remoting is not allowed per policy:
LeafAgentConnectivityCheckPeriodicTask
2015-05-04 09:51:31,581 [pool-15-thread-16] INFO
updateStatus(SystemTaskStatusProvider.java:181) - Task:
task.LeafAgentConnectivityCheckPeriodicTask changed state to OK
2015-05-04 09:51:31,592 [pool-15-thread-16] INFO executeLocally(SystemTaskExecutor.java:133)
- Executing task locally: LeafAgentConnectivityCheckPeriodicTask
2015-05-04 09:51:31,592 [pool-15-thread-16] INFO
getClusterLeaf(ClusterPersistenceUtil.java:81) - Leaf name LocalHost
2015-05-04 09:51:31,598 [pool-15-thread-16] INFO
updateStatus(SystemTaskStatusProvider.java:181) - Task:
task.LeafAgentConnectivityCheckPeriodicTask changed state to In Progress
2015-05-04 09:51:31,604 [pool-15-thread-16] INFO executeLocally(SystemTaskExecutor.java:149)
- Start executing task. name=LeafAgentConnectivityCheckPeriodicTask; status=OK;
lastExecuted=1430732791586
2015-05-04 09:51:31,608 [pool-15-thread-16] INFO
execute(LeafAgentConnectivityCheckPeriodicTask.java:33) - Retry : 0
2015-05-04 09:51:31,611 [pool-15-thread-16] INFO executeLocally(SystemTaskExecutor.java:154)
- Done executing task. name=LeafAgentConnectivityCheckPeriodicTask; status=OK;
lastExecuted=1430733091611
2015-05-04 09:51:31,613 [pool-15-thread-16] INFO
updateStatus(SystemTaskStatusProvider.java:181) - Task:
task.LeafAgentConnectivityCheckPeriodicTask changed state to OK
```

Step 2 To exit from the log file display, type **Ctrl + C**, then press **Enter**.

Applying a Patch to Cisco IMC Supervisor

Choose this option to apply a patch to the appliance.



Note The patch file (zip file) is provided by Cisco IMC Supervisor. Before applying a patch:

- Review the patch release notes and the Readme file.
- Take a snapshot of your VM.
- Make a backup of your database prior to taking the patch. The **Apply Patch** option enables you to make a backup as part of the **Apply Patch** procedure; but the best practice is to create a backup immediately before using the **Apply Patch** option.
- Stop the appliance services.

Before you begin

- Download the patch file.
- Place the file in a web server or an FTP server.
- Choose **Apply Patch** from the Cisco IMC Supervisor Shell menu.
- Provide patch URL (<http://WebServer/TestPkg.zip>)

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Apply Patch** and press **Enter**.

Information similar to the following is displayed:

```
Applying Patch...
Do you want to take database backup before applying patch (y/n)?
```

Step 2 If you entered **y**, enter the requested FTP server IP address and login data, then press **Enter**.

```
y
Backup will upload file to an FTP server.
Provide the necessary access credentials.
  FTP Server IP Address:
  FTP Server Login:
```

Step 3 If you entered **n**, enter the mode of transfer, and press **Enter** and provide the required information, as follows:

- SFTP—Enter the SFTP server IP address, server login name and password, and the path to the location where you have stored the upgrade file.
- SCP—Enter the SCP server IP address, server login name and password, and the path to the location where you have stored the upgrade file.
- FTP—Enter the FTP server IP address, server login name and password, and the path to the location where you have stored the upgrade file. For example,

```
ftp://username:password@hostname\IP_address/software_location_and_name.
```
- HTTP—Enter the URL for the location where you stored the upgrade file.

- **FILE**—Enter the path to the local directory where you have stored the upgrade file.

```
n
User selected option not to take backup, proceeding with applying patch
Specify the Transfer mode [SFTP/SCP/FTP/HTTP/FILE]: SFTP
Server IP Address: XXX.XX.XXX.XXX
Server Username: XXXXX
Server Password:
SFTP Path to Patch Zip file:TestPkg.zip
Applying the Patch TestPkg.zip [y/n]? y
```

Note Refer to the Readme file for information about the patches.

Step 4 If you are prompted to confirm that you want to apply the patch, enter **y**, then press **Enter**.

Step 5 Follow the onscreen prompts to complete the process.

What to do next

After the patch is applied, choose **Stop Services** and **Start Services**.



Note Refer to the *Cisco IMC Supervisor Installation and Upgrade on VMware vSphere Guide* for additional information on upgrading to a patch.

Applying a Signed Patch to Cisco IMC Supervisor

Procedure

Step 1 From the Cisco IMC Supervisor Shell menu, choose **Apply Signed Patch** and press **Enter**.
The following information is displayed:

```
Applying Patch...
Services will be stopped before upgrade. Do you want to continue? [y/N]:
```

Step 2 Enter **y** and press **Enter**.

The following information is displayed:

```
Stopping services...
Do you want to take database backup before applying patch? [Y/n]:
```

Step 3 If you entered **Y** and press **Enter** the backup process starts. Enter the transfer mode and press **Enter**.

```
The backup process creates a <filename>.tar.gz file on the system running Cisco IMC
Supervisor.
You can copy this file to another server using the FTP/SFTP/SCP mode.
Specify the transfer mode and login credentials
Specify the transfer mode [FTP/SFTP/SCP]:
```

Note Refer to the ReadMe file for information about the patches.

Step 4 If you entered **n**, enter the desired patch file download protocol and press **Enter** and provide the required information, as follows:

- SFTP—Enter the SFTP server IP address, server login name and password, and the path to the location where you have stored the signed zip file.
- SCP—Enter the SCP server IP address, server login name and password, and the path to the location where you have stored the signed zip file.
- FTP—Enter the FTP server IP address, server login name and password, and the path to the location where you have stored the signed zip file. For example,
ftp://username:password@hostname/IP_address/software_location_and_name.
- HTTP—Enter the URL for the location where you stored the signed zip file.
- FILE—Enter the path to the local directory where you have stored the signed zip file.

```
n
User selected option not to take backup, proceeding with applying patch.
Enter patch file download protocol [SFTP/SCP/FTP/HTTP/FILE]: SCP
Server IP Address: 172.29.109.134
Server Username: root
Server Password:
Full Patch to Patch Zip File: /opt/mytest123/cimcs_patch_2_2_1_1_xxxx_signed.zip
Apply the patch '/opt/mytest123/cimcs_patch_2_2_1_1_xxxx_signed.zip? [y/N]:
```

Step 5 If you are prompted to confirm that you want to apply the patch, enter **y**, then press **Enter**.

The following information is displayed:

```
y
Checking if database is running ...yes
Downloading the patch...
Successfully Connected to 172.29.109.134
Completed downloading the patch.
Verifying patch signature...
Successfully verified the signature of patch file
/opt/mytest123/cimcs_patch_2_2_1_1_xxxx_signed.zip
Proceeding with patch installation
```

Note You can use the **Apply Signed Patch** option in the Shell menu to apply a signed patch of a subsequent release. If you want to upgrade to release 2.2(1.1), you should apply the patch zip file using the **Apply Patch** option.

Shutting Down the Appliance

Choose **Shutdown Appliance** to shut down the Cisco IMC Supervisor appliance.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Shutdown Appliance** and press the **Enter** key.

The following information is displayed:

```
Do you want to Shutdown appliance [y/n] ?:
```

Step 2 Enter **y** to shutdown the appliance.

Information similar to the following is displayed:

```
Broadcast message from root (pts/0) (Thu Sep 15 13:34:33 2013)
```

```
The system is shutting down NOW!
```

Step 3 Press **Enter** to return to the main menu.

Rebooting the Appliance

Choose **Reboot Appliance** to reboot the Cisco IMC Supervisor appliance.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Reboot Appliance** and press **Enter**.

The following information is displayed:

```
Do you want to Reboot appliance [y/n] ?:
```

Step 2 Enter **y** to reboot the appliance.

Information similar to the following is displayed:

```
Broadcast message from root (pts/0) (Mon May 4 10:34:14 2015):
```

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

```
Rebooting sucessful
```

```
Press return to continue ...
```

Step 3 Press **Enter** to return to the main menu.

Cleaning Patch Files

Choose **Clean-up Patch Files** to delete patch files from the appliance.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Clean-up Patch Files** and press **Enter**.

Information similar to the following is displayed:

```
Do you want to delete old patch files [y/n]?
```

Step 2 If you enter **y**, select a directory that you want to delete and then press **Enter**.

```
1) infra-04-20-2015-08-48-29
Select a directory to be deleted OR to exit press (x):
```

Step 3 Enter **n** and press **Enter** to go back to the main menu.

Collecting Diagnostics

The **Collect Diagnostics** option generates a summary report (SummaryReport.txt) and a detail report (DiagOutput.txt) and stores these files under /opt/diagnostics.

Procedure

From the **Cisco IMC Supervisor Shell Menu**, choose **Collect Diagnostics**.

Information similar to the following appears, advising you that the diagnostic files have been created:

```
*****
Diagnostic Tool
*****

Please find the below files under /opt/diagnostics :
Summary Report: SummaryReport.txt
Diagnostics report: DiagOutput.txt

/opt/diagnostics/rules

Press return to continue...
```

Enabling or Disabling Debug Logging

You can enable or disable the debug logging information by choosing **Enable/Disable Debug Logging**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Enable/Disable Debug Logging**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```
Current Log Level = INFO

Do you want to enable/disable debug logging [e/d]? :
```

Step 3 Press **e** to enable or press **d** to disable debug logging.

Step 4 Press **Enter**

Information similar to the following is displayed if you enable:

```
Enabling debug logging...
  Enabled debug logging
  Current Log Level = DEBUG
Press return to continue...
```

Information similar to the following is displayed if you disable:

```
Disabled debug logging
  Current Log Level = INFO
Press return to continue...
```

Step 5 Press **Enter** to complete the process.

Quitting the Shell

Choose **Quit** to exit the Cisco IMC Supervisor shell.

Procedure

From the **Cisco IMC Supervisor Shell Menu**, choose **Quit** and press **Enter**.

The client application closes.

Resetting MySQL User Password

You can reset your MySQL admin and root password by choosing the **Reset MySQL User Password** option.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Reset MySQL User Password**.

Step 2 Press **Enter**.

Step 3 Enter **y** to confirm if you want to continue with changing the MySQL password.

Note If you confirm, the services will restart.

Step 4 Press **Enter**.

Step 5 Enter **y** to confirm if you want to change the password for MySQL admin user.

Step 6 Press **Enter**.

Step 7 Enter **y** to confirm if you want the system to generate a random password or **n** to specify a new admin password.

Step 8 Press **Enter**.

Step 9 Specify the new admin password and confirm the password again.

Step 10 Press **Enter**.

- Step 11** Enter **y** to confirm if you want to change the password for MySQL root user.
 - Step 12** Press Enter.
 - Step 13** Enter **y** to confirm if you want the system to generate a random password or **n** to specify a new root password.
 - Step 14** Specify the new root password and confirm the password again.
 - Step 15** Press **Enter** to complete the procedure.
-

Terminating Active GUI Sessions

Choose **Terminate active GUI session(s) for user** to terminate the active user sessions.

Procedure

- Step 1** From the **Cisco IMC Supervisor Shell Menu**, choose **Terminate active GUI session(s) for user** and press **Enter**.

Information similar to the following is displayed:

```
On a subsequent login, all active session(s) for the user will be terminated.
```

```
This utility is for terminating the GUI sessions after the specified maximum concurrent sessions for a user is reached. Do you want to proceed [y/n]?:
```

- Step 2** Enter **y** and press **Enter** to terminate the active GUI sessions.
-

Granting Client Access to MySQL Port

Choose this option to allow the external clients to access the MySQL port.

Procedure

- Step 1** From the Shell menu, choose the **Grant/Deny client access to MySQL port 3306** option and press **Enter**.

The following information displays:

```
Grant provide external clients access to MySQL port 3306. Deny blocks external clients access to MySQL port 3306 for the granted ip address.
```

```
Source IP's configured
```

```
-----  
10.197.110.92  
-----
```

```
Do you want to grant/deny external clients access to MySQL port 3306 [g/d]? :
```

- Step 2** Enter **g** and press **Enter**.

The following information is displayed:

Enter the ip address you want to grant access to MySQL port 3306 :

- Step 3** Enter the IP address and press **Enter**.
The following information is displayed:

```
Enabling firewall rules for ip 10.197.110.92
iptables: Saving firewall rules to /etc/sysconfig/iptables:[ OK ]
Press return to continue...
```

Note You can enter 0.0.0.0 (IP address) if you want to grant access to all the clients.

- Step 4** Press **Enter** to return to complete the process.

Denying Client Access to MySQL Port

Procedure

- Step 1** From the Shell menu, choose the **Grant/Deny client access to MySQL port 3306** option and press **Enter**.

The following information displays:

```
Grant provide external clients access to MySQL port 3306. Deny blocks external clients
access to MySQL port 3306 for the granted ip address.
```

```
Source IP's configured
-----
10.197.110.92
-----
```

```
Do you want to grant/deny external clients access to MySQL port 3306 [g/d]? :
```

- Step 2** Enter **d** and press **Enter**.
The following information is displayed:

Enter the ip address you want to deny access to MySQL port 3306 :

- Step 3** Enter the IP address and press **Enter**.
The following information is displayed:

```
Successfully denied ipaddress 10.197.110.92 provided...
iptables: Saving firewall rules to /etc/sysconfig/iptables:[ OK ]
Press return to continue...
```

- Step 4** Press **Enter** to return to complete the process.

Enabling or Disabling HTTP

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Enable/Disable HTTP**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```
Do you want to enable/disable HTTP [e/d]? :
```

Step 3 Press **e** to enable or press **d** to disable HTTP.

Step 4 Press **Enter**.

The Shell menu will indicate if HTTP is enabled or disabled.

Step 5 Press **Enter** to complete the process.

Working with Databases

This section describes how to enable, start and stop, as well as backup and restore a database.

Stopping the Database

You can halt the mysql daemon (mysqld) by choosing **Stop Database**. This option stops all of the following Cisco services:

- Broker
- Controller
- Eventmgr
- Client
- Idaccessmgr
- Inframgr
- Tomcat
- Websock

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Stop Database**.

Information similar to the following is displayed:


```

Do you want to stop the database [y/n]? y
Stopping database....
Database stopped....
  Stopping broker [PID=21921]/[Child=21923]
  Stopping controller [PID=21959]/[Child=21961]
  Stopping eventmgr [PID=21993]/[Child=21995]
  Stopping client [PID=22052]/[Child=22054]
22101
22160]
  Stopping idaccessmgr [PID=22099]/[Child=]
  Stopping inframgr [PID=22158]/[Child=]
  Tomcat is running with [PID=22213]. Stopping it and its child process
  Flashpolicyd is running with [PID=22237]. Stopping it
Stopping websock[PID=22242]
Press return to continue ...

```

Step 2 Press **Enter** to return to the main menu.

Starting the Database

You can start the mysql daemon (mysqld) by choosing **Start Database**.



Note This option starts the appliance database only.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Start Database**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```

Starting database.....
directory (/var/lib/mysql/data/confmgr_production) exists
directory (/var/lib/mysql/data/db_private_admin) exists
the file (/var/lib/mysql/data/ib_logfile1) exists
the file (/var/lib/mysql/data/ib_logfile0) exists
the file (/var/lib/mysql/data/ibdata1) exists
Database started
Press return to continue ...130917 10:10:54 mysqld_safe Logging to '/var/log/mysqld.log'.
130917 10:10:54 mysqld_safe Starting mysqld daemon with databaes from /var/lib/mysql/data

```

Note The Cisco services are not started automatically when you start the appliance database. Choose **Start Services** to start the Cisco services.

Backing Up the Database

Backing up the database triggers a full backup of the Cisco IMC Supervisor appliance. The process may take time to complete based on the number of files and the size of these files on the appliance. You can backup

the appliance database to an FTP server, SFTP server or SCP server. Before you begin the backup process, you must first stop the Cisco services. To stop the services, choose **Stop Services**. Refer to [Stopping Cisco Services, on page 3](#) about using the option.

You need the following information in order to complete this task:

- Server IP address (where you want to backup the database)
- Server login credentials



Note After you provide the login credentials, the entire Cisco IMC Supervisor appliance database is backed up at the specified location in the server. You can then start the Cisco services by choosing **Start Services**.

Procedure

- Step 1** From the **Cisco IMC Supervisor Shell Menu**, choose **Backup Database**.
- Step 2** Press **Enter**.
- Step 3** Enter **y** to confirm that you want to continue with the database back up and that the services on the appliances can be stopped.
- Step 4** Enter the transfer mode for the backup.
- You can enter one of the following options:
- **ftp**
 - **sftp**
 - **scp**
- Step 5** Enter the server IP address and press **Enter**.
- Step 6** Enter the server login name and press **Enter**.
- Step 7** Enter the server password and press **Enter**.
- Step 8** Enter the directory in which the file created during the backup process must be stored in.
-

Messages will appear to confirm the progress of your backup.

Restoring the Database

Before restoring the database, stop the Cisco services. To stop the services, choose **Stop Services**. Provide the following information in order to execute the task:

- FTP server's IP address (where you want the database restored from)
- FTP server's login credentials
- Restore filename
- Confirm to restore



Note After you provide the FTP credentials, the entire Cisco IMC Supervisor appliance database is restored from the specified FTP location. You can then start the Cisco services by choosing **Start Services**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Restore Database**.

Step 2 Press **Enter**.

Information similar to the following is displayed:

```
Restore database.....
Restore will recover file from an FTP server. Provide the necessary access credentials

FTP Server IP Address:
FTP Server Login: root
FTP Server Password:
```

Step 3 Enter your FTP server IP address and press **Enter**.

Step 4 Enter your FTP server login and press **Enter**.

Step 5 Enter your FTP server password and press **Enter**.

Step 6 Follow the onscreen prompts to complete the process.

Step 7 Choose **Start Services** to restart the Cisco services.

Importing Certificates

This section describes how to import certification authority (CA) certificates such as the Java KeyStore (JKS). A JKS certificate is a repository of security certificates used in SSL encryption. This certificate is required for a secure connection through HTTPS. Importing a JKS certificate allows you to connect securely to Cisco IMC Supervisor through HTTPS.

Generating Self-Signed Certificates and Certificate Signing Requests

When you generate a self-signed certificate, a new self-signed certificate in PEM format and a Certificate Signing Request (CSR) file are created in the `opt/certs/` directory. When generating a self-signed certificate, clicking enter will select the default option. For example, if you do not specify a domain name, the shell admin by default chooses the domain name of the appliance that is configured.

You can generate a self-signed certificate and a CSR using the **Generate Self-Signed Certificate and Certificate Signing Request** option.

Procedure

Step 1 From the Cisco IMC Supervisor Shell menu, choose the **Generate Self-Signed Certificate and Certificate Signing Request** and press **Enter**.

The following information is displayed:

```
Domain Name [localdom]:
```

Step 2 Enter the domain name and press **Enter**.

By default the shell menu selects the domain name of the local appliance that is configured.

The following information is displayed:

```
How many days is self-signed certificate valid for? [365]:
```

Step 3 Enter the number of days that you want the self-signed certificate to be valid for and press **Enter**.

The following information is displayed:

```
Generating a 2048 bit RSA private key
writing new private key to 'opt/certs/localdom.key'
-----
```

```
You are about to be asked to enter information that will be incorporated
into your certificate request.
```

```
What you are about to enter is what is called a Distinguished Name or DN.
```

```
There are quite a few fields but you can leave some blank.
```

```
For some fields there will be a default value,
```

```
If you enter '.', the field will be left blank.
```

```
-----
```

```
Country Name (2 letter code) [GB]:
```

```
State or Province Name (full name) [Berkshire]:
```

```
Locality Name (eg, city) [Newbury]:
```

```
Organization Name (eg, company) [My Company Ltd]:
```

```
Organizational Unit Name (eg, section) []:
```

```
Common Name (eg, your name or your server's hostname) []:
```

```
Email Address []:
```

Step 4 Enter the country name, state or province name, locality name, organization name, organizational unit name, common name, and email address, and press **Enter**.

The following information is displayed:

```
Please enter the following 'extra' attributes
to be sent with your certificate request
```

```
A challenge password []:
```

```
An optional company name:
```

Step 5 (Optional) Enter a challenge password and an optional company name, and press **Enter**.

The following information is displayed:

```
Writing new CSR (Certificate Signing Request) to /opt/certs/localdom.csr.
```

```
Use the CSR to obtain a certificate in PEM format from a CA (Certificate Authority).
```

```
Writing new self-signed certificate in PEM format to opt/certs/localdom.pem.
```

```
Press return to continue ...
```

Importing a Certification Authority or Self Signed Certificates

You can either import the generated self-signed certificate or import a certificate generated by another system or third party by copying .pem and .key (private key) files to the /opt/certs/ directory. The shell admin will automatically discover the .pem and .key files for the given domain in the /opt/certs/ directory. The .pem file provided is exported into PKCS12 format, and then converted to JKS format. The JKS file can be imported into Tomcat.

You can import a CA signed certificate or self-signed certificate using the **Import CA/Self-Signed Certificate** option.

Procedure

- Step 1** From the Cisco IMC Supervisor Shell menu, choose the **Importing CA/Self-Signed Certificate** option and press **Enter**.

The following information is displayed:

```
Domain Name [localdom]:
```

- Step 2** Enter the domain name and press **Enter**.

By default the shell menu selects the domain name of the local appliance that is configured.

The following information is displayed:

```
Enter CA/self-signed certificate [/opt/certs/localdom.pem]:
```

- Step 3** Enter the path to the CA signed certificate or self-signed certificate, and press **Enter**.

The following information is displayed:

```
Enter private key [/opt/certs/localdom.key]:
```

- Step 4** Enter the path to the private key and press **Enter**.

The following information is displayed:

```
Enter keystore password:
```

- Step 5** Enter the Java KeyStore (JKS) password and press **Enter**.

Information similar to the following is displayed

```
Exporting /opt/certs/localdom.pem to PKCS12 format...
```

```
Converting PKCS12 to JKS format...
```

```
Importing /opt/certs/keystore.jks into tomcat for secured access to UCSD UI using HTTPS.
```

```
Certificate /opt/certs/keystore.jks imported to tomcat succesfully.
```

```
Do you want to import the certificate file:///opt/certs/localdom.pem into WebProxy for secured access to VM console through VNC [y/n]?:
```

- Step 6** Enter **y** and press **Enter** to import the certificate file into WebProxy for secured access to the VM console through VNC.

The following information is displayed:

```
Certificate file:///opt/certs/localdom.pem imported to WebProxy succesfully.
Press return to continue ...
```

Accessing Root Privileges

This section describes how to access root. Tasks that require root privileges include moving directories or files into other directories, providing or revoking user privileges, general system repairs, and occasionally installing applications.



Note Compiling software as root is not recommended for security reasons.

Configuring Root Access

You can enable root privileges by choosing **Manage Root Access**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Manage Root Access** and press **Enter**.

The following information is displayed:

```
Enable/Disable/Configure (root privilege) [e/d/c]:
```

Step 2 Enter **c** and press **Enter**.

The following information is displayed:

```
Do you want to Configure/Set Root Privilege/Password [y/n]? :
```

Step 3 Enter **y** and press **Enter**.

The following information is displayed:

```
Changing root password...
  Changing password for user root.
  New UNIX password:
```

Step 4 Enter a new UNIX password and press **Enter**.

The following information is displayed:

```
Retype new UNIX password:
```

Step 5 Enter your new UNIX password and press **Enter**.

Information similar to the following is displayed:

```
passwd: all authentication tokens updated successfully.
  Root passwd changed successfully
  Press return to continue...
```

Step 6 Press **Enter** to complete the process.

Logging in as Root

You can login in as root by choosing **Login As Root**.

Procedure

Step 1 From the **Cisco IMC Supervisor Shell Menu**, choose **Login As Root** and press **Enter**.

The following information is displayed:

```
Do you want to Login As Root [y/n]? :
```

Step 2 Enter **y** and press **Enter**.

The following information is displayed:

```
Logging in as root
password:
```

Step 3 Enter your root password and press **Enter**.

The following information is displayed:

```
Logging as root
Password:
[root@localhost shelladmin]#
```

Step 4 Enter your password and press **Enter**.

Step 5 Enter **exit** to return to the shelladmin.

The following information is displayed:

```
[root@localhost shelladmin]# cd /opt
[root@localhost opt]# exit
exit
Successful login
Press return to continue ...
```
