



Cisco UCS Configuration Utility Quick Start Guide

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Cisco UCS Configuration Utility

Overview

The Cisco UCS Configuration Utility is a tool that allows you to modify the server parameters of the following:

- BIOS
- Cisco IMC
- CMC

This utility provides an option to view the currently set values of the BIOS, CMC and Cisco IMC parameters in an XML or a text file. To modify the values of these parameters, you must extract the currently set values to a text file, modify them, and apply the text file. For more information on modifying BIOS, CMC and Cisco IMC parameters, see [Using the Utility](#).



Note Using this utility, you can modify only those parameters that are supported by Cisco IMC.

Supported Operating Systems and Servers

List of Commands

The Cisco UCS Configuration Utility provides a set of commands that you can use to view and modify the BIOS and parameters.

Table 1: Commands Supported on both Windows and Linux Operating Systems

Command	Description
<code>ucscfg help</code>	To view help information on ucscfg commands and usage.
<code>ucscfg show text /bios</code>	To view the values of BIOS parameters in text file format. The output displays the currently set values for each parameter.
<code>ucscfg show xml /bios</code>	To view the values of BIOS parameters in XML file format. The output displays the currently set values for each parameter. This command is supported only on S3260M4 and C460M4 Servers.
<code>ucscfg show xml /cimc</code>	To view the values of CIMC parameters in a XML file format. Output displays the currently set values for each parameter.
<code>ucscfg show text /cimc</code>	To view the values of CIMC parameters in text file format. The output displays the currently set values for each parameter.

Command	Description
ucscfg show text /bios > <i>filename.txt</i>	To redirect the text output of the BIOS parameters to a text file outside of the utility. This file displays the currently set BIOS parameters. Use this file to modify all the BIOS parameters.
ucscfg show text /cimc > <i>filename.txt</i>	To redirect the text output of the CIMC parameters to a text file outside of the utility. This file displays the currently set CIMC parameters. Use this file to modify all the CIMC parameters.
ucscfg batch setbios <i>filename.txt</i>	To apply the changes made to the BIOS parameters. This command supports only the text file format. The XML format is not supported. The configured BIOS tokens would take effect in the next host reboot.
ucscfg batch setcimc <i>filename.txt</i>	To apply the changes made to the Cisco IMC parameters. This command supports only the text file format. The XML format is not supported. The configured CIMC parameters would get applied immediately after few CIMC auto-reboots.
ucscfg batch -ignore setcimc <i>filename.txt</i>	To apply the changes made to the Cisco IMC parameters, ignoring the BIOS version of the server mentioned in the text file with the actual BIOS version running on the server and to proceed with applying the changes. You can create your own file. For more information on creating your own file, see Creating a Text File, on page 7 .
ucscfg ipfilter get	To view the IP filter status and the range of IP addresses set as IP filter. To provide secure access to the server, you can now set a filter to allow only a selected set of IPs to access it. This option provides four slots for storing IP addresses (IP Filter 1, 2, 3, and 4). You can either assign a single IP address or a range of IP addresses while setting the IP filters. Once you set the IP filter, you might be unable to access the server using any other IP address.
ucscfg ipfilter get > <i>filename.txt</i>	To redirect the text output of the CIMC parameters to a text file outside of the utility. Sample content of IP filter configuration: <ul style="list-style-type: none"> • /cimc/network-security/ipFilterEnabled <enabled/disabled> - For enabling/disabling IP whitelisting • /cimc/network-security/ipFilter1 <IPv4/IPv6 address> - For whitelisting an IP • /cimc/network-security/ipFilter2 <IPv4/IPv6 address>-<IPv4/IPv6 address> - For whitelisting an IP range • /cimc/network-security/ipFilter3 <IP address/range> • /cimc/network-security/ipFilter4 <IP address/range>
ucscfg ipfilter set <i>filename.txt</i>	To set the IP filter status and a single IP address or a range of IP addresses as IP filter.
ucscfg single-ip get	To check if the server is in single IP or in normal mode.
ucscfg single-ip set enabled <i>port-number</i>	To enable the single IP mode on the server.

Command	Description
ucscfg single-ip set disabled <i>port-number</i>	To disable the single IP mode on the server.

Table 2: Commands Supported only on Linux

Command	Description
ucscfg bootorder get > <i>filename.txt</i>	To redirect the text output of the boot order to a text file outside the utility. This file displays the configured boot order of the server. Use this file to modify boot order.
ucscfg bootorder set <i>filename.txt</i>	To modify the current boot order setting of the server. You can create your own file to add or modify the configured boot order.
ucscfg export CMC <i>filename passphrase</i>	To export or push out the CMC configuration to the file. Note This command is applicable only for S3260, C3260 M4 and M5 servers.
ucscfg export BMC1 <i>filename.txt passphrase</i>	To export or push out the Node-1 BMC configuration to the file. Note This command is applicable only for S3260, C3260 M4 and M5 servers.
ucscfg export BMC2 <i>filename.txt passphrase</i>	To export or push out the Node-2 BMC configuration to the file. Note This command is applicable only for S3260, C3260 M4 and M5 servers.
ucscfg tech-support generate	To generate the technical support log.
ucscfg tech-support status	To check the status of technical support log which is in progress.
ucscfg tech-support cancel	To check the status of technical support log generation which is in progress.
ucscfg tech-support download	To download the technical support file available in BMC to the host. This does not clean up the technical support file in BMC on completion of download. that is, the same technical support file can be downloaded again.
ucscfg tech-support export	To generate and download the Technical support file from BMC to the host. This command cleans up the technical support file in BMC on download completion.
ucscfg tech-support cleanup	To clear the technical log file available on BMC.

Table 3: Commands Supported only on Windows

Command	Description
<code>ucscfg bootorder set parameter</code>	To set the first boot device on the server. The field parameter can have one of the following values: <ul style="list-style-type: none">• FDD• CDROM• HDD• EFI• PXE

Using the Utility

You can use the Cisco UCS Configuration Utility to modify the values of the BIOS, CMC and Cisco IMC parameters of a server. With the utility, you can view the currently set values of the parameters in an XML file along with the list of valid values, and then modify the values in a text file and apply those changes.



Note • The IPMI service must be running before you use this utility.

Procedure

Step 1

Open the Cisco UCS Configuration Utility.

- Access the Download Software page at <http://www.cisco.com/cisco/software/navigator.html>.
- Click **Unified Computing and Servers > Cisco UCS C-Series Rack-Mount UCS-Managed Server Software > Unified Computing System (UCS) Utilities**.
- Select the operating system, and download the ISO image.

The Cisco UCS Configuration Utility is available as a zip file and a tar file.

- Extract the contents of the zipped file or the tar file.

All files within the downloaded file are required for the utility to work. So do not delete or move the files that are extracted from the zip or tar file.

- Run the utility from the directory it resides in.

When you run the utility on Linux operating systems, it first determines if the IPMI service is running. If the service is not running, the utility starts the IPMI service.

Step 2

View the configured values and the list of valid values for BIOS or Cisco IMC parameters.

- Note**
- A single UCSCFG binary is issued for all UCS C-Series and S-Series servers.
 - **ucscfg show xml /bios** command is supported only on the M4 servers.

For BIOS:

ucscfg show xml /bios

For Cisco IMC:

ucscfg show xml /cimc

Step 3

To modify the parameters for the BIOS or the Cisco IMC, generate a text file with the currently set values of the parameters, and make changes in the text file. To generate a text file on a Windows server, run the following command:

For BIOS:

ucscfg show text /bios > bios.txt

For Cisco IMC:

ucscfg show text /cimc > cimc.txt

On Linux servers, run the following commands:

For BIOS:

ucscfg show text /bios > bios.txt

For Cisco IMC:

ucscfg show text /cimc > cimc.txt

The values of the parameters for BIOS and Cisco IMC are saved in the *bios.txt* and *cimc.txt* files.

Step 4

Modify the parameters in the text file, and save the files.

Step 5

Apply the text files.

For BIOS:

ucscfg batch setbios bios.txt

For Cisco IMC:

ucscfg batch setcimc cimc.txt

Step 6

Reboot the server immediately to update the BIOS parameters with the new values.

If you do not reboot the server immediately, the BIOS parameters are not updated and remain unchanged. When you modify the parameters again and reboot the server immediately, the changes made in the second attempt are reflected. Prior changes made to the BIOS parameters are not updated on the server.

Step 7

To export or import the Cisco IMC or CMC configuration, run the following commands:

For exporting:

ucscfg export <CMC or BMC> filename passphrase

For importing:

ucscfg import <CMC or BMC> filename passphrase

Step 8

To export or import the Cisco UCS VIC configuration, run the following commands:

a) To display the slot numbers for the available VICs, run the following command:

ucscfg vic-display

b) To export and import:

For exporting:

ucscfg vic-export *slot filename*

For importing:

ucscfg vic-import *slot filename*

Step 9 To perform firmware update related tasks, run the following commands:

To initiate firmware update with a delay:

ucscfg fwupdate *fwupdate_config*

To view the status of the firmware update that is in progress:

ucscfg fwupdate_status

To cancel the firmware update that is in progress:

ucscfg fwupdate_cancel

Step 10 To set the IP filter status and a single IP address or a range of IP addresses as IP filter, run the following command:

ucscfg ipfilter set *filename*

To view the IP filter details, run the following command:

ucscfg ipfilter get

Creating a Text File

To modify the values of the BIOS and Cisco IMC parameters, the utility allows you to create a file outside of the utility, and then apply the changes using the utility. You can use this option when you need to modify one or two options of the BIOS or Cisco IMC. Prior to creating this text file, it is recommended that you generate the XML file to view the currently set values and the permissible values for the BIOS and Cisco IMC parameters.

Procedure

Step 1 Open the Cisco UCS Configuration Utility.

Step 2 View the configured values and the list of valid values for BIOS or Cisco IMC parameters.

- Note**
- A single UCSCFG binary is issued for all UCS C-Series and S-Series servers.
 - **ucscfg show xml /bios** command is supported only on the M4 servers.

For BIOS:

ucscfg show xml /bios

For Cisco IMC:

ucscfg show xml /cimc

Step 3 Using this XML output file as a reference, create a text file with the options that you need to modify.

While creating the text file, you must abide by the following guidelines:

- The feature name must be followed by the name in the **target-token** field listed in the XML file.
- To specify a value, always use the values mentioned in the `<setting name>` tag listed in the XML file

For example, the following content in the XML file shows the currently set value and the possible values for the POST Error Pause parameter. The currently set value for this parameter is Enabled.

```
<BIOS vendor="Cisco" version="36-132" />
<BIOS vendor="Cisco" >
<feature name="Main" target-token="Main" >
  <parameter name="POST Error Pause" target-token="POSTErrorPause" >Enabled
    <Setting name="Disabled" value="0" type-hint="number" is-default="yes" />
      <Setting name="Enabled" value="1" type-hint="number" is-default="no" is-current="yes" />
    </parameter>
  </feature>
```

To disable this parameter, you must include the content underlined above from the XML file into the text file:

```
/bios/Main/POSTErrorPause Disabled
```

Step 4 Apply the text files using the following commands:

For BIOS:

ucscfg batch setbios bios.txt

For Cisco IMC:

ucscfg batch setcimc cimc.txt

When you apply the text file, the utility first determines if the BIOS version of the server matches with the version mentioned in the text file. If the server versions do not match, an error message is displayed and the changes are not applied. Optionally, you can apply the parameter changes without checking the BIOS versions. To do so, run the following command:

ucscfg batch -ignore setcimc cimc.txt

Step 5 Reboot the server immediately to update the BIOS parameters with the new values.

Additional Information

Related Cisco UCS Documentation

Documentation Roadmaps

For a complete list of all B-Series documentation, see the *Cisco UCS B-Series Servers Documentation Roadmap* available at the following URL: https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/overview/guide/UCS_roadmap.html

For a complete list of all C-Series documentation, see the *Cisco UCS C-Series Servers Documentation Roadmap* available at the following URL: https://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/overview/guide/ucs_rack_roadmap.html.

For information on supported firmware versions and supported UCS Manager versions for the rack servers that are integrated with the UCS Manager for management, refer to [Release Bundle Contents for Cisco UCS Software](#).

Other Documentation Resources

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