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
- CIMC

This utility provides an option to view the currently set values of the BIOS and CIMC 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 and CIMC parameters, see Using the Utility.

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

Supported Operating Systems and Servers

Supported Operating Systems

- Red Hat Enterprise Linux 5
- SUSE Linux Enterprise Server 10
- SUSE Linux Enterprise Server 11
- Microsoft Windows 2008 x64
- Microsoft Windows 2008 R2 x64
- Microsoft Windows 2008 x86
- Microsoft Windows 2008 R2 x86
- Microsoft Windows Pre-installation Environment (WinPE) 2.0 x64
- Microsoft Windows Pre-installation Environment (WinPE) 2.0 x86
- UEFI 2.0

Supported Servers

- UCS C-200
- UCS C-210
- UCS C-220

- UCS C-240
- UCS C-250
- UCS C-260
- UCS C-460

List of Commands

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

Command	Description
ucscfg help	To view the help page on all commands.
ucscfg show xml /bios	To view the values of the BIOS parameters in an XML file. This file displays all the valid values for each parameter.
ucscfg show text /bios	To view the values of the BIOS parameters in a text file. The text file displays the currently set value for each parameter.
ucscfg show xml /cimc	To view the values of the CIMC parameters in an XML file. This file displays the valid values for each parameter.
ucscfg show text /cimc	To view the values of the CIMC parameters in a text file. The text file displays the currently set value for each parameter.
ucscfg show text /bios > *filename.txt*	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 > *filename.txt*	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 set *filename.txt*	To apply the changes made to the BIOS and CIMC parameters. This command supports only the text format. The XML format is not supported. For EFI, the text file must be encoded in the UNICODE format. For Windows and Linux operating systems, the text file must be in the ANSI format.

Command	Description
ucscfg batch -ignore set *filename.txt*	To apply the changes made to the BIOS and CIMC parameters, ignoring the BIOS version of the server. Use this command to apply BIOS or CIMC parameters from a file that you created. You can create your own file when you need to modify only one or two parameters. For more information on creating your own file, see Creating a Text File, on page 5.
ucscfg bootorder set <*parameters*>	To modify the current boot order setting of the server. This command is supported on Microsoft Windows operating system on UCS C-220 and C-240 servers. On Linux operating systems, this command is supported on all servers listed in the section Supported Operating Systems and Servers, on page 2.
ucscfg get /bios/boot-order	To display a list of boot device parameters. The output from this command lists the boot device parameter names with the numerical equivalent. This command is not supported on UCS C-220 and C-240 servers.

Using the Utility

You can use the Cisco UCS Configuration Utility to modify the values of the BIOS and CIMC 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.

a) Access the Download Software page at http://www.cisco.com/cisco/software/navigator.html.

b) Click **Unified Computing and Servers** > **Cisco UCS C-Series Rack-Mount UCS-Managed Server Software** > **Unified Computing System (UCS) Utilities**.

c) Select the operating system, and download the ISO image.
The Cisco UCS Configuration Utility is available as a zip file and a tar file.

d) 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.

e) Run the utility from the directory it resides in.
Use the *ucscfgx64* files for 64-bit operating systems, and *ucscfgx86* files for 32-bit operating systems.

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 CIMC parameters.
For BIOS:

ucscfgx64 show xml /bios

For CIMC:

ucscfgx64 show xml /cimc

Step 3 To modify the parameters for the BIOS or the CIMC, 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:

ucscfgx64 show text /bios > bios.txt

For CIMC:

ucscfgx64 show text /cimc > cimc.txt

On Linux servers, run the following commands:

For BIOS:

ucscfgx64 show text /bios > bios.txt

For CIMC:

ucscfgx64 show text /cimc > cimc.txt

The values of the parameters for BIOS and CIMC 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:

ucscfgx64 batch set bios.txt

For CIMC:

ucscfgx64 batch set 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.

Creating a Text File

To modify the values of the BIOS and CIMC 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 CIMC. 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 CIMC 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 CIMC parameters.
For BIOS:

ucscfgx64 show xml /bios

For CIMC:

ucscfgx64 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:

ucscfgx64 batch set bios.txt

For CIMC:

ucscfgx64 batch set 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 set *filename.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: http://www.cisco.com/go/unifiedcomputing/b-series-doc.

For a complete list of all C-Series documentation, see the *Cisco UCS C-Series Servers Documentation Roadmap* available at the following URL: http://www.cisco.com/go/unifiedcomputing/c-series-doc .

Other Documentation Resources

An ISO file containing all B and C-Series documents is available at the following URL: http://www.cisco.com/cisco/software/type.html?mdfid=283853163&flowid=25821. From this page, click **Unified Computing System (UCS) Documentation Roadmap Bundle**.

The ISO file is updated after every major documentation release.

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