



## **Cisco UCS Configuration Utility Quick Start Guide**

[Cisco UCS Configuration Utility](#) **2**

[Overview](#) **2**

[Supported Operating Systems and Servers](#) **2**

[List of Commands](#) **3**

[Using the Utility](#) **4**

[Creating a Text File](#) **6**

[Additional Information](#) **7**

Revised: October 25, 2016,

# 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

### Supported Operating Systems

- Red Hat Enterprise Linux 5
- Red Hat Enterprise Linux 6 Update 4 (x86-64)
- Red Hat Enterprise Linux 6 Update 5
- Red Hat Enterprise Linux 6.6
- Red Hat Enterprise Linux 6.7
- Microsoft Windows 2008 R2
- Microsoft Windows 2008 R2 x64
- Microsoft Windows 2008 x86
- Microsoft Windows 2008 R2 x86
- Microsoft Windows 2012
- Microsoft Windows 2012 R2
- UEFI 2.0

## Supported Servers

- UCS C22 M3
- UCS C24 M3
- UCS C220 M3
- UCS C240 M3
- UCS C3160 M3
- UCS C3260 M3
- UCS C3260 M4
- UCS C220 M4
- UCS C240 M4
- UCS C460 M4

## List of Commands

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

Command	Description
<b>ucscfg help</b>	To view the help page on all commands.
<b>ucscfg show xml /bios</b>	To view the values of the BIOS parameters in an XML file. This file displays all the valid values for each parameter.
<b>ucscfg show text /bios</b>	To view the values of the BIOS parameters in a text file. The text file displays the currently set value for each parameter.
<b>ucscfg show xml /cimc</b>	To view the values of the Cisco IMC parameters in an XML file. This file displays the valid values for each parameter.
<b>ucscfg show text /cimc</b>	To view the values of the Cisco IMC parameters in a text file. The text file displays the currently set value for each parameter.
<b>ucscfg show text /bios &gt; <i>filename.txt</i></b>	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.
<b>ucscfg show text /cimc &gt; <i>filename.txt</i></b>	To redirect the text output of the Cisco IMC parameters to a text file outside of the utility. This file displays the currently set Cisco IMC parameters. Use this file to modify all the Cisco IMC parameters.

Command	Description
<b>ucscfg batch set</b> <i>filename.txt</i>	To apply the changes made to the BIOS and Cisco IMC 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.
<b>ucscfg batch -ignore set</b> <i>filename.txt</i>	To apply the changes made to the BIOS and Cisco IMC parameters, ignoring the BIOS version of the server.  Use this command to apply BIOS or Cisco IMC 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 <a href="#">Creating a Text File</a> , on page 6.
<b>ucscfg bootorder set</b> <i>&lt;parameters&gt;</i>	To modify the current boot order setting of the server.  This command is supported on Microsoft Windows operating system.
<b>ucscfg bootorder get</b>	To get the configured boot order in the system.
<b>ucscfg bootorder set</b> <i>&lt;filename&gt;</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.  This command is supported on Linux and EFI operating system.
<b>ucscfg export</b> <i>&lt;filename&gt;</i> <i>&lt;passphrase&gt;</i>	To export the Cisco IMC configuration.  <b>Note</b> This command is supported only on Linux and UEFI.
<b>ucscfg import</b> <i>&lt;filename&gt;</i> <i>&lt;passphrase&gt;</i>	To import the Cisco IMC configuration.  <b>Note</b> This command is supported only on Linux and UEFI.

## 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.
- EFI ucscfg is supported only on the C22 M3, C24 M3, and C220 M3 servers.

**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 Cisco IMC parameters.
- For BIOS:
- ```
ucscfgx64 show xml /bios
```
- For Cisco IMC:
- ```
ucscfgx64 show xml /cimc
```
- BIOS for C3260 servers:
- ```
ucscfg_c3260 show xml /bios
```
- Cisco IMC for C3260 servers:
- ```
ucscfg_c3260 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:
- ```
ucscfgx64 show text /bios > bios.txt
```
- For Cisco IMC:
- ```
ucscfgx64 show text /cimc > cimc.txt
```
- On Linux servers, run the following commands:
- For BIOS:
- ```
ucscfgx64 show text /bios > bios.txt
```
- For Cisco IMC:

**ucscfgx64 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:

**ucscfgx64 batch set bios.txt**

For Cisco IMC:

**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.

**Step 7** To export or import the Cisco IMC configuration, run the following commands:

For exporting:

**ucscfg export** <filename> <passphrase>

For importing:

**ucscfg import** <filename> <passphrase>

---

## 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.

For BIOS:

**ucscfgx64 show xml /bios**

For Cisco IMC:

**ucscfgx64 show xml /cimc**

BIOS for C3260 servers:

**ucscfg\_c3260 show xml /bios**

Cisco IMC for C3260 servers:

**ucscfg\_c3260 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 Cisco IMC:

**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>.

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**

Follow [Cisco UCS Docs on Twitter](#) to receive document update notifications.

## **Documentation Feedback**

To provide technical feedback on this document, or to report an error or omission, please send your comments to [ucs-docfeedback@cisco.com](mailto:ucs-docfeedback@cisco.com). We appreciate your feedback.



THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: <http://www.cisco.com/go/trademarks>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

© 2012-2016 Cisco Systems, Inc. All rights reserved.

**Americas Headquarters**

Cisco Systems, Inc.  
San Jose, CA 95134-1706  
USA

**Asia Pacific Headquarters**

Cisco Systems (USA) Pte. Ltd.  
Singapore

**Europe Headquarters**

Cisco Systems International BV  
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).