Hewlett Packard Enterprise

HPE VMware Utilities User Guide VMware vSphere 6.5 U1 for February 2018

Contents

Introduction

This section provides information about the utilities supported on VMware vSphere 6.0 and updates. The following utilities are supported on VMware vSphere 6.0 and updates host:

- HPONCFG — Command line utility used for obtaining and setting ProLiant iLO configurations.

- BOOTCFG — Command line utility used for configuring ProLiant server boot order.

- SSACLI – Command line utility used for configuration and diagnostics of ProLiant server SmartArrays.

- TESTEVENT –Command line utility used to request the HPE Insight Management WBEM providers generate the Information Test Indication with Provider Name "HP Test" and EventID 1, and the CPQ SNMP test trap with OID 1.3.6.1.4.1.232.11.2.8.1.0.11003.

- CONREP – Command line utility used to capture server configuration information. The configuration data can then be edited. The data can be further used to reset the configuration of the server or to duplicate the configuration on another ProLiant server.

Installing offline bundle on a vSphere 6.5 U1 host using vSphere CLI 6.5 U1 esxci utility

This section provides information about installing the VMware vSphere 6.5 U1 updates offline bundles on the vSphere host. You can use the `esxcli` utility in conjunction with offline bundles or with a depot.

Prerequisites

Install `VMware vSphere Command-Line Interface 6.0` (vSphere CLI) on Microsoft Windows or Linux system. For information about importing or installing the `vSphere CLI 6.0,` see the *VMware vSphere Command-Line Interface Installation and Reference Guide* available at:

http://pubs.vmware.com/vsphere-60/index.jsp#com.vmware.vcli.ref.doc/vcli-right.html.

To install the offline bundle on an vSphere host, perform the following steps:

Procedure

1. Power off any virtual machines that are running on the host, and set the host into maintenance mode.

2. Transfer the bundle onto the vSphere host local path, or extract it onto an online depot.

3. Install the bundle on the vSphere host using any of the following command line:

   a. Install remotely from client, with offline bundle available as online depot
   ```
   ~# esxcli -s <server> -u root -p mypassword software vib install -d
   <depotURL/bundle-index.xml>
   ```

   b. Install remotely from client, with offline bundle available on vSphere host
   ```
   ~# esxcli -s <server> -u root -p mypassword software vib install -d
   <vSphere local path><bundle.zip>
   ```

   c. Install from vSphere host, with offline bundle available on vSphere host
   ```
   ~# esxcli software vib install -d <vSphere local path><bundle.zip>
   ```

4. After the bundle is installed, reboot the vSphere host to initialize the utilities.

Installing offline bundles on a vSphere 6.5 U1 host using VMware vCenter Update Manager

The offline bundle can also be installed from `VMware vCenter Update Manager` as a patch. For more information and detailed instructions, see the *VMware vCenter Update Manager Administration Guide* available at:

http://pubs.vmware.com/vsphere-60/index.jsp#com.vmware.update_manager.doc/GUID-B5FB88E4-5341-45D4-ADC3-173922247466.html.

HPONCFG utility

The HPONCFG utility supports the ProLiant servers that are listed in the *vSphere Server Support Matrix*. To visit the **vSphere Server Matrix** page, go to **http://vibsdepot.hpe.com** and under **Support Information** section, select **HPE server support matrix** .

Hewlett Packard Enterprise offers support for the iLO 3,iLO 4, and iLO5 features available on ProLiant servers with the `HPONCFG` utility.

`HPONCFG` is an online configuration tool used to set up and reconfigure iLO 3,iLO 4, and iLO5 without requiring a reboot of the server operating system. The utility runs in a command-line mode and must be executed from an operating system command-line.

Observe the following requirements before using `HPONCFG`:

- The iLO 3,iLO 4, and iLO5 Management Interface Driver must be loaded on the server.

  `HPONCFG`

  displays a warning if the driver is not installed.

- `HPONCFG`

  requires minimum iLO 3,iLO 4, and iLO5 firmware versions. To determine the minimum firmware version required, see the

  HPE SmartStart Scripting Toolkit Linux and Windows Editions Support Matrix

  .

For more information on Integrated Lights-Out, see: **http://www.hpe.com/info/ilo**

HPONCFG command-line syntax

Use the following format at the command line:

```
hponcfg -f filename [] [-v] [-m minFw] -g [-m minFw] -w filename [-m minFw] -
r [-m minFw ] -h -? -u iLO_username -p iLO_password
```

The `HPONCFG` utility can be accessed from the location: `/opt/tools`.

> (!) **IMPORTANT:**
>
> Because the`-w` argument does not capture certain types of information, such as the administrator password, data files created with `HPONCFG` using the`-w` argument cannot then be used as input files for `HPONCFG`, unless they are modified first.

Table 1: hponcfg Command Line Arguments

Argument	Function
-a, --all	This argument captures complete Management Processor configuration to the file. This option should be used along with the "-w" option.
-i, --input	This argument Get/Set Management Processor Configuration from the XML input received through the standard input stream.
-s, --substitute	This argument substitutes variables present in the input configuration file with the values specified in "namevaluepairs".
-f, --file=filename	This argument sets the iLO 3, iLO 4 or iLO 5 configuration based on the information in the XML input file named filename.
-l, --log=filename	This argument logs replies to the text log file named filename.
-v, --xmlverbose	Writes all the responses from iLO 3, iLO 4 or iLO 5.
-g, --get_hostinfo	This argument returns the host server name and serial number.
-m, --minfwlevel	This argument indicates to HPONCFG the minimum firmware level that must be present in the management device to execute the RIBCL script. If the minimum level is not met, HPONCFG returns an error without performing any additional actions.
-w, --writeconfig=filename	This argument writes the iLO 3, iLO 4 or iLO 5 configuration obtained from the device to the XML output file named filename.
-r, --reset	This argument resets the iLO 3, iLO 4 or iLO 5 to factory defaults.
-h, --help, --?	These arguments display simple help messages.
-b, --reboot	Reboot Management Processor without changing any settings
-u, --username	iLO Username
-p, --password	iLO Password

HPONCFG return codes

This section provides description about the return code after running the command.

Table 2: hponcfg return codes

Value	Meaning
-1	`ERROR: A general system error detected while running HPONCFG`
0	Script succeeded.
1	Script failed
2	`ERROR : Unable to shutdown the iLo Channel Interface`
3	Firmware flash is in progress. Please wait for a while.
4	General error detected while checking firmware flash.
5	iLO Lights-Out functionality is Disabled. Please enable Lights-Out functionality before using this `software.` To Enable Lights-Out functionality: Set iLO Security Override Switch to ON and Use iLO ROM-based Setup Utility or iLO Browser interface to enable lights-out functionality.
7	You are not a `root/superuser.` Only `root/superuser` can access the utility.
9	`ERROR: Please specify firmware level as numeric input`
10	Could not get status of the Lights-Out Functionality
13 - 20	`ERROR: Failed to capture the configuration`

If the script itself fails, errors are reported in the log file created by `HPONCFG`.

HPONCFG command file contents

The `hponcfg` command can be used to perform the following tasks:

- Obtain an entire configuration
- Obtain a specific configuration
- Set a configuration

Obtaining an entire configuration

The `hponcfg` command can be used to obtain an entire configuration from an iLO 3, iLO 4 or iLO 5. In this case, the utility executes from the command line without specification of an input file. The name of the output file is given on the command line. For example:

```
opt/tools # ./hponcfg -w config.xml
```

In this example, the utility indicated that it obtained the data successfully and wrote it to the output file as requested. The following is a typical example of the contents of the output file:

```
<HPONCFG VERSION="1.1">
<!-Generated 04/15/04 15:20:36—>
<MOD_DIR_CONFIG>
<DIR_AUTHENTICATION_ENABLED VALUE="N" />
<DIR_LOCAL_USER_ACCT VALUE="Y" />
<DIR_SERVER_ADDRESS VALUE=""/>
<DIR_SERVER_PORT VALUE="25"/>
<DIR_OBJECT_DN VALUE=" "/>
<DIR_OBJECT_PASSWORD VALUE=""/>
<DIR_USER_CONTEXT_1 VALUE=""/>
<DIR_USER_CONTEXT_2 VALUE="_"/>
<DIR_USER_CONTEXT_3 VALUE=""/>
</MOD_DIR_CONFIG>
<MOD_NETWORK_SETTINGS>
<SPEED_AUTOSELECT VALUE="Y"/>
<NIC_SPEED VALUE="100"/>
<FULL_DUPLEX VALUE="Y"/>
<IP_ADDRESS VALUE="XX.XXX.XXX.XX"/>
<SUBNET_MASK VALUE="xxx.xxx.xxx.x"/>
<GATEWAY_IP_ADDRESS VALUE="XX.XXX.XXX.X"/>
<DNS_NAME VALUE="ILOD234KJ44D002"/>
<PRIM_DNS_SERVER value="xx.xx.x.xxx"/>
<DHCP_ENABLE VALUE="Y"/>
<DOMAIN_NAME VALUE="americas.cpqcorp.net"/>
<DHCP_GATEWAY VALUE="Y"/>
<DHCP_DNS_SERVER VALUE="Y"/>
<DHCP_STATIC_ROUTE VALUE="Y"/>
<DHCP_WINS_SERVER VALUE="Y"/>
<REG_WINS_SERVER VALUE="Y"/>
<PRIM_WINS_SERVER value="xx.xx.x.xxx"/>
<STATIC_ROUTE_1 DEST="0.0.0.0" GATEWAY="0.0.0.0"/>
<STATIC_ROUTE_2 DEST="0.0.0.0" GATEWAY="0.0.0.0"/>
<STATIC_ROUTE_3 DEST="0.0.0.0" GATEWAY="0.0.0.0"/>
</MOD_NETWORK_SETTINGS>
<ADD_USER
USER_NAME="Administrator"
USER_LOGIN="Administrator"
PASSWORD="">
</ADD_USER>
<ADD_USER
```

```
USER_NAME="Landy9"
USER_LOGIN="mandy9"
PASSWORD="">
</ADD_USER>
<RESET_RIB VALUE="Y"/>
</HPONCFG>
```

For security reasons, the user passwords are not returned.

Obtaining a specific configuration

A specific configuration can be obtained using the appropriate XML input file. For example, here are the contents of a typical XML input file, `get_global.xml`:

```
<!-- Sample file for Get Global command -->
<RIBCL VERSION="2.0">
<LOGIN USER_LOGIN="x" PASSWORD="x">
<RIB_INFO MODE="read">
<GET_GLOBAL_SETTINGS />
</RIB_INFO>
</LOGIN>
</RIBCL>
```

The XML commands are read from the input file `get_global.xml` and are processed by the device:

```
/opt/hp/tools # ./hponcfg -f get_global.xml -l log.txt > output.txt
```

The requested information is returned in the log file, which, in this example, is named `log.txt`. The contents of the log file are shown below:

```
<GET_GLOBAL_SETTINGS>
<SESSION_TIMEOUT VALUE="30"/>
<ILO_FUNCT_ENABLED VALUE="Y"/>
<F8_PROMPT_ENABLED VALUE="Y"/>
<REMOTE_CONSOLE_PORT_STATUS VALUE="3"/>
<REMOTE_CONSOLE_ENCRYPTION VALUE="N"/>
<PREFER_TERMINAL_SERVICES VALUE="N"/>
<HTTPS_PORT VALUE="443"/>
<HTTP_PORT VALUE="80"/>
<REMOTE_CONSOLE_PORT VALUE="23"/>
<TERMINAL_SERVICES_PORT VALUE="3389"/>
<VIRTUAL_MEDIA_PORT VALUE="17988"/>
<MIN_PASSWORD VALUE="4"/>
</GET_GLOBAL_SETTINGS>
```

Setting a configuration

A specific configuration can be sent to the iLO 3, iLO 4 or iLO 5 by using the command format:

```
opt/tools # ./hponcfg -f add_user.xml -l log.txt
```

In this example, the input file has contents:

```
<!-Add user with minimal privileges to test default setting of assigned privileges
to 'N'->
<RIBCL version="1.2"/>
<LOGIN USER_LOGIN="x" PASSWORD="x">
<USER_INFO MODE="write">
<ADD_USER USER_NAME="Landy9" USER_LOGIN="mandy9"
```

```
                    PASSWORD="floppyshoes">
                    <RESET_SERVER_PRIV value="Y" />
                    <ADMIN_PRIV value="Y" />
                    </ADD_USER>
                    </USER_INFO>
                    </LOGIN>
                    </RIBCL>
```

The specified user will be added to the device.

HPONCFG command-line examples

This section provides sample examples to run the utility.

Table 3: hponcfg command-line examples

Command-line argument	Description
hponcfg -h	This argument displays help information.
hponcfg -g	This argument returns the host server name and serial number.

To view the command usage options, run the following command:

`opt/tools # ./hponcfg —h`

All options supported by the command are listed in the output.

To get the host server name and serial number, run the following command:

`/opt/tools  #   ./hponcfg —g`

The following output is displayed:

```
Lights-Out Online Configuration utility for ESXi Version 5.0-0 (c) Copyright 2011-2017 Hewlett Packard Enterprise Development LP

Firmware Revision = 1.10 Device type = iLO 5 Driver name = ilo
Host Information:
Server Name: localhost.us.rdlabs.hpecorp.net
Server Serial Number:   xxxxxxxxxxx
```

xxxx – As per customer's environment.

To set the minimum firmware level, run the following command:

`/opt/tools #  ./hponcfg —m 1`

The following output is displayed:

```
        Firmware Revision = 1.10 Device type = iLO 5 Driver name = ilo
```

BOOTCFG utility

The `bootcfg` utility supports the ProLiant servers that are listed in the *vSphere Server Support Matrix*. To visit the **vSphere Server Matrix** page, go to **http://vibsdepot.hpe.com** and under **Support Information** section, select **HPE server support matrix**.

BOOTCFG is also supported when the system is booted in UEFI boot mode or Legacy BIOS.

This utility allows an application to set the device for the next subsequent boot of the system except where the option states it is persistent.

BOOTCFG command-line syntax

Use the following format at the command line:

```
bootcfg [-L -E] [-F -C -H -U] [-S -Q -R -P] [-b]
```

Table 4: bootcfg Command Line Arguments

Argument	Function
-L	Sets the persistent boot mode to legacy bios boot mode. ⚠ **CAUTION:** Installed OS may be boot-mode sensitive. It cannot boot an OS installed in UEFI mode, in legacy mode, and vice versa.
-E	Sets the persistent boot mode to UEFI bios boot mode. ⚠ **CAUTION:** Installed OS may be boot-mode sensitive. It cannot boot an OS installed in UEFI mode, in legacy mode, and vice versa.
-D	Sets default device as the boot option
-F	Sets Floppy Drive as the first boot device for the system boot
-C	Sets CD-ROM Drive as the first boot device for the system boot
-H	Sets Hard Drive as the first boot device for the system boot
-U	Sets USB as the first boot device for the system boot
-S	Sets system configuration utility as the boot device for the current boot
-Q	Sets quick configuration utility as the boot device for the current boot
-R	Sets ROM-Based Setup Utility (RBSU) as the boot device for the current boot
-P	Sets PXE client as the boot device for the current boot
-b	Bypasses `F1 / F2` prompts

BOOTCFG ESXCLI syntax

The `hpbootcfg` utility is supported by the `ESXCLI` utility.

To view the command usage options, run the following command:

```
# esxcli bootcfg
```

The following output is displayed:

```
                 Usage: esxcli bootcfg {cmd} [cmd options]
                 Available Commands:
                 execute execute — bootcfg command with
options
                 parameter
help — show bootcfg help

                 show — show current bootcfg settings
```

To view the current boot settings, run the following command:

`# esxcli bootcfg show`

This System only support BIOS/Legacy boot.

Boot mode: `00 00 Legacy BIOS boot mode`

Boot order: `00 00: Normal Device first, normal boot process`

For systems that are Legacy enabled boot mode, the following output is displayed:

Boot mode: `00 00 Legacy BIOS boot mode`

Boot order: `00 00: Normal Device first, normal boot process`

To set the command parameter values, use the `"execute"` cmd and one of the options listed in below. The following is an example of the command to set the defaults:

`# esxcli bootcfg execute -D`

The following output is displayed for a system that is in UEFI boot mode :

This System only support BIOS/Legacy boot.

Boot mode: `01 01 UEFI BIOS boot mode, UEFI optimized boot mode enabled`

Boot order: `00 00: Normal Device first, normal boot process`

BOOTCFG return codes

This section provides description about the return code after running the command.

Table 5: bootcfg return codes

Value	Meaning
0	Indicates success
Non zero	Indicates failure

BOOTCFG command-line examples

This section provides sample examples to run the utility.

Table 6: bootcfg command-line examples

Command-line argument	Description
`/opt/tools/bootcfg -h`	This argument displays help information.
`/opt/tools/bootcfg -D`	This argument sets the default values.

SSACLI utility

The `SSACLI` utility supports ProLiant 300/500/700 and Blade servers with integrated SmartArray controllers and option controllers. The utility supports reporting and configuration of the SmartArray. Configuration includes the ability to create arrays; create, expand, and delete logical drives and many other advanced operations. The information provided in the guide is introductory and example focused . For more information, see *Configuring Arrays on HPE Smart Array Controllers Reference Guide* available at: **http://www.hpe.com/support/CASAC_RG_en**.

Additional references to *HPE Smart Storage Administrator guides and white papers* are available at: **http://www.hpe.com/info/ACU-manuals**.

SSACLI command-line syntax

Using VMware esxcli requires knowledge about the CLI usage. The VMware vSphere command line documentation is available at: **http://www.vmware.com/support/developer/vcli/**.

The following is an overview of the ESXCLI command-line format:

```
# esxcli {namespace} {object} {command} {cmd options} "command-string"
```

Table 7: SSACLI Command-Line Arguments

Argument	Function
esxcli	The `esxcli` application.
namespace	Each plugin must have an associated namespace which defines any environment or other system variables required by the application.
object	A plugin must have one or more associated objects which defines a single operation.
command	Prepares the `esxcli` target to accept a command-line string.
cmd options	Additional switches associated with the command itself (if necessary).
"command-string"	This is the string which dictates the operation that should be executed by the target application itself.

The current namespace and command names are: `hpssacli` and `cmd` respectively. The `{cmd options}` parameter can be `cmdopts` or `-q`. There is no need for an `{object}` type for `hpssacli` since the application operates on internal commands supplied in the `command-string`.

SSACLI ESXCLI syntax

The `SSACLI` utility is supported by the `ESXCLI` utility.

Use the following command syntax for all commands:

```
# esxcli –server="servername or IP" –user="username" –password="root
password" ssacli cmd -q "command-string"
```

The `command-string` parameter supports same commands that are specified at the `SSACLI` interactive command-line interface.

This example shows the information about all the SmartArray controller on the server.

```
esxcli –server="servername or IP" –user="username" –password="root password"
ssacli cmd -q "controller all show status "
```

The following output is displayed:

```
Smart Array P212 in Slot 9
   Controller Status: OK

Smart Array P410i in Slot 0 (Embedded)
   Controller Status: OK
   Cache Status: OK
   Battery/Capacitor Status: OK
```

This example shows the detailed configuration information for the SmartArray controller in slot 0.

```
# esxcli –server="servername or IP" –user="username" –password"root password"
ssacli cmd -q "controller slot=0 show config detail"
```

The following output is displayed:

```
   Smart Array P410i in Slot 0 (Embedded)
Bus Interface: PCI
Slot: 0

Serial Number: 5001438013A25C90
Cache Serial Number: PBCDF0CRH0J7SD
RAID 6 (ADG) Status: Disabled
Controller Status: OK
Hardware Revision: C
Firmware Version: 3.70
Rebuild Priority: Medium
Expand Priority: Medium
Surface Scan Delay: 15 secs
Surface Scan Mode: Idle
Queue Depth: Automatic
Monitor and Performance Delay: 60 min
Elevator Sort: Enabled
Degraded Performance Optimization: Disabled
Inconsistency Repair Policy: Disabled
Wait for Cache Room: Disabled
Surface Analysis Inconsistency Notification: Disabled
Post Prompt Timeout: 0 secs
```

```
  Cache Board Present: True
  Cache Status: OK
  Accelerator Ratio: 25% Read / 75% Write
  Drive Write Cache: Disabled
  Total Cache Size: 1024 MB
  Total Cache Memory Available: 912 MB
  No-Battery Write Cache: Disabled
  Cache Backup Power Source: Capacitors
  Battery/Capacitor Count: 1
  Battery/Capacitor Status: OK
  SATA NCQ Supported: True

Array: A
  Interface Type: SAS
  Unused Space: 0 MB
  Status: OK
  Logical Drive: 1
  Size: 136.7 GB
  Fault Tolerance: RAID 1
  Heads: 255
  Sectors Per Track: 32
  Cylinders: 35132
  Strip Size: 256 KB
  Full Stripe Size: 256 KB
  Status: OK
  Array Accelerator: Enabled
  Unique Identifier: 600508B1001CB65083D63C5E781ABF65
  Disk Name: vmhba2:C0:T0:L1
  Mount Points: None
  Logical Drive Label: A00D1AF35001438013A25C90F0BA
  Mirror Group 0:
  physicaldrive 1I:1:1 (port 1I:box 1:bay 1, SAS, 146 GB, OK)
  Mirror Group 1:
  physicaldrive 1I:1:2 (port 1I:box 1:bay 2, SAS, 146 GB, OK)

  physicaldrive 1I:1:1
  Port: 1I
  Box: 1
  Bay: 1
  Status: OK
  Drive Type: Data Drive
  Interface Type: SAS
  Size: 146 GB

   Rotational Speed: 10000
   Firmware Revision: HPDE
   Serial Number: 6SD3FJVL0000B145MFXB
   Model: HP      EG0146FAWHU
   Current Temperature (C): 36
   Maximum Temperature (C): 46
   PHY Count: 2
   PHY Transfer Rate: 6.0GBPS, Unknown

   physicaldrive 1I:1:2
   Port: 1I
   Box: 1
   Bay: 2
```

```
       Status: OK
       Drive Type: Data Drive
       Interface Type: SAS
       Size: 146 GB
       Rotational Speed: 10000
       Firmware Revision: HPDE
       Serial Number: 6SD3EVBH0000B144Q7RD
       Model: HP      EG0146FAWHU
       Current Temperature (C): 37
       Maximum Temperature (C): 49
       PHY Count: 2
       PHY Transfer Rate: 6.0GBPS, Unknown

    unassigned

       physicaldrive 1I:1:3
       Port: 1I
       Box: 1
       Bay: 3
       Status: OK
       Drive Type: Unassigned Drive
       Interface Type: SAS
       Size: 146 GB
       Rotational Speed: 10000
       Firmware Revision: HPDE
       Serial Number: 6SD3FK4A0000B145J6JK
       Model: HP      EG0146FAWHU
       Current Temperature (C): 37
       Maximum Temperature (C): 48
       PHY Count: 2
       PHY Transfer Rate: 6.0GBPS, Unknown
           ...
```

These examples are not inclusive of all the capabilities of the `SSACLI` command. Commands and options for additional operations using the `SSACLI`, such as creating a logical drive, are documented in the *Configuring Arrays on HPE Smart Array Controllers Reference Guide*.

TESTEVENT utility

The `testevent` utility allows an application to request, so that the Insight Management WBEM Providers generate the Informational Test Indication with ProviderName "HP Test" and EventID 1, and the CPQ SNMP test trap with OID 1.3.6.1.4.1.232.11.2.8.1.0.11003.

The testevent utility also allows user to configure a test event interval time. The Insight Management WBEM Providers will check for the test event interval time value and periodically generate the Informational Test Indication with ProviderName "HP Test" and EventID 1, and the CPQ SNMP test trap with OID 1.3.6.1.4.1.232.11.2.8.1.0.11003.

The Insight Management WBEM Providers must be installed, enabled and running on the system where this utility is executed. The WBEM Providers must be configured to send indications to the listener. VMware SNMP traps must be enabled and configured to use WBEM indications as a source for SNMP traps.

The Informational Test Indication and the CPQ Test SNMP trap will be sent to any listener configured to receive indications from the system.

See the Insight Management WBEM Provider Datasheets for information on the test indication, and the SNMP Data Migration Guide for information on the test SNMP trap on the **Hewlett Packard Enterprise website**.

TESTEVENT command-line syntax

Use the following format at the command line:

```
testevent [-E <timeinterval>] [-D -S -X -H]
```

Argument	Function
-E	Enable periodic event, timeinterval range = 1 to 255
-D	Disable periodic event
-S	Show periodic event information
-X	Generate Test Event
-H	View the option usage

TESTEVENT ESXCLI syntax

The `testevent` utility is supported by the `ESXCLI` utility.

To view the command usage options, run the following command:

```
# esxcli testevent
```

The following output is displayed:

```
Usage: esxcli testevent {cmd} [cmd options]

Available Commands:

periodicevent - Manage the periodic event configuration

Available Commands:

execute - execute the testevent command

help - show testevent help
```

To view the Periodic event configuration command usage options, run the following command:

```
# esxcli testevent periodicevent
```

The following output is displayed:

```
Usage: esxcli testevent periodicevent {cmd} [cmd options]

Available Commands:

disable - disable the periodic event

enable - enable the periodic event with timeinterval command option

show - show the current periodic event settings
```

To view the Periodic event configuration enable command usage options, run the following command:

```
# esxcli testevent periodicevent enable
```

The following output is displayed:

```
Usage: esxcli testevent periodicevent enable [cmd options]

Description:
```

```
enable - enable the periodic event with timeinterval command option
```

```
Cmd options:
```

```
-t|--timeinterval=<long> the timeinterval value range in days {1 to 255}
(required)
```

To set a time interval value, run the following command:

```
# esxcli testevent periodicevent enable --timeinterval 3
```

```
The following output is displayed:
```

```
Periodic event has been successfully configured
```

```
Periodic event timeinterval :3 days
```

OR

```
# esxcli testevent periodicevent enable -t 3
```

```
The following output is displayed:
```

```
Periodic event has been successfully configured
```

```
Periodic event timeinterval :3 days
```

To show the time interval value configuration, run the following command:

```
# esxcli testevent periodicevent show
```

```
The following output is displayed:
```

```
Periodic event timeinterval :3 days
```

To disable the time interval value, run the following command:

```
# esxcli testevent periodicevent disable
```

```
The following output is displayed:
```

```
Periodic event has been successfully disabled
```

To request a test indication and test SNMP trap to be generated, run the following command:

```
# esxcli testevent execute
```

The following output is displayed:

```
Request successful. Test event will be generated.
```

TESTEVENT return codes

This section provides description about the return code after running the command.

Table 8: testevent return codes

Value	Meaning
0	Indicates success
1	Request failed. No test event will be generated.
2	Request failed, must be root.
3	Request failed, couldn't determine if WBEM Providers are installed and running.

Table Continued

Value	Meaning
4	Request failed, WBEM Providers are not installed and running.
5	Request failed. Invalid options.
6	Request failed. Unable to configure the periodic event.

TESTEVENT command-line examples

This section provides sample examples to run the utility.

Table 9: testevent command-line examples

Command-line	Description
`/opt/tools/testevent -H`	This argument displays help information.
`/opt/tools/testevent -X`	This argument generates Test Event.
`/opt/tools/testevent -E <timeinterval>`	This argument enable Periodic event configuration with `<timeinterval>` value, where `timeinterval range is 1 to 255`.
`/opt/tools/testevent -S`	This argument shows Periodic event configuration.
`/opt/tools/testevent -D`	This argument disable Periodic event configuration.

CONREP utility

The conrep utility reads the state of the system environment settings to determine a Proliant server configuration and writes the results to an XML data file. You can edit this file and use it to reset the system configuration on the same server or to duplicate the hardware configuration on another ProLiant server.

The utility uses the XML file called hardware definition file to determine what information to retrieve from and restore to the server. You can make a copy of this file and edit the copy to update new features or restrict features when capturing server configurations. The default `conrep.xml` file contains common hardware configuration settings for the supported ProLiant series servers. You can change the default using `−x` file option.

⚠ **CAUTION:**

> Improper modification of the `conrep.xml` file can result in the loss of critical data. Only experienced users should attempt to modify the file.

The server configuration information is captured in the default conrep.dat data file. This file is an XML data file which contains the actual system configuration retrieved from the ROM-Based Setup Utility (RBSU). You can edit this data file to restore the settings or use –f file option to change the default.

⚠ **CAUTION:**

> Improper modification of the conrep.dat file can result in the loss of critical data. Only experienced users should attempt to modify the data files. Because of the potential risk of data loss, take all necessary precautions to ensure that mission-critical systems remain online if a failure occurs.

The utility runs in a command-line mode and must be executed from an operating system command-line and can be accessed from the location: `/opt/tools`. You can also find the default `conrep.xml` file here.

The conrep utility supports the ProLiant servers that are listed in the *vSphere Server Support Matrix*. To visit the vSphere Server Matrix page, go to **http://vibsdepot.hpe.com** and select **HPE server support matrix** under Support Information section.

CONREP command-line syntax

```
conrep [-s | -l] [-x hardware_definition_file] [-f
system_configuration_data_file] [-h]
```

Table 10: CONREP command line arguments

Command-line Argument	Description
-s	This argument saves the system configuration to a file.
-l	This argument loads the system configuration from a file and writes it to the target server. If no file specified, default conrep.dat is used.
-x filename	This argument defines the name and location of the XML Hardware definition file. For non-Gen10 servers, the default file is `/opt/tools/conrep.xml`. For Gen10 servers, the default file is `/opt/tools/conrep_gen10.xml`. If conrep is not run from directory `/opt/tools`, the option must be used.
-f filename	This argument defines the name and location of the system configuration data file. The default file is conrep.dat.
-h	This argument displays help information.

Table 11: CONREP return codes

Value	Meaning
0	The command was completed successfully.
1	The hardware definition file (conrep.xml) is not found.
2	The system configuration data file (conrep.dat) is corrupt or not found.

Table Continued

Value	Meaning
5	The XML hardware definition file (conrep.xml) is corrupt or not appropriate for the current platform.
6	No XML tag defined in hardware definition file.
7	Invalid command line or usage error.
255	General error. See error message for details.

CONREP -s (Store to Data file)

This is an example of usage for Proliant servers to extract BIOS settings using the default conrep.xml file and configuration stored in default `conrep.dat` file.

```
/opt/tools # ./conrep –s
conrep 4.0.0.0 - HP Configuration Replication Utility
Copyright (c) 2007-2014 Hewlett Packard Enterprise Development LP
System Type:ProLiant BL465c Gen8
ROM Date: 11/02/2013
ROM Family : A26
Processor Manufacturer: AMD
XML System Configuration: conrep.xml
Hardware Configuration: conrep.dat
Global Restriction: [3.40]
OK
Platform check:
[ProLiant BL ]match
Saving configuration data to conrep.dat
Conrep Return Code:0
```

Following is an example of usage of conrep tool when run from directory other than /opt/tools, using the default files:

```
/vmfs/volumes/mytoolsdir# /opt/tools/conrep –x /opt/tools/conrep.xml –s
conrep 4.0.0.0 - HP Configuration Replication Utility
Copyright (c) 2007-2014 Hewlett Packard Enterprise Development LP
System Type: ProLiant BL465c Gen8
ROM Date: 11/02/2013
ROM Family : A26
Processor Manufacturer: AMD
XML System Configuration: /opt/tools/conrep.xml
Hardware Configuration: conrep.dat
Global Restriction: [3.40 ]
OK
Platform check:
[ProLiant BL] match
Saving configuration data to conrep.dat
Conrep Return Code: 0
```

The `conrep.dat` is created in `/vmfs/volumes/mytoolsdir`.

Following is an example of usage for ProLiant servers to extract the BIOS settings from a BL465 Gen8 server and save the configuration to a "`BL465conrep.dat`" data file:

```
/opt/hp/tools # ./conrep -s -x BL465conrep.xml -f BL465conrep.dat
conrep 4.0.0.0 - HP Configuration Replication Utility
Copyright (c) 2007-2014 Hewlett Packard Enterprise Development LP
System Type: ProLiant BL465c Gen8
ROM Date :11/02/2013
ROM Family : A26
Processor Manufacturer: AMD
XML System Configuration: BL465conrep.xml
Hardware   Configuration: BL465conrep.dat
Global Restriction: [3.40]
OK
Platform check:
[ProLiant BL ] match
Saving configuration data to BL465conrep.dat
Conrep Return Code: 0
```

CONREP –l (Load from Data File)

This is a simple example of usage for ProLiant servers to load the BIOS configuration settings from a previously captured/edited default conrep.dat data file to a BL465 Gen8 server.

```
/opt/tools  # ./conrep -l
conrep 4.0.0.0 - HP Configuration Replication Utility
Copyright (c) 2007-2014 Hewlett Packard Enterprise Development LP
System Type: ProLiant BL465c Gen8
ROM Date: 11/02/2013
ROM Family :  A26
Processor Manufacturer: AMD
XML System Configuration: conrep.xml
Hardware Configuration: conrep.dat
Global Restriction: [3.40 ]
OK
Platform check:
[ProLiant BL] match
Loading configuration data from conrep.dat
Conrep Return Code: 0
```

Following is an example of usage for ProLiant servers to load the BIOS configuration settings from a previously captured/edited data file (in this case BL465conrep.dat) to a BL465 Gen8 server:

```
/opt/tools  # ./conrep -l –x BL465conrep.xml -f BL465conrep.dat
conrep 4.0.0.0 - HP Configuration Replication Utility
Copyright (c) 2007-2014 Hewlett Packard Enterprise Development LP
System Type:ProLiant BL465c Gen8
ROM Date:11/02/2013
ROM Family :A26
Processor Manufacturer:AMD
XML System Configuration: BL465conrep.xml
Hardware Configuration: BL465conrep.dat
Global Restriction: [3.40]
OK
Platform check:
[ProLiant BL] match
```

```
Loading configuration data from BL465conrep.dat
Conrep Return Code: 0
```

CONREP data file sample contents for ProLiant servers

The `conrep.dat` file contents the ROM section tags and values. You can view this file using the ROM Based Setup Utility (RBSU). See the *ROM Based Setup Utility User Guide* available at **http://www.hpe.com/info/enterprise/docs**.

A sample content of the data file generated by conrep is similar to the following:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--generated by conrep version 4.0.0.0-->

<Conrep version="4.0.0.0" originating_platform="ProLiant BL460c Gen8"
originating_family="I31" originating_romdate="09/16/2013"
originating_processor_manufacturer="Intel">

<Section name="IMD_ServerName" helptext="LCD Display name for this
server"><Line0>localhost</Line0></Section>

<Section name="IPL_Order" helptext="Current Initial ProgramLoad device boot
order."> <Index 0>00 </Index 0><Index 1>02</Index 1><Index2>01</Index
2><Index3>03</Index 3><Index 4>04</Index 4><Index 5>05</Index 5><Index 6>ff</
Index 6><Index 7>ff</Index 7><Index 8>ff</Index 8><Index 9>ff</Index 9><Index
10>ff</Index 10><Index 11>ff</Index 11><Index 12>ff</Index 12><Index 13>ff</
Index 13><Index14>ff</Index 14><Index 15>ff</Index 15></Section>

<Section name="IPL_Order_Size" helptext="Current Initial ProgramLoad device
boot order size."><Size0>06</Size0></Section>

<Section name="PCI_Devices" helptext="Lists of PCI devices and their
interrupts - not displayed if default values are set.">EMPTY_DELETE</Section>
```

Support and other resources

Accessing Hewlett Packard Enterprise Support

- For live assistance, go to the Contact Hewlett Packard Enterprise Worldwide website:

  www.hpe.com/assistance

- To access documentation and support services, go to the Hewlett Packard Enterprise Support Center website:

  www.hpe.com/support/hpesc

Information to collect

- Technical support registration number (if applicable)

- Product name, model or version, and serial number

- Operating system name and version

- Firmware version

- Error messages

- Product-specific reports and logs

- Add-on products or components

- Third-party products or components

Accessing updates

- Some software products provide a mechanism for accessing software updates through the product interface. Review your product documentation to identify the recommended software update method.

- To download product updates, go to either of the following:

  ◦ Hewlett Packard Enterprise Support Center **Get connected with updates** page:

    www.hpe.com/support/e-updates

  ◦ Software Depot website:

    www.hpe.com/support/softwaredepot

- To view and update your entitlements, and to link your contracts and warranties with your profile, go to the Hewlett Packard Enterprise Support Center **More Information on Access to Support Materials** page:

  www.hpe.com/support/AccessToSupportMaterials

> **(!) IMPORTANT:**
> Access to some updates might require product entitlement when accessed through the Hewlett Packard Enterprise Support Center. You must have an HP Passport set up with relevant entitlements.

Websites

Website	Link
Hewlett Packard Enterprise Information Library	**www.hpe.com/info/enterprise/docs**
Hewlett Packard Enterprise Support Center	**www.hpe.com/support/hpesc**
Contact Hewlett Packard Enterprise Worldwide	**www.hpe.com/assistance**
Subscription Service/Support Alerts	**www.hpe.com/support/e-updates**
Software Depot	**www.hpe.com/support/softwaredepot**
Customer Self Repair	**www.hpe.com/support/selfrepair**
Insight Remote Support	**www.hpe.com/info/insightremotesupport/docs**
Serviceguard Solutions for HP-UX	**www.hpe.com/info/hpux-serviceguard-docs**
Single Point of Connectivity Knowledge (SPOCK) Storage compatibility matrix	**www.hpe.com/storage/spock**
Storage white papers and analyst reports	**www.hpe.com/storage/whitepapers**

Customer self repair

Hewlett Packard Enterprise customer self repair (CSR) programs allow you to repair your product. If a CSR part needs to be replaced, it will be shipped directly to you so that you can install it at your convenience. Some parts do not qualify for CSR. Your Hewlett Packard Enterprise authorized service provider will determine whether a repair can be accomplished by CSR.

For more information about CSR, contact your local service provider or go to the CSR website: **www.hpe.com/support/selfrepair**.

Remote support

Remote support is available with supported devices as part of your warranty or contractual support agreement. It provides intelligent event diagnosis, and automatic, secure submission of hardware event notifications to Hewlett Packard Enterprise, which will initiate a fast and accurate resolution based on your product's service level. Hewlett Packard Enterprise strongly recommends that you register your device for remote support.

For more information and device support details, go to the following website:

www.hpe.com/info/insightremotesupport/docs

Subscription service

Hewlett Packard Enterprise recommends that you register your product at the Subscriber's Choice for Business website: **http://www.hpe.com/info/subscriberschoice**. After registering, you will receive email notification of product enhancements, new driver versions, firmware updates, and other product resources.

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