Hewlett Packard
Enterprise

# Transition to the RESTful Interface Tool (iLORest)

**Abstract**

This document describes how to use the RESTful Interface Tool (iLOrest) to replace various legacy tools. iLOrest command-line examples are presented for the AHSDownload, hp-health utilities, and Conrep legacy utilities.

Part Number: P11765-001
Published: December 2018
Edition: 1

## Notices



## Acknowledgments

# Contents

# Downloading Active Health System Log

Active Health System Log (AHS Log) is the primary logging method in HPE ProLiant servers and is available on the server through iLO. The AHSdownload utility is used to download the AHS Logs under an operating system.

Starting with Gen10 servers, the AHSdownload utility is no longer supported on Gen10 servers or later. RESTful Interface Tool (iLOrest) is the new supported utility to download AHS Log.

**NOTE:** Both the AHSdownload and iLOrest utilities do not allow the user to specify the file name of the log file. The file names are created based on the serial number of the server and current date.

**Examples of AHSdownload and iLOrest utility commands for downloading AHS logs**

| Description | AHSdownload utility | iLOrest utility |
|---|---|---|
| Download the AHS log from the last 7 days (Default option if range is not specified). | `AHSdownload` | `ilorest serverlogs --selectlog=AHS` |
| Download the AHS log from a date range. | `AHSdownload -s 01_01_2017 -e 01_31_2017` | `ilorest serverlogs --selectlog=AHS --customiseAHS "from=2017-01-01&&to=2017-01-31"` |
| Download the full AHS log. | `AHSdownload -a` | `ilorest serverlogs --selectlog=AHS --downloadallahs` |

# Linux hp-health utilities

The HP System Health Application and Command-Line Utilities (hp-health) is collection of applications and tools which enables monitoring of fans, power supplies, temperature sensors, and other management events. The following command-line utilities are provided by hp-health:

- hpbootcfg: HPE ProLiant boot configuration utility
- hpasmcli: HPE ProLiant Management Command Line Interface utility
- hplog: HPE ProLiant Integrated Management Log (IML) utility
- hpuid: UID (blue) Light utility

The following tables list some commonly used utility commands and their equivalent iLORest commands.

### Table 1: HPE ProLiant boot configuration utility (hpbootcfg)

| Description | hpbootcfg | iLORest |
|---|---|---|
| Sets default in boot order(clears flags) | `hpbootcfg -D` | `ilorest bootorder --disablebootflag --commit` |
| Continuous boot to CD | `hpbootcfg -C` | `ilorest bootorder --continuousboot=Cd --commit` |
| Continuous boot to hard drive | `hpbootcfg -H` | `ilorest bootorder --continuousboot=Hdd --commit` |
| Continuous boot to USB | `hpbootcfg -U` | `ilorest bootorder --continuousboot=Usb --commit` |
| Continuous boot to floppy | `hpbootcfg -F` | Floppy is no longer a supported boot option. |
| One time boot to PXE | `hpbootcfg -P` | `ilorest bootorder --onetimeboot=Pxe --commit` |
| One time boot to Intelligent Provisioning | `hpbootcfg -S` | `ilorest bootorder --onetimeboot=Utilities --commit` |
| One time boot to Diags | `hpbootcfg -Q` | `ilorest bootorder --onetimeboot=Diags --commit` |
| One time boot to RBSU | `hpbootcfg -R` | `ilorest bootorder --onetimeboot=BiosSetup --commit` |
| Change to UEFI boot mode | `hpbootcfg -E` | `ilorest set BootMode=Uefi --selector=Bios. --commit` |

*Table Continued*

| Description | hpbootcfg | iLORest |
|---|---|---|
| Change to Legacy boot mode | `hpbootcfg -L` | `ilorest set BootMode=LegacyBios --selector=Bios. --commit` |
| PXE boot policy supports IPv6/IPv4. | `hpbootcfg -I` | `ilorest set UefiPxeBoot=Auto --selector=Bios. --commit` |
| PXE boot policy supports IPv4 only. | `hpbootcfg -4` | `ilorest set UefiPxeBoot=IPv4 --selector=Bios. --commit` |
| PXE boot policy supports IPv6 only. | `hpbootcfg -6` | `ilorest set UefiPxeBoot=IPv6 --selector=Bios. --commit` |

### Table 2: HPE ProLiant Management Command Line Interface Utility (hpasmcli)

| Description | hpasmcli | iLORest |
|---|---|---|
| Clear the IML log. | `hpasmcli -s "clear iml"` | `ilorest serverlogs --selectlog=IML --clearlog` |
| Repair IML entry #30. | `hpasmcli -s "repair iml 30"` | `ilorest serverlogs --selectlog=IML --repair 30` |
| Disable Automatic Server Recovery. | `hpasmcli -s "disable asr"` | `ilorest set AsrStatus=Disabled --selector=Bios. --commit` |
| Enable Wake On LAN BIOS setting. | `hpasmcli -s "enable wol"` | `ilorest set WakeOnLan=Enabled --selector=Bios. --commit` |
| Set the ASR Timeout to 15 minutes. | `hpasmcli -s "set asr 15"` | `ilorest set AsrTimeoutMinutes=15 --selector=Bios. --commit` |
| Show the status of the fans. | `hpasmcli -s "show fans"` | `ilorest serverinfo --fans` |
| Show the temperature sensors. | `hpasmcli -s "show temp"` | `ilorest serverinfo --thermals` |
| Show the Power supply status. | `Hpasmcli -s "show powersupply"` | `ilorest serverinfo --power` |

**NOTE:** The `serverinfo` and `--repair` parameters require iLORest 2.4 or later.

### Table 3: HPE ProLiant Integrated Management Log (IML) Utility (hplog)

| Description | hplog | iLORest |
|---|---|---|
| Display all IML entries. | `hplog -v` | `ilorest serverlogs --selectlog=IML -f IMLlog.txt` |
| Display current fan data. | `hplog -f` | `ilorest serverinfo --fans` |
| Display current power data. | `hplog -p` | `ilorest serverinfo --power` |
| Display the thermal sensor data. | `hplog -t` | `ilorest serverinfo --thermals` |
| Log a message to the IML. | `Hplog -s INFO -l "Message"` | `ilorest serverlogs --selectlog=IML -m "Message"` |

### Table 4: UID (blue) Light Utility (hpuid)

| Description | hpuid | iLORest |
|---|---|---|
| Disable the UID light. | `hpuid -d` | `ilorest set IndicatorLED=Off --selector=ComputerSystem. --commit` |
| Enable the UID light. | `hpuid -e` | `ilorest set IndicatorLED=Lit --selector=ComputerSystem. --commit` |
| Disable UID status. | `hpuid -s` | `ilorest get IndicatorLED --selector=ComputerSystem` |

# Conrep utility

The conrep utility allows users to save and load BIOS settings to the server locally under Windows and Linux operating systems. It is supported on all HP/HPE servers from Gen10 and earlier.

The iLORest utility supports reading and writing of BIOS settings on Gen9 and later servers. It is the go forward configuration utility for BIOS and other configuration on HPE servers. The following table lists some commonly used conrep utility commands, and their equivalent iLORest command.

| Description | conrep | iLORest |
|---|---|---|
| Saving the current settings to a file. | `conrep -s -f settings.xml` | `ilorest save --selector=Bios. -f settings.json` |
| Load settings from a captured file. | `conrep -l -f settings.xml` | `ilorest load --selector=Bios. -f settings.json`<br>**NOTE:** : iLORest captures all the BIOS settings to a file. It is not necessary to remove/edit any of the read-only settings from the file as they are skipped during the processing of the load command. |
| Reading current value of individual settings. | Not supported. | `ilorest get BootMode --selector=Bios`<br>Output: `BootMode=Uefi` |

*Table Continued*

| Description | conrep | iLORest |
|---|---|---|
| Changing the current value of individual settings. | Not supported. | `ilorest set BootMode=Uefi --selector=Bios. --commit` |
| Changing the boot order. | Captured and loaded with save/ load command. | The permanent boot order is captured and changed with `bootorder`command. The boot order is a numbered list that can only be reorder. Entries cannot be added or removed from this list.<br>**1.** To capture the current boot order, run the following command:<br>`Ilorest bootorder`<br>This command outputs the current boot order. Example output:<br>`Current Persistent Boot Order:`<br>`1. HD.EmbRAID.1.1 (Windows Boot Manager)`<br>`2. Generic.USB.1.1 (Generic USB Boot)`<br>`3. HD.SD.1.2 (Internal SD Card 1 : Generic USB3.0-CRW)`<br>`4. NIC.LOM.1.1.Httpv4 (Embedded LOM 1 Port 1 : HPE Ethernet 1Gb 4-port 331i Adapter - NIC (HTTP(S) IPv4))`<br>`5. NIC.LOM.1.1.IPv4 (Embedded LOM 1 Port 1 : HPE Ethernet 1Gb 4-port 331i Adapter - NIC (PXE IPv4))`<br>`6. NIC.LOM.1.1.Httpv6 (Embedded LOM 1 Port 1 : HPE Ethernet 1Gb 4-port 331i Adapter - NIC (HTTP(S) IPv6))`<br>`7. NIC.LOM.1.1.IPv6 (Embedded LOM 1 Port 1 : HPE Ethernet 1Gb 4-port 331i Adapter - NIC (PXE IPv6))`<br>`8. HD.FrontUSB.2.2 (Front USB 2 : Sandisk 16GB USB key)`<br>`Continuous and one time boot options:`<br>`1. None`<br>`2. Cd`<br>`3. Hdd`<br>`4. Usb`<br>`5. SDCard`<br>`6. Utilities`<br>`7. Diags`<br>`8. BiosSetup`<br>`9. Pxe`<br>`10. UefiShell`<br>`11. UefiHttp`<br>`12. UefiTarget`<br>**2.** To change the boot order, run the following command. In the following example entry #5 (NIC LOM IPv4) will move to the front of the list and entry #8 (Front USB port) to the second position in the list:<br>Example: `ilorest bootorder [5,8] –commit` |

# Documentation resources

- iLO REST APIs: **https://github.com/HewlettPackard/ilo-rest-api-docs**
- iLO REST API tutorials: **https://hewlettpackard.github.io/ilo-rest-api-docs/ilo5/**
- RESTful Interface Tool APIs: **https://github.com/HewlettPackard/python-redfish-utility**
- RESTful Interface Tool tutorials: **https://hewlettpackard.github.io/python-redfish-utility/**

# Websites

**General websites**

**Hewlett Packard Enterprise Information Library**

**www.hpe.com/info/EIL**

**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**

For additional websites, see **Support and other resources**.

# Support and other resources

## Accessing Hewlett Packard Enterprise Support

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

  **http://www.hpe.com/assistance**

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

  **http://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:

  **Hewlett Packard Enterprise Support Center**

  **www.hpe.com/support/hpesc**

  **Hewlett Packard Enterprise Support Center: Software downloads**

  **www.hpe.com/support/downloads**

  **Software Depot**

  **www.hpe.com/support/softwaredepot**

- To subscribe to eNewsletters and alerts:

  **www.hpe.com/support/e-updates**

- 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 HPE Passport set up with relevant entitlements.

# 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:

**http://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.

If your product includes additional remote support details, use search to locate that information.

**Remote support and Proactive Care information**

**HPE Get Connected**

**www.hpe.com/services/getconnected**

**HPE Proactive Care services**

**www.hpe.com/services/proactivecare**

**HPE Proactive Care service: Supported products list**

**www.hpe.com/services/proactivecaresupportedproducts**

**HPE Proactive Care advanced service: Supported products list**

**www.hpe.com/services/proactivecareadvancedsupportedproducts**

**Proactive Care customer information**

**Proactive Care central**

**www.hpe.com/services/proactivecarecentral**

**Proactive Care service activation**

**www.hpe.com/services/proactivecarecentralgetstarted**

# Warranty information

To view the warranty information for your product, see the links provided below:

**HPE ProLiant and IA-32 Servers and Options**

**www.hpe.com/support/ProLiantServers-Warranties**

**HPE Enterprise and Cloudline Servers**

**www.hpe.com/support/EnterpriseServers-Warranties**

**HPE Storage Products**

**www.hpe.com/support/Storage-Warranties**

**HPE Networking Products**

**www.hpe.com/support/Networking-Warranties**

# Regulatory information

To view the regulatory information for your product, view the *Safety and Compliance Information for Server, Storage, Power, Networking, and Rack Products*, available at the Hewlett Packard Enterprise Support Center:

**www.hpe.com/support/Safety-Compliance-EnterpriseProducts**

### Additional regulatory information

Hewlett Packard Enterprise is committed to providing our customers with information about the chemical substances in our products as needed to comply with legal requirements such as REACH (Regulation EC No 1907/2006 of the European Parliament and the Council). A chemical information report for this product can be found at:

**www.hpe.com/info/reach**

For Hewlett Packard Enterprise product environmental and safety information and compliance data, including RoHS and REACH, see:

**www.hpe.com/info/ecodata**

For Hewlett Packard Enterprise environmental information, including company programs, product recycling, and energy efficiency, see:

**www.hpe.com/info/environment**

# Documentation feedback

Hewlett Packard Enterprise is committed to providing documentation that meets your needs. To help us improve the documentation, send any errors, suggestions, or comments to Documentation Feedback (**docsfeedback@hpe.com**). When submitting your feedback, include the document title, part number, edition, and publication date located on the front cover of the document. For online help content, include the product name, product version, help edition, and publication date located on the legal notices page.