HPE Performance Cluster Manager command reference

Power commands

General format for power commands

```
cm power action -t target hostname
```

Obtain power status for a node

```
cm power status -t node node_hostname
```

Power on the cluster

```
cm power on -t system
```

Power off the cluster

```
cm power off -t system
```

Identify node

```
cm power identify -t node node_hostname -i 60
```

Display node hostnames

Display hostnames for all nodes

```
cnodes
```

Display leader node hostnames

```
cnodes --leader
```

Display non-ICE compute node hostnames

```
cnodes --compute
```

Display ICE compute node hostnames

```
cnodes --ice-compute
```

Display chassis manager controller (CMC) hostnames

```
cnodes --cmc
```

Display non-ICE compute nodes that are offline

```
cnodes --offline
```

Multinode queries

Query non-ICE compute nodes

```
pdsh -g compute query
```

Query ICE compute nodes

```
pdsh -g ice-compute query
```

Query leader nodes

```
pdsh -g leader query
```

Display the number of non-ICE compute nodes that currently report a certain speed

```
pdsh -g compute ethtool device_name | grep -c "speed"
```

For example:

```
pdsh -g compute ethtool eth0 | grep -c "1000mb/s"
```

Display NIC speed outliers

```
pdsh -g compute ethtool device_name | grep Speed | dshbak -c
```

For example:

```
pdsh -g compute ethtool eth0 | grep Speed | dshbak -c
```

Display non-ICE compute nodes with unexpected memory size

```
pdsh -g compute grep MemTotal /proc/meminfo | dshbak -c
```

Display non-ICE compute nodes with unexpected load averages

```
pdsh -g compute uptime
```

Display the boot file systems that are mounted

```
pdsh -g compute df -h | grep -c boot
```

Increase/decrease number of simultaneous commands

```
pdsh -f number group query
```

Repository management commands

Display all repositories

```
cm repo show
```

Display selected repositories

```
cm repo show | grep ^\*
```

Display unselected repositories

```
cm repo show | grep -v ^\*
```

Make repository available to provisioning commands

```
cm repo select repository_name
```

Make repository unavailable to provisioning commands

```
cm repo unselect repository_name
```

Refresh custom repository metadata

```
cm repo refresh repository_name
```

Add custom repository

```
cm repo add /opt/clmgr/repos/mypkgs --custom mypkgs
```

Configure the cluster

Add nodes

```
discover --node number
```

Display path to cluster definition file

```
discover --show-configfile
```

Manage images and provision

Copy files into an image

```
cp /etc/myfile /opt/clmgr/image/images/image_name/etc
```

Display managed images and image kernel versions

```
cm image show
```

Display image and kernel to be installed at next image operation

```
cinstallman --show-nodes
```

From a flat compute node, display the image that was used on boot

```
cat /proc/cmdline
```

From the admin node, display the image that was used to boot all non-ICE compute nodes

```
pdsh -g compute cat /proc/cmdline
```

Assign an image and kernel version to a node for future imaging

```
cinstallman --assign-image --node hostname --image image_name --kernel version
```

Reimage a node the next time it boots

```
cinstallman --next-boot image --node hostname
```

Specify that a node boot from its Ethernet device the next time it boots

```
ipmiwrapper hostname chassis bootdev pxe
```

Create an image from selected repositories and an RPM list

```
cm image create -i new_image -l /opt/clmgr/image/rpmlists/my-rhel7.6.rpmlist
```

Create a new image from an existing image

```
cm image copy -s existing_image -i new_image
```

Capture an image from a running non-ICE compute node

```
cm image capture --image image_name --node number
```

Capture an image from a running non-ICE compute node and exclude some structures

```
cm image capture --image image_name --node hostname --exclude /var/spool/BBS/
```

Installing RPMs into an image

RHEL:

```
cm image yum --duk -i image_name install RPM RPM ...
```

SLES:

```
cm image zypper --duk -i image_name install RPM RPM ...
```

Removing RPMs from an image

RHEL:

```
cm image yum --duk -i image_name remove RPM RPM ...
```

SLES:

```
cm image zypper --duk -i image_name remove RPM RPM ...
```

Installing RLMs into an image on a running non-ICE compute node

RHEL:

```
cm node yum -n hostname install RPM RPM ...
```

SLES:

```
cm node zypper -n hostname install RPM RPM ...
```

Removing RPMs from an image on a running non-ICE compute node

RHEL:

```
cm image yum --duk -n hostname remove RPM RPM ...
```

SLES:

```
cm image zypper --duk -n hostname remove RPM RPM ...
```

Commands for ICE compute nodes

Pushing ICE compute node images to a rack

```
cimage --push-rack image_name rack_number
```

For *rack_number*, specify a rack number in the `rX` format.

Display ICE compute node images and kernels

```
cimage --show-images
```

Display image, kernel, and file system mode of ICE compute nodes

```
cimage --show-nodes rack_number
```

For *rack_number*, specify a rack number in the `rX` format.

Change the image, kernel, or file system mode of ICE compute nodes

```
cimage --set [option] image_name kernel node
```

Update RPMs

Update RPMs on a node

```
cinstallman --update-node --node hostname
```

Update RPMs on an image

```
cinstallman --update-image --image image_name
```

VCS commands

Check in an image with changes or updates into version control

```
cm image revision commit -i image_name -m "checking in"
```

Review version control history for an image

```
cm image revision history -i image_name
```

Revert to a previous image version

```
cm image revision revert -i image_name  --rev version_number
```

Directories

Review post-installation scripts

```
ls /opt/clmgr/image/scripts/post-install
```

Configuration scripts directory

```
/opt/clmgr/image/images/image_name/etc/opt/sgi/conf.d
```

Set up one-time PXE boot for HPE ProLiant DL360 Gen10, HPE ProLiant DL380 Gen10, and HPE ProLiant DL380 Gen9 server installation

Use one of the following methods to configure a one-time PXE boot on nodes with iLO devices:

- From the admin node, use the following `ilorest` command:

  ```
  ilorest bootorder --onetimeboot=pxe --url=iLO_IP -u ADMIN -p iLO_password -
  ```

  For *iLO_IP*, *ADMIN*, and *iLO_password*, enter the values for this cluster.

- Use `pdsh` or `ssh` to log into a node, and then run one of the following commands:

  - `hpbootcfg -P -b`

    or

    `efibootmgr` *options ...*

- On the node console, press F12 or Esc+@ (serial).

You can download `ilorest` and `hpbootcfg` from the HPE support website.