

# Installing and using HP Value Add Software for Oracle Enterprise Linux 5.2 for i386 and AMD64 on HP ProLiant Servers

## Systems README

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### Abstract

ProLiant servers provide an excellent platform for Linux and are engineered from the ground up to provide performance, reliability and scalability using industry-standard components. This document provides information about installing and using HP Value Add software for the i386 and AMD64 architectures on ProLiant Servers running Oracle Enterprise Linux (OEL) 5.2.

### 1 HP Value Add Software for Oracle Enterprise Linux 5.2

HP delivers Value Add software via “tar.gz” bundle. You may download and use [oel5.2-bundle.tar.gz](#) free of cost. If you download this bundle to a Windows box, use *Winzip* to extract the contents. If you download this bundle to a OEL5.2 or any other Linux box, run “*tar -zxvf oel5.2-bundle.tar.gz*” to extract the contents.

OEL software bundle contains various rpm packages. Follow the instructions listed below to install and use driver/application rpms. Login as System Administrator (root) and perform the installation.

To support many HP value-add software deliverables included in the OEL bundle, you must install the following platform-specific compatibility libraries:

For Oracle Enterprise Linux 5.2 x86 servers, install the following compatibility libraries:

- rpm-build-4.4.2-48.el5.0.1.i386 or later
- lm\_sensors-2.10.0.3-3.1.i386 or later
- net-snmp-5.3.1-24.el5.i386 or later
- Kernel-headers-2.6.18-92.el5.i386 or later
- glibc-headers-2.5-24.i386 or later
- glibc-devel-2.5-24.i386 or later
- libgomp-4.1.2-42.el5.i386 or later
- gcc-4.1.2-42.el5.i386 or later
- kernel-devel-2.6.18-92.el5.i686 or later

For Oracle Enterprise Linux 5.2 x86\_64 servers, install the following compatibility libraries:

- rpm-build-4.4.2-48.el5.0.1.x86\_64 or later

- `lm_sensors-2.10.0.3-3.1.x86_64` or later
- `net-snmp-5.3.1-24.el5.x86_64` or later
- `Kernel-headers-2.6.18-92.el5.x86_64` or later
- `glibc-headers-2.5-24.x86_64` or later
- `glibc-devel-2.5-24.x86_64` or later
- `libgomp-4.1.2-42.el5.x86_64` or later
- `gcc-4.1.2-42.el5.x86_64` or later
- `kernel-devel-2.6.18-92.el5.x86_64` or later

You can also check for package dependency requirements with the following command:

```
rpm --requires -qp <filename>.rpm
```

## **2 Installing and using value add software on OEL 5.2**

### **2.1 hp-health – HP System Health Application and Command Line Utilities**

To install the package, type:

```
rpm -ivh hp-health-<version>.rpm
```

To start health monitoring, type:

```
/etc/init.d/hp-health start
```

To check whether the package is loaded properly, type:

```
/etc/init.d/hp-health status
```

Refer to *hp-health(4)* man pages for more help.

### **2.2 hp-OpenIPMI – HP OpenIPMI Device Driver**

Before attempting hp-OpenIPMI installation, remove previous version of the *hp-OpenIPMI* package if it is installed. To remove the previous version and any packages dependent on it, type the following:

```
/etc/init.d/hp-health stop (if hp-health is installed)  
rpm -e hp-OpenIPMI
```

To install hp-OpenIPMI package, type:

```
rpm -ivh hp-OpenIPMI-<version>.rpm  
/etc/init.d/hp-health start (if hp-health installed)
```

The drivers will be installed to the `/opt/hp/hp-OpenIPMI` directory but not inserted. For HP ProLiant servers, the *hp-health* package will automatically load the *hp-OpenIPMI* drivers if required for a particular HP ProLiant server.

To check whether the package is loaded properly, type:

```
lsmod | grep ipmi
```

You should see entries for the following modules:

```
ipmi_si  
ipmi_devintf  
ipmi_msghandler
```

Note: This package will automatically attempt to rebuild itself if the installed Linux kernel is different than the kernel the *hp-OpenIPMI* was compiled against.

For more information, type "*man hp-OpenIPMI*".

### **2.3 hp-ilo – HP ProLiant Channel Interface Driver for iLO/iLO 2**

Before attempting hp-ilo installation, check if your system has a previous version of the *hp-health* or *hp-ilo* package installed. If they are installed, they must be removed before this package can be installed. To remove the previous version and any packages dependent on it, type the following:

```
rpm -e hp-health hp-ilo
```

To install hp-ilo package, type:

```
rpm -ivh hp-ilo-<version>.rpm
```

Note: This package will automatically attempt to rebuild itself if the installed kernel is different than the kernel the hp-ilo device driver was compiled against.

Refer to *hp-ilo(4)* man page for more information.

### **2.4 hp-snmp-agents – HP SNMP Agents**

To install the package, type:

```
rpm -ivh hp-snmp-agents-<version>.rpm
```

To check whether the package is loaded properly type:

```
/etc/init.d/hp-snmp-agents status
```

NOTE: To start all the sub-agents type */etc/init.d/hp-snmp-agents start*.

For more information, type "*man hp-snmp-agents*".

Prerequisites: hp-snmp-agents require hp-health. Be sure to install hp-health prior to installing hp-snmp-agents.

To remove the package, type:

```
rpm -e hp-snmp-agents
```

Note: Before removing hp-snmp-agents, be sure to stop/remove the dependent components - *hponcfg*, *hpdiaags*, *hp-smh-templates*, if installed.

## 2.5 hpsmh – HP System Management Homepage for Linux

To install the hpsmh package, type:

```
rpm -ivh hpsmh-<version>.rpm
```

To check the status of hpsmh, type:

```
/etc/init.d/hpsmhd status
```

To stop/start/restart hpsmh, type:

```
/etc/init.d/hpsmhd stop/start/restart
```

To remove the hpsmh package, type:

```
rpm -e hpsmh
```

Note: Before removing hpsmh, be sure to stop/remove the dependent components - *hp-smh-templates*, *hpadu*, *cpqacuxe*, *hpdiaqs*, if installed.

## 2.6 hp-smh-templates - HP System Management Homepage Templates for Linux

To install the package, type:

```
rpm -ivh hp-smh-templates-<version>.rpm
```

For more information, type "*man hp-smh-templates*".

Prerequisites: *hp-smh-templates* require *hpsmh* and *hp-snmp-agents*. Be sure to install them prior to installing *hp-smh-templates*.

To remove the package, type:

```
rpm -e hp-smh-templates
```

## 2.7 hpacucli – HP Array Configuration Utility CLI for Linux

To install the package, type:

```
rpm -ivh hpacucli-<version>.rpm
```

To remove the package, type:

```
rpm -e hpacucli
```

## 2.8 cpqacuxe – HP Array Configuration Utility (web-based)

To install the package, type:

```
rpm -ivh cpqacuxe-<version>.rpm
```

To enable the use of the web-based Array Configuration Utility, you must first manually start the cpqacuxe service from the command line:

```
/usr/sbin/cpqacuxe (for local access only) or  
/usr/sbin/cpqacuxe -R (for enabling remote access)
```

To stop cpqacuxe service, type:

```
/usr/sbin/cpqacuxe -stop
```

Run "*/usr/sbin/cpqacuxe -h*" for more information.

To remove the package, type:

```
rpm -e cpqacuxe
```

## **2.9 hpadu – HP Array Diagnostics Utility**

To install the package, type:

```
rpm -ivh hpadu-<version>.rpm
```

Prerequisites: *hpadu* requires *hpsmh*. Be sure to install *hpsmh* prior to installing *hpadu* package.

To start hpadu, type:

```
hpadu -start
```

To create hpadu report using commandline, type:

```
hpaducli -f <filename>
```

To stop hpadu, type:

```
hpadu -stop
```

To remove the hpadu package, type:

```
rpm -e hpadu
```

## **2.10 hpdiags - HP Insight Diagnostics Online Edition for Linux**

To install the utility, type:

```
rpm -ivh hpdiags-<version>.rpm
```

Prerequisites: *hpdiags* requires *hp-health*, *hp-snmp-agents* and *hpsmh*. Be sure to install these packages before installing *hpdiags*.

To run Insight Diagnostics web daemon, type:

```
/etc/init.d/hpdiags start
```

To check if Insight Diagnostics web daemon is currently running, type:

```
/etc/init.d/hpdiags status
```

For other Insight Diagnostics command line options:

```
cd /usr/share/diagnostics/  
./hpdiags -?
```

To run the Insight Diagnostics init upon reboots:

```
chkconfig --add hpdiags
```

To disable Insight Diagnostics during reboots:

```
chkconfig --del hpdiags
```

To remove hpdiags, type:

```
rpm -e hpdiags
```

## 2.11 hpmouse - HP iLO2 High-Performance Mouse driver for Linux

To install the package, type:

```
rpm -ivh hpmouse-<version>.rpm
```

To activate the driver and configure X, type:

```
cd /opt/hp/hpmouse  
sh ./hpmouse activate
```

You must restart X for the changes to take effect. Type:

```
killall X  
or  
<Ctrl> <Alt> <Backspace> from Xwindows  
or  
init 5
```

Make sure "High Performance Mouse" is enabled in iLO2's Remote Console Settings.

Refer to `/opt/hp/hpmouse/hpmouse-README.txt` for more information.

Prerequisites:

- hpmouse works ONLY on servers with embedded iLO2
- Xfree86 or xorg-x11 installed
- 2.6 or later kernel

To remove hpmouse, type:

```
rpm -e hpmouse
```

## 2.12 hponcfg - HP Lights-Out Online Configuration Utility for Linux

Before installing hponcfg rpm provided in OEL bundle, be sure to remove previous version of the hponcfg utility if installed. To remove previous version of hponcfg, type:

```
rpm -e hponcfg
```

To install the package, type:

```
rpm -ivh hponcfg-<version>.noarch.rpm
```

Prerequisites: `hponcfg` requires `hp-ilo` and `hp-snmp-agents`. Be sure to install these packages before installing hponcfg. Also ensure iLO f/w is 1.41 or later.

### **2.13 cciss - HP Smart Array controller driver**

To install or upgrade the driver type:

```
rpm -ivh cpq_cciss-<version>.rhel5.<arch>.rpm
```

NOTE: On some kernel erratas the version of the cciss driver present may be equal to the version being installed by the rpm. However, the driver in the kernel may not include all of the fixes and enhancements implemented in the driver contained within the rpm. Therefore the rpm should be installed in order to obtain the fixes and enhancements that are not present in the kernel driver.

### **2.14 mptlinux - Driver for HP U320 SCSI Adapter, SCxxXe and SCxxGe HBAs**

To install the driver, type:

```
rpm -ivh mptlinux-<version>-<release>.<distro>.<arch>.rpm
```

To upgrade the driver, type:

```
rpm -Uvh --replacefiles mptlinux-<version>-<release>.<distro>.<arch>.rpm
```

### **2.15 hp-lpfc - HP Linux driver kit for Emulex based Fibre Channel HBAs**

To install the driver, type:

```
rpm -ivh hp-lpfc-<version>.noarch.rpm
```

NOTE: Driver requires linux kernel 2.6 or later.

### **2.16 hp\_qla - HP StorageWorks QLogic Fibre Channel Driver**

To install the driver, type:

```
rpm -ivh hp_qla2x00src-<version>.noarch.rpm
```

NOTE: Driver requires linux kernel 2.6 or later.

### **2.17 fibreutils - Fibreutils for HP StorageWorks Fibre Channel HBA for Linux**

To install the utilities, type:

```
rpm -ivh fibreutils-<version>.linux.<arch>.rpm
```

This package provides miscellaneous utilities that work with HP supported fibre channel host bus adapter drivers.

### **2.18 bnx2 - HP NC-Series Broadcom 1Gb Multifunction Driver for Linux**

oe15.2 software bundle provides you bnx2 sources. To install the sources and create bnx2 driver rpm, type:

```
rpm -ivh bnx2-<version>.src.rpm
```

```
cd /usr/src/redhat
rpmbuild -bb SPECS/bnx2.spec
```

This should create *bnx2-`<version>`.rpm* under */usr/src/redhat/`<version>`/RPMS*.

To install bnx2 driver package, type:

```
rpm -ivh RPMS/<arch>/bnx2-<version>.<arch>.rpm --force
```

This will install bnx2.o module under */lib/modules/`<kernel_ver>`/kernel/drivers/net/bcm*. Run *"modprobe bnx2.o"* or use *"insmod"* and insert bnx2 module into the kernel.

Prerequisites: You should have kernel sources installed. Refer to *bnx2-`<version>`.src.txt* file for details.

## 2.19 bnx2x - HP NC-Series Broadcom 10Gb Multifunction Driver for Linux

oel5.2 software bundle provides you bnx2x sources. To install the sources and create bnx2x driver rpm, type:

```
rpm -ivh bnx2x-<version>.src.rpm
```

```
cd /usr/src/redhat
rpmbuild -bb SPECS/bnx2x.spec
```

This should create *bnx2x-`<version>`.rpm* under */usr/src/redhat/`<version>`/RPMS*

To install bnx2x driver package, type:

```
rpm -ivh RPMS/<arch>/bnx2x-<version>.<arch>.rpm --force
```

This will install bnx2x.o module under */lib/modules/`<kernel_ver>`/kernel/drivers/net*. Run *"modprobe bnx2x.o"* or use *"insmod"* and insert bnx2x module into the kernel.

Prerequisites: You should have kernel sources installed. Refer to *bnx2x-`<version>`.src.txt* file for details.

## 2.20 e1000 - HP NC-Series Intel Driver for Linux

oel5.2 software bundle provides you e1000 sources. To install the sources and create e1000 driver rpm, type:

```
rpm -ivh e1000-<version>.src.rpm
```

```
cd /usr/src/redhat
rpmbuild -bb SPECS/e1000.spec
```

This should create *e1000-`<version>`.rpm* under */usr/src/redhat/`<version>`/RPMS*.

To install e1000 driver package, type:

```
rpm -ivh RPMS/<arch>/e1000-<version>.<arch>.rpm --force
```

This will install e1000.o module under */lib/modules/<kernel ver>/kernel/drivers/net*. Run *"modprobe e1000.o"* or use *"insmod"* and insert e1000 module into the kernel.

Prerequisites: You should have kernel sources installed. Refer to *e1000-<version>.src.txt* file for details.

## **2.21 tg3 - HP NC-Series Broadcom TG3 Driver for Linux**

oel5.2 software bundle provides you Broadcom tg3 driver sources. To install the sources and create tg3 driver rpm, type:

```
rpm -ivh tg3-<version>.src.rpm
```

```
cd /usr/src/redhat
```

```
rpmbuild -bb SPECS/tg3.spec
```

This should create *tg3-<version>.rpm* under */usr/src/redhat/<version>/RPMS*.

To install tg3 driver package, type:

```
rpm -ivh RPMS/<arch>/tg3-<version>.<arch>.rpm --force
```