

Enabling SNMP on HP iLO4

Version 4 of the HP iLO4 (HP Integrated Lights-Out) system fully implements the SNMP protocol. This makes it possible to directly query and retrieve information from the Proliant server. By simply activating SNMP, you can retrieve :

- The status of the RAID array
- Controller card status
- Disk status
- SMART data for each disk
- Various temperatures (system, ambient, CPU, etc)
- Power supply and fan status
- Model and serial numbers

Enable SNMP

Go to the administration interface of your Proliant G8 and above (here: an HP320e). Click on “Administration” and then on “Access Setting” in the drop-down menu.

The screenshot shows the 'iLO Overview' page with the 'Information' tab selected. The left sidebar has a tree view with 'Information' expanded, showing 'Overview', 'System Information', 'iLO Event Log', 'Integrated Management Log', 'Active Health System Log', 'Diagnostics', 'Location Discovery Services', and 'Insight Agent'. Other collapsed sections include 'iLO Federation', 'Remote Console', 'Virtual Media', 'Power Management', 'Network', 'Remote Support', and 'Administration'. Under 'Administration', 'Firmware', 'Licensing', 'User Administration', and 'Access Settings' are listed, with 'Access Settings' also highlighted with a red box. The main content area displays various system details like Server Name, Product Name, UUID, and License Type. A 'Status' section shows 'System Health' as OK, 'Server Power' as ON, and 'UID Indicator' as OFF. Below this is a 'Active Sessions' table with one entry for 'Local User: esia' with IP 10.7.0.150 and Source Web UI. At the bottom right, there are buttons for 'POWER: ON' (green), 'UID: OFF' (grey), and a checked checkbox.

Check that “SNMP Access” is set to “Enabled” and that the “SNMP Port” is set to 161, then click “Apply”.

The screenshot shows the iLO 4 Access Settings page. The left sidebar is expanded to show the 'Administration' section, with 'Access Settings' selected. The main area is titled 'Access Settings' and contains tabs for 'Access Settings' and 'Language'. Under the 'Service' section, there are several configuration fields:

- Secure Shell (SSH) Access: Enabled (dropdown menu)
- Secure Shell (SSH) Port: 22
- Remote Console Port: 17990
- Web Server Non-SSL Port: 80
- Web Server SSL Port: 443
- Virtual Media Port: 17988
- SNMP Access:** Enabled (dropdown menu)
- SNMP Port:** 161
- SNMP Trap Port:** 162

A red box highlights the 'SNMP Access', 'SNMP Port', and 'SNMP Trap Port' fields. At the bottom right of the main panel is an 'Apply' button. Below the main panel is a 'IPMI/DCMI' section with a checkbox for enabling IPMI over LAN on port 623. The status bar at the bottom right shows 'POWER: ON', 'UID: OFF', and a checkmark icon.

Then click on 'Management' in the 'Administration' section.

This screenshot is identical to the previous one, but the 'Management' option under the 'Administration' section in the left sidebar is now highlighted with a red box. All other settings and the status bar remain the same.

Enter the SNMP community, in the example it will be “public”, and click on “Apply”.

The screenshot shows the iLO 4 Management interface with the 'Management - SNMP Settings' page open. The 'SNMP Settings' tab is active. In the 'Read Community' field, the value 'public' is entered and highlighted with a red box. Other configuration options like System Location, Trap Community, and SNMP Port are also visible.

iLO is now accessible via SNMP on the Esia platform. The associated plugins are :

- GESA_ILO4_SNMP_TEMP: temperature sensor
- GESA_ILO4_SNMP_DISKHEALTH: SMART status, controller, disk and RAID array status
- GESA_ILO4_SNMP_SYSTEMHEALTH: fan, CPU and power supply status

You can add these services via your usual management interface.

Proprietary OIDs used

CPQHLTH-MIB

cpqHeFltTolFanEntry

Fan monitoring input (FAN)

Name	Identifier
cpqHeFltTolFanIndex	1.3.6.1.4.1.232.6.2.6.7.1.2
cpqHeFltTolFanLocale	1.3.6.1.4.1.232.6.2.6.7.1.3
cpqHeFltTolFanSpeed	1.3.6.1.4.1.232.6.2.6.7.1.6
cpqHeFltTolFanCondition	1.3.6.1.4.1.232.6.2.6.7.1.9

cpqHeFltTolFanLocale (1.3.6.1.4.1.232.6.2.6.7.1.3)

Gives the location of the fan defined by the index.

Possible values:

```

1 = other
2 = unknown
3 = system
4 = systemBoard
5 = ioBoard
6 = cpu
7 = memory
8 = storage
9 = removableMedia
10 = powerSupply
11 = ambient
12 = chassis
13 = bridgeCard

```

cpqHeFitTolFanSpeed (1.3.6.1.4.1.232.6.2.6.7.1.6)

Gives the speed of a fan (FAN) on an HP server.

Possible value :

```

1 = other
2 = normal
3 = high

```

cpqHeTemperatureEntry

Input for monitoring temperature sensors on HP servers

Name	Identifier
cpqHeTemperatureIndex	1.3.6.1.4.1.232.6.2.6.8.1.2
cpqHeTemperatureLocale	1.3.6.1.4.1.232.6.2.6.8.1.3
cpqHeTemperatureCelsius	1.3.6.1.4.1.232.6.2.6.8.1.4
cpqHeTemperatureThreshold	1.3.6.1.4.1.232.6.2.6.8.1.5

cpqHeTemperatureLocale (1.3.6.1.4.1.232.6.2.6.8.1.3)

Location of the temperature sensor on an HP server.

Possible value :

```

1 = other
2 = unknown
3 = system
4 = systemBoard
5 = ioBoard
6 = cpu
7 = memory

```

```
8 = storage
9 = removableMedia
10 = powerSupply
11 = ambient
12 = chassis
13 = bridgeCard
```

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<h2>Sources</h2>

</HTML> OIDVIEW : <http://www.oidview.com/mibs/232/CPQHLTH-MIB.html>

mibsearch : <http://www.mibsearch.com/vendors/Compaq/mibview/CPQHLTH-MIB>

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