Abstract
This guide provides the prerequisites and setup instructions for HPE InfoSight for Servers. This document is for system administrators who manage supported HPE servers.
Notices

The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.


Links to third-party websites take you outside the Hewlett Packard Enterprise website. Hewlett Packard Enterprise has no control over and is not responsible for information outside the Hewlett Packard Enterprise website.

Acknowledgments

Intel®, Itanium®, Pentium®, Xeon®, Intel Inside®, and the Intel Inside logo are trademarks of Intel Corporation in the U.S. and other countries.

Microsoft® and Windows® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Adobe® and Acrobat® are trademarks of Adobe Systems Incorporated.

Java® and Oracle® are registered trademarks of Oracle and/or its affiliates.

UNIX® is a registered trademark of The Open Group.
Overview

The HPE InfoSight portal is a secure web interface hosted by HPE. It provides a graphical interface and predictive device support automation.

HPE InfoSight uses Artificial Intelligence (AI) to simplify operations by examining your environment, which is done by compiling data from your site. Data is the foundation for enabling a self-managing, self-healing, and self-optimizing data center.

HPE is at the forefront of this new data paradigm. A decade ago, HPE started designing systems with sensors across the infrastructure stack. Trillions of collected data points are available for analysis by HPE InfoSight, which enables customers to take advantage of the global learning from the collected data. AI is the key to unlocking the power of this data.

HPE InfoSight for Servers:

- Combines the machine learning and predictive analytics of HPE InfoSight with the health and performance monitoring of Active Health System (AHS) and HPE iLO to optimize performance and predict and prevent problems
- Provides automatic collection and analysis of the sensor and telemetry data from AHS to derive insights from the behaviors of the install base to provide recommendations to resolve problems and improve performance
- This first release delivers a foundational set of capabilities that will be augmented over time
- Supports Gen10, Gen9, and Gen8 HPE ProLiant servers, HPE BladeSystem servers, HPE Synergy compute modules, and HPE Apollo systems with iLO 4 and iLO 5

iLO

iLO is a remote server management processor embedded on the system boards of supported HPE servers. iLO enables the monitoring and controlling of servers from remote locations. iLO management is a powerful tool that provides multiple ways to configure, update, monitor, and repair servers remotely. For more information on iLO, go to https://www.hpe.com/servers/ilo.

Active Health System

AHS does not collect personally identifiable information or any data stored on the server from the operation of the server.

AHS provides:

- Continuous health monitoring of over thousands of system parameters
- Logging of all configuration changes
- Consolidated health and service alerts with precise time stamps
- Agentless monitoring that does not affect application performance

AHS does not collect information about your operations, finances, customers, employees, or partners. For more information on AHS, go to https://www.hpe.com/servers/ahs.

iLO Amplifier Pack

iLO Amplifier Pack is an advanced server inventory and firmware and driver update solution. iLO Amplifier Pack uses iLO functionality to enable rapid discovery, detailed inventory reporting, and firmware and driver updates. iLO Amplifier Pack performs rapid server discovery and inventory for thousands of
supported servers to update firmware and drivers. iLO Amplifier Pack passes the collected data from your environment to HPE InfoSight. For more information on iLO Amplifier Pack, go to https://www.hpe.com/servers/iLOAmplifierPack.

HPE Passport

HPE InfoSight uses the HPE Passport authentication service to authorize user access to the secure website. Successful authentication provides access to the HPE InfoSight service. To gain access to your devices, you place a claim token on your iLO Amplifier Pack system. If you do not have an HPE Passport account, go to https://www.hpe.com/info/insightonline and follow the prompts.
Prerequisites

Below are the prerequisites for each HPE server to be managed by HPE InfoSight.

NOTE: If you are using iLO Amplifier Pack to manage these same servers (for example, perform firmware updates), see the iLO Amplifier User Guide at http://www.hpe.com/support/ilo-ap-docs for additional prerequisites.

Server support

The following servers with iLO 4 and iLO 5 are supported:

• HPE ProLiant Gen8 and later servers
• HPE ProLiant BladeSystem Gen8 and later servers
• HPE Synergy Gen9 or later compute modules
• HPE Apollo Gen8 and later servers

iLO Firmware

• iLO 4 firmware 2.54 or later
• iLO 5 firmware 1.15 or later

NOTE: HPE recommends iLO 5 firmware 1.37.

• iLO Amplifier Pack 1.30 or later

Agentless Management Service (AMS)

IMPORTANT: If AMS is not installed, HPE InfoSight will not be able to provide any operating system/hypervisor or application cross-stack analytics.

• Gen8 and Gen9 servers:
  ◦ AMS 10.6.0 or later for Windows
  ◦ AMS 2.5.2 or later for Linux

• Gen10 servers:
  ◦ AMS 1.1.0 or later for Windows
  ◦ AMS 1.0.0 or later for Linux


Supported browsers to access iLO Amplifier Pack

• Google Chrome
  Version 69.0 or later
• Mozilla Firefox
Version 62.0 or later

- Microsoft Edge

## iLO Amplifier Pack host machine and guest Virtual Machine

Ensure that the host machine meets the hardware requirements to run VMware ESXi Server 5.5 or later. For more information, see the documentation on the VMware website.

The iLO Amplifier Pack guest VM requires the following resources on the ESXi server:

- 4 vCPUs
- 8 GB RAM
- 100 GB of free HDD space
- 1.0 Gbps network port

**NOTE:** Ideally, you would have two 1.0 Gbps network ports, one Internet facing and one management network facing. However, you can use the same port for both options.
Setting up HPE InfoSight for Servers

Process overview

Use this process to set up your environment to monitor supported devices with HPE InfoSight for Servers. Click the links in the each step to access detailed procedures.

Prerequisites

- Your environment meets the requirements for using the components of this software solution. Ensure that your hardware and your installed firmware and software meet the minimum requirements.
- You must have an HPE Passport account. If you do not have an HPE Passport account, create one at the following website: https://infosight.hpe.com, and make a note of your login credentials.

Procedure

1. Performing initial registration.
   When you register, you receive a download link and an activation key.

2. Installing iLO Amplifier Pack.
   This process includes downloading the iLO Amplifier Pack file, importing it, and starting the VM for the first time.

3. Performing initial setup on the iLO Amplifier Pack.
   This process includes configuring the network settings and Administrator account.

   TIP: When the welcome screen is displayed, write down the IP address of the iLO Amplifier Pack management appliance.

   In this step, you log in to the management appliance and enter your license key.

5. Optional: Configuring the proxy server in iLO Amplifier Pack.

6. Discovering servers with iLO Amplifier Pack.
   This step adds your devices for management by iLO Amplifier Pack.

7. Initial HPE InfoSight login.
   In this step, you connect your HPE Passport account to HPE InfoSight.

8. Obtaining a claim token in HPE InfoSight.

   TIP: Obtain the claim token when you are ready to add it to iLO Amplifier Pack. When you create a claim token, you copy it to the clipboard, and the best practice is to paste it into iLO Amplifier Pack right away.

9. Adding the claim token to iLO Amplifier Pack.
   This step creates the communication link between iLO Amplifier Pack and HPE InfoSight.

Setting up iLO Amplifier Pack
Performing initial registration

Prerequisites
Valid email address to receive activation key.

Procedure
2. Enter your first and last name and your email address.
3. Select the number of server licenses you want to register.
4. Enter your company name, city or town, state or province, country/region, and your business phone number.
5. Select the Email or Phone check box if you want to receive future emails or phone calls with offers and event news from HPE.
6. Read the HPE Software Terms of Use and then select the check box.
7. Click Register.
   A message stating that your license registration is successful appears on the registration page, and HPE sends an email containing the following information:
   • A link to download the appliance installation image (iLOAmplifierPack.ova)
   • An Activation Key

Installing iLO Amplifier Pack

Prerequisites
• Registration email from HPE containing the download link and activation key
• A host server configured with VMware ESXi v5.5 or later
• A laptop or desktop system that has VMware vSphere Client installed or a supported web browser

Procedure
1. Click the download link in the license registration email.
2. Download and save the iLOAmplifierPack_1.30.zip and corresponding checksum file.
   NOTE: Use an appropriate checksum verification tool to verify the integrity of the downloaded files.
3. Extract the iLOAmplifierPack.ova from the zip file.
4. Use the VMware vSphere Client or a supported web browser to connect to any VMware ESXi server (v5.5 and later).
5. Do one of the following:
• If using the VMware vSphere Client, click File, click Deploy OVF Template, and then follow the onscreen instructions.

• If using a web browser, click Create/Register VM, click Deploy a virtual machine from an OVF or OVA file, and then follow the onscreen instructions.

NOTE: HPE recommends that you select Thick disk provisioning when configuring deployment options for your VM.

6. Once the image is imported, power on the VM.

   The VM might take some time to boot up. If DHCP is not supported, then it might take up to 5 minutes to boot up.

   After the VM has restarted, the first-time setup screen displays on the console.

Performing initial setup on the iLO Amplifier Pack

Prerequisites

• A VM deployed with the iLO Amplifier Pack OVF.
• The VM reboot has been completed.
• The Welcome screen is displayed on the console.

Procedure

1. On the Welcome screen, click Initial Setup.

2. Read the End User License Agreement (EULA), and then click Accept.

3. Enter the following network settings, and then click Next. Use the arrow keys to navigate between settings and use Enter to modify the selected setting.

   a. Enable NIC 1 or NIC 2 or both as required.

   b. Optional. Enable or disable DHCPv4 or DHCPv6. If DHCP is disabled, enter the following:

      i. Enter the static IPv4 or IPv6 address.

      ii. Enter the Subnet Mask for an IPv4 configuration or Prefix Length for an IPv6 configuration.

      iii. Enter the Default Gateway.

   c. Select the Management Network Port. NIC 1 is selected by default.

   d. Optional. Enter the Primary IPv4 or IPv6 DNS Server.

   e. Optional. Enter the Secondary IPv4 or IPv6 DNS Server.

4. Change the time zone and NTP settings or accept the defaults, and then click Next.

5. Set up the Administrator account by entering a Display Name and password, and then click Finish.
The user name and password you enter here are the credentials you use to set up an initial Administrator account. Once the initial setup is complete, you can use iLO Amplifier Pack management settings to add additional users.

6. When prompted, click **Reboot**.

   The system restarts and then a welcome screen appears displaying the IP address of the iLO Amplifier Pack management appliance.

### Activating iLO Amplifier Pack

#### Prerequisites

- iLO Amplifier Pack user with either of the following privileges:
  - Configure Manager
  - Configure Manager with Security

- An installation of iLO Amplifier Pack on a VM that has been rebooted.

#### Procedure

1. Browse to the IP address shown on the welcome screen on the VM console.

2. Log on to the iLO Amplifier Pack management appliance using the credentials you entered when you set up the initial user account.

3. When prompted, copy the Activation Key from your registration email and paste it into the **License Key** field.

4. Click **Activate**.

   The iLO Amplifier Pack management dashboard appears.

### Configuring the proxy server in iLO Amplifier Pack

If you use a proxy server, you must configure it in iLO Amplifier Pack for iLO Amplifier Pack and HPE InfoSight to communicate. If you do not use a proxy server at your site, you can skip this procedure.

#### Procedure

1. In iLO Amplifier Pack, click **Configuration and Settings** on the left navigation menu, and then click **Network Settings**.

2. Click the **Proxy Configuration** tab.

3. Click to select the **Enable Proxy** check box.

4. Enter your proxy server information:
   - a. Enter your proxy server name in the **Proxy Servername** field, in the following format: `<proxy server>`.
   - b. Enter your proxy server port number in the **Port number** field.

   **IMPORTANT:** You must have an HTTPS port (443 or another valid port number) open between iLO Amplifier Pack and HPE InfoSight.
5. Select Enable Secure Proxy Connection.
6. To save your settings, click Save.
7. To restart the system, click Reboot.

Discovering servers with iLO Amplifier Pack

Adding a single server from the Discovery page

Prerequisites

- User privileges
  - Configure Manager with Security
  - Configure Manager
  - Configure User
  - Configure Devices
- HPE Gen8 or Gen9 server with iLO 4 version 2.30 or later
- HPE Gen10 server with iLO 5 version 1.10 or later

Procedure

1. Click Discovery from the left navigation menu.
2. Enter the following information in the Add Server section:
   - **iLO IP Address**—The IPv4 or IPv6 address of a supported server or the FQDN (fully qualified domain name) of the iLO.
   - **Username**—The user name for an iLO account on the server.
   - **Password**—The password for the specified iLO user account.
   - **Server group name (Optional)**—Select the server group you want the server to be a part of.
3. Click Add.
   iLO Amplifier pack starts the discovery and inventory processes for the server.
4. Optional: Click Assets in the navigation tree, and then click Servers to view the status of the added server.

Adding an iLO Federation Group from the Discovery page

Prerequisites

**NOTE:** For more information about iLO Federation requirements, see the *iLO Federation User Guide* at [http://www.hpe.com/support/ilo4_federation_ug_en](http://www.hpe.com/support/ilo4_federation_ug_en).

- User privileges
• An existing iLO Federation group made up of HPE Gen8, Gen9, or Gen10 servers with a dedicated iLO NIC. Servers with shared a NIC port do not support iLO Federation.

• iLO Federation enabled on all servers with the following multicast options in the iLO Federation settings.

  **NOTE:** The menu option is different for Gen8/Gen9 and Gen10.

  ◦ iLO Federation management and multicast discovery enabled on all servers
  ◦ **Multicast Announcement Interval** set to **30 seconds**
  ◦ **IPv6 Multicast Scope** set to **Site**
  ◦ **Multicast TTL** set to **255**

**Procedure**

1. Click **Discovery** from the left navigation menu.

2. Enter the following information in the **Add iLO Federation Group** section:

   iLO IP Address—The IPv4 address of a server in an iLO Federation group.
   Username—The user name of an iLO account on the specified server.
   Password—The password for the specified iLO user account.

3. Click **Add**.

   If the specified iLO system is a member of more than one iLO Federation group, iLO Amplifier Pack prompts you to select the groups to discover.

4. Select a group, and then click **OK**.

5. Optional: Click **Assets** in the navigation tree, and then click **iLO Federation Groups** to view the status of the added groups.

   To view the status of the individual servers in the added groups, click **Assets** in the navigation tree, click **Servers**, click **iLO Federation Groups** from the **Filters** menu, and then click the group name.

Adding servers in an IPv4 address range

**Prerequisites**

• User privileges
  ◦ Configure Manager with Security
  ◦ Configure Manager
Procedure

1. Click **Discovery** on the left navigation menu.

2. Enter the following information in the **Add IPv4 Range** section:
   - **iLO IP Range**—The starting and ending IP addresses in the range.
   - **SSL Port**—The SSL Port used to communicate with the iLO.
   - **Username**—The user name for an iLO account on the server.
   - **Password**—The password for an iLO account on the server.

   **NOTE:** Use credentials that are common across all servers in the IPv4 range.

   - **Server group name (Optional)**—Select the server group you want the server to be a part of.

3. Click **Add**.

   Servers in the IPv4 range with the specified user account are discovered and inventoried.

   Servers in the IPv4 range that lack the specified user account are added as unmanaged servers. To add user account credentials for unmanaged servers, see the iLO Amplifier Pack user guide.

4. Optional: Click **Assets** in the navigation tree, and then click **Servers** to view the status of the added servers.

Adding servers from a CSV file

**Prerequisites**

- User privileges
  - Configure Manager with Security
  - Configure Manager
  - Configure User
  - Configure Devices

- HPE Gen8 or Gen9 server with iLO 4 version 2.30 or later
- HPE Gen10 server with iLO 5 version 1.10 or later
- The location of a CSV file that contains the following:
  - a list of servers in the following format:
    `<iLO IPv4 or IPv6 addresses or FQDN>, <iLO username>, <iLO password>`
  - no headers
Procedure

1. Click **Discovery** in the left navigation menu.
2. In the **Add from a file** section, click **Choose File**, and then select the CSV file to use.
3. Optional: Select the server group you want the servers to be a part of.
4. Click **Upload**.
   
   iLO Amplifier Pack processes the file and starts the discovery and inventory processes.
5. Optional: Click **Assets** in the navigation tree, and then click **Servers** to view the status of the added servers.

**Initial HPE InfoSight login**

By default, the first enrolled user of an account is created as an administrator.

**NOTE:** Use the same claim token in subsequent iLO Amplifier Pack instances if you want all servers for all iLO Amplifier Pack instances to be visible using the same Passport account.

Procedure

1. Log in to [https://infosight.hpe.com](https://infosight.hpe.com) with your HPE Passport account.
   
   a. The first time you log in, an email will be sent to the email address associated with your HPE Passport account.
   
   b. Access your email account, and then open the invitation to HPE InfoSight email.
   
   c. To confirm successful email communication with HPE InfoSight and to log in, click **HPE Passport**.
   
   The **HPE InfoSight Terms Of Use** will be displayed.
   
   d. Click **Accept**. The **Welcome to InfoSight** page opens.

2. Select **Register Servers**. The **My Organization** page is displayed.

3. Enter your organization name. The **Device Enrollment** page is displayed.
   
   This organization will contain all server equipment that you will be monitoring in HPE InfoSight.

4. For servers to be discovered and monitored in HPE InfoSight, obtain your claim token and link the token in iLO Amplifier Pack.
   
   For more information, see **Obtaining a claim token**.

**Obtaining a claim token in HPE InfoSight**

To send AHS and heartbeat information to HPE InfoSight, a claim token must be created in HPE InfoSight and provided to iLO Amplifier Pack to link it with HPE InfoSight. After the claim token has been entered and validated, data is sent automatically to HPE InfoSight for all monitored servers.
NOTE: Claim tokens are good for a brief time, long enough to copy and paste claim token into iLO Amplifier, but not long enough to save the token to use at a later time.

Create additional claim tokens if:

- You are required to perform this task for each data center location
- You have several instances of iLO Amplifier Pack in a single location
- You receive an error that your claim token is no longer valid

Prerequisites

- HPE Passport account
- HPE InfoSight administrative user account

Procedure

2. Log in with your HPE Passport account credentials.
3. Click the **Settings** icon and then select **Device enrollment**. The claim token is generated and displayed on the page.
4. Click **Copy to clipboard**.
5. Log in to iLO Amplifier Pack and complete the **Adding the claim token to iLO Amplifier Pack** procedure.
Adding the claim token to iLO Amplifier Pack

Procedure

1. In iLO Amplifier Pack, click **HPE InfoSight** in the navigation tree.

2. To activate the **Claim Token** and **Data Center Location** entry boxes, select the **Enable service** check box.

3. Paste the claim token generated on the HPE InfoSight website in the **Claim Token** box.

4. Enter your data center location.

5. Read and accept the terms of use about the diagnostic information that will be sent back to HPE.

6. Optional: To learn more about the information being sent to HPE InfoSight, click the **Heartbeat File** and **AHS file** links.

7. To link iLO Amplifier Pack with HPE InfoSight, click **Confirm**.

8. The HPE InfoSight connection status is shown in a message at the top of the page. On successful linking, the following details are displayed:
   - **Claim Token ID**—The claim token ID received from HPE InfoSight
   - **Tenant Name**—The HPE InfoSight user account used to obtain the claim token
   - **Serial number**—The serial number of the iLO Amplifier Pack appliance
Websites

Product websites
HPE InfoSight login
   https://infosight.hpe.com
HPE InfoSight
   https://www.hpe.com/info/infosight
HPE InfoSight for Servers
   https://www.hpe.com/servers/infosight
HPE InfoSight for Servers documentation
   https://www.hpe.com/support/infosight-servers-docs
iLO Information Library
iLO 4 and iLO 5
   http://www.hpe.com/info/ilo/docs
iLO Amplifier Pack
   www.hpe.com/support/ilo-ap-docs
HPE ProLiant Servers Information Library
HPE ProLiant Gen8 servers
   http://www.hpe.com/info/proliantgen8/docs
HPE ProLiant Gen9 servers
   http://www.hpe.com/support/proliantgen9/docs
HPE ProLiant Gen10 servers
   http://www.hpe.com/support/proliantgen10/docs
HPE ProLiant Gen10 and HPE Synergy compute module troubleshooting
   http://www.hpe.com/info/Gen10-troubleshooting
General
Hewlett Packard Enterprise Information Library
   www.hpe.com/info/EIL
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.