

HP Operations Analytics

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HP Operations Analytics - HP OneView Integration Guide

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Chapter 1: Introducing the HP Operations Analytics - HP OneView Integration

HP Operations Analytics's integration with HP OneView provides IT professionals a summary of the converged infrastructure devices being managed by HP OneView. With this integration, Operations Analytics becomes the troubleshooting, analytic, and capacity planning arm of HP OneView. The Operations Analytics - HP OneView integration provides summary information for the infrastructure devices as well as doing analytics on the management data from HP OneView, including logs, metrics, alerts, and inventory data.

Chapter 2: Licensing HP OneView

Operations Analytics comes with an Implicit node pack (Instant On) license that is valid for 60 days. You must purchase and install one of the following permanent licenses before the Instant On license expires:

- **Operations Analytics HP OneView node permanent license:** The Operations Analytics HP OneView node license enables Operations Analytics HP OneView integration collections and features only.
- **Full Operations Analytics license (in 50 node pack) permanent license:** This license enables the full Operations Analytics collections and full features.

Note: The Operations Analytics All-in-One for HP OneView Appliance does not support the configuration of other types of collections. Only Operations Analytics All-in-One for HP OneView Appliance collections that are configured as explained in ["About Data Collections for the HP Operations Analytics - HP OneView Integration" on page 13](#) are supported.

From the Operations Analytics console, navigate to **Help > About**, then click the **License** tab to view the type of license you have.

To install the Operations Analytics HP OneView node permanent license, do the following:

1. Copy the `license.dat` file issued by HP licensing service to the `/tmp` directory.
2. Run the following command as the `opsa` user to install the license:
`$OPSA_HOME/bin/opsa-license-manager.sh -add /tmp/license.dat`
3. Run the following command as the `opsa` user and make sure the license you just installed is listed:
`$OPSA_HOME/bin/opsa-license-manager.sh -list`

To install the 50 node pack permanent license, do the following:

1. Copy the `license.dat` file issued by HP licensing service to the `/tmp` directory.
2. Run the following command as the `opsa` user to install the license:
`$OPSA_HOME/bin/opsa-license-manager.sh -add /tmp/license.dat`
3. Run the following command as the `opsa` user and make sure the license you just installed is listed:
`$OPSA_HOME/bin/opsa-license-manager.sh -list`

See the *opsa-license-manager.sh* reference page (or the Linux manpage) for more information.

Note: After installing a new license, from the Operations Analytics console, navigate to **Help > About**, then click the **License** tab to view the type of license you now have.

Chapter 3: Configuring the HP Operations Analytics - HP OneView Integration

The information in this section explains how to configure the Operations Analytics - HP OneView integration.

Note: The Operations Analytics Server Appliance and the HP OneView Server must each be able to resolve each other's fully-qualified domain names for the Operations Analytics - HP OneView integration to function correctly.

Configuring the HP Operations Analytics - HP OneView Integration

Note: Important: You must complete the licensing work in ["Configuring the HP Operations Analytics - HP OneView Integration"](#) above before completing the instructions in this section.

Note: Important: The Operations Analytics Server Appliance and the HP OneView Server must each be able to resolve each others fully-qualified domain names for the Operations Analytics - HP OneView integration to function correctly.

Do the following before enabling the integration:

1. Ping the fully-qualified domain name of the HP OneView server from the Operations Analytics Server Appliance.
2. If the previous step is not successful, add the IP Address and fully-qualified domain name of the HP OneView server to the `hosts` file on the Operations Analytics Server Appliance.

Note: When completing the following steps, if you receive a message that the HP OneView Integration failed, click **Integrate** to try configuring the integration again.

To configure the Operations Analytics - HP OneView integration, log on to Operations Analytics as a tenant administrator, then do the following:

Note: The default tenant administrator is `opsatenantadmin`.


- If this is the first time you have logged on as the tenant administrator, do the following):
 - a. The Operations Analytics **Welcome Page** appears.
 - b. Click the **Start Using Application** button and the HP OneView settings dialog box opens.
 - c. Enter the HP OneView setting information; then click **Integrate**.

Note: You will be prompted for the fully-qualified domain name of the HP OneView server (or its IP address), the user name to use for the HP OneView server, and the password for the user name you provide.

Note: The **Frequency** parameter adjusts how often Operations Analytics collects metric data from HP OneView. **Adjust this parameter carefully to avoid creating system resource issues.** If you leave the field for this parameter blank, Operations Analytics a default value of 3600 seconds (one hour). If you want to see faster results, you might set this value to 300 seconds (5 minutes).

Note: You can watch the integration messages as the configuration progresses. For example, you should see messages related to configuring certificates, syslog forwarding, metrics frequency, and security credentials.

Note: It can take up to one hour for HP OneView to forward a complete set of data to Operations Analytics.

- If you have logged on as the tenant administrator before on this Operations Analytics server, do the following:
 - a. Select  (**OneView Settings**) from the configuration menu. This opens the **OneView Settings** dialog box.
 - b. Enter the HP OneView setting information; then click **Integrate**.

All of the integration steps automatically happen after entering the HP OneView setting information.

Note: You will be prompted for the fully-qualified domain name of the HP OneView server (or its IP address), the user name to use for the HP OneView server, and the password for the user name you provide.

Note: The **Frequency** parameter adjusts how often Operations Analytics collects metric

data from HP OneView. **Adjust this parameter carefully to avoid creating system resource issues.** If you leave the field for this parameter blank, Operations Analytics a default value of 3600 seconds (one hour). If you want to see faster results, you might set this value to 300 seconds (5 minutes).

Note: You can watch the integration messages as the configuration progresses. For example, you should see messages related to configuring certificates, syslog forwarding, metrics frequency, and security credentials.

Note: It can take up to one hour for HP OneView to forward a complete set of data to Operations Analytics.

If you encounter problems during setup, see ["Troubleshooting the HP Operations Analytics - HP OneView Integration" on page 9](#) for more information.

After you finish integrating Operations Analytics (Operations Analytics), with HP OneView you can view summary information for the infrastructure servers and analytics using the management data from HP OneView (log, metric, alerts, and inventory data).

Chapter 4: Troubleshooting the HP Operations Analytics - HP OneView Integration

Use the following information to test and troubleshoot any issues with the Operations Analytics - HP OneView Integration.

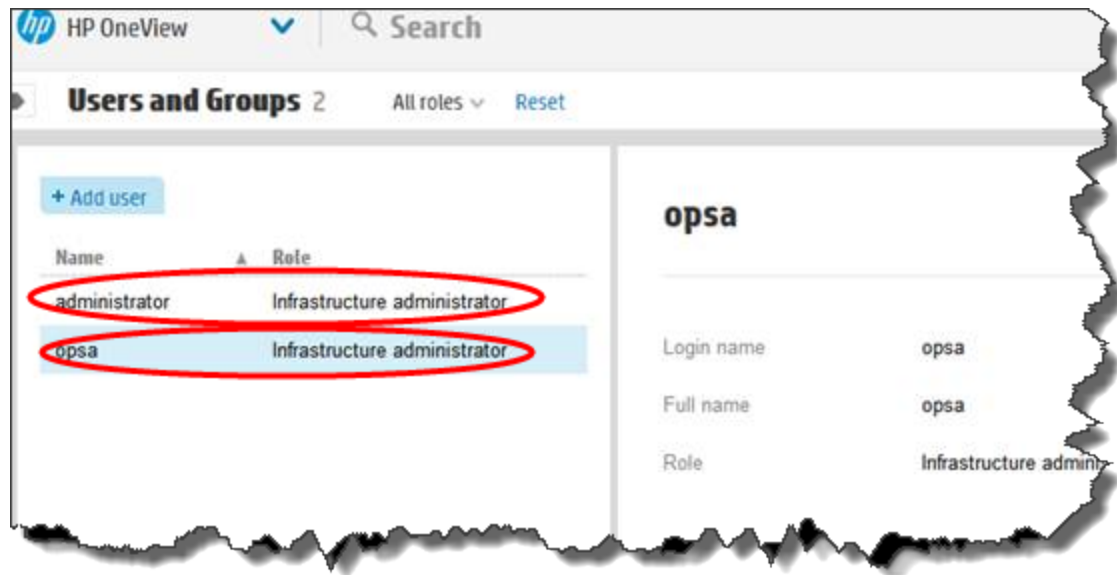
Note: It is mandatory that the Operations Analytics All-in-One for HP OneView Appliance have a valid fully-qualified domain name for this integration to function successfully.

Question: When enabling the Operations Analytics - HP OneView integration, how might I avoid potential authentication problems?

Answer: The role for the HP OneView user should have infrastructure administrator privileges.

Note: Use an existing user account or create a new user account to prevent potential authentication problems. For either approach, the user must have the infrastructure administrator role.

1. Log on to the HP OneView console.
2. Navigate to **Settings > users and groups**
3. **Do only one of the following** from the HP OneView console:
 - Choose an existing infrastructure administrator for the integration like the **administrator** or **opsa** user shown below.



- Create an infrastructure administrator for the integration. Make sure to select the **Full** role when creating the infrastructure administrator.

The screenshot shows the 'Edit opsa' user form. It contains several input fields: 'Login name' (opsa), 'Full name' (opsa), 'Initial password' (masked with dots), and 'Confirm password' (masked with dots). To the right of the 'Full name' and 'Confirm password' fields, the word 'optional' is displayed. Below these fields, there is a 'Role' section with three radio buttons: 'Specialized', 'Full', and 'Read only'. The 'Full' radio button is selected and circled in red. At the bottom of the form, there is a 'Contact' section with three input fields: 'Email', 'Office phone', and 'Mobile phone', each with the word 'optional' to its right.

Question: After enabling the Operations Analytics - HP OneView integration, how do I make sure that the syslog forwarding is functioning correctly?

Answer: To verify that the syslog forwarding is functioning correctly for iLO, do the following:

1. Log on to the HP OneView server.
2. Select **Servers > Server Hardware** from the HP OneView console.
3. Locate the **Hardware** heading, scroll to the **iLO** row, then click the associated IP address to log on to the **Integrated Lights-Out** console.
4. Select **Administration > Management**.
5. Select the **Remote Syslog** tab.
6. Check that the IP address entry in the remote Syslog Server field matches the IP address of the Operations Analytics server.

Question: After enabling the Operations Analytics - HP OneView integration, how do I make sure that the metrics are functioning correctly?

Answer: You should see metrics within one hour or less. Check any of the HP OneView dashboards in Operations Analytics and verify that the metric data is appearing.

Note: You can adjust the frequency of the metrics by adjusting the Frequency option in the HP OneView settings.

Question: After enabling the Operations Analytics - HP OneView integration, how do I make sure that the syslog forwarding is functioning correctly for Enclosures?

Answer: To verify that the syslog forwarding is functioning correctly for Enclosures, do the following:

1. Log on to the HP Blade System Onboard Administrator (OA)
2. Select **Active Onboard Administrator**.
3. Click **System Log**.
4. Click the **Log Option** tab.
5. Check that the IP address entry in the remote Syslog Server field matches the IP address of the Operations Analytics server.

Note: If you use a hostname instead of an IP Address for these fields, and the network uses statically assigned IP addresses, you must configure a DNS server in the EBIPA settings.

Question: When setting up the integration, you see one or more integration error messages. For example, these messages might refer to configuring certificates, syslog forwarding, metrics frequency, or security credentials.

Answer: Follow any remedies included in the displayed error messages. If there are no displayed remedies, do the following:

1. Log on to Operations Analytics as a tenant administrator user.
2. Select **Settings > OneView Settings**
3. Configure the Operations Analytics - HP OneView integration and see if this action corrects the problem.

Note: To remedy any of the problems you might encounter, complete the above steps before doing any further troubleshooting or opening a support call.

Chapter 5: About Data Collections for the HP Operations Analytics - HP OneView Integration

The following collections begin collecting data automatically after you configure the Operations Analytics - HP OneView integration:

HP OneView Data Collections

Collection Name	Source	Domain	Group
HP OneView Alerts	oneview	rabbitmq	alerts
HP OneView Inventory	oneview	rest	inventory
HP OneView Inventory Changes	oneview	rabbitmq	inventory-changes
HP OneView Metrics	oneview	rabbitmq	metrics
HP OneView Syslog	arcsight	OneView	OneViewSyslogs
HP OneView Trees	oneview	rest	topologytree

Note: The property group uid for each preconfigured Operations Analytics for HP OneView Appliance collection consists of a combination of the source, domain, and group parameters used to create the collection. For example, for the Operations Analytics for HP OneView Appliance Inventory collection, it uses a domain of rest and a group of inventory when creating the collection. The resulting property group uid is oneview_rest_inventory.

Using the HP Operations Analytics - HP OneView Integration

After you finish configuring the Operations Analytics - HP OneView integration, the Operations Analytics for HP OneView Appliance data collections begin adding data to the dashboards included with the Operations Analytics - HP OneView integration. See *Operations Analytics Integration with HP OneView* in the *Operations Analytics Help* for more information about the benefits of this integration.

Chapter 6: HP Operations Analytics – HP OneView Integration Security Hardening

- **Authentication:** The Operations Analytics for HP OneView Appliance Inventory and Tree collections use the Rest API. This collection requires user names and passwords. The Operations Analytics for HP OneView Appliance Inventory Changes, Metrics, and Alerts collections require the certificates that are stored in keystore and truststore files. These two stores require password authentication.
- **Key Management:** These keys are stored in the `/opt/HP/opsa/conf/ssl/opsa_defaults` directories.
- **Encryption:** Operations Analytics's Inventory Changes, Metrics and Alerts collections require the passwords for the keystore and truststore used by the HP OneView server. These passwords are encrypted.
- **User Permissions:** To configure the Operations Analytics - HP OneView integration, log on to Operations Analytics as a tenant administrator. See the *Operations Analytics Configuration Guide* for information about configuring the Operations Analytics users.
- **Certificates:** After you click the **Integrate** button, Operations Analytics sends the HP OneView host, user name, and password to the HP OneView server. The HP OneView server returns the certificate data in forms that Operations Analytics places in the `/opt/HP/opsa/conf/ssl/opsa_defaults` directories on the Operations Analytics Server Appliance. After the Operations Analytics for HP OneView Appliance collections are published (this happens automatically during the integration setup), Operations Analytics moves these files to the Collector Appliance.
- **Data being Collected:** The Operations Analytics for HP OneView Appliance collections obtain data from HP OneView, which includes logs, metrics, HP OneView alerts, and topology data.

Note: logs originate from the devices that HP OneView currently manages (they come from HP OneView-managed servers and enclosures). These logs are really syslogs.

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