

HPE Operations Analytics

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Release Notes

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Contents

Contents	3
What's New in this Release	4
System Requirements and Sizing Guide	9
Installation Instructions	10
Licensing	11
Content Packs Available with Operations Analytics.....	12
Notes and Limitations	13

What's New in this Release

Operations Analytics 2.32

Usability Improvement

- **LDAP Support:** After installing Operations Analytics 2.32, Operations Analytics users can log on to Operations Analytics using Lightweight Directory Access Protocol (LDAP) based on the LDAP group to which the new user belongs. A new Operations Analytics user account authenticating against LDAP can be created automatically when a new user logs on to Operations Analytics. A new Operations Analytics user account can be added manually by an Operations Analytics Tenant Admin user. See the *Operations Analytics 2.32 Help* for more information.
- **Export to CSV:** After installing Operations Analytics 2.32, Operations Analytics users will be able to export search results and dashboard data from the Operations Analytics console to a CSV file. The user can then import this file to Microsoft Excel and generate charts based on the imported data.

Operations Analytics 2.31 IP1

Integration Improvements

After installing the OpsA 2.31 IP1 patch, you can choose a PostgreSQL database type when configuring an Operations Manager i Events collection.

Operations Analytics 2.31

Data Ingestion Improvements

- **Custom Collection Additions:** This new addition includes collection channels for TCP, UDP, JDBC, and File collections. This addition includes easy-to-use configuration forms, making it easier to add new custom collection data types to your existing set of collections.
- **Elastic Logstash:** Operations Analytics supports a new log source in addition to Splunk and Logger using an integration with LogStash. With some additional configuration, Operations Analytics collects logs from LogStash for Log Analytics, baselining, and predictive analysis. Work with your HPE representative to better understand this new extensibility.

Support and Compatibility

- **Supported Upgrades:**
 - Operations Analytics 2.30 to 2.31
 - Operations Analytics 2.20 to 2.31

Integrations

- **BPM Integration:** An update to Operations Analytics to support additional features included with BSM 9.25 and newer.
- **BSMC Connectors:** Operations Analytics supports BSMC connectors with content for Nagios, SCOM, and VCOPS. See the [Operations Intelligence \(OpsA, OLI, SHQ\) Content Catalog](#) on [HPE Live Network](#) for more information.

Event Analytics

This new addition provides a faster approach to root cause analysis, resulting in quicker mean time to repair (MTTR):

- It identifies relevant events and correlates them with related logs to more quickly identify the most relevant events.
- It provides more context about these events through log analysis.

Log Integration

Importing Splunk and HPE ArcSight Logger data can now be fully configured from the Operations Analytics console by selecting the Log Integration button.

Operations Analytics 2.30

Analytics

- **Track Logs:** You can specify log groups or parameters to track and treat as metrics. This allows you to view log data trends over time in a graphical format. Additionally, this enables analytic operations such as correlations, alerts, predictive analytics, etc. on specified texts in the tracked entities.
- **Statistical Correlation:** You can take a group of metrics and compare each metric to every other metric in the group with one click. This allows you to determine how closely related the data over time is for different metrics. With this feature, it is possible to identify connections and relationships between problematic metrics and tracked logs.
- **Predictive Alerts:** (Abnormality based). Alerts can now be configured to trigger based on abnormalities from an automatically generated baseline. This notifies users of major changes in metric behavior without the need to configure a static baseline.
- **AQL Improvement:** Support of arithmetic expressions in AQL now allows users to combine multiple metric columns in various arithmetic expressions and query the expression.

Usability and Time to Value

- **Flex Configuration File Utility:** Operations Analytics can help you create a flex configuration file to allow data ingestion into Logger from some types of data sources. The configuration files can be reused and adapted to suit your requirements.
- **Drag and Drop Metrics:** Metrics can be dragged from one line chart to another one or to empty panes. This allows to create a new custom chart “on-the fly” without writing an AQL query.
- **AQL Improvement:** Enhanced ability to create queries based on customizable arithmetic expressions.
- **Enable HPE OneView:** You can enable OneView from a distributed version of Operations Analytics 2.30. This enables you to collect data, alerts, and logs from HPE OneView directly, leveraging the integration to achieve better performance and longer data retention. It also enables you to collect operating system and application data from HPE OneView in addition to the data collections Operations Analytics already supports.

Data Ingestion Improvements

- **Custom Collection Wizard:** Custom collections can now be created using a wizard that makes the process faster and easier. It now allows you to configure Operations Analytics to collect and process data from various sources of structured data such as delimited files, JSON, and others.
- **HPE OneView Interconnect Metrics:** The HPE Operations Analytics integration with HPE OneView now provides interconnected information from HPE OneView. This will allow Converged Infrastructure administrators to ensure that this key internal component connecting your servers, storage, edge switches backplane boards, etc. is available and performing optimally.

Support and Compatibility

- **Vertica:** Added support for Vertica version 7
- **Logger:** Added support for Logger version 6.
- **Supported Upgrades:**
 - Operations Analytics for HPE OneView Upgrade 2.20 to 2.30
 - Operations Analytics 2.20 to 2.30

Installation

You can install Operations Analytics software as an OVA image to a virtual machine or you can install the Operations Analytics Server and Collector software on a supported server using an installer.

Documentation Updates

- **OneView Guides:** The OneView Installation and Integration Guides have been merged into one guide called The HPE Operations Analytics for HPE OneView Installation, Integration, and Upgrade Guide.
- **Quick Start Guide:** The Quick Start Guide is not included in 2.30. All of the content from the 2.20 Quick Start Guide has been moved to the Installation and Configuration Guides.

Operations Analytics 2.20

Alerts

Alerts allow you to trigger different actions based on conditions and time intervals that you specify. This feature allows you to use Operations Analytics as a pro-active monitoring tool, in addition to Operations Analytics's strong forensic capabilities.

HPE OneView Integration

Operations Analytics can now import data from HPE OneView and perform advanced analytics of hardware and system logs. The data is displayed in specialized dashboards. See the [HPE Operations Analytics - HPE OneView Integration Guide](#) for detailed information.

Log Analytics Splunk Support

Splunk users can now use Operations Analytics's powerful Log Analytics capabilities.

Configure Collections in User Interface

All collections can now be configured entirely from the user interface. This reduces the time to create a collection from more than an hour to a few minutes.

Customize Chart Colors

You can now customize the color schemes of selected chart types to fit your organizational preferences.

Copy Panes

Dashboard panes can be copied into custom dashboards.

Improved Data Load Time

Data can now be loaded significantly faster (sometimes twice as fast) when compared with version 2.10.

Parameterize Dashboards

You can configure an Operations Analytics dashboard to take a parameter and use it to drill to a different dashboard focusing on that parameter (for example, a host).

Upgrade

You can upgrade from Operations Analytics 2.10 to 2.20 using the Upgrade Guide.

Operations Analytics 2.10

HPE Operations Analytics 2.1 continues to expand its powerful set of features with the following feature additions.

Log Analytics

A powerful Log Analytics feature that automatically finds the needle in the log messages haystack. Using machine learning and pattern matching capabilities, Log Analytics automatically locates the most significant messages, so you no longer need to conduct complex searches or write sophisticated regular expressions. Using Log Analytics, Operations Analytics automatically calculates message significance based on things like time proximity, message severity, matching keywords, and deviation from normal message frequency. You can modify the way message significance is calculated by liking messages, adding significant keywords, and defining the problem time.

Predictive Analytics

Predictive Analytics forecasts metric behavior using baseline and seasonality algorithms. Use Predictive Analytics to identify patterns in your metrics and understand whether specific hours or times have different behaviors. You can also use Predictive Analytics to learn about trends in your system to anticipate infrastructure and business impacts.

Enhance User Experience

Topology definition now supports using wildcards (" * ") to simplify creating a service definition; this also handles dynamic environments where nodes are added and removed as needed.

This release adds the "drill capability" to allow easier transition from a summary graph to a specific underlying host data. By clicking a graph segment or legend, a new search will be performed to show the data for that specific system, or node.

Improving the Collection Framework

- Improved support for live data feeds from external data sources. Use our example for weather information to get started.

- Build on community know-how by deploying content packs that include collection, dashboard, and AQL definitions.
- Import and export of dashboards to easily extend your system based on community knowledge.

Analytics extensibility via R-Functions

R is a well-known and established statistical language. Now you can extend your analytics capabilities by leveraging R functions within Operations Analytics. See the [Using R-Functions to Integrate Custom Analytics into OpsA White Paper](#) for detailed information.

Operations Analytics 2.00

HPE Operations Analytics 2.00 is a new product that brings big data to IT Operations. HPE Operations Analytics is designed to help IT organizations:

- **Prepare** – By storing and understanding all of your machine data.
- **Predict** – By applying advanced machine learning on top of the data.
- **Pinpoint** – By instant replay to recreate history.

HPE Operations Analytics provides a big data analytics platform that collects metrics events, topology, and log files, and indexes and stores them efficiently. This analytics platform also provides three main use cases:

- IT Search for executing simple or advanced queries against the data store.
- Guided troubleshooting providing a search capability driven by keywords, tags, or phrases, and retrieving time-sequenced information from metric, events, and logs, setting the context for deeper analysis.
- Visual Analytics designed to present large amounts of data graphically, allowing users to easily gain insight into trends, patterns, and other details in the data that aids in preventing or correcting an IT issue.

System Requirements and Sizing Guide

For information about the installation requirements and compatibility with other products, see the *HPE Operations Analytics System Requirements and Sizing Guide*. Since the *HPE Operations Analytics System Requirements and Sizing Guide* might be updated between releases, you can access the most up-to-date information from the HPE Support web site:

[HPE Operations Analytics System Requirements and Sizing Guide](#)

Installation Instructions

The following guides provide Installation and Configuration instructions:

- [HPE Operations Analytics Installation Guide](#)
- [HPE Operations Analytics Configuration Guide](#)
- [HPE Operations Analytics for HPE OneView Installation, Integration and Upgrade Guide](#)
- [HPE Operations Analytics 2.30 to 2.31 Upgrade Guide](#)
- [HPE Operations Analytics 2.20 to 2.31 Upgrade Guide](#)

The *HPE Operations Analytics Installation Guide* provides detailed installation instructions. The *HPE Operations Analytics Configuration Guide* provides instructions for improving the performance and maintaining your product. The *Operations Analytics for HPE OneView Installation, Integration, and Upgrade Guide* provides instructions for deploying the Operations Analytics All-in-One for HPE OneView Appliance. The Operations Analytics Upgrade Guide provides instructions for upgrading Operations Analytics from version 2.20 to version 2.30.

Licensing

HPE Operations Analytics licenses are sold in bundles of 50 Operations Analytics nodes. This license entitles the owner to the full feature set of HPE Operations Analytics.

Operations Analytics comes with an implicit node pack (Instant On) license that is valid for 60 days.

For Operations Analytics – HPE OneView licensing, you must purchase and install one of the following permanent licenses before the Instant On license expires:

- Operations Analytics HPE OneView node permanent license: The Operations Analytics HPE OneView node license enables Operations Analytics HPE 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.

Content Packs Available with Operations Analytics

You can combine additional information with the data collected by Operations Analytics by using the content packs shown in the following location: [Operations Analytics Content Packs](#).

It is recommended that you regularly check the above link for new content packs, as new ones are frequently released.

Notes and Limitations

This section could include examples that show script usage, command line usage, command line syntax, and file editing. If you copy and paste any examples from this section, carefully review the results of your paste before running a command or saving a file.

Data Collection Issues

An OMi collection repeatedly duplicates the last collected events

Description: If this collection shows no received events within in a polling interval (15 minutes by default), it is possible that events from the previous polling intervals are being duplicated in the obsadb database (the Vertica database).

Workaround: Although this issue is fixed, you must recreate these OMi collections. To remedy this issue, do the following:

1. From the Operations Analytics console, open the **Collections Manager**.
2. Do the following for each OMi collection:
 - a. Select **Edit**
 - b. Review the values and make sure they are correct.
 - c. Enter the password.
 - d. Click **OK**
3. Exit the Collections Manager.

The HPE BSM RTSM Configuration Item (CI) Collection using OMi 10.x does not work correctly (QCCR1P6871).

Description: When configuring an HPE BSM RTSM Configuration Item (CI) Collection using OMi 10.x, the collection does not work as described in the *Operations Analytics Help*.

Workaround: Follow the HPE BSM RTSM Configuration Item (CI) Collection instructions related to OMi 10.x in the *Operations Analytics Configuration Guide*.

Operations Analytics supports collections using OMi Version 9.2x or OMi Version 10.x, but not both versions simultaneously (QCCR1P6899).

Description: After configuring an OMi collection using OMi version 9.2x, you might have followed the instructions in the Operations Analytics help to change the `omi.defaultversion=<new_version>` property in the `/opt/HP/opsa/conf/collection/framework.properties` file to support OMi version

10.x. If you tried this, Operations Analytics will not function correctly. You need to do some additional work so that Operations Analytics only contains OMi collections for OMi version 10.x.

Note: You would also experience Operations Analytics functionality problems if you configured an OMi version 10.x collection, then later tried to configure an OMi version 9.2x collection by changing the `omi.defaultversion=<new_version>` property in the `framework.properties` file.

Note: If you applied the OpsA 2.31 IP1 patch, this problem is fixed, and no further user action is required.

Workaround: Do the following:

1. If the following file exists, remove it from all Operations Analytics Collectors hosts:
`/opt/HP/BSM/PMDB/config/collection_policy/opsa_default_<old_version>_omi__DB_Collection.xml`
2. Remove the following directory from the Operations Analytics Server:
`/opt/HP/opsa/conf/collection/config.files/<collector node>/opsa_default/1.0/omi/<old_version>`

Note: You must completely remove this directory. Simply renaming the directory will not resolve this issue.

3. Using the Collections Manager, edit each of the existing OMi collections (without doing any changes) and save them again. Doing so resolves any potential or existing issues caused by trying to configure OMi collections using both OMi version 9.2x and OMi version 10.x.

There is a missing TCP Channel data example in the Operations Analytics Help

Description: When using the Collections Manager to configure a custom collection using a TCP channel, there is a missing example in the Operations Analytics Help.

Workaround: Use the following example as a guideline when configuring a custom collection using a TCP channel:

On the server that houses the data you need to collect, organize the data one line at a time into a Comma Separated Values (csv) format. For example, you might develop a script that uses some of the following syntax using the netcat (nc) command. The netcat command is a computer networking service for reading from and writing to network connections using TCP or UDP:

```
#Pipe this data into nc (nc is a shortened form of the netcat  
command)  
echo A,B,C | nc 1.2.3.4 56
```

Following the above example, the server sends the csv line (A, B, C) to the listen port (PORT 56) on the Operations Analytics Collector host. This example assumes you entered port 56 when you configured this collection.

When creating a JDBC custom collection (Source Data tab), Operations Analytics shows users an incorrect Batch size tooltip message.

Description: When creating a JDBC custom collection (**Source Data** tab), the tooltip for the **Batch size** parameter states that you must choose a value between 100 and 1000. That tooltip should state that you must choose a value between 100 and 10,000.

Workaround: None

Installation Issues

Ignore the following installation issue (QCCR1P2578)

Description: During installation, you might see a message similar to the following:
There was a failure with this installation action for HPE Service Health Reporter Collector 9.30.

Comment: A hot fix is immediately applied during installation to resolve this issue. You can ignore this message.

Integration Issues

In large scale HPE Oneview deployments, the Operations Analytics – HPE Oneview Integration might encounter errors when retrieving HPE Oneview topology information

Description: In some large scale HPE Oneview deployments (containing more than 3,000 objects and more than 40,000 connections), Operations Analytics might encounter errors when retrieving HPE Oneview topology. New objects added to HPE Oneview after these errors occur will not be shown in Operations Analytics's HPE Oneview dashboard.

Workaround: Contact HPE Software Support.

Operations Analytics collections using BSMC 10.00 stop serving metric data

Description: When configuring a collection connecting to a node with BSMC 10.00, one of the BSMC related processes aborts (oacore). This causes BSMC to stop serving metric data to any clients.

Workaround: Contact HPE support to get a hotfix for QCCR1A182973. Install this hotfix on all of your BSMC 10.00 nodes.

Logger Issues

Logger is not sending the full response to the Operations Analytics Collector

Description: With high log ingestion rate data rate in a distributed setup, the logger could be sending part of the response requested by the user.

The following exception appears in the Operations Analytics log file:

```
2013-08-21 04:55:13,590 ERROR sourceAPI.LoggerDALInterfaceAPI: [Collector-0027] Error executing ArcSight Logger query. com.hp.opsa.dataaccess.exception.DataAccessException: Error occurred while getting search results: Error occurred while getting search results -- Failed to read a response: javax.xml.bind.UnmarshalException
```

```
[javax.xml.stream.XMLStreamException: ParseError at [row,col]:[1,306254]
```

```
Message: XML document structures must start and end within the same entity. -- ParseError at [row,col]:[1,306254]
```

Workaround: Turn on base64 encoding in the Logger and Operations Analytics. In Operations Analytics, use `opsa-logger-config-manager.sh` to turn on the base64 encoding option for the logger.

Operations Analytics users must select between using Logger or Splunk

Description: Operations Analytics can simultaneously integrate with only one log management solution, Splunk or Logger, but not both.

Workaround: None.

Operations Analytics Access Issues

There is a limitation to the number of concurrent users for larger Operations Analytics Deployments

Description: Limit the number of concurrent users for larger Operations Analytics deployments to 25 users.

Workaround: None