HP Operations Analytics

Software Version: 2.30

Release Notes

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The title page of this document contains the following identifying information:

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Contents

What's New in this Release

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 HP OneView**: You can enable OneView from a distributed version of Operations Analytics 2.30. This enables you to collect data, alerts, and logs from HP 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 HP 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.

- **HP OneView Interconnect Metrics**: The HP Operations Analytics integration with HP OneView now provides interconnected information from HP 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**:

  o Operations Analytics for HP OneView Upgrade 2.20 to 2.30

  o 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

- **Operations Analytics Installation Guide and the Operations Analytics for HP OneView Installation, Integration, and Upgrade Guide:** Changes to the authentication instructions, including an important password policy change.

- **OneView Guides**: The OneView Installation and Integration Guides have been merged into one guide called The HP Operations Analytics for HP 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 Analytic's strong forensic capabilities.

HP OneView Integration

Operations Analytics can now import data from HP OneView and perform advanced analytics of hardware and system logs. The data is displayed in specialized dashboards. See the *HP Operations Analytics - HP OneView Integration Guide* for detailed information.

Log Analytics Splunk Support

Splunk users can now use Operations Analytic'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

HP 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

HP Operations Analytics 2.00 is a new product that brings big data to IT Operations. HP 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.

HP 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 *HP Operations Analytics System Requirements and Sizing Guide*. Since the *HP Operations Analytics System Requirements and Sizing Guide* might be updated between releases, you can access the most up-to-date information from the HP Support web site:

HP Operations Analytics System Requirements and Sizing Guide

Installation Instructions

The following guides provide Installation and Configuration instructions:

- HP Operations Analytics Installation Guide

- HP Operations Analytics Configuration Guide

- HP Operations Analytics for HP OneView Installation, Integration and Upgrade Guide

- HP Operations Analytics Upgrade Guide

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

Licensing

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

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

For Operations Analytics – HP OneView licensing, 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.

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.

AQL Issues

When using Logger 6 and using the aqlrawlogarbitrary function with "| chart" in the search string, the query produces no results (QCCR1P6159)

Description: When using Logger 6 and using the aqlrawlogartibrary function with `` `| chart" `` in the search string, the AQL query produces no results. For example, the following AQL search produces no results:

```
aqlrawlogarbitrary(<aqllit>deviceProduct = "AQLRAWLOG" AND "FATAL" |
chart count span=5s </aqllit>, $starttime, $endtime,"")
```

Workaround: Use `aqlrawlogcount` as shown in the following example to remedy this specific query:

```
aqlrawlogcount(<aqllit>deviceProduct = "AQLRAWLOG" AND "FATAL" </aqllit>,
$starttime, $endtime,"","",5)
```

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 HP 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 HP Oneview deployments, the Operations Analytics – HP Oneview Integration might encounter errors when retrieving HP Oneview topology information

Description: In some large scale HP Oneview deployments (containing more than 3,000 objects and more than 40,000 connections), Operations Analytics might encounter errors

when retrieving HP Oneview topology. New objects added to HP Oneview after these errors occur will not be shown in Operations Analytic's HP Oneview dashboard.

Workaround: Contact HP Software Support.

Operations Analtyics version 2.30 does not work with OMi version 10 when using a PostgreSQL database

Description: Do not try to integrate Operations Analytics 2.30 with OMi version 10 when using a Postrgres or PostgreSQL database. This integration will not work correctly.

Workaround: None

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: You can use either Logger or Splunk with Operations Analytics. Operations Analytics does not support using both Logger and Splunk.

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