



**Hewlett Packard**  
Enterprise

# **System Requirements and Sizing Guide**

HPE Operations Bridge Analytics

Software Version: 3.00

Document Release Date: January 2017

Software Release Date: January 2017

### Documentation Updates

To check for recent updates or to verify that you are using the most recent edition of a document, go to: <https://softwaresupport.hpe.com/>.

This site requires that you register for an HPE Passport and to sign in. To register for an HPE Passport ID, click **Register** on the HPE Software Support site or click **Create an Account** on the HPE Passport login page.

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HPE sales representative for details.

### Support

Visit the HPE Software Support site at: <https://softwaresupport.hpe.com/>.

Most of the support areas require that you register as an HPE Passport user and to sign in. Many also require a support contract. To register for an HPE Passport ID, click **Register** on the HPE Support site or click **Create an Account** on the HPE Passport login page.

To find more information about access levels, go to: <https://softwaresupport.hpe.com/web/softwaresupport/access-levels>.

**HPE Software Solutions Now** accesses the Solution and Integration Portal website. This site enables you to explore HPE product solutions to meet your business needs, includes a full list of integrations between HPE products, as well as a listing of ITIL processes. The URL for this website is

<https://softwaresupport.hpe.com/km/KM01702731>.

### Legal Notices

#### Warranty

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.

The information contained herein is subject to change without notice.

#### Restricted Rights Legend

Confidential computer software. Valid license from Hewlett Packard Enterprise required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

#### Copyright Notice

© 2016 - 2017 Hewlett Packard Enterprise Development LP

#### Trademark Notices

Microsoft and Windows are trademarks of the Microsoft Group of companies.

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

UNIX® is a registered trademark of The Open Group.

#### Disclaimer:

Certain versions of documents (“Material”) accessible here may contain branding from Hewlett-Packard Company (now HP Inc.) and Hewlett Packard Enterprise Company. As of September 1, 2017, the Material is now offered by Micro Focus, a separately owned and operated company. Any reference to the HP and Hewlett Packard Enterprise/HPE marks is historical in nature, and the HP and Hewlett Packard Enterprise/HPE marks are the property of their respective owners.

# Contents

System Requirements.....	3
Hardware.....	3
Supported Operating Systems for Operations Bridge Analytics Server and Collector Hosts.....	3
Databases.....	3
ArcSight Logger.....	4
Java.....	4
Web Browsers.....	4
Languages.....	4
Internationalization Variances.....	4
HPE Software Integrations.....	5
Sizing Guide.....	6
Hardware Sizing.....	6
High Availability.....	8

## System Requirements

This section provides information about the supported hardware and software that are required in order to successfully install and run HPE Operations Bridge Analytics.

### Hardware

CPU cores must be 2.9 GHZ or higher

**Tip:** As Operations Bridge Analytics performance depends on processor speed, it is recommended to get the fastest possible processor speed to ensure proper performance.

### Supported Operating Systems for Operations Bridge Analytics Server and Collector Hosts

Platform	Certified (Recommended) Versions	Supported Versions
Red Hat Enterprise Linux (RHEL)	6.5, 6.6, 6.7, 7.x	6.x, 7.x
Oracle Enterprise Linux (OEL)	6.5, 7.x	6.x, 7.x
CentOS	6.5	6.x

**Note:** Operations Bridge Analytics Server and Collector Hosts require a 64-bit operating system.

For VMware installations, HPE Operations Bridge Analytics Server and Collector Appliances install and run on CentOS 6.5. Operations Bridge Analytics requires a 64-bit operating system.

You must have the m4 package installed on the target server before installing Operations Analytics. You can test to see if this package is installed by checking for the presence of the /opt/perf directory on the target server. If this directory is present, then no further action is required. If the /opt/perf directory is not present, assuming you are installing Operations Analytics on RHEL7, install the m4-1.4.16-9.el7.x86\_64.rpm package on the target server before proceeding with the Operations Analytics installation. If you are installing Operations Analytics on RHEL6, obtain and install the RH6.x m4 package from the [Red Hat Index](#).

### Databases

You will need to deploy and configure a Vertica database for use by Operations Bridge Analytics. Operations Bridge Analytics supports the Vertica versions shown in the following table:

Database	Certified (Recommended) Versions	Supported Versions
Vertica	8.0.1	8.0.1

See the [HPE Vertica Analytics Platform Version 8.0.x Documentation](#) for more information.

An HPE Vertica node is a hardware (physical server) or software (virtual) host configured to run an instance of HPE Vertica. HPE Vertica does not perform as fast in a virtual environment as it

## Operations Bridge Analytics 3.00 – System Requirements and Sizing Guide

does in a physical server environment. This happens primarily because of the overhead and resource constraints imposed by the virtualization software. Operations Analytics recommends using physical server environments wherever possible to achieve the best performance.

### ArcSight Logger

HPE Operations Bridge Analytics optionally supports an integration with HPE ArcSight Logger.

### Java

HPE Operations Bridge Analytics deploys and uses OpenJDK 1. 8.0\_102.

### Web Browsers

Use any of the supported web browsers shown in the following table to access the HPE Operations Bridge Analytics console.

Platform	Certified (Recommended) Versions	Supported Versions
Google Chrome	latest	latest
Microsoft Internet Explorer	11	11
Microsoft Edge	No version specified	No version specified
Mozilla Firefox	ESR38, ESR45	ESR38, ESR 45

### General Web Browser Requirements

Assuming that your browser is open to full screen for optimal viewing, the supported client display resolutions are as follows:

- 1366x768
- 1920x 1080

Use the following screen resolutions according to your display hardware.

Small: 1366x768

Big: 1920x1080

Recommended: color palette setting of 32,000 colors

### Languages

HPE Operations Bridge Analytics 3.00 will run in browsers whose interface is in any language. It displays in English only. HPE Operations Bridge Analytics 3.00 is not fully localized. However it does support the data collection host and the Operations Bridge Analytics console in the local time zone.

### Internationalization Variances

HPE Operations Bridge Analytics 3.00 will run in all locales as stated in this document with the following known variance:

- Non-English data input is not supported.

## **Operations Bridge Analytics 3.00 – System Requirements and Sizing Guide**

### **Virtualization Products**

Operations Bridge Analytics is agnostic as to VMware platform products and versions. The important factor is the operating system version.

### **HPE Software Integrations**

Information about HPE software that integrates with HPE Operations Bridge Analytics can be found on the HPE Software Support website.

See [Software Solutions Now](#)

For this release, Operations Bridge Analytics supports Splunk version 5.0.2+

## **Sizing Guide**

### **Hardware Sizing**

Use the sizing information in this section for HPE Operations Bridge Analytics VMware installations as well as physical server installations.

#### **HPE Operations Bridge Analytics Server**

Refer to the first table below for the number of Operations Bridge Analytics Servers recommended.

#### **HPE Operations Analytics Collector**

Refer to the tables below for the number of Operations Bridge Analytics Collector Hosts recommended.

##### **Collecting Metrics (structured) data**

For metrics (structured) data, deploy 1 HPE Operations Bridge Analytics Collector for each 250 GB/ day.

##### **Collecting Logs and Events (unstructured) data**

Each Operations Bridge Analytics Collector host can handle 250 GB per day, 3000 Events Per Second (EPS) maximum, assuming use of the TCP Forwarder method.

See the *Configuring Logger to Forward CEF Messages to Operations Analytics* of the [Operations Analytics Configuration Guide](#) for more information.

**Note:** If you plan to integrate Operations Bridge Analytics with Splunk, use one Operations Bridge Analytics Collector per Splunk per 125 GB of daily data volume.

The guidelines shown in the following tables for HPE Operations Bridge Analytics Collector disk size are suitable for most cases. In some extreme circumstances, there might be a need to shorten the retention policy for data files in the collector's *archive* folder. To do this, increase the cleanup frequency using the instructions in the *Managing Collected Data File Usage with Existing Delete Policies* section of the [Operations Bridge Analytics Configuration Guide](#). If the combined data volume for a collector exceeds 250 GB per day, add HPE Operations Bridge Analytics Collectors.

#### **HPE ArcSight Logger Components**

Deploy 1 HPE ArcSight Logger for every 250 GB of data volume per day, assuming they are configured to forward CEF Messages to Operations Analytics.

See the [HPE Arcsight Logger Administration Guide](#) for detailed information.

#### **HPE Vertica**

The amount of storage for Vertica depends on your licensing and the amount of total stored data. HPE Operations Bridge Analytics defaults to a 3-months retention period.

For a multi-node Vertica cluster deployment, it is strongly advised to set the Vertica cluster's K-safety to 1. For example, for a three node Vertica cluster, set the K-safety to 1. This action often results in better end-to-end throughput and better resilience at the cost of slightly higher storage requirements. See High Availability for more information.

HPE has determined that Vertica runs optimally on physical servers with a two socket architecture. HPE has not certified Vertica to run on physical servers with more than two sockets. If the hardware you are using for Vertica has more than two sockets, you should disable the additional sockets. See the [HPE Vertica Hardware Planning Guide](#) for detailed information.

## Operations Bridge Analytics 3.00 – System Requirements and Sizing Guide

### Summary

The following tables summarize the minimal hardware requirements for a HPE Operations Bridge Analytics deployment, based on the number of monitored hosts and expected daily volume for Metrics (structured) data and for Logs and Events (unstructured) data.

**Table 1: Minimal hardware requirements for collecting Metrics (structured) data**

Number of monitored Hosts	Total Metrics Daily Volume	HPE Operations Bridge Analytics Collectors	Minimum HPE Operations Bridge Analytics Server Recommendation	Optimal HPE Operations Bridge Analytics Server Recommendation	HPE Vertica Cluster Nodes <sup>[5]</sup>	Number of Concurrent Users
Up to 500	Up to 250 GB	1 Collector <sup>[4]</sup> (8 CPU, 16 GB RAM, 200 GB HDD)	1 Server (4 CPU, 8 GB RAM, 40 GB HDD)	1 Server <sup>[6]</sup> (4 CPU, 8 GB RAM, 40 GB HDD)	1 Node Cluster <sup>[3]</sup> (8 CPU, 16GB RAM, 1TB HDD)	5
Up to 5000	Up to 750 GB	3 Collectors <sup>[4]</sup> (8 CPU, 16 GB RAM, 200 GB HDD)		3 Servers (4 CPU, 8 GB RAM, 40 GB HDD)	3 Node Cluster <sup>[3]</sup> (16 CPU, 64GB RAM, 10TB HDD)	15
Up to 20,000 <sup>[1]</sup>	Up to 1250 GB	5 Collectors <sup>[4]</sup> (8 CPU, 16 GB RAM, 200 GB HDD)		3 Servers (4 CPU, 8 GB RAM, 40 GB HDD)	3 Node Cluster <sup>[3]</sup> (32 CPU, 256GB RAM, 10TB HDD)	25 <sup>[2]</sup>

<sup>[1]</sup> If the number of monitored hosts exceeds 5000, contact HPE for consulting to determine the optimal hardware for your environment.

<sup>[2]</sup> Add 1 HPE Operations Bridge Analytics Server for every additional 5 Concurrent Users

<sup>[3]</sup> Add 1 HPE Vertica node for each additional 1TB of daily data

<sup>[4]</sup> Add 1 HPE Operations Bridge Analytics Collector for each additional 250 GB of daily data

<sup>[5]</sup> Use these specifications as general guidelines only. Refer to the HPE Vertica sizing documentation for actual sizing

<sup>[6]</sup> For the greatest data integrity it is recommended to deploy 3 HPE Operations Bridge Analytics Servers



**Table 2: Hardware requirements for collecting Logs and Events (unstructured) data (in addition to the requirements shown in table 1)**

Number of monitored Hosts	Total Logs & Events Daily Data Volume	HPE Operations Bridge Analytics Collectors <sup>[1][2]</sup>	HPE ArcSight Loggers <sup>[1][2]</sup>
Up to 500	Up to 250 GB	1 Collector (8 CPU, 16 GB RAM, 200 GB HDD)	1 ArcSight Loggers (4 CPU, 12 GB RAM, 850 GB HDD)
Up to 5000	Up to 1000 GB	4 Collectors (8 CPU, 16 GB RAM, 200 GB HDD)	4 ArcSight Loggers (4 CPU, 12 GB RAM, 850 GB HDD)
Up to 20,000	Up to 4000 GB	16 Collectors (8 CPU, 16 GB RAM, 200 GB HDD)	16 ArcSight Loggers (4 CPU, 12 GB RAM, 850 GB HDD)

<sup>[1]</sup> Double the number of Operations Bridge Analytics Collector hosts when not using HPE ArcSight Logger with “TCP (CEF) Forwarding”

<sup>[2]</sup> Each HPE Operations Bridge Analytics Collector host processes a maximum of 250 GB /day of data volume and 3000 Events Per Second (EPS).

### **High Availability**

There is no product-specific mechanism for High Availability (HA) nor Disaster Recovery (DR) of Operations Bridge Analytics components. To implement DR for HPE Operations Bridge Analytics Server and HPE Operations Bridge Analytics Collector, you must rely on mechanisms available in your underlying IT architecture such as VMware High Availability, server clustering, or other application-agnostic technologies. You should implement these DR methods for both Operations Bridge Analytics Collector and Operations Analytics Server, as a failure of one host can affect the product as a whole. Multiple Operations Bridge Analytics Servers can be load balanced and accessed through virtual IP addresses to optimize performance. For your Database supporting Operations Bridge Analytics, Vertica offers a K-Safety configuration for fault tolerance, and offers recovery and replication options for HA and DR. Operations Bridge Analytics should be connected to Vertica using a Virtual IP (IPVS) and will use native connection load balancing if you have enabled it using the instructions shown in the Database Load Balancing section of the Operations Analytics Installation Guide.

These links might be helpful:

- [Designing for K-Safety](#)
- [Best Practices for Disaster Recovery](#)
- [Connection Load Balancing](#)