Operations Bridge Analytics

Software Version: 3.01

Requirements and Sizing Guide

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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

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	Supported Versions
Red Hat Enterprise Linux (RHEL)	6.x, 7.x
Oracle Enterprise Linux (OEL)	6.x, 7.x
CentOS	6.x

OBA requires a 64-bit operating system.

You must have the m4 package installed on the target server before installing OBA. You can test to see if this package is installed by checking for the presence of the `/usr/bin/m4` file on the target server. If this file is present, then no further action is required. If the `/usr/bin/m4` executable is not present, install the m4 (m4.x86_64) package on your target server before proceeding with the OBA installation.

Databases

You must deploy and configure a Vertica database using the installation package delivered by OBA. OBA supports Vertica version 8.0.1.

See the Vertica Analytics Platform Version 8.0.x Documentation for more information.

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

Java

OBA deploys and uses OpenJDK 1.8.0_121.

Web Browsers

Use any of the supported web browsers shown in the following table to access OBA.

Platform	Supported Versions
Google Chrome	latest
Microsoft Internet Explorer	11
Microsoft Edge	No version specified
Mozilla Firefox	ESR versions only, 45 and higher

General Web Browser Requirements

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

- Small: 1366x768

- Large: 1920x1080

Recommended: color palette setting of 32,000 colors

Languages

Operations Bridge Analytics 3.01 will run in browsers whose interface is in any language. It displays in English only. Operations Bridge Analytics 3.01 is internationalized, but localized only to the English language.

Virtualization Products

Operations Bridge Analytics is agnostic as to any virtualization software and version. The important factor is the operating system version.

Software Integrations

Information about software that integrations with OBA can be found on the Software Support website.

For this release, OBA supports Splunk version 5.0.2+. OBA also supports an optional integration with ArcSight Logger.

Sizing

This section provides information on sizing requirements for your OBA deployment.

Hardware Sizing

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

The OBA installation adds an `opsa` user to the operating system environment, which is used by OBA processes. In general, the maximum number of processes and maximum number of open files for the `opsa` userid must be set to high values. During installation, the following settings are added to the `/etc/security/limits.conf` file:

```
opsa soft nproc unlimited

opsa hard nproc unlimited

root soft nproc unlimited

root hard nproc unlimited

* soft nofile 65536

* hard nofile 65536
```

OBA Server

Refer to the table below for the number of OBA Servers recommended.

Number of concurrent browser users of the GUI	OBA application servers
up to 5	1 Server (4 CPU minimum, 8 GB Memory minimum 16 GB recommended, 40 GB Disk)
more than 5	add 1 Server as specified above for every 5 additional concurrent users

Operations Analytics Collector

Refer to the table below for the number of OBA collector hosts recommended.

The guidelines shown in the following table for OBA 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. If the combined data volume for a collector exceeds 250 GB per day, add OBA Collectors.

Number of monitored hosts	OBA collectors	Vertica cluster nodes
up to 500	1 Collector (8 CPU, 24 GB Memory minimum 32 GB recommended, 40 GB Disk minimum)	1 node (8 CPU, 32 GB Memory, 1 TB Disk)
up to 5000	3 Collectors (8 CPU, 24 GB Memory minimum 32 GB recommended, 40 GB Disk minimum each)	3 node cluster (each 16 CPU, 64 GB Memory, 10 TB Disk)
more than 5000	Add 1 Collector for every additional 5000 nodes	3 or more node cluster (each 32 CPU, 256 GB Memory, 10 TB Disk)

In addition to the above disk space requirements, you must have 10 GB of disk space in the `/tmp` directory for installation on all servers.

Add 1 Vertica node for each additional 1 TB of daily data. Add 1 OBA server for every additional 5 concurrent users. For integrating OBA with Splunk or ArcSight Logger, if the daily volume of log messages is expected to be larger than 125 GB per day, add an OBA Collector host for each additional 125 GB per day volume. In all cases, monitor the load and capacity of OBA hosts and expand the count to prevent any loss.

Certain collection types, like custom metric collections, SiteScope, and NNM/NPS collections may require substantially more disk space. If you know that you will be processing a large amount of metric data, plan the size of your disks on each collector to hold one month's worth of processed files. Log and event data is not stored on the collector for as long, and typically does not add substantially to disk space consumption on the collectors. Collectors should not be loaded with more than 250 GB of incoming data per day from all sources. Therefore, if you expect or measure more than 250 GB of data per day on a collector, add more collectors accordingly.

Deploy additional ArcSight Logger systems for every 125 GB of expected data volume per day. Refer to your ArcSight product documentation for more information.

Vertica

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

For small OBA deployments, single node Vertica installations are supported. For larger OBA installations, HPE recommends at least a three node cluster Vertica installation to ensure k-safety. For more information, see the Vertica documentation.

See the Vertica Hardware Planning Guide for detailed information on planning your Vertica deployment. For information on the Vertica installation, see the Vertica Install Guide.

Summary

The following tables summarize the minimum hardware requirements for an OBA deployment. OBA collectors, servers, and Vertica must be installed on different hosts, thus the smallest implementation requires 3 servers. These are only rough guidelines, because the amount of data volume per host is highly variable, depending on the number and types of integrations you implement. It is best to plan for growth, and to monitor your systems over time as you add more integrations to ensure they are running well, adding more OBA collectors or servers if needed over time.

Filesystem recommendations

For Vertica node requirements, see the Vertica documentation.

For OBA collectors and servers, check to make sure you have at least 30 GB of free disk space under the `/opt/HP` directory prior to installation, which will be used for product files. This is in addition to the space consumed by the installation files themselves. In general, OBA installations add less than 1 GB to the `/usr`, `/lib`, `/opt/OV`, `/var/opt`, and `/var/tmp` directories.

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.

See the Vertica documentation for more information.

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