

# HP Operations Analytics

Software Version: 2.31

## System Requirements and Sizing Guide

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# Chapter 1: System Requirements

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

## Hardware

CPU cores must be 2.9 GHZ or higher

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

Screen Resolutions:

Big: 1920x1080

Small: 1366x768

Recommended: color palette setting of 32,000 colors

## Operating System

**VM Installations:** HP Operations Analytics Server and Collector Appliances install and run on CentOS 6.5. Operations Analytics requires a 64-bit operating system.

**Server and Collector Installations:** HP Operations Analytics Servers and HP Operations Collector hosts install and run on CentOS 6.x (6.5 certified), RHEL 6.x (6.5, 6.6, and 6.7 certified), and Oracle Linux 6.x (6.5 certified). Operations Analytics requires a 64-bit operating system.

## Databases

HP Operations Analytics supports HP Vertica 7.1.1-0. You will need to deploy and configure a Vertica database for use by Operations Analytics. See [HP Vertica Analytics Platform Version 7.1.x Documentation](#) for more information.

An HP Vertica node is a hardware (physical) or software (virtual) host configured to run an instance of HP Vertica. HP Vertica does not perform as fast in a virtualized environment as it does in a bare-metal environment (a physical server) . This happens primarily because of the overhead and resource constraints imposed by the virtualization software . HP Operations Analytics recommends using bare-metal environments wherever possible to achieve the best performance.

## Application Servers and Web Servers

HP Operations Analytics deploys and uses JBoss Application Server 7.2.0. It does not need to be deployed on a separate web server.

## ArcSight Logger

HP Operations Analytics deploys and uses HP ArcSight Logger. Versions 5.5 and 6.0 are supported. See the [ArcSight Logger 6.0 Administration Guide](#) and the [ArcSight Logger 6.0 Installation Guide](#) for more information.

## Java

HP Operations Analytics deploys and uses Java SE Development Kit 7 (OpenJDK 1.7.0\_65).

## Web Browsers

One of the following supported web browsers is required to access the HP Operations Analytics console:

- Microsoft Internet Explorer 10 and 11
- Google Chrome (latest version)
- Mozilla Firefox 38 ESR

### 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

## Languages

HP Operations Analytics 2.31 will run in browsers whose interface is in any language. It displays in English only. HP Operations Analytics 2.31 is not fully localized. However it does support the data collection host and the Operations Analytics console in the local time zone.

## Internationalization Variances

HP Operations Analytics 2.31 will run in all locales as stated in this document with the following known variance:

- Non-English data input is not supported.

## Virtualization Products

The HP Operations Analytics software virtual appliance supports the following VMware platform products:

- VMware ESX/ESXi 5.5, 5.0, 4.1
- VMware vCenter Server 5.5, 5.0, 4.1

**Note:** For non-appliance (both server and collector installations), Operations Analytics is agnostic as to VMware platform products and versions. The operating system version is the important factor for non-appliance installations.

## HP Software Integrations

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

See [Software Solutions Now](#)

For this release, Operations Analytics supports Splunk version 5.0.2+

## Chapter 2: Sizing Guide

### Server Sizing

Use the sizing information in this section for Operations Analytics VM installations as well as installations on servers.

#### HP Operations Analytics Components

Table 1 shows the HP Operations Analytics recommended resource requirements for gathering metrics (structured) data, based on the number of nodes being monitored.

For every additional 250 GB of log file (unstructured data) volume per day, HP Operations Analytics requires one additional collector host (8 CPU, 16GB RAM, 200 GB HDD).

Each additional Operations Analytics Collector host can process up to 250 GB per day, regardless of the source.

*Table 1: Hardware and Software Configuration*

Number of Nodes	Collector Appliance	Server Appliance	Vertica Nodes	Number of Concurrent Users
Up to 500	1 Collector (8 CPU, 16 GB RAM, 200 GB HDD)	1 Server (4 CPU, 8 GB RAM, 40 GB HDD)	1 Node (8 CPU, 16GB RAM, 1TB HDD)	5
Up to 5000	3 Collectors (8 CPU, 16 GB RAM, 200 GB HDD)	1 Server (4 CPU, 8 GB RAM, 40 GB HDD)	3 Node Cluster (16 CPU, 64GB RAM, 10TB HDD)	15
Up to 20,000	5 Collectors (8 CPU, 16 GB RAM, 200 GB HDD)	1 Server (4 CPU, 8 GB RAM, 40 GB HDD)	3 Node Cluster (32 CPU, 256GB RAM, 15TB HDD)	25

#### HP ArcSight Logger components

For every 250 GB of log file volume per day, add 1 additional HP ArcSight Logger (4 CPU, 12 GB RAM, 850 GB for log data storage). This information assumes that Logger is configured to forward CEF Messages to Operations Analytics. See the *Configuring Logger to Forward CEF Messages to Operations Analytics* of the [Operations Analytics Configuration Guide](#) for more information.

**Note:** This information relates to a limitation of the Operations Analytics Collector host: One Operations Analytics Collector host per Logger per 250 GB of required data storage.

The above guidelines for 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 clean up frequency using the instructions in the *Managing Collected Data File Usage with Existing Delete Policies* section of the [Operations Analytics Configuration Guide](#). If the combined data input rate for a collector exceeds 250 GB per day, add more collectors to handle the collection load.

### **HP Vertica**

The first three Vertica nodes support 3TB of daily data. Add one Vertica node for each additional 1TB of daily data (for the HP Operations Analytics default 3-months retention period).

**Sockets Note:** HPE has determined that Vertica runs optimally on two sockets. HPE has not certified Vertica to run on servers with more than two sockets. If the server 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.

**HA Note:** There is no product-specific mechanism for High Availability (HA) nor Disaster Recovery (DR) of Operations Analytics hosts. To implement DR for Operations Analytics Server and Collector hosts, 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 Analytics Collector hosts and Operations Analytics Server hosts, as a failure of one host can affect the product as a whole. Multiple Operations Analytics Server hosts can be load balanced and accessed through virtual IP addresses to optimize performance. For your Database supporting Operations Analytics, Vertica offers K-Safety functions for fault tolerance, and offers recovery and replication options for HA and DR. Operations 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 following command: `/opt/vertica/bin/vsql -U dbadmin -c "SELECT SET_LOAD_BALANCE_POLICY('ROUNDROBIN');"`

These links might be helpful:

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