



# Hardware and software requirements



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## Hardware and software requirements

The hardware and software requirements vary according to the type of deployment that you want to set up. Before you install IBM® Operations Analytics - Log Analysis, review the requirements that are listed here.

You can find the referenced documentation in the IBM Knowledge Center for IBM Operations Analytics - Log Analysis at <http://www-01.ibm.com/support/knowledgecenter/SSPFMY/welcome>.

### Supported operating systems

- Red Hat Enterprise Linux Server Edition Version 5 or 6 or 7 or 7.1
- SUSE Linux Enterprise Server 11 (64 bit)
- Red Hat Enterprise Linux for IBM System z® Version 5 or 6
- SUSE Linux Enterprise Server for IBM System z 11 and 12
- Red Hat Enterprise Linux for IBM System x Version 5 or 6
- SUSE Linux Enterprise Server for IBM System x 11 and 12

Log Analysis supports both System z and x86 hardware. Operating systems that are installed on System z based hardware are referred to as Linux on System z. Operating systems that are installed on x86 based hardware are referred to as Linux on System x.

### Supported browsers

- Mozilla Firefox Extended Support Release (ESR) version 38
- Microsoft Internet Explorer 10 and 11
- Google Chrome versions 44 and 45
- Microsoft EDGE

**Note:** If you use Internet Explorer 11, the user interface may not render properly or at all. To fix the issue, you need to disable the compatibility lists. For more information about how to do this, see the *Cannot display the UI in Microsoft Internet Explorer 11* topic in the *Troubleshooting Guide*.

### Software requirements

- Red Hat Enterprise Linux Server Edition Version 5 or Version 6 (64 bit) or Version 7 (64 bit) or Version 7.1 (64 bit) or SUSE Linux Enterprise Server 11 (64 bit) or the Linux on System z or Linux on System x based operating systems that are listed in the *Supported operating systems* section.
- KornShell
- Python Version 2.4.3 with simplejson module (RHEL v5) or Python Version 2.6.6 to 2.6.8 (RHEL v6. SLES v11)
- Perl Version 5.8.8 or later is required to load sample data
- Unzip utility is required to install the Indexing Server.
- Sed utility is required to install the Indexing Server.

**Tip:** To install the required libraries on Red Hat Enterprise Linux Server Edition, YUM is recommended. On SUSE Linux Enterprise Server 11, YaST is recommended. For more information about installing these libraries and additional

information about setting up your environment, see the *Installing IBM SmartCloud<sup>®</sup> Analytics - Log Analysis* section of the documentation.

## Hardware requirements

The following hardware requirements are representative of what may be required for an installation of IBM Operations Analytics - Log Analysis. The hardware requirements can change depending on the amount of data that you stream. To identify the correct hardware requirements for your use case, consult the Service Management Connect index that is located: <http://www.ibm.com/developerworks/servicemanagement/iaa/log/index.html>

The specifications assume that you install IBM Operations Analytics - Log Analysis, the Indexing Engine component, and IBM InfoSphere<sup>®</sup> BigInsights<sup>®</sup> Hadoop on separate servers:

### Test configuration

The test configuration assumes that you intend to stream about 1 Gigabyte (GB) of data daily and that you plan to retain data for seven days.

IBM Operations Analytics - Log Analysis server:

- Four 2.8 Gigahertz (GHz) core processors
- 16 gigabytes (GB) of RAM
- 60 GB of hard disk space

Indexing Engine server

- Four 2.8 GHz core processors
- 16 GB of RAM
- 10 GB of hard disk space

### Commodity configuration

The commodity configuration assumes that you intend to stream about 250 GBs of data daily and that you plan to retain data for 15 days.

IBM Operations Analytics - Log Analysis server:

- Eight 2.8 Gigahertz (GHz) core processors
- 64 GB of RAM
- 60 GB of hard disk space

Indexing Engine server

- Eight 2.8 GHz core processors
- 64 GB of RAM
- 4 Terabytes (TB) of hard disk space

### Production configuration

The production configuration assumes that you intend to stream about 500 GBs of data daily and that you plan to retain data for 30 days.

IBM Operations Analytics - Log Analysis server:

- Sixteen 2.8 Gigahertz (GHz) core processors
- 64 GB of RAM
- 60 GB of hard disk space

Indexing Engine server

- Sixteen 2.8 GHz core processors
- 64 GB of RAM

- 16 TB of hard disk space

You can use IBM Operations Analytics - Log Analysis to stream up to two TBs of data daily.

## Processor, disk, and memory types

IBM Operations Analytics - Log Analysis is designed to be compatible with a wide range of processors, hard disks and memory types.

## Software requirements for Linux on System z and Linux on System x

You can install IBM Operations Analytics - Log Analysis on Linux on System z and Linux on System x. For more information, see the Installing on Linux on System z and Linux on System x based servers in the *Installation and Administration Guide*.

Software requirements:

- Red Hat Enterprise Linux Server Edition Version 5 or Version 6 (64 bit) or SUSE Linux Enterprise Server 11 (64 bit) or the Linux on System z or Linux on System x based operating systems that are listed in the *Supported operating systems* section.
- KornShell is required for the IBM Tivoli® Monitoring Log File Agent.
- Python Version 2.4.3 with simplejson module (RHEL v5) or Python Version 2.6.6 to 2.6.8 (RHEL v6. SLES v11).
- Perl Version 5.8.8 or later is required to load sample data.
- The Unzip utility is required to install the Indexing Server.
- The Sed utility is required to install the Indexing Server.
- The following RPMs are required for both Red Hat Enterprise Linux on System z and SUSE Linux on System z:
  - libstdc++ (32-bit and 64-bit)
  - gtk2 (32-bit and 64-bit)
  - libXpm (32-bit and 64-bit)
  - libXtst (32-bit and 64-bit) is required if you want to run the Installation Manager in GUI mode.

You also need to complete the prerequisite tasks, which include disabling the Security Enhanced Linux module. For more information, see the Prerequisite tasks topic in the *Installation and Administration Guide*.

To tune the Linux operating system, ensure that the following resource configuration settings are made:

### Number of concurrent files: 4096

Use the `ulimit -n` command to change this setting to 4096.

### Virtual memory: Unlimited

Use the `ulimit -v` command to change this setting to unlimited.

## Hardware for Linux on System z and Linux on System x

The following hardware requirements are representative of what may be required for an installation of IBM Operations Analytics - Log Analysis on Linux on System z and Linux on System x. The hardware requirements can change depending on the amount of data that you stream.

This configuration assumes that you intend to stream about 10 GB of data daily. This scenario assumes that you install two logical partitions (LPARs) and that the LPARs stream 5 GBs of data each day. It is assumed that data is retained for 10 days:

- One Central Processing Unit (CPU)
- 16 GB of RAM
- 150 GB of hard disk space

## Supported file systems

The following file systems are supported for both operating systems:

- ext2/3/4
- reiser3
- XFS
- NFS 3/4

## Hardware and software requirements for Hadoop

Standard Edition users can integrate Hadoop for long term data storage. Two different versions of Hadoop are supported:

### Big Insights 4.0

For more information, see <http://www-01.ibm.com/support/docview.wss?uid=swg27027565>.

### Cloudera

For more information, see [http://www.cloudera.com/content/www/en-us/documentation/enterprise/latest/topics/installation\\_reqts.html](http://www.cloudera.com/content/www/en-us/documentation/enterprise/latest/topics/installation_reqts.html).