

Power Systems

Virtual I/O Server release notes

IBM

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Note

Before using this information and the product it supports, read the information in "Notices" on page 13.

This edition applies to IBM Virtual I/O Server Version 2.2.2.0, and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this document

The release notes include late technical information that is not included in other topics and highlights new functions for the Virtual I/O Server release.

Highlighting

The following highlighting conventions are used in this document:

Bold	Identifies commands, subroutines, keywords, files, structures, directories, and other items whose names are predefined by the system. Also identifies graphical objects such as buttons, labels, and icons that the user selects.
<i>Italics</i>	Identifies parameters whose actual names or values are to be supplied by the user.
Monospace	Identifies examples of specific data values, examples of text similar to what you might see displayed, examples of portions of program code similar to what you might write as a programmer, messages from the system, or information you should actually type.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

Virtual I/O Server release notes

The Virtual I/O Server (VIOS) release notes are available in various versions.

You can view the VIOS release notes for various versions in either HTML or PDF format as shown in the following table.

Table 1. Release notes for VIOS by version

VIOS versions	Links
2.1.2	HTML , PDF
2.1.3	HTML , PDF
2.2.0	HTML , PDF
2.2.0.12	HTML , PDF
2.2.1.0	HTML , PDF
2.2.2.0	HTML , PDF

Read this before installation

Note: The Virtual I/O Server (VIOS) software might contain errors that could result in critical business impact. Install the latest available fixes prior to using this software.

The VIOS updates can be obtained from the IBM[®] Fix Central site. To get VIOS Version 2.2.2.0 updates from the IBM Fix Central website.

To view the most current Version of the VIOS release notes, see the online version of the VIOS release notes.

All users of the VIOS software must subscribe to the VIOS subscription service. Subscribing to this service enables users to stay current on VIOS news and critical product updates. In the **Notifications** box, click **Sign in to create, manage or view your subscriptions** tab.

To subscribe to the VIOS subscription service, go to the IBM Support Portal website.

VIOS Version 2.2.2.0 installation changes

The VIOS software is distributed on two DVDs. When you boot from DVD 1, you are prompted to insert DVD 2.

To install another language fileset after the initial installation is complete, insert the second DVD into the DVD drive and refer to the **chlang** command.

Memory requirements

The minimum memory requirement for VIOS Version 2.2.2.0 varies based on the configuration.

A general rule for the minimum memory requirement for VIOS Version 2.2.2.0 is 4 GB. A minimum current memory requirement might support a configuration with a minimum number of devices or a small maximum memory configuration. However, to support shared storage pools, the minimum memory requirement is 4 GB.

VIOS Version 2.2.2.0 requires the minimum current memory requirement to increase when either or both the maximum memory configuration or the number of devices increases. Larger maximum memory configurations or additional devices increase the minimum current memory requirement. If the minimum memory requirement is not increased along with the maximum memory configuration, the partition freezes during the initial program load (IPL).

ROOTVG requirements

VIOS Version 2.2.2.0 now requires a minimum of 30 GB of disk space for installation. Ensure that the disk that is allocated for the VIOS installation contains at least 30 GB of available space before you attempt to install VIOS.

Host Ethernet Adapter memory requirements

Configurations that contain one or more Host Ethernet Adapters (HEAs) require more memory than the minimum requirement of 512 MB. Each logical HEA port that is configured requires an additional 102 MB of memory. The minimum memory requirement for configurations with one or more HEA ports is 512 MB + ($n \times 102$) MB, where n is the number of HEA ports.

VIOS Version 2.2.2.0 enhancements

This release of VIOS contains several enhancements in the POWER® virtualization area. The following list provides the features of each element by product area.

Live Partition Mobility

When the mover service partition is configured with a 10 GB network adapter, the Live Partition Mobility component is enhanced to support up to eight concurrent mobility operations per mover service partition pair. When you are using multiple mover service partition pairs, you can run up to 16 concurrent mobility operations. In addition to the increased number of concurrent Live Partition Mobility operations that are supported, the performance of the operations is also enhanced to use more of the available network bandwidth.

Note: For better results of the increased concurrency and performance improvements, both the source and the destination mover service partition must run VIOS Version 2.2.2.0. For 16 concurrent Live Partition Mobility operations, the HMC must be at 7.6.0 or a higher version. To include additional performance improvements, the POWER Hypervisor™ must be at 7.6.0 or a higher version.

Shared storage pool

Shared storage pools are enhanced to increase the scalability with the following limits:

- Maximum of 16 logical partitions in the shared storage pool
- Maximum of 1024 disks in the shared storage pool
- Maximum of 512 TB of storage in the shared storage pool
- Maximum of 8192 virtual disk (logical unit) mappings in the shared storage pool

The shared storage pools are enhanced with the cluster repository resiliency feature. With this enhancement, the cluster can continue its operations when there is a failure associated with the cluster repository disk.

The VIOS Version 2.2.2.0 supports the shared storage pool rolling updates. With this enhancement, the nodes in the cluster can be updated individually without causing an outage of the entire cluster.

The VIOS Version 2.2.2.0 supports the creation of the shared storage pool cluster over IPv6 network.

Note: A node with both IPv6 static and IPv6 stateless autoconfiguration is not supported in the VIOS Version 2.2.2.0.

VIOS support

The VIOS Version 2.2.2.0 is enhanced with the following features:

- Supports 8 GB quad port PCIe generation with 2 Fibre Channels
- Supports IBM Power® 770 with P7 IOC I/O hub
- Supports IBM Power 720 Express with P7 IOC I/O hub
- Supports new 2.5 inch SAS SSD drives in 200 GB and 400 GB capacities

IBM Systems Director Common Agent

VIOS Version 2.2.2.0 includes the IBM Systems Director Common Agent 6.3.0.0. The Systems Director Common Agent is started automatically on VIOS Version 2.2.2.0. For more details about how to start and stop the agent, see the Starting and stopping Common Agent on IVM and VIOS topic.

Software license agreements

There are instances where the software license agreements might not be displayed correctly. In such cases, the license agreements can be viewed in all languages at the Software license agreements website:

Online documentation for VIOS software

For online documentation, see the Virtual I/O Server topic.

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Programming interface information

This Virtual I/O Server release notes publication documents intended Programming Interfaces that allow the customer to write programs to obtain the services of IBM Virtual I/O Server.

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