

IBM Storage Driver for OpenStack
Version 1.3.1.1

Release Notes



First Edition (August 2014)

This edition applies to version 1.3.1.1 of the IBM Storage Driver for OpenStack software package. Newer editions may be issued for the same product version in order to add missing information or amend typographical errors. The edition is reset to 'First Edition' for every newly released version.

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Contents

Overview	1
Compatibility and requirements	1
Supported storage systems	1
Supported OpenStack releases	1
Required software on the OpenStack nodes	2
Change log	2
Version 1.3.1.1 (August 2014)	2
Version 1.3.1 (April 2014)	2
Version 1.3.0 (November 2013)	3
Version 1.2.0 (June 2013)	3
Version 1.1.1 (January 2013)	3
Version 1.1.0 (November 2012)	3
Known issues	4
Related information and publications	4
Getting information, help, and service	4
Notices	5
Trademarks	7

Overview

The IBM® Storage Driver for OpenStack is a software component that integrates with the OpenStack cloud environment and enables utilization of storage resources provided by supported IBM storage systems.

After the driver is installed on the OpenStack Cinder (OpenStack Block Storage) nodes, storage volumes can be allocated by the Cinder nodes to the Nova-compute nodes. Virtual machines on the Nova-compute nodes can then utilize these storage resources.

You can download the IBM Storage Driver for OpenStack software package at any time from the IBM Fix Central website (www.ibm.com/support/fixcentral).

Compatibility and requirements

This section specifies the compatibility and requirements of version 1.3.1.1 of the IBM Storage Driver for OpenStack.

Supported storage systems

The IBM Storage Driver for OpenStack supports the IBM XIV® and DS8000® storage systems, as detailed in the following table.

Storage system	Microcode version	Connectivity
IBM DS8800	6.3	Fibre Channel (FC)
IBM DS8870	7.x	Fibre Channel (FC)
IBM XIV Storage System	11.0.x, 11.1.x, 11.2.x, 11.3.x, 11.4.x	Fibre Channel (FC) or iSCSI

Attention: Using both XIV and DS8000 systems together with the IBM Storage Driver for OpenStack is not supported.

Supported OpenStack releases

Version 1.3.1.1 of the IBM Storage Driver for OpenStack supports the following OpenStack releases:

- OpenStack Havana release (www.openstack.org/software/havana)
- OpenStack Icehouse release (www.openstack.org/software/icehouse)

Note:

- The OpenStack Folsom and Grizzly releases are not supported. Accordingly:
 - If you are using OpenStack Grizzly nodes with XIV, use version 1.2.0 of the IBM Storage Driver for OpenStack.
 - If you are using OpenStack Folsom nodes with XIV, use version 1.1.1 of the IBM Storage Driver for OpenStack.
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Required software on the OpenStack nodes

The IBM Storage Driver requires the following software on the OpenStack Cinder and Nova-compute nodes.

Software	Required on
Ubuntu Server version 12.04, x64 edition or Red Hat Enterprise Linux (RHEL) 6.4, 6.5, or 7.0, x64 edition	All OpenStack Cinder nodes
One of the supported OpenStack releases (see “Supported OpenStack releases” on page 1)	<ul style="list-style-type: none">• All OpenStack Cinder nodes• All Nova-compute nodes
IBM XIV Host Attachment Kit for Linux	All OpenStack Cinder and Nova-compute nodes that connect to an XIV storage system and use RHEL 6.4, 6.5, or 7.0 (see above)
<ul style="list-style-type: none">• Java™ Runtime Environment• Py4J (Python framework)	All OpenStack Cinder nodes that connect to a DS8000 storage system

Important:

- The IBM Storage Driver for OpenStack should be installed on the Cinder nodes. For more information, refer to the installation guide.
- Each Cinder node must reside on a controller node in order to enable the IBM Storage Driver functionality.

Change log

This section summarizes the changes made in different version releases of the IBM Storage Driver for OpenStack.

Version 1.3.1.1 (August 2014)

Version 1.3.1.1 adds support for Red Hat Enterprise Linux (RHEL) 7.0.

For more information, see “Required software on the OpenStack nodes.”

Version 1.3.1 (April 2014)

Version 1.3.1 added support for the OpenStack Icehouse release, along with support for Red Hat Enterprise Linux (RHEL) 6.5 and for additional DS8000 storage system versions.

Additional changes in version 1.3.1:

Ticket ID	Description
NOVA-260672	Enhancement: Option for increased security with CHAP authentication over iSCSI for XIV systems. When this feature is enabled, CHAP names and secrets are generated automatically per host and are used for establishing the iSCSI connectivity.

Version 1.3.0 (November 2013)

Version 1.3.0 added support for IBM System Storage® DS8000 in addition to the already supported IBM XIV Storage System. It also provides support for the OpenStack Havana release, which introduces the OpenStack online volume migration feature along with new volume copy and cloning features.

Additional changes in version 1.3.0:

Ticket ID	Description
NOVA-260508	Enhancement: Added support for Red Hat Enterprise Linux (RHEL) 6.4.
NOVA-260596	Enhancement: A newly added script, create_volume_types.sh , can be run after the installation to automatically define volume types that can be chosen when creating new volumes.

Version 1.2.0 (June 2013)

Version 1.2.0 provided support for the OpenStack Grizzly release, allowing the creation of multiple volume back-ends during the driver installation.

Additional changes in version 1.2.0:

Ticket ID	Description
NOVA-260511	Enhancement: An option for unattended installation by using a predefined configuration file has been added. For more information, refer to the installation guide.
NOVA-254930	Fixed: The IBM Storage Driver does not renew the connection to the XIV storage system after a session disconnection.

Version 1.1.1 (January 2013)

Version 1.1.1 included the following enhancements and fix.

Ticket ID	Description
NOVA-235459	Enhancement: Support for XIV volume snapshot functions.
NOVA-253698	Enhancement: Unattended installation option, allowing no user interaction during the installation.
NOVA-251454	Fixed: Storage pools that contain capital letters are not recognized by the IBM Storage Driver.

Version 1.1.0 (November 2012)

Version 1.1.0 of the IBM Storage Driver for OpenStack was the first product version that introduced support for the IBM XIV Storage System in the OpenStack cloud environment.

Known issues

This section details the known issues in version 1.3.1.1, along with possible solutions or workarounds (if available).

Ticket ID	Description
NOVA-247919	<p>Volumes that were manually renamed on an XIV storage system (using the XIV GUI or XCLI) cannot be used remotely from the OpenStack environment side, even if these volumes were originally created from the OpenStack environment side.</p> <p>To avoid this problem, do not rename XIV volumes that are used by OpenStack nodes.</p> <p>Currently there is no other workaround or solution for this limitation (NOVA-247919).</p>
NOVA-260593	<p>Volumes that are larger than 2 Terabytes cannot be created from the OpenStack environment side on DS8000 systems.</p> <p>Currently there is no workaround or solution for this limitation (NOVA-260593).</p>

Related information and publications

You can find additional information and publications related to the IBM Storage Driver for OpenStack on the following information sources.

- IBM Storage Host Software Solutions Information Center (publib.boulder.ibm.com/infocenter/strhosts/ic)
- IBM DS8000 Information Center (publib.boulder.ibm.com/infocenter/dsichelp/ds8000ic)
- IBM XIV Storage System Information Center (publib.boulder.ibm.com/infocenter/ibmxiv/r2)
- OpenStack Block Storage (Cinder) reference page (wiki.openstack.org/cinder)
- OpenStack Storage reference page (www.openstack.org/software/openstack-storage)
- OpenStack Documentation (docs.openstack.org)

Getting information, help, and service

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- IBM Support Portal website (www.ibm.com/storage/support)
- IBM Directory of Worldwide Contacts website (www.ibm.com/planetwide)

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