Volume Driver V3.0.0 Release Notes
For OpenStack Cinder Juno Release

September 2015

Introduction

These release notes provide information about supported operations and known issues for the Volume Driver V3.0.0 for the OpenStack Cinder Juno Release. For instructions on installing and configuring the Volume Driver V3.0.0, see the *Volume Driver V3.0.0 Installation and Configuration Guide for OpenStack Cinder Juno Release*.

The OpenStack Cinder driver package from Violin Memory adds block-storage service support for Violin 7300 Flash Storage Platforms (FSPs) and 7700 FSP controllers. The package is implemented as a storage "plug-in" using the standard Cinder storage driver API, and facilitates the creation, attachment and management of volumes (LUNs) between 7300 FSP and different host servers.

All Cinder volume features required for the OpenStack Juno release are supported, including volume, snapshot and clone operations. The 3.0.0 driver package release can be used with any OpenStack Juno deployment for all 7300 FSPs and 7700 FSP controllers running Concerto 7.5.3 and later using Fibre Channel HBAs.

Supported Operations

7300 FSPs and 7700 FSP controllers support the following operations:

- Create volume

   The types of volumes (LUNs) that can be created are dedup, thick and thin. The LUN type is specified using cinder volume-type along with explicit extra-specs (that identify the LUN type). Additionally, a Violin-specific extra-spec called "storage_pool" is defined that allows you to select a specific storage pool on the backend for the volume being created. For more information on these extra specs, see the *Volume Driver V3.0.0 Installation and Configuration Guide for OpenStack Cinder Juno Release*.

- Delete volume

- Attach volume

- Detach volume

- Create snapshot

- Delete snapshot

- Create cloned volume

- Initialize Connection (attach a volume to an instance)

- Terminate connection (detach a volume from an instance)

- Create volume from snapshot

- Create volume from image

- Extend volume

- Get volume statistics

Resolved Issues

- **28398**: Some snapshots do not get deleted after a batch delete attempt from Horizon GUI or Cinder CLI with less than a 15 second delay.

- **28736**: When creating a volume from a volume/snapshot, Cinder driver reports success prior to the actual copy completing.

- **28869**: A snapshot of a dedup LUN may fail with the error "ViolinResourceNotFound: Backend storage resource unavailable"

Known Issues

- **28403**: When creating a new volume from an existing volume, the size of the new volume remains the same as the existing volume.

  Workaround: The Violin Cinder driver does not accept a new size parameter for the new volume. Therefore, when creating a new volume from an existing volume, do not attempt to alter the size. If you require the size of the new volume to be larger than the old volume, wait for the new volume to be created and the content copied, then extend the LUN size.

- **28480**: Extending the LUN size of a dedup LUN will render the LUN unusable.

  Workaround: Once a dedup LUN is created, its size cannot be altered. Doing so may leave the LUN unusable, and will have to be deleted.

- **28489**: Cannot create a new volume from an existing volume if the existing volume is not of type thin.

  The volume type is inherited from the source, and a new volume type is not allowed to be specified for a volume created from another volume. The current release of the Violin Cinder driver only allows you to create a new volume from an existing volume, if the existing volume is a thick LUN.

- **28731**: LUNs created outside of OpenStack and exported to the client running OpenStack might cause I/O disruptions on OpenStack created LUNs during a Memory Gateway HA failover.

  Workaround: Do not assign any LUNs to the Client outside of OpenStack, directly from the array or through Symphony. If you must do so, as part of initial setup, un-assign the LUNs from the client and remove the LUNs before bringing up OpenStack Cinder on the client.

Violin Memory Customer Support

Violin Memory, Inc. USA

4555 Great America Parkway

Santa Clara, CA 95054

http://www.violin-memory.com/support/

E-mail: support@vmem.com

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Violin Memory, Inc.
4555 Great America Parkway
Santa Clara, CA 95054
USA