



Red Hat Enterprise Linux OpenStack Platform 5 Configuration Reference Guide

Configuring Red Hat Enterprise Linux OpenStack Platform environments

6 Aug 2014

Red Hat Documentation Team

Red Hat Enterprise Linux OpenStack Platform 5 Configuration Reference Guide

Configuring Red Hat Enterprise Linux OpenStack Platform environments

6 Aug 2014

Red Hat Documentation Team

Legal Notice

Copyright © 2013 Red Hat, Inc.

The text of and illustrations in this document are licensed by Red Hat under a Creative Commons Attribution–Share Alike 3.0 Unported license ("CC-BY-SA"). An explanation of CC-BY-SA is available at <http://creativecommons.org/licenses/by-sa/3.0/>

. In accordance with CC-BY-SA, if you distribute this document or an adaptation of it, you must provide the URL for the original version.

Red Hat, as the licensor of this document, waives the right to enforce, and agrees not to assert, Section 4d of CC-BY-SA to the fullest extent permitted by applicable law.

Red Hat, Red Hat Enterprise Linux, the Shadowman logo, JBoss, MetaMatrix, Fedora, the Infinity Logo, and RHCE are trademarks of Red Hat, Inc., registered in the United States and other countries.

Linux® is the registered trademark of Linus Torvalds in the United States and other countries.

Java® is a registered trademark of Oracle and/or its affiliates.

XFS® is a trademark of Silicon Graphics International Corp. or its subsidiaries in the United States and/or other countries.

MySQL® is a registered trademark of MySQL AB in the United States, the European Union and other countries.

Node.js® is an official trademark of Joyent. Red Hat Software Collections is not formally related to or endorsed by the official Joyent Node.js open source or commercial project.

The OpenStack® Word Mark and OpenStack Logo are either registered trademarks/service marks or trademarks/service marks of the OpenStack Foundation, in the United States and other countries and are used with the OpenStack Foundation's permission. We are not affiliated with, endorsed or sponsored by the OpenStack Foundation, or the OpenStack community.

All other trademarks are the property of their respective owners.

Abstract

This document is for system administrators who want to look up configuration options. It contains lists of configuration options available with OpenStack and uses auto-generation to generate options and the descriptions from the code for each project. It includes sample configuration files.

Table of Contents

Chapter 1. Block Storage	2
1.1. Dell EqualLogic volume driver	2

Chapter 1. Block Storage

1.1. Dell EqualLogic volume driver

The Dell EqualLogic volume driver interacts with configured Dell EqualLogic Groups and supports various operations, including:

- Volume creation and deletion
- Volume attachment and detachment
- Snapshot creation and deletion
- Clone creation

The OpenStack Block storage service supports multiple instances of Dell EqualLogic Groups or Dell EqualLogic Group Storage Pools, and/or multiple pools on a single array.

The Dell EqualLogic volume driver's ability to access the EqualLogic Group is dependent upon the generic block storage driver's SSH settings in the `/etc/cinder/cinder.conf` file (see [???](#) for reference).

Table 1.1. Description of configuration options for eqlx

Configuration option = Default value	Description
[DEFAULT]	
<code>eqlx_chap_login = admin</code>	(StrOpt) Existing CHAP account name
<code>eqlx_chap_password = password</code>	(StrOpt) Password for specified CHAP account name
<code>eqlx_cli_max_retries = 5</code>	(IntOpt) Maximum retry count for reconnection
<code>eqlx_cli_timeout = 30</code>	(IntOpt) Timeout for the Group Manager cli command execution
<code>eqlx_group_name = group-0</code>	(StrOpt) Group name to use for creating volumes
<code>eqlx_pool = default</code>	(StrOpt) Pool in which volumes will be created
<code>eqlx_use_chap = False</code>	(BoolOpt) Use CHAP authentication for targets?

The following sample `/etc/cinder/cinder.conf` configuration lists the relevant settings for a typical Block Storage service using a single Dell EqualLogic Group:

Example 1.1. Default (single-instance) configuration

```
[DEFAULT]
#Required settings

volume_driver=cinder.volume.drivers.eq1x.DellEQLSanISCSIDriver
san_ip=IP_EQLX
san_login=SAN_UNAME
san_password=SAN_PW
eq1x_group_name=EQLX_GROUP
eq1x_pool=EQLX_POOL

#Optional settings

san_thin_provision=true|false
eq1x_use_chap=true|false
eq1x_chap_login=EQLX_UNAME
eq1x_chap_password=EQLX_PW
eq1x_cli_timeout=30
eq1x_cli_max_retries=5
san_ssh_port=22
ssh_conn_timeout=30
san_private_key=SAN_KEY_PATH
ssh_min_pool_conn=1
ssh_max_pool_conn=5
```

In this example, replace the following variables accordingly:

IP_EQLX

The IP address used to reach the Dell EqualLogic Group through SSH. This field has no default value.

SAN_UNAME

The user name to login to the Group manager via SSH at the **san_ip**. Default user name is **grpadmin**.

SAN_PW

The corresponding password of **SAN_UNAME**. Not used when **san_private_key** is set. Default password is **password**.

EQLX_GROUP

The group to be used for a pool where the Block Storage service will create volumes and snapshots. Default group is **group-0**.

EQLX_POOL

The pool where the Block Storage service will create volumes and snapshots. Default pool is **default**. This option cannot be used for multiple pools utilized by the Block Storage service on a single Dell EqualLogic Group.

EQLX_UNAME

The CHAP login account for each volume in a pool, if **eq1x_use_chap** is set to **true**. Default

account name is **chapadmin**.

EQLX_PW

The corresponding password of *EQLX_UNAME*. The default password is randomly generated in hexadecimal, so you must set this password manually.

SAN_KEY_PATH (optional)

The filename of the private key used for SSH authentication. This provides password-less login to the EqualLogic Group. Not used when ***san_password*** is set. There is no default value.

For information on how to configure a Block Storage service with multiple Dell EqualLogic back-ends, refer to the *Cloud Administrator Guide*:

[Configure a multiple-storage back-end](#)