

# Red Hat Hyperconverged Infrastructure for Virtualization 1.8

## Converting a virtualization cluster to a hyperconverged cluster

Convert existing hyperconverged hosts to create a hyperconverged cluster

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Convert existing hyperconverged hosts to create a hyperconverged cluster

Laura Bailey Ibailey@redhat.com

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#### **Abstract**

Read this for information about converting existing hyperconverged hosts into hyperconverged hosts to create a hyperconverged cluster.

### **Table of Contents**

MAKING OPEN SOURCE MORE INCLUSIVE	3
CHAPTER 1. WORKFLOW FOR CONVERTING A VIRTUALIZATION CLUSTER TO A HYPERCONVERGED CLUSTER	4
CHAPTER 2. SUBSCRIBING TO SOFTWARE REPOSITORIES FOR HYPERCONVERGED HOSTS	5
CHAPTER 3. CONVERTING VIRTUALIZATION HOSTS TO HYPERCONVERGED HOSTS	6
CHAPTER 4. CREATING RED HAT GLUSTER STORAGE VOLUMES USING THE ADMINISTRATION PORTAL	

### MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see our CTO Chris Wright's message.

## CHAPTER 1. WORKFLOW FOR CONVERTING A VIRTUALIZATION CLUSTER TO A HYPERCONVERGED CLUSTER

- 1. Verify that your virtualization hosts use Red Hat Virtualization 4.4 or higher, and meet Red Hat Hyperconverged Infrastructure for Virtualization Support Requirements.
- 2. Subscribe to software repositories.
- 3. Convert virtualization hosts to hyperconverged hosts.
- 4. Create Red Hat Gluster Storage volumes using storage on the converted host .

### CHAPTER 2. SUBSCRIBING TO SOFTWARE REPOSITORIES FOR HYPERCONVERGED HOSTS

Hyperconverged hosts require access to various repositories.

New Red Hat Virtualization hosts are subscribed to these repositories during installation and setup, so no further action is necessary.

New Red Hat Enterprise Linux hosts and virtualization hosts being converted to hyperconverged hosts need to subscribe to the repositories by running the following command.

```
# subscription-manager repos \
--enable="rhel-8-for-x86_64-baseos-rpms" \
--enable="rhel-8-for-x86_64-appstream-rpms" \
--enable="rhv-4.4-manager-for-rhel-8-x86_64-rpms" \
--enable="rhv-4-tools-for-rhel-8-x86_64-rpms" \
--enable="ansible-2.9-for-rhel-8-x86_64-rpms" \
--enable="jb-eap-7.3-for-rhel-8-x86_64-rpms"
```

### CHAPTER 3. CONVERTING VIRTUALIZATION HOSTS TO HYPERCONVERGED HOSTS

Follow this process to convert virtualization hosts to hyperconverged hosts. This lets you use and manage the host's local storage as Red Hat Gluster Storage volumes.

- 1. Log in to the Administration Portal.
- 2. Move all hosts except the self-hosted engine node into maintenance mode.
  - a. Click **Compute** → **Hosts**.
  - b. For each host except the self-hosted engine node:
    - i. Select the host to move to maintenance.
    - ii. Click Management → Maintenance and click OK.
- 3. Enable the gluster service in the cluster.
  - a. Click **Compute** → **Clusters** and select the cluster. The *Edit Cluster* window appears.
  - b. Check the **Enable Gluster service** checkbox.
  - c. Click OK.
- 4. Reinstall all hosts except the self-hosted engine node.
  - a. Click Compute → Hosts.
  - b. For each host except the self-hosted engine node:
    - i. Select the host to reinstall.
    - ii. Click Management → Reinstall and click OK.
       Wait for the reinstall to complete and for the hosts to become active again.
- 5. Move the self-hosted engine node into maintenance mode.
  - a. Select the self-hosted engine node.
  - b. Click Management → Maintenance and click OK
     The hosted engine migrates to one of the freshly installed hosts.
- 6. Reinstall the previous self-hosted engine node.
  - a. Select the previous self-hosted engine node.
  - b. Click Management → Reinstall and click OK.
     Wait for the reinstall to complete and for the host to become active again.

Your hosts are now able to use and manage storage as Red Hat Gluster Storage volumes.

## CHAPTER 4. CREATING RED HAT GLUSTER STORAGE VOLUMES USING THE ADMINISTRATION PORTAL

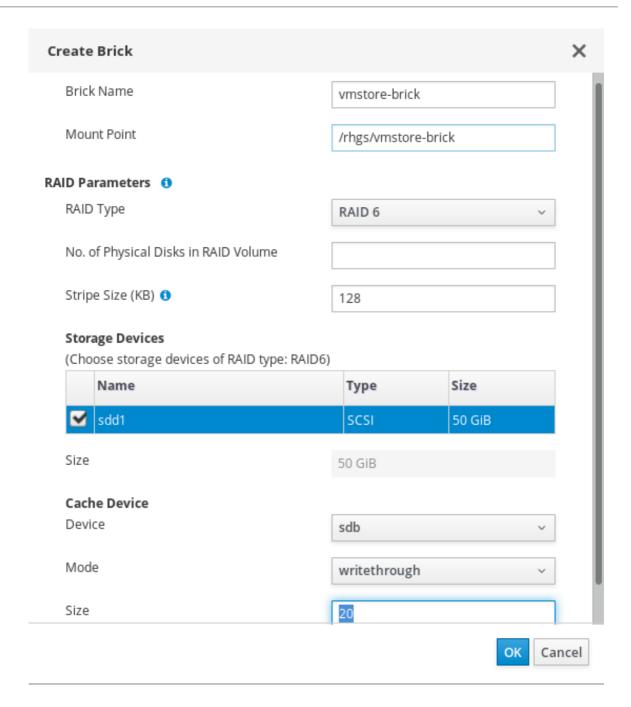
### **Prerequisites**

• This task assumes you have raw unused storage devices attached to your hyperconverged hosts.

#### Task

- 1. Log in to the Administration Portal.
- 2. Configure your local storage as a Red Hat Gluster Storage brick.
  - a. Click **Compute** → **Hosts** and click on the name of the host to use.
  - b. Click the **Storage Devices** subtab and select the device.
  - c. Click Create Brick to open the Create Brick window.

The Create Brick window

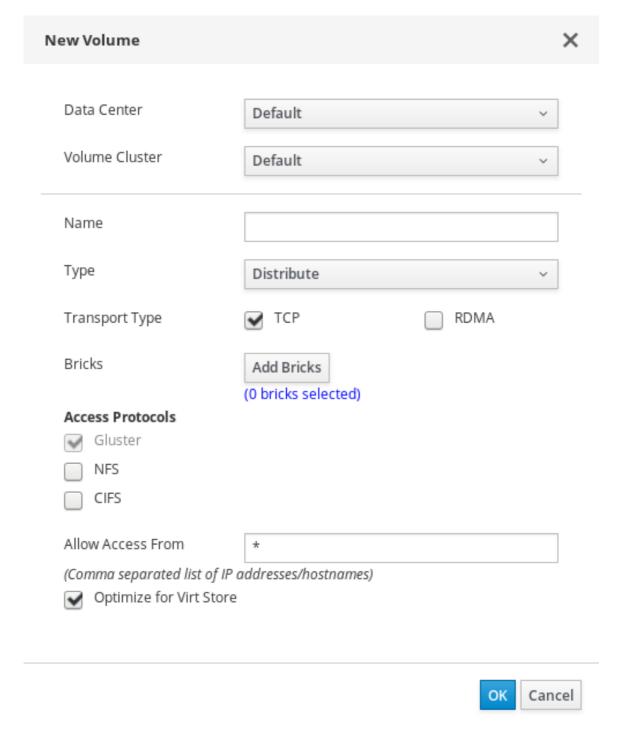


- i. Enter a Name for the brick.
- ii. Verify or correct the suggested **Mount Point**.
- iii. If the underlying storage uses RAID, enter the number of physical disks in the RAID device and confirm the RAID type.
- iv. Click **OK**.

A new thin-provisioned logical volume is created on the specified storage device, with all settings appropriate for use with Red Hat Gluster Storage.

- 3. Configure a Red Hat Gluster Storage volume.
  - a. Click **Storage** → **Volumes**.
  - b. Click **New** to open the *New Volume* window.

#### The New Volume window

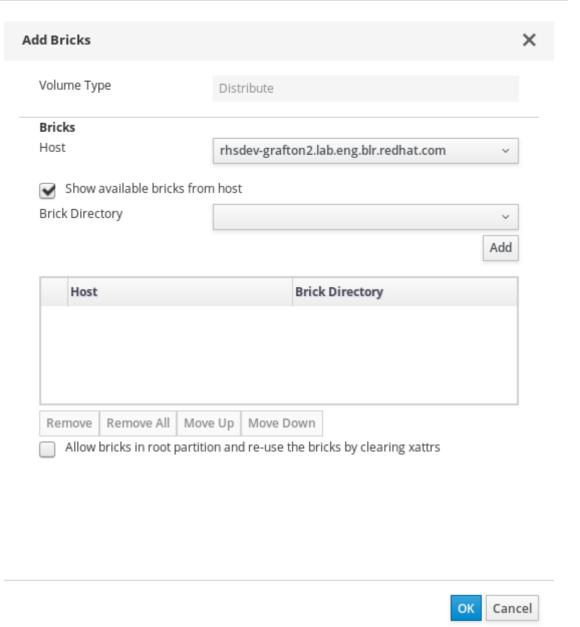


- i. Select the cluster that contains your bricks.
- ii. Enter a Name for the volume.
- iii. Set the **Type** of volume to create. To use local storage without high availability, choose **Distribute**.

See Setting Up Storage Volumes in the Red Hat Gluster Storage Administration Guide for more information about volume types.

iv. Click Add Bricks and select your existing storage as a brick for this volume.

The Add Bricks window



- v. Optionally, for enhanced security, specify the IP addresses or hostnames of all hosts in the cluster in the **Allow Access From** field.
- vi. Check the **Optimize for virt store** checkbox to configure the volume for storing virtual machine images.
- vii. Click OK.

See the Red Hat Virtualization 4.4 Administration Guide or the Red Hat Gluster Storage 3.5 Administration Guide for more information about managing Red Hat Gluster Storage.