Dell EMC Ready Bundle for Red Hat OpenStack Platform

Release Notes Version 10.0



Dell EMC Converged Platforms and Solutions

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- A **Note** indicates important information that helps you make better use of your system.
- A Caution indicates potential damage to hardware or loss of data if instructions are not followed.
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Chapter

1

Enhancements

Topics:

Version 10.0 Enhancements

This chapter describes enhancements for the Dell EMC Ready Bundle for Red Hat OpenStack Platform, version 10.0.

Version 10.0 Enhancements

Enhancements include:

- Support for the Dell EMC PowerEdge FX architecture:
 - Dell EMC PowerEdge FC630 as Compute and Controller nodes
 - Dell EMC PowerEdge FD332 with 2.5" or 1.8" drives
 - Requires a minimum of four (4) Dell EMC PowerEdge FX chassis
 - PowerEdge FX support for the Intel[®] Ethernet X710 Quad Port 10 GbE bNDC Converged NIC
 - PowerEdge FX support for the following Dell Networking switches, running Dell Networking OS 9:
 - S3048-ON
 - S4048-ON (used for 10 Gb connections only)
 - S6000-ON
 - S6010-ON
 - **Note:** Dell EMC PowerEdge FX-based clusters must be deployed using the Open Source Hardware Configuration Toolkit.
- Red Hat Ceph Storage version 2.0 support for both the Dell EMC PowerEdge R-Series and Dell EMC PowerEdge FX architectures
- Touch free Overcloud deployment, using Ironic support for full server management and installation, for the Dell EMC PowerEdge R-Series architecture only
- Documentation enhancements and reorganization:
 - Architecture Guides for both the Dell EMC PowerEdge R-Series and Dell EMC PowerEdge FX architectures
 - Hardware Deployment Guides for both the Dell EMC PowerEdge R-Series and Dell EMC PowerEdge FX architectures, with integrated Bills of Material
 - Combined automated and manual Software Deployment Guide for both the Dell EMC PowerEdge R-Series and Dell EMC PowerEdge FX architectures, with integrated Tempest Overcloud validation instructions

Chapter

2

Fixes

Topics:

Version 10.0 Fixes

This chapter describes issues in the Dell EMC Ready Bundle for Red Hat OpenStack Platform that have been corrected since the prior release.

Version 10.0 Fixes

Subscriptions are required to view Red Hat Bugzilla and Dell EMC JIRA defect tracking systems.

Table 1: Dell EMC Ready Bundle for Red Hat OpenStack Platform Fixes

Issue	Component	Tracking Number
The Director Node takes a long time to shut down upon reboot, and may appear to hang.	OpenStack, Director Nodes	Red Hat Bugzilla 1178497
Problem is <i>notification_driver</i> is not set in all required configuration files, and in Glance the <i>rabbit_hosts</i> may not be set when deploying the Overcloud.	OpenStack, Ceilometer	Red Hat Bugzilla 1314732, 1316016
Creating a snapshot of an empty Dell Storage SC Series Cinder volume fails.	OpenStack, Cinder, Dell Storage SC Series	Red Hat Bugzilla 1369978
After an Overcloud deployment, Ceilometer exceptions fill up the log files on the Controller nodes.	OpenStack, Ceilometer	Red Hat Bugzilla 1337655
If the ARP cache on a network device (router or switch) does not update correctly, intermittent connectivity failures to floating IP (FIP) addresses may result.	OpenStack, Networking	Red Hat Bugzilla 1384108
CLI host evacuation fails when using theon-shared-storage option to the nova host-evacuate command. The <u>Red Hat OpenStack</u> <u>Platform 9 Instances and Images Guide</u> incorrectly references this deprecated option.	OpenStack, Host Evacuation	Red Hat Bugzilla 1384110
If Instance HA is installed in your environment, it cannot be removed in the Dell EMC Ready Bundle for Red Hat OpenStack Platform, version 10.0. This will affect removing a Compute Node if Instance HA was installed.	OpenStack, Instance HA	Dell EMC Jira CES-6590
When configuring the Solution Admin Host, two networks external to the cluster are required:	OpenStack, Networking	Dell EMC Jira CES-6604
 External Network for Management with at least 3 IP addresses; for the SAH, Director Node, and Red Hat Storage Console VM. This is the default route. Public API network used for the RESTful API in OpenStack. 		
Page 10, step 15 of the Dell EMC Ready Bundle for Red Hat OpenStack Platform Adding and Removing Compute and Storage Nodes Technical Guide does not indicate how to extract the original invocation of the deploy-overcloud.py script.	OpenStack, Documentation	Dell EMC Jira CES-6649

Issue	Component	Tracking Number
The default gateway on the Controller nodes is on the Provisioning network. Some environments prefer it to be on the Public API network.	OpenStack, Networking	Dell EMC Jira CES-6823
Accessing the Red Hat Storage Console returns an Internal Server Error with SELinux enforcing.	OpenStack, Red Hat Storage Console, SELinux	Dell EMC Jira CES-7151
Currently, when the last HA router of a tenant is deleted, the tenant's HA network is not removed.	OpenStack, Networking	Launchpad 1367157

Chapter

3

Known Anomalies

Topics:

Version 10.0 Known Anomalies

This chapter describes currently-known defects for the Dell EMC Ready Bundle for Red Hat OpenStack Platform, version 10.0. Workarounds are provided whenever possible.

Version 10.0 Known Anomalies

Subscriptions are required to view Red Hat Bugzilla and Dell EMC JIRA defect tracking systems.

Table 2: Dell EMC Ready Bundle for Red Hat OpenStack Platform Defects

Issue	Component	Tracking No.	Workaround
The boot order of 13G Servers, ordered with LOM daughter card,	BIOS	N/A	You can update the BIOS to set the boot order:
differs from that in prior server orders. The solution requires that the first 1G NIC be set to PXE boot. However, the NIC boot order as factory-configured is set to boot the first NIC, which is a 10G NIC.			 Boot to System BIOS. Select Device Settings. Select Integrated NIC 1 Port 1 (this is interface em1). Select NIC Configuration. Using the dropdown, change the boot protocol from PXE to None. In sequence, click on the Back, Finish, Yes, and OK buttons. Repeat steps 2-4 for Integrated NIC 1 Port 3. This time, change the boot protocol from None to PXE. Reboot to System BIOS. Select BIOS Boot Settings. Select Hard-Disk Drive Sequence. Select Integrated NIC 1 Port 3 Partition 1. Use the + key to move the device to the top of the list. In sequence, click on the OK, Back, Back, Finish, Yes, and OK buttons. Reboot the system, which should now boot in the proper order.
Cold migrate of host does not migrate the instances from source host.	OpenStack, Host Migration	Red Hat Bugzilla 1245617	Configure SSH keys on the Compute nodes as documented <i>here</i> .
If local ephemeral storage is being used, nova resize operations do not currently function.	OpenStack, Compute Nodes	Red Hat Bugzilla 1267598	Configure SSH keys on the Compute nodes as documented <i>here</i> .

Issue	Component	Tracking No.	Workaround
On clusters with multi-backend storage with Red Hat Ceph Storage as one of the backends, Red Hat Ceph Storage should be the default block storage Cinder backend, but it is not.	OpenStack, Cinder, Red Hat Ceph Storage	Dell EMC Jira CES-6155	To set Red Hat Ceph Storage as the default block storage Cinder backend: 1. Initiate ssh sessions to each Controller node. 2. Edit the cinder.conf file, and set the following attribute: vi /etc/cinder/\ cinder.conf default_volume_type = \ rbd_backend 3. Save and close cinder.conf. 4. Restart the required services: sudo pcs resource \ restart openstack- cinder-api sudo pcs resource \ restart openstack- cinder-volume sudo pcs resource \ restart openstack- cinder-backup sudo pcs resource \ restart openstack- cinder-backup sudo pcs resource \ restart openstack- cinder-backup sudo pcs resource \ restart openstack- cinder-scheduler 5. Test by creating a volume, and verifying that the volume created is in a Red Hat Ceph Storage backend: cinder create \ display_name volume1 cinder show volume1
The automation code expects the number of nodes that get registered in Ironic to match the number of nodes in the stamp-specific initialization file. If the number of nodes does not match, then an error is declared.	OpenStack, Automation Deployment	Dell EMC Jira CES-6220	When use_custom_instack_json is set to <i>True</i> in the stamp-specific initialization file, the user is responsible for ensuring the Ironic node info (specifically, the iDRAC address) precisely matches the initialization file.
The sanity test creates a floating IP pool starting at .2. Many networks use .110 and 245 - 254 for network gear (i.e., switches). The sanity test should use .20240.	OpenStack, Deployment	Dell EMC Jira CES-6593	None.

Issue	Component	Tracking No.	Workaround			
Due to differing system node types, a cluster sometimes needs more time to stabilize the nodes.	res, a cluster sometimes needs bre time to stabilize the nodes. erefore, enabling Instance HA ring an automated installation	sometimes needs Instance HA EMC Jira	EMC Jira	Dell EMC recommends that you do not enable Instance HA during automated installations.		
I herefore, enabling Instance HA during an automated installation may fail.			Instead, proceed with the enablement of Instance HA, following the procedure in the <i>Scripted HA Installation</i> section of the <u>Dell EMC Ready Bundle for Red Hat OpenStack Platform Software Deployment Guide</u> .			
Restarting the Red Hat OpenStack Platform Director Node fails after / tmp is purged. Errors similar to the	OpenStack, Red Hat OpenStack Platform Director, Tempest Dell EMC Jira CES-6770	Remove the offending devices in the XML after installation:				
following appear: error: Failed start domain director error: Failed to open file '/tmp/floppy- director.img'		atform rector,	<pre><disk device="floppy" type="file"> <driver name="qemu" type="raw"></driver> <source file="/tmp/floppy- director.img"/> <target bus="fdc" dev="fda"></target></disk></pre>			
The XML descriptions of both VMs define floppy drive configurations that reference a source file in /tmp. Once /tmp is cleaned out, the VMs can no longer start.			<pre><address bus="0" controller="0" target="0" type="drive" unit="0"></address></pre>			
Overcloud deployment fails due to ronic on the Director Node locking one or more nodes, preventing them from advancing from the cleaning state to manageable.	OpenStack, Deployment	Dell EMC Jira CES-7619	 Log onto the Director Node as the root user. Edit /etc/ironic/ironic.conf, replacing this line: 			
Creaming state to manageabre.				<pre>#node_locked_retry_attempts = 3</pre>		
						<pre>with this line: node_locked_retry_attempts = 15</pre>
						3. Execute the following command:
						<pre># systemctl restart \ openstack-ironic- conductor</pre>
			4. Redeploy the Overcloud.			
			 For automation installations, rerun python deployer.py s, passing the - overcloud_only and - skip_rhscon_vm parameters. For manual installations, rerun deploy-overcloud.py. 			

Issue	Component	Tracking No.	Workaround	
Currently, Dell EMC PowerEdge FX chassis blades are not assigned individual IP addresses via DHCP. Node discovery discovers the chassis' service tag and assigns it to all the blades, which are then all assigned the chassis' IP address.	Dell EMC PowerEdge FX, Networking	Dell EMC Jira CES-7643	Assign static IP addresses to individua blades in a Dell EMC PowerEdge FX chassis.	
Automation fails to delete Ironic nodes in the Overcloud that are in the clean wait state during redeployment.	OpenStack, Automation Deployment	Dell EMC Jira CES-7650	 To work around the issue: 1. Find the failed node by executing the following command: \$ ironic node-list 2. Note the GUID of the failed node in the output. 3. Delete the node by executing the following commands: \$ ironic node-set-maintenance <guid> False</guid> \$ ironic node-set-provision-state <guid> manage</guid> \$ ironic node-delete <guid></guid> 	
When access to Dell Storage PS Series or SC Series backends is interrupted during cluster deployment, the deployment fails with a syntax error message that does not indicate an access failure.	OpenStack, Dell Storage	Dell EMC Jira CES-7689	None. To complete deployment: 1. Ensure that access to the Dell Storage backends is functional. 2. Re-deploy the cluster.	
Cinder Ceph Storage is initially lost when using Local Ephemeral Storage. The enable_rdb_backend variable in the settings_sample-fx2.ini files is now used to toggle both Local Ephemeral and Cinder Ceph Storage on/off: • enable_rbd_backend=true — Cluster uses Local Ephemeral Storage and Cinder Ceph Storage • enable_rdb_backend=false — Cluster uses Local Ephemeral Storage • enable_rdb_backend=false — Cluster uses Local Ephemeral Storage only.	OpenStack, Cinder, Red Hat Ceph Storage	Dell EMC Jira CES-7727	To enable both Local Ephemeral Storage and Cinder Ceph Storage Storage: 1. Set enable_rdb_backend=true to configure Cinder Ceph Storage in the settings_sample.ini and settings_sample-fx2.ini files. 2. Complete the automated installation. 3. Set Images_type=default in the /etc/nova/nova.conf file on each Compute node to configure Local Ephemeral Storage. 4. Run sudo systemctl restart openstack-nova-compute to restart the nova-compute service on each Compute node.	

Issue	Component	Tracking No.	Workaround
The BIOS setting Non RAID Disk Mode can cause RAID configuration failures when set to disabled. As a result, nodes cannot be provisioned.	BIOS	Dell EMC Jira CES-7739	 On system boot: Press [F2] to invoke the BIOS System Setup console. Navigate to Device Settings Integrated Raid Controller Controller Management > Advanced Controller properties > Non RAID Disk Mode. Change the setting from disabled to enabled. Continue the system boot process. Nodes should now be able to be provisioned.
The iDRAC console or Web session drops its connection during a Dell EMC Ready Bundle for Red Hat OpenStack Platform installation. This happens when the following commands are run: • Manual installations: — config_idrac.py • Automation installations — config_idracs.py	iDRAC, Deployment	Dell EMC Jira CES-7740	 Manual installations: After config_idrac.py completes its run: Restart the iDRACs. Reset the iDRAC consoles or Web sessions. Automation installations: Monitor the /auto_results log on the SAH for "config_idracs.py". After config_idracs.py completes its run: Restart the iDRACs. Reset the iDRAC consoles or Web sessions.

Issue	Component	Tracking No.	Workaround
Deploying the Dell EMC Ready Bundle for Red Hat OpenStack Platform with build 10.0.0-145 locked bits results in the following error: > Package firewalld.noarch 0:0.4.3.2-8.1.e17_3.3 will be an update > Processing Dependency: firewalld-filesystem = 0.4.3.2-8.1.e17_3.3 for package: firewalld-0.4.3.2-8.1.e1 7_3.3.noarch > Processing Dependency: python-firewall = 0.4.3.2-8.1.e17_3.3 for package: firewalld-0.4.3.2-8.1.e1 7_3.3.noarch > Package python- ply.noarch 0:3.4-10.e17 will be installed > Finished Dependency Resolution Error: Package: firewalld-0.4.3.2-8.1.e1 7_3.3.noarch (rhel-7- server-rpms) Requires: firewalld- filesystem = 0.4.3.2-8.1.e1 7_3.3 Removing: firewalld- filesystem-0.4.3.2-8.e1 7.noarch (@anaconda/7.3) firewalld-filesystem = 0.4.3.2-8.e17 Updated By: firewalld- filesystem-0.4.3.2-8.1.e1 7_3.2.noarch (rhel-7-server-rpms) firewalld-filesystem = 0.4.3.2-8.1.e17 3.2.noarch (rhel-7-server-rpms) firewalld-filesystem = 0.4.3.2-8.1.e17	OpenStack, Deployment	Dell EMC Jira CES-7867	To work around the issue: 1. Log onto the SAH node as root. 2. Delete the /root/director_vm.vlock and the /rhscon_vm.vlock files. 3. In a text editor of your choice, open the /root/JetStream/data/vlock_files/director_vm.vlock file. 4. Add the following line (on a single line): 0:firewalld-0.4.3.2-8.1 .e17_3.2.* 5. Save the file. 6. Redeploy the cluster.

Issue	Component	Tracking No.	Workaround
The following files contain an outdated package: • /root/director_vm.vlock • /rhscon_vm.vlock This package: • 0:python- crypto-2.6.1-1.el7ost.* Has been replaced by: • 0:python2- crypto-2.6.1-1.el7ost.*	OpenStack, Deployment	Dell EMC Jira CES-7962	 To work around the issue: Log onto the Director Node as root. Delete the /root/director_vm.vlock and the /rhscon_vm.vlock files. In a text editor of your choice, open the /root/JetStream/data/vlock_files/director_vm.vlock file. Search for the line that contains 0:python-crypto-2.6.1-1.el7ost.*. Add the following line under it: 0:python2-crypto-2.6.1-1.el7ost.* Edit the /root/JetStream/data/vlock_files/rhscon_vm.vlock file to add the same package. Save both files. Redeploy the cluster.
Currently, while using the Horizon GUI, if you edit a file on your disk that is stored in a container, an error similar to the following is displayed when you attempt to upload the latest version of that file with the Update object control: Object with the name already exists This same operation completes successfully when using the CLI.	Horizon, Red Hat Ceph Storage	Launchpad 1572635	Use the CLI to perform this operation, instead of the Horizon GUI.
In the Horizon Instance launcher, when selecting Image or Image snapshot as boot source, the <i>Create New Volume</i> option is set to Yes by default. This will initially create the instance via an image, but then store it on a volume.	Horizon, Ephemeral Storage	Launchpad 1678109	To create a true ephemeral image using Horizon: 1. Click on Launch Instance 2. Select the following options: a. Select Boot Source = Image b. Create New Volume = No

Appendix



Tempest Results Notes

Topics:

Failing Tests

This appendix describes known Tempest failures for the Dell EMC Ready Bundle for Red Hat OpenStack Platform, version 10.0.

Failing Tests

Table 3: Failing Tests

Failing Tests

Cinder

These tests are invalid if backends defined in *cinder.conf* do not declare *vendor_name* or storage_protocol attibutes. The backend will be valid and fully functional, but the test will fail and should be ignored in such cases.

```
tempest.api.volume.admin.test_volume_types.VolumeTypesV1Test.test_
volume_crud_with_volume_type_and_extra_specs

tempest.api.volume.admin.test_
volume_types.VolumeTypesV2Test.test_volume_crud_with_volume_type_and_
extra_specs
```

Cinder backup service is not deployed and configured in the Dell EMC Ready Bundle for Red Hat OpenStack Platform, thus the following backup related tests will fail.

```
tempest.api.volume.admin.test_volumes_backup.VolumesBackupsV1Test.*
tempest.api.volume.admin.test_volumes_backup.VolumesBackupsV2Test.*
```

Encrypted volumes are not configured in the Dell EMC Ready Bundle for Red Hat OpenStack Platform by default, thus the following encrypted volume related tests will fail.

```
tempest.scenario.test_encrypted_cinder_
volumes.TestEncryptedCinderVolumes.test_encrypted_cinder_volumes_cryptsetup

tempest.scenario.test_encrypted_cinder_
volumes.TestEncryptedCinderVolumes.test_encrypted_cinder_volumes_luks
```

Neutron

Neturon Distributed Virtual Router (DVR) has production support in the Dell EMC Ready Bundle for Red Hat OpenStack Platform, albeit with some limited functionality. The following tests may fail depending on the Neutron configuration.

```
neutron.tests.tempest.api.admin.test_routers_
dvr.RoutersTestDVR.test_centralized_router_update_to_dvr
neutron.tests.tempest.api.test_routers.DvrRoutersTest.test_
convert_centralized_router
```

Telemetry

Failing Tests

Telemetry installation is now configured to use Gnocchi in Dell EMC Ready Bundle for Red Hat OpenStack Platform. Please use the Gnocchi API available on the metric endpoint to retrieve data. Therefore Ceilometer API tests may fail.

```
ceilometer.tests.tempest.api.test_telemetry_
notification_api.TelemetryNotificationAPITest.test_check_
glance_vl_notifications

ceilometer.tests.tempest.api.test_telemetry_
notification_api.TelemetryNotificationAPITest.test_check_
glance_v2_notifications

ceilometer.tests.tempest.api.test_telemetry_
notification_api.TelemetryNotificationAPITest.test_check_
nova_notification
```

Appendix

В

References

Topics:

To Learn More

Additional information can be obtained at http://www.dell.com/en-us/work/learn/openstack-cloud or by e-mailing openstack@dell.com.

If you need additional services or implementation help, please contact your Dell EMC sales representative.

To Learn More

For more information on the Dell EMC Ready Bundle for Red Hat OpenStack Platform visit http://www.dell.com/learn/us/en/04/solutions/red-hat-openstack.

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