

1. Introduction  
(no comments)

1.1. Undercloud  
(no comments)

1.2. Overcloud  
(no comments)

1.3. High Availability  
(no comments)

1.4. Ceph Storage  
(not used in a PPC64le preview as yet)

2. Requirements  
(no comments)

2.1. Environment Requirements  
Put a note here to review ppc64le requirements

2.2. Undercloud Requirements  
Note that this is currently x86\_64 only

2.2.1. Virtualization Support  
A comment that this does not cover controller(s) on virtualization

2.3. Networking Requirements  
(no comments)

2.4. Overcloud Requirements  
(no comments)

2.4.1. Compute Node Requirements  
Again, point out under the power8 line there are special instructions to review

2.4.2. Controller Node Requirements  
(no comments)

2.4.3. Ceph Storage Node Requirements  
Do we need to point out this is not supported in the preview as yet?

Documentation says it's an x86\_64-only service, don't need to add anything more.  
Repo directions do show this as something to install on Compute, which doesn't apply to ppc64le

#### 2.4.4. Object Storage Node Requirements

Not used in this preview (?)

#### 2.5. Repository Requirements

Not found on satellite

rhel-7-server-openstack-12-for-power-le-rpms

Rhel-7-server-openstack-12-devtools-for-power-le-rpms

Note that repo names will be different for ppc64le than x86\_64

### 3. Planning your Overcloud

(no comments)

#### 3.1. Planning Node Deployment Roles

(no comments)

#### 3.2. Planning Networks

(gathering BMC/IPMI data? Presuming end-users already know or can get this information)

#### 3.3. Planning Storage

(no comments)

### 4. Installing the Undercloud

#### 4.1. Creating a Director Installation User

#### 4.2. Creating Directories for Templates and Images

#### 4.3. Setting the Hostname for the System

#### 4.4. Registering your System

(when there are multiple Pool ID matches, should the user select all of them?)

Alternative command for just the Pool ID numbers (if it's of any use):

```
sudo subscription-manager list --available --all --matches="*OpenStack*" | grep "Pool ID"
```

rhel-7-server-openstack-beta-rpms should be rhel-7-server-openstack-rpms (?) now that the

#### 4.5. Installing the Director Packages

#### 4.6. Configuring the Director

make sure tempest is enabled (since ppc64le would likely be a test/validation environment)

```
enable_tempest = true
```

Recommended to set the FQDN of the undercloud

```
undercloud_hostname = kernelci-01.khw.lab.eng.bos.redhat.com
undercloud_public_host = kernelci-01.khw.lab.eng.bos.redhat.com
```

These are not exhaustive suggestions, just a couple I found should be set

#### 4.7. Obtaining Images for Overcloud Nodes

#### 4.8. Setting a Nameserver on the Undercloud's Neutron Subnet

#### 4.9. Backing Up the Undercloud

#### 4.10. Completing the Undercloud Configuration

### 5. Configuring Container Registry Details

#### 5.1. Remote Registry

"registry.access.redhat.com/rhosp12-beta/openstack-base:latest" is now

"registry.access.redhat.com/rhosp12/openstack-base:latest" (OSP12 is out of beta)

#### 5.2. Local Registry

#### 5.3. Satellite Server

```
=====
=====
Note here that the user needs to read Appendix G if they are working with power/ppc
=====
=====
```

Return from power/ppc pre-defined nodes information

### 6. Configuring a Basic Overcloud with the CLI Tools

#### 6.1. Registering Nodes for the Overcloud

instackenv.json only contains the controller information. Ppc64le nodes do not get defined here.

#### 6.2. Inspecting the Hardware of Nodes

(will only show x86\_64 managed nodes. Power8 will not appear)

#### 6.3. Tagging Nodes into Profiles

(will only show x86\_64 managed nodes. Power8 will not appear)

#### 6.4. Defining the Root Disk for Nodes

(only done for controller / x86\_64 managed nodes)

#### 6.5. Customizing the Overcloud with Environment Files

## 6.6. Creating the Overcloud with the CLI Tools

### 6.7. Including Environment Files in Overcloud Creation (edit node-info.yaml)

### 6.8. Managing Overcloud Plans

### 6.9. Validating Overcloud Templates and Plans

### 6.10. Monitoring the Overcloud Creation

### 6.11. Accessing the Overcloud

ssh -Y -L 8081:<controller IP>:80 root@<director hostname>

This gets you to the Web UI, since it likely will not be publicly accessible

Use <http://localhost:8081> from your own machine

### 6.12. Completing the Overcloud Creation

## 7. Configuring a Basic Overcloud with the Web UI

### 7.1. Accessing the Web UI

Could not get the UI directly to the Undercloud host. Only see an empty directory listing of the HTTPD root.

Cannot verify the rest since I couldn't see the UI. Tried various tunneling settings

### 7.2. Navigating the Web UI

### 7.3. Importing an Overcloud Plan in the Web UI

### 7.4. Registering Nodes in the Web UI

### 7.5. Inspecting the Hardware of Nodes in the Web UI

### 7.6. Tagging Nodes into Profiles in the Web UI

### 7.7. Editing Overcloud Plan Parameters in the Web UI

### 7.8. Assigning Nodes to Roles in the Web UI

- 7.9. Editing Role Parameters in the Web UI
- 7.10. Starting the Overcloud Creation in the Web UI
- 7.11. Completing the overcloud Creation

## 8. Configuring a Basic Overcloud using Pre-Provisioned Nodes

### 8.1. Creating a User for Configuring Nodes

### 8.2. Registering the Operating System for Nodes

Item 3: multiple matching pools show up, which ones should be used?

Repo names are different for Power, should make notes to check in appendix for correct names

### 8.3. Installing the User Agent on Nodes

### 8.4. Configuring SSL/TLS Access to the Director

### 8.5. Configuring Networking for the Control Plane

### 8.6. Using a Separate Network for Overcloud Nodes

### 8.7. Creating the Overcloud with Pre-Provisioned Nodes

### 8.8. Polling the Metadata Server

### 8.9. Monitoring the Overcloud Creation

### 8.10. Accessing the Overcloud

### 8.11. Scaling Pre-Provisioned Nodes

### 8.12. Removing a Pre-Provisioned Overcloud

### 8.13. Completing the Overcloud Creation

## 9. Performing Tasks after Overcloud Creation

Acting on the presumption the addresses given are always usable. Ren them as they are with no problem

### 9.1. Creating the Overcloud Tenant Network

### 9.2. Creating the Overcloud External Network

Will this always be a "Native VLAN" in the current scenario?

### 9.3. Creating Additional Floating IP Networks

### 9.4. Creating the Overcloud Provider Network

Again, presuming VLAN 201 will always be acceptable here

### 9.5. Validating the Overcloud

(good, more IDs on our system)

## 9.6. Modifying the Overcloud Environment

(to test in future)

## 9.7. Importing Virtual Machines into the Overcloud

(test this time around, in next pass through?)

## 9.8. Migrating VMs from an Overcloud Compute Node

### 9.9. Running Ansible Automation

### 9.10. Protecting the Overcloud from Removal

### 9.11. Removing the Overcloud

## 10. Scaling the Overcloud

(to test in future)

### 10.1. Adding Additional Nodes

### 10.2. Removing Compute Nodes

### 10.3. Replacing Compute Nodes

### 10.4. Replacing Controller Nodes

#### 10.4.1. Preliminary Checks

#### 10.4.2. Node Replacement

#### 10.4.3. Manual Intervention

#### 10.4.4. Finalizing Overcloud Services

#### 10.4.5. Finalizing L3 Agent Router Hosting

#### 10.4.6. Finalizing Compute Services

#### 10.4.7. Conclusion

### 10.5. Replacing Ceph Storage Nodes

(test when we have ceph systems?)

### 10.6. Replacing Object Storage Nodes

### 10.7. Blacklisting Nodes

## 11. Rebooting Nodes

### 11.1. Rebooting the Director

- 11.2. Rebooting Controller Nodes
- 11.3. Rebooting Ceph Storage Nodes
- 11.4. Rebooting Compute Nodes
- 11.5. Rebooting Object Storage Nodes

- 12. Troubleshooting Director Issues
  - 12.1. Troubleshooting Node Registration
  - 12.2. Troubleshooting Hardware Introspection
  - 12.3. Troubleshooting Workflows and Executions
  - 12.4. Troubleshooting Overcloud Creation
    - 12.4.1. Orchestration
    - 12.4.2. Bare Metal Provisioning
    - 12.4.3. Post-Deployment Configuration
  - 12.5. Troubleshooting IP Address Conflicts on the Provisioning Network
  - 12.6. Troubleshooting "No Valid Host Found" Errors
  - 12.7. Troubleshooting the Overcloud after Creation
    - 12.7.1. Overcloud Stack Modifications
    - 12.7.2. Controller Service Failures
    - 12.7.3. Compute Service Failures
    - 12.7.4. Ceph Storage Service Failures
  - 12.8. Tuning the Undercloud
  - 12.9. Important Logs for Undercloud and Overcloud

- A. SSL/TLS Certificate Configuration
  - A.1. Initializing the Signing Host
  - A.2. Creating a Certificate Authority
  - A.3. Adding the Certificate Authority to Clients
  - A.4. Creating an SSL/TLS Key
  - A.5. Creating an SSL/TLS Certificate Signing Request
  - A.6. Creating the SSL/TLS Certificate
  - A.7. Using the Certificate with the Undercloud

- B. Power Management Drivers
  - B.1. Dell Remote Access Controller (DRAC)
  - B.2. Integrated Lights-Out (iLO)
  - B.3. iBoot
  - B.4. Cisco Unified Computing System (UCS)
  - B.5. Fujitsu Integrated Remote Management Controller (iRMC)
  - B.6. Virtual Bare Metal Controller (VBMC)

- B.7. SSH and Virsh
- B.8. Fake PXE Driver

- C. Whole Disk Images
  - C.1. Creating Whole Disk Images
  - C.2. Manually Creating a Whole Disk Image
  - C.3. Automatically Creating a Whole Disk Image
  - C.4. Encrypting Volumes on Whole Disk Images
  - C.5. Uploading Whole Disk Images

- D. Alternative Boot Modes
  - D.1. Standard PXE
  - D.2. UEFI Boot Mode

- E. Automatic Profile Tagging
  - E.1. Policy File Syntax
  - E.2. Policy File Example
  - E.3. Importing Policy Files
  - E.4. Automatic Profile Tagging Properties

- F. Security Enhancements
  - F.1. Changing the SSL/TLS Cipher and Rules for HAProxy

- G. Red Hat OpenStack Platform for POWER (Technology Preview)