

SUSE Cloud Deployment Guide Questionnaire

This document is a *starting point* for a SUSE Cloud implementation. Use this document as a guide to help you prepare for deployment and as a worksheet as you discuss how to configure SUSE Cloud for your environment.

The items below are discussed in greater detail in the SUSE Cloud deployment guide. Reference the deployment guide for an understanding of the terms and clarification. Throughout the document you will see references to the section(s) in the deployment guide.

Preliminary Considerations - Planning Your Cloud

Some questions to answer to help you understand how you want to optimize your cloud

What problem are you trying to solve by implementing a private Infrastructure-as-a-Service (IaaS) cloud?

Who are the users for your cloud? What do they want out of your cloud?

What are your business and technical requirements? Example requirements are Service Level Agreements (SLA's), regulatory compliance, etc

What are the constraints for this project? Example constraints are budget, deadline, manpower.

What additional resources will you require to have a successful deployment?

DG= Deployment Guide

POC Guide

If you are using this guide to deploy a proof-of-concept (POC), here are some additional steps to consider taking

- Before the POC begins:
 - Schedule a meeting before the POC begins to discuss:
 - Networking
 - Public network/nova floating range
 - Bastion configuration required?
 - VLANs (Admin network cannot be tagged)
 - Source for media and SMT repositories (ex. USB drive brought by SE)
 - Backup/restore plan for the admin server if the installation must be repeated
 - Confirm that the BIOS, FC cards, Network and BMC's are all updated to the latest firmware from the manufacturer.
 - Build a SLE11 SP3 JeOS image using SUSE Studio with supportutils package and setup network configuration with yast at firstboot
- On the first day of the POC:
 - Bring SLE11 SP3 JeOS image
 - Collect a supportconfig from all systems that will be part of the cloud infrastructure
 - Use the supportconfigs to review interface map/network conduit/network info in network.json **DG section B**

POC Worksheet

1. Which network mode will you will be using? (Single, Dual, Teaming)

DG section 2.1.2

2. Are you going to utilize an existing SMT server or install one on the Admin Server.

DG section 2.2

3. Admin Server FQDN? (cannot be changed after deployment)

DG section 2.1.4

4. Are there additional DNS servers you want SUSE Cloud to forward to for non-local DNS records?

DG section 2.1.4

5. Which hypervisors will you be supporting in your Cloud? (ESXi, Xen, KVM, Hyper-V)
DG sections 1.3, 5.10

6. Is a bastion network required on the Admin server?
DG section 3.2.4

7. What backend will you be use for your Glance image repository? (local, Swift, RBD)
DG section 5.5

8. Which backend will you choose for Cinder? (local, raw, eqlx, Netapp, EMC, RBD)
DG section 5.8

9. Which plugin will you use for Neutron? (linuxbridge, openvswitch, cisco)
DG section 5.9

10. Which encapsulation mode will you use for Neutron? (flat, VLAN, gre)
DG section 5.9

11. MAC addresses associated with each corresponding host function.
DG section 2.1.1

| Type | Function | MAC Addresses |
|--------------------|------------------------|---------------|
| Admin Server | Admin Network | |
| | Bastion | |
| Controller Node(s) | PostgreSQL Database | |
| | Glance (Images) | |
| | Keystone (Identity) | |
| | Neutron (Networking) | |
| | Cinder (Block Storage) | |

| | | |
|---------------|--|--|
| | Nova Dashboard (Horizon) | |
| | Compute Management (Nova and Nova multi-controller) | |
| | Message Broker (Rabbit MQ) | |
| | Swift-proxy, Swift-dispersion | |
| | Swift Ring | |
| | Ceph master monitor | |
| Compute Nodes | Nova-multi-compute-esxi | |
| | Nova-multi-compute-kvm | |
| | Nova-multi-compute-xen | |
| Storage Nodes | Swift-storage | |
| | cinder-volume | |

12. Admin/BMC Network Address Allocation (default address allocation included). The size of this subnet will set the maximum number of compute/storage/controller/admin nodes in your cloud.
DG section 2.1.1

| Function | Addresses | VLAN | |
|---------------|---|---|-------|
| router | 192.168.124.1 | false | |
| admin | 192.168.124.10 - 192.168.124.11 | false | |
| dhcp | 192.168.124.21 - 192.168.124.80 | false | |
| host | 192.168.124.81 - 192.168.124.160 | false | |
| bmc vlan host | 192.168.124.161 | 100 | |
| bmc host | 192.168.124.162 - 192.168.124.240 | false | |
| switch | 192.168.124.241 - 192.168.124.250 | false | |
| bastion | subnet netmask broadcast gateway ip address | 10.10.1.0 255.255.255.0 10.10.1.255 10.10.1.1 10.10.1.125 | false |

13. Storage Network Address Allocation (default address allocation included). The size of this subnet defines the maximum number of storage nodes in your Swift/Ceph implementation
DG section 2.1.1

| Function | Addresses | VLAN |
|----------|----------------------------------|------|
| host | 192.168.125.10 - 192.168.125.239 | 200 |

14. Private Network/nova-fixed Network Address Allocation (default address allocation included). The size of this subnet defines the maximum number of concurrent cloud workloads you can run
DG section 2.1.1

| Function | Addresses | VLAN |
|----------|----------------------------------|------|
| router | 192.168.123.1 - 192.168.123.49 | 500 |
| dhcp | 192.168.123.50 - 192.168.123.254 | 500 |

15. Public Network nova-floating Network Address Allocation (default address allocation included). The size of this subnet defines the maximum number of control nodes in your cloud
DG section 2.1.1

| Function | Addresses | VLAN |
|-----------------|-----------------------------------|-------------|
| public Host | 192.168.126.2 - 192.168.126.49 | 300 |
| public dhcp | 192.168.126.50 - 192.168.126.127 | 300 |
| floating host | 192.168.126.129 - 192.168.126.191 | 300 |

16. Software Defined Network Address Allocation (default address allocation included). The size of this subnet defines the maximum number of cloud workloads that can be exposed to an external network

DG section 2.1.1

| Function | Addresses | VLAN |
|-----------------|----------------------------------|-------------|
| host | 192.168.130.10 - 192.168.130.254 | 700 |