**Provision Baremetal using Cobbler**

1. **Configure the Kickstart file as per the requirement:**
2. **Make selinux as permissive.**

Selinux --permissive

1. **Create partition as per the requirement**

Ex:

# autopart

part /boot --fstype xfs --size 1008 --ondisk=sda

part / --fstype xfs --size 256000 --ondisk=sda

1. **Add redhat subscription and enable required rpm in post installation section**

subscription-manager register --username=XXXX --password=XXXX --auto-attach

yum -y install yum-utils

subscription-manager repos --enable rhel-7-server-optional-rpms

subscription-manager repos --enable rhel-7-server-extra-rpms

1. **Configure keybased login** (add in the post installation section )

mkdir -m 0700 /root/.ssh/

cat <<EOF >/root/.ssh/authorized\_keys

ssh-rsa AAAAB3NzaC1yc2EAAAADAQABAAABAQCtLjvyNp1B34cwV5Hwhr2W3xikxDELBLdYDtYa77ZNjtR2W0nrj9JxGG6RbHrPjCpn39VVB7IYdMceti95hl3/WcZQwX00Uxy640iBqRnX71dAYZ54VGn22QsBeGc+hVr/3+IHwS0tCKOdI6inIzBArWlZha9WAt9kJA3TDy+uOCVOc2DdhEA+kRlXzsm/OsMkPNWX6E2hx3Ry1/DbxUlyVAQi1y+bwm+4QVY0cVeTQC+Fe5Rfy7ESR0TznElesoNUHYgmMec6hbjLOHm3ZGAtdxhccPpnrcqA/1N56SyOjJDG9xW/aVOTNpaQd4b/unNpfEHK93uychQS5LL3v0Vx root@cobbler

EOF

### set permissions

chmod 0600 /root/.ssh/authorized\_keys

**Note**: provide public key to target server and use private key to login the target server

1. **Configure static IP**

Provide IP Address, Gateway, Netmask, Name Server and static=True in the time of cobbler system creation.

EX:

cobbler system add --name=<pnda-edge> --mac=<00:25:B5:DD:01:4F> --profile=<generic> --hostname=<pnda-edge> --interface=eth0 --ip-address=<9.0.8.151> --subnet=<255.255.240.0> --gateway=<9.0.1.196> --name-servers=<9.0.1.70> --static=True

1. **Remove Duplicate interface file**

Add after $SNIPPET('post\_install\_network\_config')

rm -f /etc/sysconfig/network-scripts/ifcfg-$IFNAME

chkconfig NetworkManager off

1. **Create profile**

cobbler profile add --name <generic> --distro <rhel-x86\_64> --kickstart /var/lib/cobbler/kickstarts/<generic.ks>

1. **Enable Mac address to get IP from the DHCP**

**Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-otsdb-0 { hardware ethernet 00:25:B5:DD:01:FF; }

1. **Create system**

cobbler system add --name=<pnda-edge> --mac=<00:25:B5:DD:01:4F> --profile=<generic> --hostname=<pnda-edge> --interface=eth0 --ip-address=<9.0.8.151> --subnet=<255.255.240.0> --gateway=<9.0.1.196> --name-servers=<9.0.1.70> --static=True

**Profile pnda\_manager:**

**Partition**:

|  |  |
| --- | --- |
| /boot  / | 500MB/1008 MB  250 GB  Disk name is /dev/sda  PNDA creates /var/log/PNDA 120 GB PNDA creates /mnt remaining Note: 3 primary partitions, 1 logical partition |

**Kickstart filename:** pnda\_manager.ks

1. **Create cobbler profile:**

cobbler profile add --name <pnda\_manager> --distro rhel-x86\_64 --kickstart /var/lib/cobbler/kickstarts/<pnda\_manager.ks>

1. **Create Cobbler System:**

**pnda-mgr Node:**

cobbler system add --name=pnda-mgr-01 --mac=00:25:B5:DD:00:7F --profile=pnda\_manager --hostname=pnda-mgr-01 --interface=eth0 --ip-address=9.0.8.130 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-mgr-02 --mac=00:25:B5:DD:00:4F --profile=pnda\_manager --hostname=pnda-mgr-02 --interface=eth0 --ip-address=9.0.8.137 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-mgr-03 --mac=00:25:B5:DD:00:5F --profile=pnda\_manager --hostname=pnda-mgr-03 --interface=eth0 --ip-address=9.0.8.131 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-mgr-04 --mac=00:25:B5:DD:00:2F --profile=pnda\_manager --hostname=pnda-mgr-04 --interface=eth0 --ip-address=9.0.8.138 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

1. **Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-mgr-01 { hardware ethernet 00:25:B5:DD:00:7F; }

host pnda-mgr-02 { hardware ethernet 00:25:B5:DD:00:4F; }

host pnda-mgr-03 { hardware ethernet 00:25:B5:DD:00:5F; }

host pnda-mgr-04 { hardware ethernet 00:25:B5:DD:00:2F; }

**Profile datanode:**

**Partition**:

|  |  |
| --- | --- |
| /boot  / | 500MB/1008 MB  250 GB  Disk name is /dev/sda  PNDA creates /var/log/pnda 120 GB PNDA creates /mtn remaining Note: 3 primary partitions, 1 logical partition |
| /data/dn0-- /data/dn24 | 192 TB |

**Kickstart filename:** datanode.ks

1. **Create cobbler profile:**

cobbler profile add --name <datanode> --distro rhel-x86\_64 --kickstart /var/lib/cobbler/kickstarts/<datanode.ks>

1. **Create Cobbler System:**

**Data Nodes:**

cobbler system add --name=pnda-DN-0 --mac-address=00:25:B5:DD:01:EF --profile=datanode --hostname=pnda-DN-0 --interface=eth0 --ip-address=9.0.8.143 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-DN-1 --mac-address=00:25:B5:DD:01:BF --profile=datanode --hostname=pnda-DN-1 --interface=eth0 --ip-address=9.0.8.144 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-DN-2 --mac-address=00:25:B5:DD:01:CF --profile=datanode --hostname=pnda-DN-2 --interface=eth0 --ip-address=9.0.8.145 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-DN-3 --mac-address=00:25:B5:DD:01:AF --profile=datanode --hostname=pnda-DN-3 --interface=eth0 --ip-address=9.0.8.146 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

1. **Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-DN-0 { hardware ethernet 00:25:B5:DD:01:EF; }

host pnda-DN-1 { hardware ethernet 00:25:B5:DD:01:BF; }

host pnda-DN-2 { hardware ethernet 00:25:B5:DD:01:CF; }

host pnda-DN-3 { hardware ethernet 00:25:B5:DD:01:AF; }

**Profile zookeeper:**

**Partition**:

|  |  |
| --- | --- |
| /boot  / | 500MB/1008 MB  250 GB  Disk name is /dev/sda  PNDA creates /var/log/pnda 120 GB PNDA creates /mtn remaining Note: 3 primary partitions, 1 logical partition |

**Kickstart filename:** zookeeper.ks

1. **Create cobbler profile:**

cobbler profile add --name <zookeeper> --distro rhel-x86\_64 --kickstart /var/lib/cobbler/kickstarts/<zookeeper.ks>

1. **Create Cobbler System:**

**Zookeeper Nodes:**

cobbler system add --name=pnda-zk-0 --mac=00:25:B5:DD:00:3F --profile=zookeeper --hostname=pnda-zk-0 --interface=eth0 --ip-address=9.0.8.132 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-zk-1 --mac=00:25:B5:DD:00:0F --profile=zookeeper --hostname=pnda-zk-1 --interface=eth0 --ip-address=9.0.8.133 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-zk-2 --mac=00:25:B5:DD:00:1F --profile=zookeeper --hostname=pnda-zk-2 --interface=eth0 --ip-address=9.0.8.139 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

1. **Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-zk-0 { hardware ethernet 00:25:B5:DD:00:3F; }

host pnda-zk-1 { hardware ethernet 00:25:B5:DD:00:0F; }

host pnda-zk-2 { hardware ethernet 00:25:B5:DD:00:1F; }

**Profile kafka**

**Partition:**

|  |  |
| --- | --- |
| /boot / | 500MB/1008 MB  250 GB  post cobbler script creates /var/log/pnda 120 GB /mtn remaining (for kafka-logs) Note: disk size> 2 TB Partition Type = gpt |

**Kickstart filename:** kafka.ks

1. **Create cobbler profile:**

cobbler profile add --name kafka --distro rhel-x86\_64 --kickstart /var/lib/cobbler/kickstarts/kafka.ks

1. **Cobbler System:**

**Kafka Nodes:**

cobbler system add --name=pnda-kafka-0 --mac=00:25:B5:DD:00:8F --profile=kafka --hostname=pnda-kafka-0 --interface=eth0 --ip-address=9.0.8.147 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-kafka-1 --mac=00:25:B5:DD:00:9F --profile=kafka --hostname=pnda-kafka-1 --interface=eth0 --ip-address=9.0.8.148 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-kafka-2 --mac=00:25:B5:DD:00:6F --profile=kafka --hostname=pnda-kafka-2 --interface=eth0 --ip-address=9.0.8.149 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

1. **Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-kafka-0 { hardware ethernet 00:25:B5:DD:00:8F; }

host pnda-kafka-1 { hardware ethernet 00:25:B5:DD:00:9F; }

host pnda-kafka-2 { hardware ethernet 00:25:B5:DD:00:6F; }

**Profile generic**

**Partition:**

|  |  |
| --- | --- |
| /boot  / | 500MB/1008 MB  250 GB  Disk name is /dev/sda  PNDA creates /var/log/pnda 120 GB PNDA creates /mtn remaining Note: 3 primary partitions, 1 logical partition |

**Kickstart filename:** generic.ks

1. **Create cobbler profile:**

cobbler profile add --name <generic> --distro rhel-x86\_64 --kickstart /var/lib/cobbler/kickstarts/<generic.ks>

1. **Cobbler System:**

**Opentsdb Node:**

cobbler system add --name=pnda-otsdb-0 --mac=00:25:B5:DD:01:FF --profile=generic --hostname=pnda-otsdb-0 --interface=eth0 --ip-address=9.0.8.136 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

cobbler system add --name=pnda-otsdb-1 --mac=00:25:B5:DD:01:DF --profile=generic --hostname=pnda-otsdb-1 --interface=eth0 --ip-address=9.0.8.141 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

**Tools Node**:

cobbler system add --name=pnda-tools --mac=00:25:B5:DD:01:9F --profile=generic --hostname=pnda-tools --interface=eth0 --ip-address=9.0.8.142 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

**Build Node:**

cobbler system add --name=pnda-build --mac=00:25:B5:DD:01:5F --profile=generic --hostname=pnda-build --interface=eth0 --ip-address=9.0.8.150 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

**Edge Node:**

cobbler system add --name=pnda-edge --mac=00:25:B5:DD:01:4F --profile=generic --hostname=pnda-edge --interface=eth0 --ip-address=9.0.8.151 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

**Hadoop manager Node:**

cobbler system add --name=hadoop-mgr --mac=00:25:B5:DD:01:8F --profile=generic --hostname=hadoop\_manager --interface=eth0 --ip-address=9.0.8.134 --subnet=255.255.240.0 --gateway=9.0.1.196 --name-servers=9.0.1.70 --static=True

1. **Add Dhcp Entry:** /etc/cobbler/ dhcp.template

host pnda-otsdb-0 { hardware ethernet 00:25:B5:DD:01:FF; }

host pnda-otsdb-1 { hardware ethernet 00:25:B5:DD:01:DF; }

host pnda-tools { hardware ethernet 00:25:B5:DD:01:9F; }

host pnda-build { hardware ethernet 00:25:B5:DD:01:5F; }

host pnda-edge { hardware ethernet 00:25:B5:DD:01:4F; }

host hadoop-mgr { hardware ethernet 00:25:B5:DD:01:8F; }