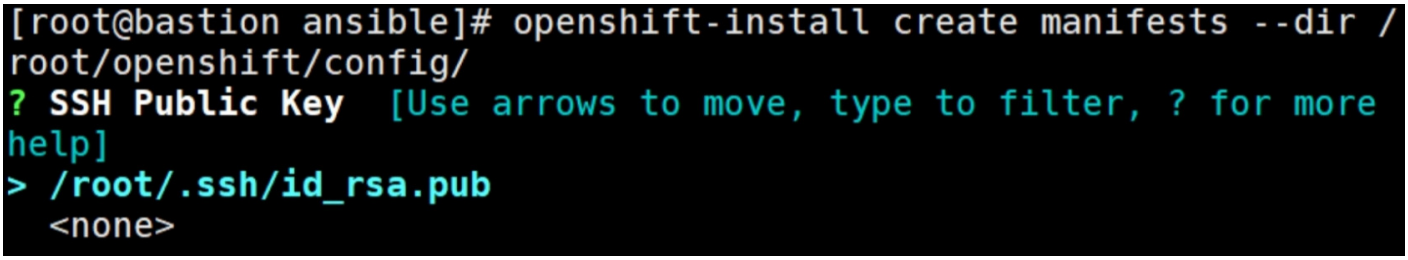
OpenShift □□

SSH Issue



Files for installation

pre-installation.tar

roles

Installation Steps:

Firstly, get the packages tar file

```
scp .\pre-installation.tar root@10.1.10.230:/root/
```

(download the pre-installation.tar file from the notion or from the link above)

Then we will get the following files

```
ls /root

01-packages.sh 03-check-rootpermit.sh 05-ansible-directory.sh anaconda-ks.cfg 02-vim-config.sh 04-ansible-config.sh 06-ssh-key.sh pre-installation.tar
```

run all the above scripts first

Then we will get ansible installed. We need to move all of the ansible files inside the new ‘ansible’ directory that we will create manually

```
mv group_vars playbook roles ansible.cfg inventory ansible
```

We need to include the following in the /etc/hosts of the Bastion VM

```
<bastion-IP> api.ocp.spelix2.com
<bastion-IP> api-ocp-spelix2-com
```

Then we need the ocp.yaml file under,

```
vim ansible/playbook/ocp.yaml

- name: Install HAProxy
  hosts: localhost
  roles:
    - { role: install-haproxy, tags: ['haproxy'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Install DNS
  hosts: localhost
  roles:
    - { role: install-dns, tags: ['dns'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Install TFTPBOOT
  hosts: localhost
  roles:
    - { role: install-tftpboot, tags: ['tftp'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Install DHCP
  hosts: localhost
  roles:
    - { role: install-dhcp, tags: ['dhcp'] }
  vars_files:
    - ../group_vars/all.yaml
```

```
- name: Install web server (httpd)
  hosts: localhost
  roles:
    - { role: install-httpd, tags: ['httpd'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Configuration Firewall (if you have two networks, it must be done)
  hosts: localhost
  roles:
    - { role: config-firewall, tags: ['firewall'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Download installation files
  hosts: localhost
  roles:
    - { role: download-files, tags: ['download'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Create OCP Directory
  hosts: localhost
  roles:
    - { role: create-ocp-directory, tags: ['ocp-dir'] }
  vars_files:
    - ../group_vars/all.yaml

- name: Create OCP install-config.yaml
  hosts: localhost
  roles:
    - { role: create-ocp-config, tags: ['ocp-config'] }
  vars_files:
    - ../group_vars/all.yaml
```

Then we need to include all.yaml

```
vim ansible/group_vars/all.yaml
```

```
### For 9th Cluster
---
client_files_url: "<https://mirror.openshift.com/pub/openshift-v4/clients/ocp/4.10.37>"
installation_files_url: "<https://mirror.openshift.com/pub/openshift-
v4/x86_64/dependencies/rhcos/4.10/4.10.37>"
ocp_client_files:
  - openshift-client-linux.tar.gz
  - openshift-install-linux.tar.gz
rhcos_binaries:
  - rhcos-live-initramfs.x86_64.img
  - rhcos-live-kernel-x86_64
  - rhcos-live-rootfs.x86_64.img
ipconfig: "dhcp"
ppc64le: false
uefi: true
disk: sda                               #disk where you are installing RHCOS on the masters/workers
networkname:
  external: "ens192"
  internal: "ens224"
ocp:
  root_dir: "/root"
  network: "OVNKubernetes"                  # openshift network OpenShiftSDN/OVNKubernetes
  sshkey: 'ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAACAQDUs0fFARly9xt87GwDCpYmmJW17kledUcOsYn6cxQIklMm4o0H0C7lZA3X
ZhOJ/j1PXn5wpTOkEX0x7eyl0mxXNlvGneyhrXRvsy/VCzRzBAoUDihIVqsCyi6ahT0UzLRDJB7X+g3JDRpWEN2IzcWZ
9yvlizq6s5S3Q0EXIh/4g2c+LXzl/mzaeYG1BvR6DSNDRSCxguPSG/+bmzZDjTozUhz5vrLtEvpAQEzejWXp45PxThUhi
27Qu285i/DtGuMnEeWIUX0+yiVMIwZe0jhdVxoE1lucR4dpt/OM7dPhxo950YkYoA48bsDZVFittlLMvUIFoMkWAcJ8k8I
Mmfk3GqgcKoRnAf4yEmRr5+eKGXc7DOc9uvxqeaFEq8WP2e4jXuev6MqH19zq7579Tno04Ik/x2/TcJ9sPFORpRjPLu
m9OtZXiEFf6yoRYkjFEsLH3OnUJDBy+wQiwnYi1UuuTyBSQd/vXWQ0Bns0uXJMHGd3wrIgvGFsnX/ssqIlX+v77m/sCv
xJo5W39FQBOSQ1/giAvs6KRXD3LdIG/GVWJxi+Q2OA42ylJQq2O9ZAfDENl4KkpgehRB0ahxU0GMiR09GUkki4Tw8JS
Dx3ft8BncIGoLbpF8mBNU1ChSx8Ukk9TW6RJWXi7nClF+tfzyBH2wWMssfndn8W66RFlxD86Q== root@bastion'
  secret:
'{"auths":{"cloud.openshift.com":{"auth":"b3BlbnNoaWZ0LXJlbGVhc2UtZGV2K29jbV9hY2Nlc3NfMGYzMmNjZjRm
MjI5NGFjNWEzOTU4ZWJiZjM5Y2VjZWQ6Q0dVUjRKVTRaNUNRMUtIRVJEVlA2VDFOTFBKM1lRMFJISUdaREw5UzBEN
DhaMDgxUVoxQ0ZQUlhRRkpSNDlKTw==","email":"wajiwos16@gmail.com"},"quay.io":{"auth":"b3BlbnNoaWZ0L
XJlbGVhc2UtZGV2K29jbV9hY2Nlc3NfMGYzMmNjZjRmMjI5NGFjNWEzOTU4ZWJiZjM5Y2VjZWQ6Q0dVUjRKVTRaNUN
RMUtIRVJEVlA2VDFOTFBKM1lRMFJISUdaREw5UzBENDhaMDgxUVoxQ0ZQUlhRRkpSNDlKTw==","email":"wajiwos1
6@gmail.com"},"registry.connect.redhat.com":{"auth":"fHVoYy1wb29sLTZiN2U1YjE4LWViMDItNDhkYy1hZTY1L
WU1ZDFhMGI0ZGI3MTpleUpoYkdjaU9pSlNVelV4TWlKOS5leUp6ZFdJaU9pSXdZelU0TldJMFpqQm1NekUwTjJZME9H
```

VTVNV0U1T1RFMllUSXdOelk0WlNKOS52Q01sTnlXNVpyMjBiNXRyTm1UazNDQmZlTnZ3SERuQXh2SVNUSDJnTm1wT3pOSUppa29RUnFJMjZtcFF0QzktelFXSUVyZkV0clM0ZmgxTnBPVm5nRGEtTnltT3V0RG5FU3VUOXlJZ3B2VDRxMFFBVWhFdGdTei1aMk9oN3BXOVZzbWpxUjJwb2lJNzZhMUFjc1p2X3lHVDZaOXE5Um1HWGRpV0VFaG5WUUl2VmxvbDRxQS14aDJjOE9LMkc2LVR6VnNJSndzc09kVndjcWItX2JhRm5pV1JsS2lZNFpFQ3NCUjlJMmZHR3ZaSnBET3ZCcndlSEtuUFlwTS10WmtkTXVkeV9ZSWlxZ2ctbUg3ajR0dXhHRTdPck00bERjZk55R1BERGM4OHdZZExzMTNxS3NleVNuVmxmMjFRMFM0RDRiRWl0OUtCalZsR0p6alJ5YTFOSThLYk8za2hkdjhIT3hGLVZ1cXRocUJkV0NYcTVDYXF3ZlZ6T2ZPTnB1Zlc1VjJ0VmtwbFlFWmlhejczSjdpeEc2dHBrNnQyWWYtYmUzSjNRdHA0Q1pyX0hOVmkzZVBGRHMzX3JpbnA0UUs3LV9KWG16cHdkUGtLLWZYZ3UwSFZwZmlGM3ZYaTNmR204Q2t6MXBWUlpjR1dveTYzUmxZd210ZTAwZjlVT280RV9Tb1BpZFFReERGUDVtUWF3RDc5ZU53eDVKd1hDYWNVTXNMeFFNNGpSYjNiT0lqUXY5amo1QUNpQzJYSENRZDZKZzJhekxQWWNlWEJpRnRISEhwY2Q4Yl9zRkt0d1lZRjM4UGN6cFJFNzdodGp6NExEdGwzRFdmS0p6dnRPU0dIQ1pPdmJPLWpKOGRQWHBfUzhza25JNl93Nm1wajkxMm5GVFFKemwwY00yWQ==","email":"wajiwos16@gmail.com"},"registry.redhat.io":{"auth":"fHVoYy1wb29sLTZiN2U1YjE4LWViMDItNDhkYy1hZTY1LWU1ZDFhMGI0ZGI3MTpleUpoYkdjaU9pSlNVelV4TWlKOS5leUp6ZFdJaU9pSXdZelU0TldJMFpqQm1NekUwTjJZME9HVTVNV0U1T1RFMllUSXdOelk0WlNKOS52Q01sTnlXNVpyMjBiNXRyTm1UazNDQmZlTnZ3SERuQXh2SVNUSDJnTm1wT3pOSUppa29RUnFJMjZtcFF0QzktelFXSUVyZkV0clM0ZmgxTnBPVm5nRGEtTnltT3V0RG5FU3VUOXlJZ3B2VDRxMFFBVWhFdGdTei1aMk9oN3BXOVZzbWpxUjJwb2lJNzZhMUFjc1p2X3lHVDZaOXE5Um1HWGRpV0VFaG5WUUl2VmxvbDRxQS14aDJjOE9LMkc2LVR6VnNJSndzc09kVndjcWItX2JhRm5pV1JsS2lZNFpFQ3NCUjlJMmZHR3ZaSnBET3ZCcndlSEtuUFlwTS10WmtkTXVkeV9ZSWlxZ2ctbUg3ajR0dXhHRTdPck00bERjZk55R1BERGM4OHdZZExzMTNxS3NleVNuVmxmMjFRMFM0RDRiRWl0OUtCalZsR0p6alJ5YTFOSThLYk8za2hkdjhIT3hGLVZ1cXRocUJkV0NYcTVDYXF3ZlZ6T2ZPTnB1Zlc1VjJ0VmtwbFlFWmlhejczSjdpeEc2dHBrNnQyWWYtYmUzSjNRdHA0Q1pyX0hOVmkzZVBGRHMzX3JpbnA0UUs3LV9KWG16cHdkUGtLLWZYZ3UwSFZwZmlGM3ZYaTNmR204Q2t6MXBWUlpjR1dveTYzUmxZd210ZTAwZjlVT280RV9Tb1BpZFFReERGUDVtUWF3RDc5ZU53eDVKd1hDYWNVTXNMeFFNNGpSYjNiT0lqUXY5amo1QUNpQzJYSENRZDZKZzJhekxQWWNlWEJpRnRISEhwY2Q4Yl9zRkt0d1lZRjM4UGN6cFJFNzdodGp6NExEdGwzRFdmS0p6dnRPU0dIQ1pPdmJPLWpKOGRQWHBfUzhza25JNl93Nm1wajkxMm5GVFFKemwwY00yWQ==","email":"wajiwos16@gmail.com"}}}'

```
  # openshift pull secret file: <https://console.redhat.com/openshift/install/metal/user-provisioned>
helper:
  name: "bastion"                       #hostname for your helper node
  ipaddr: "192.168.228.1"                   #current IP address of the helper
  networkifacename: "ens224"                #interface of the helper node,ACTUAL name of the interface, NOT the NetworkManager name
dns:
  domain: "spelix2.com"                  #DNS server domain. Should match  baseDomain inside the install-config.yaml file.
  clusterid: "ocp"                      #needs to match what you will for metadata.name inside the install-config.yaml file
  forwarder1: "192.168.228.1"                #DNS forwarder
  forwarder2: "8.8.8.8"                 #second DNS forwarder
  lb_ipaddr: "{{ helper.ipaddr }}"          #Load balancer IP, it is optional, the default value is helper.ipaddr
dhcp:
```

```
  router: "192.168.228.1"                  #default gateway of the network assigned to the masters/workers
  bcast: "192.168.228.255"                  #broadcast address for your network
  netmask: "255.255.255.0"                 #netmask that gets assigned to your masters/workers
  poolstart: "192.168.228.200"               #First address in your dhcp address pool
  poolend: "192.168.228.220"                 #Last address in your dhcp address pool
  ipid: "192.168.228.0"                    #ip network id for the range
  netmaskid: "255.255.255.0"               #networkmask id for the range.
  ntp: "192.168.228.1"                     #ntp server address
  dns: ""                            #domain name server, it is optional, the default value is set to helper.ipaddr
bootstrap:
  name: "bootstrap"                    #hostname (WITHOUT the fqdn) of the bootstrap node
  ipaddr: "192.168.228.200"                  #IP address that you want set for bootstrap node
  macaddr: "00:50:56:bd:e3:eb"             #The mac address for dhcp reservation
masters:
  - name: "master01"                    #hostname (WITHOUT the fqdn) of the master node (x of 3)
    ipaddr: "192.168.228.201"                #The IP address (x of 3) that you want set
    macaddr: "00:50:56:bd:bb:e6"           #The mac address for dhcp reservation
  - name: "master02"
    ipaddr: "192.168.228.202"
    macaddr: "00:50:56:bd:9b:7b"
  - name: "master03"
    ipaddr: "192.168.228.203"
    macaddr: "00:50:56:bd:ee:19"
workers:
  - name: "worker01"                    #hostname (WITHOUT the fqdn) of the worker node you want to set
    ipaddr: "192.168.228.211"                #The IP address that you want set (1st node)
    macaddr: "00:50:56:bd:23:b7"           #The mac address for dhcp reservation (1st node)
- name: "worker02"
    ipaddr: "192.168.228.212"
    macaddr: "00:50:56:bd:f7:9c"
  - name: "worker03"
    ipaddr: "192.168.228.213"
    macaddr: "00:50:56:bd:77:69"
```

Recheck all the values (IP address, MAC, pull secret, sshkey, domain name and then continue)

Then we need all of the installation files (download from the above link)

```
# From Windows Powershell we have a 'roles' folder with all of the installation files
scp -r .\\roles\\ root@10.1.10.230:/root/ansible/
```

```
root@10.1.10.230's password:
main.yaml                                     100% 1874   328.4KB/s   00:00
main.yaml                                     100%  169    33.7KB/s   00:00
install-config.yaml.j2                        100%  583   114.0KB/s   00:00
main.yaml                                     100%  155    15.2KB/s   00:00
main.yaml                                     100% 1793   350.2KB/s   00:00
default.j2                                    100% 1484   159.1KB/s   00:00
main.yaml                                     100%  285    28.3KB/s   00:00
dhcpd.conf.j2                                 100% 1894   189.7KB/s   00:00
main.yaml                                     100% 1397   133.5KB/s   00:00
dns.tar                                       100%   11KB 734.8KB/s   00:00
named.conf.j2                                 100% 1728   168.9KB/s   00:00
named.rfc1912.zones.j2                        100% 1856   378.1KB/s   00:00
ocp.zones.j2                                  100% 2507   240.8KB/s   00:00
reverse.rev.j2                                100% 1372   134.0KB/s   00:00
main.yaml                                     100%  274    26.8KB/s   00:00
haproxy.cfg.j2                                100% 4691   466.7KB/s   00:00
main.yaml                                     100%  280    54.7KB/s   00:00
httpd.conf.j2                                 100%   12KB 783.3KB/s   00:00
ldlinux.c32                                   100%  113KB   5.5MB/s   00:00
libutil.c32                                   100%   22KB   2.2MB/s   00:00
menu.c32                                      100%   26KB   2.5MB/s   00:00
pxelinux.0                                    100%   41KB   2.7MB/s   00:00
tftp.tar                                      100%  207KB  10.1MB/s   00:00
main.yaml                                     100%  564    53.7KB/s   00:00
```

Then we need to add the localhost as below

```
vim inventory/ocp


[localhost]
127.0.0.1
```

Then inside the ansible directory, we need to use the following to install and check all of the yamls

```
# To list and see the □□of installation
ansible-playbook -i inventory/ocp playbook/ocp.yaml --list-tags
```

```
# Installing
ansible-playbook -i inventory/ocp playbook/ocp.yaml --tags <name from the list>

## one command install
ansible-playbook -i inventory/ocp playbook/ocp.yaml
```

After doing all ansible-playbook commands, we need to rename the openshift installer yaml file like the following:

```
mv /root/openshift/config/install-cnfig.yaml /root/openshift/config/install-config.yaml
```

The install-config.yaml file looks like this:

```
apiVersion: v1
baseDomain: spelix2.com
compute:
- hyperthreading: Enabled
  name: worker
  replicas: 0
controlPlane:
  hyperthreading: Enabled
  name: master
  replicas: 3
metadata:
  name: ocp
networking:
  clusterNetworks:
  - cidr: 10.128.0.0/14
    hostPrefix: 23
  networkType: OVNKubernetes
  serviceNetwork:
  - 172.30.0.0/16
platform:
  none: {}
fips: false
pullSecret:
```

'{"auths":{"cloud.openshift.com":{"auth":"b3BlbnNoaWZ0LXJlbGVhc2UtZGV2K29jbV9hY2Nlc3NfMGYzMmNjZjRmMjI5NGFjNWEzOTU4ZWJiZjM5Y2VjZWQ6Q0dVUjRKVTRaNUNRMUtIRVJEVlA2VDFOTFBKM1lRMFJISUdaREw5UzBENDhaMDgxUVoxQ0ZQUlhRRkpSNDlKTw==","email":"wajiwos16@gmail.com"},"quay.io":{"auth":"b3BlbnNoaWZ0LXJlbGVhc2UtZGV2K29jbV9hY2Nlc3NfMGYzMmNjZjRmMjI5NGFjNWEzOTU4ZWJiZjM5Y2VjZWQ6Q0dVUjRKVTRaNUNRMUtIRVJEVlA2VDFOTFBKM1lRMFJISUdaREw5UzBENDhaMDgxUVoxQ0ZQUlhRRkpSNDlKTw==","email":"wajiwos16@gmail.com"},"registry.connect.redhat.com":{"auth":"fHVoYy1wb29sLTZiN2U1YjE4LWViMDItNDhkYy1hZTY1LWU1ZDFhMGI0ZGI3MTpleUpoYkdjaU9pSlNVelV4TWlKOS5leUp6ZFdJaU9pSXdZelU0TldJMFpqQm1NekUwTjJZME9HVTVNV0U1T1RFMllUSXdOelk0WlNKOS52Q01sTnlXNVpyMjBiNXRyTm1UazNDQmZlTnZ3SERuQXh2SVNUSDJnTm1wT3pOSUppa29RUnFJMjZtcFF0QzktelFXSUVyZkV0clM0ZmgxTnBPVm5nRGEtTnltT3V0RG5FU3VUOXlJZ3B2VDRxMFFBVWhFdGdTei1aMk9oN3BXOVZzbWpxUjJwb2lJNzZhMUFjc1p2X3lHVDZaOXE5Um1HWGRpV0VFaG5WUUl2VmxvbDRxQS14aDJjOE9LMkc2LVR6VnNJSndzc09kVndjcWItX2JhRm5pV1JsS2lZNFpFQ3NCUjlJMmZHR3ZaSnBET3ZCcndlSEtuUFlwTS10WmtkTXVkeV9ZSWlxZ2ctbUg3ajR0dXhHRTdPck00bERjZk55R1BERGM4OHdZZExzMTNxS3NleVNuVmxmMjFRMFM0RDRiRWl0OUtCalZsR0p6alJ5YTFOSThLYk8za2hkdjhIT3hGLVZ1cXRocUJkV0NYcTVDYXF3ZlZ6T2ZPTnB1Zlc1VjJ0VmtwbFlFWmlhejczSjdpeEc2dHBrNnQyWWYtYmUzSjNRdHA0Q1pyX0hOVmkzZVBGRHMzX3JpbnA0UUs3LV9KWG16cHdkUGtLLWZYZ3UwSFZwZmlGM3ZYaTNmR204Q2t6MXBWUlpjR1dveTYzUmxZd210ZTAwZjlVT280RV9Tb1BpZFFReERGUDVtUWF3RDc5ZU53eDVKd1hDYWNVTXNMeFFNNGpSYjNiT0lqUXY5amo1QUNpQzJYSENRZDZKZzJhekxQWWNlWEJpRnRISEhwY2Q4Yl9zRkt0d1lZRjM4UGN6cFJFNzdodGp6NExEdGwzRFdmS0p6dnRPU0dIQ1pPdmJPLWpKOGRQWHBfUzhza25JNl93Nm1wajkxMm5GVFFKemwwY00yWQ==","email":"wajiwos16@gmail.com"},"registry.redhat.io":{"auth":"fHVoYy1wb29sLTZiN2U1YjE4LWViMDItNDhkYy1hZTY1LWU1ZDFhMGI0ZGI3MTpleUpoYkdjaU9pSlNVelV4TWlKOS5leUp6ZFdJaU9pSXdZelU0TldJMFpqQm1NekUwTjJZME9HVTVNV0U1T1RFMllUSXdOelk0WlNKOS52Q01sTnlXNVpyMjBiNXRyTm1UazNDQmZlTnZ3SERuQXh2SVNUSDJnTm1wT3pOSUppa29RUnFJMjZtcFF0QzktelFXSUVyZkV0clM0ZmgxTnBPVm5nRGEtTnltT3V0RG5FU3VUOXlJZ3B2VDRxMFFBVWhFdGdTei1aMk9oN3BXOVZzbWpxUjJwb2lJNzZhMUFjc1p2X3lHVDZaOXE5Um1HWGRpV0VFaG5WUUl2VmxvbDRxQS14aDJjOE9LMkc2LVR6VnNJSndzc09kVndjcWItX2JhRm5pV1JsS2lZNFpFQ3NCUjlJMmZHR3ZaSnBET3ZCcndlSEtuUFlwTS10WmtkTXVkeV9ZSWlxZ2ctbUg3ajR0dXhHRTdPck00bERjZk55R1BERGM4OHdZZExzMTNxS3NleVNuVmxmMjFRMFM0RDRiRWl0OUtCalZsR0p6alJ5YTFOSThLYk8za2hkdjhIT3hGLVZ1cXRocUJkV0NYcTVDYXF3ZlZ6T2ZPTnB1Zlc1VjJ0VmtwbFlFWmlhejczSjdpeEc2dHBrNnQyWWYtYmUzSjNRdHA0Q1pyX0hOVmkzZVBGRHMzX3JpbnA0UUs3LV9KWG16cHdkUGtLLWZYZ3UwSFZwZmlGM3ZYaTNmR204Q2t6MXBWUlpjR1dveTYzUmxZd210ZTAwZjlVT280RV9Tb1BpZFFReERGUDVtUWF3RDc5ZU53eDVKd1hDYWNVTXNMeFFNNGpSYjNiT0lqUXY5amo1QUNpQzJYSENRZDZKZzJhekxQWWNlWEJpRnRISEhwY2Q4Yl9zRkt0d1lZRjM4UGN6cFJFNzdodGp6NExEdGwzRFdmS0p6dnRPU0dIQ1pPdmJPLWpKOGRQWHBfUzhza25JNl93Nm1wajkxMm5GVFFKemwwY00yWQ==","email":"wajiwos16@gmail.com"}}}'
sshKey: 'ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAACAQDMkx7b+ZEpfQhWs0SrCeUXiR8d00ST+f43tEpaLtNVOSE+GwlwmbuaOPqOBM4Efjw8BxiZQ2JX506t6W7zDZ4UK2XbpkjnLbYJxAy4gPK7/ZVr6MI6Fn7zwhOFC2sB31bb9RtfYcNeXQ4tCHdNy/DZsIrE/rEH3CrCzYiQspKHYL5ZvNiQo/9eu7cJ/MeZTB+TvkFV9m/GabQtr72q2FdnLdic0B3a4tM42M2WVbMUlP5zFyr8SeDLrTOOP6nygqlViqfvF8KUIJkNNqwvIkchaepZ82FVnnrpM81o3n3UohhRRnuHe/LAOiGbQDrXgxWGRan9xdS3i0IV4hwtxKoc/d+a68AgyBQ/j5jANUWtQ2z5cls4nJo4g7d+h4UZ+MOVQvrN+QHJMq2Nb1QmfPi8OAaFlfUldFwcgoDeZ8A0UllUVmYE1jcehbCSS9VqCX5wr9jT8oVzf8E7iN2WEbh/nwxX4OGjYQwZo+iXegE7HG44WCaFtYugz5MQjVcxvya4X3kpUOztK89GK5R4LYO9yekBjQcopcSUS6MEj6zbZcb5+yiO/ovelZTCdi/W2THsvQHmeibhb1W896oSTLG8xDbKP7z/V4LJTvBd1DuQ17VO2UaFcUlZirmggTvV0c+HQtDZdKWujaIk94esirm2MCJQykPATXxvjiLSG8rfYw== root@bastion'

Then

```
cd /root/openshift/config
[root@bastion config]# ls
install-config.yaml
[root@bastion config]# openshift-install create manifests
INFO Consuming Install Config from target directory
WARNING Making control-plane schedulable by setting MastersSchedulable to true for Scheduler cluster settings
INFO Manifests created in: manifests and openshift
[root@bastion config]# ls
manifests  openshift
```

Then we need to install ignition files

```
openshift-install create ignition-configs
INFO Consuming Master Machines from target directory
INFO Consuming Openshift Manifests from target directory
INFO Consuming OpenShift Install (Manifests) from target directory
INFO Consuming Worker Machines from target directory
INFO Consuming Common Manifests from target directory
INFO Ignition-Configs created in: . and auth
[root@bastion config]# ls
auth  bootstrap.ign  master.ign  metadata.json  worker.ign
```

Then we need to move the .ign files to /var/www/html/ign,

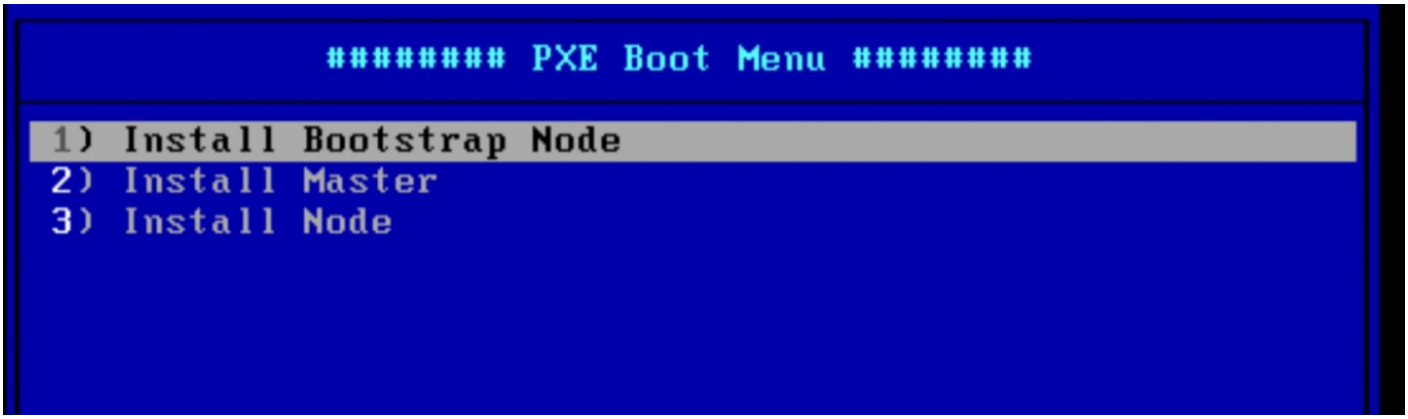
```
ls
auth  bootstrap.ign  master.ign  metadata.json  worker.ign
[root@bastion config]# mv /root/openshift/config/worker.ign /var/www/html/ign/
[root@bastion config]# mv /root/openshift/config/master.ign /var/www/html/ign/
[root@bastion config]# mv /root/openshift/config/bootstrap.ign /var/www/html/ign/
[root@bastion config]# ls
auth  metadata.json
[root@bastion config]# ls /var/www/html/ign/
bootstrap.ign  master.ign  worker.ign
```

Then give apache ownership

```
chown -R apache:apache /var/www/html/*
```

After all settings on Bastion is done,

we can turn on the Bootstrap node and install it



Then we need to check if we can ssh to bootstrap node from our bastion

```
ssh core@bootstrap.ocp.spelix.com


[core@bootstrap ~]$
```

Then we need to turn on our 3 master nodes one by one and select the ‘Install Master’ option

The same goes for the 3 worker nodes ‘Install Node’ option to be selected

Then we need to export the KUBECONFIG file to use the ‘oc’ command

```
export KUBECONFIG=/root/openshift/config/auth/kubeconfig
source /root/.bashrc


## or add the above line inside the .bashrc file
vim /root/.bashrc
```

Then approve the certificates

```
oc get csr -o name | xargs oc adm certificate approve
```

We can check the approve status using the following command

```
oc get csr
```

the values should be ‘Approved’ instead of ‘Pending’ so we can use the approve certificates command again if we see any pending

> keep checking the certs using the 'oc get csr' command, as it will keep updating new certificates that will be in 'pending' state. We need to approve them as well.

Then if we see the nodes

```
oc get nodes
NAME                    STATUS   ROLES          AGE   VERSION
master01.ocp.spelix.com   Ready    master,worker   12m   v1.23.5+8471591
master02.ocp.spelix.com   Ready    master,worker   12m   v1.23.5+8471591
master03.ocp.spelix.com   Ready    master,worker   12m   v1.23.5+8471591
worker01.ocp.spelix.com   Ready    worker         78s   v1.23.5+8471591
worker02.ocp.spelix.com   Ready    worker         77s   v1.23.5+8471591
worker03.ocp.spelix.com   Ready    worker         88s   v1.23.5+8471591
```

Then we need to add the bastion IP and the following hostnames to the windows host file

```
<bastion-ip> api.ocp.cpf.com console-openshift-console.apps.ocp.cpf.com oauth-openshift.apps.ocp.cpf.com
downloads-openshift-console.apps.ocp.cpf.com alertmanager-main-openshift-monitoring.apps.ocp.cpf.com
grafana-openshift-monitoring.apps.ocp.cpf.com prometheus-k8s-openshift-monitoring.apps.ocp.cpf.com thanos-
querier-openshift-monitoring.apps.ocp.cpf.com
```

Then we can change the master nodes to be 'not schedulable'

```
oc patch schedulers.config.openshift.io/cluster --type merge -p '{"spec":{"mastersSchedulable":false}}'
```

The above command should change the status of master nodes to be only master nodes

```
oc get nodes
NAME                    STATUS   ROLES    AGE     VERSION
master01.ocp.spelix2.com   Ready    master   6h39m   v1.23.5+8471591
master02.ocp.spelix2.com   Ready    master   6h39m   v1.23.5+8471591
master03.ocp.spelix2.com   Ready    master   6h39m   v1.23.5+8471591
worker01.ocp.spelix2.com   Ready    worker   6h27m   v1.23.5+8471591
worker02.ocp.spelix2.com   Ready    worker   6h28m   v1.23.5+8471591
worker03.ocp.spelix2.com   Ready    worker   6h27m   v1.23.5+8471591
```

After all the above steps, we need to follow the notion page from the Openshift □□ '□□ □ □□' part as it

Just remember to apply all of the nfs yaml files while doing the nfs part

deployment.yaml

rbac.yaml

class.yaml

test-pod.yaml

test-pvc.yaml

Revision #4
Created 29 June 2023 08:33:37 by □□
Updated 29 June 2023 12:14:50 by □□