PragmaEdge

Upgrade The RHEL (RedHat) 7 To 8

- First, we need to register to subscription-manager in red hat.
- To check whether subscription-manager is subscribed use the command below.

*Command: - subscription-manager list

```
[root@localhost ~]# subscription-manager list
+-------------------------------------------+
    Installed Product Status
+-------------------------------------------+
Product Name:   Red Hat Enterprise Linux Server
Product ID:     69
Version:        7.9
Arch:           x86_64
Status:         Subscribed
Status Details:
Starts:         Wednesday 26 April 2023
Ends:           Thursday 25 April 2024
```

If it is shows subscribed, we can proceed the upgrade activity or else we need to register, for registration please follow the below steps

- For that we need to create an account in red hat.
- Register | Red Hat IDP Link for creating account in red hat.
- After creation of the account in red hat, Hit the register command.

Command: - subscription-manager register

- It will ask you to login username and password, fill login details which you created in previous step.
- Here, I am giving my login details.

```
Registering to: subscription.rhsm.redhat.com:443/subscription
Username: cloudinfra@pragmaedge.com
Password:
The system has been registered with ID: 0cfd8b42-d631-404b-8f40-8d8e55680059
The registered system name is: ip-10-39-252-21.ec2.internal
[root@ip-10-39-252-21 ~]#
```

- Sometimes you will get error while registration,
- Go to your account -----> subscription and disable the Simple content access for Red Hat Subscription Management

- After registration successfully we must attach the subscription to our machine, use the command below to attach.

* Command: - subscription-manager attach --auto

- We have registered successfully; we are going to start the upgrade activity.
- Ensure to have **base** and **extras** repository enabled and enable if not already enabled

 # subscription-manager repos --enable rhel-7-server-rpms
 # subscription-manager repos --enable rhel-7-server-extras-rpms

- Setting Redhat subscription manager to take content for current release or latest one

 # subscription-manager release --set 7.9

OR

 # subscription-manager release --unset

- In case you are using version lock plugin that should also need to be cleared

 # yum version lock clear

- Update all packages to the latest RHEL 7 version:

 # yum update –y

```
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[root@localhost ~]# subscription-manager repos --enable rhel-7-server-rpms
Repository 'rhel-7-server-rpms' is enabled for this system.
[root@localhost ~]# subscription-manager repos --enable rhel-7-server-extras-rpms
Repository 'rhel-7-server-extras-rpms' is enabled for this system.
[root@localhost ~]# subscription-manager release --set 7.9
Release set to: 7.9
[root@localhost ~]# yum versionlock clear

Loaded plugins: product-id, search-disabled-repos, subscription-manager
No such command: versionlock. Please use /usr/bin/yum --help
[root@localhost ~]#
[root@localhost ~]# yum version lock clear
Loaded plugins: product-id, search-disabled-repos, subscription-manager
Installed: 7Server/x86_64                                   356:3fea436fd9eaf20468f4a4fbfd52de206b9ef0e3
Group-Installed: yum                                         14:3a32e72b642f5ed7dffa17005744a3c0e49c90fa
version
[root@localhost ~]#  yum update -y
Loaded plugins: product-id, search-disabled-repos, subscription-manager
rhel-7-server-extras-rpms                                                    | 3.4 kB  00:00:00
rhel-7-server-rpms                                                           | 3.5 kB  00:00:00
rhel-7-server-supplementary-rpms                                             | 3.4 kB  00:00:00
No packages marked for update
[root@localhost ~]#
```

Above Commands screenshot.

GENRATING AND ANALYZING PRE-UPGRADE REPORT

- Install leapp utility and cockpit related packages to view the report in GUI and download additional required data file required for upgrade

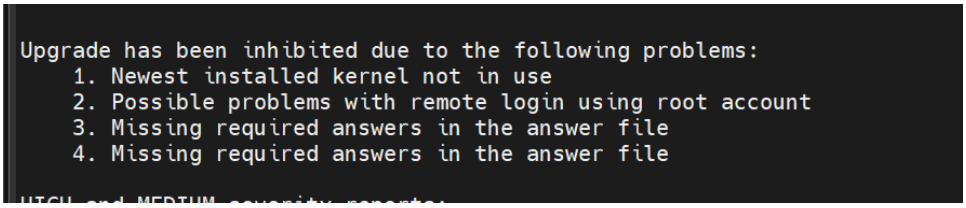
 # yum install leapp leap repositories cockpit-leapp wget

- ***After that we need to download metadata for leapp, for this please visit redhat official website and downloads from download, for download please visit below link.***
- Leapp utility metadata in-place upgrades of RHEL for disconnected upgrades (including Satellite) - Red Hat Customer Portal
- ***Go to above link and download latest*** leapp-data-22.tar.gz ***metadata file for leapp.***
- ***Place a downloaded file in /etc/leapp/files/ this directory.***
- ***Use command tar –xvzf <file name> to extract tar file.***
- Start the cockpit service and allow in firewall if required (This is for GUI management of logs, if you are comfortable in CLI activity, one can skip this step)

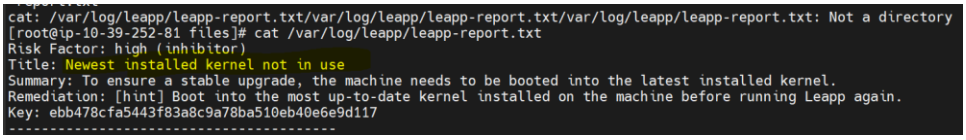
 # leapp preupgrade

- After completing the preupgrade it will generate report, we need to fix the issue as a high priority. Report will be available at cat /var/log/leapp/leapp-report.txt this location

Below Image shows the inhibited, we need to resolve these issues before starting the upgradations.



- Newest installed kernel not in use?



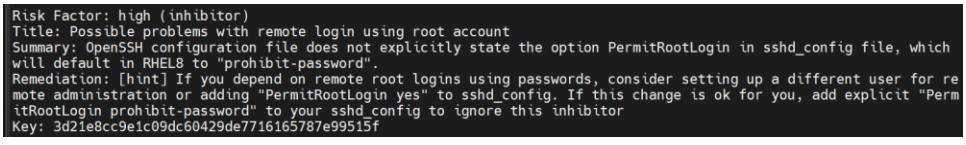
Solution: - we need check the current using kernel version and available latest kernel version

Unamr –r to check current kernel version

rpm –q kernel to check all kernel version

sudo dracut --force --kver <newest_kernel_version> - to change the kernel version in RHEL

- Possible problem with remote login using root account.



For we need to permitrootlgin to yes in sshd_conf file in etc.

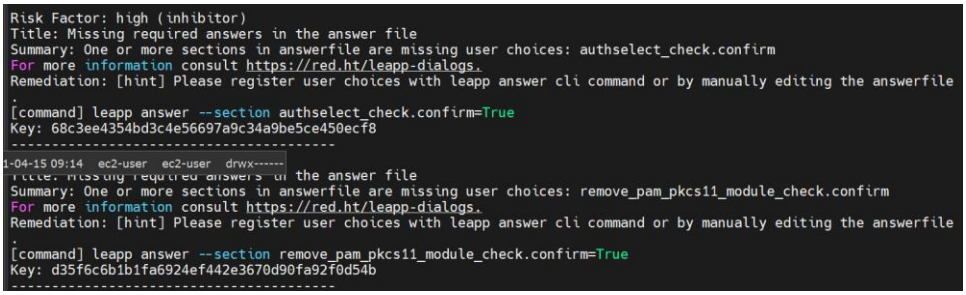
Command: - vi /etc/ssh/sshd_config

in this file we need to remove the # at permitrootlogin as shows below snip.

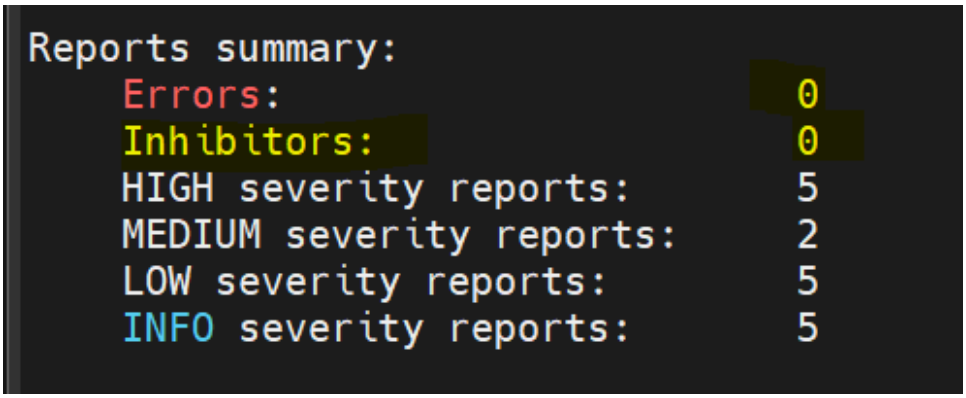
```
# Authentication:

#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10
```

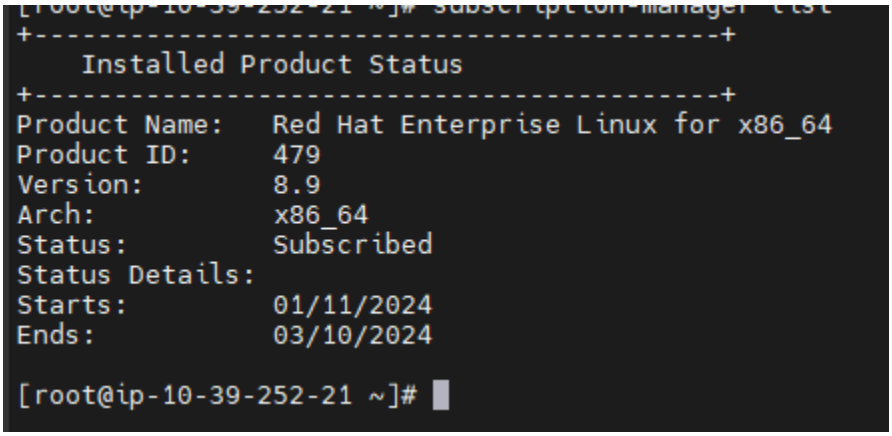
- For the last two issues itself only provides the solution for this we need to execute those commands.



- Once resolved all inhibitors execute the again leapp preupgrade command to see if any issues are there if no it will show the below snip.



- As per the above snip we have resolved all issues now we can proceed with RHEL 8 upgrade.
- Using leapp upgrade command
- Now it will download and install all RHEL 8 packages then need reboot the server it will take about 30min to up the server.
- Once all done, we can confirm with suscription-manager list command.



- The above snip shows we have successfully upgraded the RHEL 8 in our server.