STEPS TO INSTALL/CONFIGURE KATELLO

SERVER SIDE CONFIGURATION

1. First we need to make sure that we have a RedHat subscribed OS for Satellite to work.
   For that we need to register to the Red Hat licensing portal:

   ```
   Subscription-manager register
   ```

   This will ensure that our RHEL is registered to the RedHat subscription Manager.
   Also make sure to attach the Satellite entitlement, which ensures licensing compliance for the system

2. Now we need to make sure that the client is able to connect back to our host server.For that we need to open a few firewall ports which are required by satellite:

   ```
   firewall-cmd \
   --add-port="53/udp" --add-port="53/tcp" \
   --add-port="67/udp" --add-port="69/udp" \
   --add-port="80/tcp"  --add-port="443/tcp" \
   --add-port="5000/tcp" --add-port="5647/tcp" \
   --add-port="8000/tcp" --add-port="8140/tcp" \
   --add-port="9090/tcp"
   ```

   Make the changes persistent:

   ```
   firewall-cmd --runtime-to-permanent
   ```

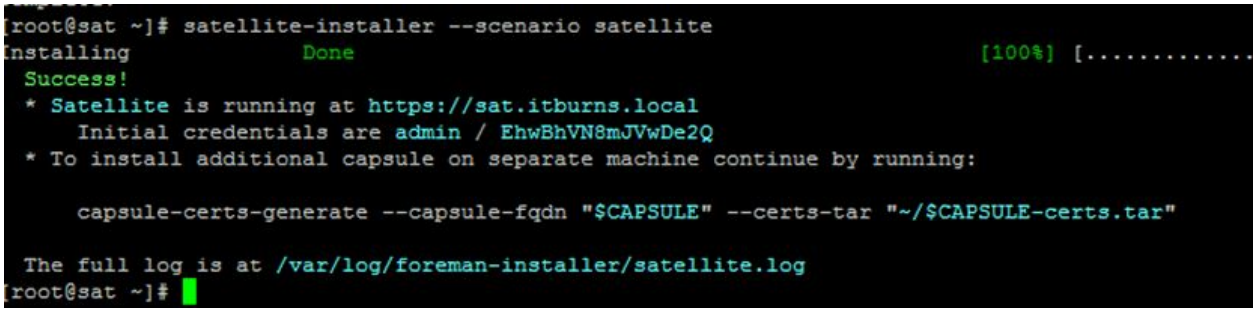
3. Now we need to install Satellite from the iso provided.For that we'll have to first mount the iso and then run the installer script within the image:

   ```
   mkdir /media/iso
   mount -o loop [iso_filename] /media/iso
   cd /media/iso
   ./install_packages
   ```

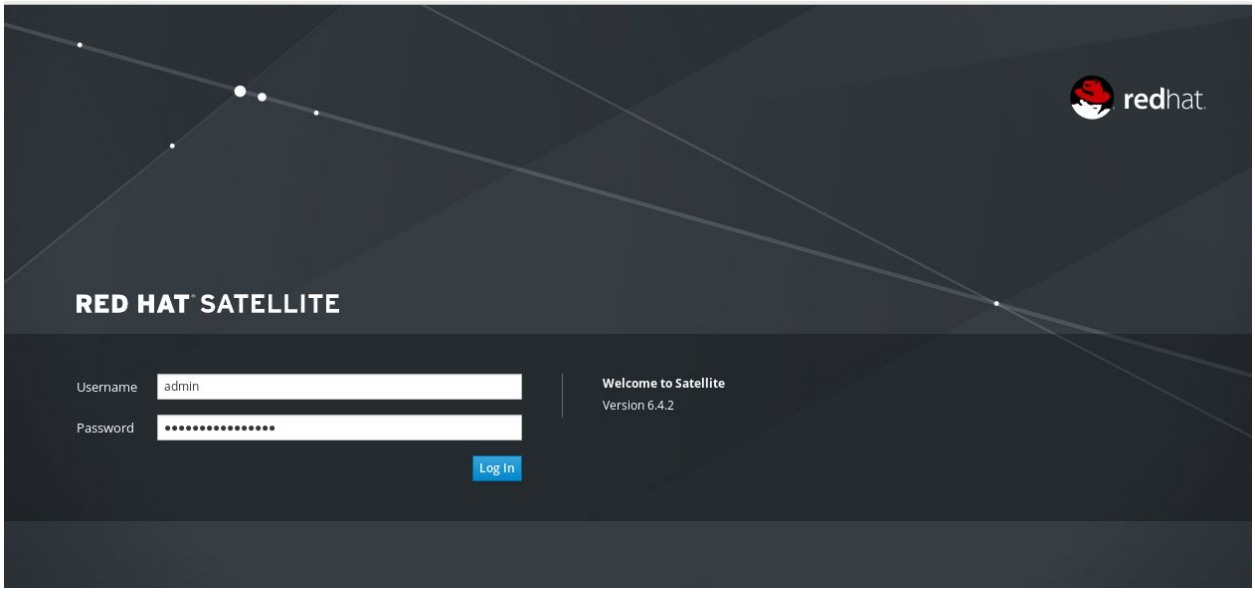
4. After the tools required for satellite are installed, we'll need to configure the Satellite management server.To do that , run:

   ```
   satellite-installer --scenario satellite
   ```

   After successful installation , we'll get a result like this:



5. On visiting the url where satellite is hosted , we should be getting a welcome screen like this:

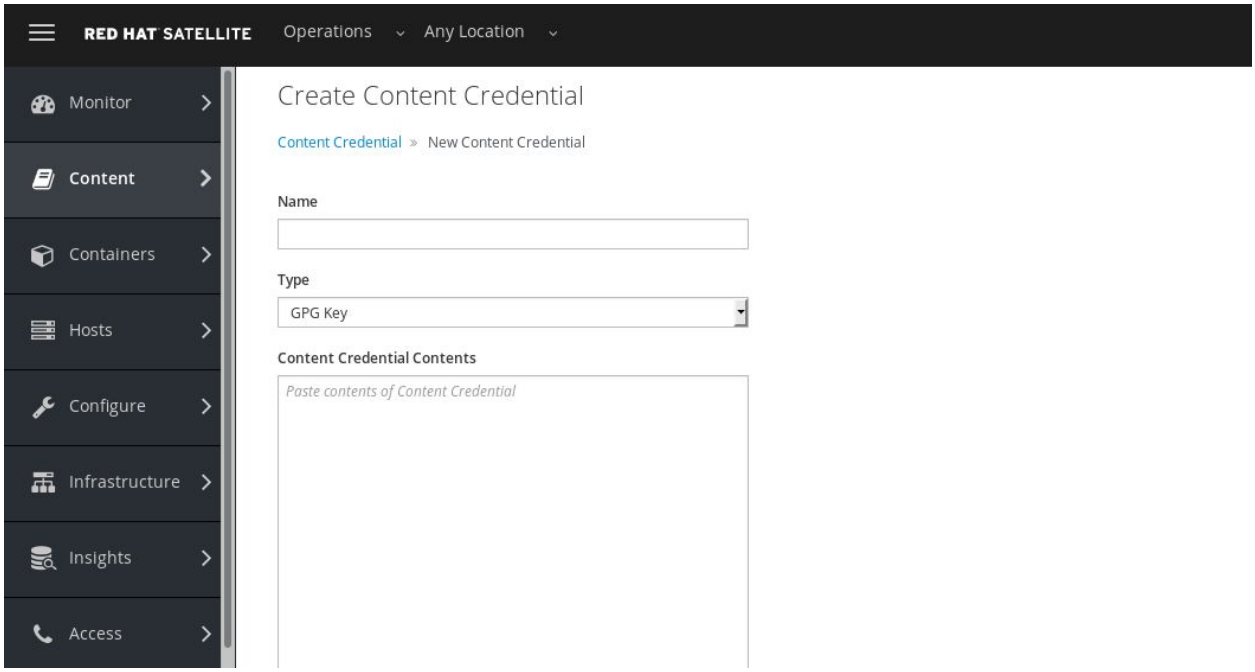


6. Login and choose the tab called **"Default Organization"** and click on Manage Organizations. Once there, choose to create a new organization. Here we will name our organization as **"Operations"**. Click on Submit. In the next Window click on the '**Proceed to Edit**' option as this point of time we don't have any hosts. Finally click on **Submit** on the next window.
Now onward whatever we do in dashboard first make sure we are using '**Operations**' Organization. So Go to Organization Tab and Select '**Operations**'

7. Let's first create the **GPG** keys for CentOS 7 yum repositories. For that we need to download the key using the command:

```
wget http://mirror.centos.org/centos/RPM-GPG-KEY-CentOS-7
```

Now in the dashboard , go to **Content -> Content Credentials -> Create Content Credentials**. Specify the Key Name, in my case I'm putting it as '**RPM-GPG-KEY-CentOS-7**' and then upload the above downloaded CentOS 7 RPM key.



8. **Now here is a step-by-step plan that we'll be performing with a single script**

- *Step 1: create a product.*
- *Step 2: create RPM repositories.*
- *Step 3: sync RPM repositories.*
- *Step 4: create a content view.*
- *Step 5: add repositories to the content view.*
- *Step 6: create a lifecycle environment.*
- *Step 7: publish a content view.*
- *Step 8: promote the content view version to lifecycle environment.*
- *Step 9: create an activation key.*
- *Step 10: add subscription to the activation key.*

To do this , create a file called **configs.sh** and copy the following commands onto it:

```
#TO CREATE A PRODUCT
hammer product create   --name "el7_repos"   --description "Various repositories to use with CentOS 7" --organization "Operations"
#TO ADD CENTOS 7 BASE REPO
hammer repository create   --product "el7_repos"   --name "base_x86_64 "   --label "base_x86_64 "   --content-type "yum"   --download-policy "on_demand"   --gpg-key "RPM-GPG-KEY-CentOS-7"   --url "http://mirror.centos.org/centos/7/os/x86_64/" --mirror-on-sync "no" --organization "Operations"
#TO ADD CENTOS 7 EXTRA REPOS
hammer repository create   --product "el7_repos"   --name "extras_x86_64"   --label "extras_x86_64"   --content-type "yum"   --download-policy "on_demand"   --gpg-key "RPM-GPG-KEY-CentOS-7"   --url "http://mirror.centos.org/centos/7/extras/x86_64/" --mirror-on-sync "no" --organization "Operations"
#TO SYNC FIRST 2 REPOS
for i in $(seq 1 2); do hammer repository synchronize --product "el7_repos" --id "$i"; done
#CREATE A CONTENT VIEW WITH BOTH THE REPOS
```

```
hammer content-view create --name "el7_content" --description "Content view for CentOS 7"
--organization "Operations"
hammer content-view add-repository --name "el7_content" --product "el7_repos"
--organization "Operations" --repository-id "1";
hammer content-view add-repository --name "el7_content" --product "el7_repos"
--organization "Operations" --repository-id "2";
# CREATE A LIFECYCLE ENVIRONMENT CALLED "STABLE"
hammer lifecycle-environment create --name "stable" --label "stable" --prior "Library"
--organization "Operations"
# WE NEED TO PUBLISHED A CONTENT VIEW IN ORDER TO LOCK ITS CONTENT (RPM REPOSITORIES) IN PLACE
hammer content-view publish --name "el7_content" --organization "Operations"
--description "Publishing repositories"
# PROMOTE VERSION TO LIFECYCLE ENVIRONMENT
hammer content-view version promote --content-view "el7_content" --organization
"Operations" --version "1.0" --to-lifecycle-environment "stable" --force
# CREATE AN ACTIVATION KEY CALLED “EL7-KEY”
hammer activation-key create --name "el7-key" --description "Key to use with CentOS7"
--lifecycle-environment "stable" --content-view "el7_content" --unlimited-hosts
--organization "Operations"
# ADD SUBSCRIPTION TO ACTIVATION KEY
hammer activation-key add-subscription --name "el7-key" --organization "Operations"
--quantity "1" --subscription-id "1"
#SCRIPT OVER
```

Now **execute** the configs.sh using: **bash configs.sh**

CLIENT SIDE CONFIGURATION

1. First we need to install subscription-manager on the client. For that we’ll use

```
yum install subscription-manager
```

2. Now we need to add the katello server’s hostname to our **/etc/hosts** file. To do this we will use the command:
echo “<server ip> <fqdn> <subdomain>” >> /etc/hosts

   For example:-

```
echo “192.168.9.15 katello.server.com katello” >> /etc/hosts
```

3. Now install the Satellite server certificate in our client system.
yum -y install **http://<IP>/pub/katello-ca-consumer-<fqdn>-1.0-1.noarch.rpm**
eg:-

```
yum -y install
http://192.168.132.130/pub/katello-ca-consumer-satellite.server.com-1.0-1.noarch.rpm
```

4. To connect to the client, we will use subscriber agent along with the activation key and organization

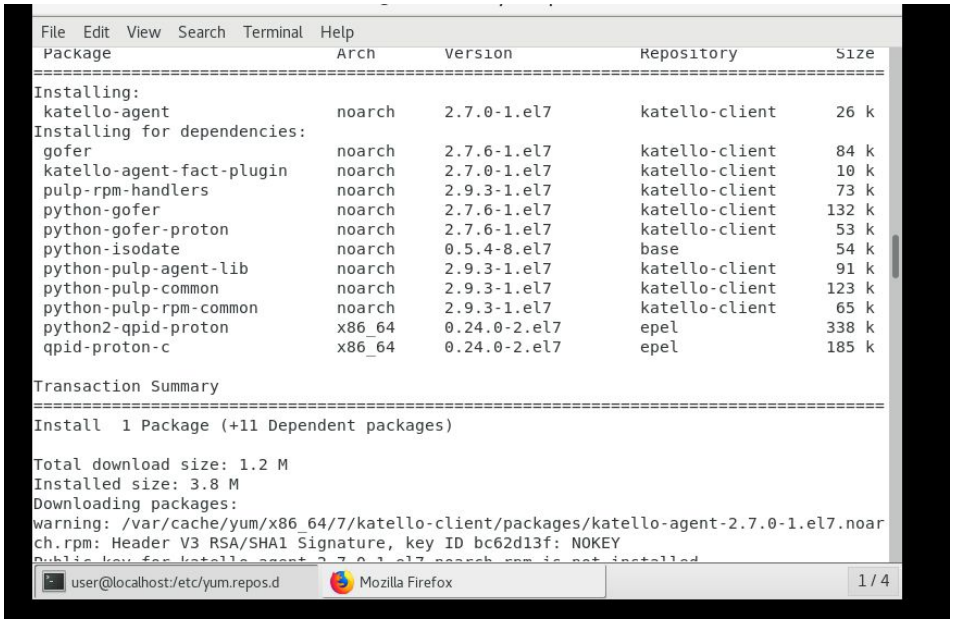
```
subscription-manager register --org="Operations" --activationkey="el7-key"
```

After successful registration, we'll get an output similar to this:

```
The system has been registered with ID: 7c0a6c2f-96f8-41b6-85e2-9765e0ec6ddf
No products installed.
```

5. To install Katello agent on this client, we need to add certain repositories and then install the agent. Create a file called **katelloagent.sh** and copy the following in it and execute it:

```
yum -y install
http://fedorapeople.org/groups/katello/releases/yum/3.2/client/el7/x86_64/katello-client-repos-latest.rpm
yum -y install http://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
yum -y install katello-agent
```



6. Start the Katello agent service and enable it to start at the system boot using the commands:

```
systemctl start goferd
systemctl enable goferd
```

SERVER SIDE VERIFICATION

Now verify whether the Katello agent is installed on the Host from the Satellite dashboard.
Hosts –> Content Hosts –> Select Host –> check the Katello Agent parameter

To install a package, go to **Hosts** –> **Content Hosts** –> **Select Host** –> **Packages**

Choose Package Action as "**Package Remove**" or "**Package Install**" and then type the name of a package; then click on perform.

Thus we are done with configuring RedHat Satellite successfully.