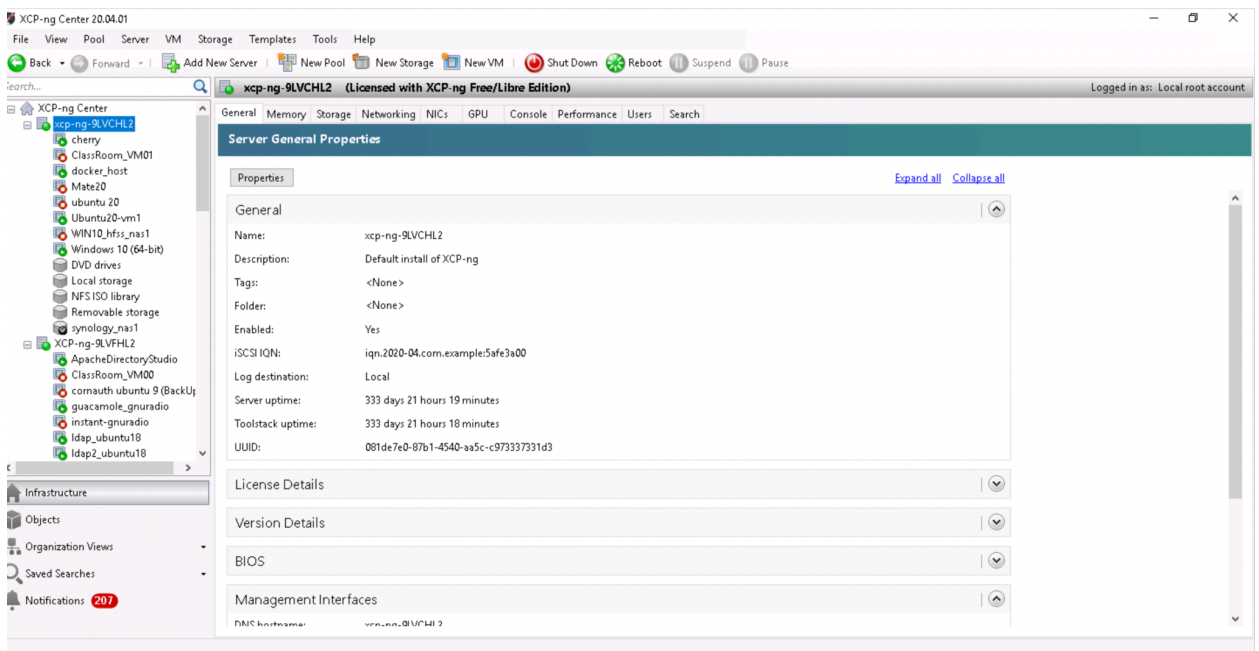


Steps to Create a new Virtual Machine XCP-NG Server

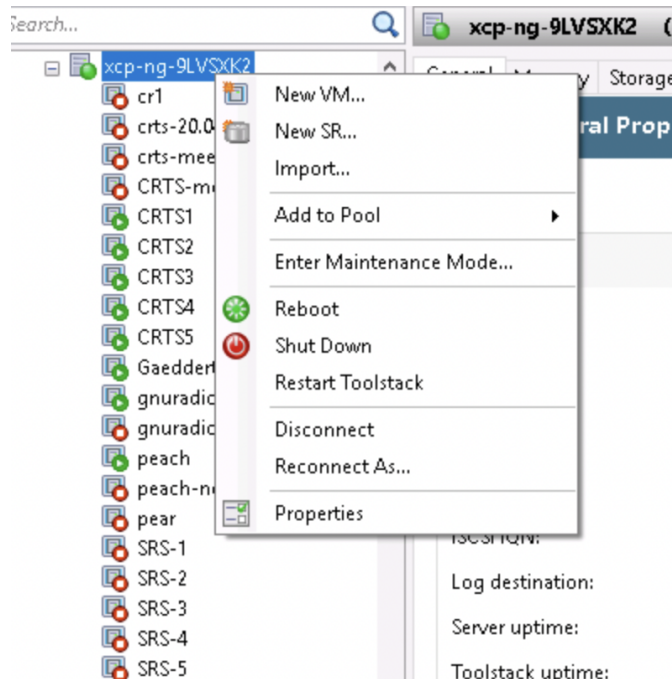
1. Login to the guacamole server <http://kermit.wireless.vt.edu:8080/guacamole/#/>
Credentials: user1
Password: <shared through email>
2. A screen appears to select the admin VM.



3. You will be redirected to the testbed admin virtual machine.
4. Open the xcp-ng center 20.04.10 application.



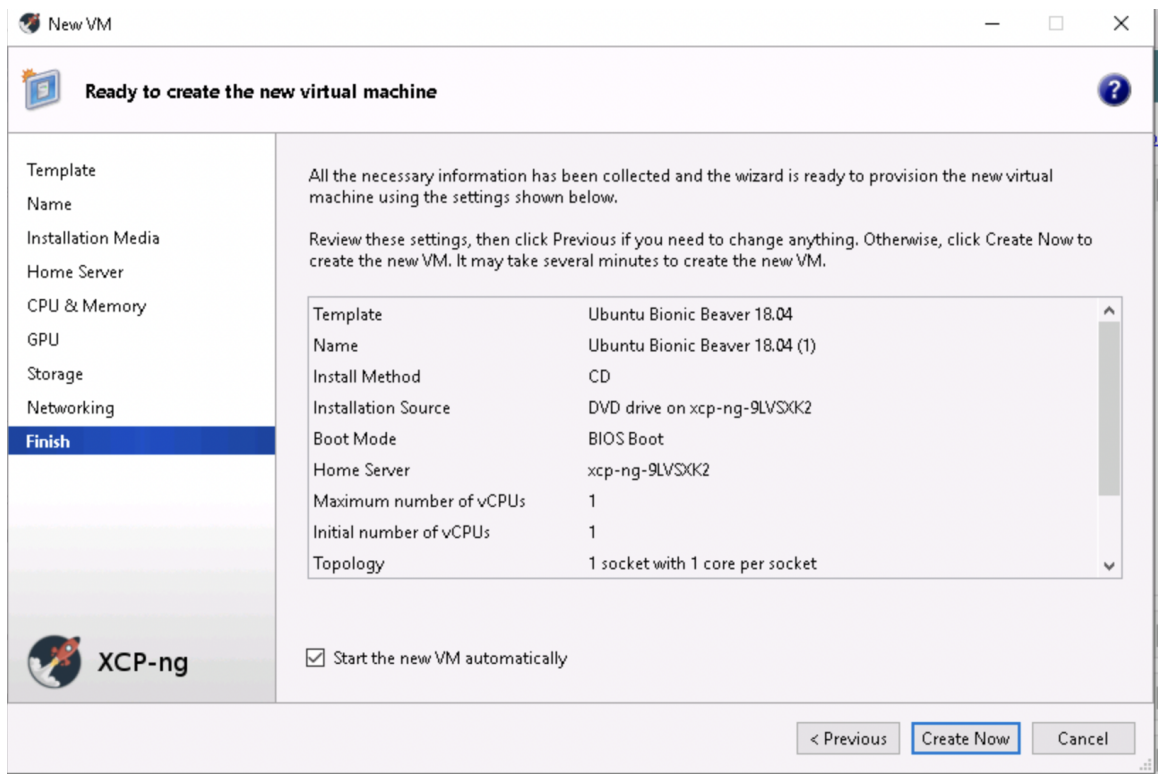
5. Select the xcp-ng-9LV5XK2 server. It will have some virtual machines created. To create a new virtual machine right click on the server and click on New VM..



6. Complete the template form by selecting the OS and providing the appropriate configurations as required.

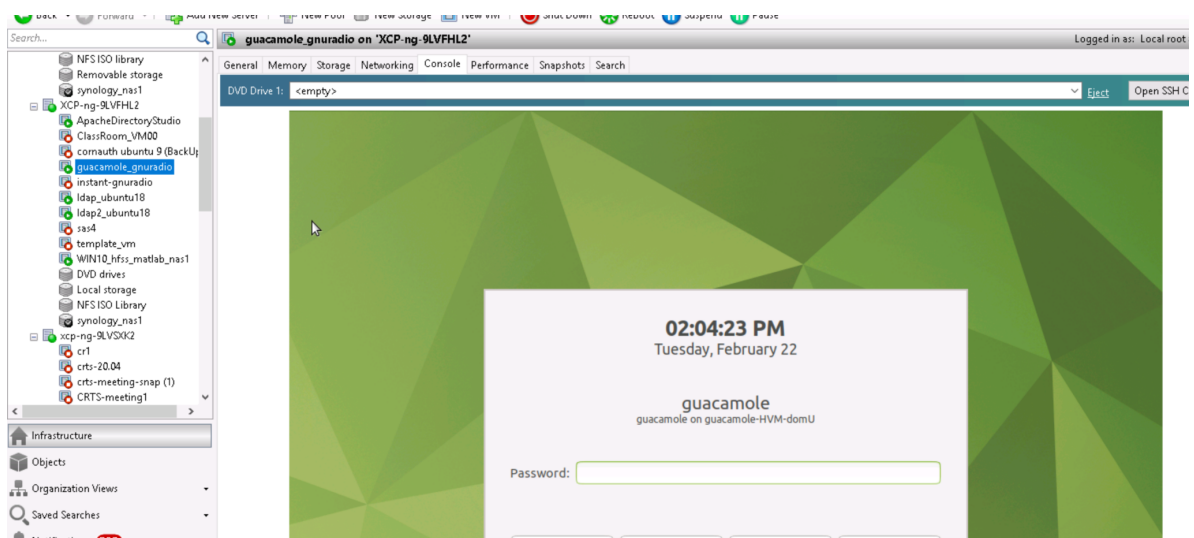
A screenshot of the 'New VM' wizard in the XCP-ng Center web interface. The window title is 'New VM'. The wizard has a left sidebar with steps: 'Template', 'Name', 'Installation Media', 'Home Server', 'CPU & Memory', 'GPU', 'Storage', 'Networking', and 'Finish'. The 'Name' step is currently selected. The main area of the wizard contains instructions: 'Enter a name that will help you to identify the virtual machine later. This could be a name that describes its software and hardware such as RHEL DHCP Server. This name will also be displayed in XCP-ng Center's Resources pane and can be changed later.' and 'You can also add a more detailed description of the VM, if you want.' Below this, there is a 'Name:' label followed by a text input field containing 'Ubuntu Bionic Beaver 18.04 (1)'. There is also a 'Description:' label followed by a larger text area. At the bottom of the wizard, there are three buttons: '< Previous', 'Next >', and 'Cancel'. The XCP-ng logo is visible in the bottom left corner of the wizard area.

8. Finish the setup and click on Create Now. This will create a virtual machine.



Map the VM to the guacamole server to access from Web UI

1. Go to the xcp-ng 9LVFHL2 server which has an existing guacamole server named guacamole_gnuradio. You can also create a new guacamole server that has different steps.



2. Login to the guacamole server by entering the password *gnuradioStudent*.
3. Open terminal and open the user-mapping xml file using the command:
sudo vim user-mapping.xml

```
guacamole@guacamole-HVM-domU:/etc/guacamole$ sudo vim user-mapping.xml
guacamole@guacamole-HVM-domU:/etc/guacamole$
```

4. Add the configurations of the VM in the xml file as shown below:

```
<authorize username="crtstesting" password="testing">
  <!-- First authorized Remote connection -->
  <connection name="VM1">
    <protocol>rdp</protocol>
    <param name="hostname">192.168.1.93</param>
    <param name="port">3389</param>
    <param name="username">crtstesting</param>
    <param name="ignore-cert">true</param>
  </connection>
```

5. Save the file and exit.
6. Restart the VM.

Connecting USRP network to VMs:

1. Adding vms to the radio subnet step is to first make sure the vm has an interface on the x310-bond network,
2. then copy the netplan configuration from a similar vm (most of the time it's just a manual ip on eth1) to your current vm.
3. Make sure the ip in your copied netplan conf is unique and not overlapping a radio.

```
## Let NetworkManager manage all devices on this system
network:
  ethernets:
    eth0:
      dhcp4: true
    eth1:
      addresses:
        - 192.168.40.80/24
      mtu: 9000
  version: 2
  renderer: NetworkManager
```

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