Stackscale

VALIDATE HOSTED CLOUD DEPLOYMENTS

Project: Stackscale reference Cloud Provider integration

Date: Nov 2, 2025

Version: 1.0

This document describes an overview of OpenNebula cloud platform architecture. It also describes how to provision and configure an infrastructure with OpenNebula in Stackscale infrastructure.

Revision History			
Version	Date	Author	Comments
1.0	02/11/25	Stackscale	Initial version of document

Validate Hosted Cloud Deployments

This short guide explains how to access a Hosted OpenNebula Cloud deployment via the web UI, instantiate a Virtual Machine, verify basic network connectivity, and then clean up the test resources.

Note: This guide covers only the minimal actions needed to validate the platform. For more advanced usage, refer to the official OpenNebula documentation on deploying virtual machines.

1. Access the Sunstone Web UI (via VPN)

1. First, connect to the VPN provided for your Hosted OpenNebula environment. Access to the Sunstone UI is only available from inside this VPN.

2. Once the VPN is established, open a browser and go to:

http://<FRONTEND_PRIVATE_IP>:2616/fireedge/sunstone

3. Log in with:

- User: oneadmin
- Password: the value of one_pass you receive in the delivery mail

After logging in you will see the main Sunstone dashboard.

2. Select a VM Template

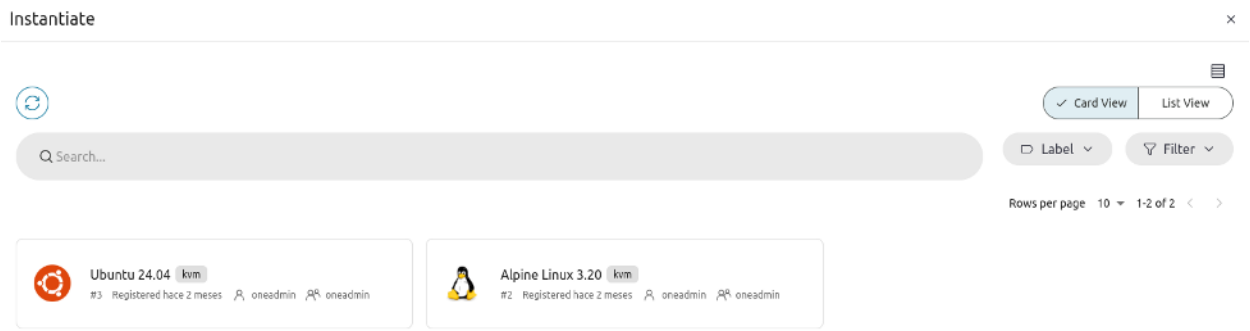
1. In the left-hand menu, go to:

Templates -> VM Templates (or Instances -> VMs -> Create, depending on your menu layout).

2. Click Instantiate. A dialog named "Instantiate" opens, showing the available templates in card view – for example:

- Ubuntu 24.04 (kvm)
- Alpine Linux 3.20 (kvm)

Figure 1 – Available VM templates (Ubuntu / Alpine).



3. Click on Ubuntu 24.04 (or any other test template you want to use).

3. VM Configuration (Step 1)

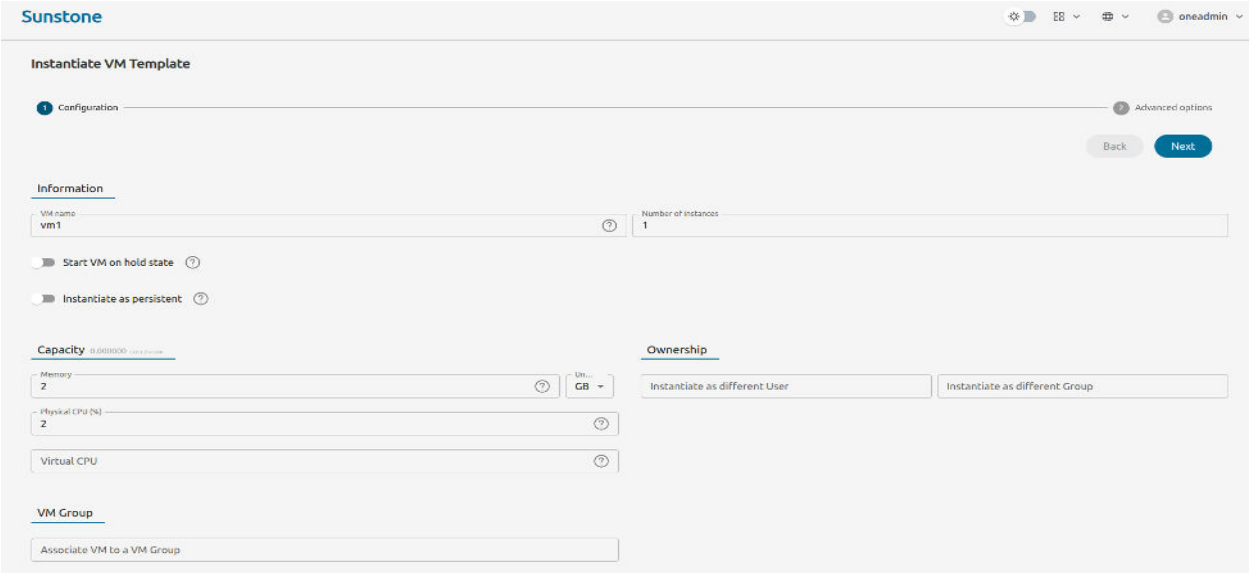
You are now in the "Instantiate VM Template" wizard.

1. In the Information section:
   - VM name: enter a name, e.g. vm1.
   - Number of instances: leave 1.

2. In the Capacity section, leave the default values (for example, 2 GB memory and 2% physical CPU) unless you need something else for your test.

3. Leave the rest of the options (VM Group, Ownership) with their defaults.

Figure 2 – Instantiate VM Template – basic configuration.



4. Click Next to continue.

4. Storage (Step 2 – Storage Tab)

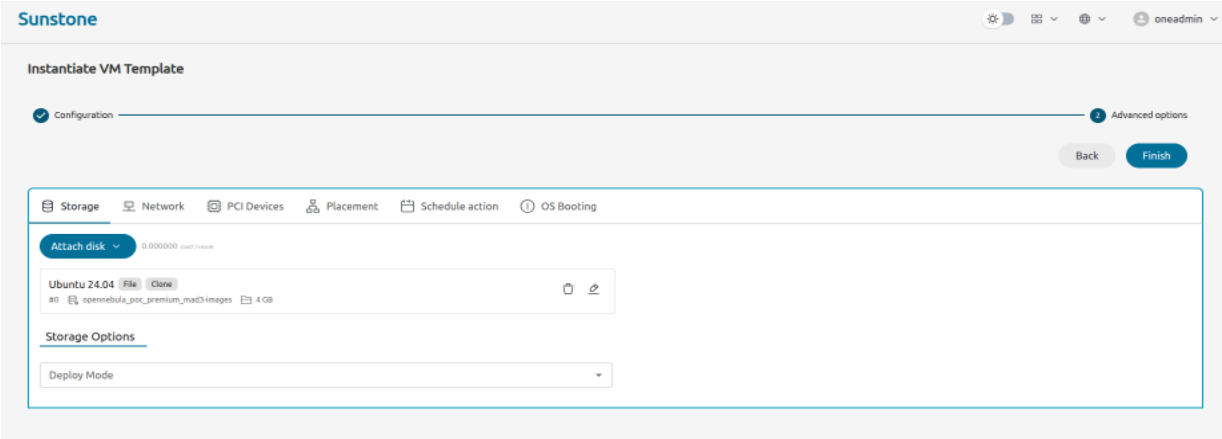
On the Storage tab you should see the system disk already attached, for example:

- Ubuntu 24.04 – 4 GB – File / Clone

Normally no changes are required here for a simple validation:

1. Keep the existing disk attached.
2. Ensure Deploy Mode is set to the default value.
3. Do not add extra disks for this basic test.

Figure 3 – Instantiate VM Template – storage configuration.

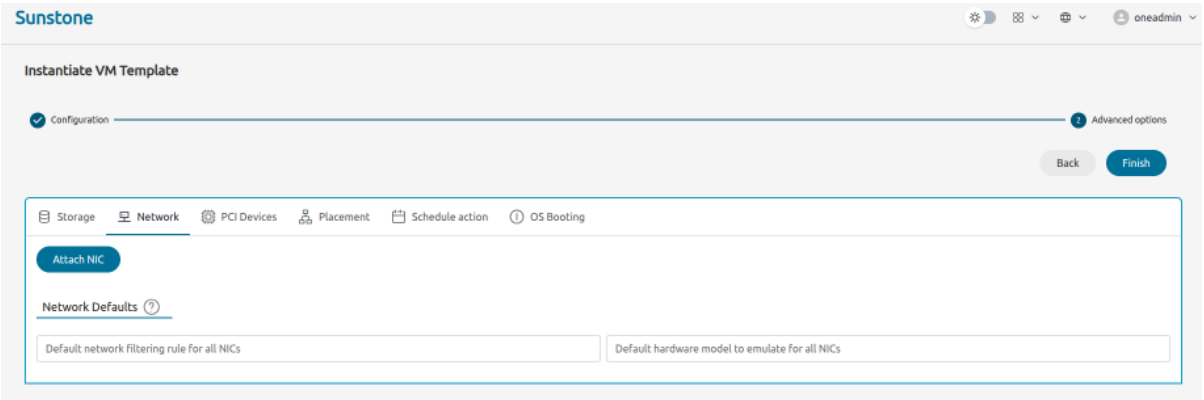


5. Attach a Network Interface

5.1 Open the Network Tab

1. Click the Network tab in the same wizard. At this point, the VM has no NICs attached and you will see an Attach NIC button.

Figure 4 – Instantiate VM Template – network tab without NICs.



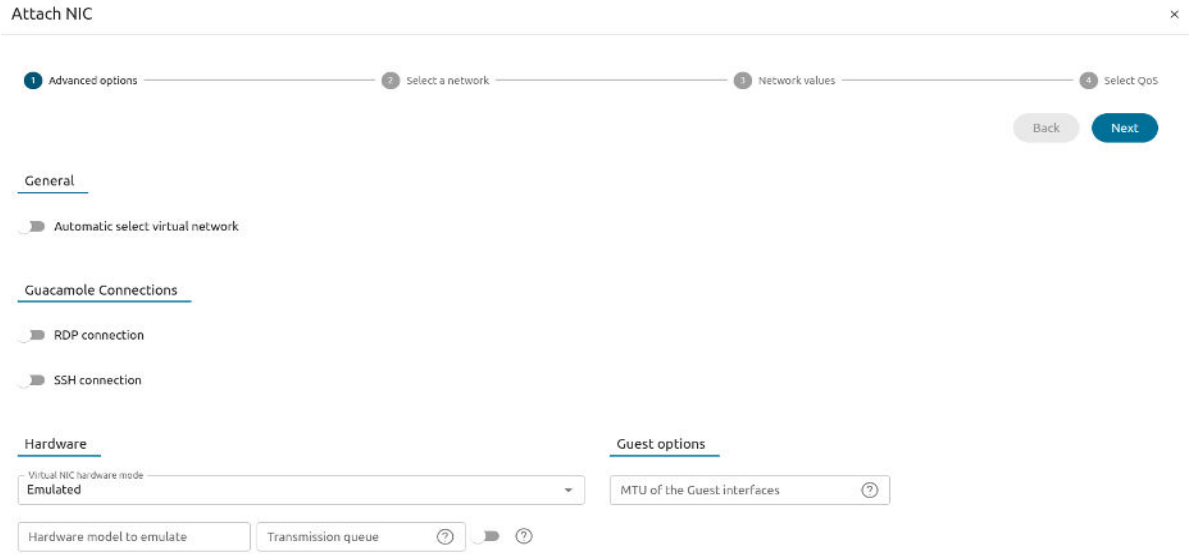
2. Click Attach NIC to open the "Attach NIC" wizard.

5.2 Advanced Options (Attach NIC – Step 1)

In the Advanced options step:

- Leave all settings with their default values:
  - Automatic select virtual network: disabled
  - Guacamole Connections (RDP/SSH): disabled
  - Virtual NIC hardware mode: Emulated
  - Guest options / MTU: default

Figure 5 – Attach NIC – advanced options.



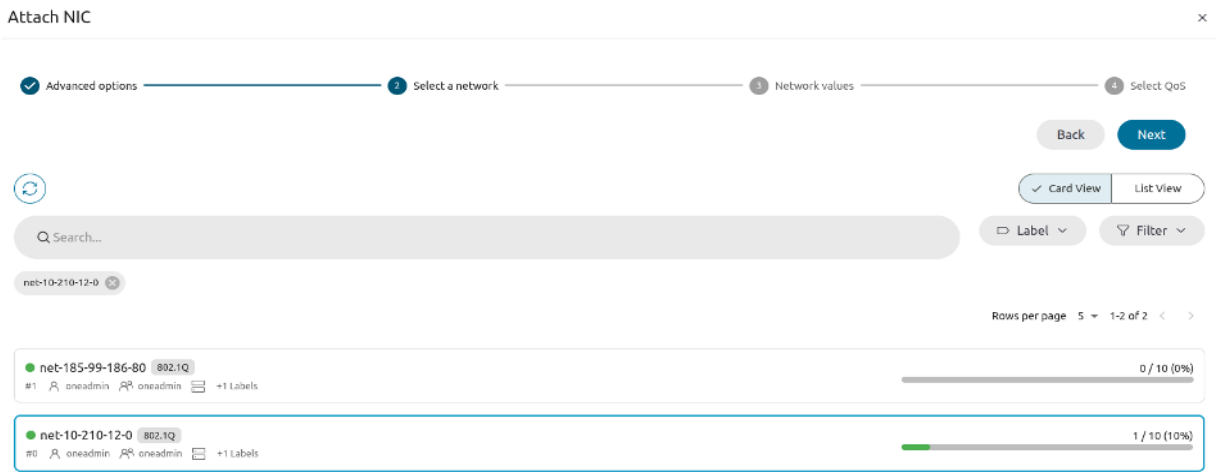
Click Next.

5.3 Select a Network (Attach NIC – Step 2)

In the Select a network step:

1. Use the search if needed and choose the virtual network you want to use for this test. In this example, the network is:
   - net-10-210-12-0 (802.1Q)
2. Click on that network so it is highlighted/selected.
3. Click Next.

Figure 6 – Attach NIC – select a network.



5.4 Network Values (Attach NIC – Step 3)

In the Network values step you can override IPv4/IPv6 parameters.

For a simple validation:

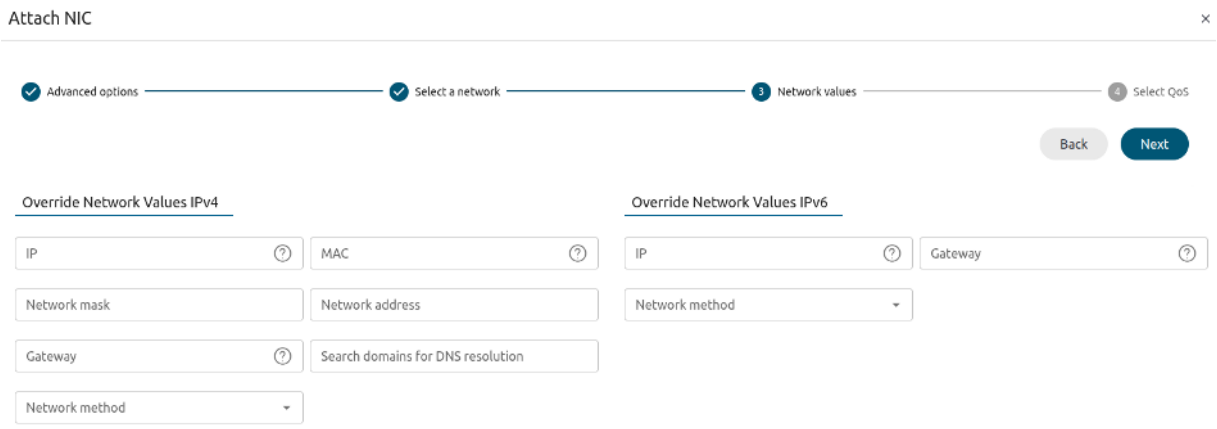
1. Leave all "Override Network Values IPv4 / IPv6" fields empty:

- IP
- MAC
- Network mask
- Gateway
- Network method
- DNS search domains

OpenNebula will automatically assign an address from the selected network's address range.

2. Click Next.

Figure 7 – Attach NIC – network values.

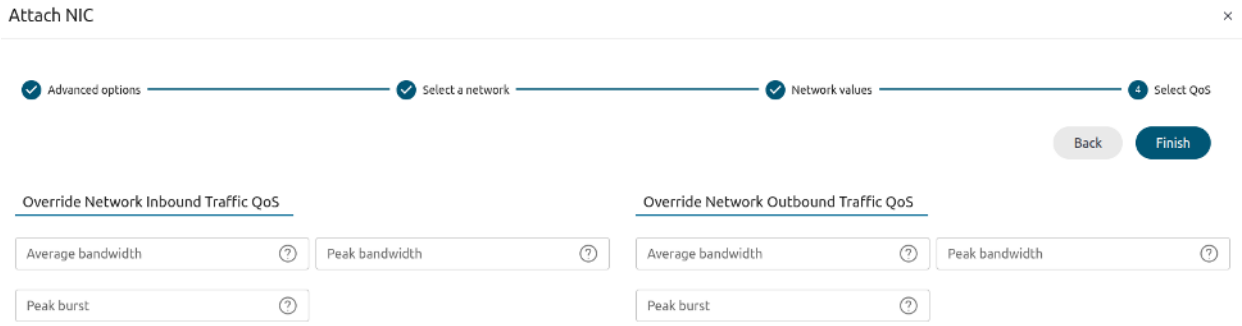


5.5 QoS Settings (Attach NIC – Step 4)

In the Select QoS step:

- Leave Average bandwidth, Peak bandwidth and Peak burst empty for both inbound and outbound traffic, unless you specifically want to limit the VM's bandwidth.

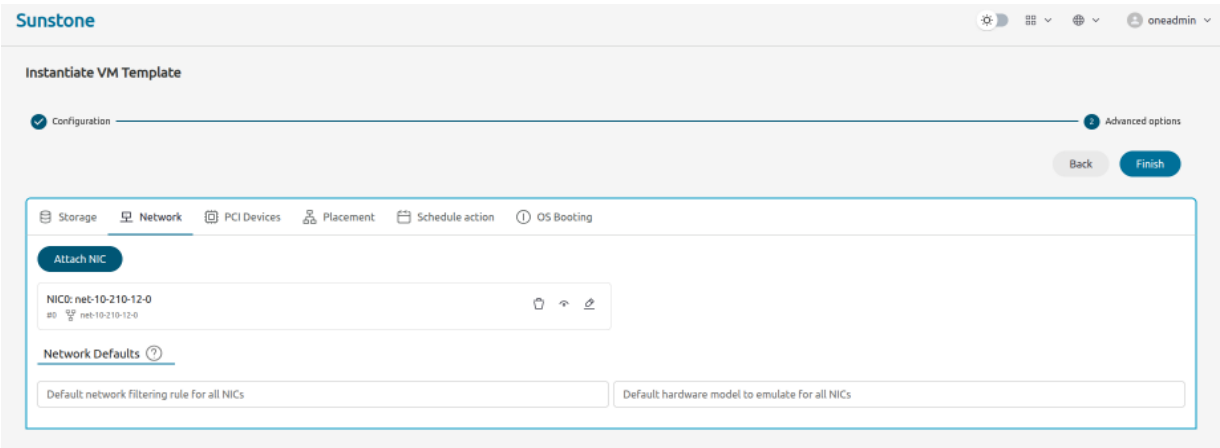
Figure 8 – Attach NIC – QoS.



Click Finish to close the Attach NIC wizard.

You are now back in the Instantiate VM Template wizard, and you should see NIC0: net-10-210-12-0 under the Network tab.

Figure 9 – Instantiate VM Template – network tab with NIC0 attached.

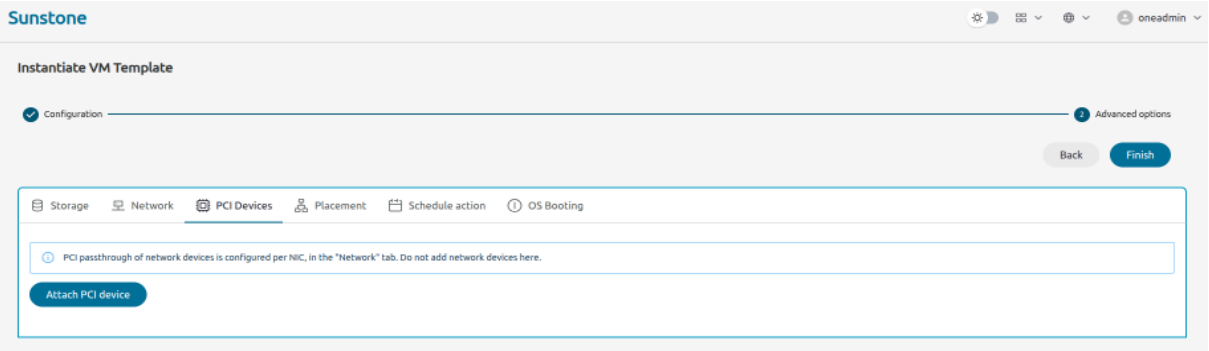


6. Other Tabs (PCI Devices, Placement, Schedule Action, OS Booting)

For this simple connectivity test, you can leave the remaining tabs with their defaults:

- PCI Devices: do not attach any device.

Figure 10 – Instantiate VM Template – PCI devices.



- Placement: let the scheduler choose a suitable host.
- Schedule action: not required for this test.
- OS Booting: keep the default boot order/template settings.

If your template uses cloud-init or contextualization, it may already define a default user and password or SSH key. For this basic test, use the credentials associated with the template (for example, a root user with a predefined password).

7. Instantiate the VM

1. Review the configuration.

2. Click Finish at the top right of the wizard.

Sunstone will return to the main view and the new VM instance will appear under Instances -> VMs with the name you specified (for example, vm1).

Wait until the VM reaches the RUNNING state.

8. Access the VM Console

1. Go to Instances -> VMs.

2. Locate your VM (for example, vm1).

3. Click the VNC / console icon (screen icon) on the right-hand side.

A console window will open.

4. Log in using the credentials defined in your VM template or contextualization (for example, root and the password configured in the image).

9. Verify Network Connectivity

Inside the VM console:

1. Check that the NIC has received an IP address, for example:

```
ip addr
```

2. Test basic connectivity to the Internet or an external resource, for example:

```
ping -c 4 8.8.8.8
```

If you receive replies, the network configuration for the hosted cloud deployment is working correctly.

10. Clean Up the Test VM

Once you have validated your deployment:

1. In Instances -> VMs, select the test VM.
2. Click the red Trash can / Terminate icon.
3. Confirm the action.

Wait until the VM transitions to state DONE, which indicates it has been properly terminated and its resources have been released.