

Deploy Arista CloudEOS with Equinix Bare Metal

Goal

In this deployment guide, we will show you how to deploy Arista CloudEOS Router in Equinix Bare Metal, with the following high-level tasks.

- Deploy an Equinix Bare Metal Server
- Deploy an Arista CloudEOS Router on ESXi and bring online

For more information about the Arista CloudEOS Router, see [here](#) and Arista CloudVision, see [here](#). For more information about Equinix Bare Metal, see [here](#).

Deployment Diagram

In the following diagram, we will focus on creating one of the Equinix Servers. We will deploy US-West and choose Dallas for its location.

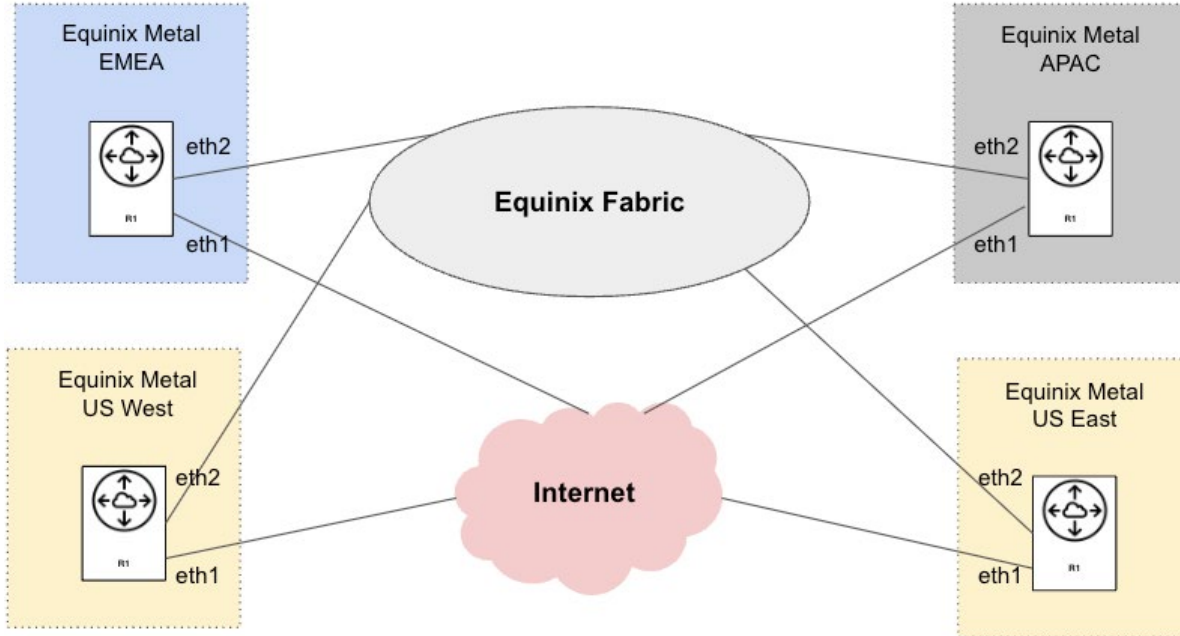
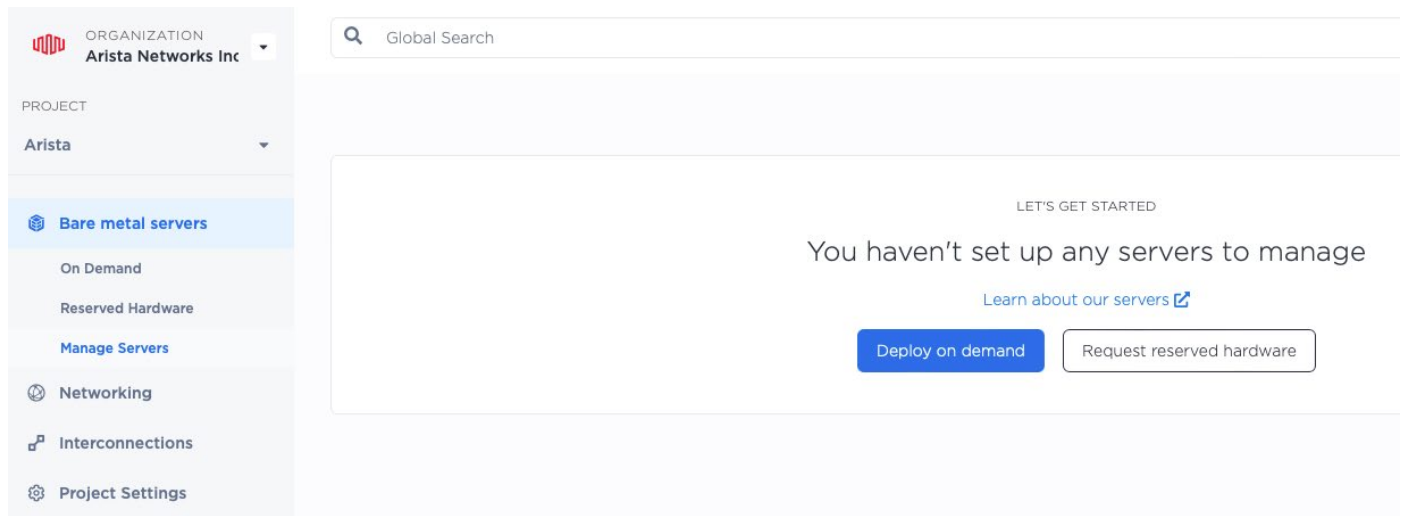


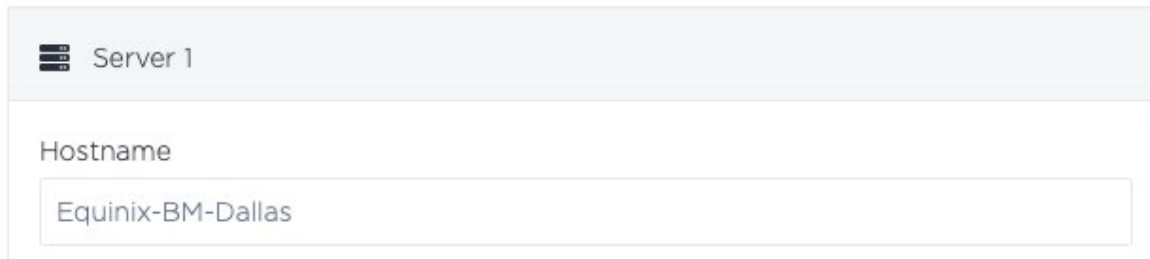
Figure 1: CloudEOS with Equinix Bare Metal spanning the globe, allowing optimal performance and a quick deployment.

Deployment Diagram

1. In Equinix's Metal Console, select "Bare metal servers" and then "Deploy on demand"



5. Enter the Equinix Bare Metal Server name.



Server 1

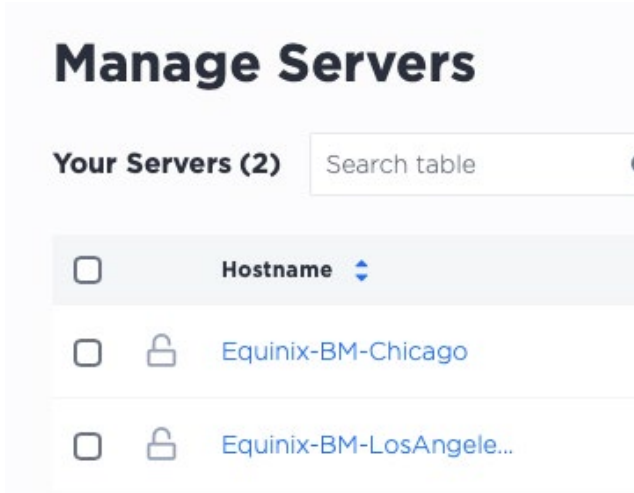
Hostname

Equinix-BM-Dallas

6. Select Deploy Now at the bottom.



7. Once the server show as deployed, select the name to open Details.

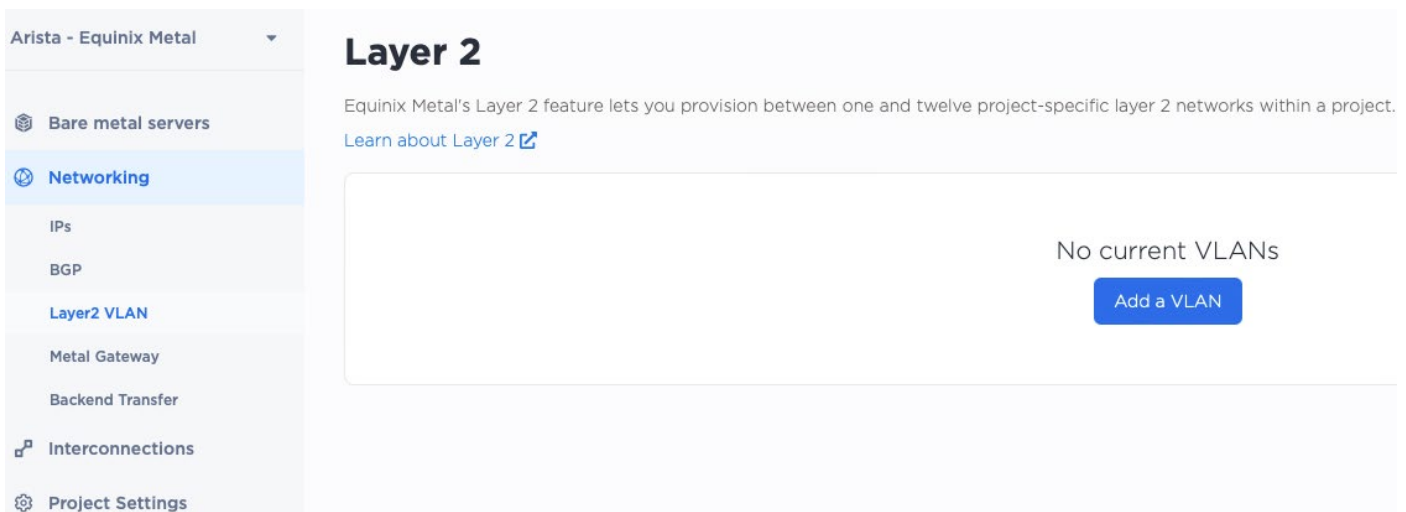


Manage Servers

Your Servers (2)

<input type="checkbox"/>	Hostname
<input type="checkbox"/>	Equinix-BM-Chicago
<input type="checkbox"/>	Equinix-BM-LosAngele...

8. IMPORTANT! The password will only remain for 24 hours after creating the server. Make certain to copy down the Password and save it somewhere secure. This is the Root password to connect to ESXI at the Public IP listed.
9. If deploying multiple servers, add a VLAN to communicate across the Equinix Fabric or dedicated ports with.



Arista - Equinix Metal

- Bare metal servers
- Networking**
- IPs
- BGP
- Layer2 VLAN
- Metal Gateway
- Backend Transfer
- Interconnections
- Project Settings

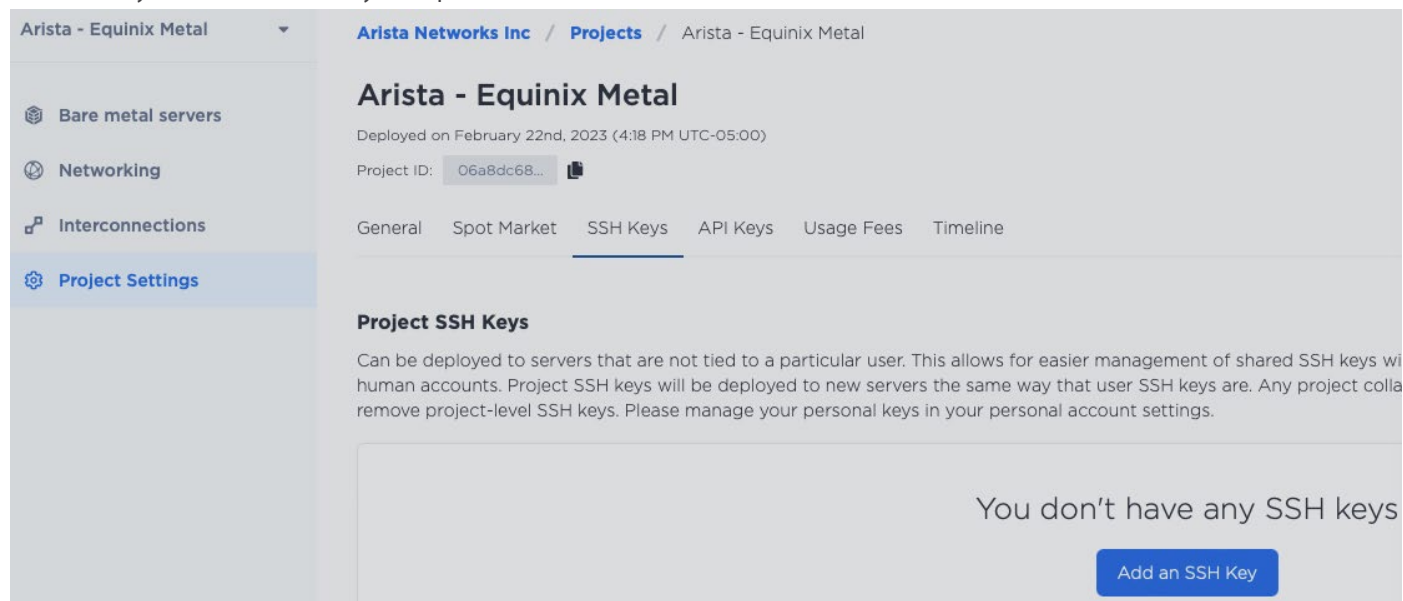
Layer 2

Equinix Metal's Layer 2 feature lets you provision between one and twelve project-specific layer 2 networks within a project. [Learn about Layer 2](#)

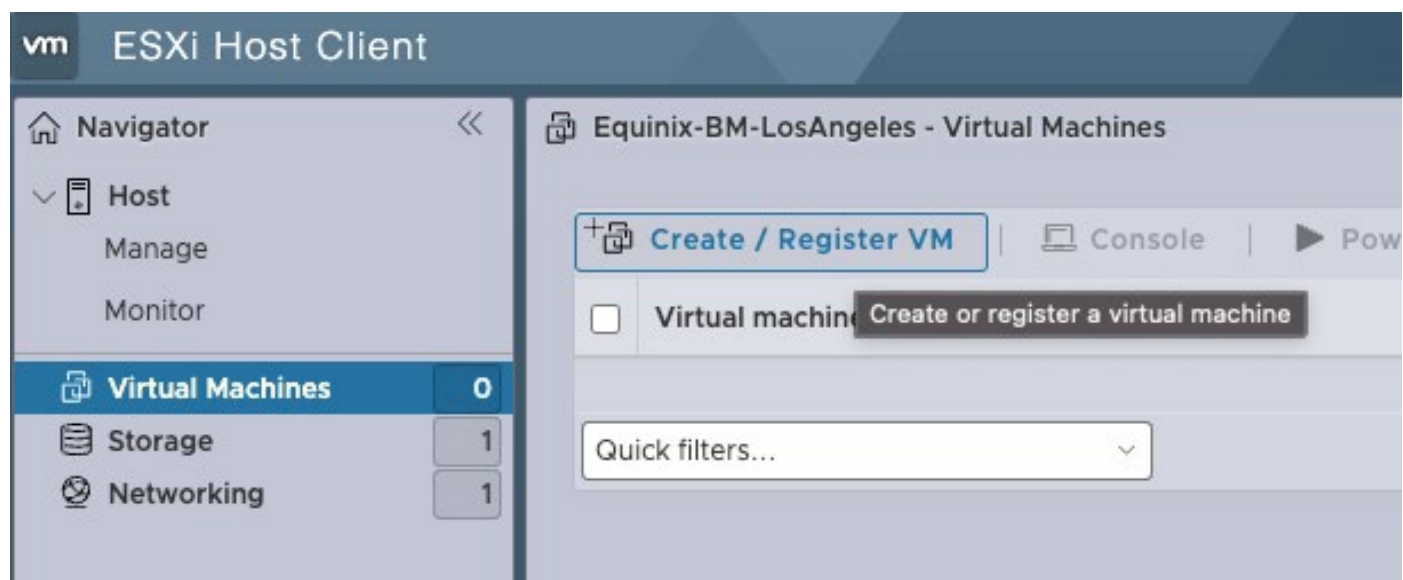
No current VLANs

[Add a VLAN](#)

10. You can add the SSH Keys as an alternative way to connect to the Bare Metal Host Server by going into Project Settings and Add SSH Key. For more on SSH keys in Equinix metal see [here](#).



11. Open a Web Browser and go to the IP provided in the Server details. This will open the ESXI window. Login with "root" and the password previously saved offline.
12. Next, we will install CloudEOS on ESXI. To do this, go to Virtual Machines and Create / Register VM.



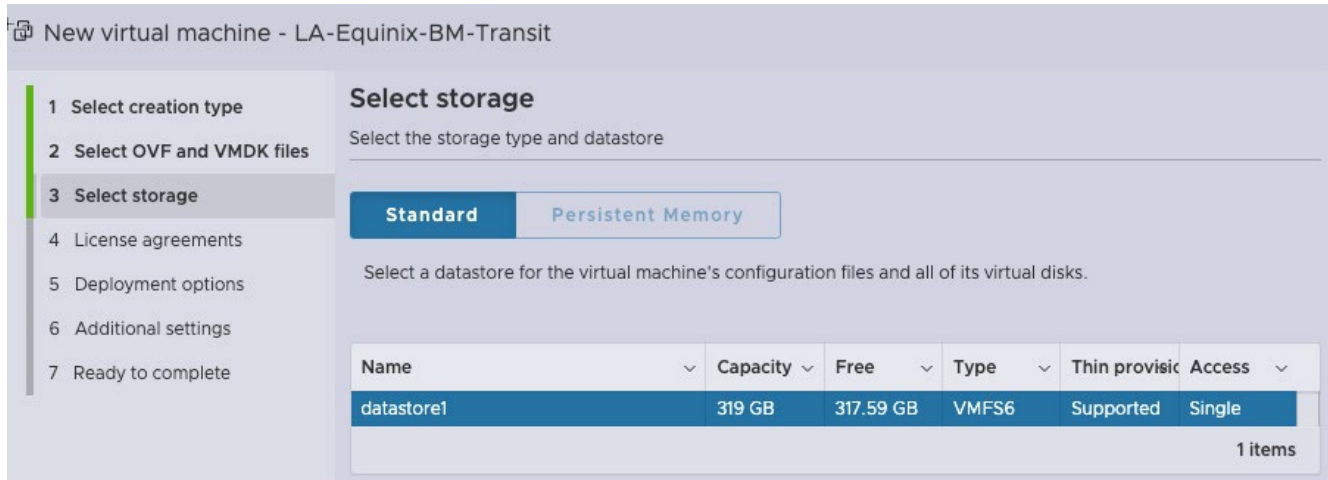
13. Select "Deploy a virtual machine from an OVF or OVA file" and then select "Next"

The screenshot shows the 'New virtual machine' wizard. On the left is a sidebar with a list of steps: 1. Select creation type (highlighted), 2. Select OVF and VMDK files, 3. Select storage, 4. License agreements, 5. Deployment options, 6. Additional settings, and 7. Ready to complete. The main area is titled 'Select creation type' and asks 'How would you like to create a Virtual Machine?'. It contains three options: 'Create a new virtual machine', 'Deploy a virtual machine from an OVF or OVA file' (which is selected and highlighted in blue), and 'Register an existing virtual machine'. To the right of these options is a text box that reads: 'This option guides you through the process of creating a virtual machine from an OVF and VMDK files.'

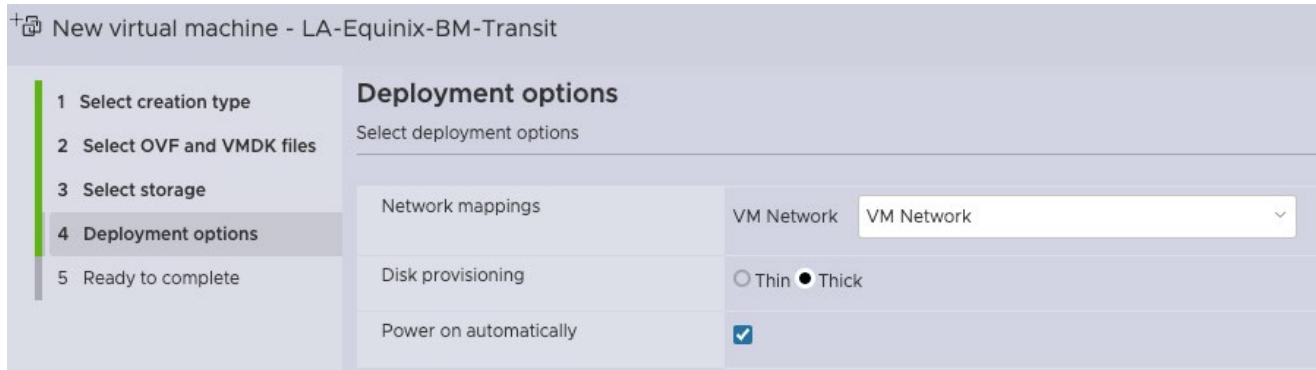
14. Provide a name used to ESXI for this Router and then browse to the location you have downloaded the CloudEOS file to. Note: CloudEOS images are found at [here](#)

The screenshot shows the 'New virtual machine - LA-Equinix-BM-Transit' wizard. The sidebar on the left shows steps: 1. Select creation type, 2. Select OVF and VMDK files (highlighted), 3. Select storage, 4. License agreements, 5. Deployment options, 6. Additional settings, and 7. Ready to complete. The main area is titled 'Select OVF and VMDK files' and asks 'Select the OVF and VMDK files or OVA for the VM you would like to deploy'. Below this is a text input field for the virtual machine name, containing 'LA-Equinix-BM-Transit'. A note below the field states: 'Virtual machine names can contain up to 80 characters and they must be unique within each ESXi instance.' At the bottom of the main area, there is a light blue box containing a file selection notification: 'x CloudEOS-4.29.2F.ova'.

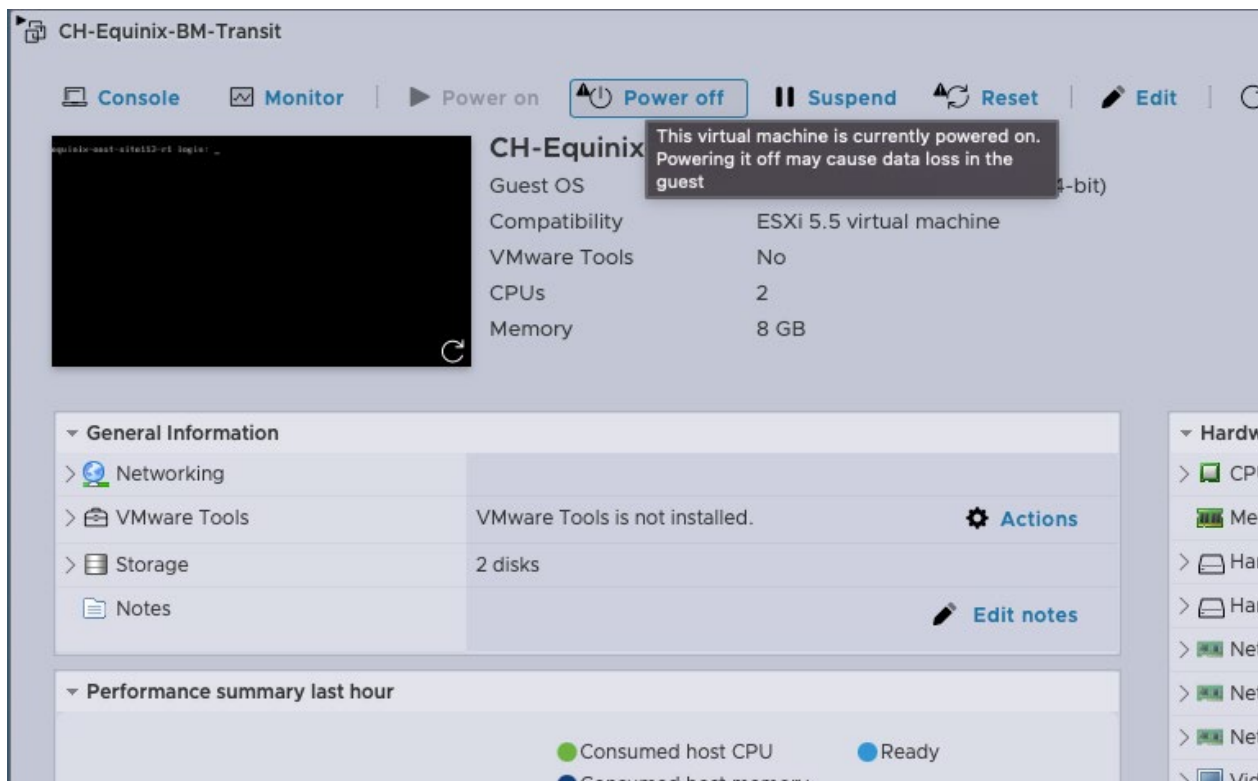
15. Select "Next", as only one storage device will be available.



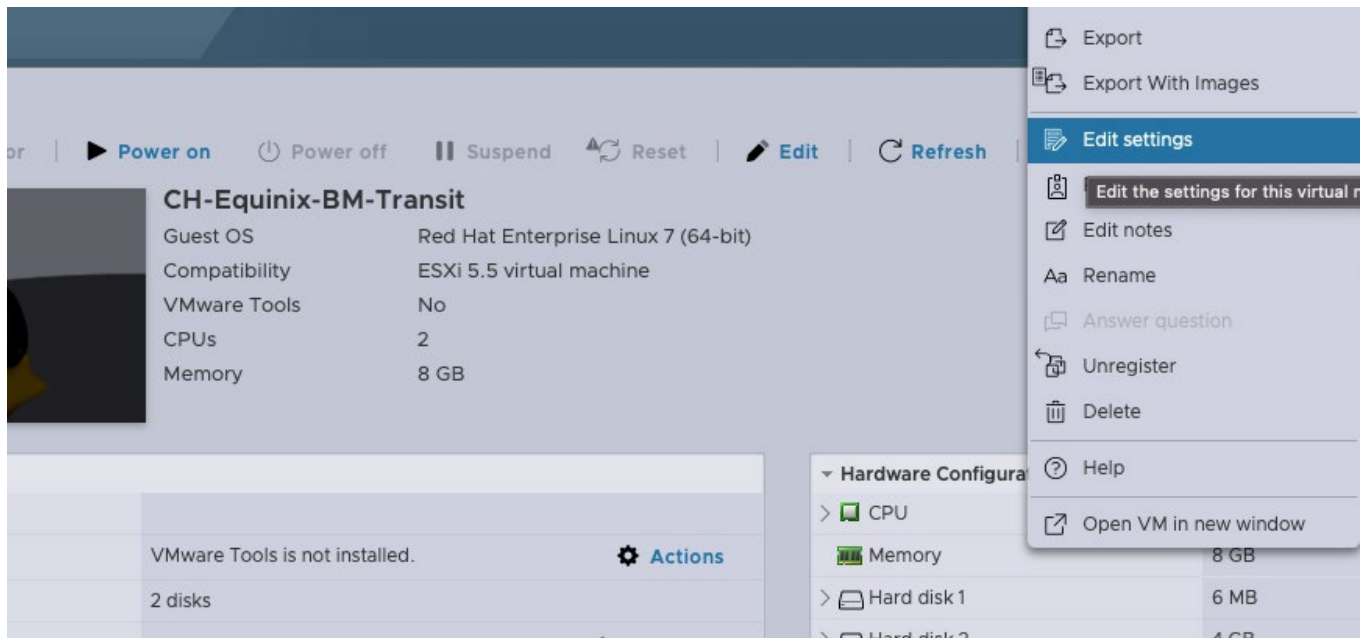
16. Select "Thick" and "Finish".



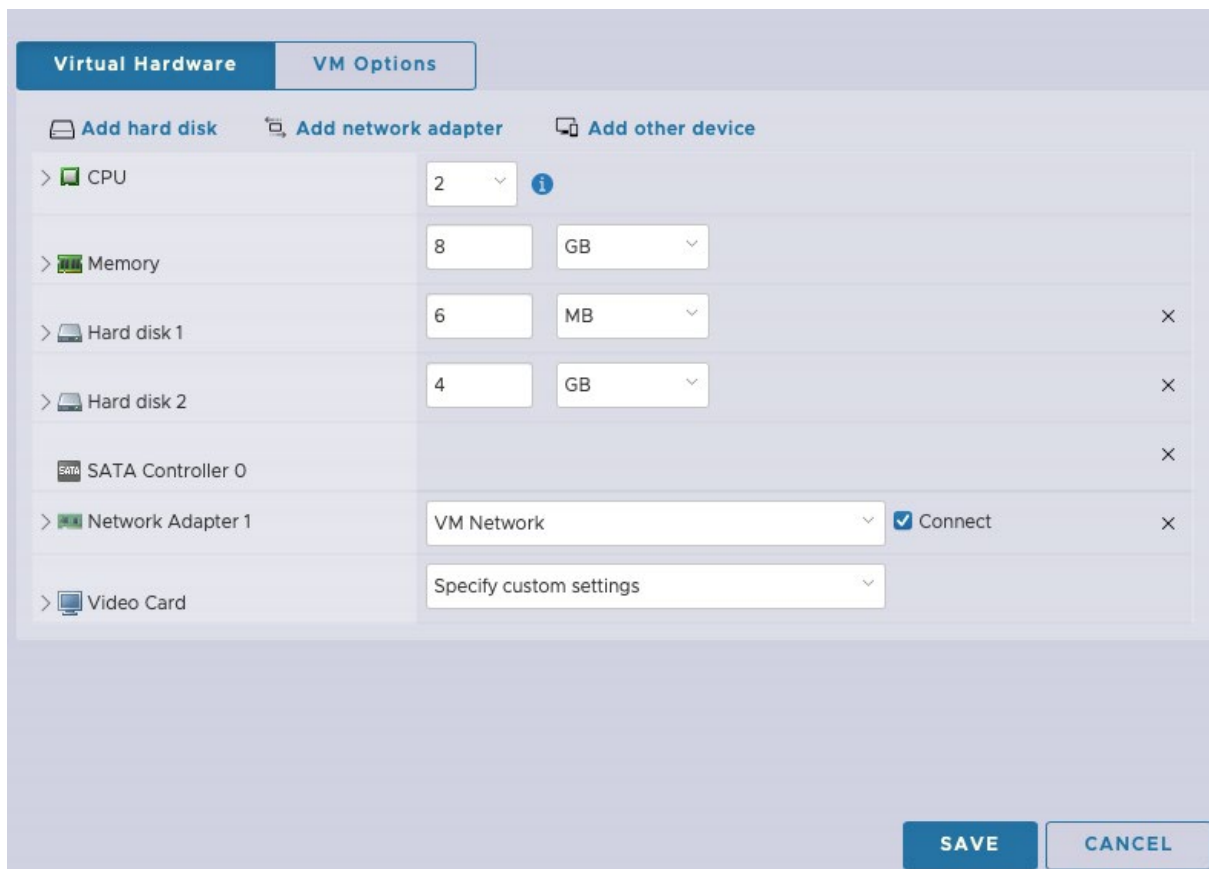
17. After the VM is installed, we will edit the network settings with require us to Power Off the VM first.



18. Once powered off, go to "Actions" and "Edit Settings"



19. In the VM Hardware Settings, change the memory to the desired amount. The minimum requirements as seen in the [Data Sheet](#) is 8Gb. At this point you will also add additional Network Adaptors. By default, there will be one Network Adaptor, which is defaulted to the Mgmt Interface in EOS. We will add one interface for the Internet side as well as another in the event we add a backbone connection to another Router in the Equinix environment. After the VM is installed, we will edit the network settings with require us to Power Off the VM first.



20. Select "Add network adaptor" twice, which will add two more adaptors.

Device	Value	Unit	Connect	Action
CPU	2			
Memory	8	GB		
Hard disk 1	6	MB		×
Hard disk 2	4	GB		×
SATA Controller 0				×
Network Adapter 1	VM Network		<input checked="" type="checkbox"/>	×
Network Adapter 2	VM Network		<input checked="" type="checkbox"/>	×
Network Adapter 3	VM Network		<input checked="" type="checkbox"/>	×
Video Card	Specify custom settings			

21. Power on the VM again and you will be ready to configure CloudEOS.

CH-Equinix-BM-Transit

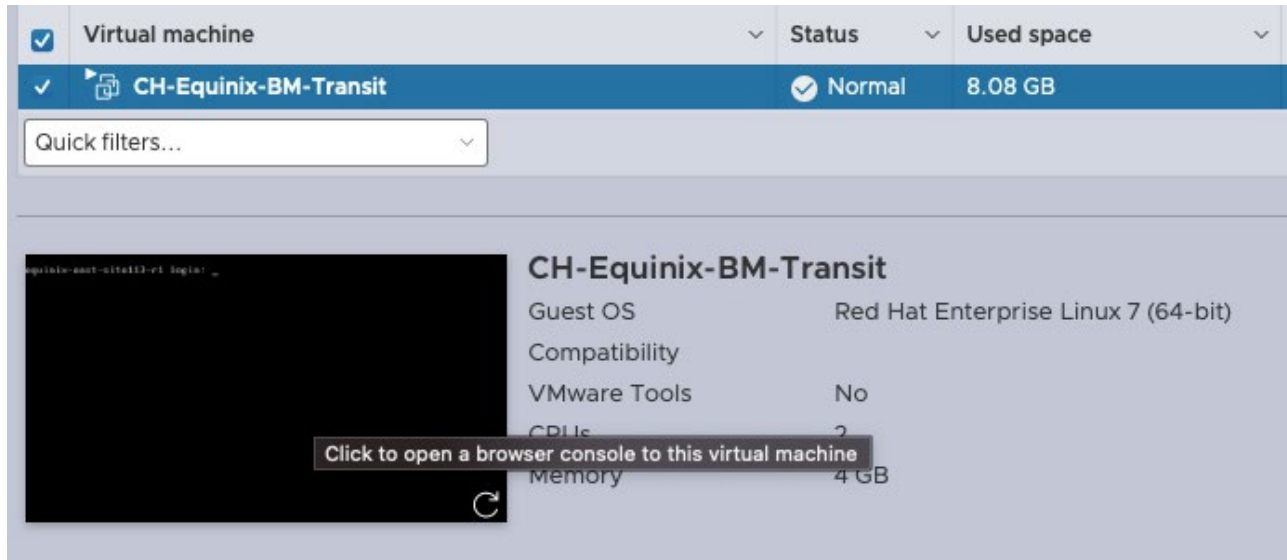
Console | Monitor | **Power on** | Power off | Suspend | Reset

Power on this virtual machine

Guest OS	Red Hat Enterprise Linux 7 (64-bit)
Compatibility	ESXi 5.5 virtual machine
VMware Tools	No
CPUs	2
Memory	8 GB

▼ General Information

22. Once the CloudEOS Router is powered up, select the Window to open the console.



23. Login with the user "admin". When setting up the Bare Metal server, a /29 network. The gateway will be that network +1, VM will be the next and the remaining are available for use on your CloudEOS router.

Random Example: [162.210.129.8 /29](#)

Available Network IPs: [162.210.129.9-162.210.129.14](#)

Broadcast Address: [162.210.129.15](#)

Equinix Gateway: [162.210.129.9](#)

ESXI Server: [162.210.129.10](#)

CloudEOS Eth1 Address: [ip address 162.210.129.11/29](#)

CloudEOS Default Route: [ip route 0.0.0./0 162.210.129.9](#)

The CloudEOS is now online and ready to install any licensing, upgrade, and complete user specific configuration. The complete CloudEOS Configuration Guide can be found [here](#).

24. (Optional) If you have Arista CloudVision, you can also onboard the CloudEOS Router onto CloudVision, and you can see similar routing information and more valuable information from a historical perspective for troubleshooting and visibility. If you don't have Arista CloudVision, you can register it at <https://www.arista.io/cv>. More information about CloudVision can be found [here](#).

CloudVision ARISTA
Devices
Events
Provisioning
Dashboards
Topology

Devices > equinix-west-site122-r1 > Routing > BGP > VRF: Default

<ul style="list-style-type: none"> NDP Table Bridging Capability MAC Address Table MLAG VXLAN Routing <ul style="list-style-type: none"> IPv4 Routing Table IPv6 Routing Table IPv4 Multicast Table <li style="background-color: #e6f2ff;">BGP IGMP Segmentation Traffic Flows 802.1X Interfaces <ul style="list-style-type: none"> Ethernet Routed Ports Port Channels Traffic Counters 	<h3 style="margin: 0;">BGP Overview</h3> <h4 style="margin: 0;">Local BGP Details</h4> <div style="margin-bottom: 10px;"> </div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">BGP AS Number</td> <td style="width: 50%;">65199</td> </tr> <tr> <td>Configured BGP Router ID</td> <td>192.168.122.1</td> </tr> <tr> <td>Routing Mode</td> <td>Multi-Agent</td> </tr> <tr> <td>BGP Peers</td> <td style="text-align: right;">2 peers</td> </tr> <tr> <td>BGP Established Peers</td> <td style="text-align: right;">2 peers</td> </tr> <tr> <td>BGP Unestablished Peers</td> <td style="text-align: right;">0 peers</td> </tr> <tr> <td>BGP Learned Paths</td> <td style="text-align: right;">0 paths</td> </tr> <tr> <td>IPv4 BGP Learned Routes</td> <td style="text-align: right;">17 routes</td> </tr> <tr> <td>IPv6 BGP Learned Routes</td> <td style="text-align: right;">N/A</td> </tr> </table> <h4 style="margin: 0;">BGP Peers</h4> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Peer ↑</th> <th style="width: 15%;">State</th> <th style="width: 20%;">Up/Down Since</th> <th style="width: 15%;">Enabled</th> <th style="width: 20%;">Local Address</th> </tr> </thead> <tbody> <tr> <td colspan="5" style="height: 20px;"> </td> </tr> </tbody> </table>	BGP AS Number	65199	Configured BGP Router ID	192.168.122.1	Routing Mode	Multi-Agent	BGP Peers	2 peers	BGP Established Peers	2 peers	BGP Unestablished Peers	0 peers	BGP Learned Paths	0 paths	IPv4 BGP Learned Routes	17 routes	IPv6 BGP Learned Routes	N/A	Peer ↑	State	Up/Down Since	Enabled	Local Address					
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Summary

You have now completed the steps of creating and connecting the Arista CloudEOS Router in Equinix Bare Metal. You can repeat this process for each Metal Server you plan on installing. As indicated, Eth 2 can then be used to connect to the backbone. A few options are available, depending on your deployment model and bandwidth requirements. These options can be found [here](#).

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