NetVisor UNUM
Medium Capacity User Guide

Arista Networks

www.arista.com

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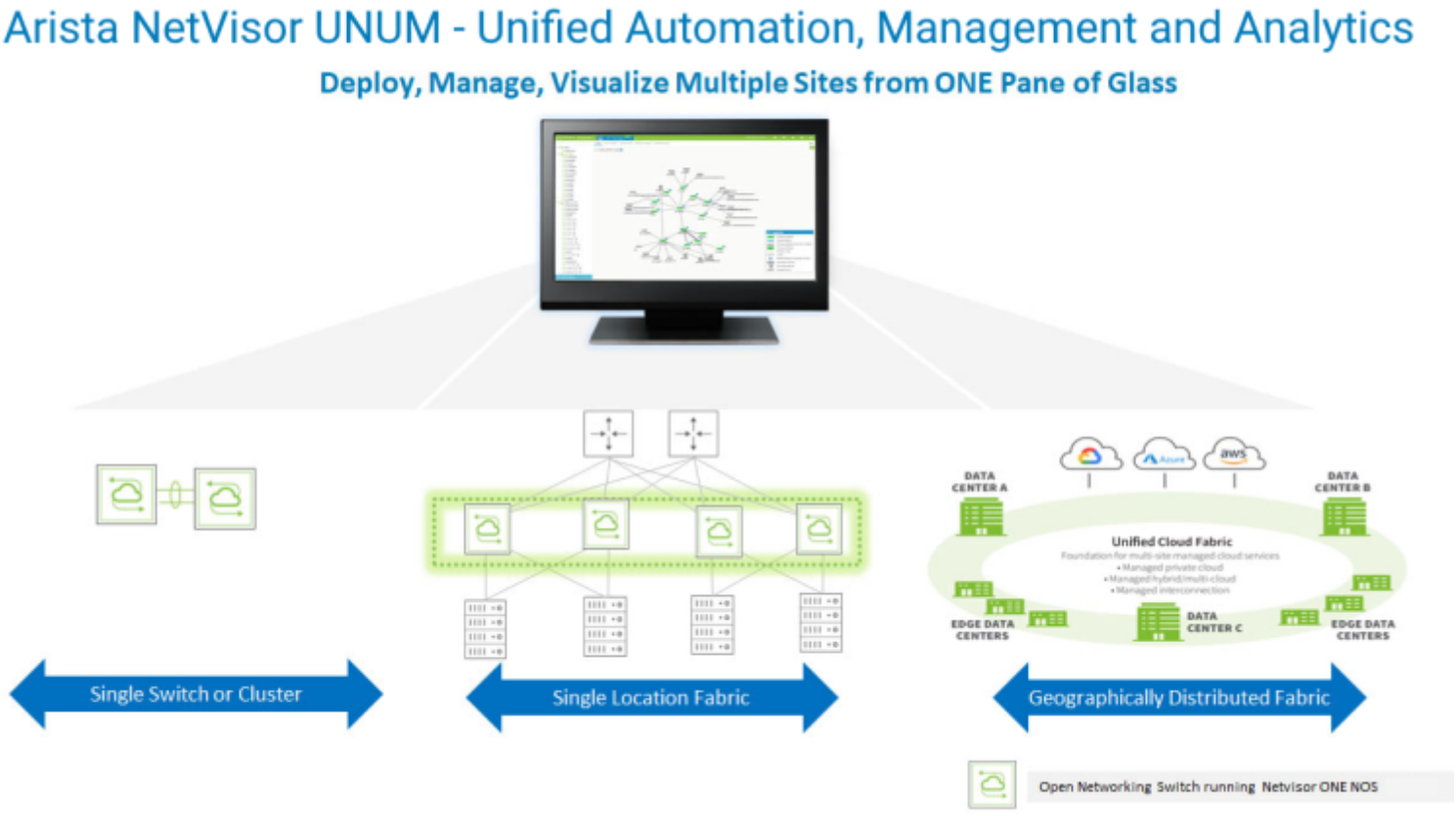
Introduction

Arista NetVisor UNUM Platform

The Arista NetVisor UNUM Unified Management, Automation, and Analytics Platform Software is an application portal originally developed by Pluribus Networks.

Arista NetVisor UNUM is an agile, multi-functional web management portal that enhances the intrinsic automation of the Unified Cloud Fabric architecture. It combines an elastic big data database and intelligent analytics engine with an intuitive and consistent user interface that allows seamless navigation across fully integrated management and analysis modules.

Arista NetVisor UNUM liberates network operators from the complexity of provisioning and operating a complex network, or groups of networks, by automating the complete network life cycle from implementation to operation and optimization, enabling intent-based network operations with vastly reduced deployment times.



Arista Fabric Manager (Arista NetVisor UNUM) Platform

Introduction (cont'd)

Arista NetVisor UNUM enables the network administrator to extract analytical value from the telemetry data reported by the network switches powered by the Arista NetVisor OS network operating system.

Once data is collected, Arista NetVisor UNUM relies upon a modern search engine database infrastructure to store, aggregate, filter, correlate and visualize vast amounts of data in real-time as well as with a powerful time machine functionality.

The Arista NetVisor UNUM portal provides a collection of feature-rich applications that manages and orchestrates the gathering and presentation of network analytics using various types of collectors and reporting software.

Arista NetVisor UNUM applications rely primarily on features of the Arista NetVisor OS, such as vFLOWs, mirrors, and connections statistics, and can also provide analytics in a non-Arista environment.

At a high-level, Arista NetVisor UNUM supports the following deployment scenarios:

- Arista NetVisor OS as a mirror switch; an out-of-band Arista switch is configured as a mirror in either an existing Arista-switched network or a non-Arista-switched network.
- Arista NetVisor OS as an inband switch; stats are pulled directly from configured switches such as connections, vPorts, Ports, Tunnels and, vFlow-stats.
- Collectors gather network analytics and feed data into the Arista NetVisor UNUM analytics store(s):
    - The Collector uses the vREST API to gather the analytics data from NetVisor OS.

Arista NetVisor UNUM manages the following applications:

- **Common Infrastructure** – A centralized portal launches other applications, provides authentication to the corporate directory (using LDAP), and provides configuration of standard settings.
- **Insight Analytics** – The Insight Analytics application provides reporting and Search capabilities on data collected from Arista NetVisor UNUM collectors.
- **Switch Analytics** – Switch Analytics contains a feature-rich set of management tools providing Traffic Monitoring and Notification services with exceptional drill-down capabilities.
- **Fabric Manager** – Arista NetVisor UNUM contains a feature-rich set of management tools providing configuration tools for Fabric, Layer 1, Layer 2, and Layer 3 services and Security/Monitoring, Services and, Fabric Virtualization features.

Glossary

Glossary of Arista NetVisor UNUM and Arista NetVisor OS Terms

To review the Glossary of Arista NetVisor UNUM and Arista NetVisor OS Terms, please refer to to the HTML document.

Specifications

Provisioning Virtual Machine Specifications

When using the Arista Networks Provisioning Virtual Machine (VM) to run Ansible scripts the following VM minimum specifications are required.

- **CPU** - 4 vCPU (2 core hyper threaded)
- **Memory** - 8 GB
- **Storage** - 60 GB SSD

Medium Capacity Appliance Specifications

> **Note:** Throughout this document, references to the Dell VEP 4600 platform are examples of configuring a Medium Capacity Appliance. Servers meeting the hardware and software specifications listed below in the specification charts are acceptable.

Arista NetVisor UNUM Medium Capacity Appliance	Features
Arista NetVisor UNUM on the Medium Capacity Appliance	**Hardware** • Single Server chassis, 1 Rack Unit • 8 CPU cores (16 vCPU), 128 GB Ram (96 GB minimum), 960 GB SSD • Quad 1G Base-T NIC, dual 10G Base-T NIC • IPMI 2.0 + KVM with Dedicated LAN • Dual power supply **Insight Analytics:** • Ingest up to 1,000 connections/second • Retains up to 500 Million connections

Arista NetVisor UNUM Standard Appliance Specifications

Medium Capacity Appliance Specifications (cont'd)

Software Requirements & Specifications

Specifications provided are operational requirements to use UNUM virtual machines. Values do not include ESXi resource requirements.

	vCPU (cores)	RAM	Storage
UNUM Base Capacity VM [4]	8vCPU (4-core)	64 GB	480 GB SSD
UNUM Base Capacity VM — Archive Viewer [1,3,4]	8vCPU (4-core)	64 GB	480 GB SSD
UNUM Medium Capacity VM[4]	8vCPU (4-core)	64 GB	960 GB SSD
UNUM Medium Capacity VM — Archive Viewer [1,3,4]	8vCPU (4-core)	64 GB	960 GB SSD
UNUM High Capacity VM Cluster [2,4]	Special	Special	Special
UNUM High Capacity VM — Archive Viewer [1,3,4]	Special	Special	Special

[1] UNUM Archiver requires the Archiver license and a shared NFS SSD storage to store daily analytics snapshots.
[2] The High Capacity VM cluster runs on four servers. Direct software download for existing servers is not supported, dedicated hardware needs to be purchased. See the Hardware Requirements and Specifications table.
[3] Customers wishing to use UNUM Archiver will require resources for a second VM (provided with the license).
[4] All UNUM virtual machines require ESXi 6.7.

Arista NetVisor UNUM Virtual Machines - Software Requirement & Specifications

Server Hardware Specifications for Arista NetVisor UNUM Virtual Machines

Specifications provided are the minimum necessary server resources to run the UNUM virtual machine on dedicated hardware. This includes ESXi hardware requirements and resources for planned future expansions of UNUM.

Bring Your Own Server	*UNUM Base Capacity Virtual Machine* [5]	*UNUM Medium Capacity Virtual Machine* [5]	*UNUM High Capacity VM Cluster* [1,5]
CPU	16 vCPU (8-core) [2]	16 vCPU (8-core) [2]	32 vCPU (8-core) [2] per server
Memory	96 GB	96 GB	256 GB per server
Local SSD	480 GB [4,6]	960 GB [4,6]	1920 GB [4,7] per server
Shared NFS SSD	480 GB required for HA [3,4]	960 GB required for HA [3,4]	960 GB required for HA [3,4]
VMWare ESXi Hypervisor	6.7, 7.0	6.7, 7.0	6.7, 7.0
Client Requirements	Google Chrome (Version 44+) Mozilla Firefox (Version 39+)	Google Chrome (Version 44+) Mozilla Firefox (Version 39+)	Google Chrome (Version 44+) Mozilla Firefox (Version 39+)
NIC	Dual 10G Base-T NIC [8]	Dual 10G Base-T NIC [8]	Dual 10G Base-T NIC [8]
High Availability (HA)	Yes [3,7]	Yes [3,7]	Yes [3,7]

[1] The High Capacity VM cluster can be installed as a cluster on four dedicated DELL RX740 servers. Direct software download for existing servers is not supported, dedicated hardware or the appliance needs to be purchased. The Dell configuration requires professional services installation as well as an external 10 Gbps switch is needed to enable internal cluster communication.
[2] All versions of UNUM require CPU clock speeds of 2.4 GHz CPU's or higher.
[3] All High Availability configurations require the following: UNUM 6.0+, the VMware vSphere 6 Enterprise Plus or Standard License, the UNUM base license + any optional UNUM licenses, and a shared NFS SSD storage. Redundant (RAID-1) storage is recommended for the shared storage, as is a minimum of a 10 Gbps connection between the NFS storage and the servers.
[4] Solid State Drives are required on all UNUM platforms.
[5] No specific VMware license requirements for non-HA environments (ESXi free is OK).
[6] In HA deployments, the local storage for the Base VM and Medium Capacity VM must meet recommended VMware hardware requirements. Pluribus recommends a minimum of 480 GB. 960 GB of shared NFS storage is still required.
[7] In HA deployments, the local storage for two of the four servers in the High Capacity VM cluster can be reduced to 960 GB. 960 GB of shared NFS storage is still required.
[8] UNUM can only support one direct in-band fabric connection via the eth2 interface. Management of multiple In-band fabrics requires the addition of an external switch.

Arista NetVisor UNUM Virtual Machines - Server Hardware Specifications

Specifications Arista NetVisor UNUM High Capacity Appliance

Customers without an ESXi infrastructure or limited compute resources can purchase a Pluribus Networks tested and validated, turnkey appliance with UNUM pre-installed. Simply rack, stack, and power on. UNUM is ready to go.

	UNUM High Capacity Appliance [1]
CPU	32 vCPU (16-core) per server
Memory	256 GB per server
Local SSD	1920 GBper server
Shared NFS SSD	960 GB required for HA
VMWare ESXi Hypervisor	6.7, 7.0
Client Requirements	Google Chrome (Version 44+) Mozilla Firefox (Version 39+)
NIC	Dual 10G Base-T NIC
High Availability (HA)	Yes
Rack Dimensions	1ru Base/Medium, 2ru High Capacity

[1]The High Capacity appliance is four dedicated nodes of the listed specifications.

Arista NetVisor UNUM High Capacity Appliance Specifications

Medium Capacity Appliance Specifications (cont'd)

Arista NetVisor UNUM Fabric Manager Scalability Matrix

	UNUM Base Capacity VM/Appliance	UNUM Medium Capacity VM/Appliance	UNUM High Capacity VM Cluster/Appliance
Maximum Netvisor One Switches	55	55	140
Maximum Adaptive Cloud Fabrics [5]	10	10	10
Maximum Netvisor ONE Switches per Fabric [4]	32	32	128 leafs per super fabric[5]
Syslog Records [1]	Up to 7 Days	Up to 30 Days	Up to 60 Days
Port Stats [2,6]	512	768	1536
Tunnel Stats [2,6,7]	256	384	768
vFlows Stats [2,3,6]	2560	3520	7040

[1] Records storage is a rolling first-in first-out window of both flow (nvFlow) and switch analytics records.
[2] Numbers provided are aggregate values of active stats captured. To get a per switch value of active stats captured, divide the value provided by the total number of switches being managed by UNUM. For example, if the UNUM Base Capacity VM is managing 24 switches total, then 512 / 24 = 21 port stats per switch (rounding down).
[3] Local(switch) vFlows. Divide by number of switches to get fabric level vFlows, for example in an 8-node fabric, 2560 divided by 8 would be 320 fabric wide vFlows.
[4] Maximum fabric size of 32 switches is a Netvisor ONE limitation but is listed here for convenience. UNUM supports a number of fabrics and switches, up to the maximum amount of either switches or fabrics. For example, one fabric of 32 nodes, two fabrics of 24 and 26 nodes, three fabrics of 12, 18, and 20 nodes or five fabrics of 11 nodes each for the UNUM Base Capacity virtual machine.
[5] Super Fabric can manage up to four pods, up to 128 leafs and up to 12 spines. Without super fabric any combination of leafs and spines are supported up to 140 total, 32 nodes maximum per fabric.
[6] Number of simultaneous stats collected every ten seconds.
[7] A Tunnel is a virtual connection between two fabric end points.

Arista NetVisor UNUM Fabric Manager Scalability

Arista NetVisor UNUM Insight Analytics Scalability Matrix

	UNUM Base Capacity VM/Appliance	UNUM Medium Capacity VM/Appliance	UNUM High Capacity VM Cluster/Appliance
IA Maximum Records Stored [1,2,3]	100 million	500 million	2 billion
IA Analytics Records, Maximum days [1,3]	Up to 30 Days	Up to 30 Days	Up to 30 Days [4]
IA Peak Ingestion Rate [3]	1000 flows/sec	1000 flows /sec	10,000 flows/sec

[1] Records storage is a rolling first-in first-out window of both flow (nvFlow) and switch analytics records.
[2] Long-term retention of records, up to the value stated (100M, 500M, 2B). Variations based on network traffic can occur.
[3] Ingestion rate will affect the number of days of records are stored. This can vary based on fabric size and traffic patterns.
[4] Busy environments generating more than 1000 flows per second impact the number of days records are stored. If sustained 10,000 flows per second occur, the maximum days of records stored will be reduced to approximately one week. This environment can be mitigated using the UNUM Archiver license and external SSD storage.

Note: All UNUM fabrics are required to have a minimum of one switch with 16 GB of RAM to act as a communication node. Two 16 GB switches will be required if seed switch redundancy is implemented.

Arista NetVisor UNUM Insight Analytics Scalability

Medium Capacity Appliance Specifications (cont'd)

Arista NetVisor UNUM 6.3.3 Licensing

Ordering Information

Pluribus UNUM software is available in three flavors: a BASE virtual machine, a medium capacity virtual machine, and a high-capacity option which can be ordered on an appliance or installed on four Dell RX740 servers. Refer to the Hardware Requirements and Scalability tables for more information on the different UNUM options. See the ordering information below for Pluribus UNUM, Insight Analytics, server appliances, and add-on reports/alerts. Support is ordered separately, and subscription options are available.

Pluribus UNUM Software is available in three options.

- **UNUM-LIC** — Pluribus UNUM BASE license.
- **UNUM-MC-LIC** — Pluribus medium-capacity license.
- **UNUM-HC-LIC** — Pluribus high-capacity license. Requires either the appliance option below or four Dell RX740 servers ordered directly from Dell, as well as professional services for deployment.

Insight Analytics Module License is optionally licensed in addition to the Pluribus UNUM software.

- **IA-MOD-LIC** — Pluribus Insight Analytics module BASE license. Supports up to 100 million flows.
- **IA-MC-MOD-LIC** — Pluribus Insight Analytics Medium-Capacity (MC) module license. Supports up to 500 million flows.
- **IA-HC-MOD-LIC** — Pluribus Insight Analytics High-Capacity (HC) module license. Supports up to 2 billion flows. Cannot be deployed on existing customer hardware – HC server appliance or four Dell RX740 are required.
- **IA-SC-MOD-LIC** — Introductory, low-cost license for Insight Analytics that will enable the storage of 1 million flows.

UNUM Appliance Hardware

- **AP-HC-HW** — UNUM high capacity hardware server appliance. Hardware only (software licenses are required) – add to order when a high-capacity appliance is needed. Requires professional services deployment.

Other Optional, add-on UNUM Licenses

- **UNUM-RPRT-LIC** — Pluribus UNUM add-on reporting license.
- **UNUM-ALRT-LIC** — Pluribus UNUM add-on e-mail alert license.
- **UNUM-ARCHIVER-LIC** — Archive daily snapshots capturing Insight & Switch Analytics meta data to an NFS repository (network folder) for long term storage. Includes a second UNUM "viewer" virtual machine so that archived data can be loaded and analyzed.

Arista NetVisor UNUM Licensing Information

Please refer to the Arista NetVisor UNUM Supported Features Table for more information.

Physical Installation

Medium Capacity Appliance Installation Guide

> **Note:** Please refer to your specific hardware platform installation instructions for installing the Medium Capacity Appliance.

When using a Dell VEP 4600 platform, please refer to the "Dell VEP4600 Installation Guide", review, and follow all instructions as outlined.

Pre-requisites

The following is a list of components required for successful platform installation:

- VEP4600 platform
- AC country- and regional-specific cables to connect the AC power source to each of the platforms' AC power supplies
- Two-post rail kit mounting brackets for rack installation, included
- Screws for rack installation
- #1 and #2 Phillips screwdrivers, not included
- M2 Philips drive flat head screwdriver, not included
- Ground cable screws (included) for L-bracket—order separately
- M3 ground lug assembly kit screw, depending on your platform
- Copper/fiber cables

Other optional components are:

- UL-certified ground lug assembly kit with bracket
- Extra mounting brackets for the 4-post mount
- Extra power supply unit
- Extra fan module

Hardware Overview

Medium Capacity Appliance Hardware Overview

(based on Dell VEP 4600 platform)

Arista NetVisor Dell Virtual Edge Platform 4600

The 1RU **Arista UNUM Virtual Edge Platform 4600** consists of:

- 8 CPU cores (16 vCPU) - Intel® Xeon® D Skylake Generation processor, with Intel® QuickAssist Technology (Intel® QAT), and Data Plane Development Kit (DPDK)
- Storage - 960GB SSD
- DDR4 ECC 128GB RAM (Medium Capacity Appliance requires a minimum of 96 GB RAM)
- Two 10GbE SFP+ ports
- Four 1000Base-T ports
- One MicroUSB-B console port
- Two USB Type-A ports for more file storage
- One board management controller (BMC)
- Two RJ-45, RS-232 serial-console ports
- One 10/100/1000BaseT RJ-45 Ethernet management port for the processor
- One 10/100/1000BaseT RJ-45 Ethernet management port for the BMC
- One or two AC hot-swappable redundant power supplies, depending on the configuration
- Four or five AC normal hot-swappable fan modules, depending on the configuration
- Standard 1U platform

Physical Dimensions

The VEP4600 platform have the following physical dimensions:

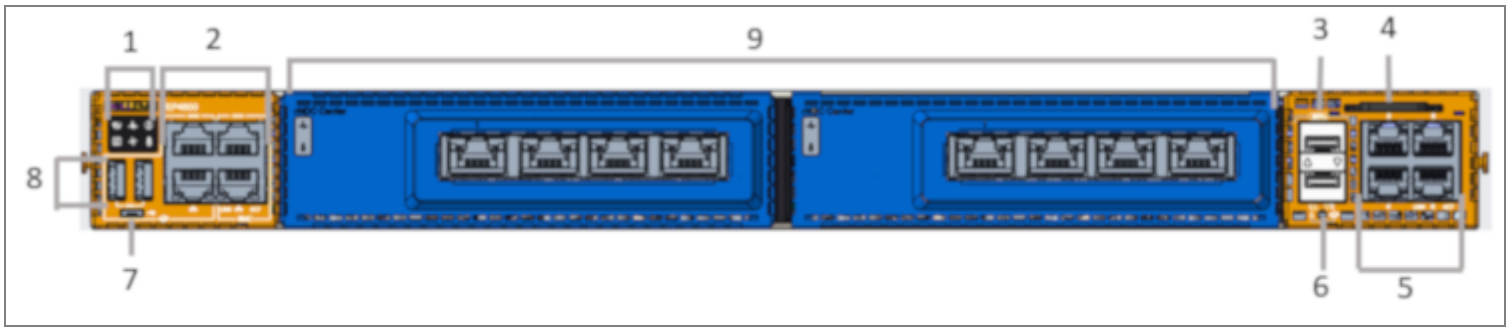
- 434 x 381 x 43.6 mm (W x D x H)
- 17.1 x 15 x 1.72 inches (W x D x H)
- PSU/fan tray handle: 1.57 inches (40 mm)

System Interface

Medium Capacity Appliance - System Interface

Dell VEP4600 System Overview

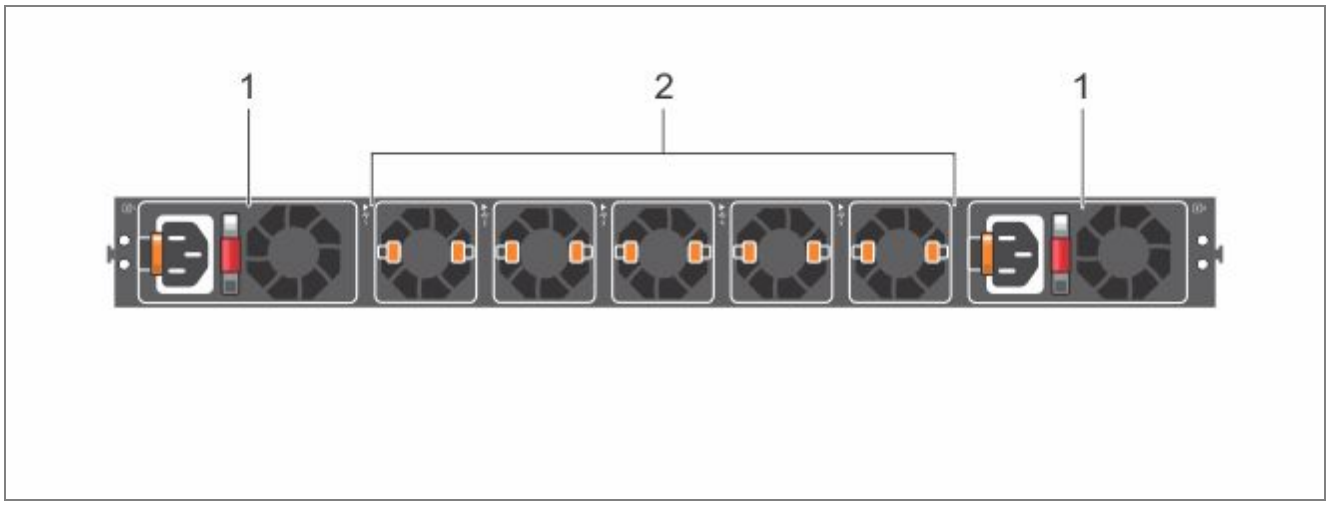
I/O Panel View



I/O Panel View

1. Platform status Icons LEDs
2. RS-232 console ports (top) and 10/100/1000 Base-T ports (bottom)
3. SFP+ ports
4. Luggage tag
5. 1000Base-T networking ports
6. Processor power on/off button
7. Micro USB-B port
8. USB Type A ports
9. Optional - VEP4600 Expansion Cards
10. Power Supplies

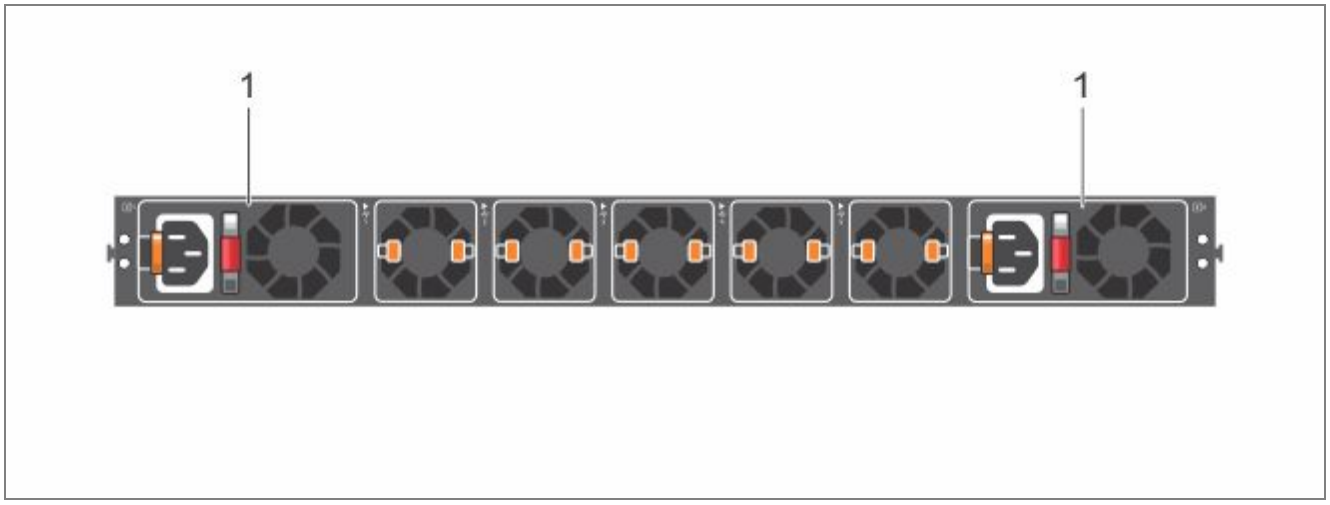
Power Supply (PSU) View



Power Supply View

1. PSUs
2. Fans

PSU LEDs

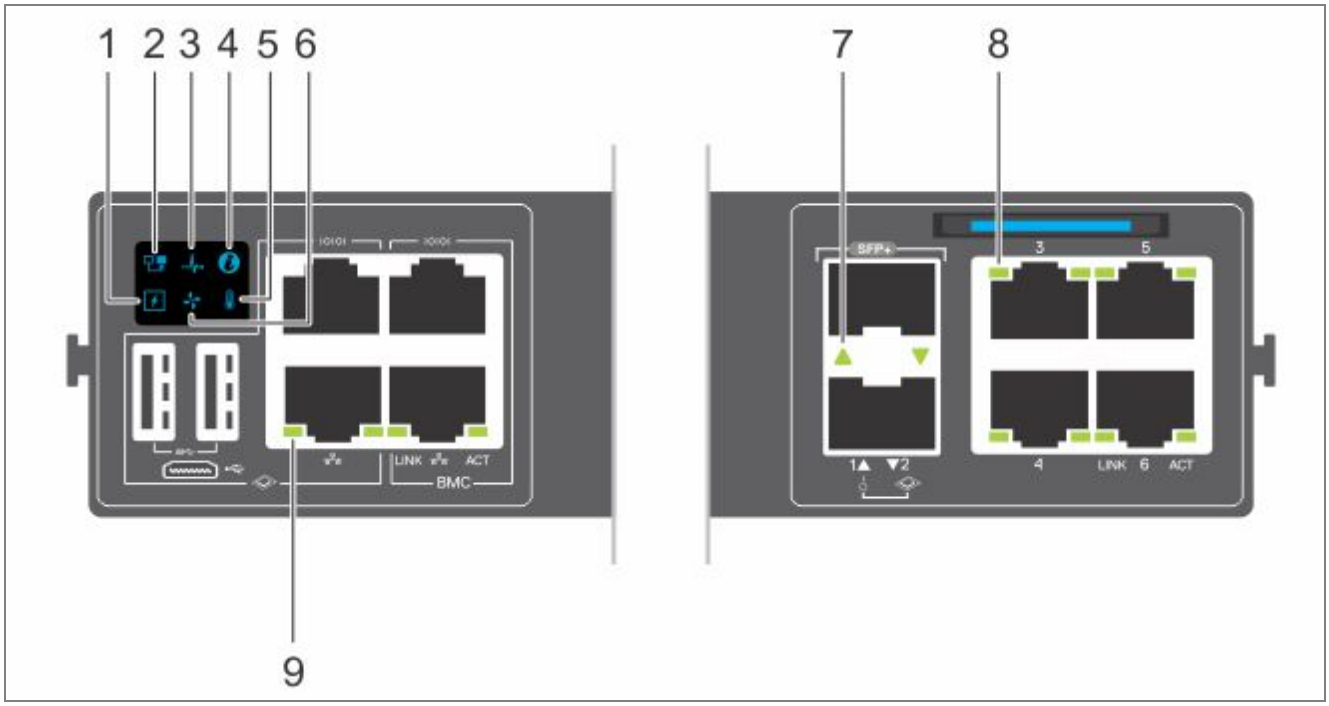


Power Supply LEDs

- Solid green—Input is OK.
- Flashing yellow (amber)—There is a fault with the PSU.
- Flashing green blink at 1Hz—Platform is in a standby/CR state.
- Off—PSU is off.

Control Panel LEDs

There are several LEDs on the control panel and on the drive carriers to keep you constantly informed of the overall status of the system.



Control Panel LEDs

1. Power LED
2. Master LED
3. System LED
4. Locator LED
5. Temperature LED
6. Fan LED
7. SFP+ indicator LED
8. 10/100/1000 BaseT RJ-45 networking link (left) and activity (right) LEDs
9. 10/100/1000 BaseT RJ-45 networking link (left) and activity (right) LEDs for the processor (left) and for the BMC (right)

LED Behavior

LED	Description
System Status/Health LED	• Off - system off or in standby • Solid green—Normal operation • Flashing green—Booting • Solid yellow (amber)—Critical system error or CPU power off. • Flashing yellow—Noncritical system error, fan failure, or power supply failure
Power LED	• Off - system off or in standby • Solid Green—Normal operation • Solid yellow—POST is in process • Flashing yellow—Power supply failed
Master LED	• Solid green—platform is in stacking Master or Stand alone mode • Off - system is slave of the stack or system in standby
FAN LED	• Off - system off or in standby • Solid green—Normal operation; fan powered and running at the expected RPM • Solid yellow—Fan failed
PSU LED	• Off—No power • Solid green—Normal operation or standby mode • Solid yellow—Power supply critical event causing a shutdown • Flashing yellow—PSU warning event; power continues to operate

LED Behavior (cont'd)

LOCATOR LED/System Beacon	• Off—Locator function disabled • FFlashing blue with 1 sec on and 1 sec off – Locator function enabled • Flashing blue with 2 sec on and 1 sec off – system in standby
Temperature status LED	• Off - system off or in standby • Solid green—temperature is normal • Solid yellow—temperature is at the limit • Flashing yellow—temperature is over the limit
RJ-45 Ethernet LED	• Off—no link and no activity detected • On—Activity on the port • Solid yellow—Link operating at a lower speed • Solid green—Link operating at a maximum speed—1G • Flashing green—Port activity

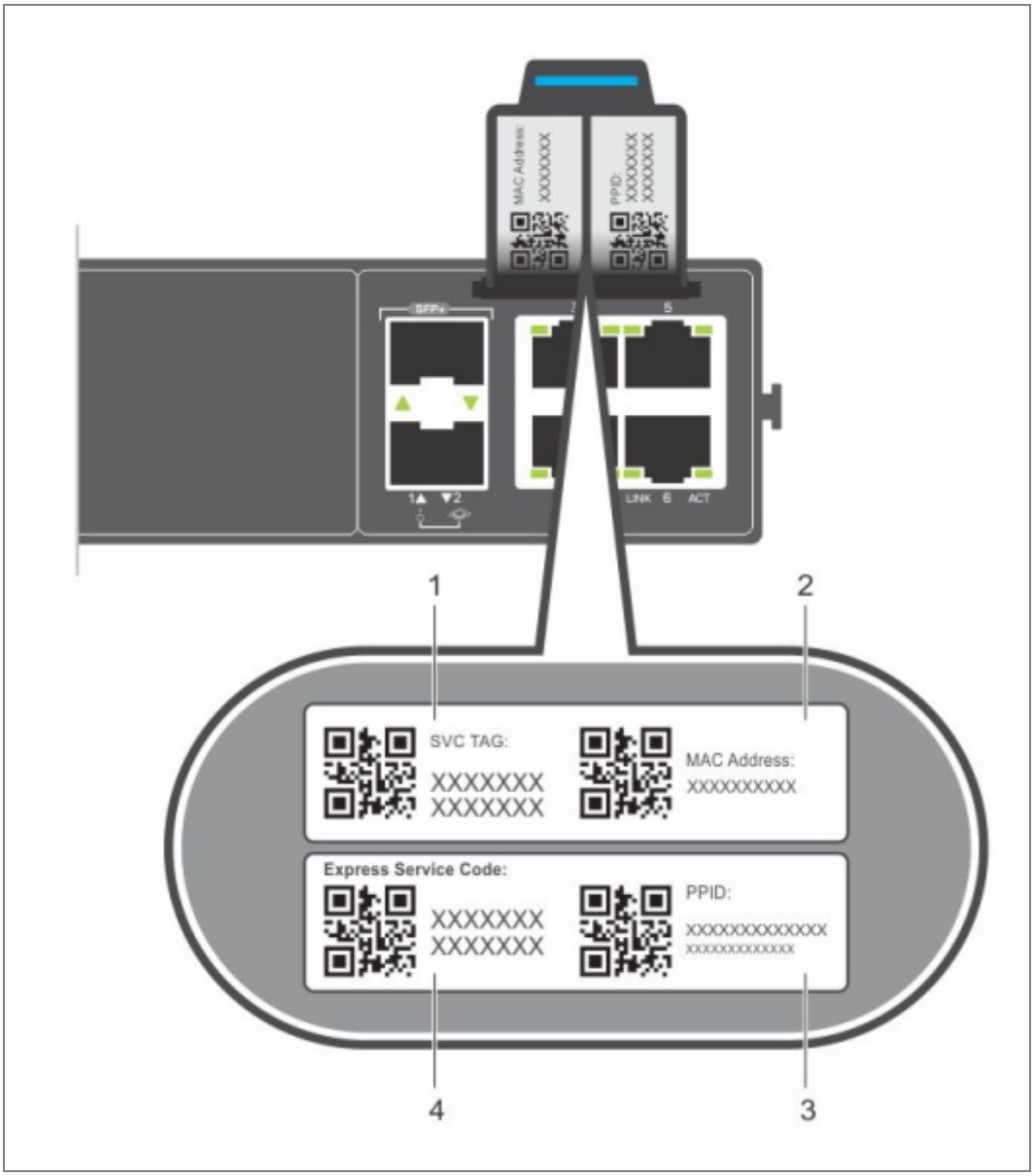
System Management Ethernet Port LEDs

Link LED	• Off—No link • Solid green—Link operating at a maximum speed, auto-negotiated/forced or 1G • Solid yellow—Link operating at a lower speed, auto-negotiated/forced or 10/100M
Activity LED	• Off—No link • Flashing green—Port activity

SFP+ Port LEDs

Link/Activity LED	• Off—No link • Solid green—Link operating at maximum speed, 10G • Solid yellow—Link operating at a lower speed, 1G • Flashing green—port activity for 10G • Flashing yellow—port activity for 1G

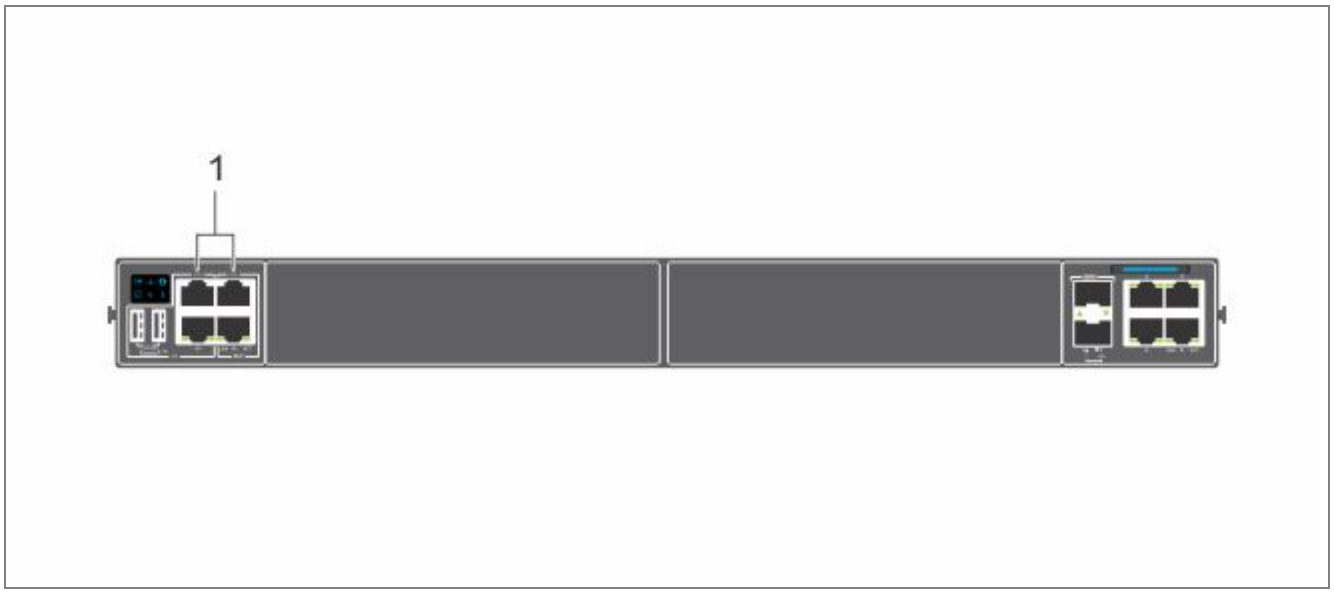
Luggage Tag



Luggage Tag

1. SVC tag
2. MAC address
3. PPID
4. Express service code

Management Ports



Management Ports

RS-232 Console Port Access

1. RS-232: processor console port (left); BMC console port (right)

Caution: Ensure that any equipment attached to the serial port can support the required 115200 baud rate.

Note: Before starting this procedure, ensure that your PC has a 9-pin serial port and that you have installed a terminal emulation program on the PC.

Note: If your PC's serial port cannot accept a female DB-9 connector, use a DB-9 male-to-male adapter.

RS-232 Console Port Access (cont'd)

1. Install the provided RJ-45 connector-side of the provided cable into the platform console port.
2. Install the DB-9 female-side of the provided copper cable into your PC's serial port. Or install the DB-9 cable into other data terminal equipment (DTE) server hardware.
3. Keep the default terminal settings on the console as follows:

- 115200 baud rate
- No parity
- 8 data bits
- 1 stop bit
- No flow control

MicroUSB-B Console Port Access

The MicroUSB-B console port is on the PSU side of the VEP4600.

The terminal settings are the same for the serial console port and the RS-232/RJ-45 console port:

- 115200 baud rate
- No parity
- 8 data bits
- 1 stop bit
- No flow control

When you connect the microUSB-B port, it becomes the primary connection and, while connected, all messages are sent to the microUSB-B port.

> **Note:** Before starting this procedure, be sure that you have a terminal emulation program already installed on your PC. Install the appropriate drivers to support the microUSB-B port. To download Dell EMC drivers, see https://www.dell.com/support. If your computer requires non-Dell EMC drivers, contact Dell EMC Technical Support for assistance.

MicroUSB-B Console Port Access (cont'd)

1. Power on the PC.
2. Connect the USB-A end of cable into an available USB port on the PC.
3. Connect the microUSB-B end of cable into the microUSB-B console port on the platform.
4. Power on the platform.
5. Install the necessary USB device drivers.
6. To download Dell EMC drivers, see https://www.dell.com/support. If your computer requires non-Dell EMC drivers, contact Dell EMC Technical Support for assistance.
7. Open your terminal software emulation program to access the platform.
8. Confirm that the terminal settings on your terminal software emulation program are as follows:

- 115200 baud rate
- No parity
- 8 data bits
- 1 stop bit
- No flow control

UNUM Medium Capacity Appliance Configuration

Medium Capacity Appliance - Arista NetVisor UNUM Configuration

The Arista NetVisor UNUM Medium Capacity (MC) virtual machine is a software download that can be installed on any server running ESXi 6.7 or 7.0 that meets the specifications called out in the Arista NetVisor UNUM Data Sheet.

Below is an example of deploying the Arista NetVisor UNUM MC virtual machine on the Dell VEP 6400, which comes with ESXi pre-installed.

General Configuration Steps

1. Download the requisite OVA files from the Pluribus Network Cloud (PNC) and save them to your local PC. Access the PNC using the Pluribus Customer Portal and select the **Downloads** tab.

You may download software directly from the Customer Portal. Use your provided support credentials.

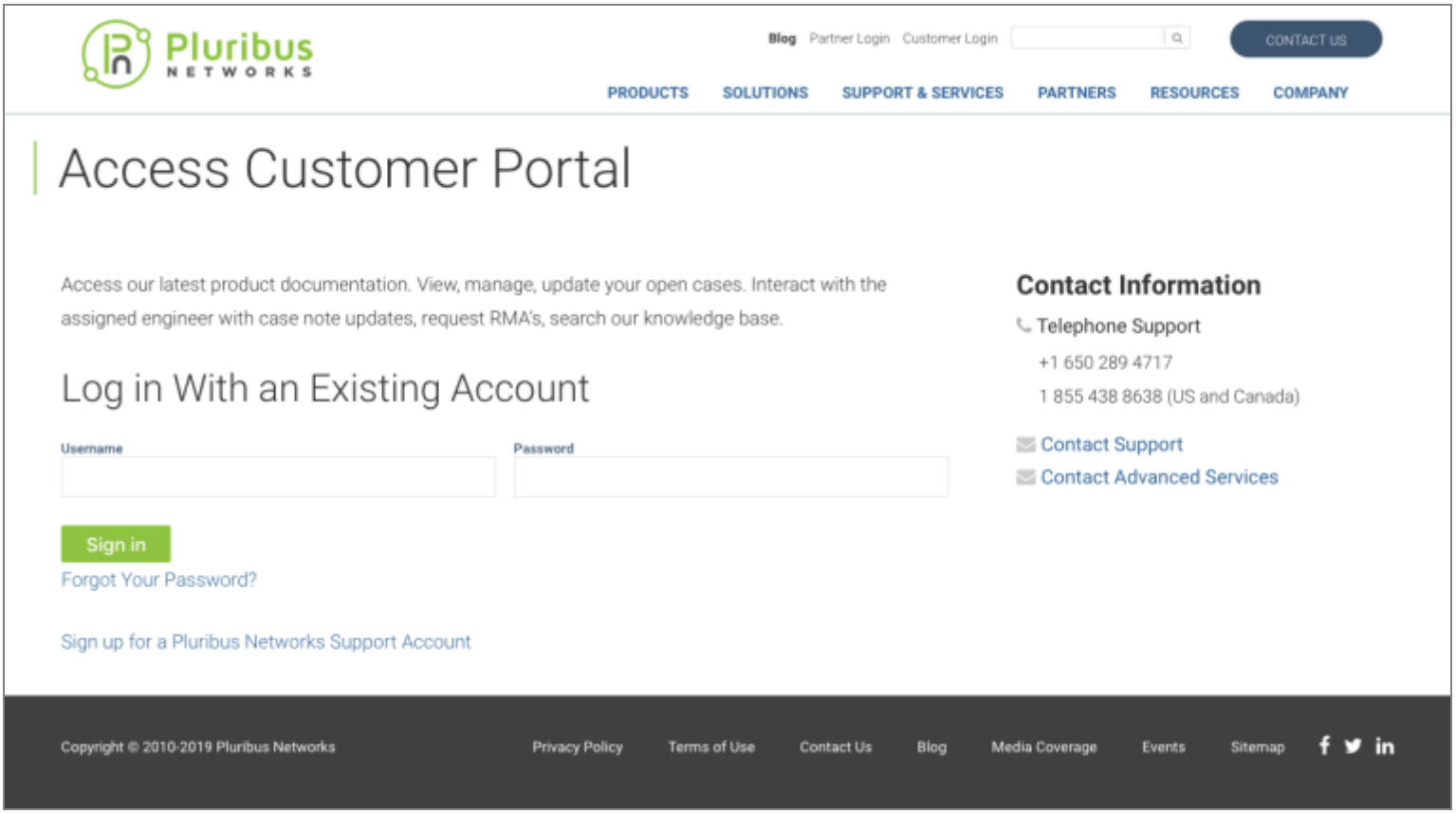
If you do not have credentials for the Customer Portal, please Contact Support **AND** fill out the following:

Product Registration - https://www.pluribusnetworks.com/support/product-registration/

> **Note:** The Serial Number is equivalent to Arista NetVisor UNUM's Machine ID. You may not have a Serial Number if you have not previously installed Arista NetVisor UNUM. In that event, please indicate "Do Not Have One" in the Serial Number field on the registration form.

Medium Capacity Appliance Configuration (cont'd)

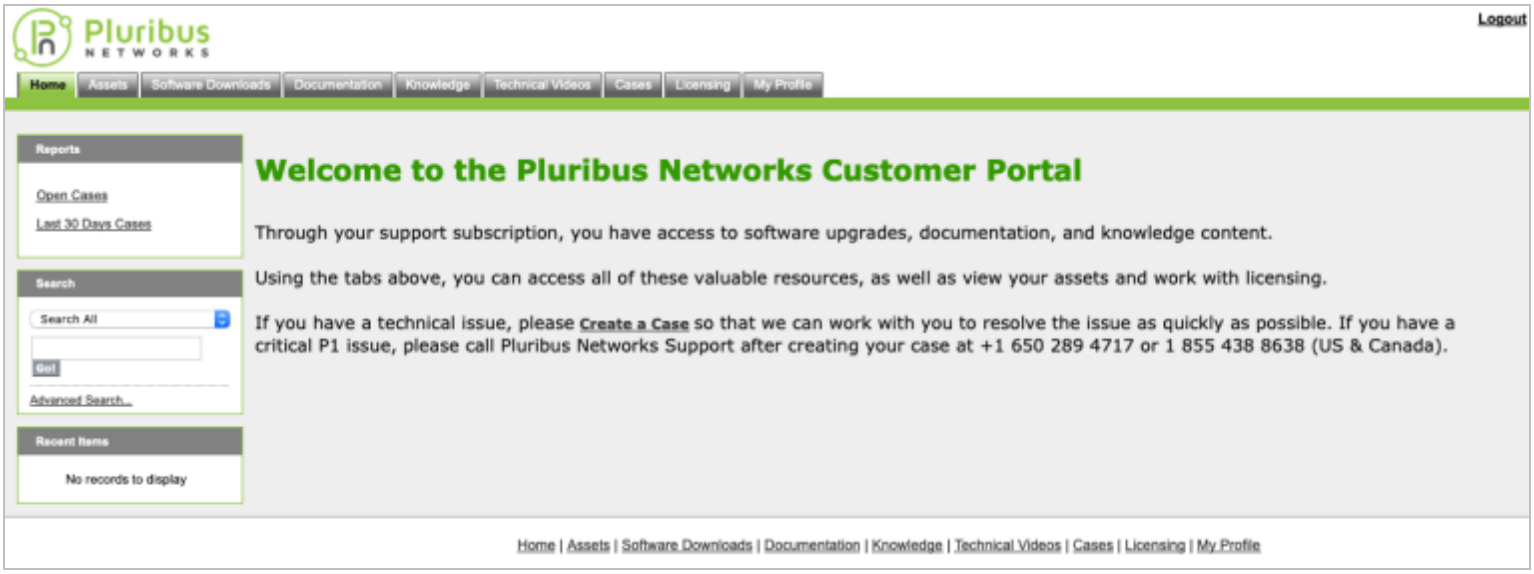
Log in to the Customer Portal using the credentials provided.



Pluribus Networks Customer Portal

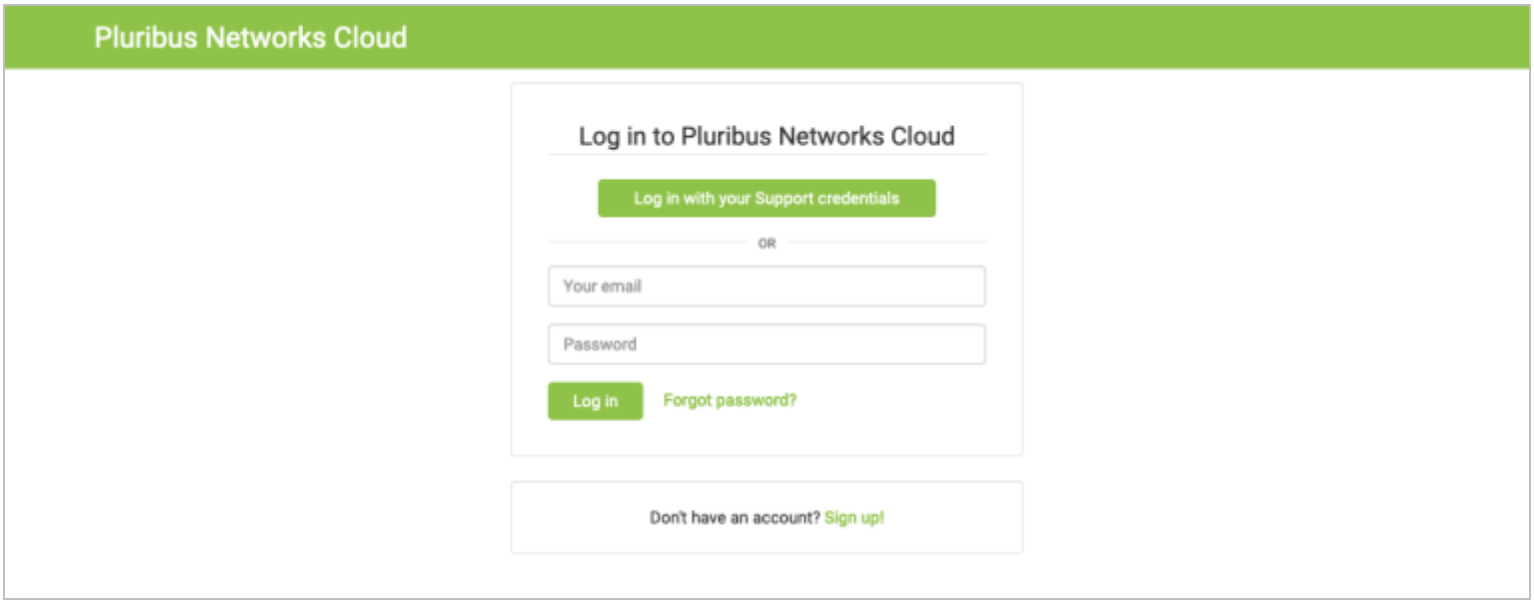
Medium Capacity Appliance Configuration (cont'd)

Upon successfully logging in you are greeted by a welcome screen.



Pluribus Networks Customer Portal Welcome Screen

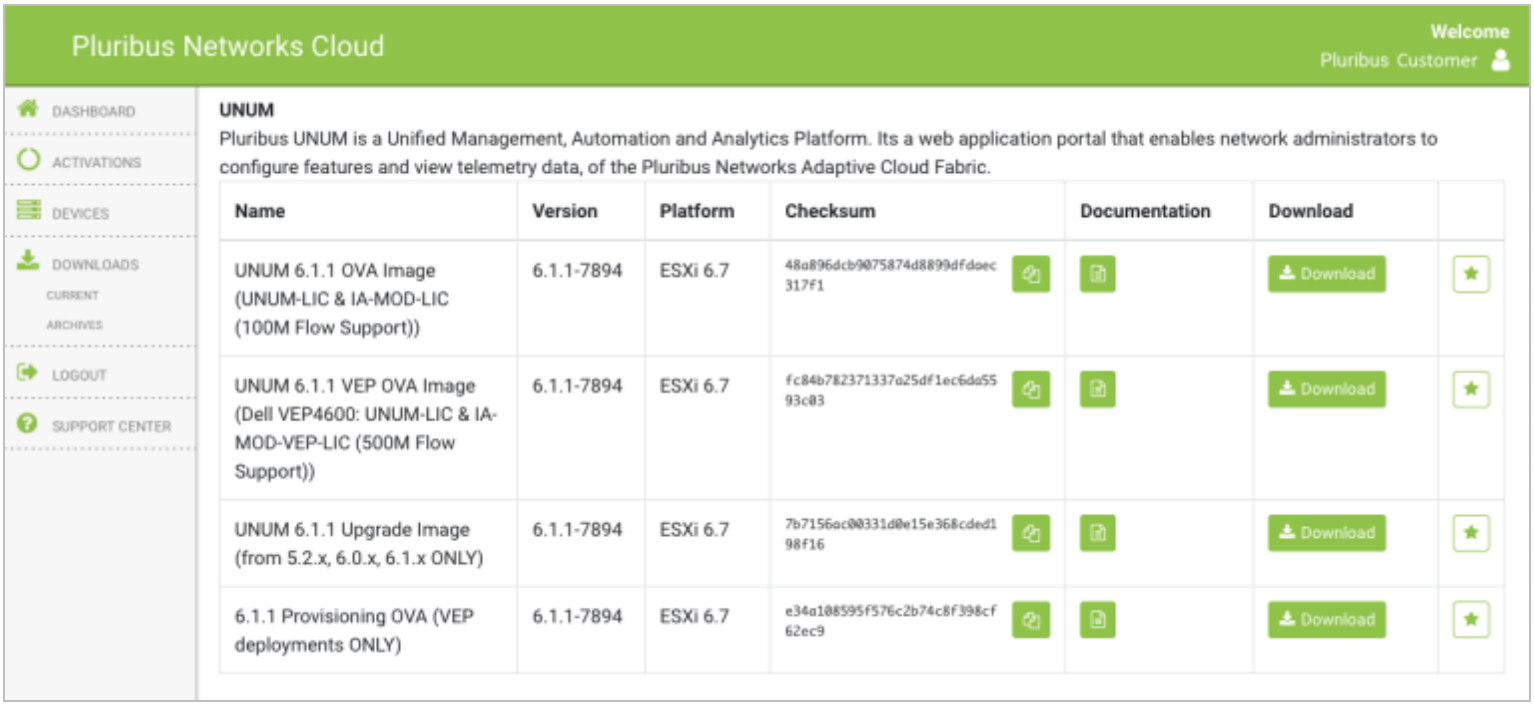
Select **Software Downloads** and follow the login instructions on the screen. Please verify your support credentials again.



Pluribus Networks Cloud UNUM Login Screen

Medium Capacity Appliance Configuration (cont'd)

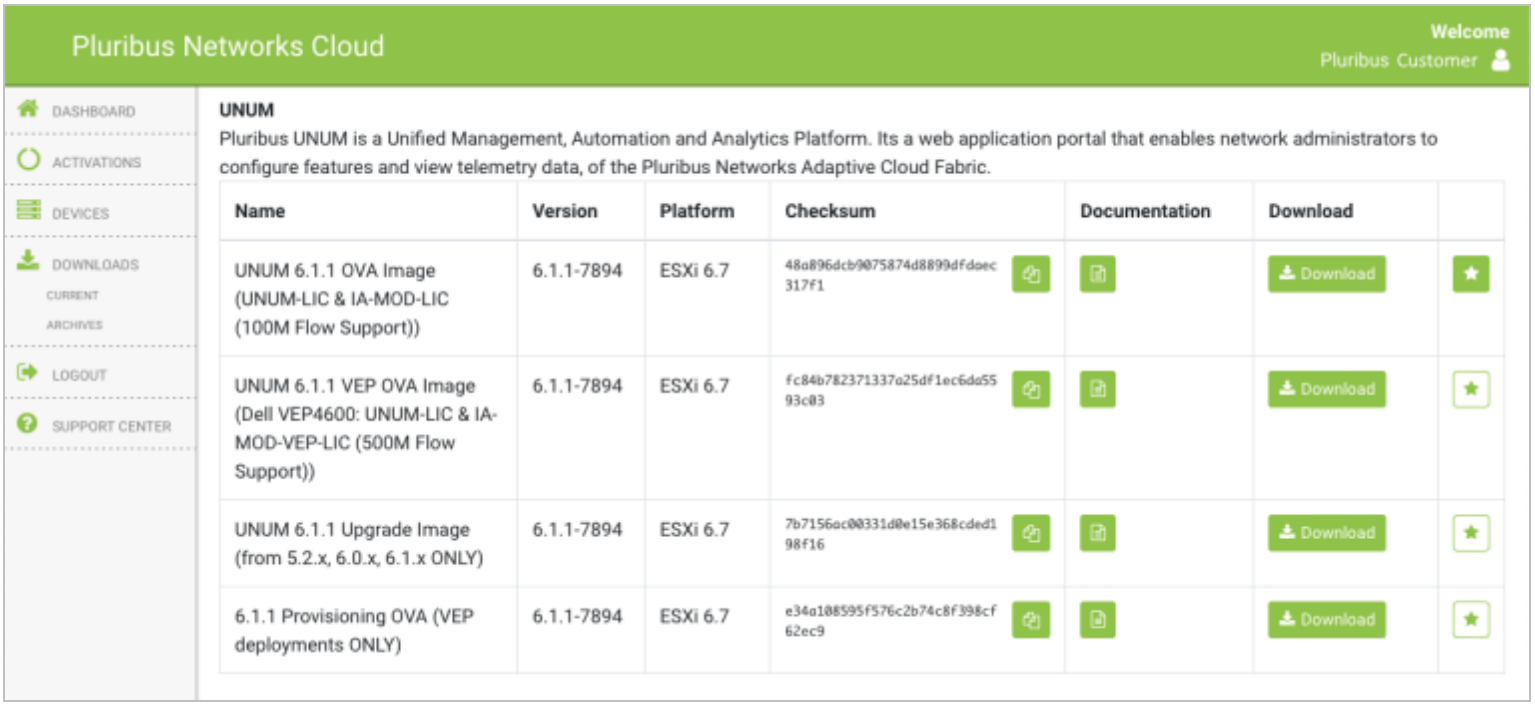
PN Cloud Software User Interface



Pluribus Networks Cloud Welcome Screen and Menu

Download Arista NetVisor UNUM Image

The Arista NetVisor UNUM image is available from the current downloads page. Select **CURRENT** from the **DOWNLOADS** section of the sidebar menu.



Pluribus Networks Cloud UNUM Download

Download the software to a local system.

You need to download and have readily available:

- UNUM Provisioning OVA - `UNUM-provision-6.3.0-xxxx.xx.ova`
- UNUM Appliance OVA - `UNUM-6.3.0-xxxx.xx.-st.ova`
- Virtual Netvisor OVA - `VNV-6300315465.ova` (example version number only).

> **Note:** The downloaded vNV version has to match your installed switch OS version.

Medium Capacity Appliance Configuration (cont'd)

2. Activate VMware License using the steps illustrated below.

> **Usage Note: DHCP** or **Static IP** addresses can be assigned. A DHCP server must be running for an automatic IP address assignment during ESXi configuration.
>
> For Static IP addressing, select static from the `unum_provision.sh` setup script and enter the static IP parameters for **UNUM** and **vNV**.

3. Configure ESXi and create a new Virtual Machine (VM) using the configuration examples illustrated below.

4. Connect to the UNUM host via a terminal session using SSH (using the assigned IP address) and run the following script:

   ```
   ./unum_provision_sh
   ```

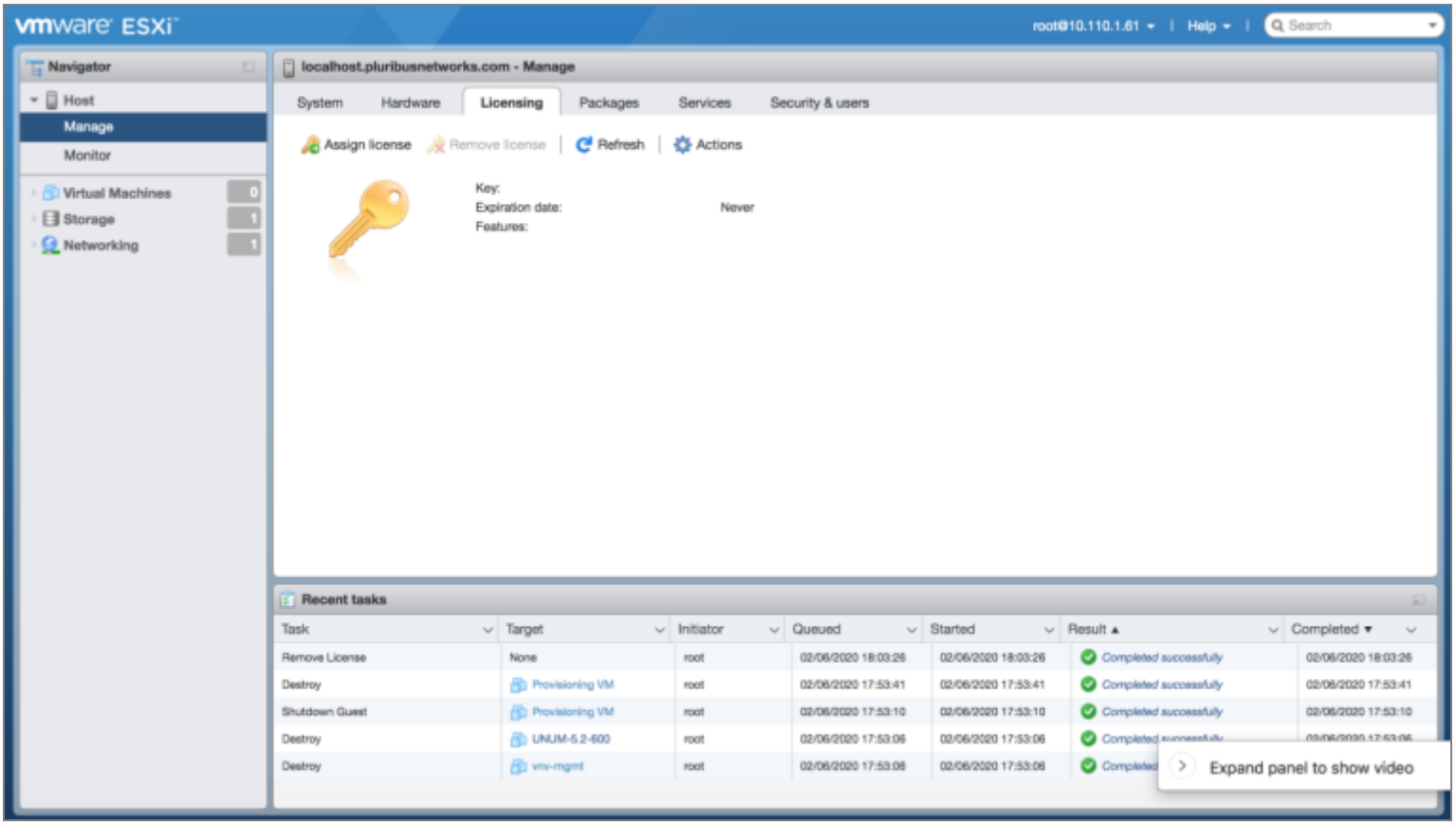
5. Deploy a standalone VM.

ESXi Obtain License

From the **ESXi Management Interface**, determine if a license is enabled.

Click the **Licensing** tab to display the current license status.

If a valid license is missing, the following dashboard is displayed.



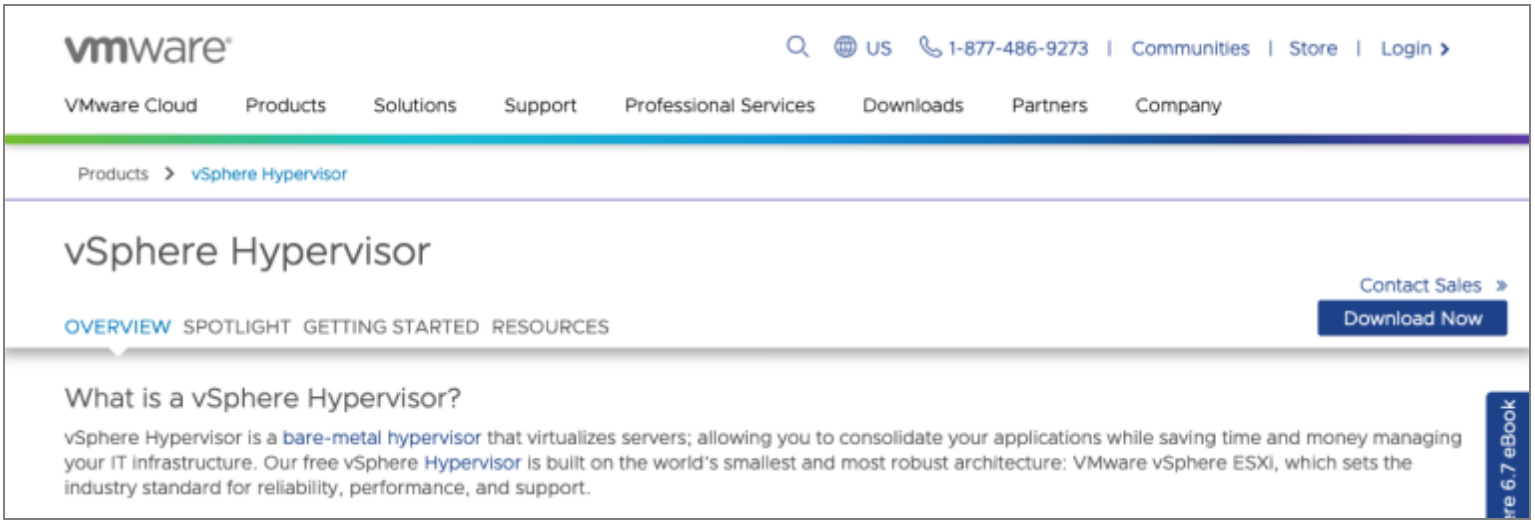
ESXi Management Interface - Licensing Tab - No License

Obtain a valid license key from the VMware website using the following steps and as illustrated in the following images.

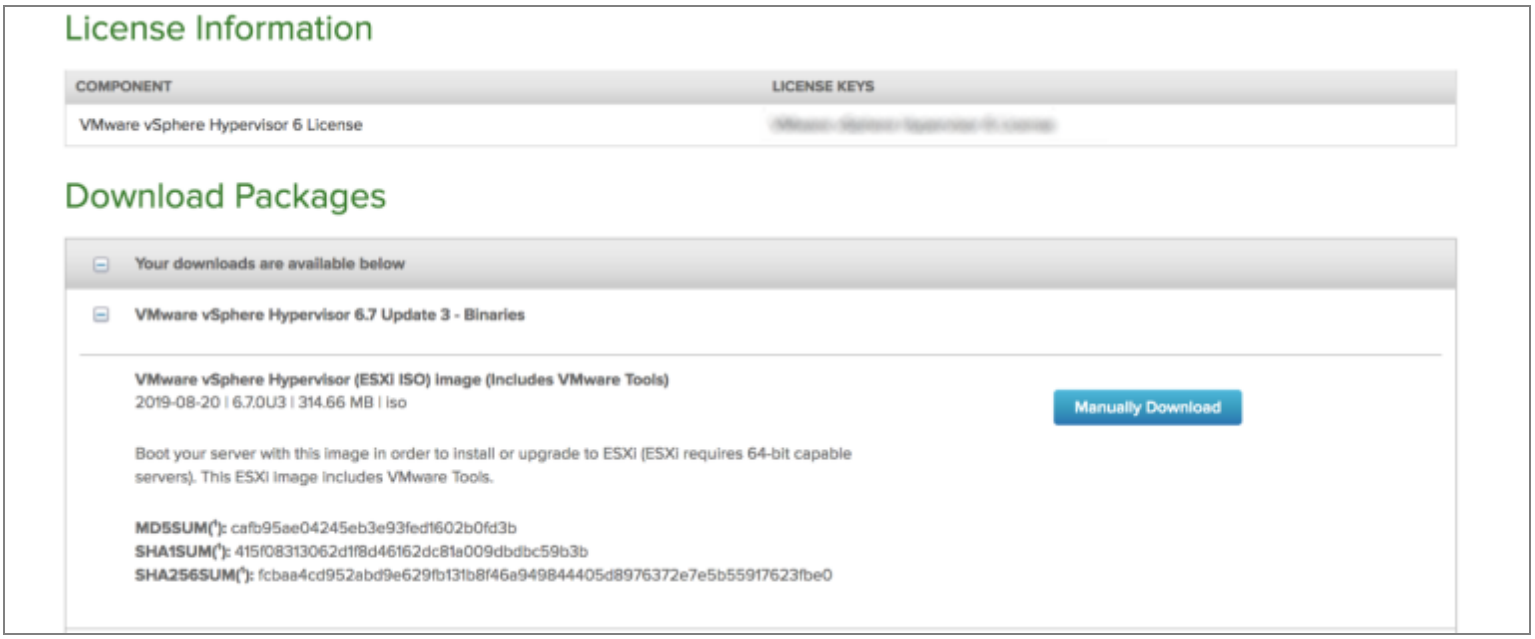
1. Navigate to https://www.vmware.com/products/vsphere-hypervisor.html and select **Download Now**. You may need to create a free account to continue.
2. Register for the download when prompted.
3. After registration you will be redirected to the license and download page.
4. Make a note of your license key (In this example the license is an evaluation version).
5. Select Manually Download to begin the download process.

Medium Capacity Appliance Configuration (cont'd)

vSphere Hypervisor User Interface



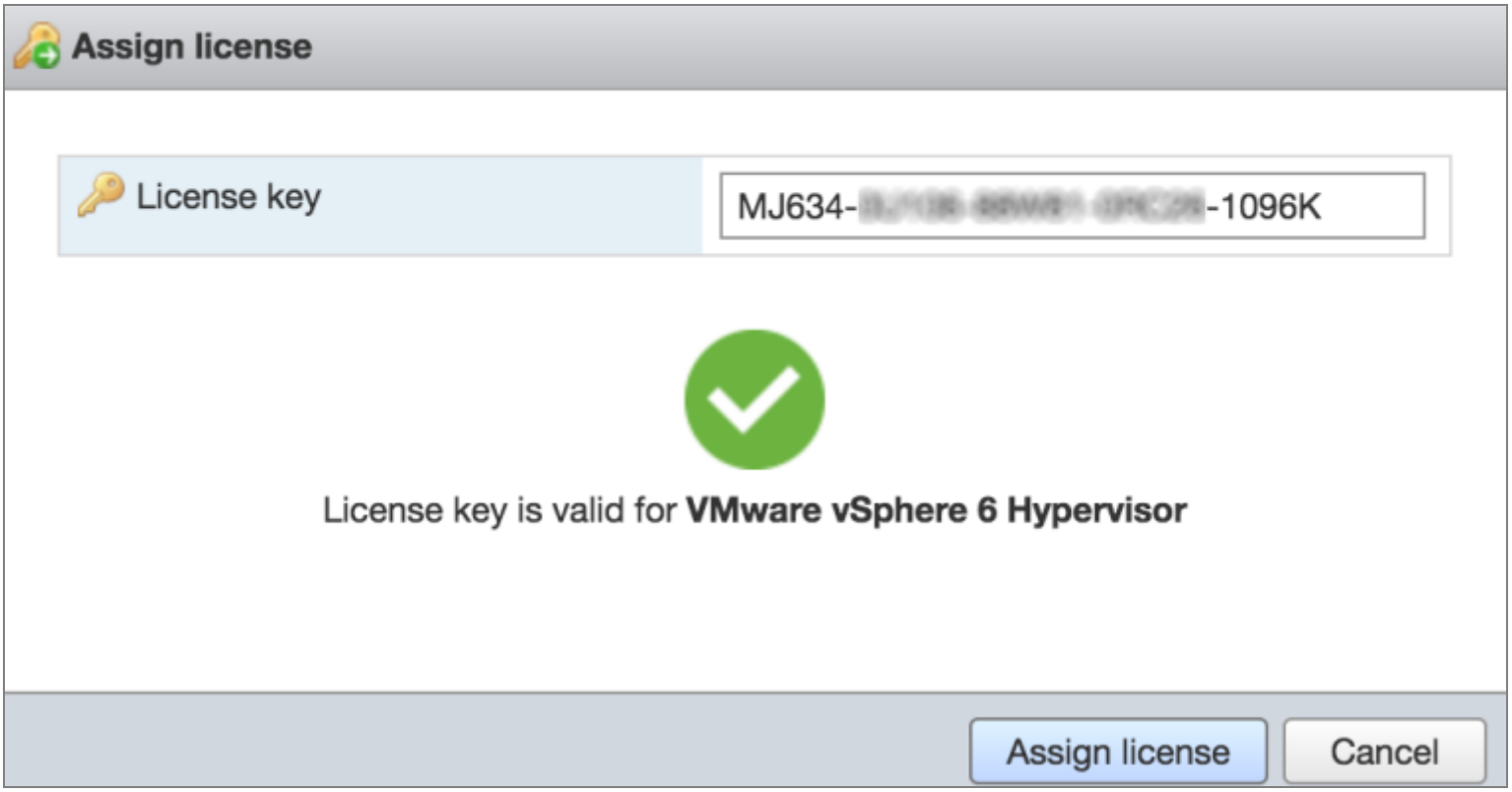
WMware Website - Download License



WMware Website - VMware Licenses

Medium Capacity Appliance Configuration (cont'd)

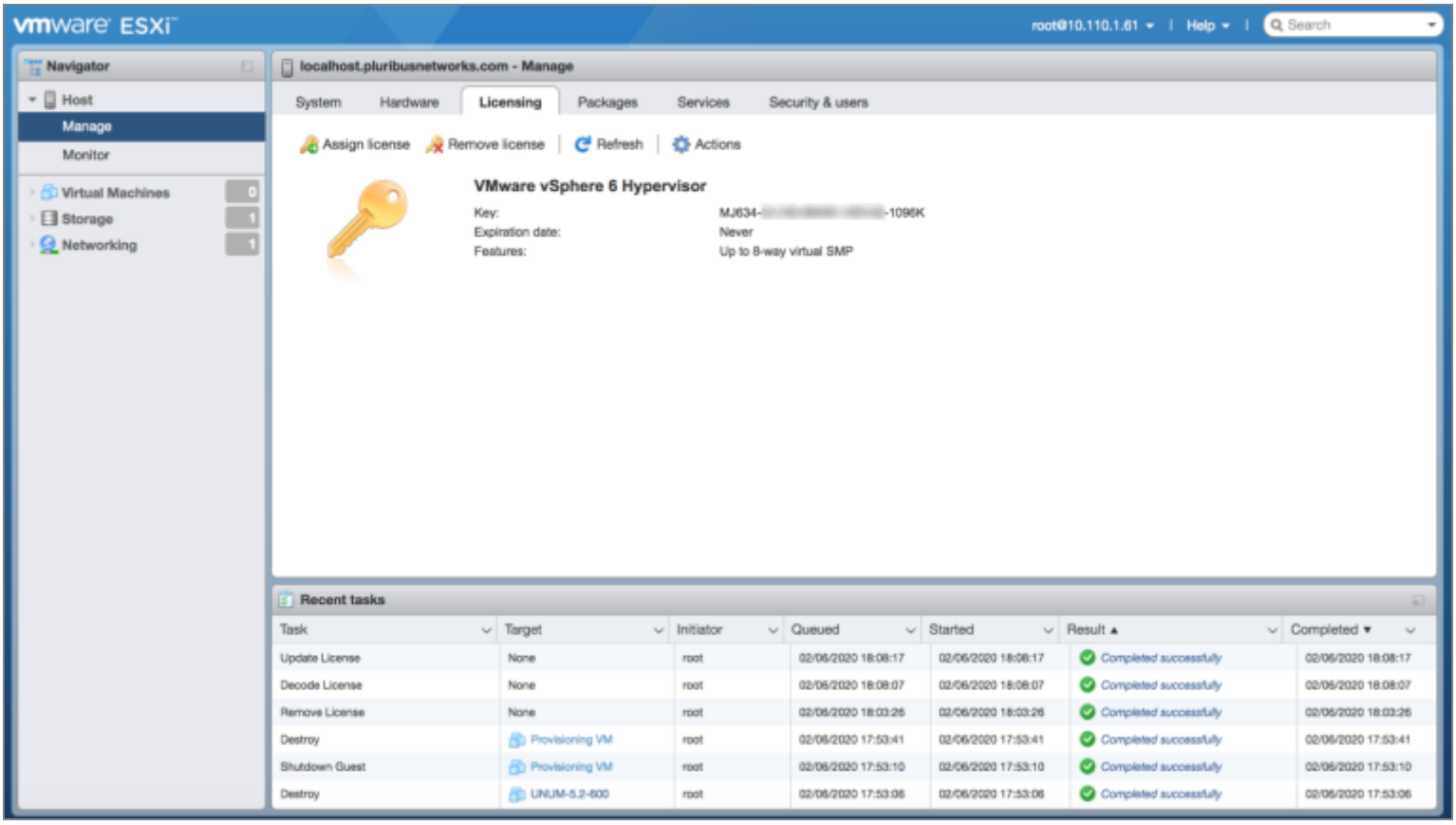
Enter the key using **Assign License**.



ESXi Management Interface - Licensing Tab - Assign License

Medium Capacity Appliance Configuration (cont'd)

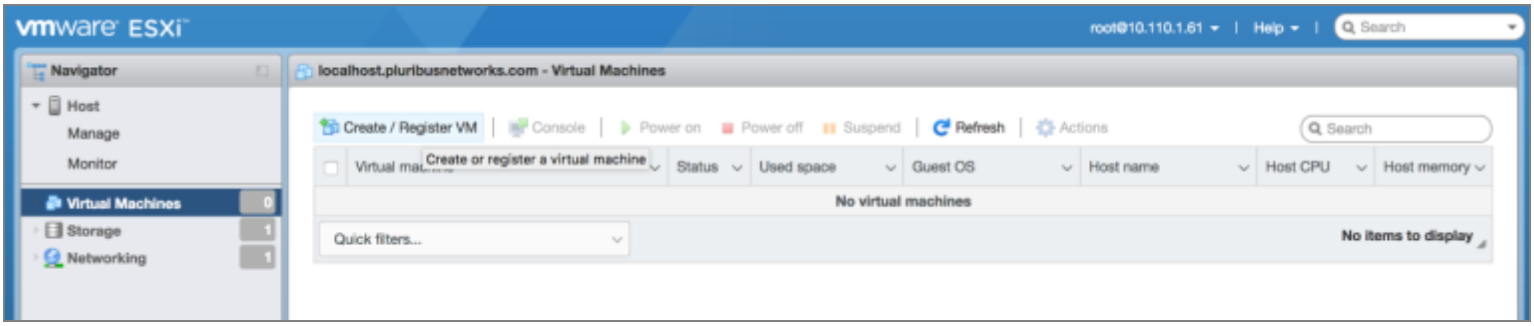
The ESXi dashboard updates with the valid key information.



ESXi Management Interface - Licensing Tab - New License

Configure ESXi and Create VM

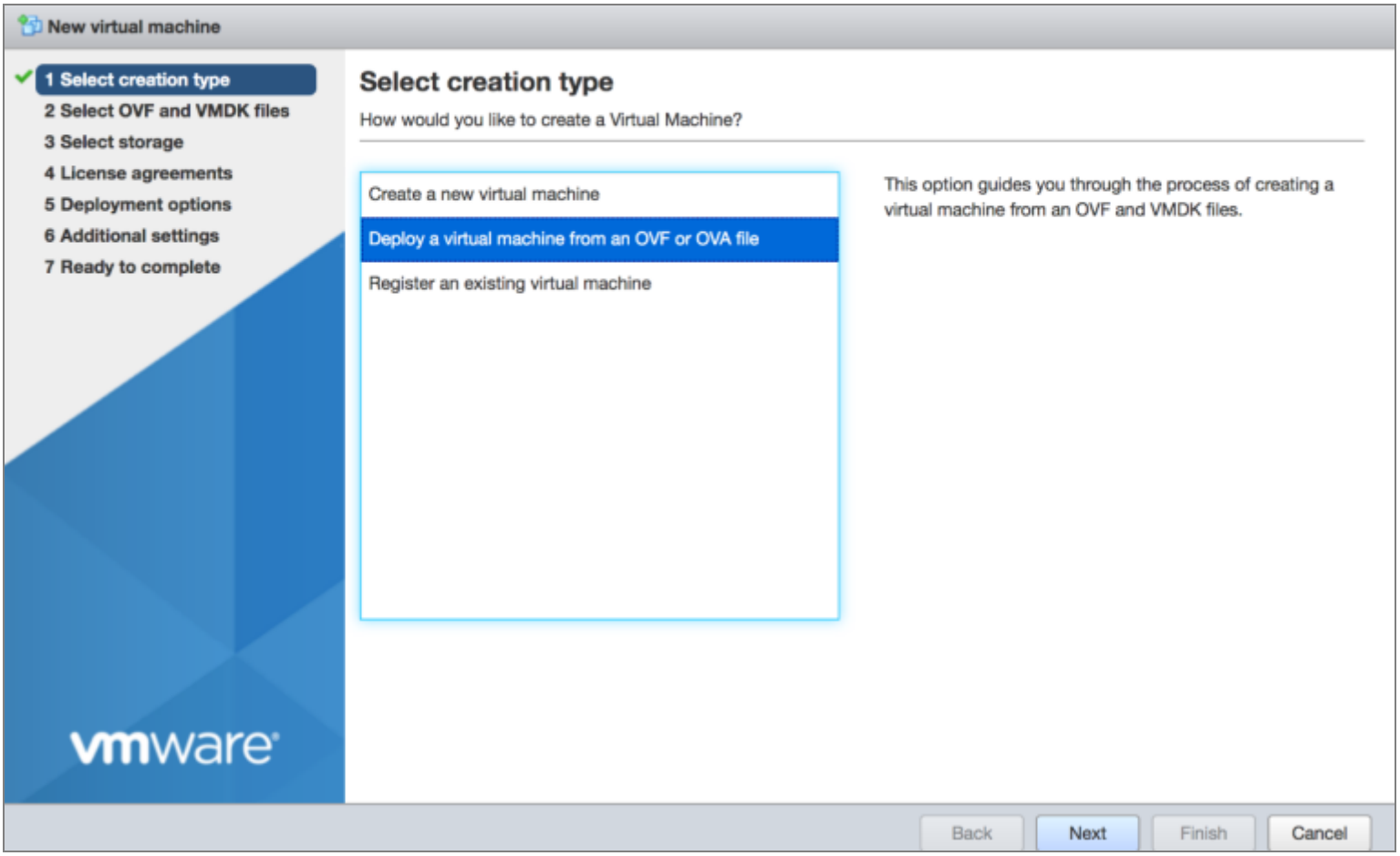
From the ESXi Management Interface select **Create / Register VM**.



ESXi Management Interface - Create VM

Medium Capacity Appliance Configuration (cont'd)

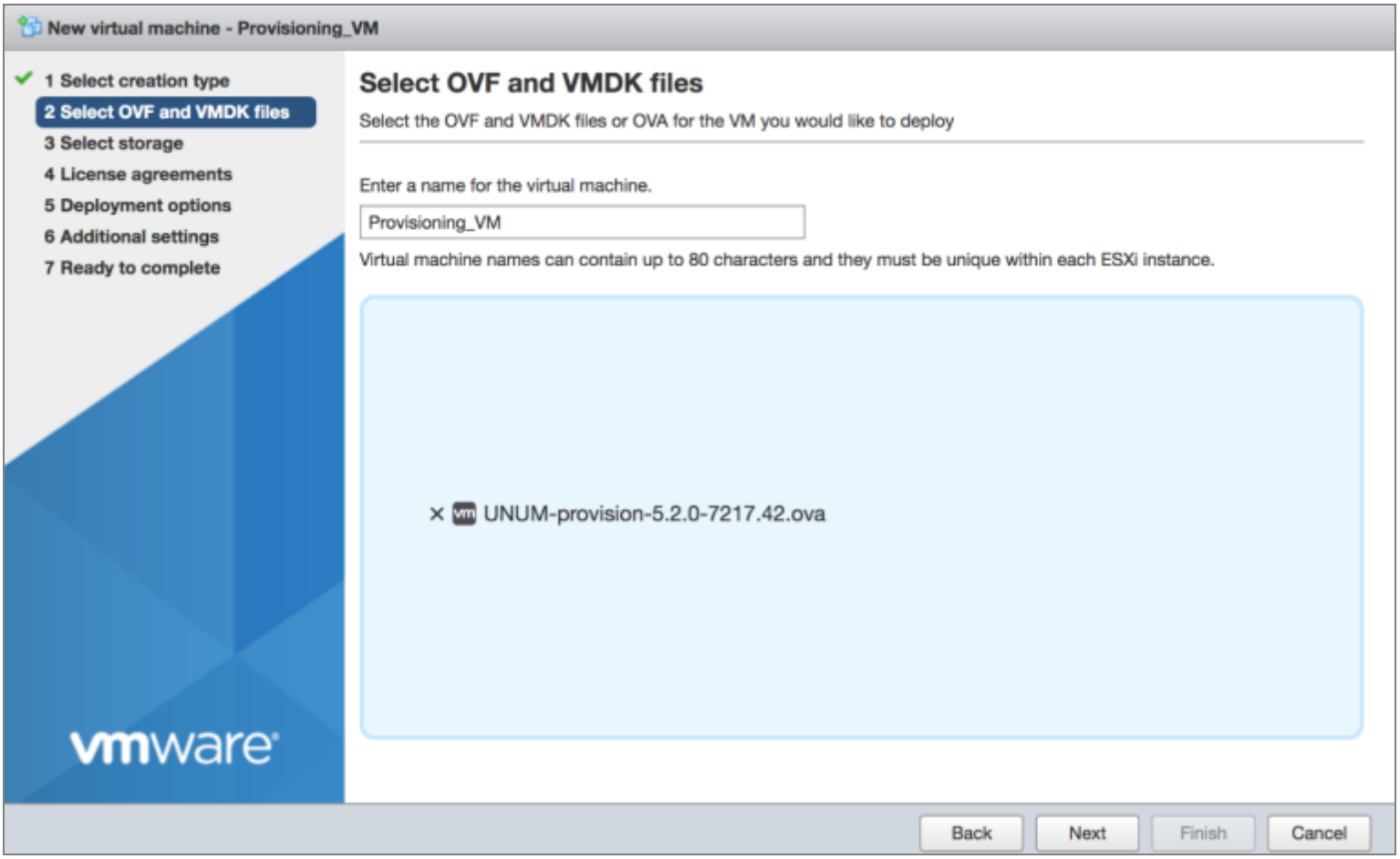
Select **Creation Type** and click deploy a virtual machine from an OVF or OVA file.



ESXi Management Interface - Deploy OVA

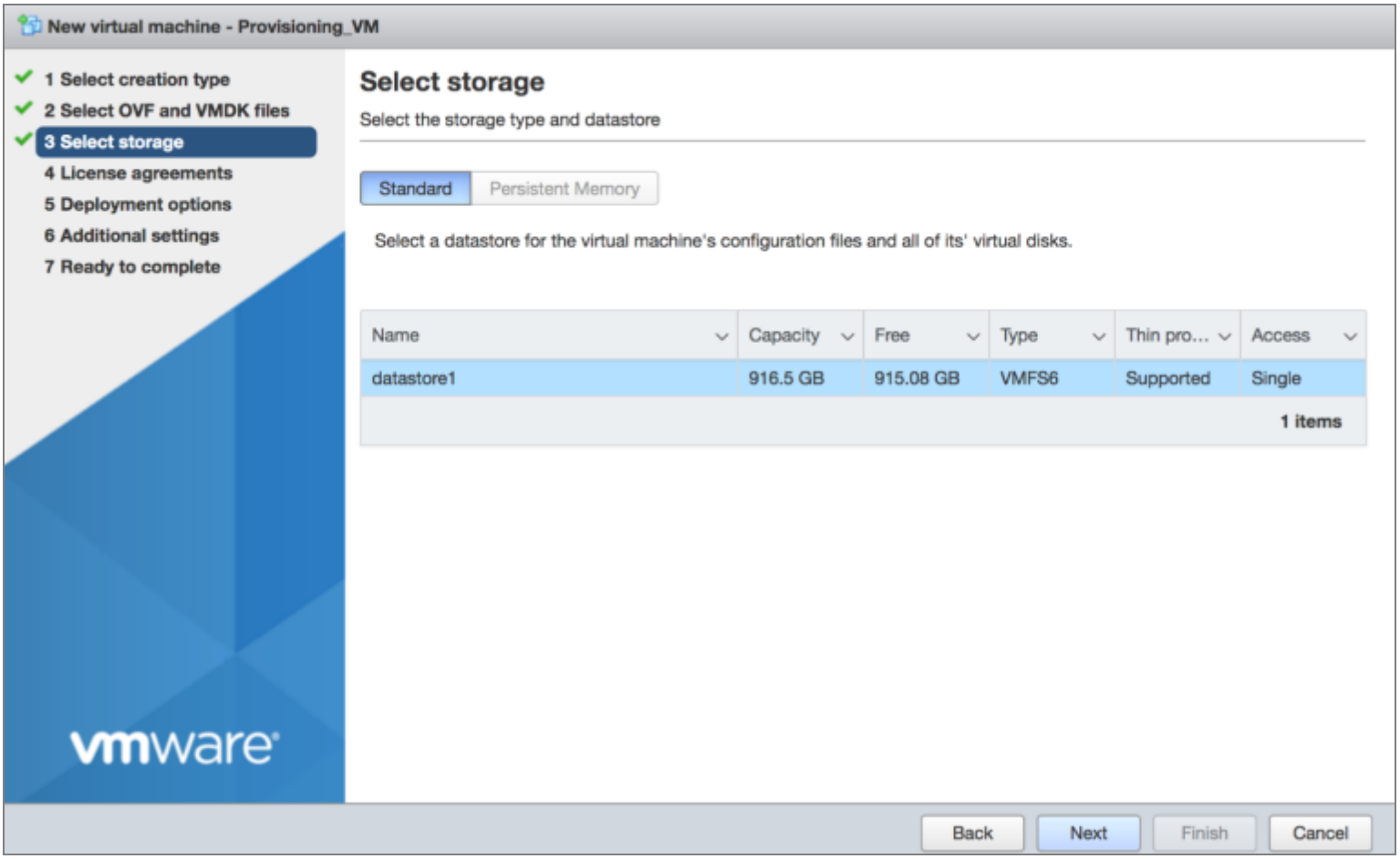
Medium Capacity Appliance Configuration (cont'd)

Enter a name for the VM and select the provisioning OVA file.



ESXi Management Interface - VM Name and OVA Installation File

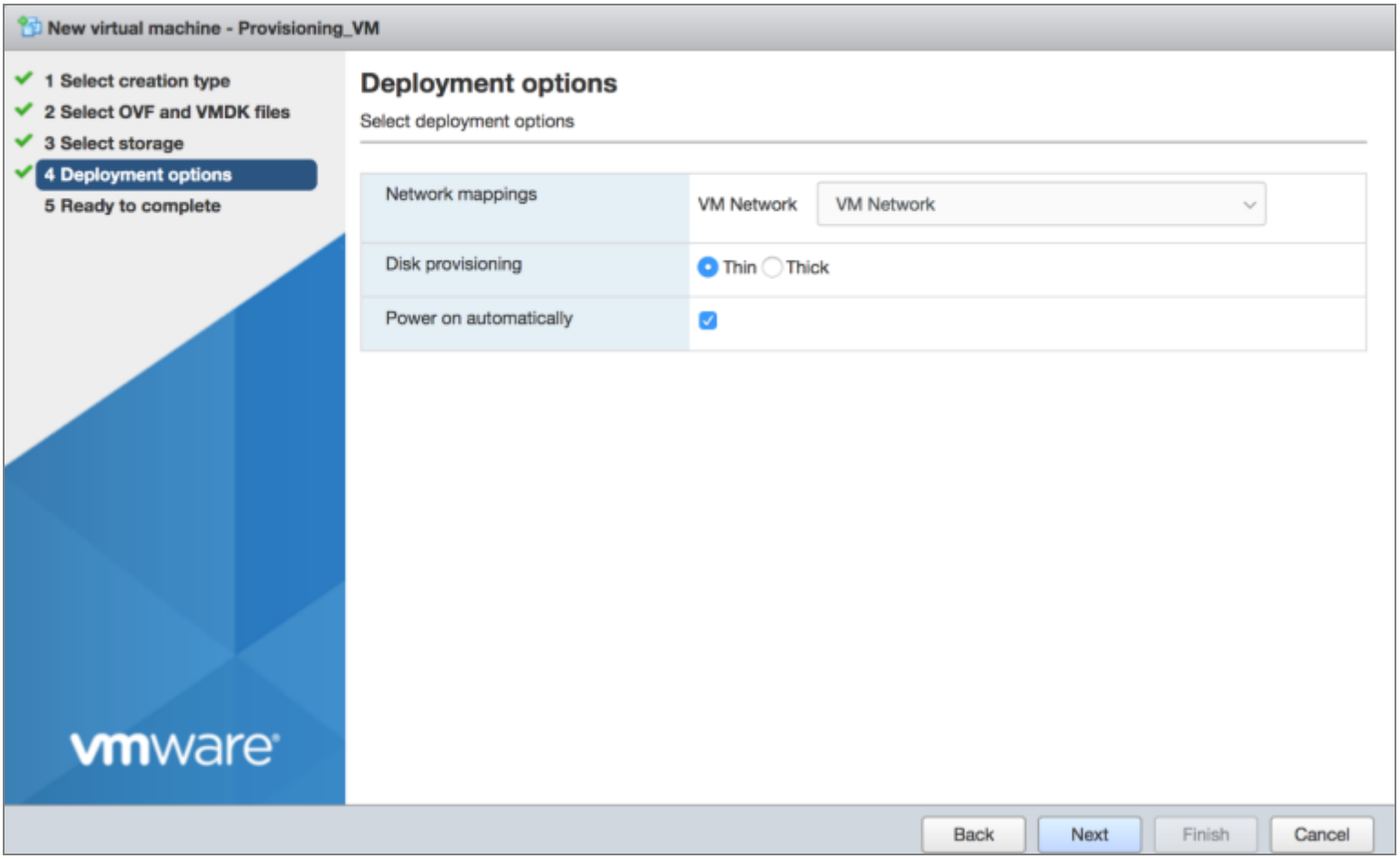
Select Storage



ESXi Management Interface - Select Datastore

Medium Capacity Appliance Configuration (cont'd)

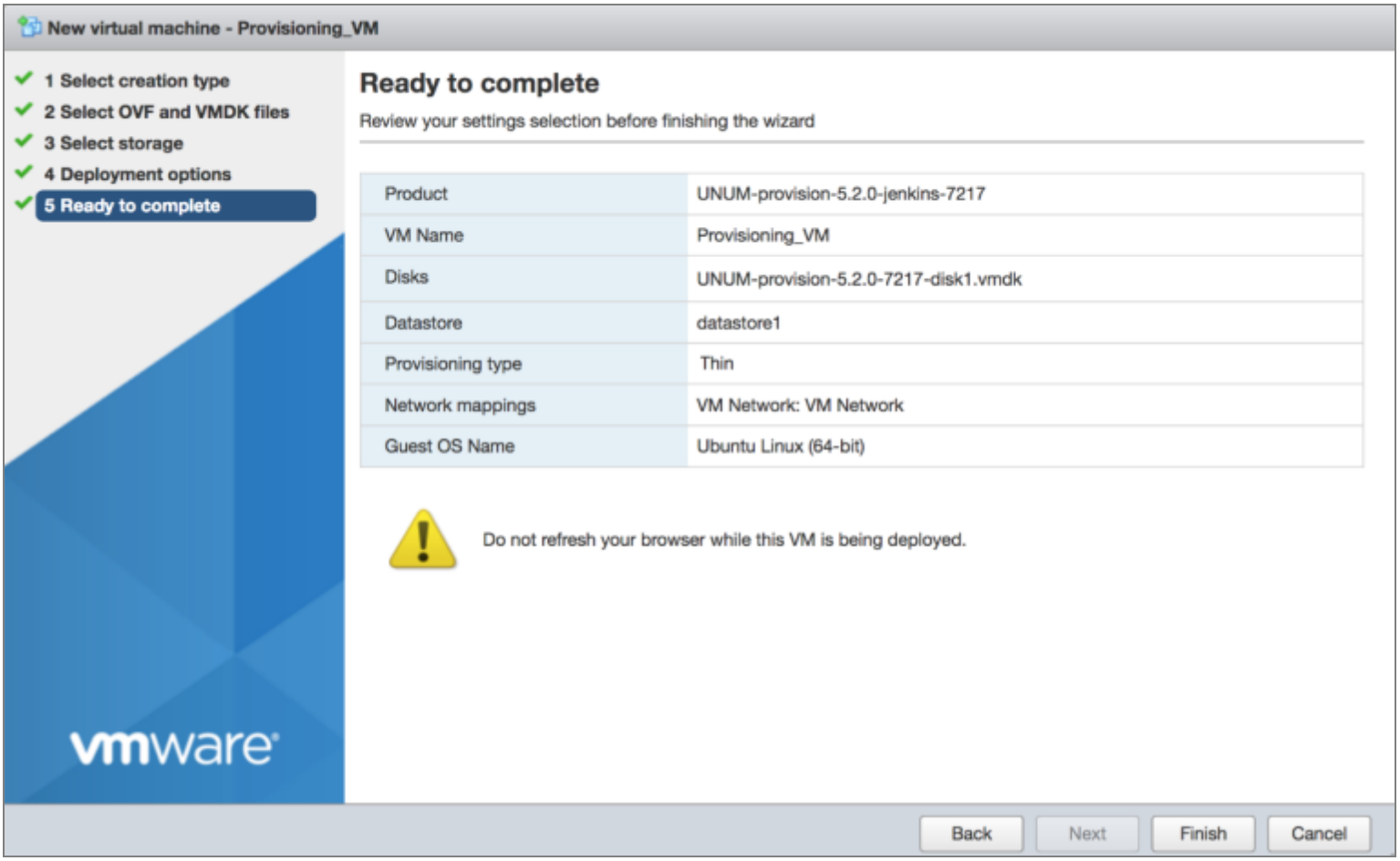
Deployment Options



ESXi Management Interface - Deployment Options

Note: Arista Networks recommends using Thin Provisioning

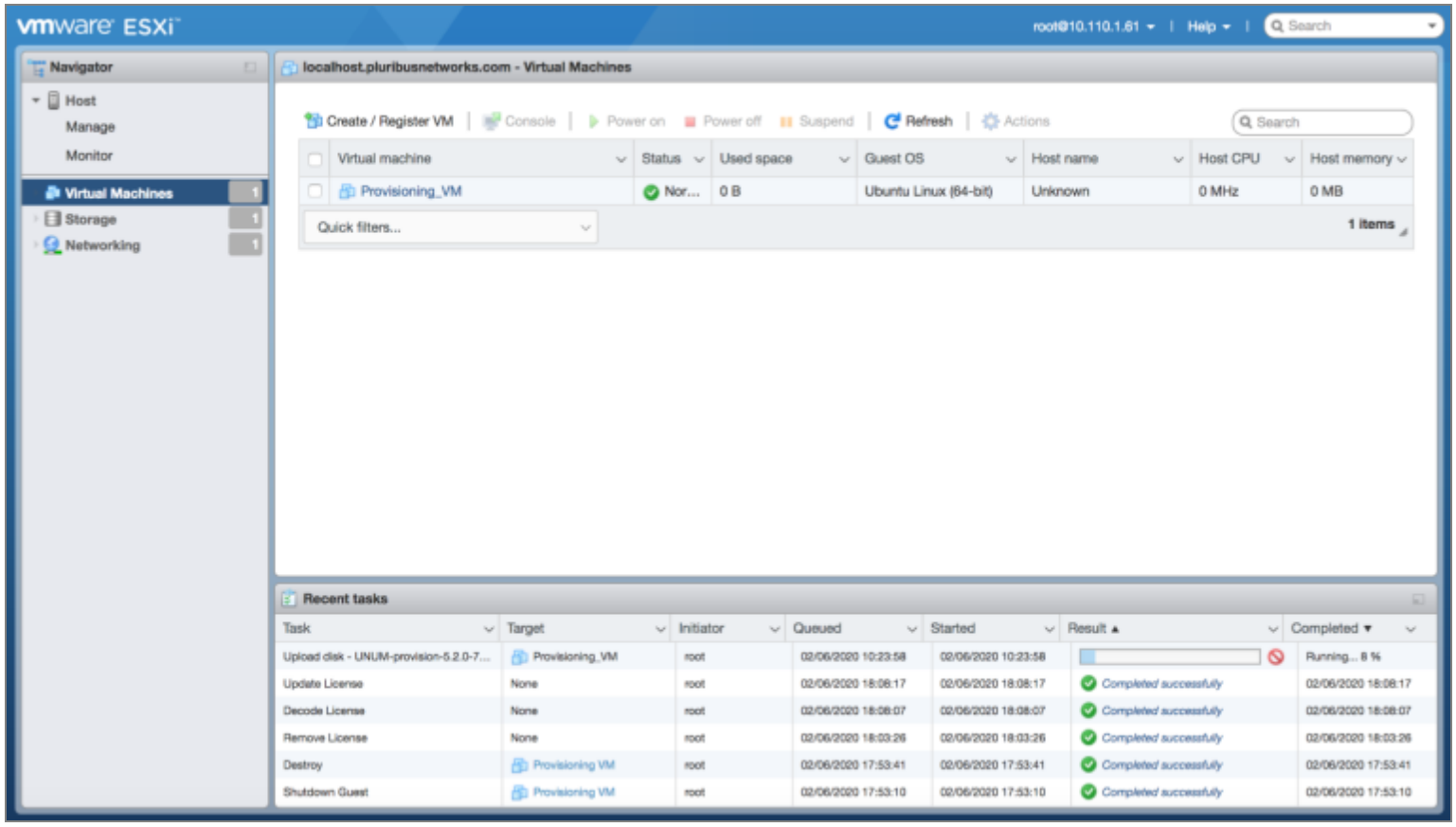
Ready to Complete



ESXi Management Interface - Ready to Complete

Medium Capacity Appliance Configuration (cont'd)

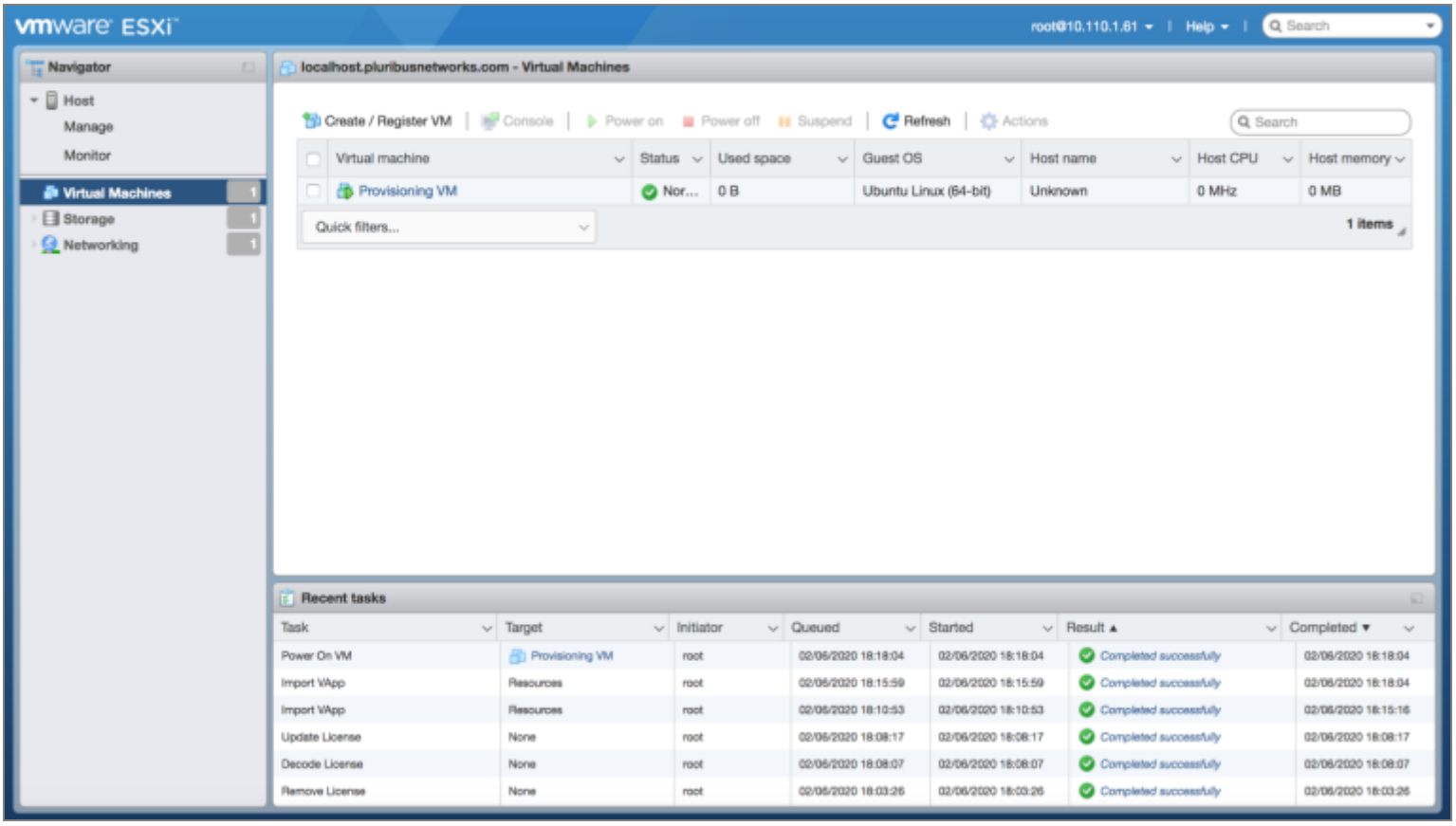
The ESXi Management Interface displays the progress of the VM provisioning status.



ESXi Management Interface - VM Provisioning Status

Medium Capacity Appliance Configuration (cont'd)

Upon successfully creating the VM, the ESXi management Interface updates.



ESXi Management Interface - VM Provisioning Complete

Medium Capacity Appliance Configuration (cont'd)

Use the **Console** within the ESXi Management Interface to review and record the assigned IP address.

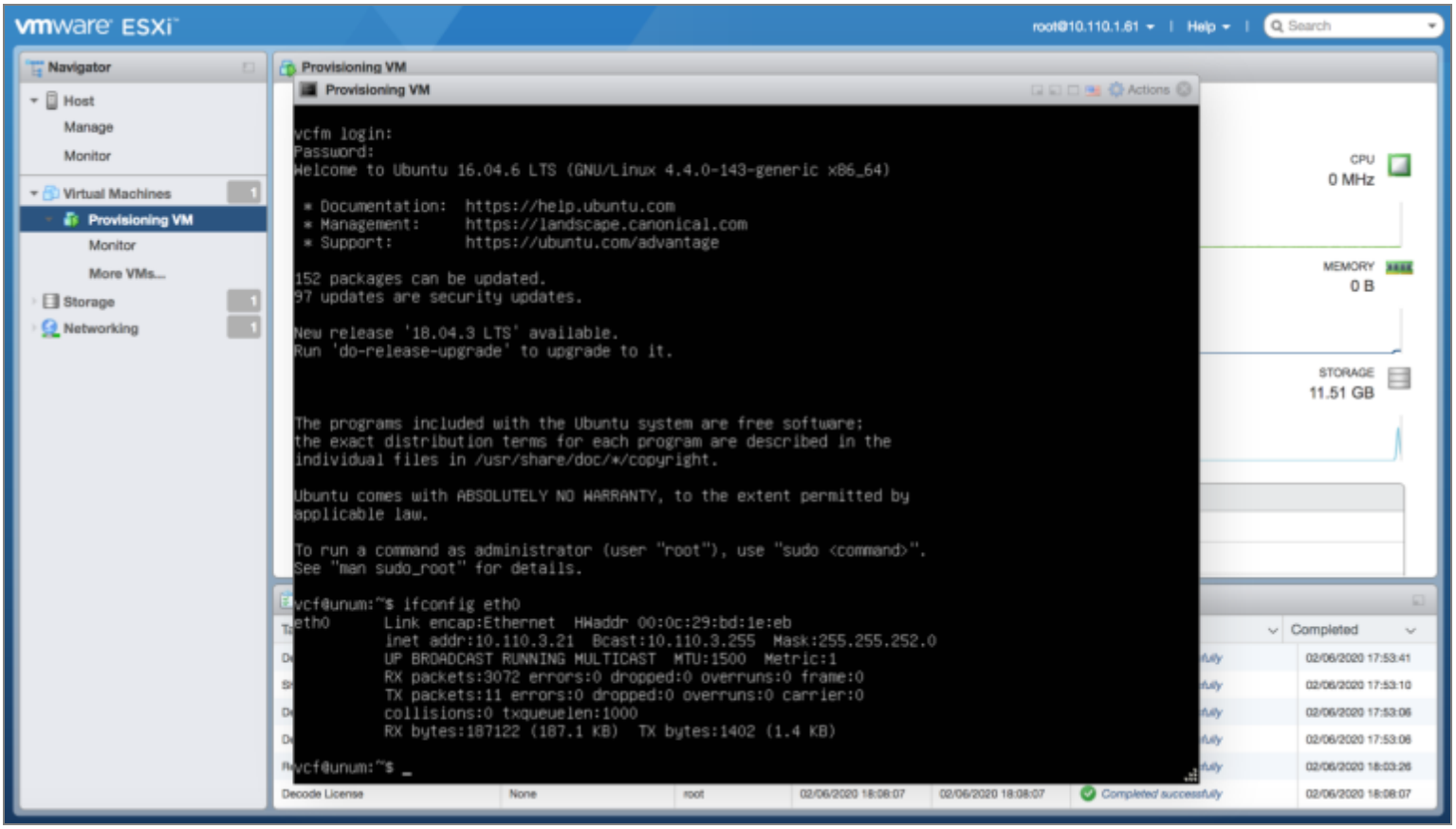
Enter the UNUM login information:

- **username** - `vcf`
- **password** - `changeme`

and run the command:

```
ifconfig  eth0
```

The following screen is displayed. Take note of the assigned IP address.



ESXi Management Interface - VM Console

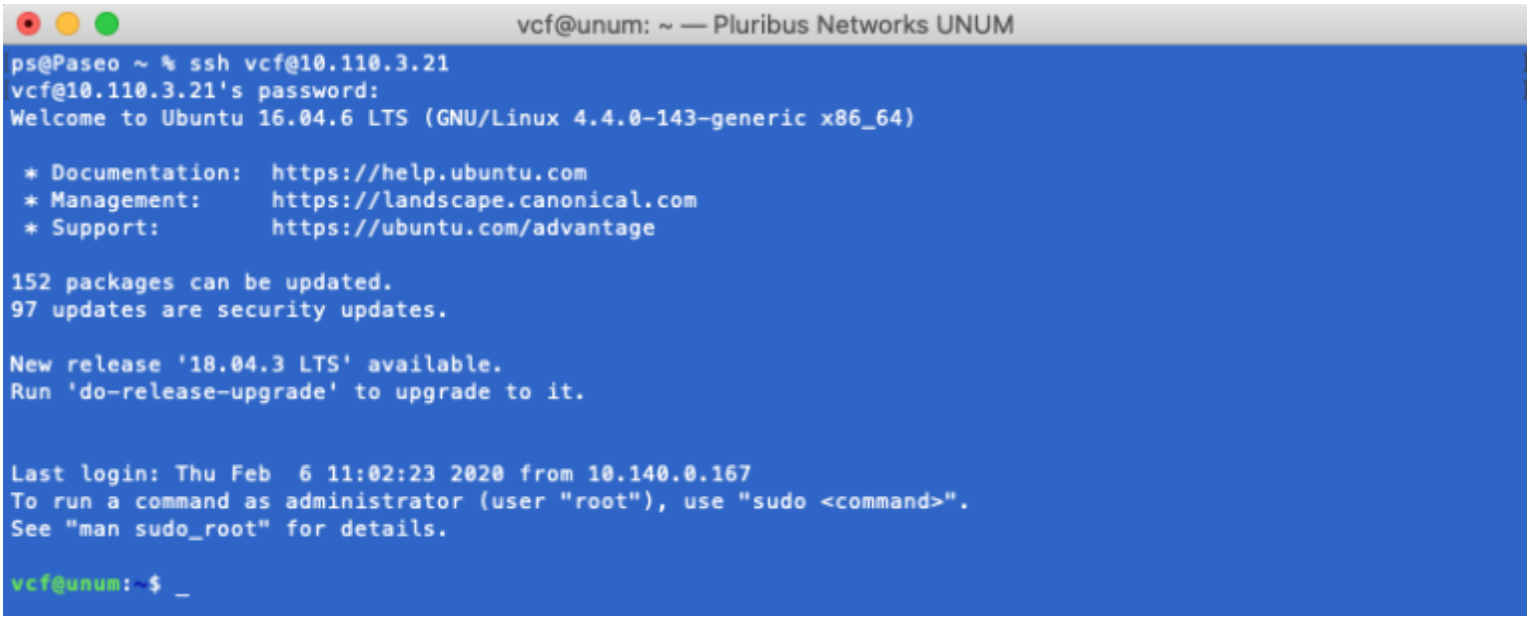
Medium Capacity Appliance Configuration (cont'd)

From a Terminal session enter the following commands:

`ssh  vcf@10.110.3.21` (example only) - Enter the IP address you previously recorded from the steps above.

Enter the password: `changeme`

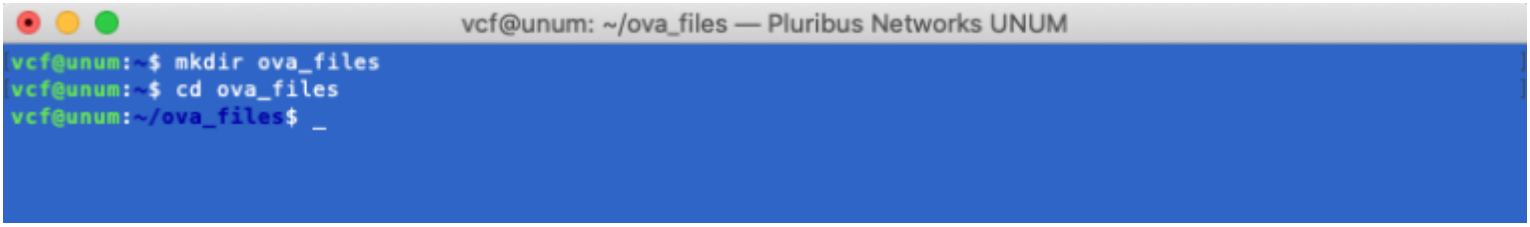
The following screen displays:



SSH Terminal - VM Login

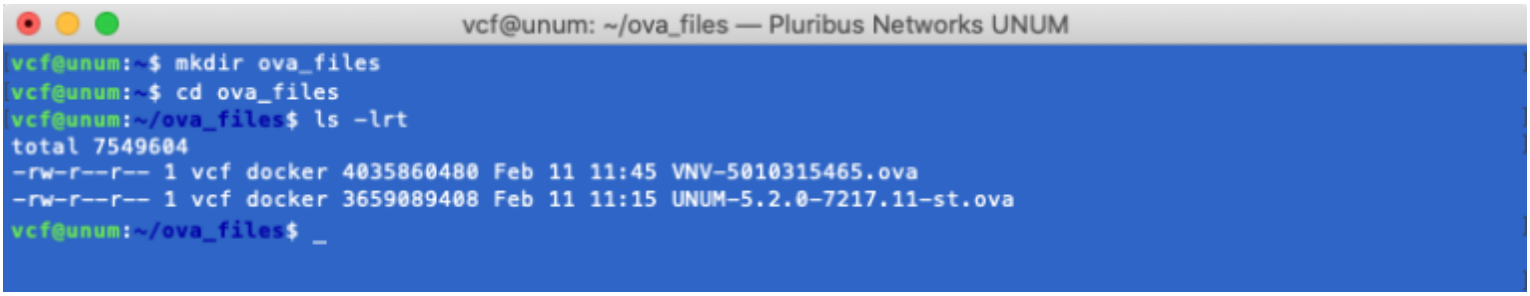
OVA Files

Create a local directory to hold the OVA files.



SSH Terminal - UNUM Create OVA File Directory

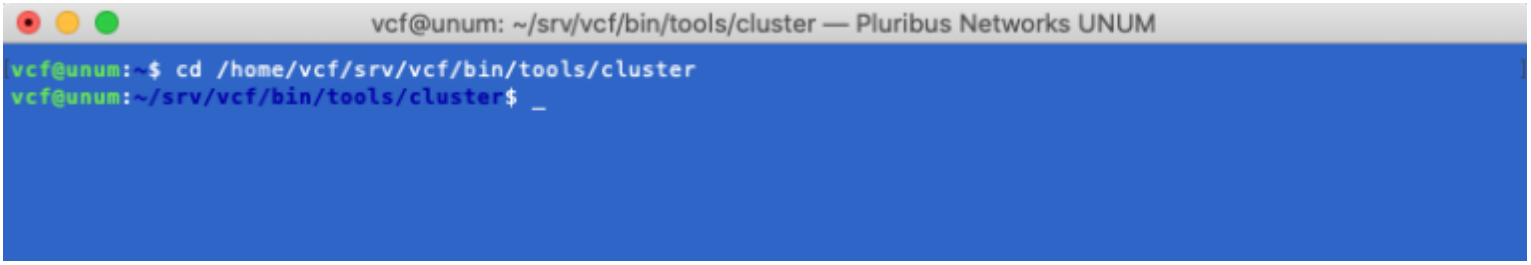
Move the previously downloaded OVA files on your PC to the local OVA directory created above.



SSH Terminal - UNUM OVA File Directory

Provision Arista NetVisor UNUM

To access the requisite installation scripts enter: `cd /home/vcf/srv/vcf/bin/tools/cluster` at the command prompt.



SSH Terminal - Cluster Directory Scripts

Run the `./unum_provision.sh` script.

SSH Terminal - UNUM Provision Script

The following menu displays.

SSH Terminal - Provision Menu

General Deployment Details and Management Scenarios

Arista NetVisor UNUM

1. Deploy VM.
2. Eth0 obtains a DHCP IP Address.
3. Login to the VM and set up the Eth1 IP address.
4. Add vnv(s) as a Seed Switch for UNUM. Performed post vNV config/ setup.

vNV

1. Deploy VM.
2. Obtain vmgmt0 IP address for vNV from DHCP.
3. Disconnect the Network adapter 1 on the VM.
4. Accept EULA.
5. If fabric name is specified: join fabric and errors out under the following conditions:
    a) fabric doesn't exist or is not reachable or is running a different version

Provisioning Details and Steps for Inband Scenario

Configuration Steps for VEP

ESXi Configuration:

1. Create a **Vswitch** on the **ESXi** host with the following settings:

    a) promiscuous mode enabled
    b) allow forged transmits

2. Portgroup is created (with optional VLAN parameter; defaults to 0 (untagged))

3. Assign a vnic to the vswitch. This vnic is the physical port connected to the switch and needs to be entered correctly by the user for configuration to succeed. Without this is the physical link, the vNV cannot find the fabric to join.

vNV Configuration:

1. vNV's Network Adapter 3 assigned to this port group.
2. vdata0 interface on vNV needs an IP address configured in the same network as the inband IP address of the switch.
3. vNV should have web-enabled on data using: `admin-service-show if mgmt web` (same as the management scenario).

Arista NetVisor UNUM Deployment Menu

Select **Option 1**, **Deploy Standalone VM**.

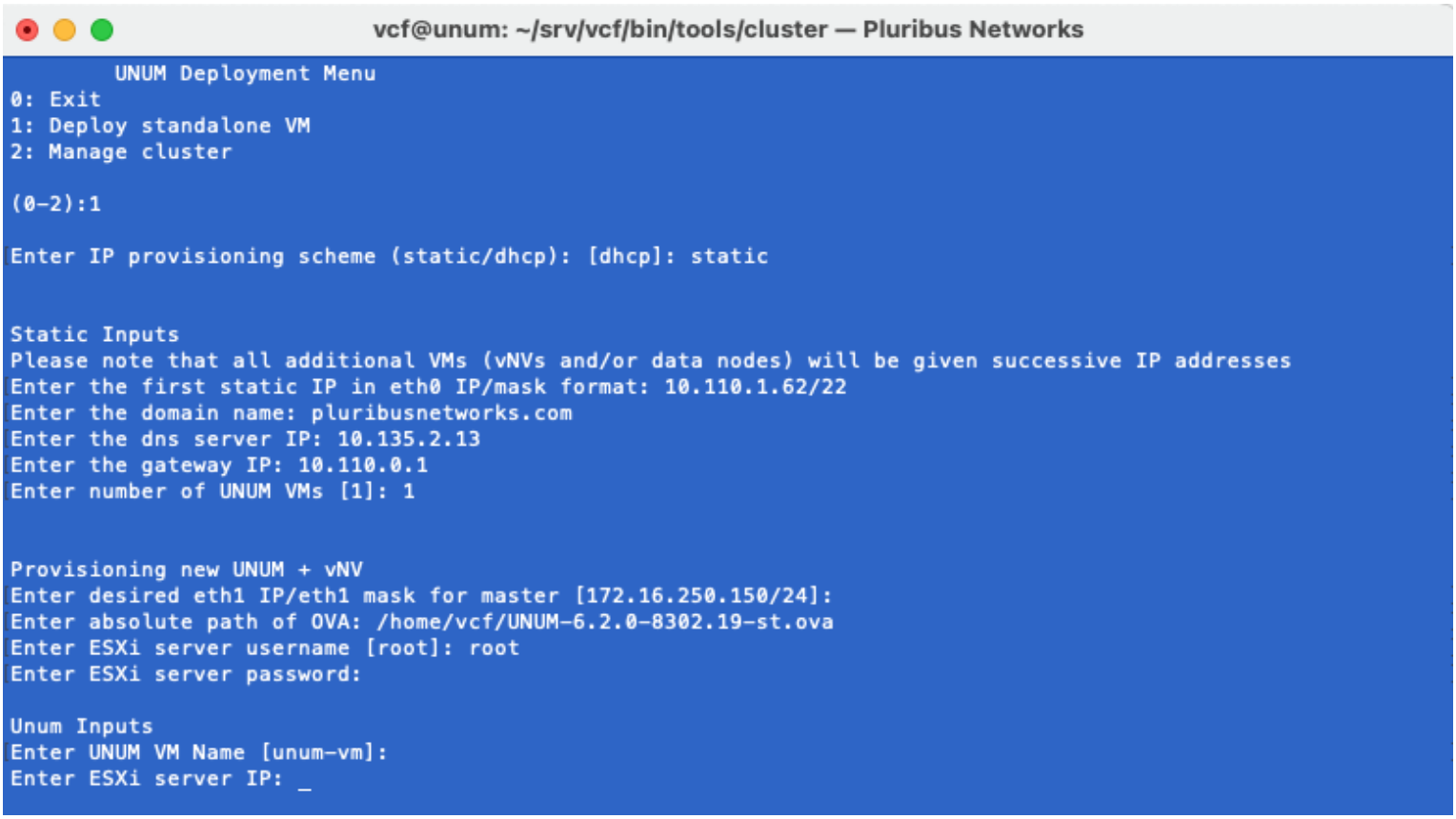
Enter the requisite information for each configuration prompt. See details below.

In many cases use the default value by hitting **Enter** or **Return**.

You may use DHCP assigned values or enter static IP parameters as required.

Static IP Assignment

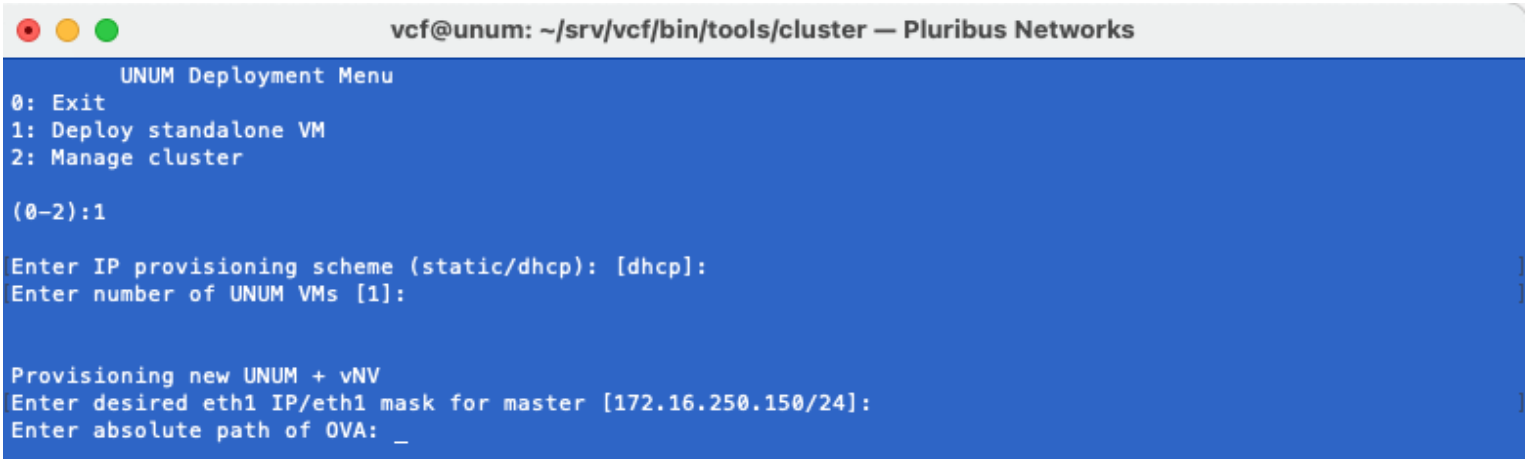
Enter static and then follow the onscreen prompts to complete the configuration.



SSH Terminal - UNUM Provisioning Static IP Parameters Example

DHCP Assignment

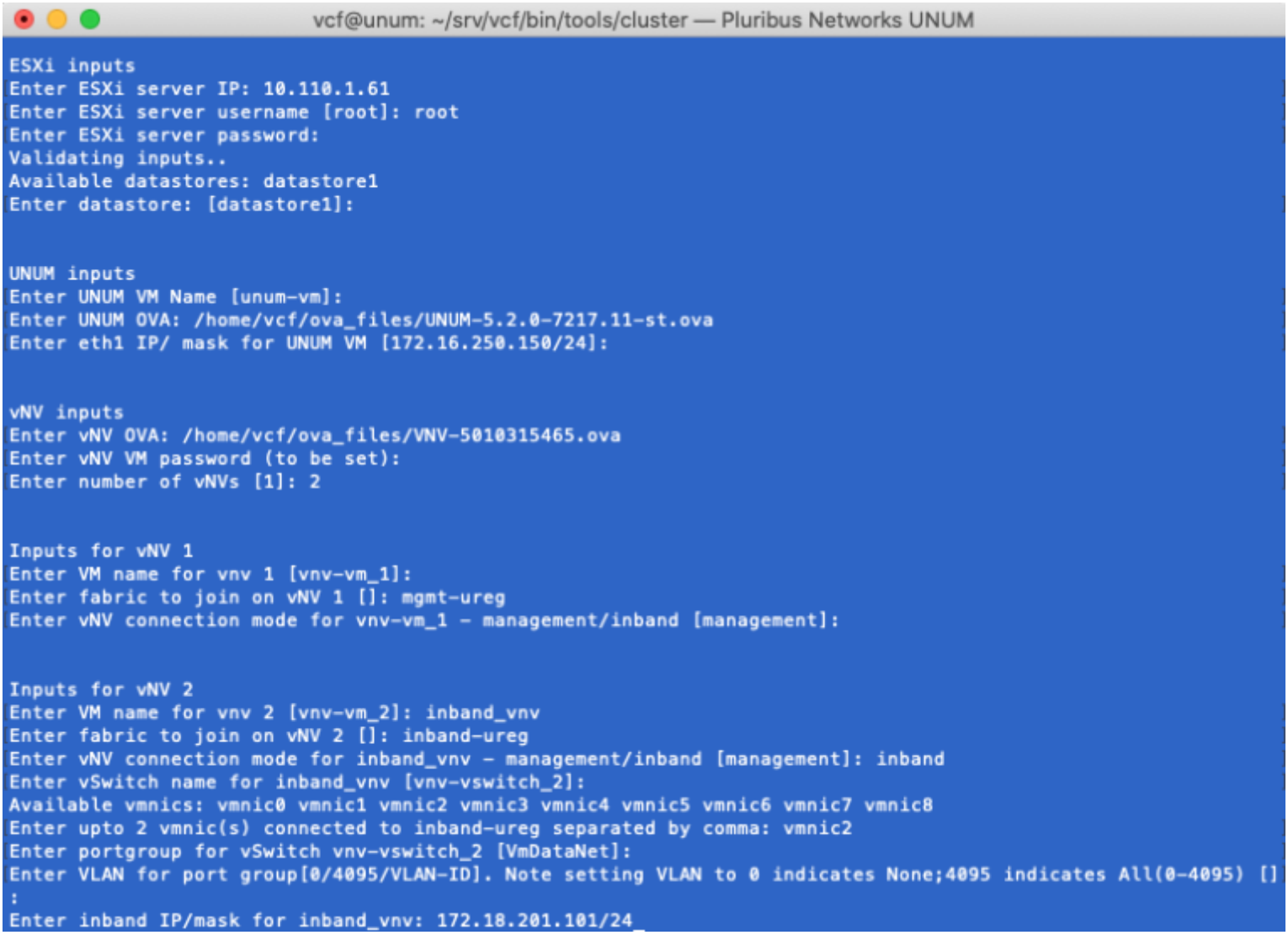
Select the default dhcp and follow the onscreen prompts to complete the configuration.



SSH Terminal - UNUM Provisioning DHCP Configuration Example

Configuration Script

After completing entering either the static or dhcp provisioning continue with the configuration script.



SSH Terminal - UNUM Provisioning new VEP Inputs

ESXi Inputs

- **Enter ESXi server IP:** `10.110.1.61` (example IP address)
- **Enter ESXi server username [root]:** `root`
- **Enter ESXi server password:** Enter your ESXi server password

```
UNUM validates the inputs.
```

- **Available datastores:** `datastore1`
- **Enter datastore:** [datastore1]:

Arista NetVisor UNUM Inputs

- **Enter UNUM VM Name [unum-vm]:** Enter a name for the VM or use the default value.
- **Enter UNUM OVA:** `/home/vcf/ova_files/UNUM-6.2.0-7217.11-st.ova` (example version number only)
- **Enter eth1 IP/ mask for UNUM VM [**`172.16.250.150/24`**]:** (default value)

vNV Inputs

- **Enter vNV OVA:** `/home/vcf/ova_files/VNV-6100315465.ova` (Example version only. The version you use must match the NetVisor OS version running on your switches.)
- **Enter vNV VM Password:** (The selected password must match password used on your switches.)
- **Enter number of vNVs [1]:** `2`

> **Note:** Switches must exist to create a fabric. Inband management only possible if switches exist.

Inputs for vNV 1

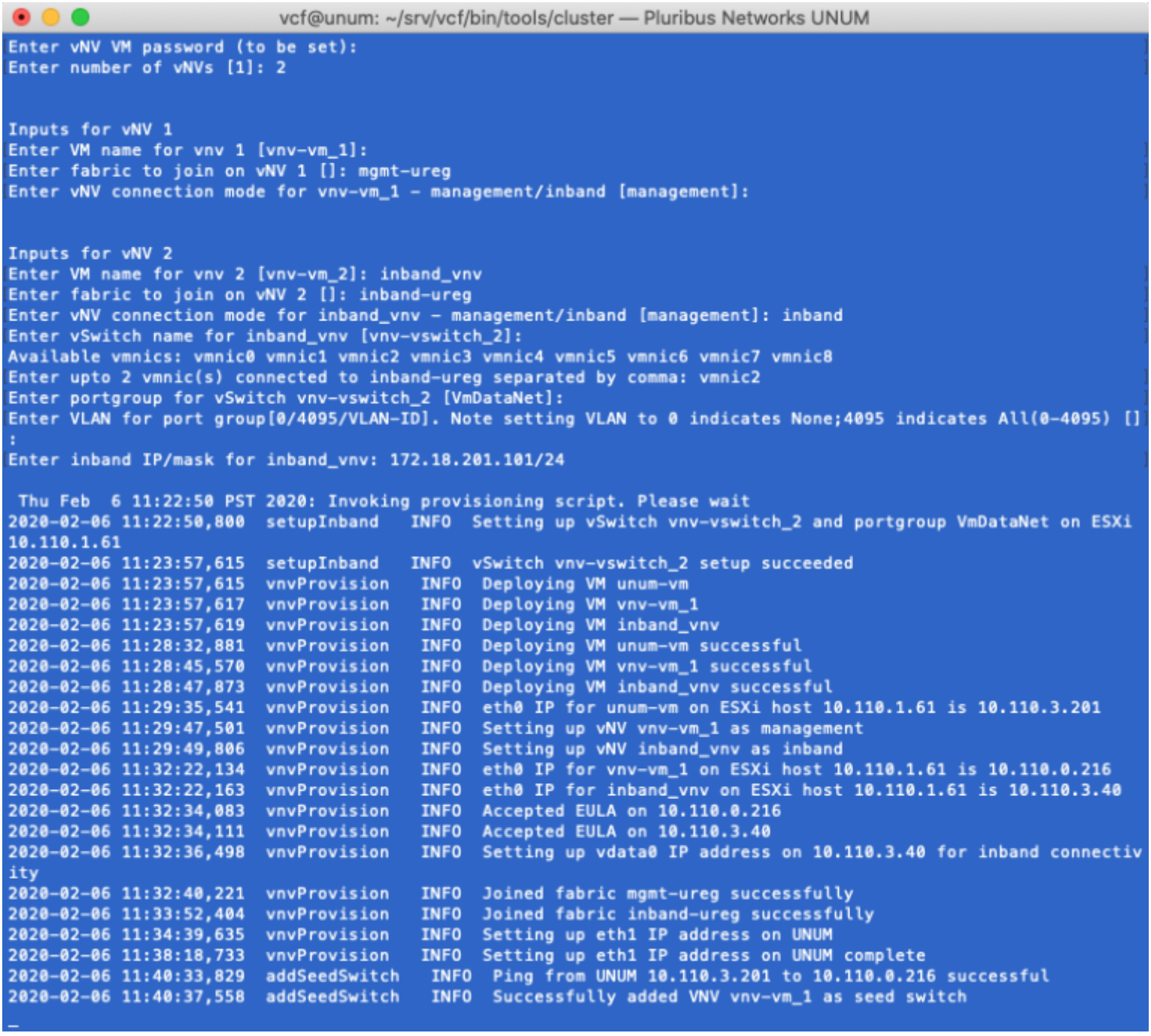
- **Enter VM name for vnv 1 [vnv-vm_1]:** Enter name or use default value
- **Enter fabric to join on vNV 1 [ ]:** `mgmt-ureg` (example only)
- **Enter vNV connection mode for vnv-vm_1 - management/inband [management]:**

Inputs for vNV 2

- **Enter VM name for vnv 2 [vnv-vm_2]:** Enter name or use default value
- **Enter fabric to join on vNV 1 [ ]:** `inband-ureg` (example only)
- **Enter vNV connection mode for vnv-vm_1 - management/inband [management]:** `inband`
- **Enter vSwitch name for inband_vnv [vnv-switch_2]:**
- **Available vmnics:** `vmnic0 vmnic1 vmnic2 vmnic3 vmnic4 vmnic5 vmnic6 vmnic7 vmnic8`
- **Enter up to 2 vmnic(s) connected to inband-ureg separated by comma:** `vmnic2`
- **Enter portgroup for vSwitch vnv-switch_2 [VmDataNet]:**
- **Enter VLAN for port group [0/4095/VLAD-ID]. Note setting VLAN to 0 indicates None; 4095 indicates All (0-4095) [ ]:**
- **Enter inband IP/mask for inband_vnv:** `172.18.201.101/24`

Provisioning

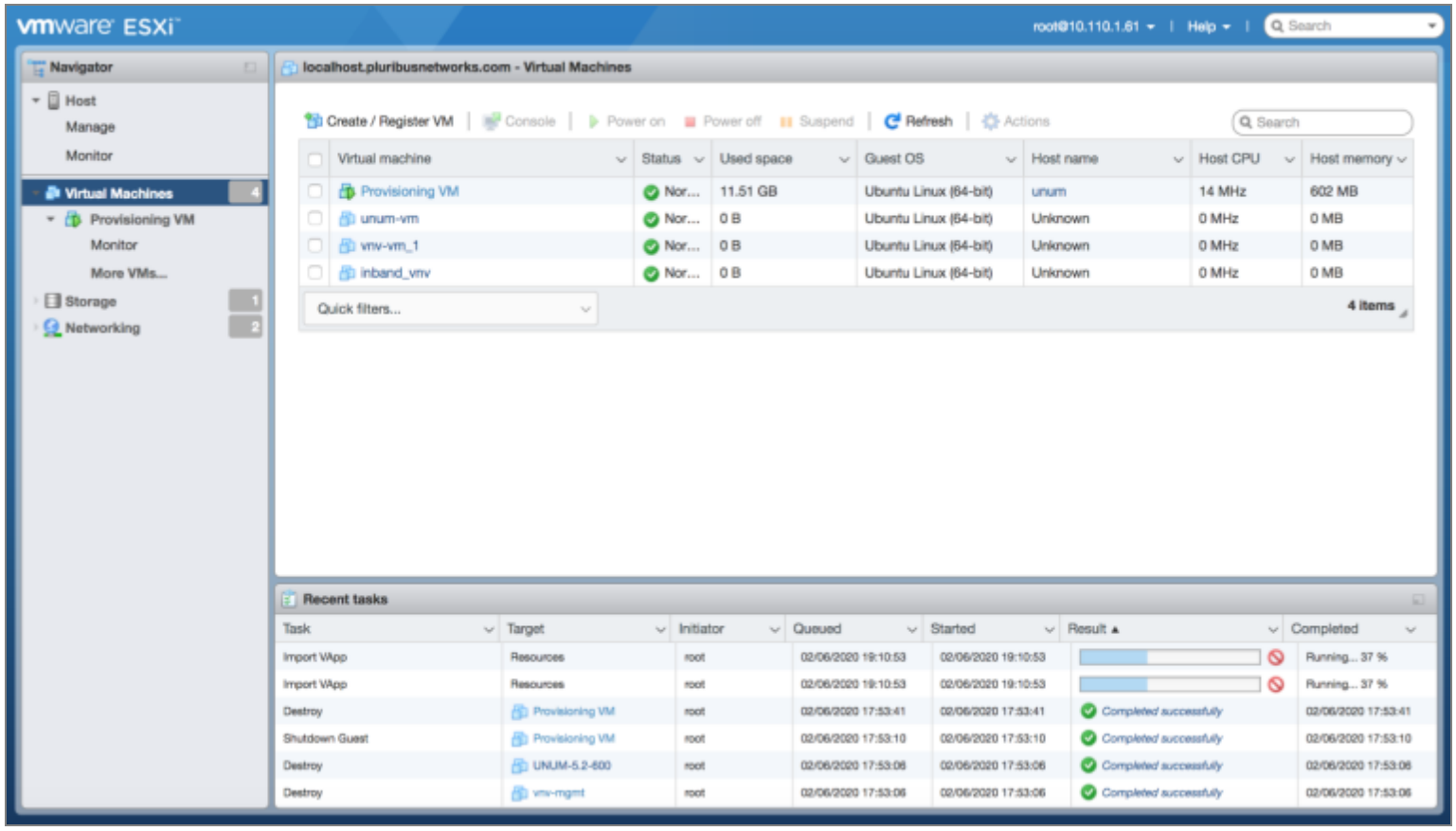
After entering the requisite settings, UNUM begins the provisioning process and reports each configuration step.



SSH Terminal - UNUM Provisioning

Medium Capacity Appliance Configuration (cont'd)

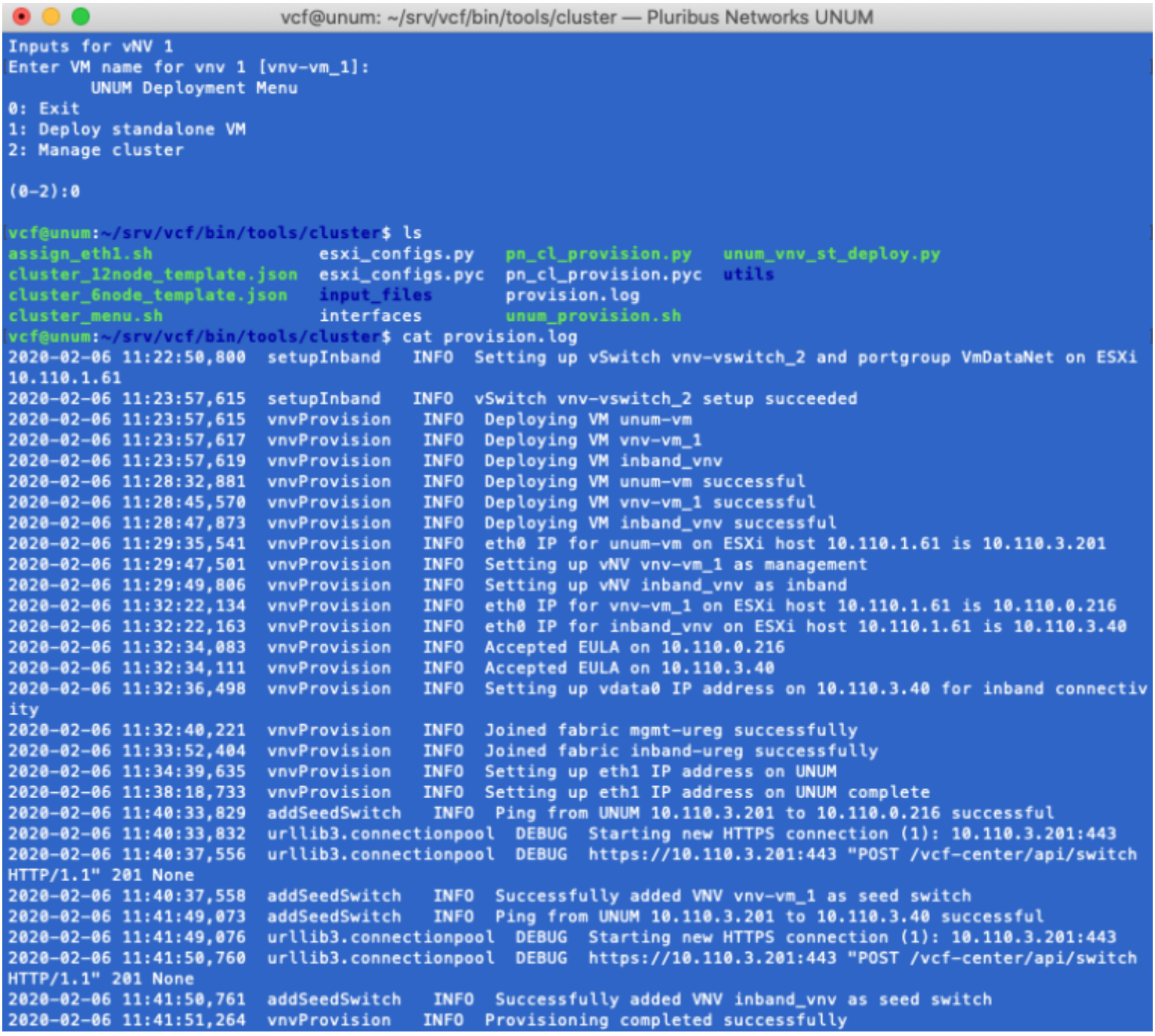
Optionally, monitor the provisioning from the ESXi Management Interface.



ESXi Management Interface - Monitor UNUM Provisioning

Medium Capacity Appliance Configuration (cont'd)

UNUM logs the provisioning output to the `provision_log` file, which is available for subsequent review.



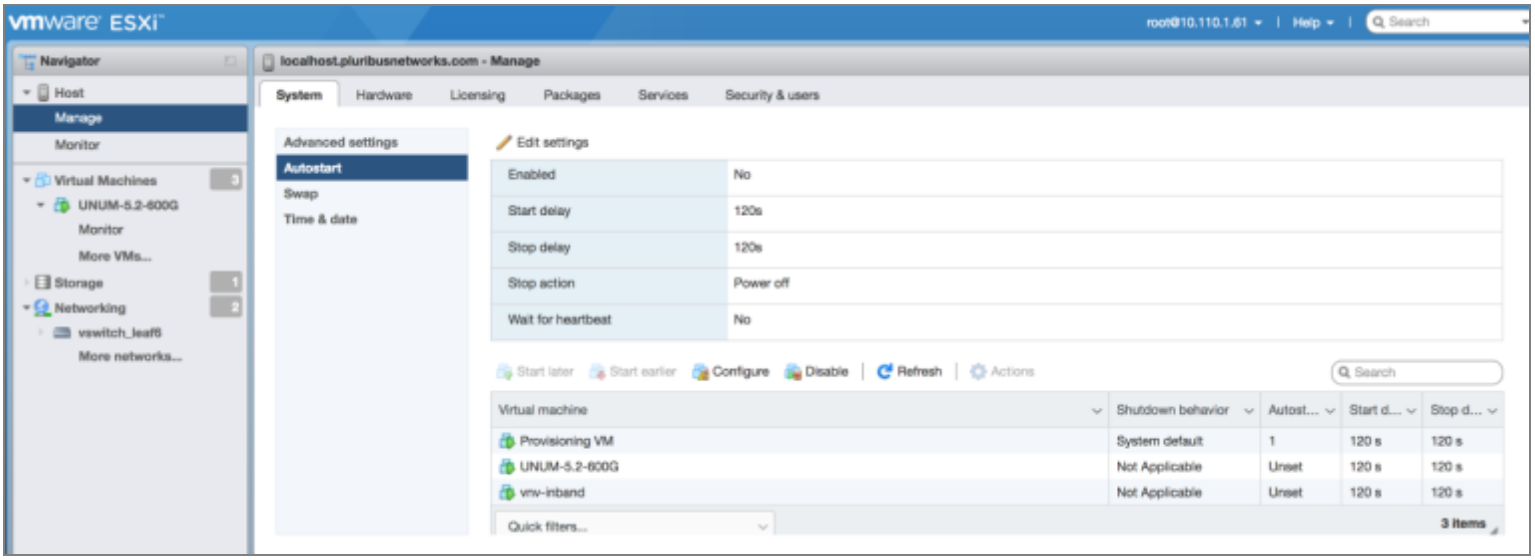
SSH Terminal - UNUM Provisioning Log Output

Note: Once provisioning is complete, we recommend powering down the Provisioning VM.

Autostart Settings for VMs

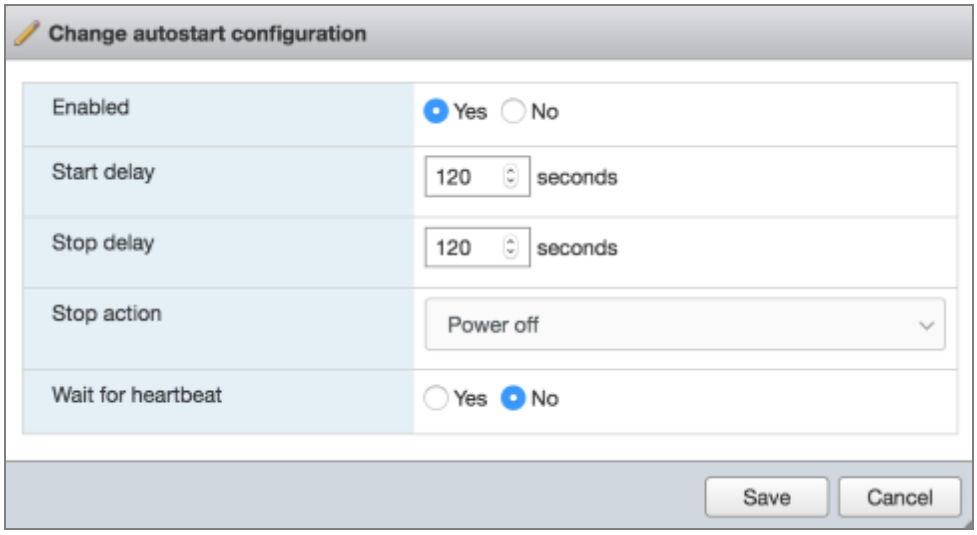
After deploying the VMs, enable autostart in the event the ESXi host reboots to ensure the UNUM VMs start as well.

From the ESXi Management Interface click **Manage** and choose **Autostart**.



Esxi Management Interface Configure Autostart

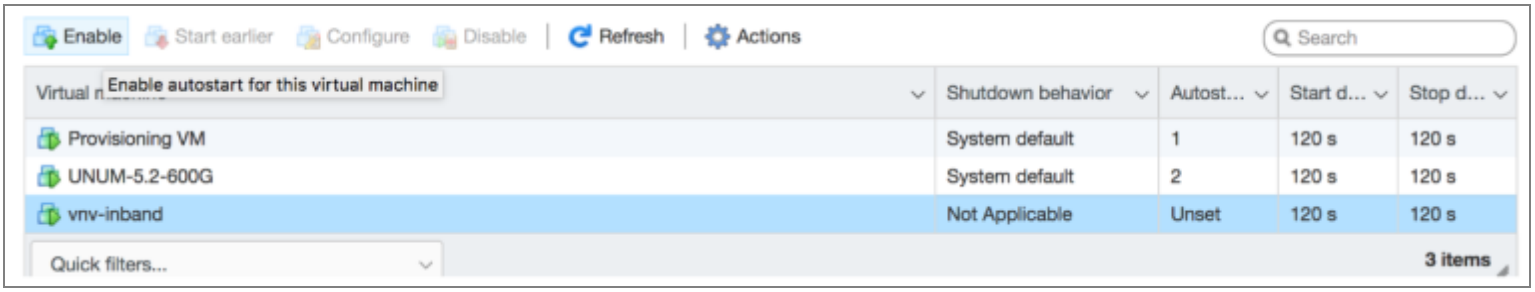
Click on **Edit Settings** and set **Enabled** to **Yes**.



Esxi Management Interface Enable Autostart

Medium Capacity Appliance Configuration (cont'd)

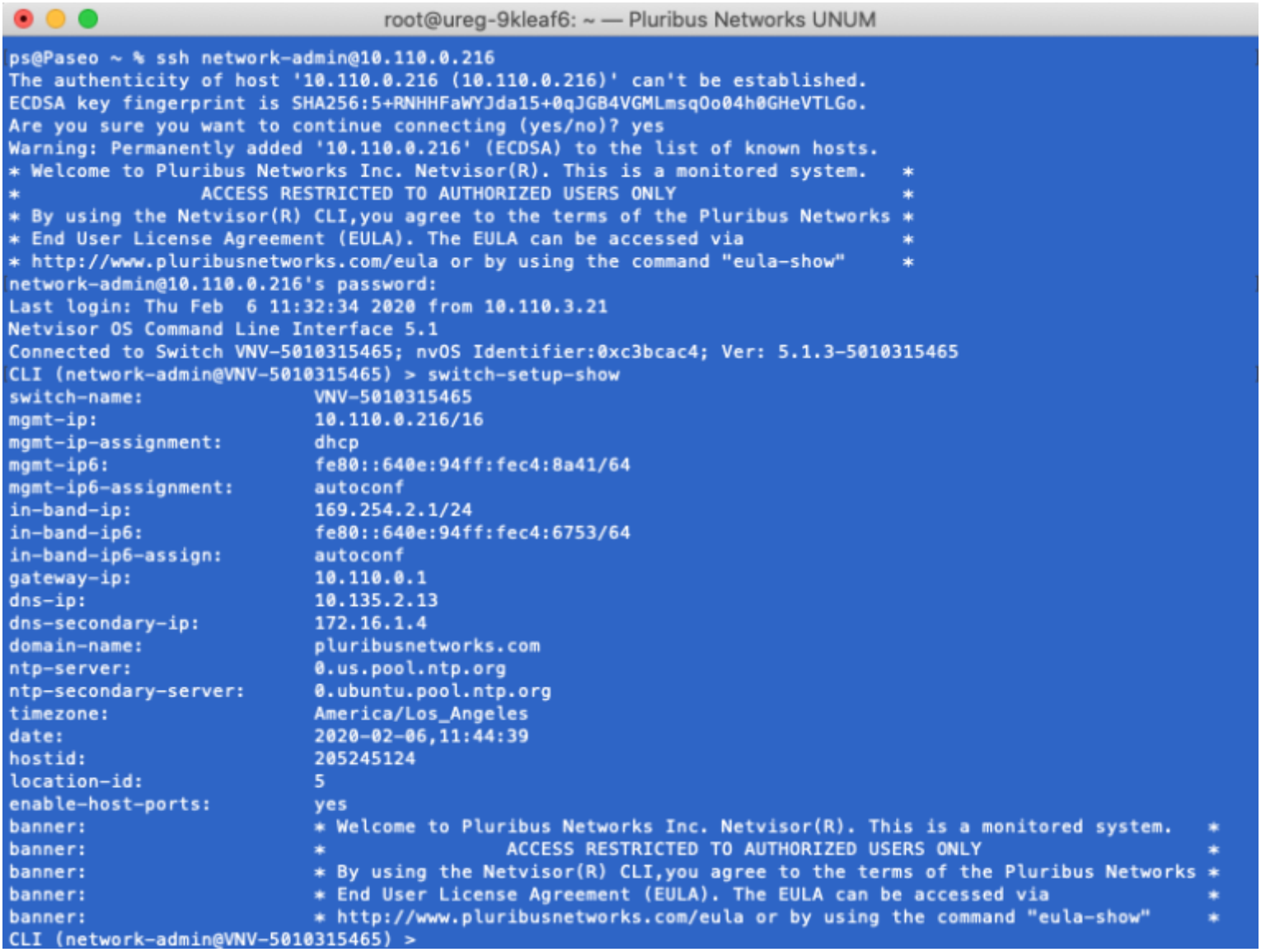
Select the **UNUM VM**, **c**lick on **Enable**. Repeat the process for the **vNV VM**(s).



Esxi Management Interface Enable Autostart All VMs

vNV Configured Switch

Login to the newly configured **seed switch** using the mgmt-ip address: `10.110.0.216` (in this example) to review the configuration.

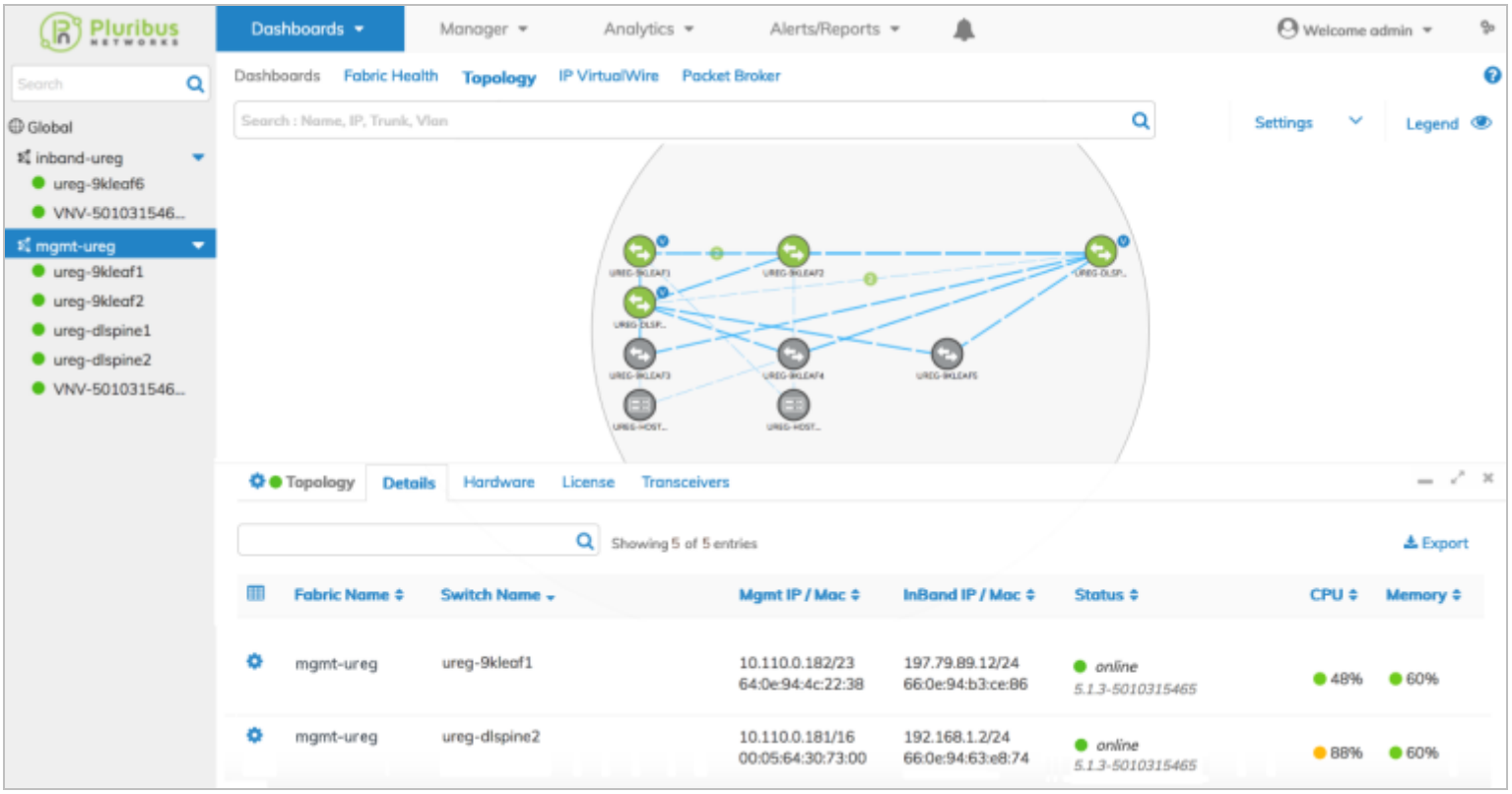


SSH Terminal - UNUM Provisioning Show Switch Setup vNV Seed Switch

Login to the **UNUM** instance. Refer to the UNUM Installation & User Guide for more information on using UNUM.

Medium Capacity Appliance Configuration (cont'd)

The Topology dashboard displays the newly configured switches and vNV instances.



UNUM Topology Dashboard - Post Provisioning

Note: Refer to the **Arista NetVisor UNUM Installation & User Guide**for more information on using **UNUM**.

High Availability

Configuring Arista NetVisor UNUM to use VMware vSphere High Availability (HA)

> **Note:** Appropriate VMware licensing required when using vSphere HA. VMware vSphere Enterprise licensing recommended.

To fully utilize high availability for your Arista NetVisor UNUM instance, the general configuration process is as follows:

- Create a DataCenter on the VMware vCenter, if a datacenter does not currently exist.
- Create a VMWare Cluster.
- Create a shared Datastore.
- Migrate the standalone Arista NetVisor UNUM instance.
- Migrate the standalone vNV instance.
- Configure HA on the VMware cluster.
- Validate the configuration in VMware and Arista NetVisor UNUM Database Health.

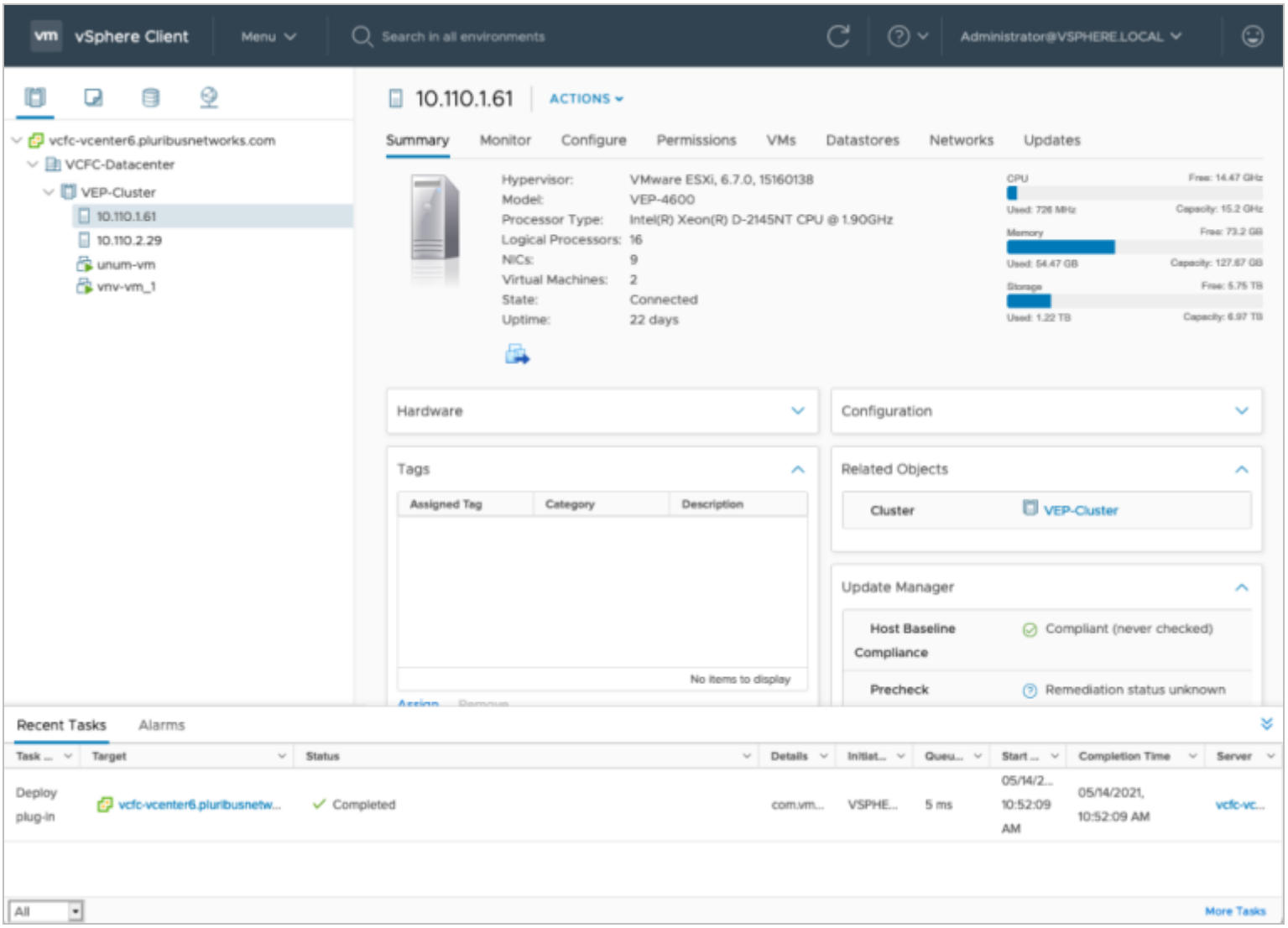
More detailed instructions are listed below in the Configure High Availability section.

The following series of illustrations are examples of a fully configured Arista NetVisor UNUM HA instance and using Arista NetVisor UNUM to monitor cluster health.

Summary

The following HA example assumes a configuration of:

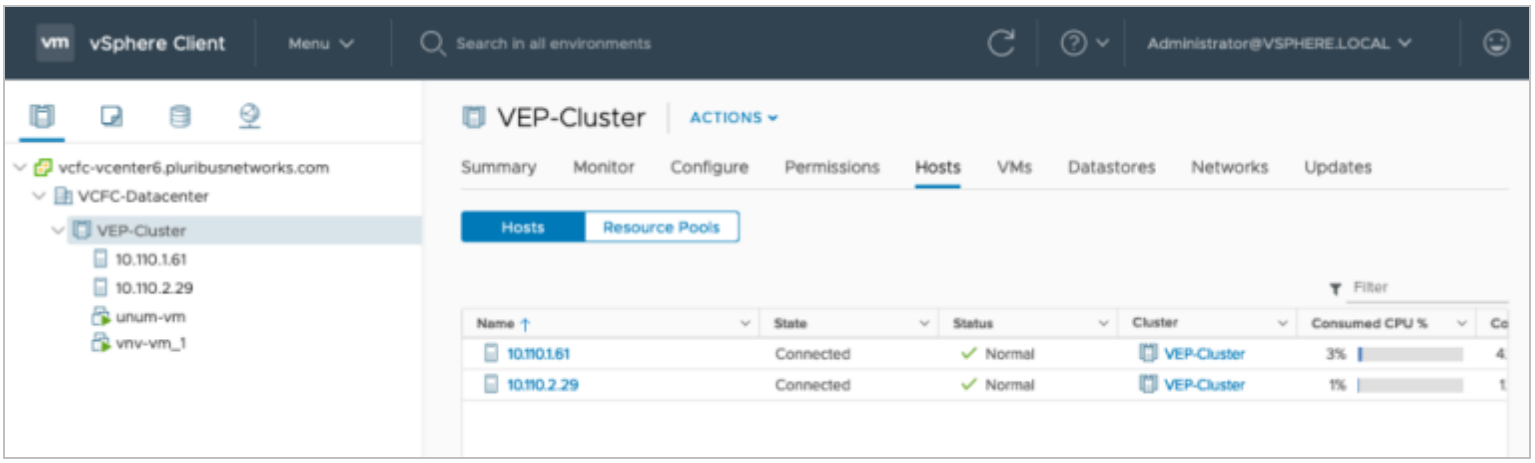
- **VEP Server One** - configured on IP address 10.110.1.61.
- **VEP Server Two** - configured on IP Address 10.110.2.29.
- **unum-vm** - Arista NetVisor UNUM application instance running on Server One and fails over to Server Two as necessary.
- **vnv-vm_1** - Virtual NetVisor instance running on Server Two and fails over to Server One as necessary.



Fully Configured High Availability Arista NetVisor UNUM Instance

VEP Cluster ESXi Hosts

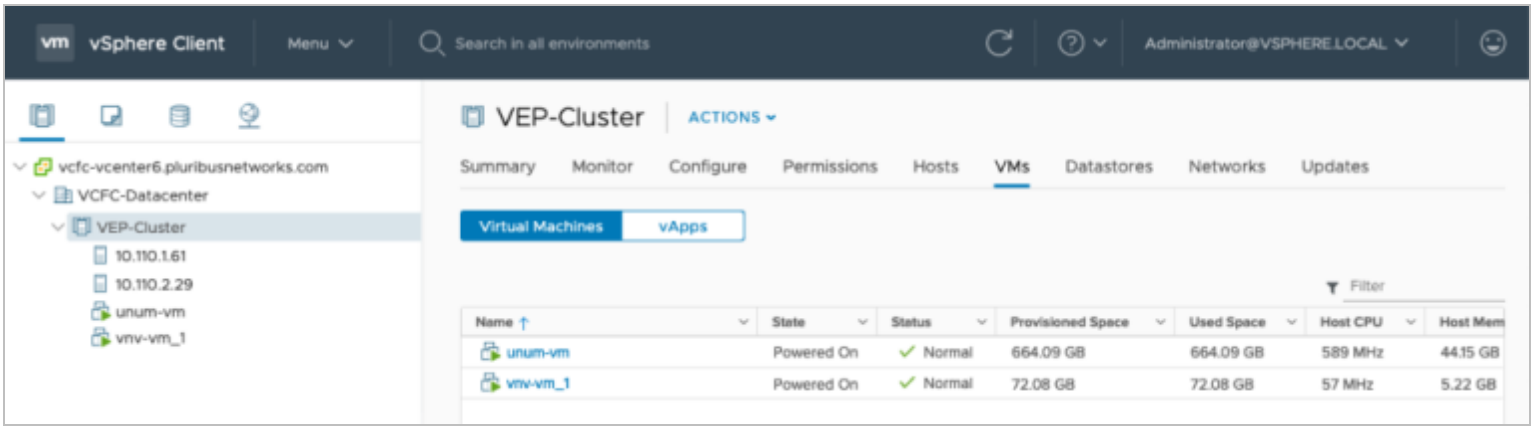
- **VEP Server One** - configured on IP address 10.110.1.61
- **VEP Server Two** - configured on IP Address 10.110.2.29



Fully Configured High Availability Arista NetVisor UNUM Instance - Hosts

VEP Cluster Virtual Machines

- **unum-vm** - Arista NetVisor UNUM application instance running on Server One and fails over to Server Two as necessary.
- **vnv-vm_1** - Virtual NetVisor instance running on Server Two and fails over to Server One as necessary.

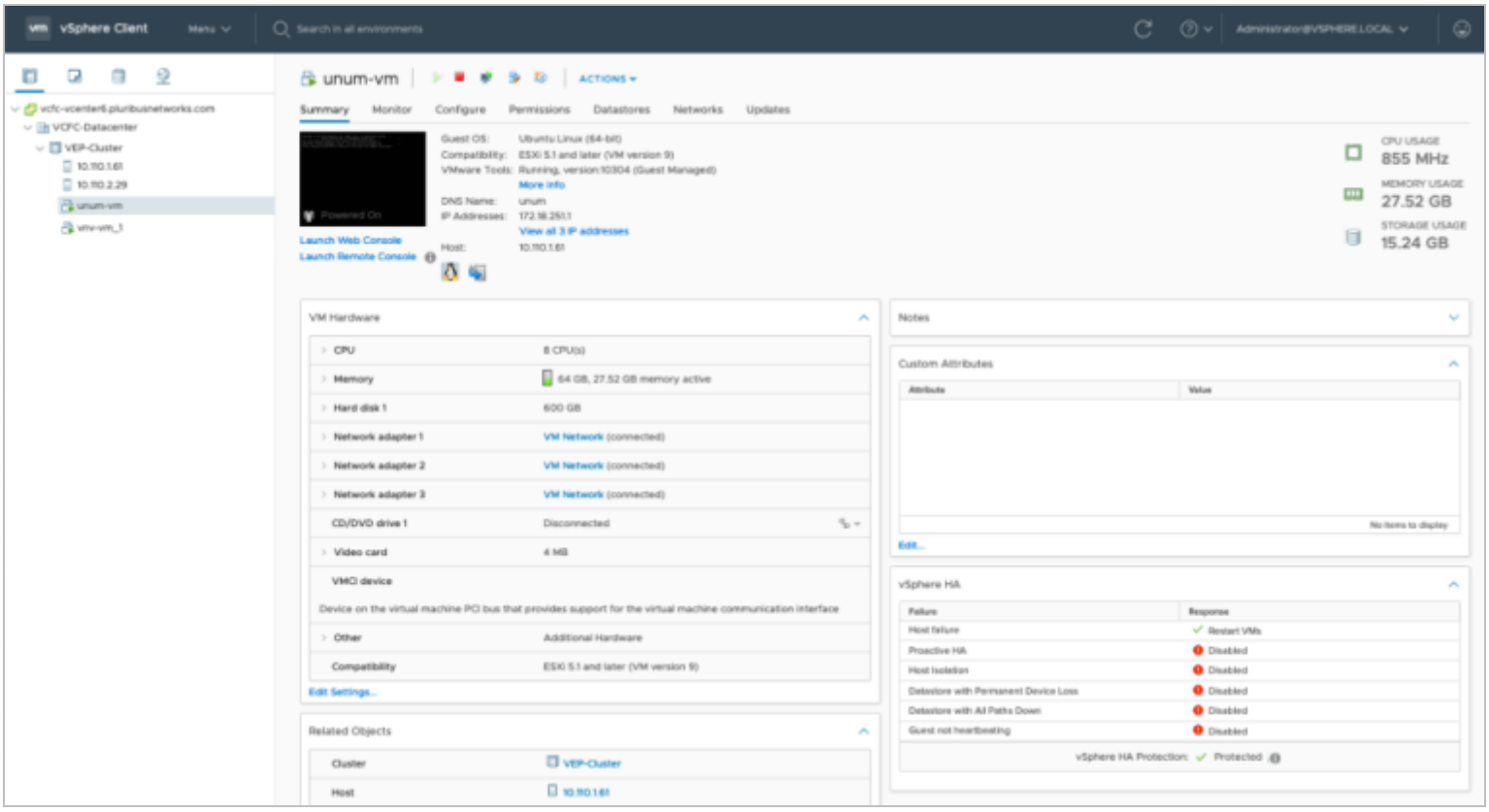


Fully Configured High Availability Arista NetVisor UNUM Instance - Virtual Machines

Arista NetVisor UNUM Instance

The **unum-vm** shown currently running on Server One 10.110.1.61 and in vSphere HA protection mode (High Availability).

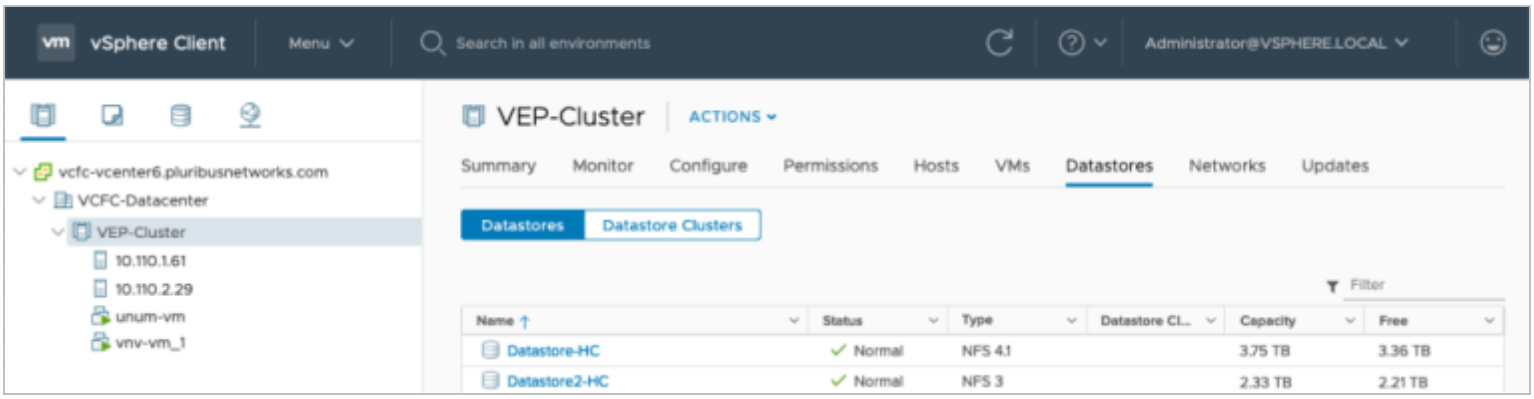
Should this instance go down or offline the Arista NetVisor UNUM application switches over to run on Server Two 10.110.2.29.



Fully Configured High Availability Arista NetVisor UNUM Instance - vSphere HA Protection Mode

Datastores

- **Datastore-HC** - shared instance used by Arista NetVisor UNUM HA and VMware Heartbeat.
- **Datastore2-HC** - shared instance used for VMware Heartbeat.

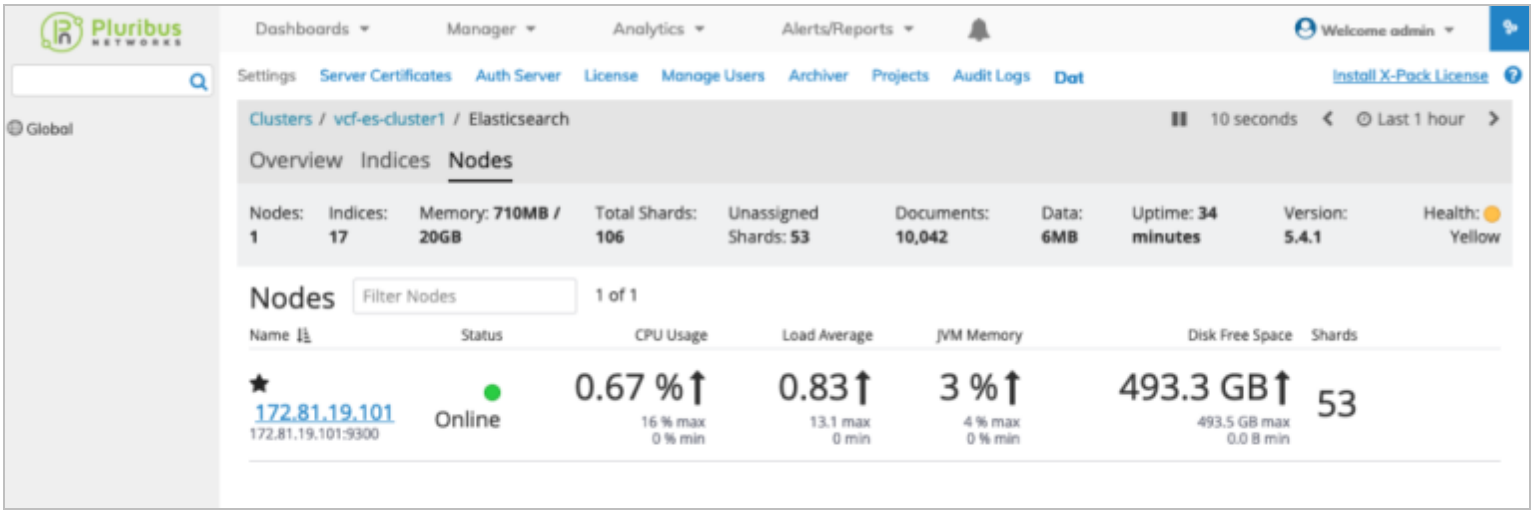


Fully Configured High Availability Arista NetVisor UNUM Instance - Redundant Datastores

Arista NetVisor UNUM Database Health

In Arista NetVisor UNUM, **Settings** → **Database** → **Health**.

- **172.81.19.101** represents the health of the Arista NetVisor UNUM instance.



Fully Configured High Availability Arista NetVisor UNUM Instance - Database Health

Configure High Availability (HA)

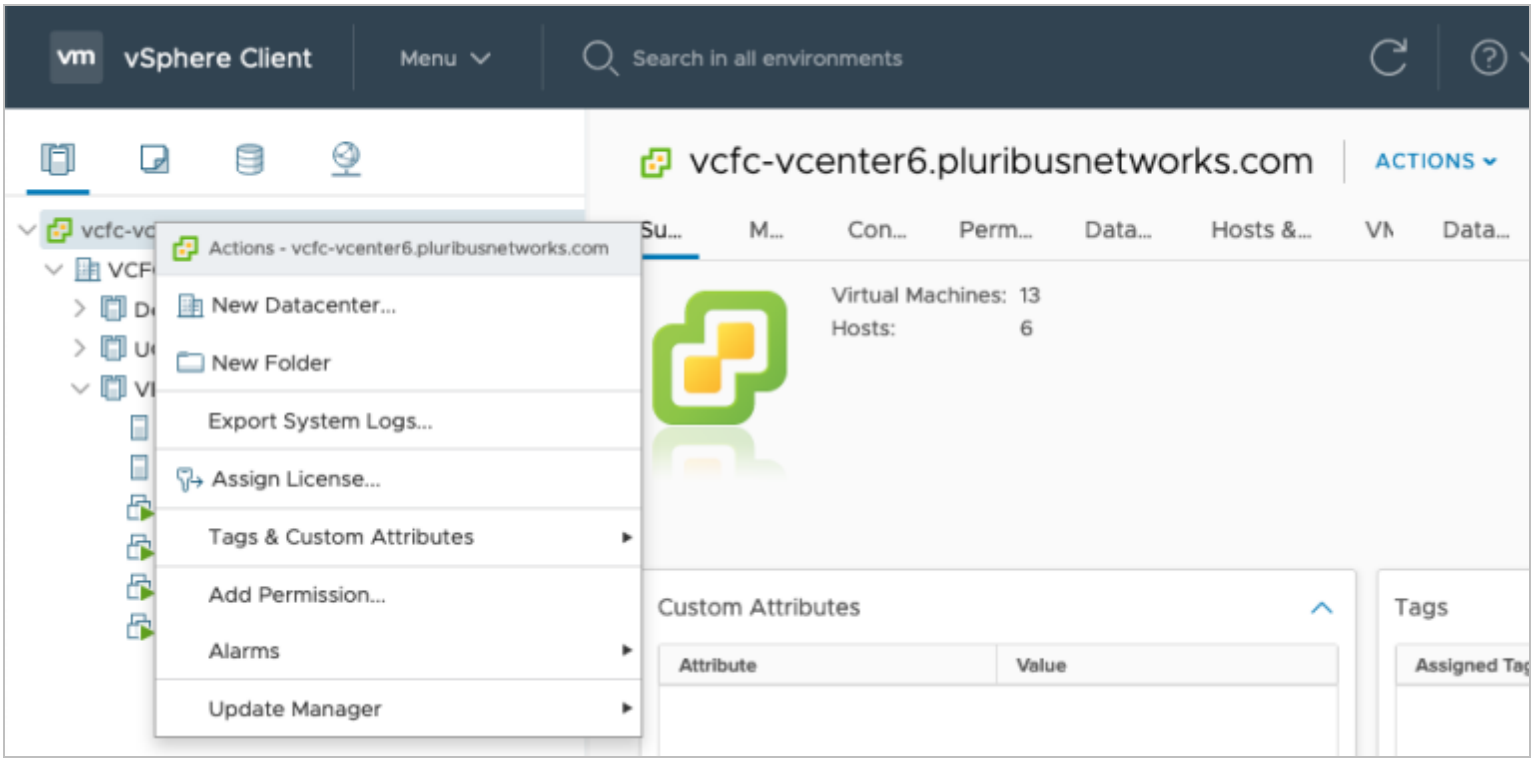
To configure HA refer to the following steps. The general process involves:

1. Creating a DataCenter on the VMware vCenter, if a datacenter does not currently exit.
2. Creating a VMWare Cluster.
3. Creating an NFS datastore.
4. Migrating the standalone Arista NetVisor UNUM instance.
5. Migrating the standalone vNV instance.
6. Configuring HA on the cluster.
7. Validating the configuration and Database Health.

Create Data Center on vCenter

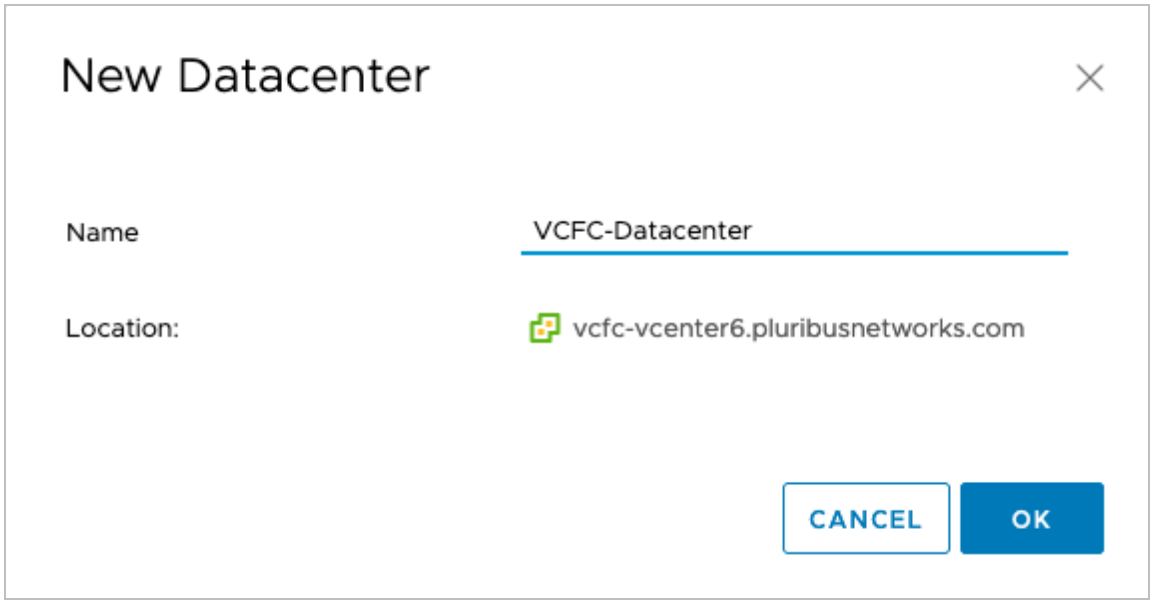
If a datacenter does not exit you must create a new datacenter.

Right-click on the vSphere instance and select **New Datacenter**.



Arista NetVisor UNUM HA - Add New Datacenter

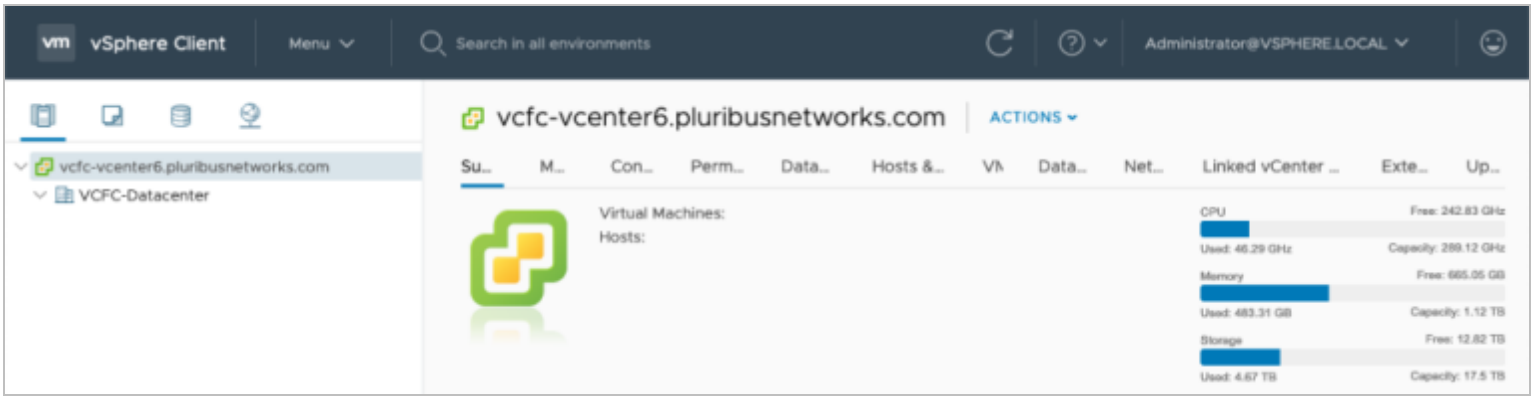
Enter the name for the new datacenter.



Arista NetVisor UNUM HA - Add New Name

Click **OK** to continue.

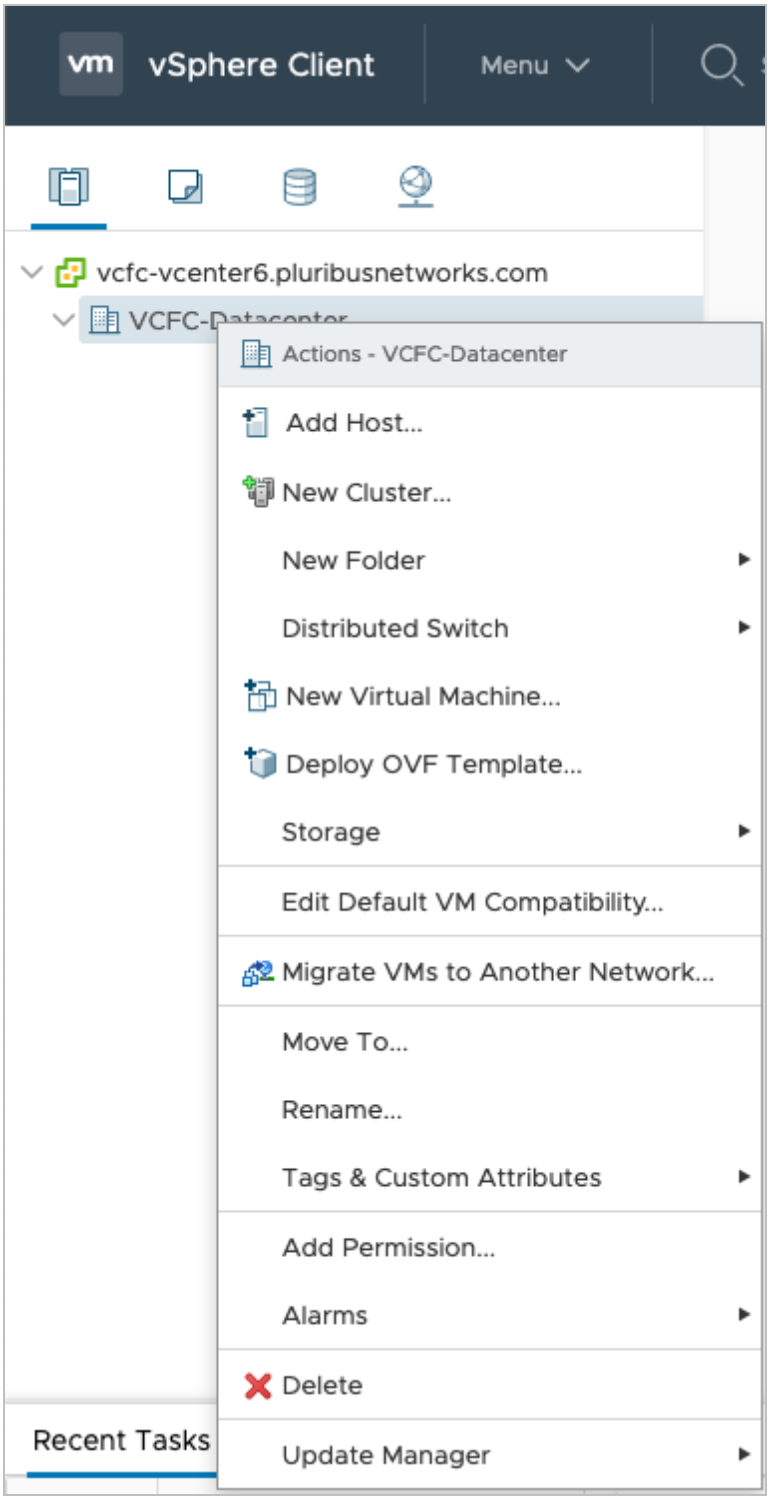
The new datacenter appears in the dashboard.



Arista NetVisor UNUM HA - New Datacenter Dashboard

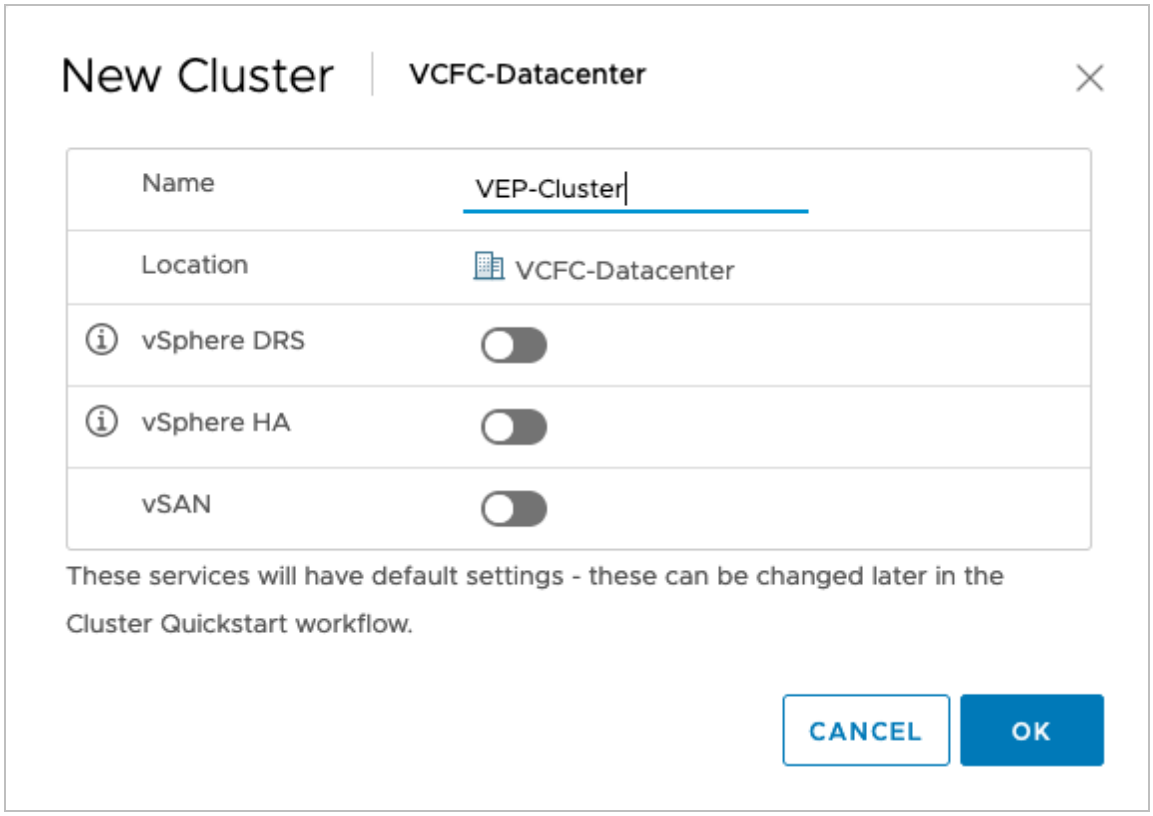
Create VMware Cluster

Create a VMware cluster under the new datacenter by selecting the datacenter. Right-click and select **New Cluster**.



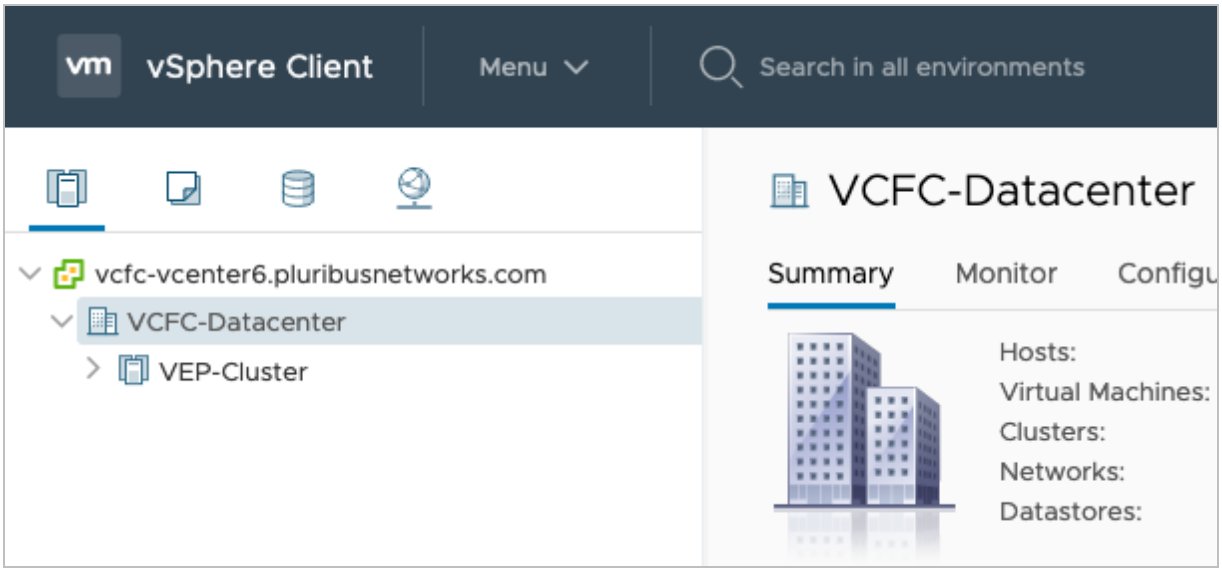
Arista NetVisor UNUM HA - Create Cluster

Enter a **name** for the new cluster.



Arista NetVisor UNUM HA - New Cluster Name

Click **OK** to continue. The new cluster appears in the dashboard.

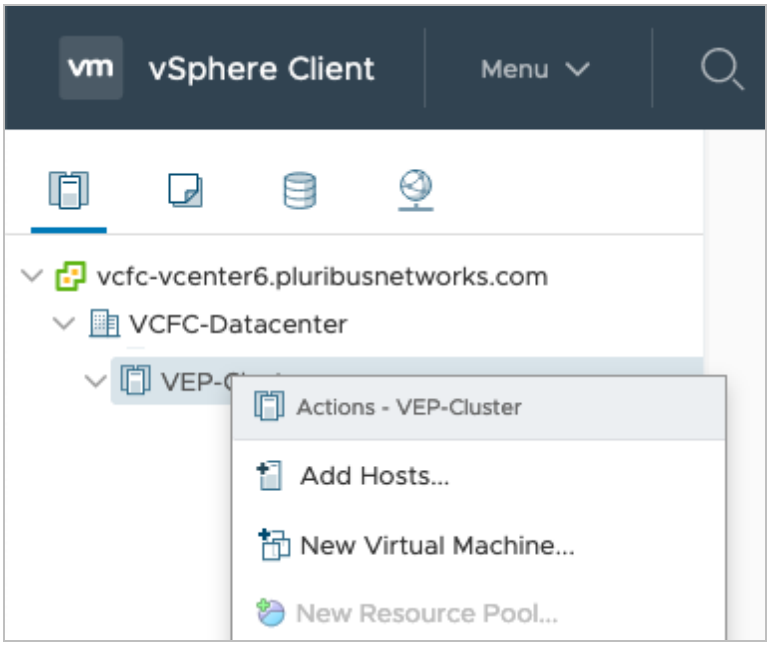


Arista NetVisor UNUM HA - New Cluster in Dashboard

Add Primary Hosts

Power off the deployed VMs before processing.

Highlight the new cluster and right-click and select **Add Hosts**.

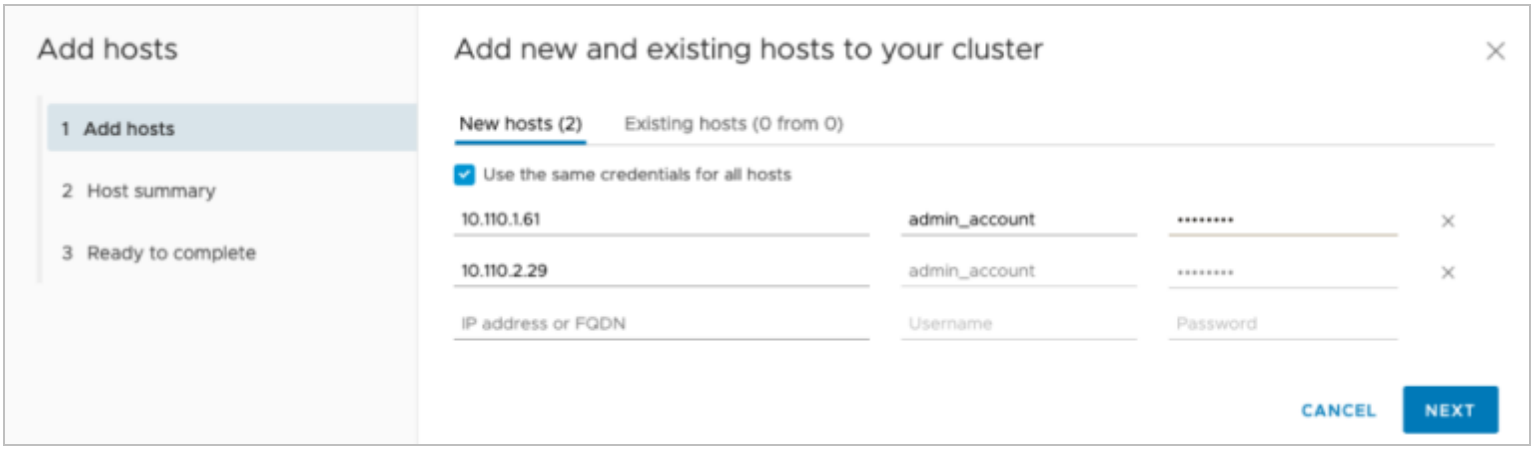


Arista NetVisor UNUM HA - Add Hosts

High Availability (cont'd)

Add Primary Hosts Servers One & Two.

Enter the **IP Address**, **username** and **password** for each node.



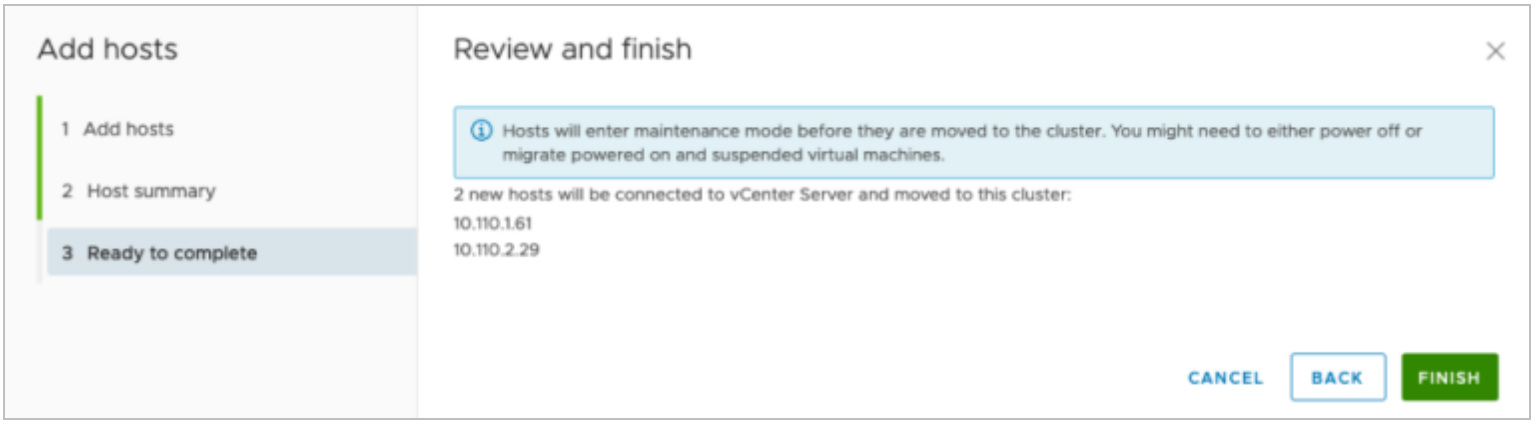
Arista NetVisor UNUM HA - Add Hosts Details

Click **Next** to continue.

Review the **Host Summary.**

Click **Next** to continue and review the entries.

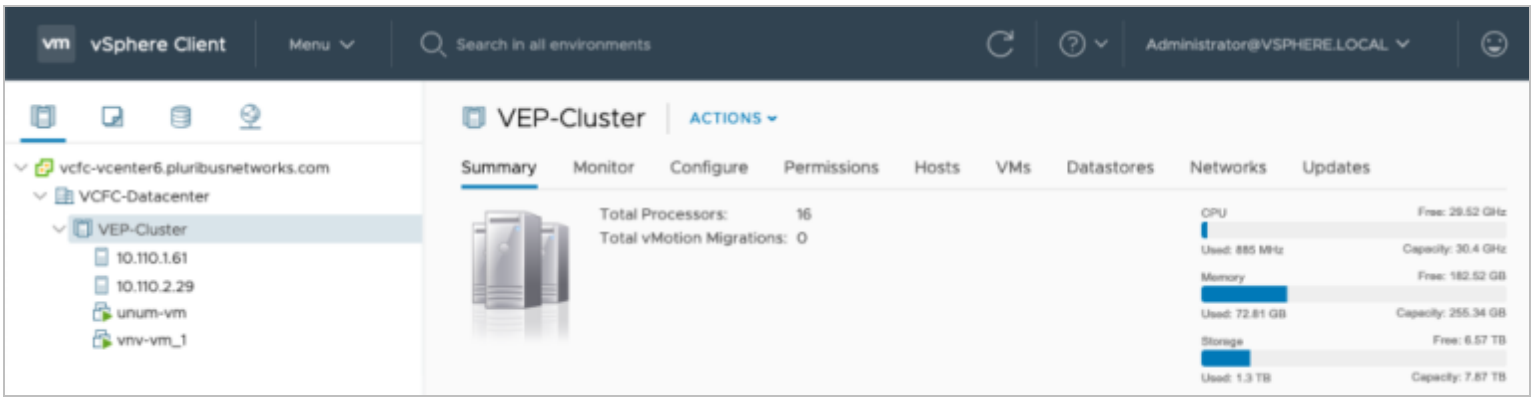
High Availability (cont'd)



Arista NetVisor UNUM HA - Add Hosts Finish

Click **Finish** to add the new hosts.

The hosts appear in the dashboard.



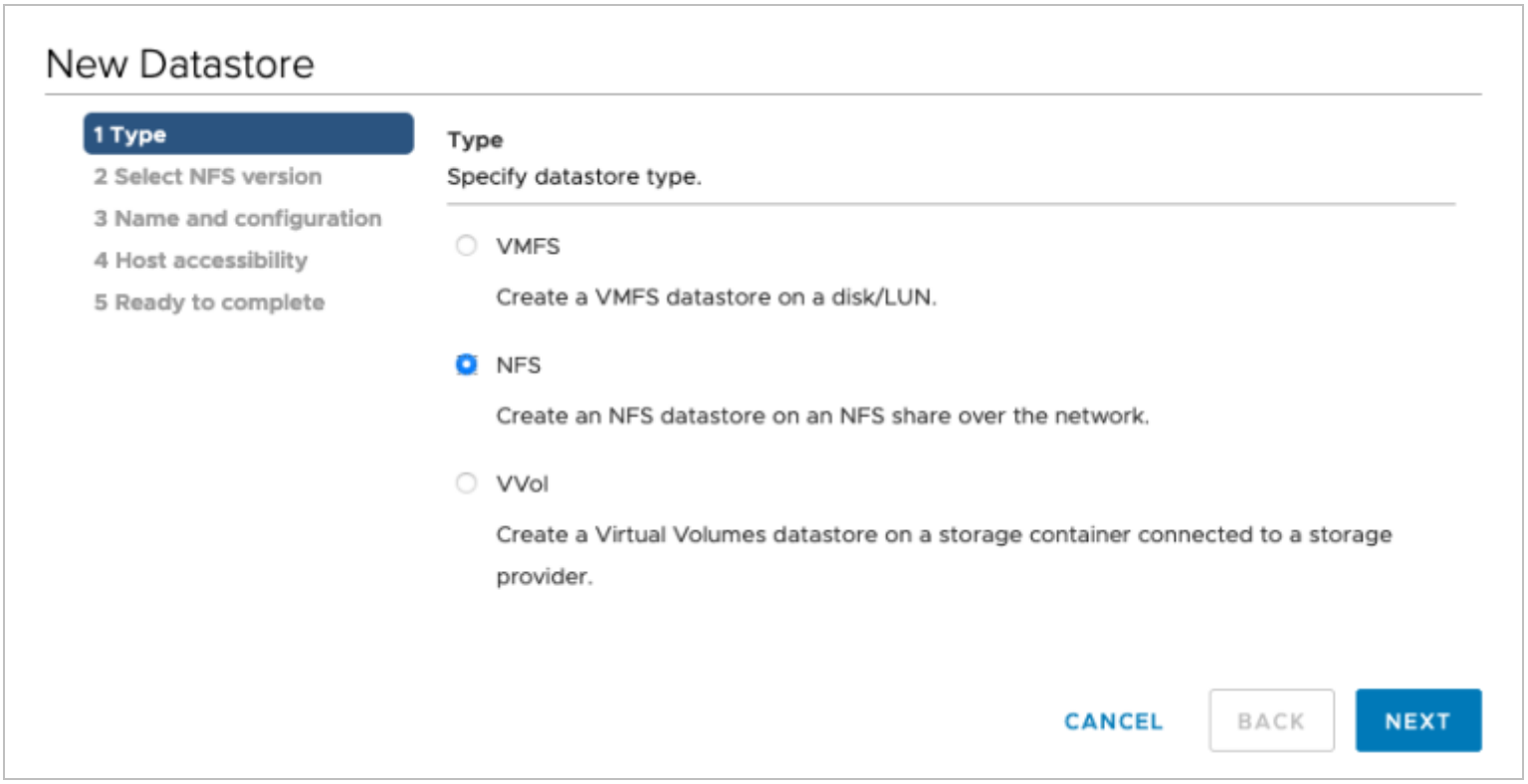
Arista NetVisor UNUM HA - Hosts Dashboard

Add NFS

Configure the **VMWare Cluster** to use the shared datastore.

The example below shows how to configure for **NFS**,the shared medium we have chosen:

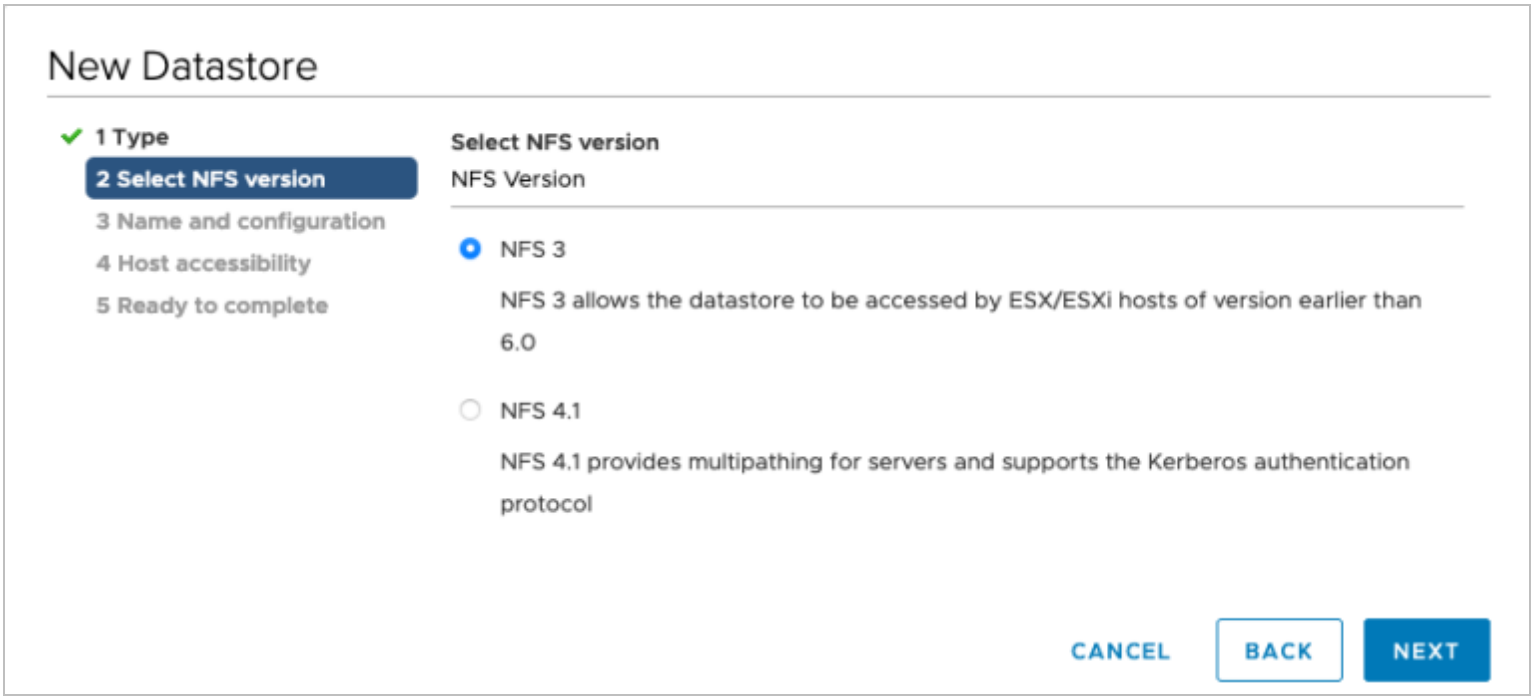
Create a new **NFS** datastore under **Cluster** → **Storage** → **New Datastore**.



Arista NetVisor UNUM HA - Create Datastore

Click on **Next**.

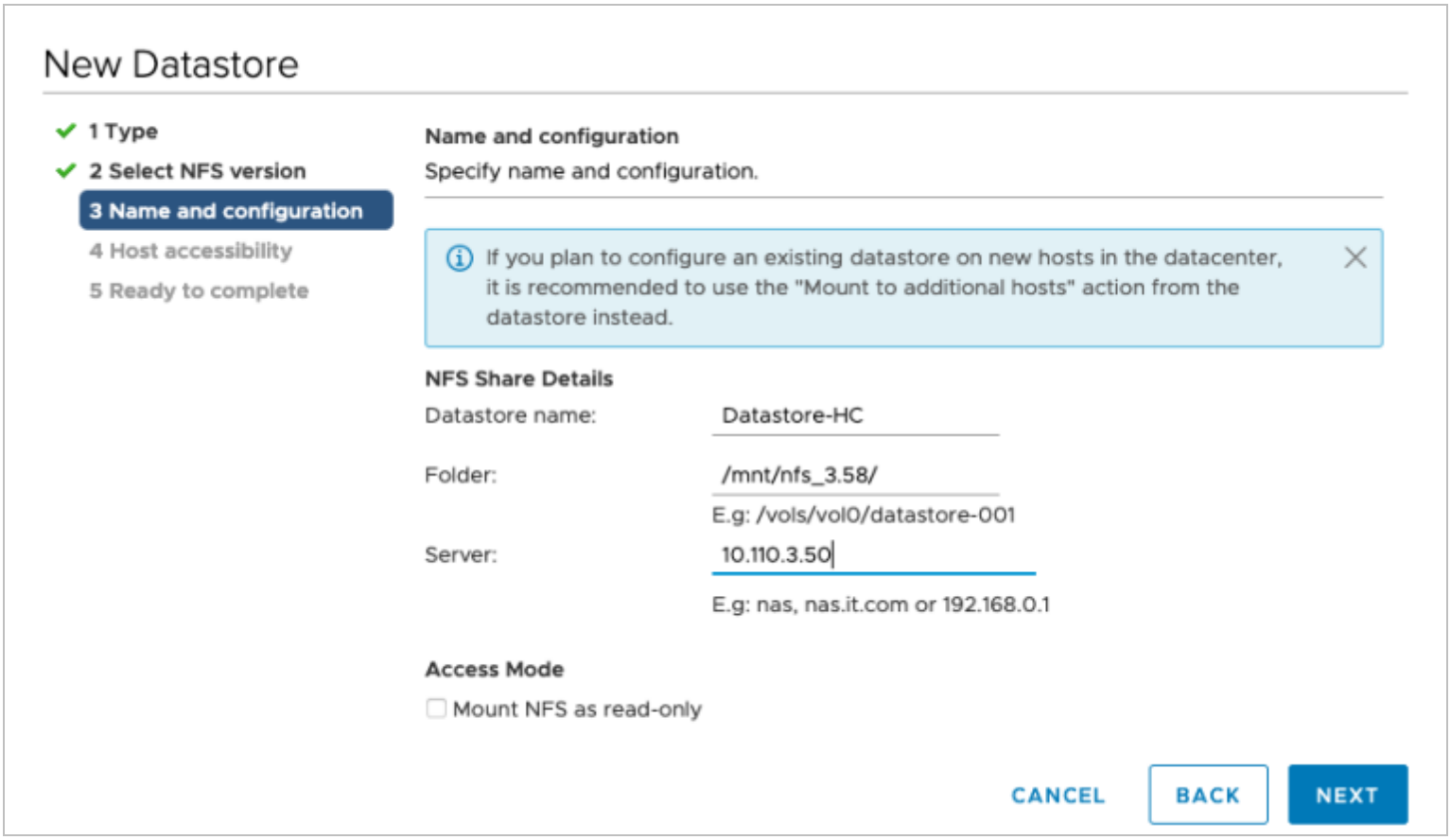
Enter **NFS** type and details.



Arista NetVisor UNUM HA - Create Datastore NFS Type

Click on **Next**.

Enter the details, including **Name**, **Folder** and **Server**.

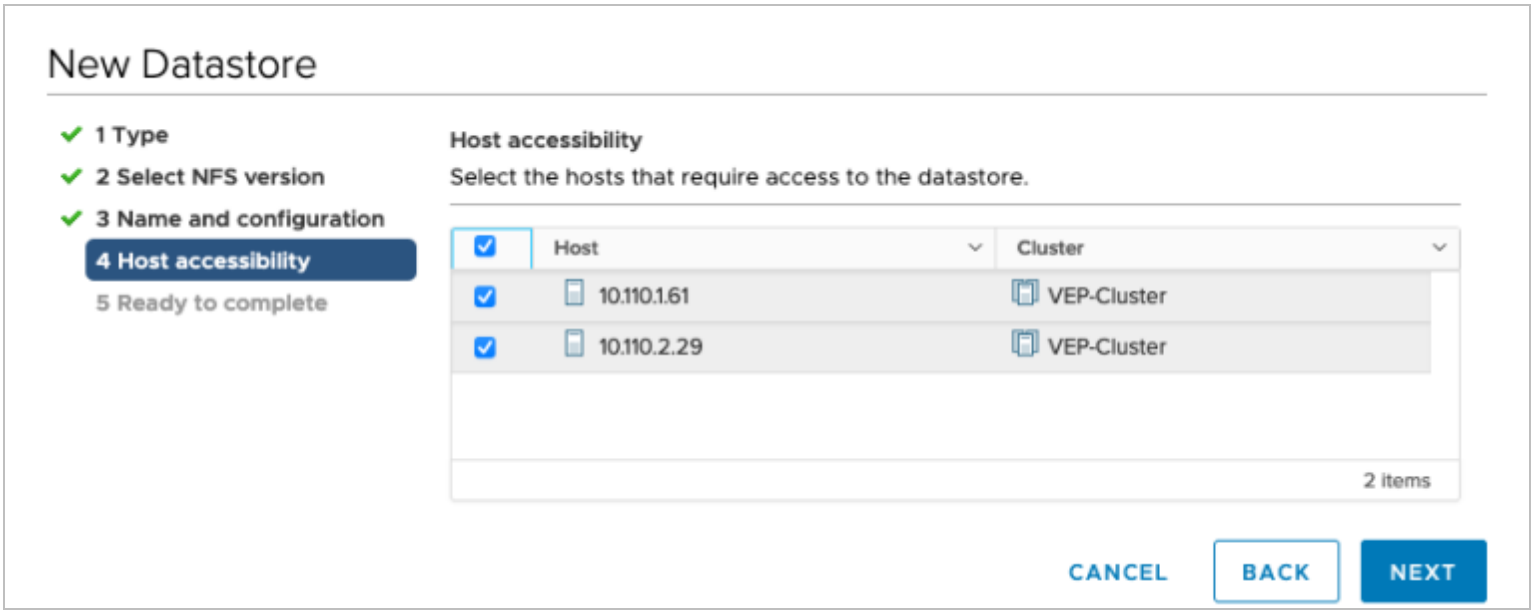


Arista NetVisor UNUM HA - Enter Datastore Details

Click on **Next**.

High Availability (cont'd)

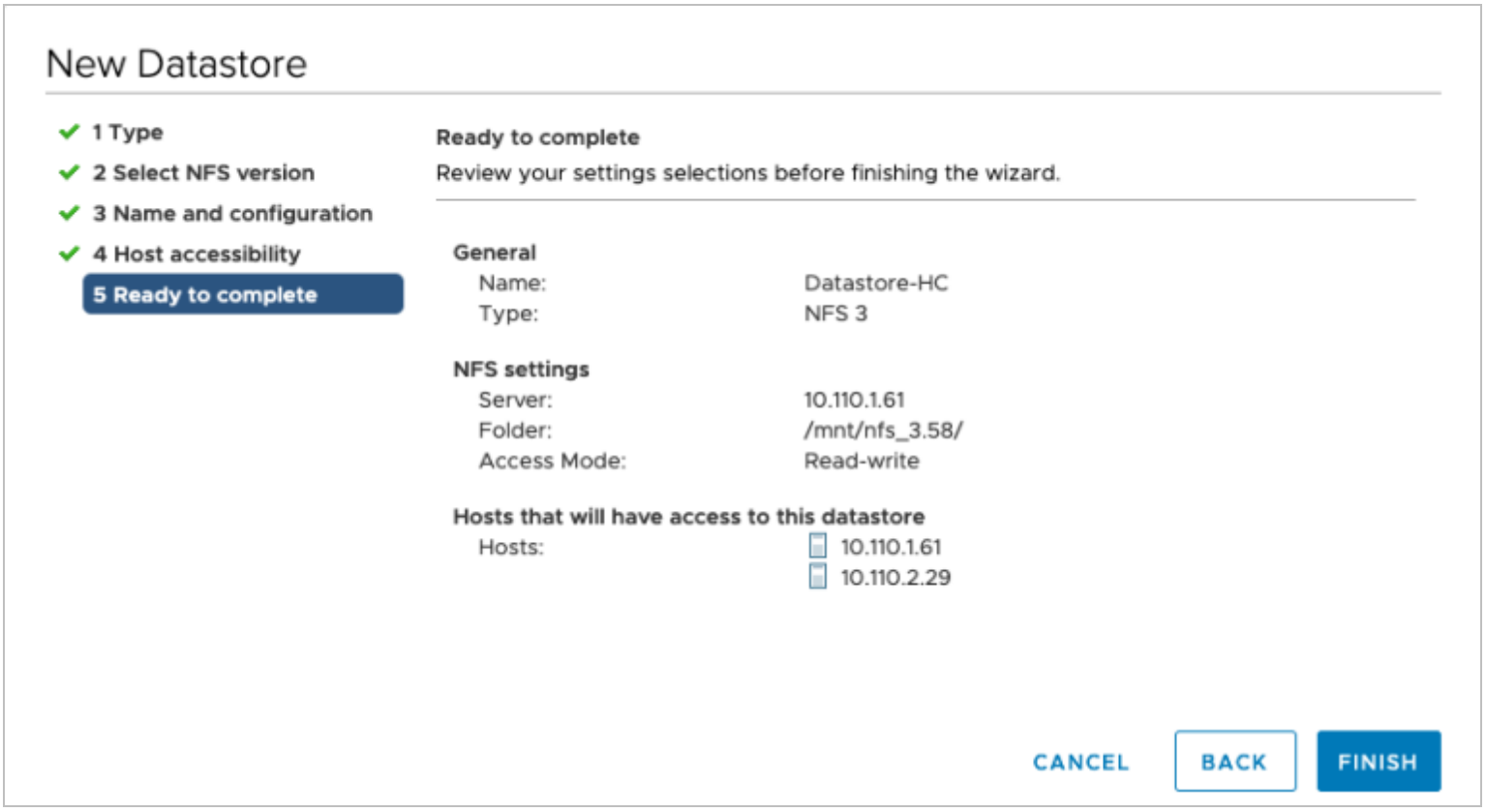
Select **all** hosts in the cluster.



Arista NetVisor UNUM HA - Select Host Accessibility

Click **Next** to continue.

Review all details and click **Finish** to complete the datastore configuration.



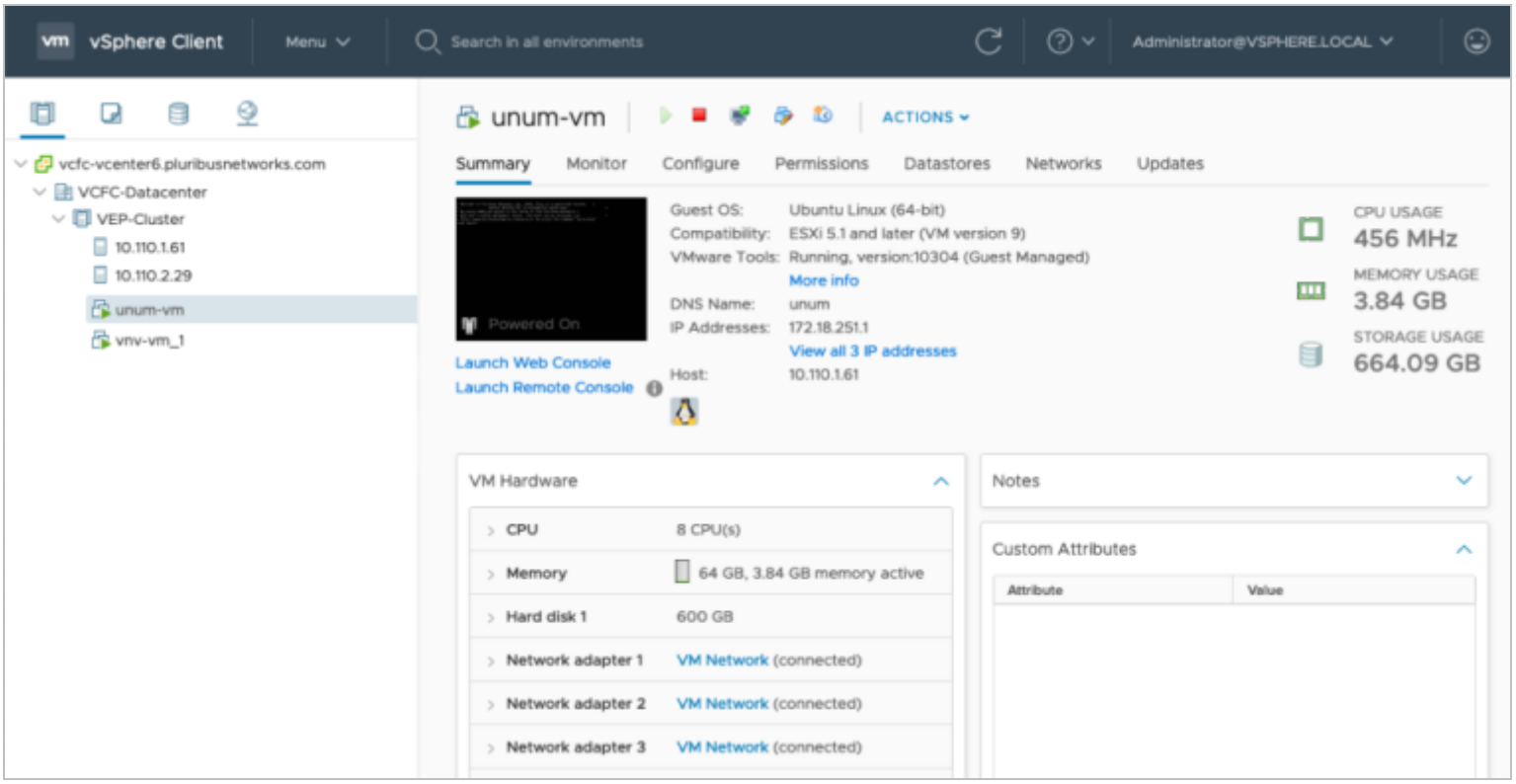
Arista NetVisor UNUM HA - Complete New Datastore

Note: Repeat the New Datastore process and create a second datastore for redundancy. For example, **Datastore2-HC**.

Migrate Arista NetVisor UNUM Instance

You must migrate both the **unum-vm** and **vnv-vm_1** instances to the clustered datastore. This is performed in **two** separate steps.

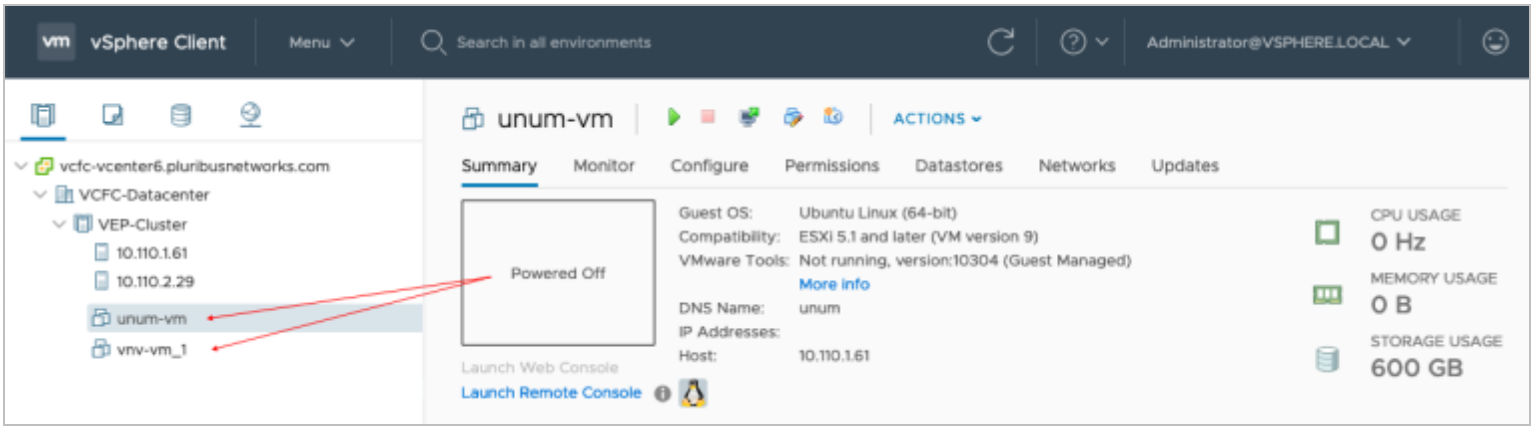
The examples below illustrate migrating the **unum-vm** instance.



Arista NetVisor UNUM HA - Dashboard - Ready for Migration

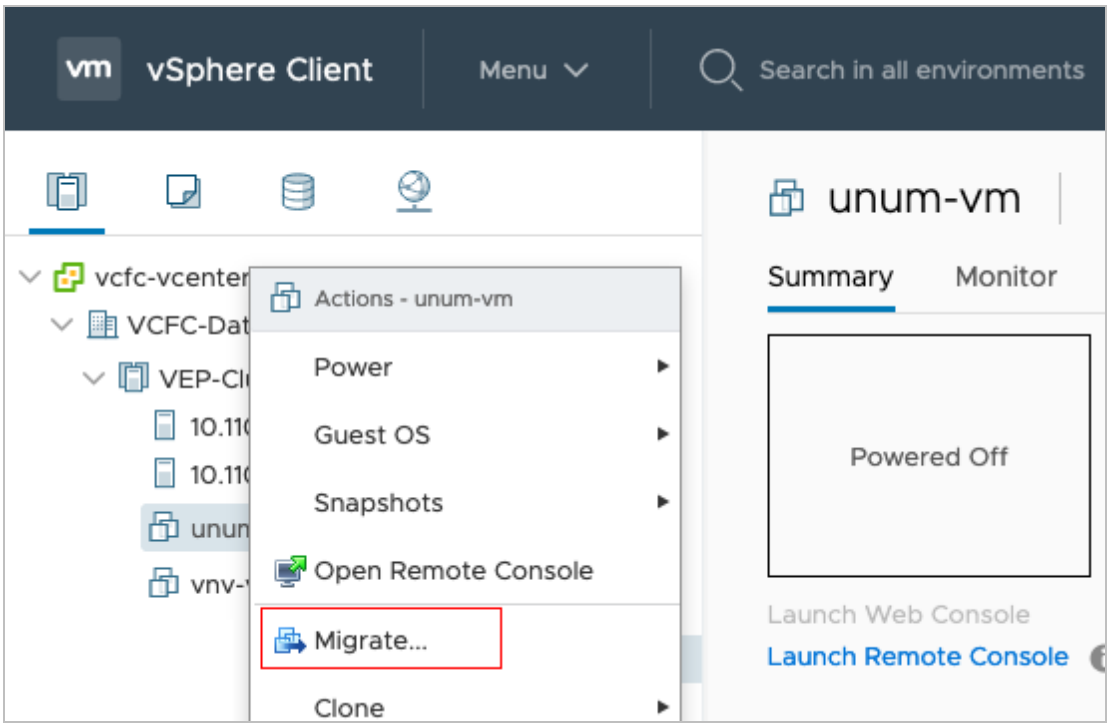
High Availability (cont'd)

Power Off the **unum-vm** and **vnv-vm_1** instances before proceeding.



Arista NetVisor UNUM HA - Dashboard - Power Off PN-Unum-main

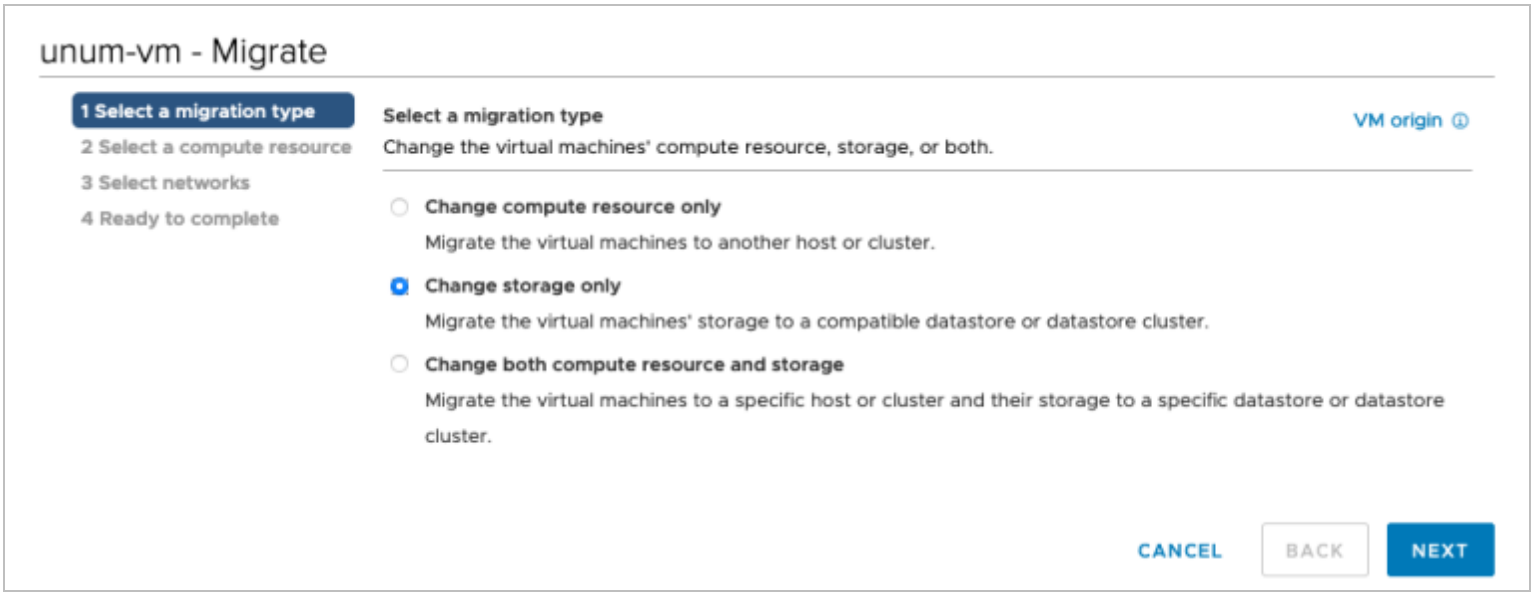
Right-click on the **unum-vm** instance and select **Migrate**.



Arista NetVisor UNUM HA - Dashboard - Migrate

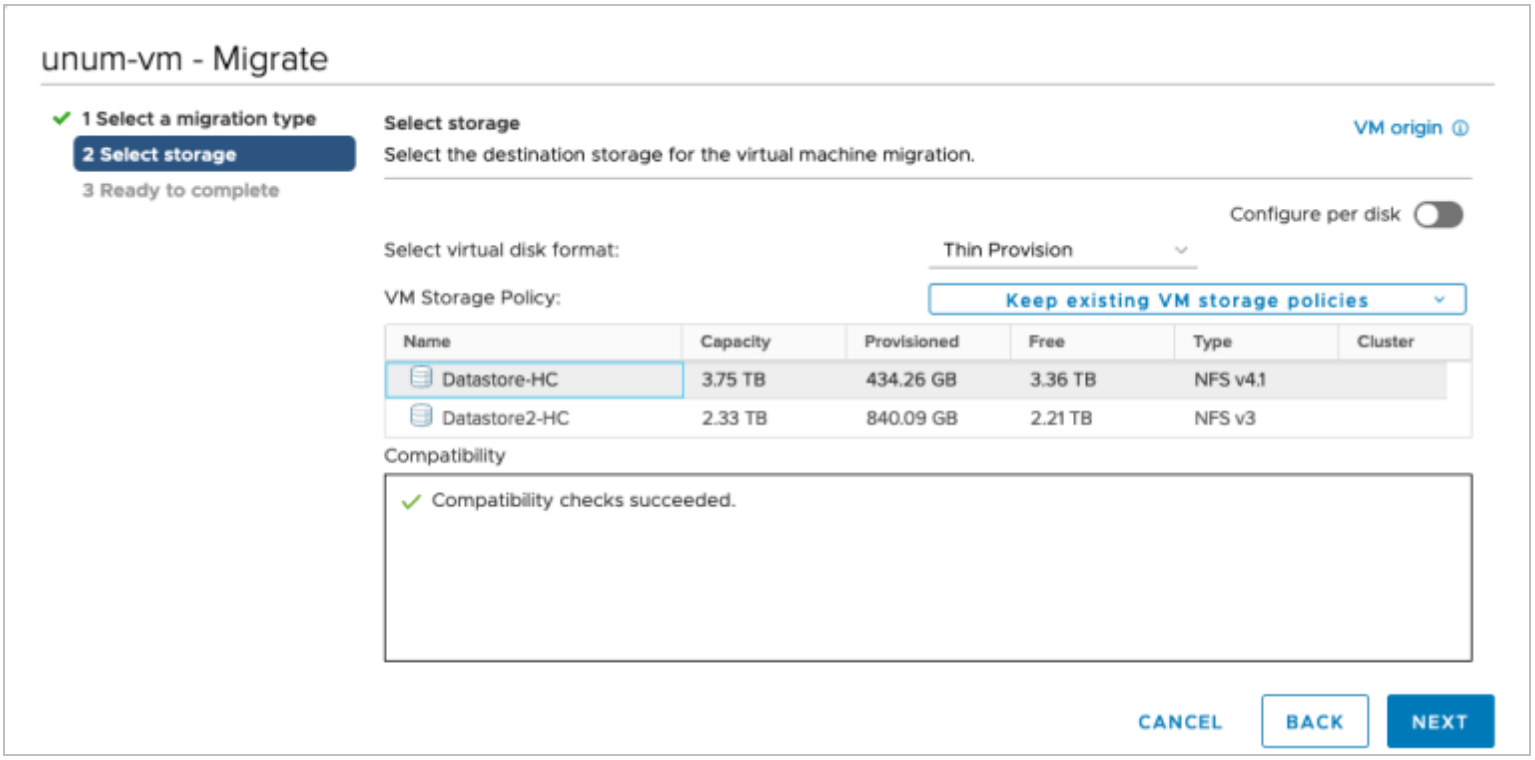
Select Migration Type

Choose **Change Storage Only** and click **Next** to continue.



Arista NetVisor UNUM HA - Migrate - Change Storage Only

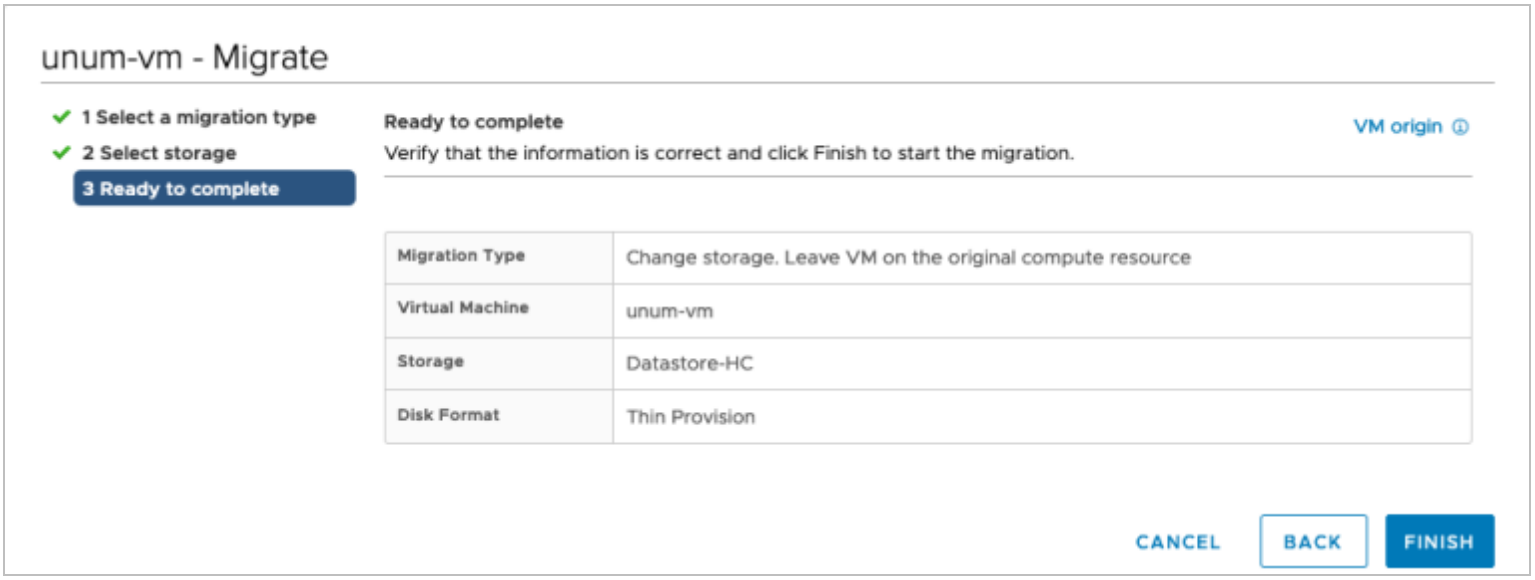
Select the **Datastore** for the migration.



Arista NetVisor UNUM HA - Migrate - Select Storage for Migration

Click **Next** to continue.

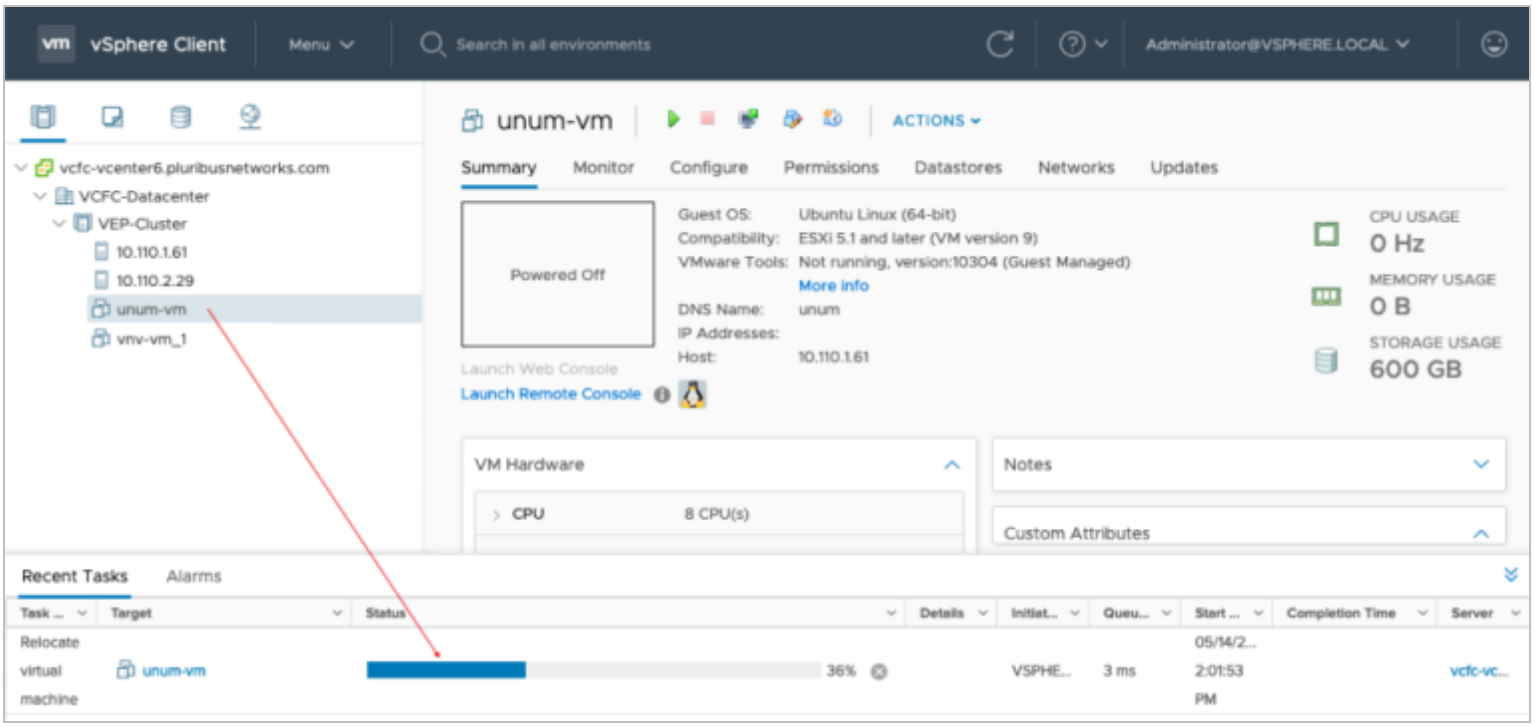
Ready To Complete



Arista NetVisor UNUM HA - Migrate - Ready To Complete Migration

Click **Finish** to begin the migration.

Progress is monitored in the dashboard.

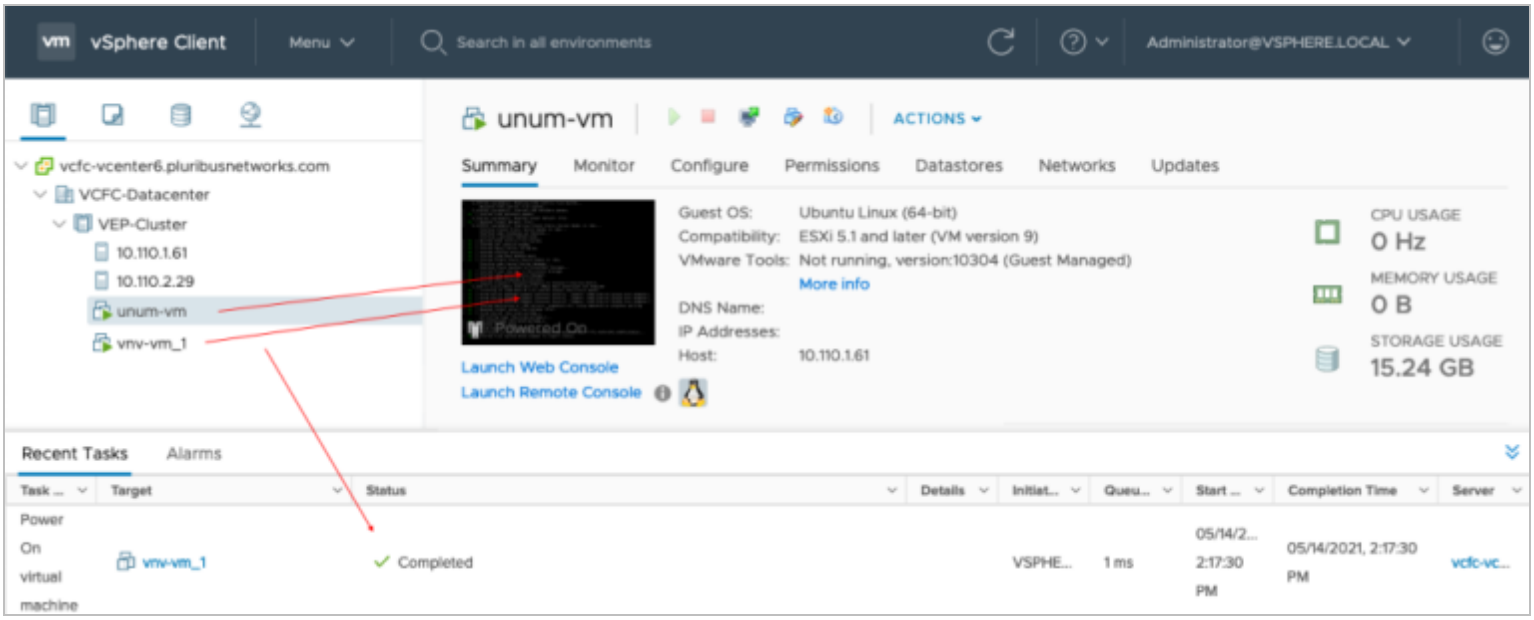


Arista NetVisor UNUM HA - Migrate - Migration in Progress

High Availability (cont'd)

Repeat the process to migrate the **vnv-vm_1** instance.

After migrating both the **unum-vm** and the **vnv-vm_1** instances, **Power On** both instances.

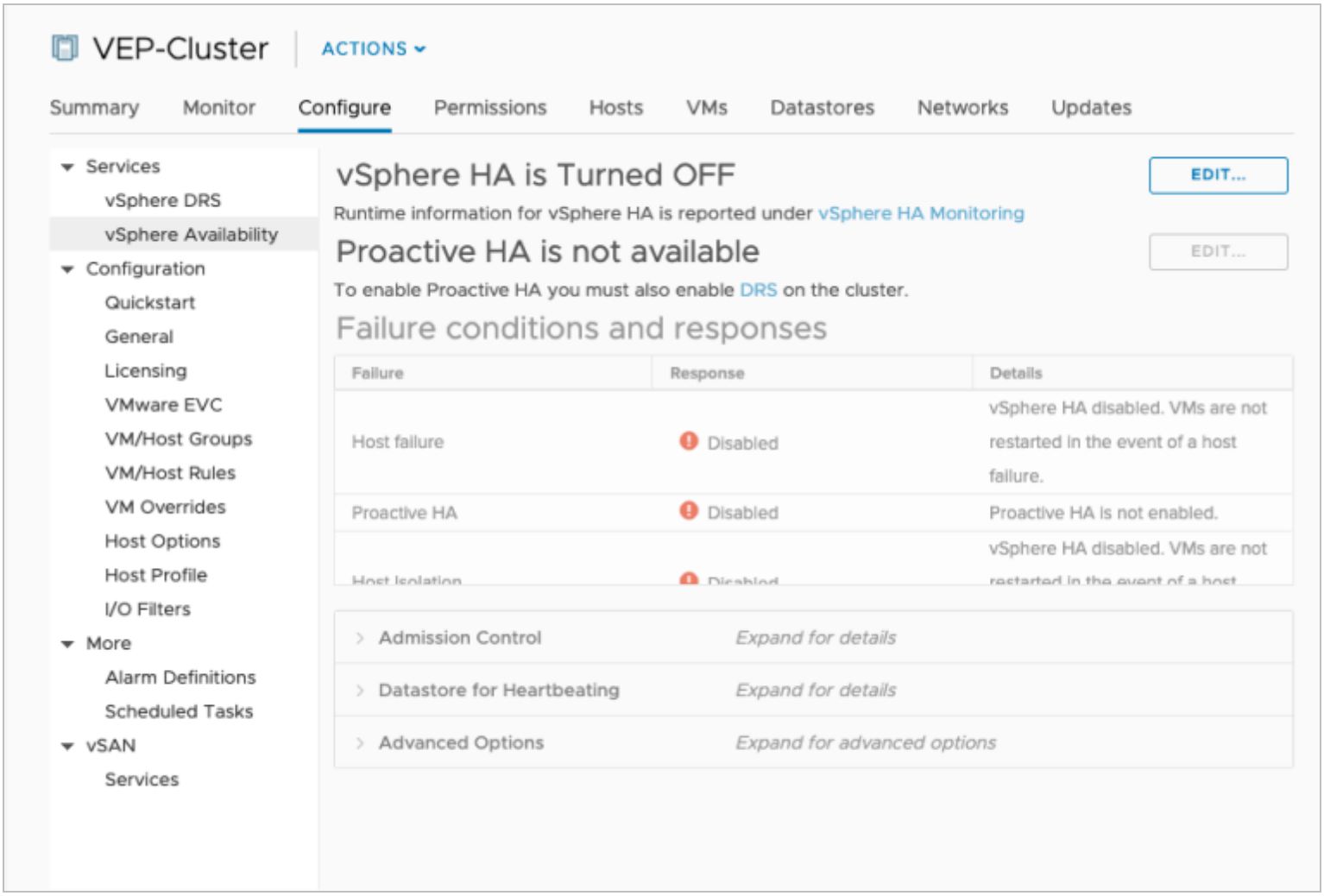


Arista NetVisor UNUM HA - Migrate - PN-Unum-main Powered On

Configure HA on VMWare Cluster

Setup HA on VMware Cluster (if not previously configured).

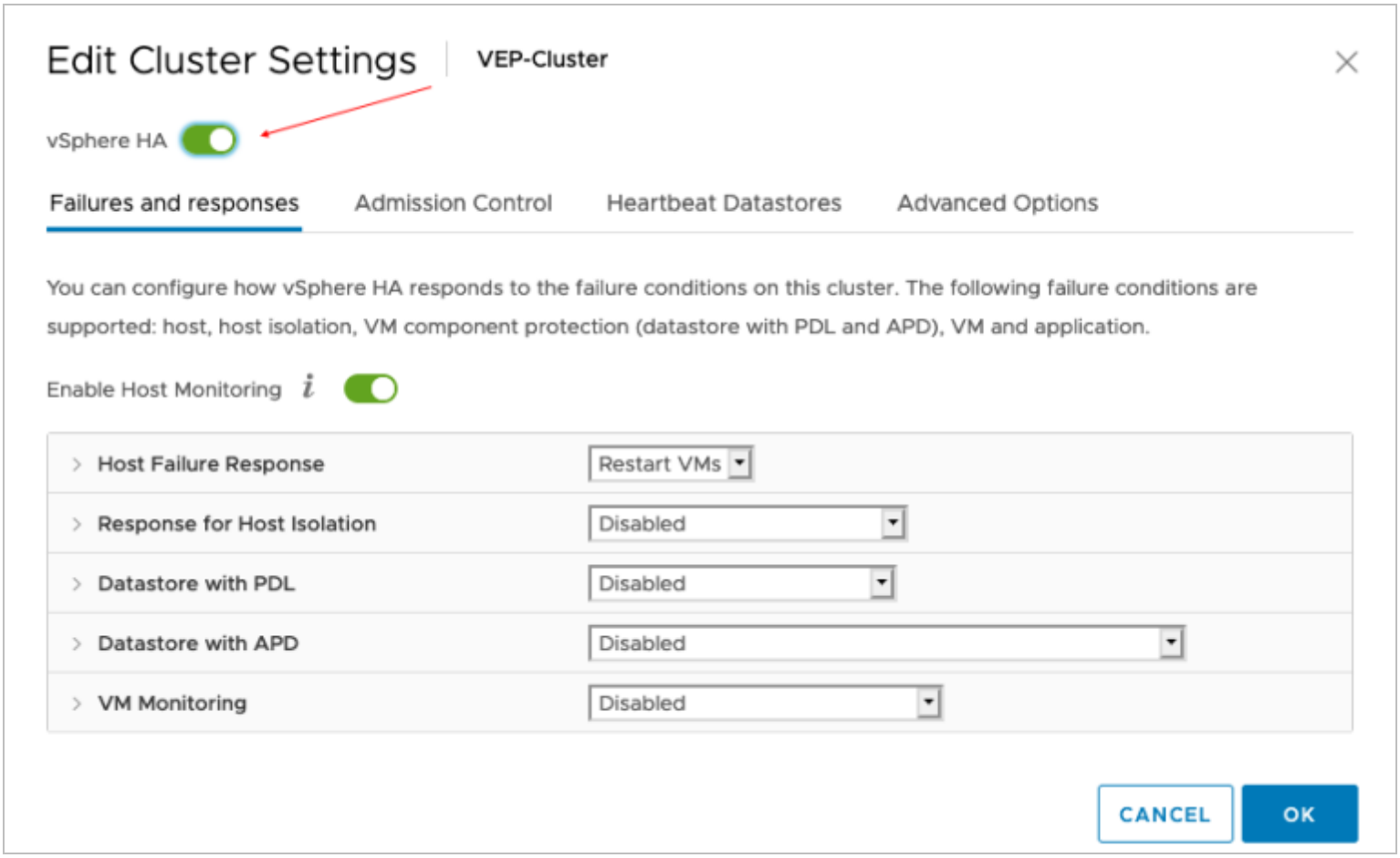
Click on **Configure** → **vSphere Availability** → **Edit**.



Arista NetVisor UNUM HA - Configure vSphere HA

High Availability (cont'd)

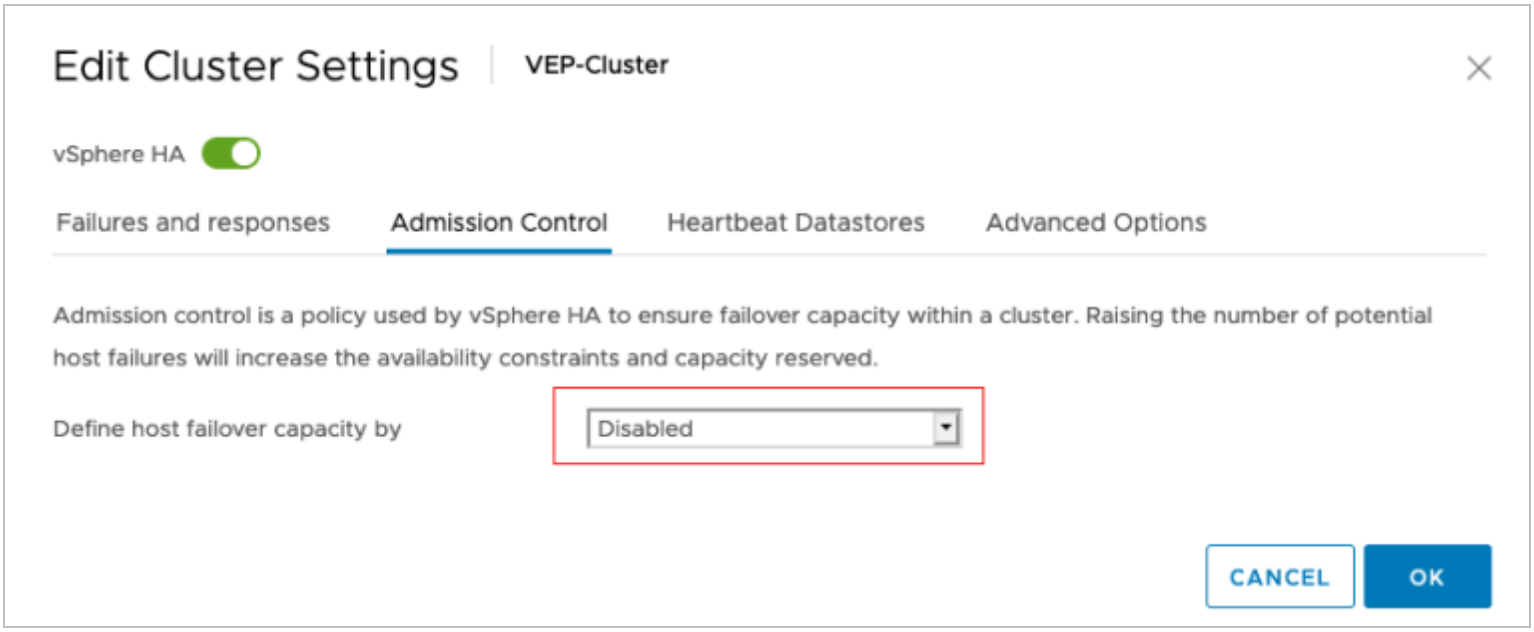
Select **vSphere HA** to **On**.



Arista NetVisor UNUM HA - Configure vSphere HA On

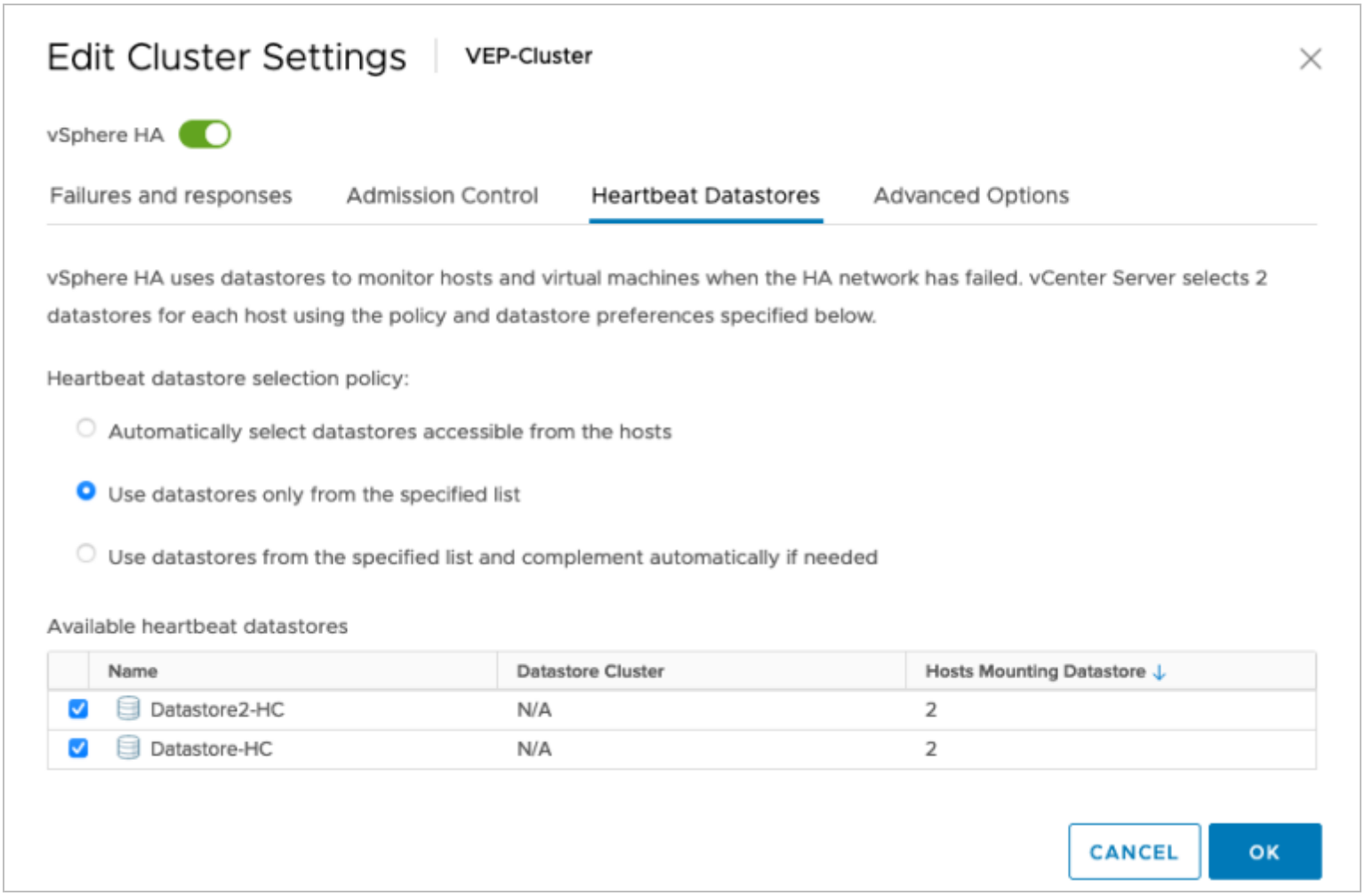
High Availability (cont'd)

Disable the **Admission Control** setting.



Arista NetVisor UNUM HA - Configure vSphere Admission Control - Disabled

Select **Heartbeat Datastores**.



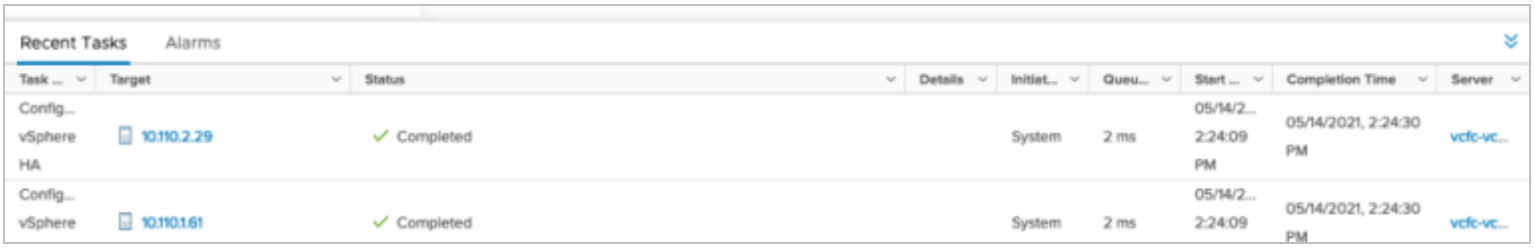
Arista NetVisor UNUM HA - Configure vSphere Heartbeat Datastores

Click on **OK**.

HA Configuration Validation

The **Recent Tasks** pane shows that **HA** configures successfully on the hosts and when **HA** is configured on the VMware cluster.

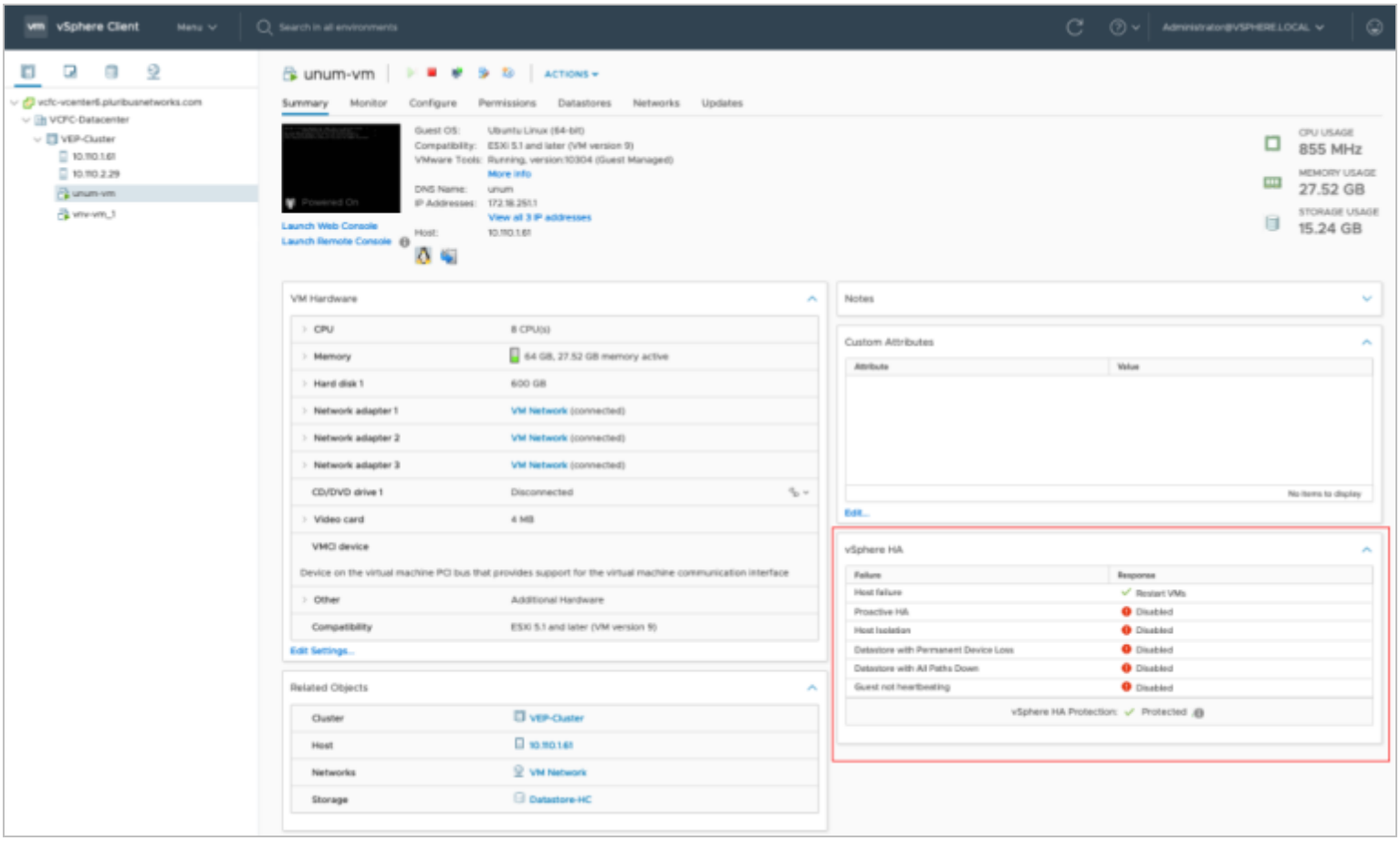
Arista NetVisor UNUM HA - Configuration Validation



Arista NetVisor UNUM HA - Configuration Validation - Complete

High Availability (cont'd)

The VM on **Shared Storage** shows **HA** protected.



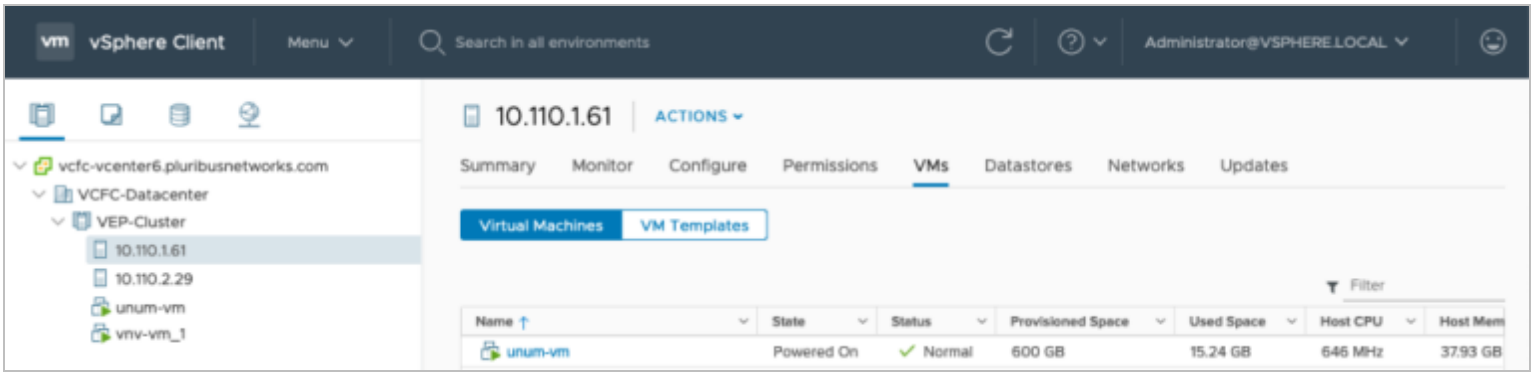
Arista NetVisor UNUM HA - Configuration Validation - vSphere HA Protection Enabled

High Availability Validation after Fail-over

In the following examples, the Arista NetVisor UNUM **unum-vm** instance runs on one server while the **vnv-vm_1** instance runs on the second server. This instance is HA protected.

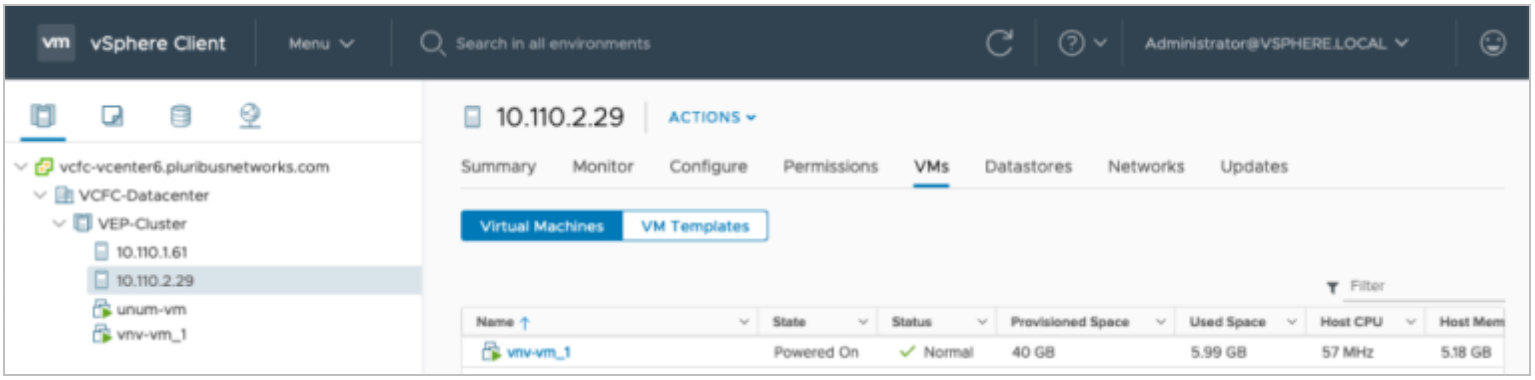
Arista NetVisor UNUM HA - Configuration Validation - Example - Healthy Cluster

Server One running Arista NetVisor UNUM instance.



Arista NetVisor UNUM HA - Configuration Validation - Example - Healthy Cluster - Server One - Arista NetVisor UNUM Instance

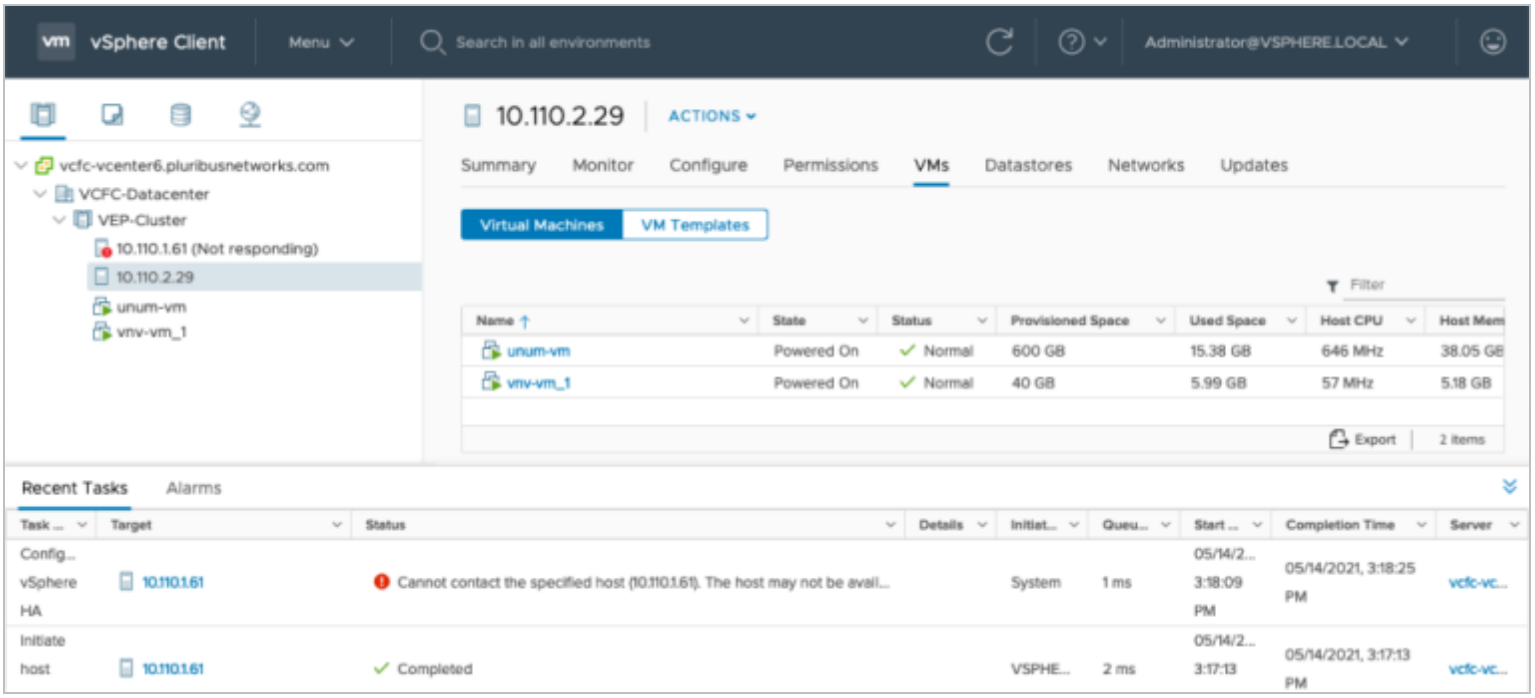
Server Two running vNV instance.



Arista NetVisor UNUM HA - Configuration Validation - Example - Server Two - vNV Instance

High Availability (cont'd)

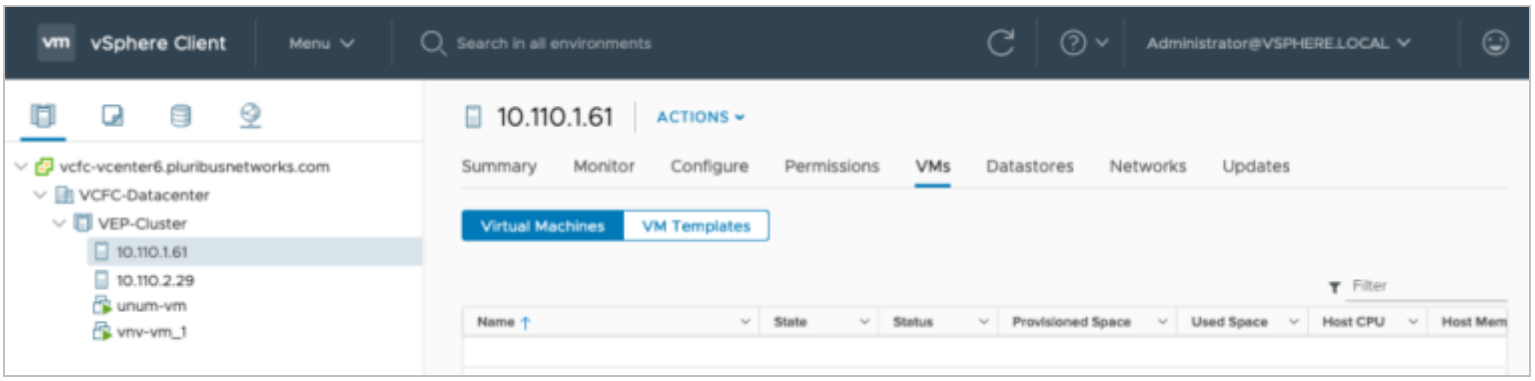
Server One (10.110.1.61) then becomes unresponsive or is rebooted. The **unum-vm** instance is now running on Server Two (10.110.2.29) along with the **vnv-vm_1** instance.



Arista NetVisor UNUM HA - Configuration Validation - Example - Cluster Instance Failed or Rebooted

You can confirm the Arista NetVisor UNUM instance is running on the second host (10.110.2.29), Server Two, in the same VMWare Cluster.

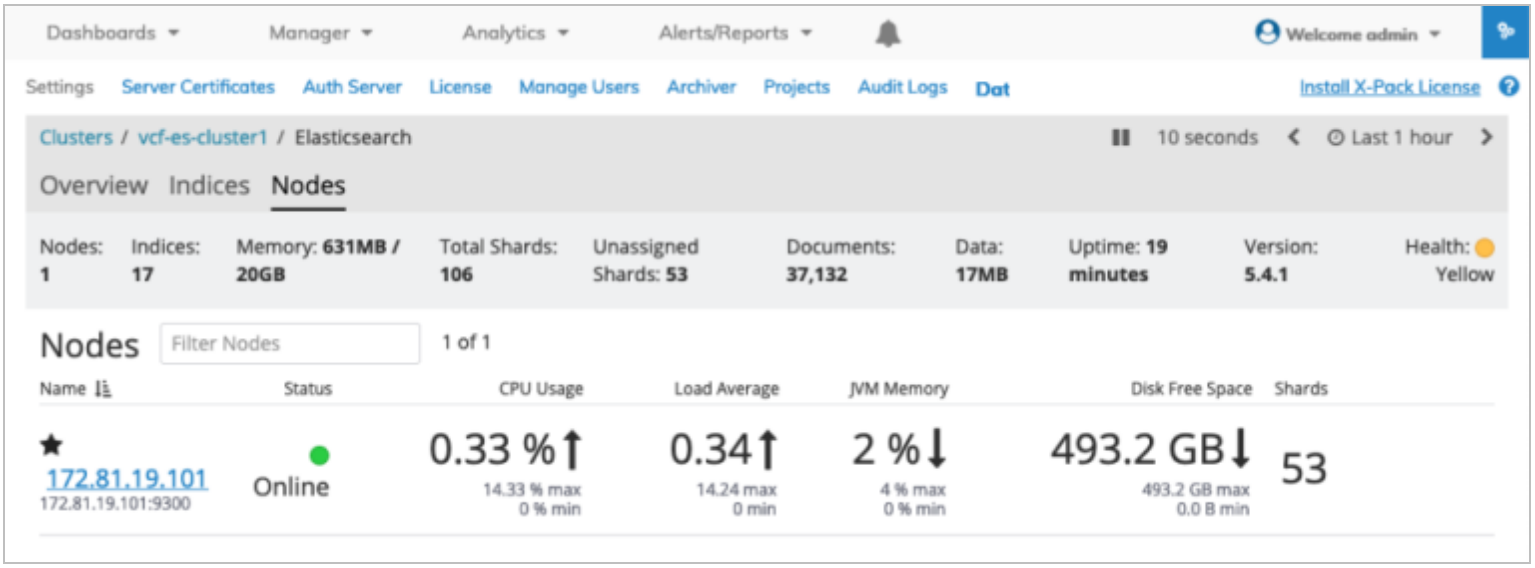
When Server One returns online, there are now no vm instances running on the server. All instances are running on Server Two.



Arista NetVisor UNUM HA - Configuration Validation - Example - Cluster Instance Failed Over

Arista NetVisor UNUM Database Health - High Availability Validation after Fail-over

In Arista NetVisor UNUM, **Settings** → **Database** → **Health** monitor the datanode status.



Arista NetVisor UNUM HA - Configuration Validation - Example - UNUM Datanode Status

Submitting a Service Request

Arista Software Support

For Arista software support, you can purchase optional support contracts from your partner, reseller, or Arista Networks.

Purchasing a support contract from a local partner is sometimes preferred due to geographical or language requirements.

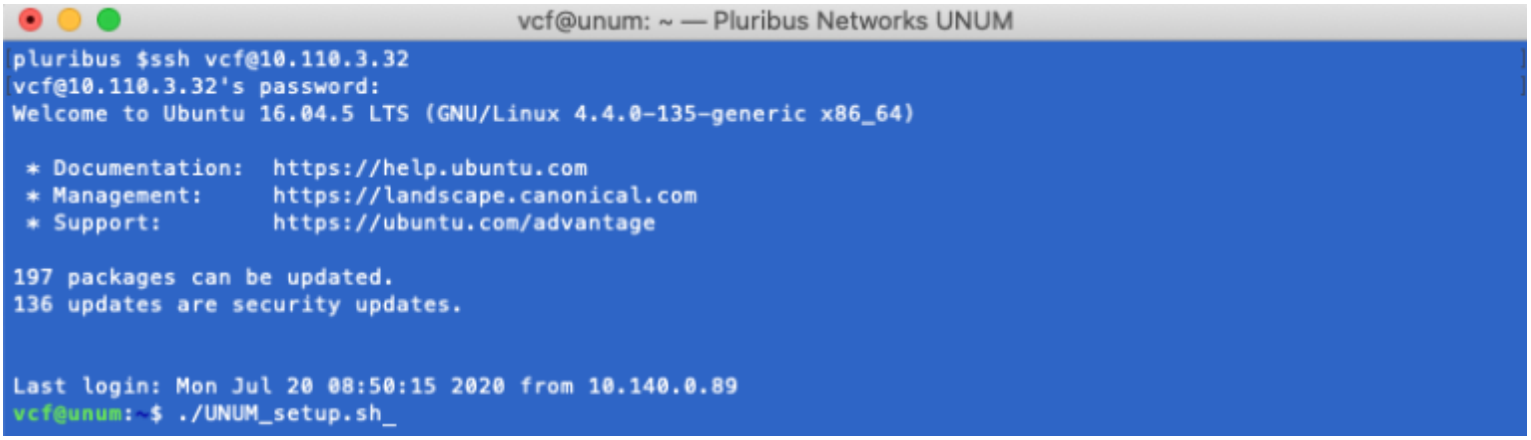
Please contract your local partner to better understand the available service programs and pricing.

If you purchased an original Pluribus FreedomCare maintenance agreement, you can contact Arista Networks directly for support requirements.

Appendix A

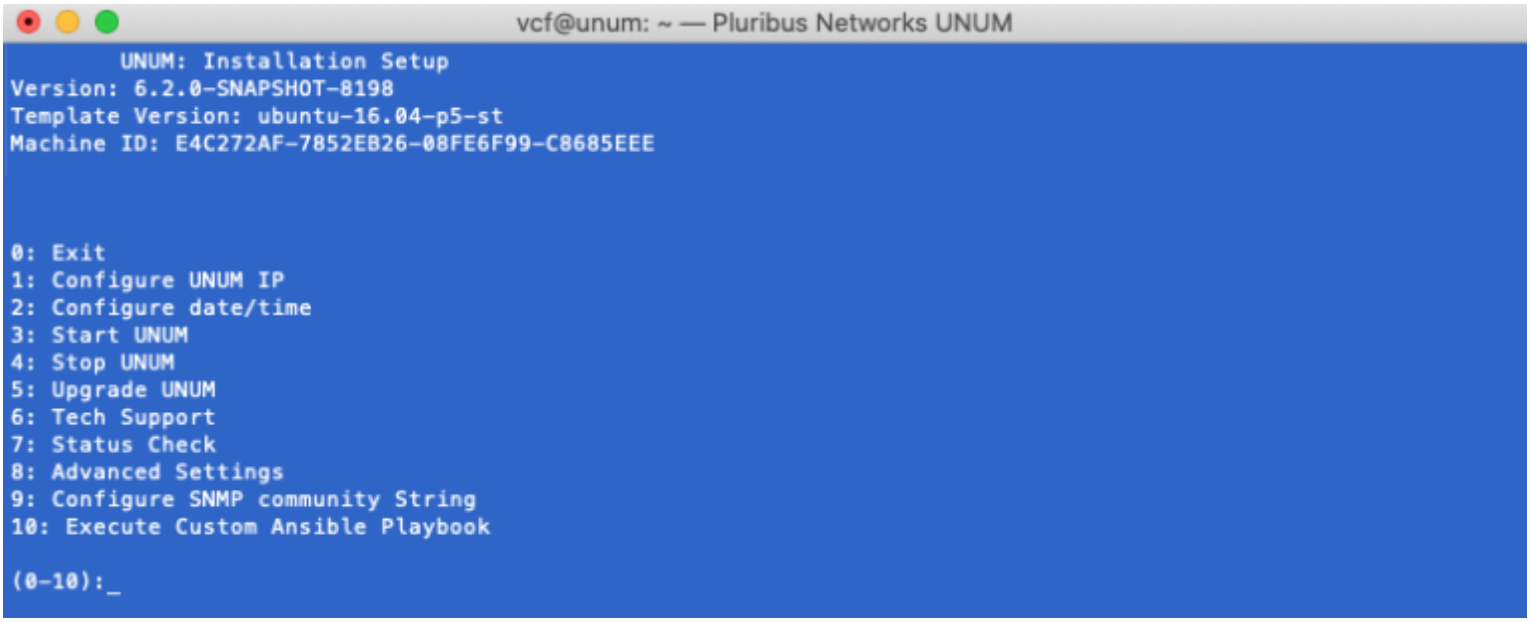
Arista NetVisor UNUM Login

1. **Login** - If desired to set a static IP for Arista NetVisor UNUM, log into the VM via the console with the credentials `vcf/changeme`.



Arista NetVisor UNUM Console Login Screen

2. **Run** `./UNUM_setup.sh`:

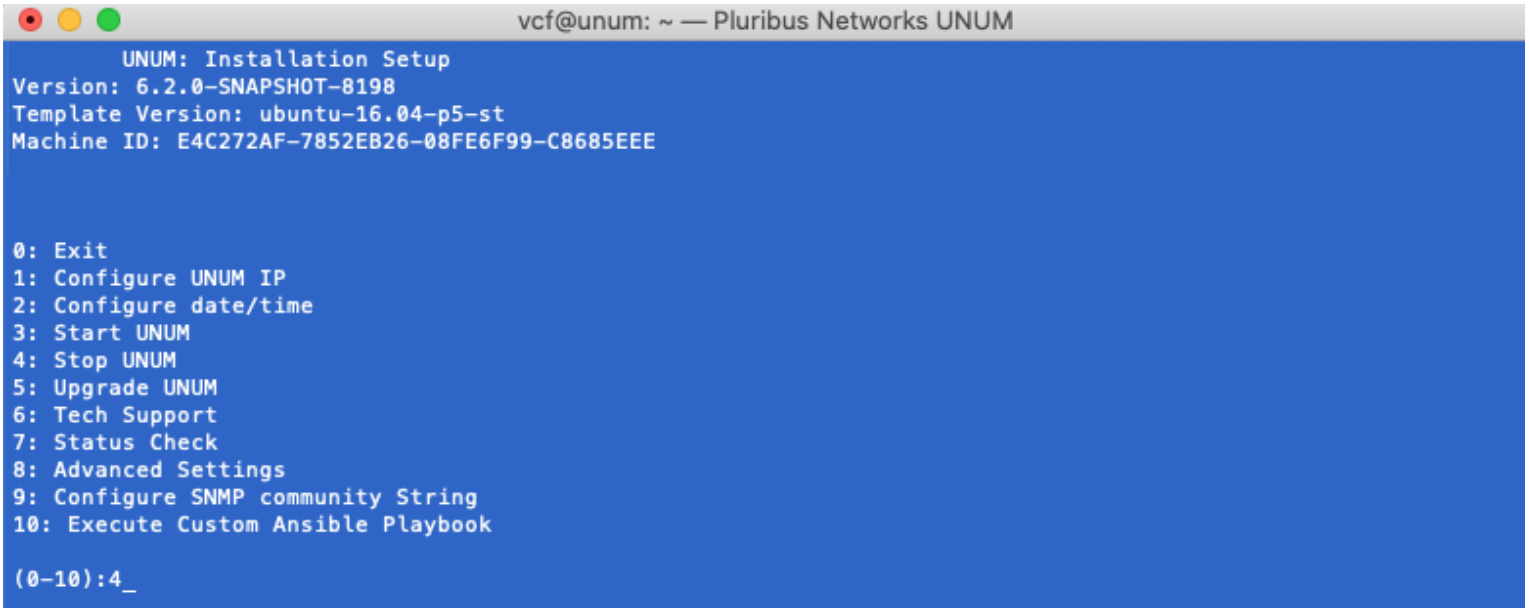


Run UNUM_setup.sh Script

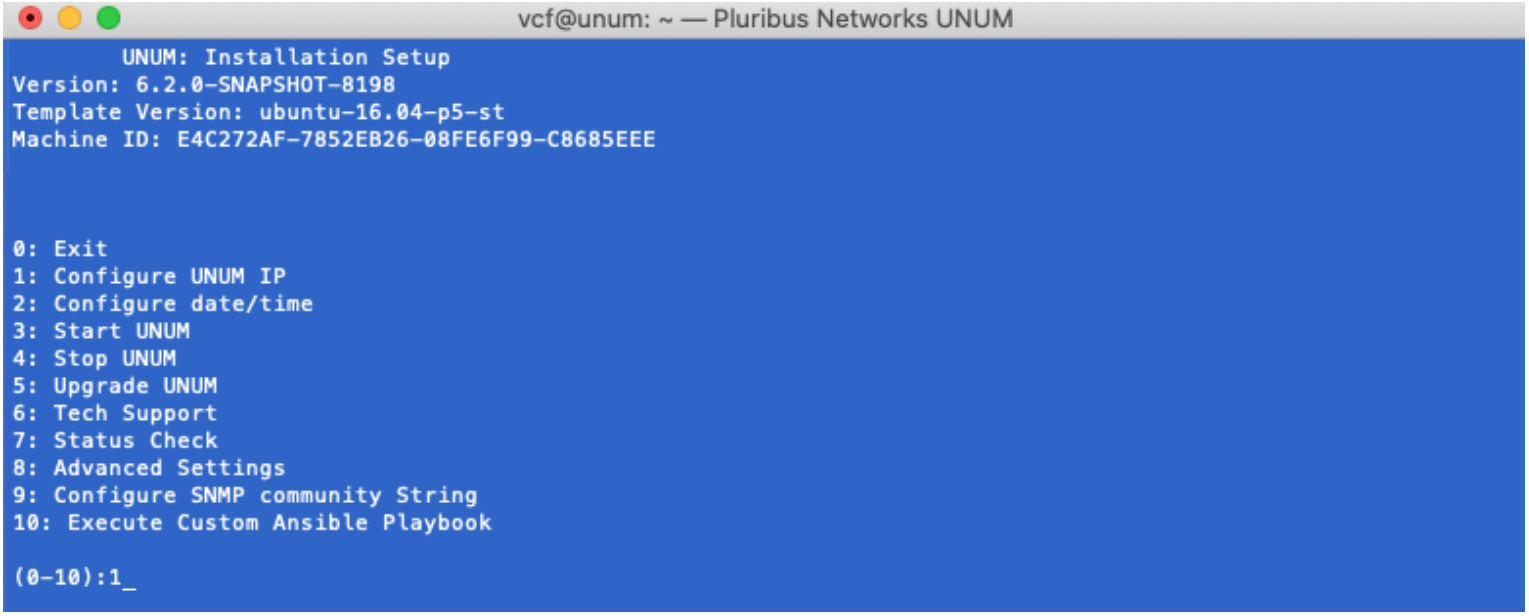
Configure Arista NetVisor UNUM IP

You may now configure the **Host IP** by selecting **Option 1**. Follow the on-screen instructions for entering the **Host IP** address.

> **Note:** Before you can configure or edit **Arista NetVisor UNUM IP Addresses**, you must first stop Arista NetVisor UNUM using **Option 4**.

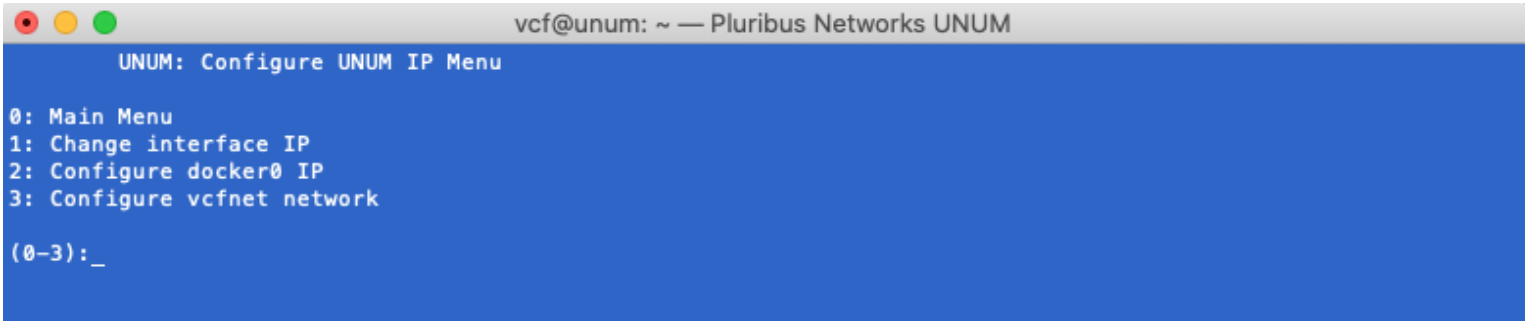


Arista NetVisor UNUM Options Menu - Stop UNUM



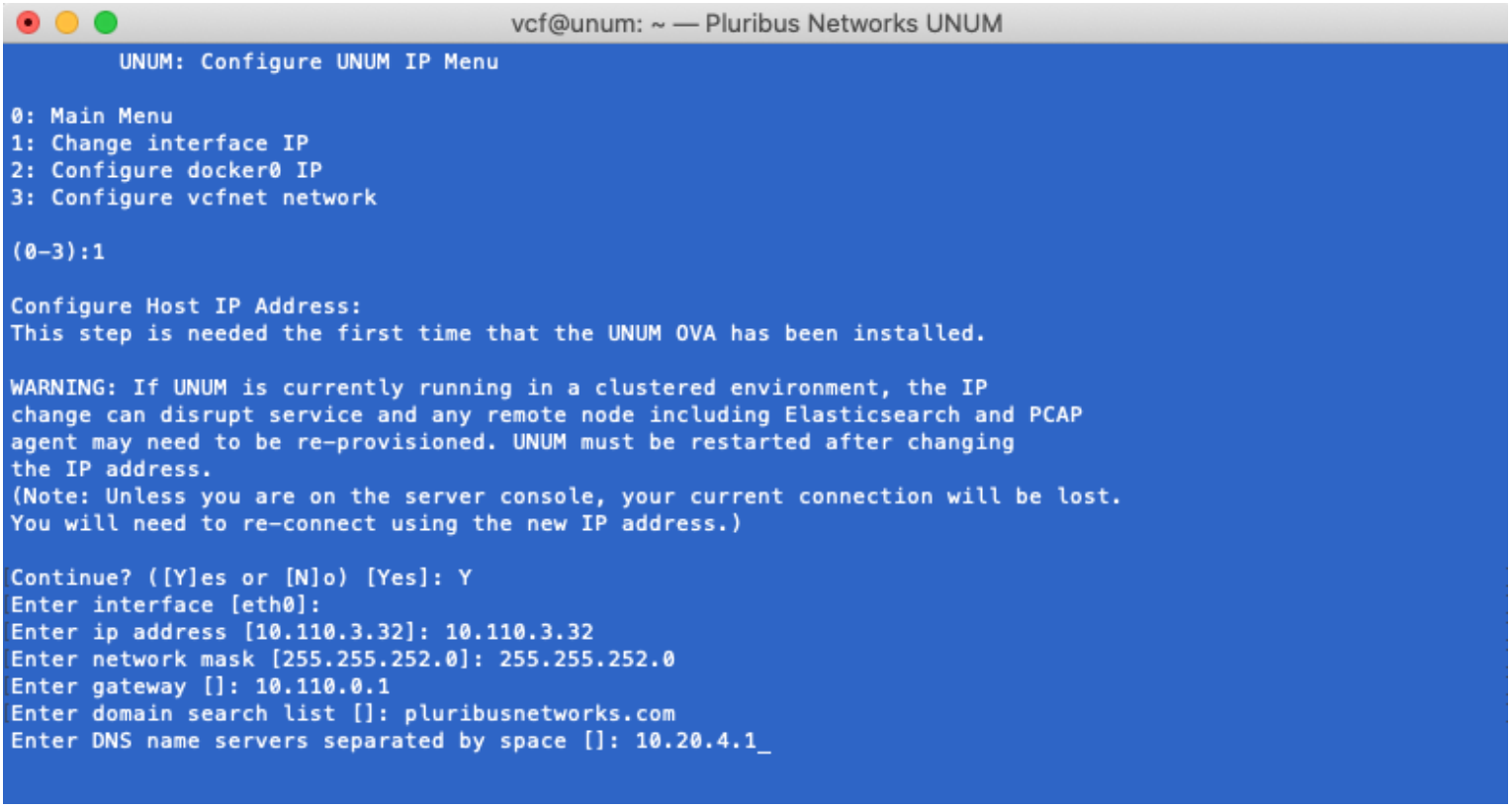
Arista NetVisor UNUM Options Menu - Configure IP

Configure Arista NetVisor UNUM IP (cont'd)



Arista NetVisor UNUM Configure UNUM IP Menu

Configure Arista NetVisor UNUM IP (cont'd)



Arista NetVisor UNUM - Configure Host IP

Note: Please review the following usage information regarding the Ethernet adapters used by Arista NetVisor UNUM:

Eth0:	used for management, GUI (user interaction) and data collection via NetVisor REST. This interface uses DHCP by default.
Eth1:	used for internal system communication is set to IP address `172.16.251.1` by default.
	WARNING! If you change the IP address of **Eth1** in a cluster configuration, you disrupt normal operations. Please contact **Technical Support** if you need or want to change the **Eth1** address in a cluster configuration.
Eth2:	<Optional>used to connect a Seed Switch or Fabric via an inband connection.

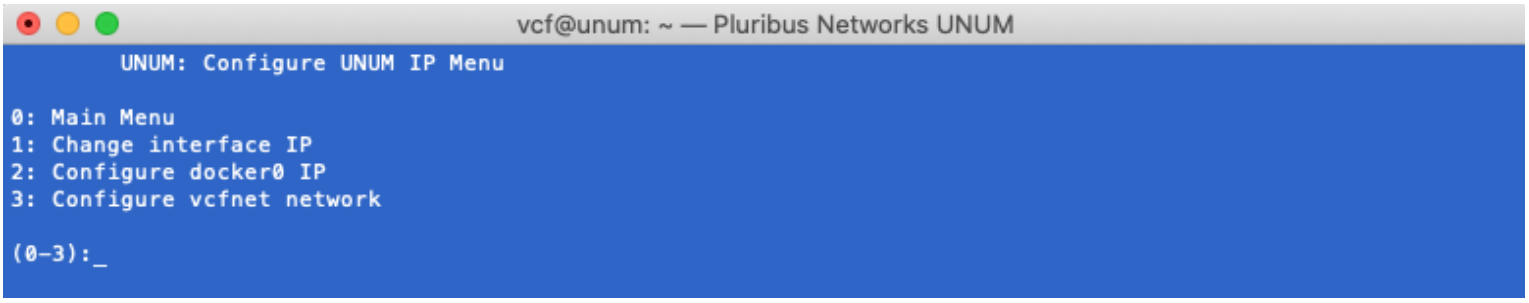
Arista NetVisor UNUM Ethernet Adapters Usage Table

Configure Docker0 IP

Arista NetVisor UNUM uses a default docker **IP** address of **172.17.251.1/24** for internal communication.

Warning: In the majority of deployments, there is no need to change this address.

However, if you use the default range as the Arista NetVisor UNUM management network there could be network conflicts within your network. Therefore, you have the ability to modify the **docker0** interface **IP** address using **Option 2** - **Configure docker0 IP**.



Arista NetVisor UNUM - Configure Docker0 & VCFnet Bridge IP

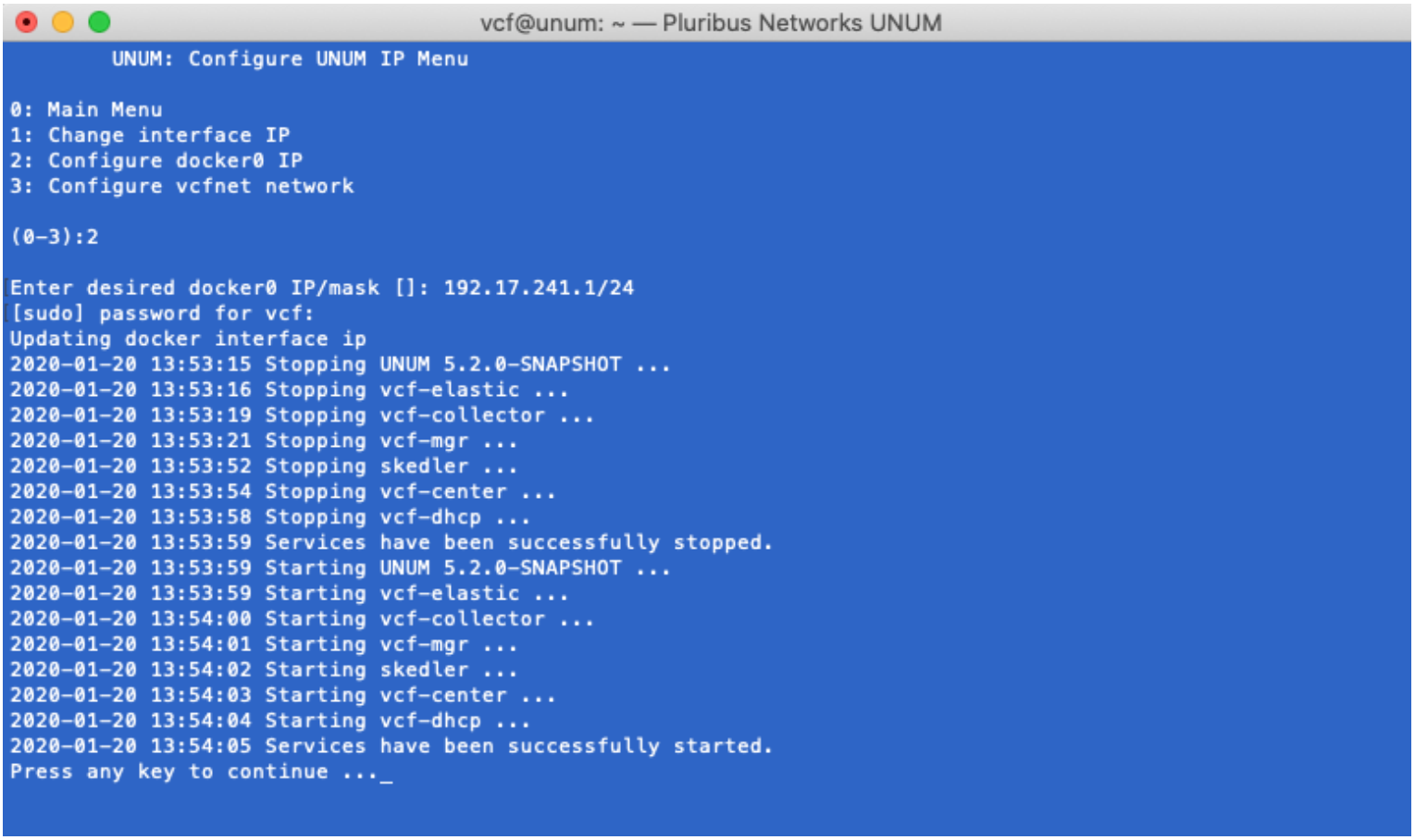
Select **Option 2 - Configure docker0 IP.**

Enter the desired **IP** address range and mask. (Shown below as example only.)

Enter the sudo password.

Appendix A (cont'd)

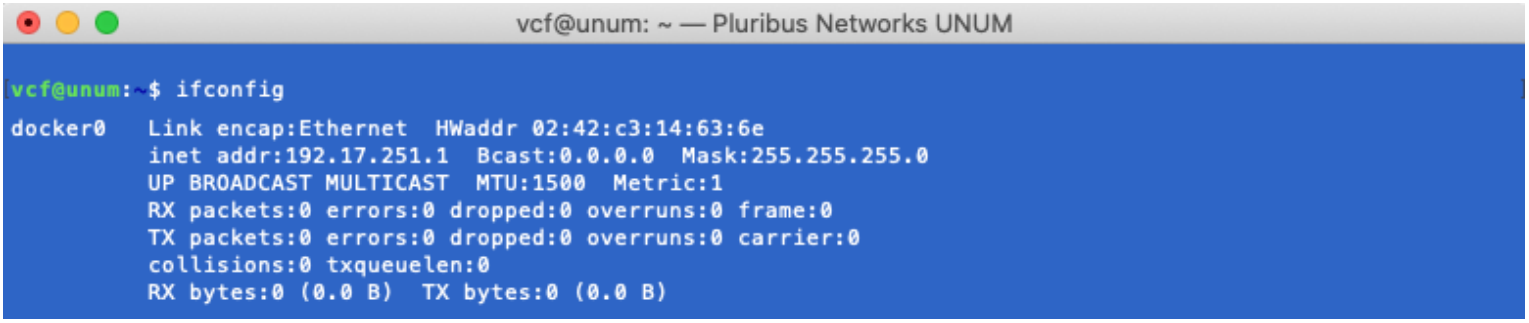
Arista NetVisor UNUM updates the **docker0 IP** address, stopping and restarting services.



Arista NetVisor UNUM - Configure Docker0 IP

Press any key to continue.

If required, view the new **docker0 IP** address using **ifconfig** from a command prompt.

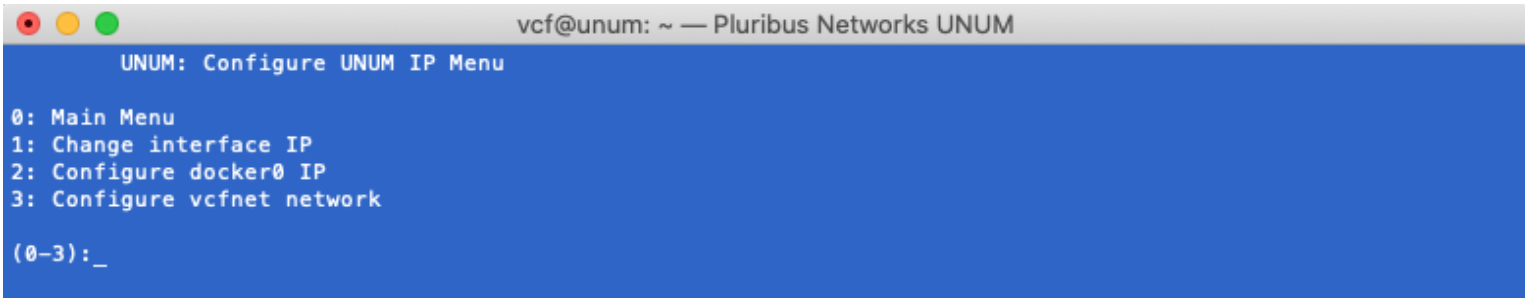


Arista NetVisor UNUM - New Docker0 IP Address

> **Note:** The **docker0 IP** address has to be a specific host IP address and mask.

Configure VCFnet Network

Arista NetVisor UNUM uses a default **VCFnet IP** address of **172.18.251.1/24** for internal communication. However, if you use the default range as the Arista NetVisor UNUM management network there could be network conflicts within your network. Therefore, you have the ability to modify the **VCFnet** interface **IP** address using **Option 3** - **Configure vcfnet network**.

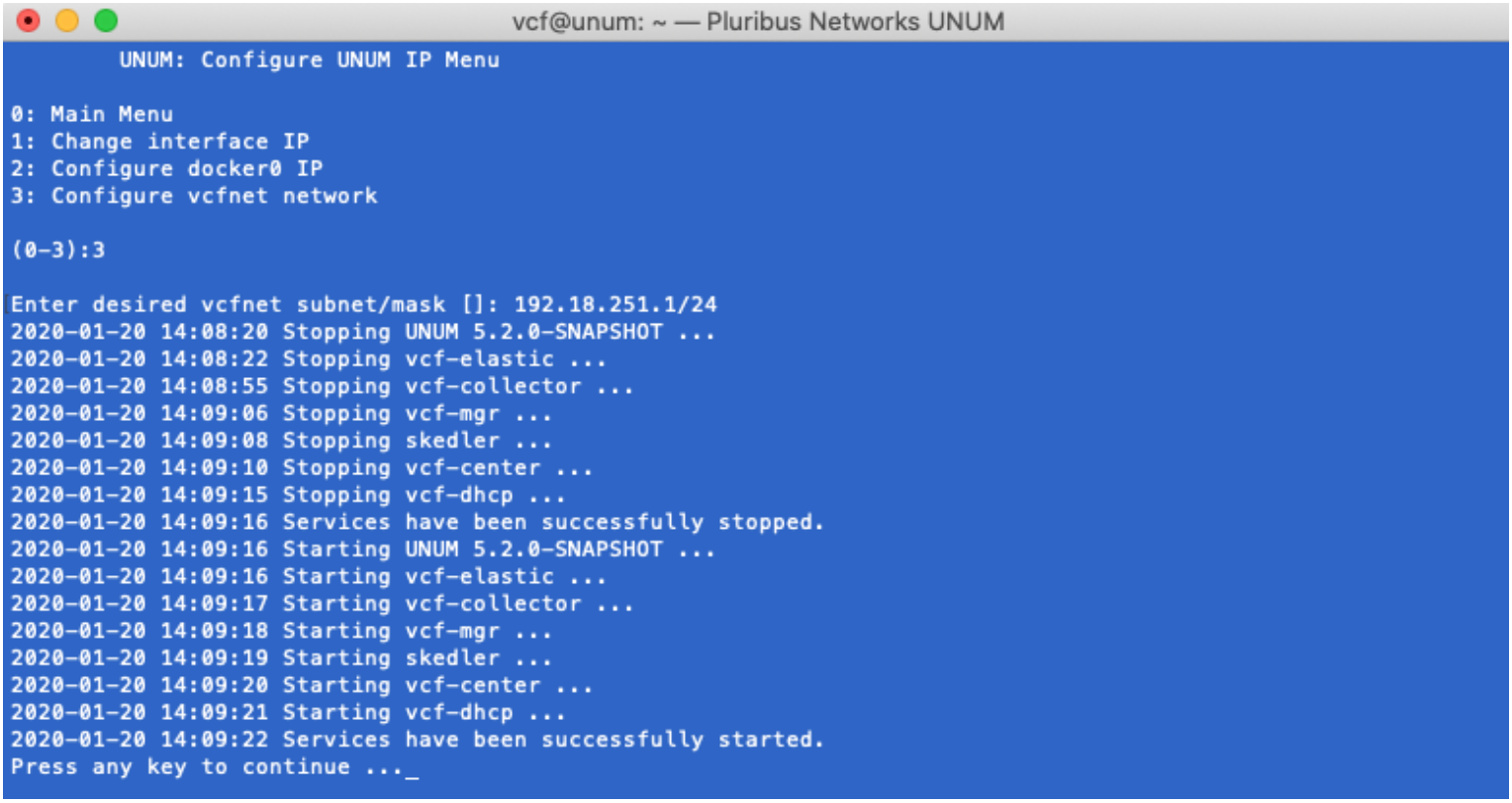


Arista NetVisor UNUM - Configure VCFnet Network IP

Select **Option 3 - Configure vcfnet Network.**

Enter the desired **IP** address range and mask. (Shown below as example only.)

Enter the sudo password. Arista NetVisor UNUM updates the **vcfnet IP** address, stopping and restarting services.

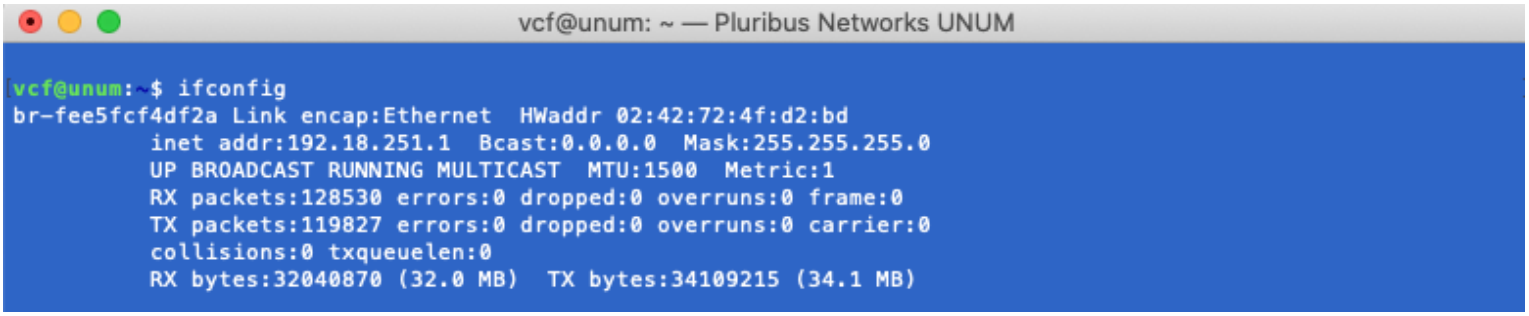


Arista NetVisor UNUM - Configure VCFnet Network IP

Press any key to continue.

Appendix A (cont'd)

If required, view the new **vcfnet IP** address using **ifconfig** from a command prompt.



Arista NetVisor UNUM - New vcfnet IP Address

> **Note:** The **vcfnet IP** address has to be a specific network IP address and mask.

If no further configuration changes are required, use **Option 3** to restart Arista NetVisor UNUM otherwise proceed to the next step.