Dell EMC Technical White Paper

ESXi deployment using Dell EMC OpenManage Integration for VMware vCenter (OMIVV) and deployment best practices

Abstract

Dell EMC OpenManage Integration for VMware vCenter (OMIVV) supports ESXi deployment on bare-metal servers. This technical white paper illustrates the process of an ESXi installation and best practices to follow during the deployment process.

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Terminology

Terminology	Description
OMIVV	OpenManage Integration for VMware vCenter
iDRAC	Integrated Dell Remote Access Controller
UEFI	Unified Extensible Firmware Interface
OS	Operating System
SATA	Serial Advanced Technology Attachment
OOB	Out-of-band
CIFS	Common Internet File System
NFS	Network File System
BIOS	Basic Input/Output System
FC	Fiber Channel
MAC	Media Access Control
BOSS	Boot Optimized Storage Solution
NVMe	Non-Volatile Memory Express
SSD	Solid State Drive
CPU	Central Processing Unit
HDD	Hard Disk Drive
RAID	Redundant Array of Independent Disks
USB	Universal Serial Bus
NIC	Network Interface Controller
AHCI	Advance Host Controller Interface
RAM	Random Access Memory
SD	Secure Digital
DHCP	Dynamic Host Configuration Protocol
FQDN	Fully Qualified Domain Name
DNS	Domain Name System
PERC	PowerEdge RAID Controller

Executive summary

OpenManage Integration for VMware vCenter (OMIVV) provides an ability to install an ESXi instance on bare-metal servers. The hosts can be onboarded to vCenter server and managed using OMIVV after successful inventory.

This technical white paper describes how to perform an ESXi deployment and best practices to follow when performing an ESXi deployment.

1 Introduction

The core of the vSphere product suite is the hypervisor (ESXi). A hypervisor is a piece of software that creates and runs virtual machines.

ESXi provides a virtualization layer that abstracts the CPU, storage, memory, and networking resources of the physical host into multiple virtual machines. The applications running in virtual machines can access these resources without direct access to the underlying hardware.

An ESXi deployment is an essential step during any data center setup. The manual process of deploying an ESXi on all servers becomes tedious and time-consuming.

OpenManage Integration for VMware vCenter (OMIVV) reduces the time of an ESXi deployment by automating the process and provides an option to perform deployment on several servers at once without user intervention during the entire process making it as a zero-touch deployment.

On successful deployment of an ESXi on a server, the ESXi host is onboarded to the vCenter and inventoried automatically by OMIVV.

2 Bare-metal discovery

Discovery is the process of adding supported bare-metal server. After a server is discovered, you can use it for system profile and an ISO profile deployment.

Prerequisites:

- The network connectivity from the iDRAC of bare-metal server to the OMIVV virtual machine is required.
- The hosts with existing ESXi instances should not be discovered into OMIVV. Add hosts to the vCenter and host credential profile.
- To deploy ESXi on SD card and to use system profile features in 12G and 13G PowerEdge servers, ensure that iDRAC 2.50.50.50 and later is installed.

OMIVV supports discovering bare-metal servers using auto discovery and manual discovery.

2.1 Auto discovery

Auto discovery is an iDRAC feature that enables newly installed servers to be discovered automatically by OMIVV. Remote management console IP address must be configured.

Prerequisites:
Before attempting to discover the PowerEdge bare-metal servers, ensure that OMIVV is installed. The PowerEdge servers with iDRAC Express or iDRAC Enterprise can be discovered into a pool of bare-metal servers.

For auto discovery to function, the following conditions must be met in your environment:

- Power—ensure that you connect the server to the power outlet.
- Network connectivity—ensure that the iDRAC of the server has network connectivity and communicates with the provisioning server over port 4433. You can obtain the IP address of provisioning server by using a DHCP server or manually specifying it in the iDRAC configuration utility.
- Extra network settings—To resolve DNS names, enable **Get DNS** server address in DHCP settings.
- Provisioning service location—ensure that iDRAC knows the IP address or hostname of the provisioning service server. OMIVV supports auto discovery with provisioning server functions only.

Note: iDRAC9 auto discovery and iDRAC9 push notifications are not supported.

For more information, see the OMIVV User's Guide.

- Account access disabled—if there are any iDRAC accounts with administrator privileges, first disable them from the iDRAC web console. Once auto discovery completes successfully, the administrative iDRAC account is reenabled with deployment credentials that are entered on the Settings page. For more information about deployment credentials, see the OMIVV User's Guide.
- Auto discovery enabled—ensure that the iDRAC of the server has auto discovery enabled so that the auto discovery process can begin. For more information, see the OMIVV User's Guide.

2.2 Manual discovery of bare-metal servers

You can manually add a bare-metal server that is not added using the auto discovery process. Once added, the server is displayed in the list of servers on the **Bare-metal Servers** page of OMIVV.
To add the bare-metal servers, on the OMIVV home page, click **Compliance and Deployment** > **Deployment** > **DISCOVER**.
You can create the discovery job to discover range of servers simultaneously. You can configure maximum of 1024 servers in a single discovery job.

Class C IPs are supported and difference in last octet values of start, and end IP are considered to find range of IPs between them. You can configure a maximum of 1024 nodes in a single discovery.

Few example configurations of discovery job are shown in the following sections:

2.2.1 Single node discovery

To discovery a single server in a job:

1. Enter only **Start IP** with all four octets of an IP.
2. Enter the credentials manually or select the option **Use Deployment Credentials** to use the settings configured under **Settings**>**Deployment Credentials**.

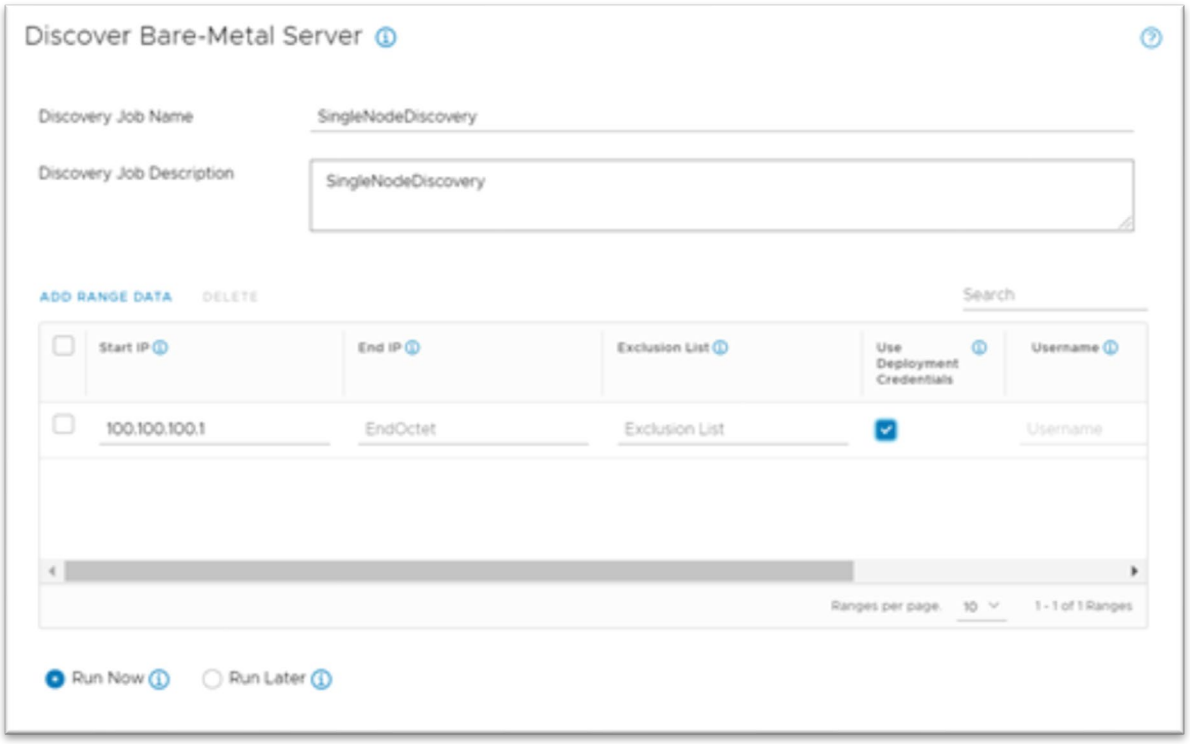


Figure 1: Single server discovery

2.2.2 Multiple nodes discovery without exclusion

To discover all the servers within a given range:

1. Enter all octets of **Start IP**.
2. Enter only last octet of **End IP**.

The following is the sample configuration to discover all servers the IPs from 100.100.100.1 to 100.100.100.50:

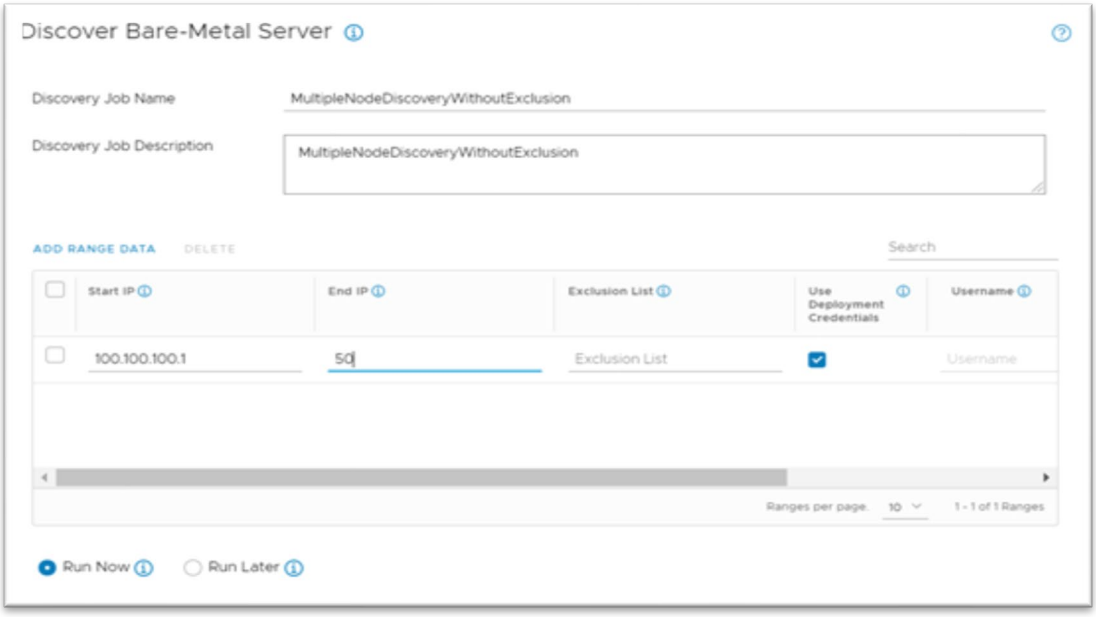


Figure 2: Range server discovery

Each IP range in a discovery job can contain a maximum of 256 IPs (Example:192.168.1.0–255).

To discover 1024 IPs in a discovery job, multiple IP ranges must be configured such that the total of all IPs in all the defined ranges does not exceed 1024.

The following screenshot shows the sample configuration for the same with four IP ranges with each range containing 256 IPs.

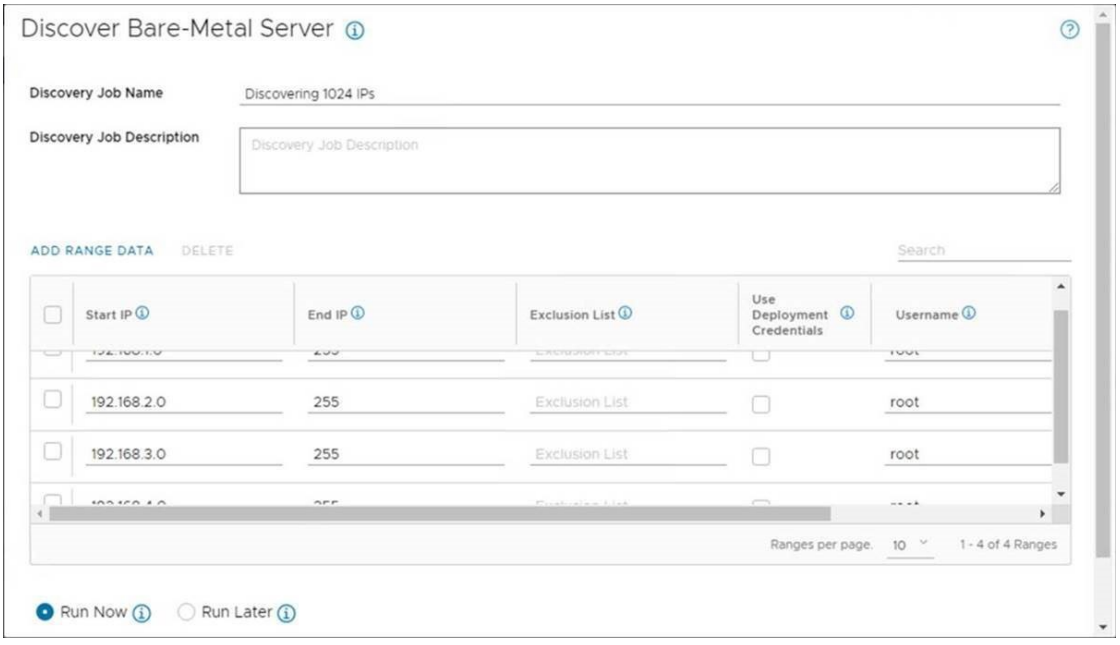


Figure 3: Discover 1024 IPs.

2.2.3 Multiple nodes discovery with exclusion

The following is the sample configurations to discover all the IPs from 100.100.100.1 to 100.100.100.50 excluding IPs from 100.100.100.25 to 100.100.100.30 and also from 100.100.100.40 to 100.100.100.45.

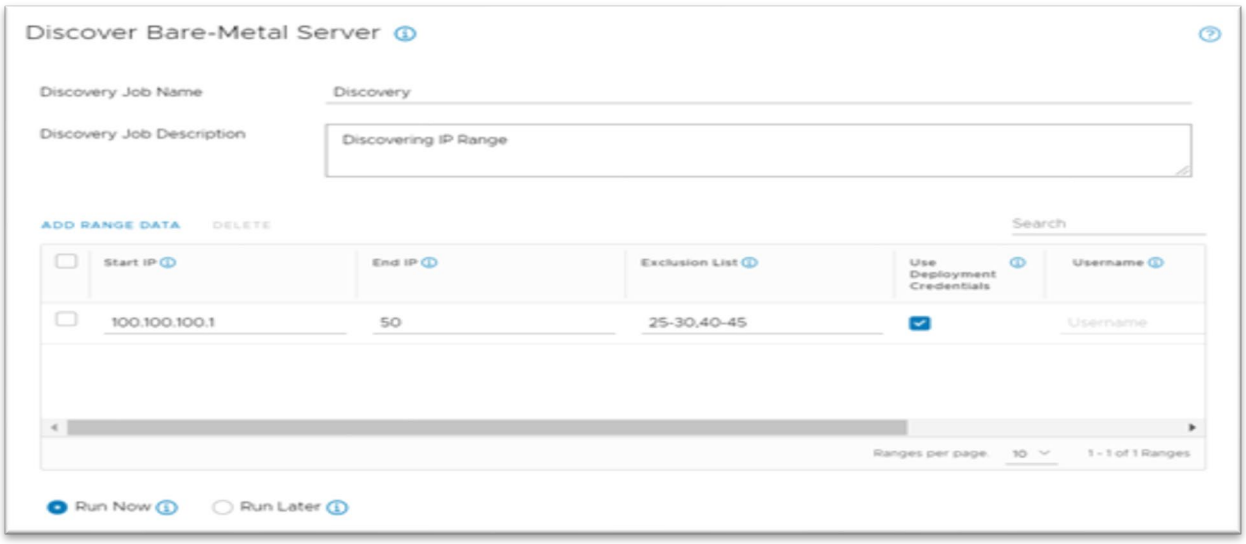


Figure 4: Range server discovery with exclusion.

To discover few sets of IPs in a range with a different credential, you can add a separate range for the same and give separate credentials.

The following is the sample configuration to discover IPs from 100.100.100.1 to 100.100.100.100 except 100.100.100.50 to 100.100.100.70 to be in different credential configuration:

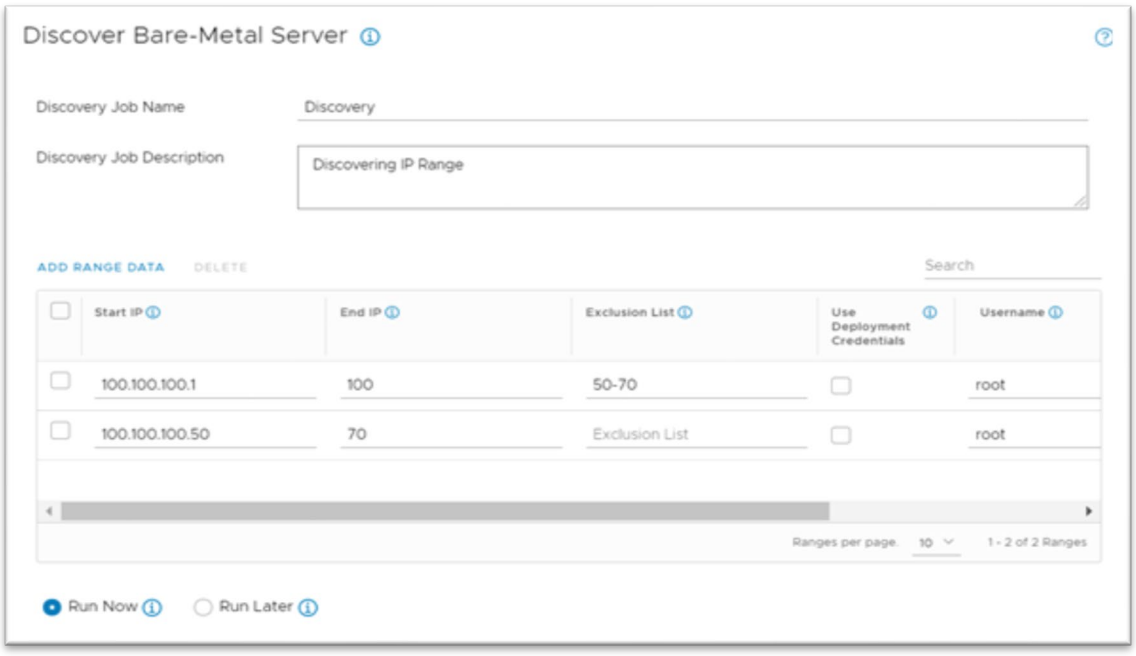


Figure 5: Range server discovery with separate credential.

2.3 Discovery jobs

After you submit the discovery job, you can track the status of the job at **OMIVV->Jobs->Discovery Jobs** page. A single entry is available for every server in the range and consolidated status is shown against the job.

To purge jobs older than a given date with the **Successful** or **Failed** or **Canceled** status, click **CLEAR COMPLETED**.

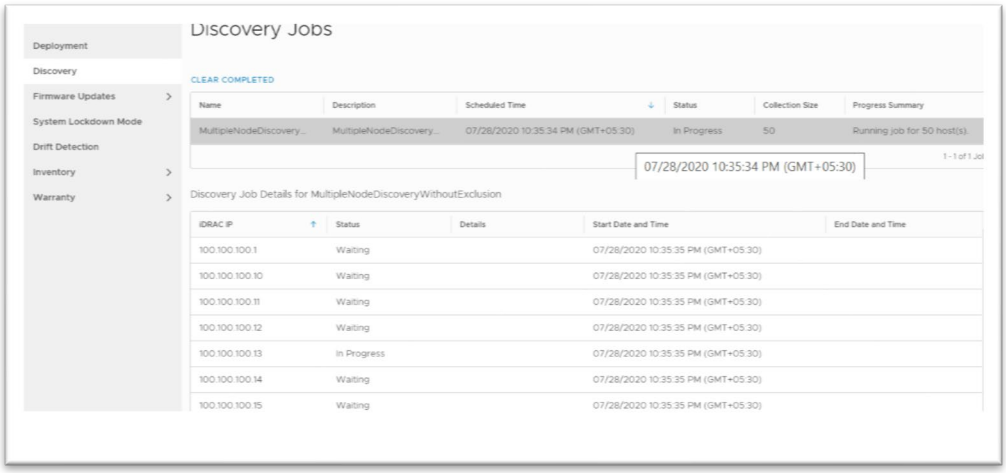


Figure 6: Discovery Jobs

2.4 Discovery performance

On a one Gbps link with direct iDRAC network, an IP subnet containing 256 Dell EMC servers take about five to six minutes for the discovery.

3 Create an ISO Profile

An ISO profile is a template in OMIVV that points to a specific ESXi ISO image. It is required to deploy an ESXi installation on a server.An ISO profile requires Dell EMC customized ISO file location on an NFS or CIFS share.

A test connection must be performed in order to save an ISO profile successfully.

Test connection is performed to check the following:

- The CIFS or NFS share is accessible with the provided username and password.
- The ISO image is present at the location provided.

OMIVV supports:

- Server Message Block (SMB) version 1.0 and SMB version 2.0 based CIFS shares
- Windows and Linux-based NFS shares

CIFS share requires username and password for accessing the ISO image. Invalid credentials or missing ISO image renders test connection failed, and ISO profile cannot be saved.

NFS share does not require username and password. It requires the NFS daemon to listen on ports 2049, 4001–4004.

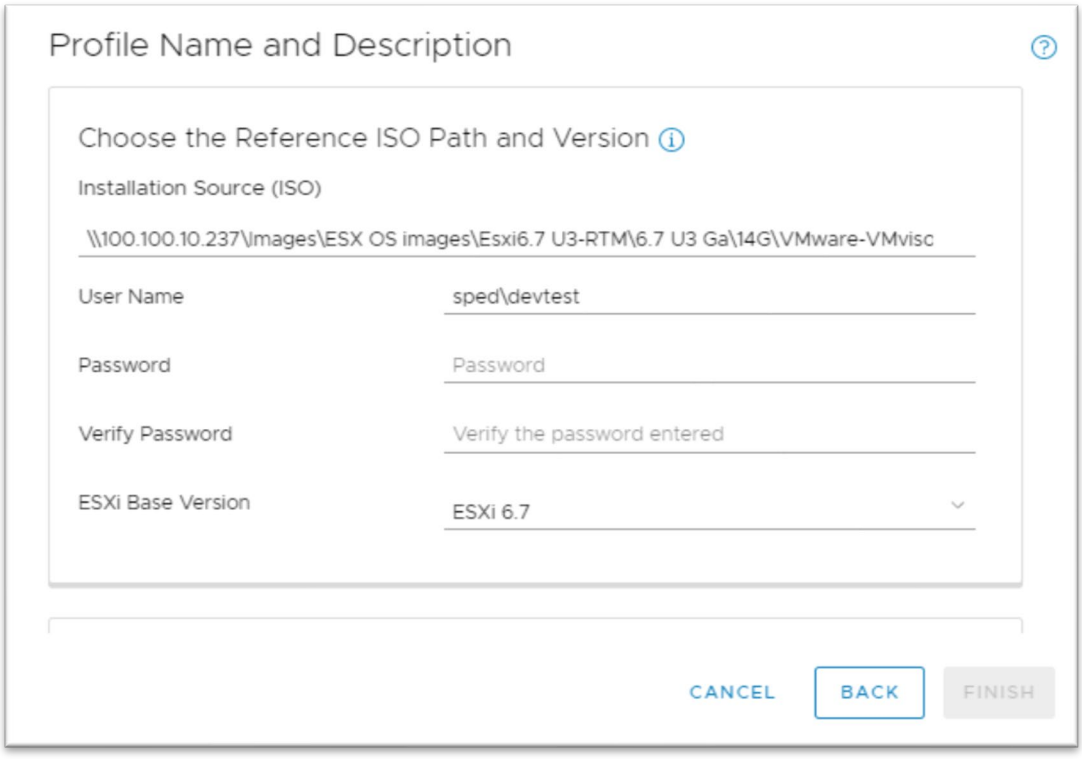


Figure 7: Create an ISO profile

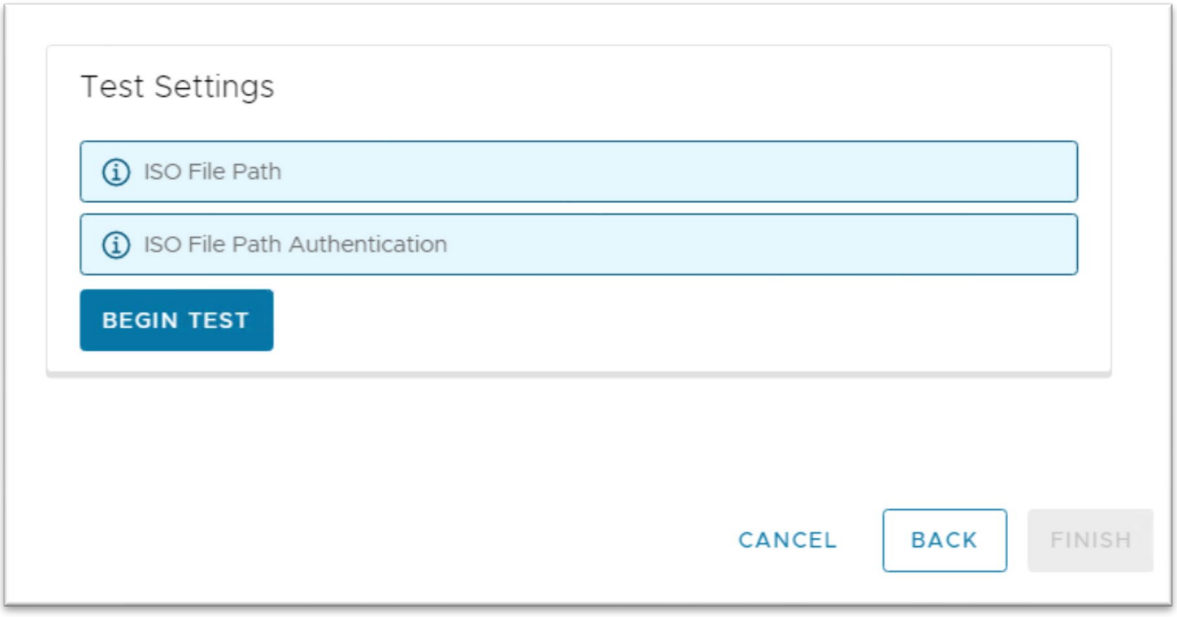


Figure 8: Test connection

3.1 Deploy an ISO profile

To perform an ISO profile deployment (ESXi installation), ensure that you have:

- Discovered bare-metal server
- Created an ISO Profile
- Created Host Credential Profile (the profile used to store the iDRAC credentials and ESXi credentials, which are optional for 6.7 or higher)

OMIVV supports only VMware ESXi Dell EMC customized ISO images installation on target bare-metal servers.

Ensure that bare-metal servers have met the following requirements in your environment:

- Collect System Inventory on Reboot (CSIOR) is enabled.
- Virtualization Technology (VT) is enabled.
- Based on the required installation target, set HDD, SSD, Virtual disk, IDSDM, or BOSS to first boot disk.

3.2 Select installation target

During bare-metal discovery, OMIVV determines the available targets on the server for an ESXi deployment.

The following are the supported targets:

- First boot disk: Hard Disk (HDD), Solid-State Drive (SSD), or Virtual disk created by RAID controllers
- Internal Dual SD Module (IDSDM)
- BOSS module

Notes: VMware supports ESXi installation on SD cards for 6.7 U3 and earlier versions.

Based on the presence of the modules supported, an appropriate target is available for you to select during deployment.

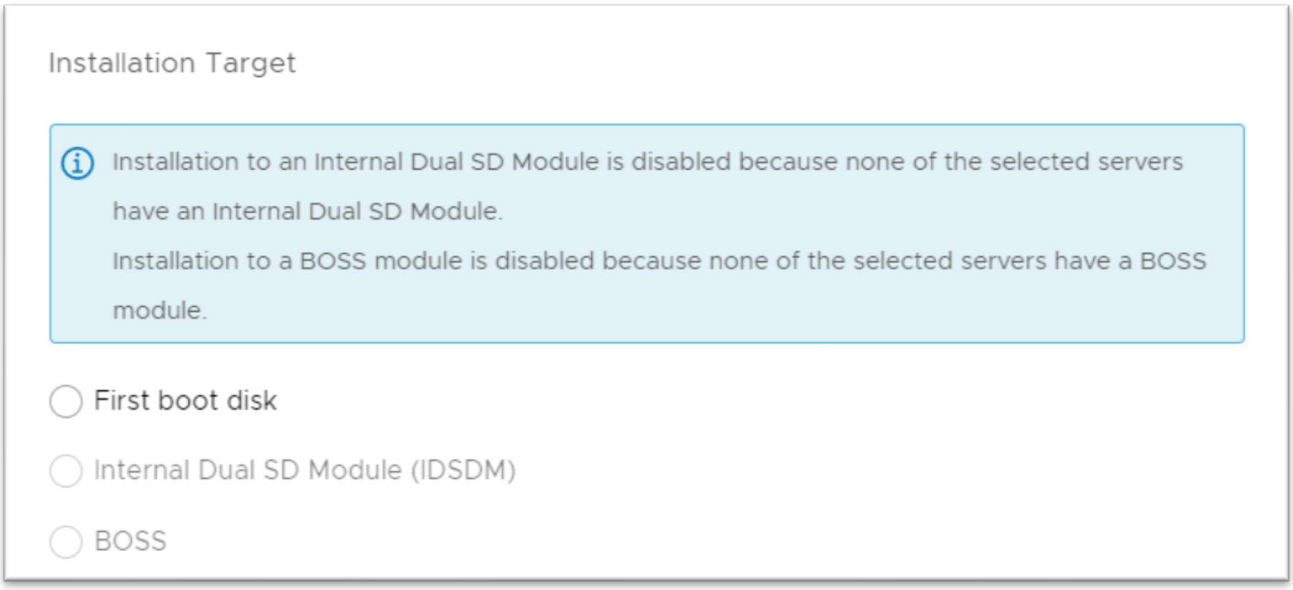


Figure 9: Installation targets

You can select the multiple servers at a time for an ESXi deployment. Installation target selection is a one-time operation for all the servers that are selected for the deployment job.

If one or more servers have IDSDM or BOSS module, applicable targets are available for installation target selection.

In this scenario, if IDSDM or BOSS is selected as installation target, the servers on which the selected target is not present will be skipped from performing deployment. This is notified in the target selection page.

There is also an option to not to skip the servers which do not have selected target present.

You can force deploy the an ESXi on First boot disk and ensure that ESXi is deployed on all the selected servers.

Note: OS deployment is blocked from iDRAC firmware version 4.00.00.00 to 4.32.20.00 when secure boot is enabled.

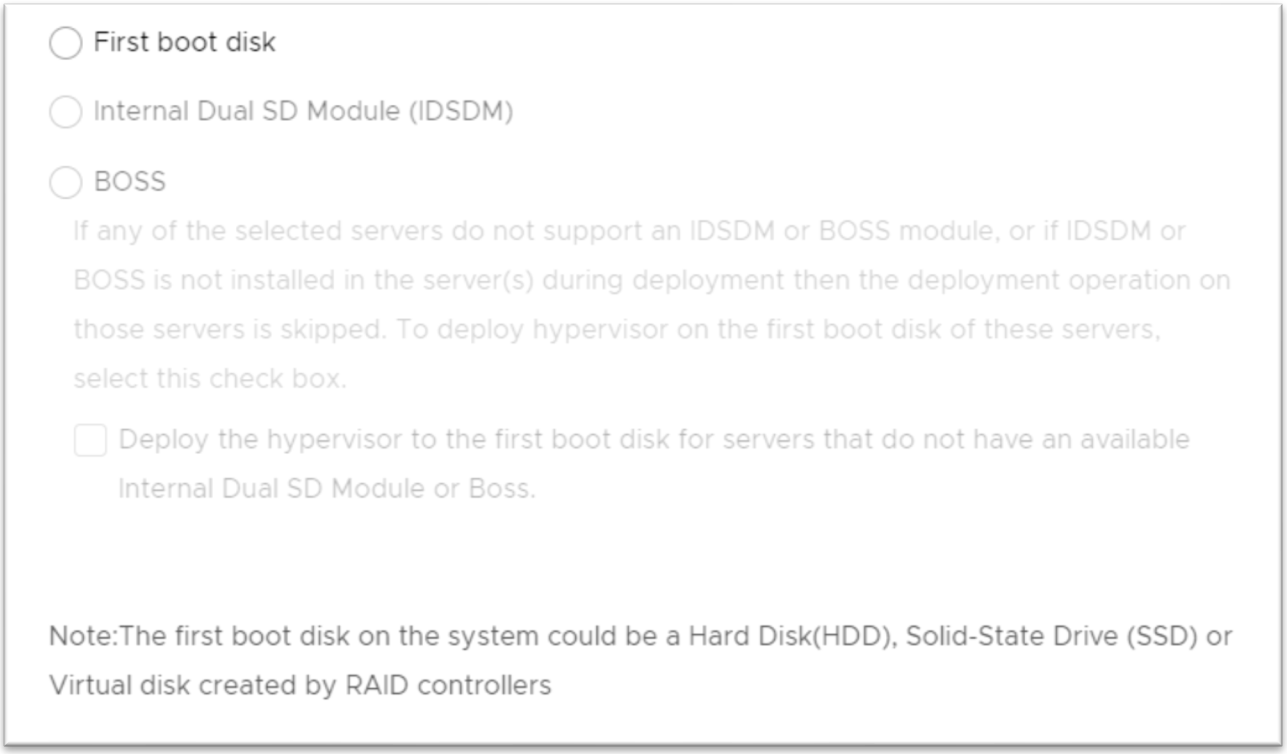


Figure 10: Installation targets with options

3.3 Select Host Credential Profile

From OMIVV 5.2 onwards, selection of Host Credential Profile (HCP) and providing root password is mandatory as same is used during setting ESXi password.

The following are applicable for root user during deployment:

- If an ISO profile has ESXi 6.5 and earlier version, the password that is entered in selected host credential profile is used.
- For ESXi 6.7 and later version, the password that is entered in the deployment wizard is used.
- For ESXi 6.5 and earlier version, if password is not entered in host credential profile, the password that is entered in deployment wizard is used. Update the ESXi credentials at host credential profile to ensure that inventory is run successfully after ESXi deployment.

OMIVV provides two options while selecting the host credential profile. Only one host credential profile can be used for all selected bare-metal servers or different host credential profiles can be used for all selected bare-metal servers. Select an appropriate option and enter root password. Entering root password is mandatory.

Note: Confirmation password (Verify Password) is not available, if different host credential profiles are used for all selected bare metal servers. In this case, ensuring valid password is entered is important.

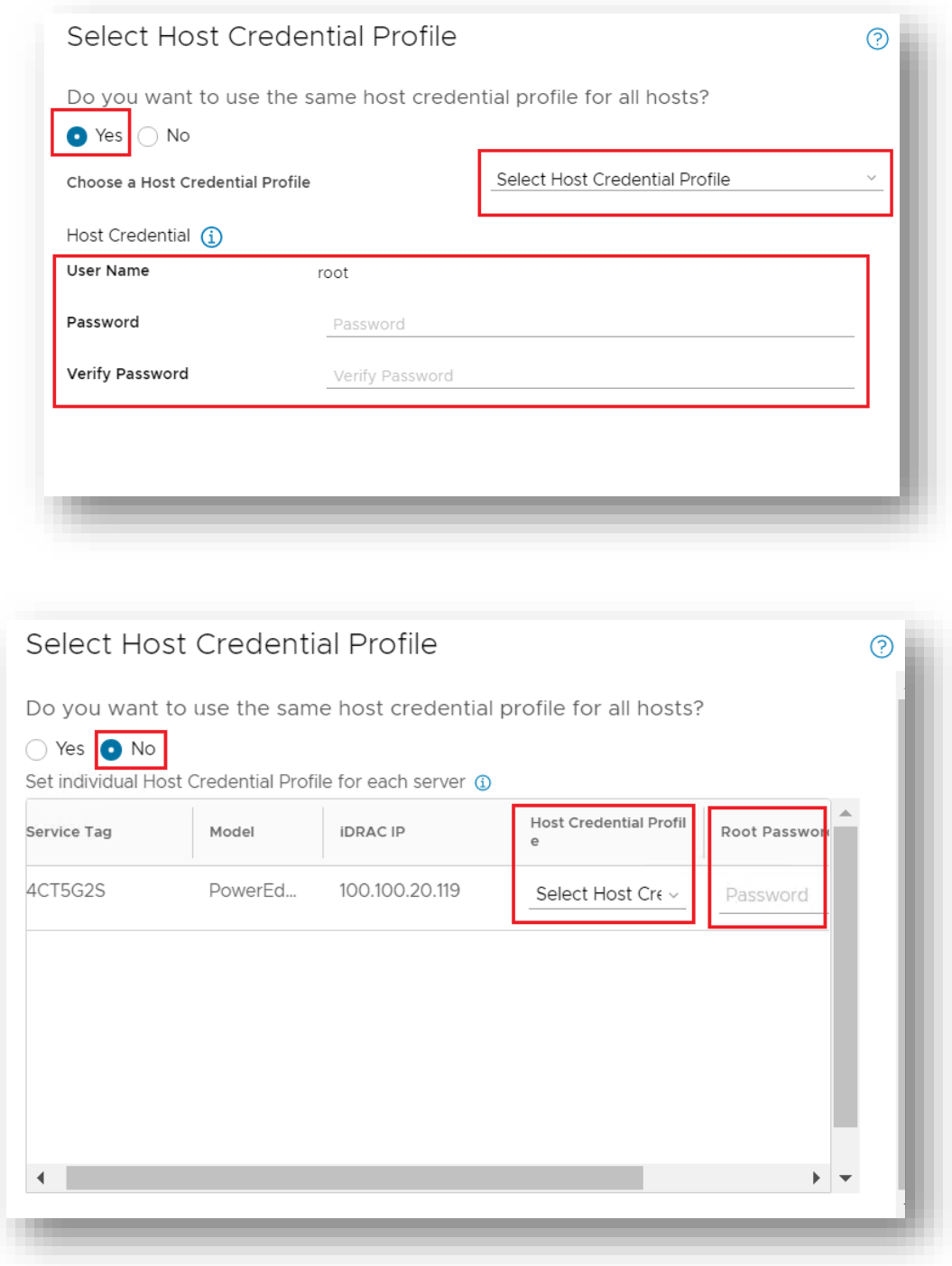
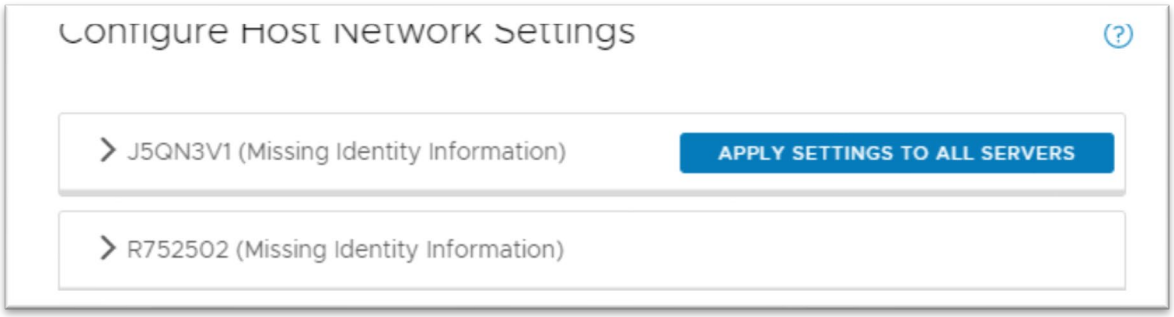


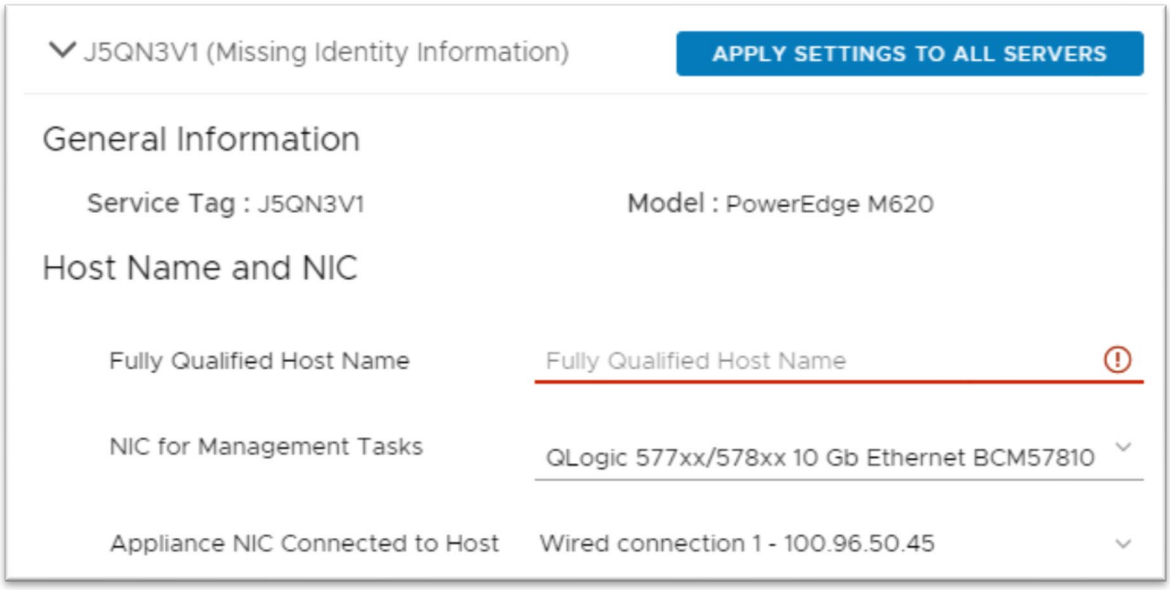
Figure 11: Host Credential Profile Selection

3.4 Configure network

The **Configure Host Network Settings** page allows you to configure:

- OMIVV appliance NIC connected to host which is used for the deployment job
- Connected NIC of the server
- DHCP settings
- Static network configuration requires hostname, DNS, Subnet, Gateway, Host IP, and FQDN
- VLAN





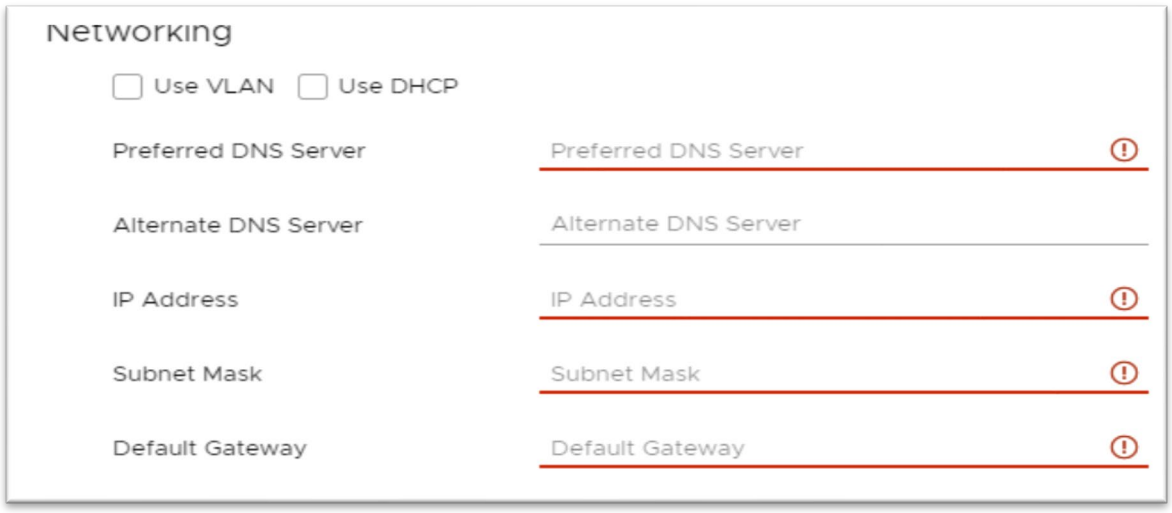


Figure 12: Static network Configuration

When more than one server is selected for deployment, all the servers are listed in network configuration page and individual server can be configured with different settings.

Apply Settings to All Servers allows you to retain same settings across all servers, excluding **Fully Qualified Host Na**me and **IP Address**.

To disable all network and hostname fields, select the **Use DHCP** check box. Only appropriate NIC for management tasks and OMIVV appliance NIC connected to host must be selected.

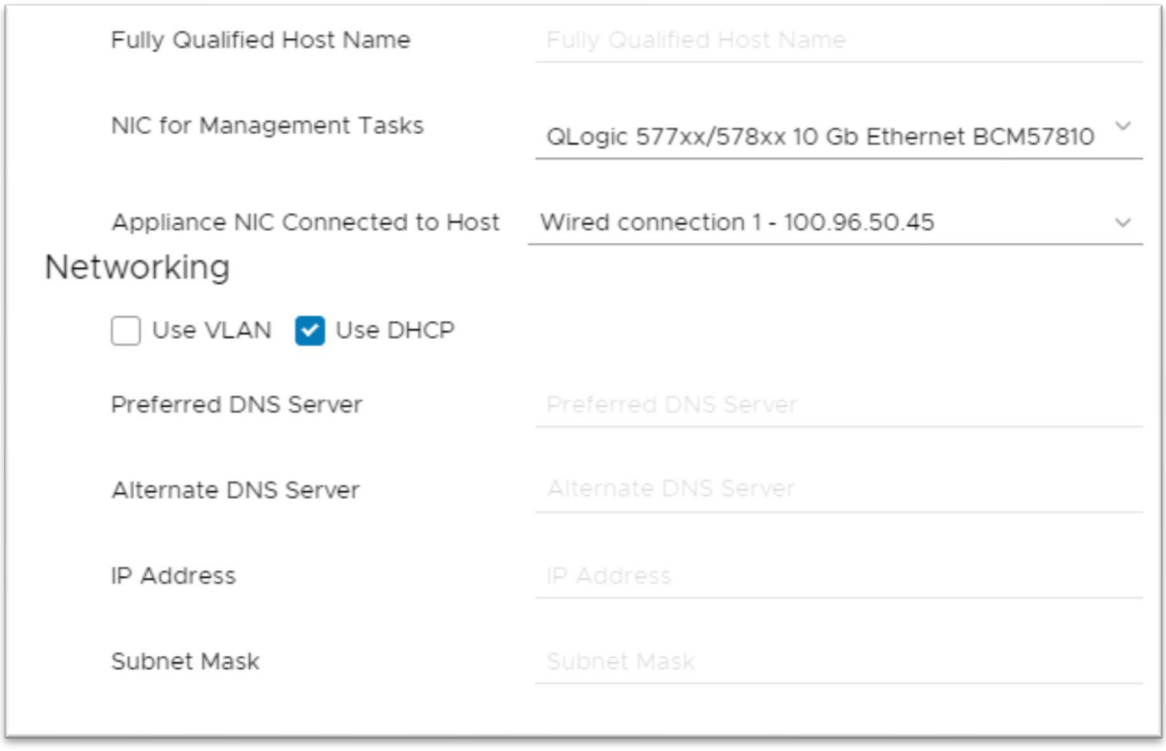


Figure 13: DHCP network Configuration

To configure appropriate VLAN, select the **Use VLAN** checkbox.

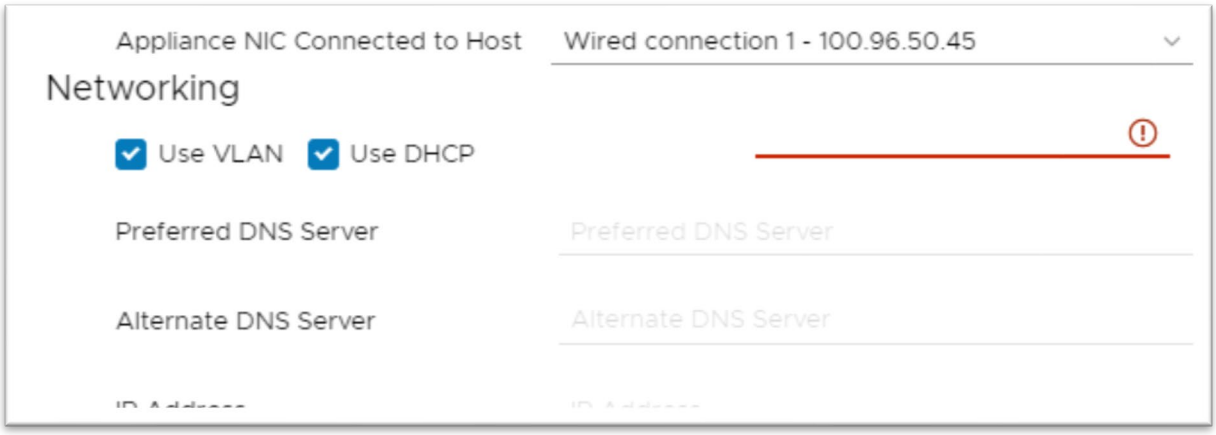


Figure 14: VLAN Configuration

4 Best practices for OS deployment

Below section describes several best practices to follow for seamless hypervisor installation.

4.1 Customized ISO images

Do not install raw VMware ESXi images on target bare-metal servers. Dell EMC hypervisor engineering team certifies customized ESXi images for individual platform or category of Dell EMC servers. This also includes several drivers or addons to meet specific solution requirement.

You can download ISO images from https://www.dell.com/support/home by providing Service Tag of a server.

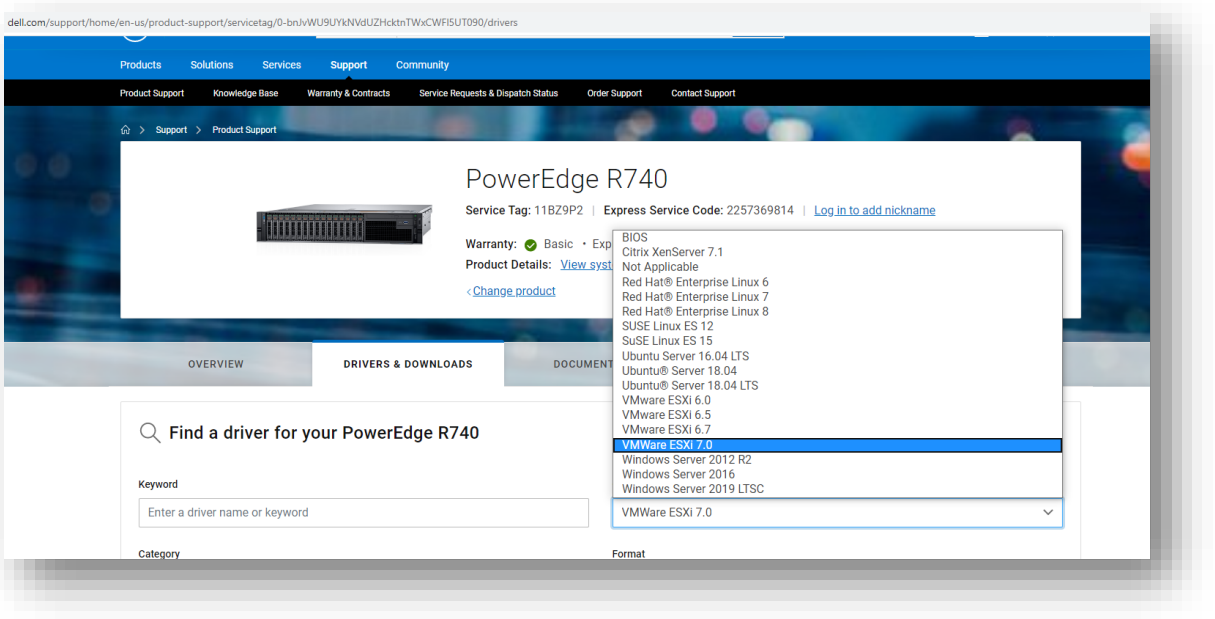


Figure 15: Download Dell EMC certified ISO image from support.dell.com.

4.2 Lifecycle Controller busy

OMIVV uses WSMAN command to trigger an ESXi deployment. This command is processed by Lifecycle Controller (LC) embedded on iDRAC. If iDRAC is busy in performing other operation, this command fails. Ensure that LC is not busy in executing other operation. Reset iDRAC to proceed with an ESXi deployment job.

To reset in iDRAC9, log in to iDRAC and then go to **More Actions→Reset iDRAC** or **Maintenance→Diagnostics→Reset iDRAC**.

To reset iDRAC7 or 8, log in to iDRAC and then go to **System Property→Quick Launch Tasks→Reset iDRAC** or **Overview→Server→Troubleshooting→Diagnostics→Reset iDRAC**.

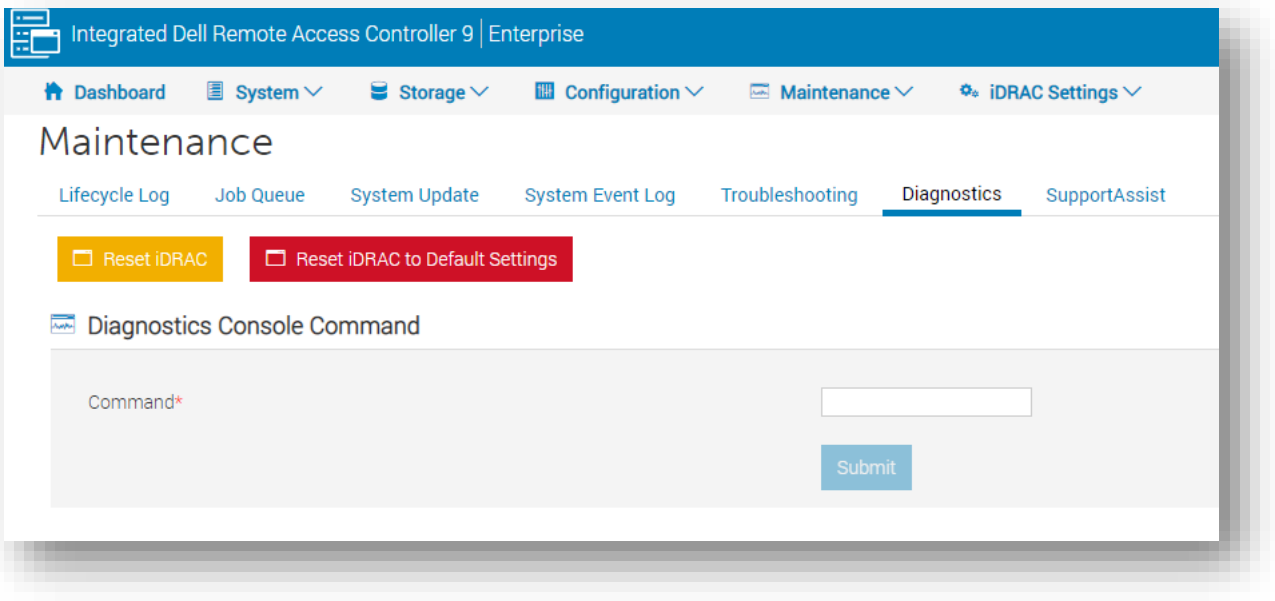


Figure 16: Reset iDRAC

4.3 Disconnected network interfaces

Network traffic for an ESXi deployment is navigated through one of the selected Ethernet adapters on the **Configure Host Network Settings** page.

If the selected NIC is down or not connected to proper gateway (NICs which are reachable to ESXi network and iDRAC network (if they are not present in same network)), ESXi deployment job times out. Ensure to pick properly configured NIC of iDRAC.

Ensure that LC is not busy in executing other operation—such as updates, or any other functions you may be working before deployment. If needed due to a failed attempt, you can reset iDRAC manually to proceed with an ESXi deployment job.

To confirm the NIC connectivity in iDRAC, you can go to iDRAC console and check the NIC status (Up/Down).

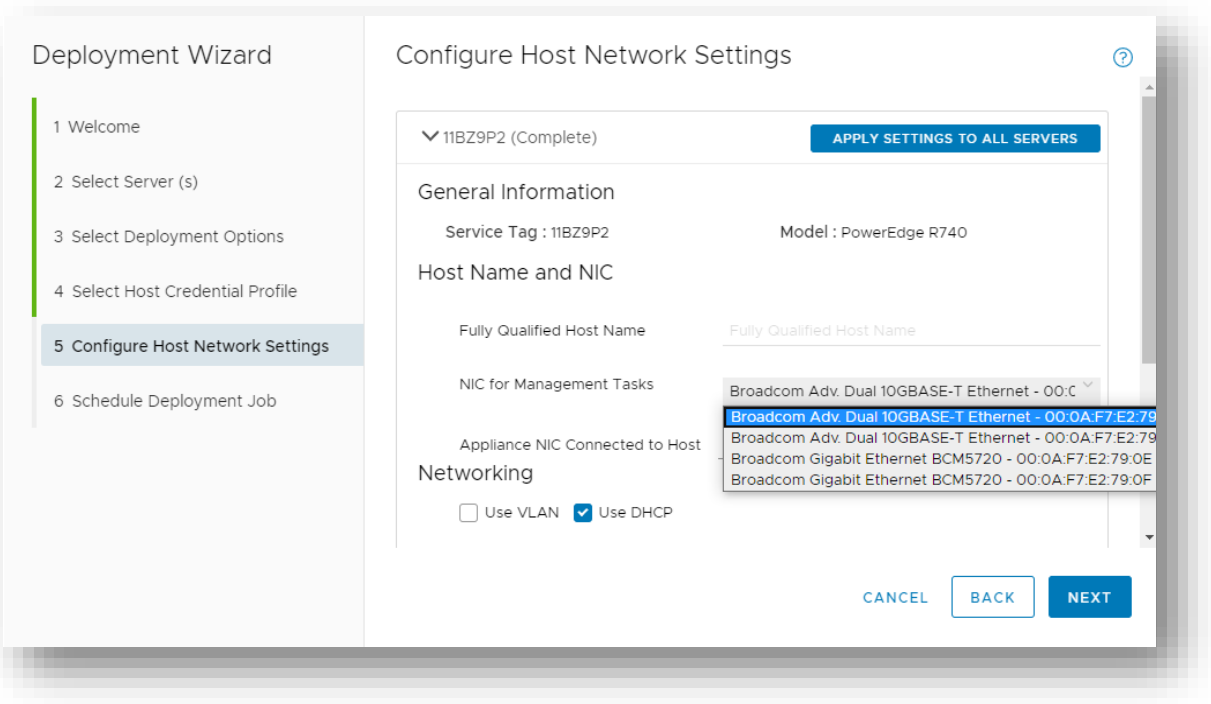


Figure 17: Select connected NIC from deployment wizard

4.4 First boot disk selection

First boot disk generally denotes the first boot device that is mentioned in the Boot Sequence (BIOS or UEFI) of BIOS settings.

For example, in the following screenshot, IDSDM is mentioned in boot sequence. IDSDM is not classified as first boot device because only HDD, SSD, and VD are classified as first boot disk.

If you want to install an ESXi on IDSDM, you must select correct target that is IDSDM and not first boot disk.

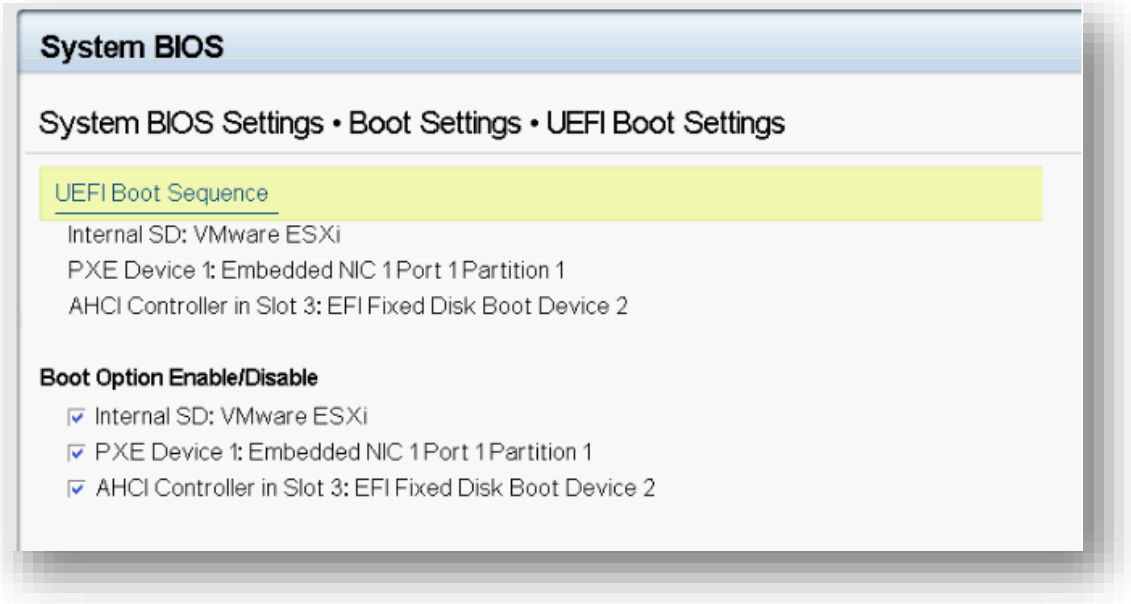


Figure 18: Boot Sequence denotes IDSDM as first boot device

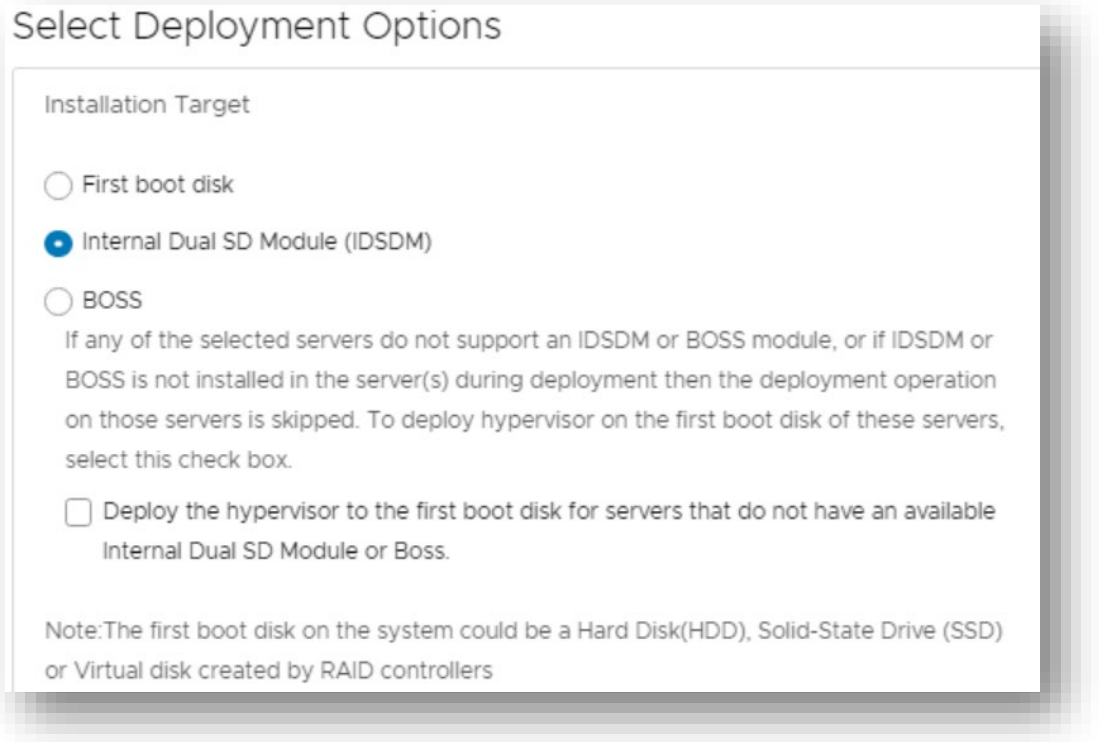


Figure 19: OMIVV does not classify IDSDM as first boot disk

4.5 Correct boot sequence

Ensure that correct boot sequence is selected on the **System BIOS Settings** page. The selection should match the disk selection.

For example, in the following screenshot, Boot sequence for BOSS disk (AHCI) is not appearing first in the list. As a result, after successful installation, BIOS will not load the ESXi from BOSS card and system would behave as ESXi is not installed. This results in the deployment job timing out and failing.

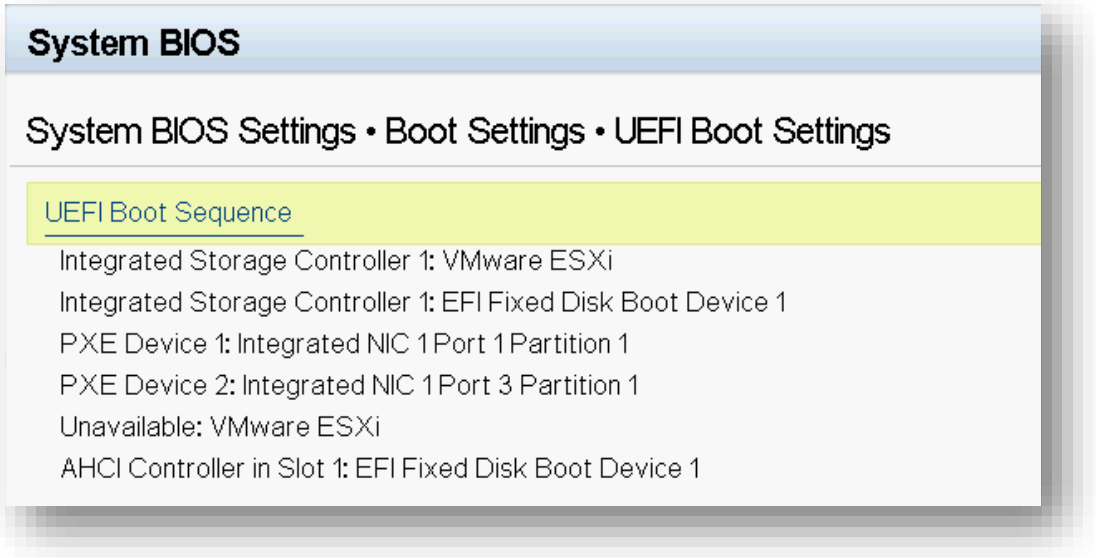


Figure 20: UEFI Boot Sequence

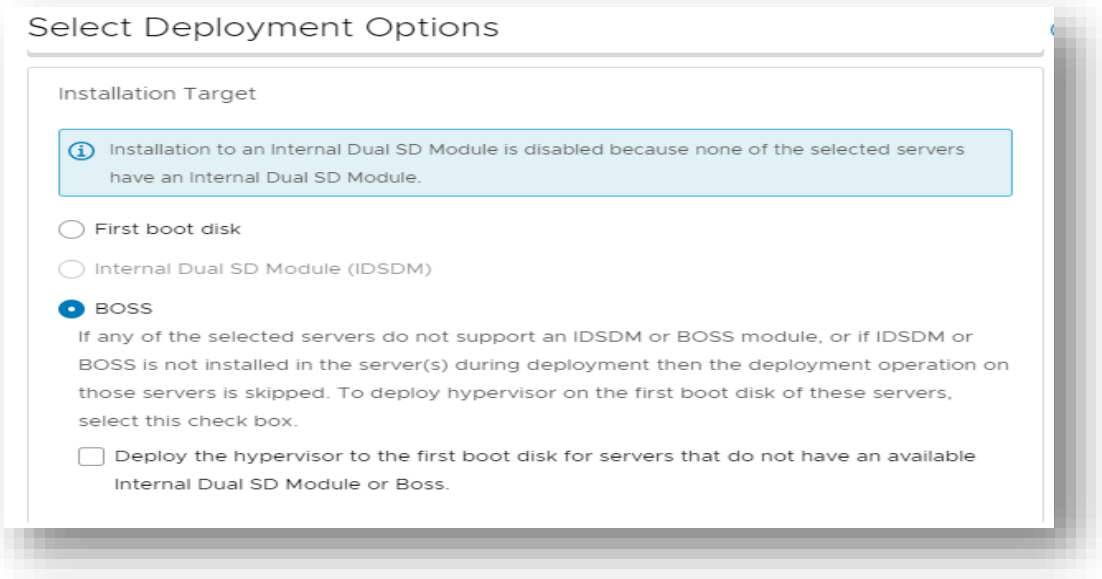


Figure 21: BOSS is selected as installation Target.

4.6 Boot sequence enablement

Ensure that an appropriate Boot Sequence is selected but not cleared from Boot Option of System BIOS Settings else BIOS would not load ESXi after installation.

Figure 22: Boot Sequence should be enabled.

4.7 Virtual Disk should be created for controller (PERC or BOSS)

To detect local and remote disks of the server, creation of virtual disk for ESXi installation is necessary.

For more information about creation of virtual disk, go to https://www.dell.com/support/article/en-in/sln132533/how-to-initialize-and-create-a-virtual-disk-with-a-dell-poweredge-raid-controller-perc?lang=en

Figure 23: When virtual disk is not created

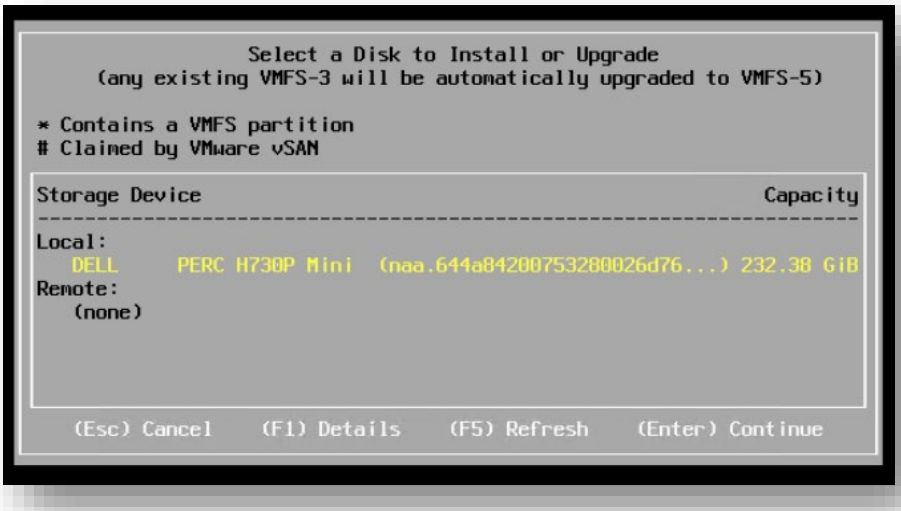


Figure 24: When virtual disk is created

4.8 In Multi-NIC environment, selection of right OMIVV network selection is important

Host can have either iDRAC and vCenter management NIC in the same network or in the two distinct networks. The ISO image can be saved in any of the networks. The ESXi deployment wizard displays both the OMIVV networks. Ensure that you select the correct vCenter network and OMIVV network applicable to the environment.

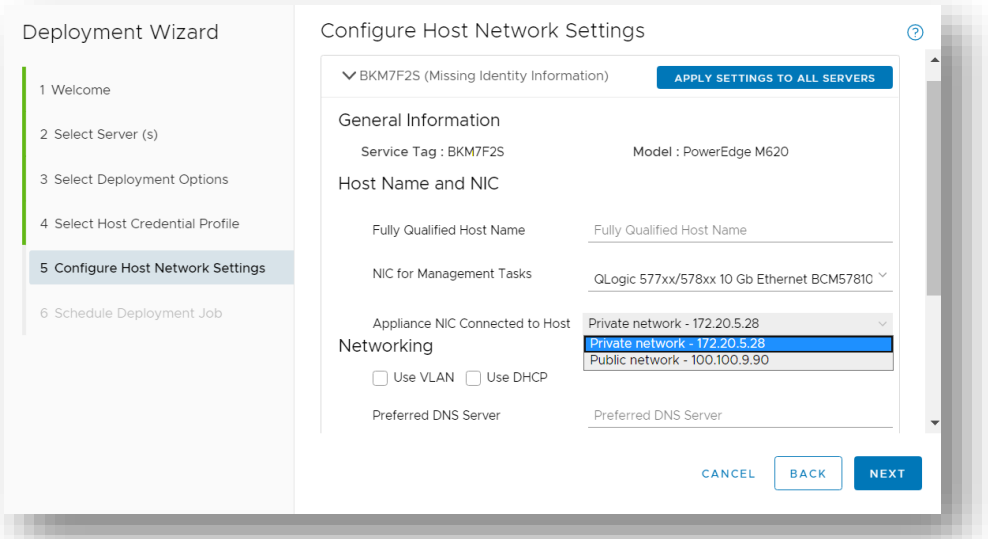


Figure 25: Selection of right OMIVV network during ISO profile deployment

4.9 OMIVV does not support software controller

Onboard SATA controller for Dell EMC PowerEdge servers provides an option to create RAID. The software RAID LUNs are not supported because VMware ESXi does not carry supported drivers. ESXi does not support any software RAID functions. Due to this, OMIVV does not support ISO deployment on software controller.

For more information, see VMware vSphere 6 on Dell EMC PowerEdge Servers Release Notes

4.10 Ensure while providing static network details, valid network details are entered

OMIVV provides an option for user to enter static network details for ESXi. During which a fully qualified domain name for the hostname is mandatory. The use of " localhost " for the FQDN is not supported. The FQDN is used when adding the host to vCenter.

Create a DNS record that resolves the IP address with the FQDN. Configure the DNS server to support reverse lookup requests. The DHCP reservations and DNS host names must be in place and verified before the deployment job is scheduled to run. It is mandatory to enter preferred DNS server, alternate DNS server, IP address, subnet mask, and default gateway.

4.11 Minimum requirements for ESXi installation

Following are the minimum requirements for ESXi installation:

- A host machine with at least two CPU cores
- A minimum of 4 GB of physical RAM. Provide at least 8 GB of RAM to run virtual machines in typical production environments.
- A boot disk of at least 8 GB for USB or SD devices, and 32 GB for other device types such as HDD, SSD, or NVMe. A boot device must not be shared between ESXi hosts.
- Virtualization Technology (VT) flag in BIOS is enabled.
- OMIVV System profiles can be included in deployment profiles to prepare system for OS deployment. Configurations like boot settings and virtual disk configurations along with other settings can be performed using system profiles deployment. For more information about system profile deployment, see OMIVV User's Guide.

Note: The OS deployment is blocked from iDRAC firmware version 4.00.00.00 to 4.32.20.00 when secure boot is enabled.

For more information about installing ESXi, see the following documents:

https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-70-installation-setup-guide.pdf

https://docs.vmware.com/en/VMware-vSphere/6.7/vsphere-esxi-67-installation-setup-guide.pdf

https://docs.vmware.com/en/VMware-vSphere/6.5/vsphere-esxi-vcenter-server-65-installation-setup-guide.pdf

4.12 vCenter license for adding host to vCenter after deployment

OMIVV installs ESXi on the required bare-metal server and adds the same to registered vCenter. While performing the addition of host to vCenter, vCenter should have valid license so that host gets added successfully.

4.13 OMIVV does not support installation of ESXi on virtual machine

OMIVV supports ESXi installation only on OMIVV supported servers. For more information about supported servers, see OMIVV 5.2 compatibility Matrix.

4.14 Ensure that OMIVV license for host is available

During deployment, once ESXi installation is successful, host gets added to vCenter and to the previously selected host credential profile. While adding to host credential profile, OMIVV license is consumed. Hence, user must ensure that enough OMIVV license is available.

4.15 ESXi password requirements

By default, you have to include a mix of characters from four-character classes: lowercase letters, uppercase letters, numbers, and special characters such as underscore or dash when you create a password. By default, password length is more than 7 and less than 40. Passwords cannot contain a dictionary word or part of a dictionary word.

4.16 Port information for ESXi installation

Minimum port requirements for OMIVV appliance and managed nodes are mentioned in OMIVV compatibility matrix.

4.17 ESXi deployment failure

Whenever ESXi deployment fails, ensure that:

- The ISO location (NFS path) and staging folder paths are accurate.
- The NIC selected during assignment of server identity is accessible by the virtual appliance.
- You select the management NICs based on the network connectivity to the OMIVV.
- The network information provided (including subnet mask and Default Gateway) is accurate if you are using static IP address. Also, ensure that the IP address is not already assigned on the network.
- At least one Virtual Disk, or IDSDM, or BOSS is detected by the system.

4.18 When NPAR is enabled on target node and disabled in System Profile, ESXi deployment fails

An ESXi deployment fails when a system profile with a disabled NIC Partitioning (NPAR) is applied on a target machine. Here, NPAR is enabled on the target node and only one of the partitioned NIC, except partition 1 is selected as the NIC for the management tasks during the deployment process through the deployment wizard.
To overcome this, ensure you are changing the NPAR status using system profile during deployment, ensure that you select only the first partition for management network in the deployment wizard.

4.19 Sometimes MAC address is populated during ESXi deployment

An ESXi deployment fails on PowerEdge Servers when the iDRAC does not populate the MAC address for the selected NIC port.
Update the respective NIC firmware and iDRAC firmware to the latest version and ensure that the MAC address is populated on the NIC port.

4.20 After ESXi deployment, OMIVV fails to add ESXi host to vCenter or failed to add host profile or enter maintenance mode is failed for host

After ESXi deployment, OMIVV queries vCenter to perform the host actions (Add host, Add Host Profile, or Enter Maintenance Mode).
If the query does not receive a response within two minutes, the specific action on vCenter is timed out, and a message is displayed in the task history indicating that the communication failure. However, at times, the vCenter query operations are successful. Hence, manually adding host IP mentioned in VMware task history works.

4.21 After performing ESXi deployment, host is either disconnected or not responding state

ESXi host fails to send heartbeat packets to vCenter because its DNS is not properly configured to lookup FQDN of the vCenter.

Complete the following tasks:
1. Remove the ESXi host from the vCenter inventory.
2. Add the host using the **Add Host** wizard in vCenter.
3. Create a host credential profile in OMIVV and run the inventory.

4.22 Deployment job times out when network interface card (NIC) of OMIVV is not connected to the ESXi host network

An ESXi deployment has dependency on the selection of NIC. If the correct NIC is not selected, ESXi deployment job times out.

In the Deployment wizard, select an appropriate **Appliance NIC connected to Host** from **Configure Host Settings.** This is required to reach ESXi network during ESXi installation process.

4.23 General failure

OMIVV uses WSMAN command *Boot to Network ISO* to deploy an ESXi on the target bare-metal servers.

If the WSMAN command fails and gives OSD2 (general failure or an unknown error occurred), reset iDRAC and rerun the command.

For more information, see Event and Error Message Reference Guide.

4.24 Inaccessible network shares (OSD47, OSD17)

iDRAC consumes network share of OMIVV /nfsstage to mount the ISO images. But if nfs daemon is not running with the required ports (2049, 4001–4004) in OMIVV, mount operation may fail. Firewall might be enabled and is preventing access to the share. You must ensure that the firewall is disabled, and nfs daemon is listening on the correct ports.

This issue occurs if the network share (where the ESXi ISO image is present) is corrupted. Retry after creating a new CIFS or NFS share and associate with a new ISO profile.

Error codes (OSD17, OSD47) indicates network errors which prevents iDRAC access to the ISO file.

4.25 Auto discovered systems are displayed without model information in Deployment wizard

This usually indicates that the firmware version that is installed on the system does not meet the recommended minimum requirements. Sometimes, firmware version is not reflected even after updating the iDRAC or any firmware to the minimum requirements. This can be resolved by performing cold booting the system or resetting server or iDRAC.

The newly enabled account on the iDRAC must be disabled and auto discovery should be reinitiated to provide model information and NIC information to OMIVV.

4.26 Server pending reboot

Sometimes, firmware update is scheduled on the server and the update is reflected on the server after reboot. The reboot does not happen immediately. ESXi deployment job may fail if the server is pending for reboot. User can reboot the server and then reschedule or rerun the job.

4.27 Boot order is not guaranteed in UEFI mode

In the UEFI mode, boot sequence option behaves in a different way. The newly created boot label is appended (queued) rather than stacked. Even when an ESXi installation is completed, server boots to first boot label. If any other bootable device is available, it boots to that image rather than newly installed image.

OMIVV supports only bare-metal server where nothing is preinstalled in UEFI mode.

4.28 Host credential profile having AD credentials are not listed in deployment page

OMIVV does not consider AD credentials during an ESXi deployment. OMIVV does not display any host credential profile in case AD credentials are used for iDRAC or ESXi.

4.29 Even though ESXi deployment is successful, inventory fails when selected ISO profile has ESXi 6.5 (or earlier version) image and host credential profile have different or no ESXi password other than which is set in deployment wizard

OMIVV recommends update the ESXi credentials at host credential profile to ensure inventory is run successfully after ESXi deployment, if password is not entered in host credential profile, the password that is entered in deployment wizard is used.

4.30 After performing an ESXi deployment, existing iDRAC jobs are not in seen

OMIVV clears all iDRAC jobs once ESXi deployment is completed on bare-metal servers.

4.31 After performing upgrade to latest version, scheduled ESXi deployment job fails

Scheduled ESXi deployment jobs of older version of OMIVV are not valid for latest version of OMIVV. When user is using latest version of OMIVV, it is recommended to cancel the scheduled job (which was created in older version) and rediscover the bare-metal server followed by ISO profile creation and new deployment job.

4.32 Discovered user used during bare-metal discovery is disabled after performing ESXi deployment

It is recommended to select the host credential profile whose credentials are same as used during bare-metal discovery. Otherwise, the discovered user gets disabled in iDRAC after ESXi deployment as credentials used in host credential profile is used during the same.

4.33 ESXi deployment is blocked when secure boot is enabled

ESXi deployment is blocked from iDRAC 4.00.00.00 to 4.32.20.00 when secure boot is enabled.

4.34 Deployment fails when other OS (RHEL or WINDOWS) is previously installed

OMIVV deploys an OS on bare-metal servers. If any other hypervisor is already installed, deployment might fail. Remove OS by deleting virtual disk and recreate it.

5 Conclusion

ESXi deployment consists of multiple steps in OMIVV. These steps have internal or external dependencies. Sometimes, you may not aware of these dependencies which results in deployment failure. This technical white paper describes the best practices and dependencies must be followed to use this feature seamlessly. This can improve the responsiveness of an ESXi deployment feature and reduce customer calls for false positive.