Installation Guide

for

OmniVista 2500 NMS Enterprise
Version 4.2.1.R01

September 2016

Revision C

Part Number 060444-10

READ THIS DOCUMENT

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OmniVista 2500 NMS Enterprise 4.2.1.R01 Installation Guide

This document details the OmniVista 2500 NMS Enterprise 4.2.1.R01 (OV 2500 NMS-E 4.2.1.R01) installation/upgrade process. For information on getting started with OmniVista 2500 NMS after installation (e.g., using the Web GUI, discovering network devices) see the *Getting Started Guide* in the OmniVista 2500 NMS on-line help (accessed from Help link at the top of the main OmniVista 2500 NMS Screen).

Specific platform support and recommended system configuration information are available in the *OmniVista 2500 NMS-E 4.2.1.R01 Release Notes*.

> **Important Note:** This document details installing OV 2500 NMS-E 4.2.1.R01 as well as upgrading from a previous version of OmniVista 2500 NMS. **If you are upgrading from a previous version, there are upgrade tasks that must be performed before installing the new version of OmniVista.** If you are upgrading, go to the upgrade section.

OV 2500 NMS-E 4.2.1.R01 is installed as a Virtual Appliance, and can be deployed on the following hypervisors: VMware ESXi, VirtualBox, Hyper-V:

- VMware ESXi: 5.5 and 6.0
- VirtualBox: 5.0.10
- MS Hyper-V: 2012 R2.

The sections below detail each of the steps required to deploy OV 2500 NMS-E 4.2.1.R01 as Virtual Appliance on VMware, VirtualBox, and Hyper-V.

Deploying the Virtual Appliance in VMware ESXi

Note that in the instructions below, vCenter is used for demonstration purposes.

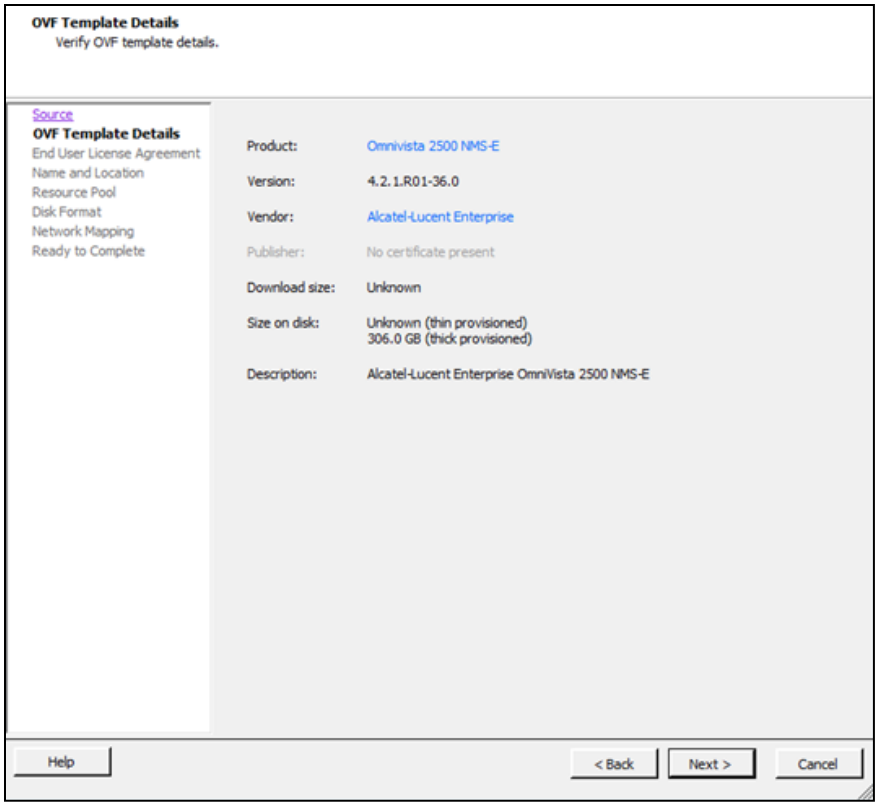
1. Download and unzip the OVF package.

2. Log into vCenter and open the vSphere client.

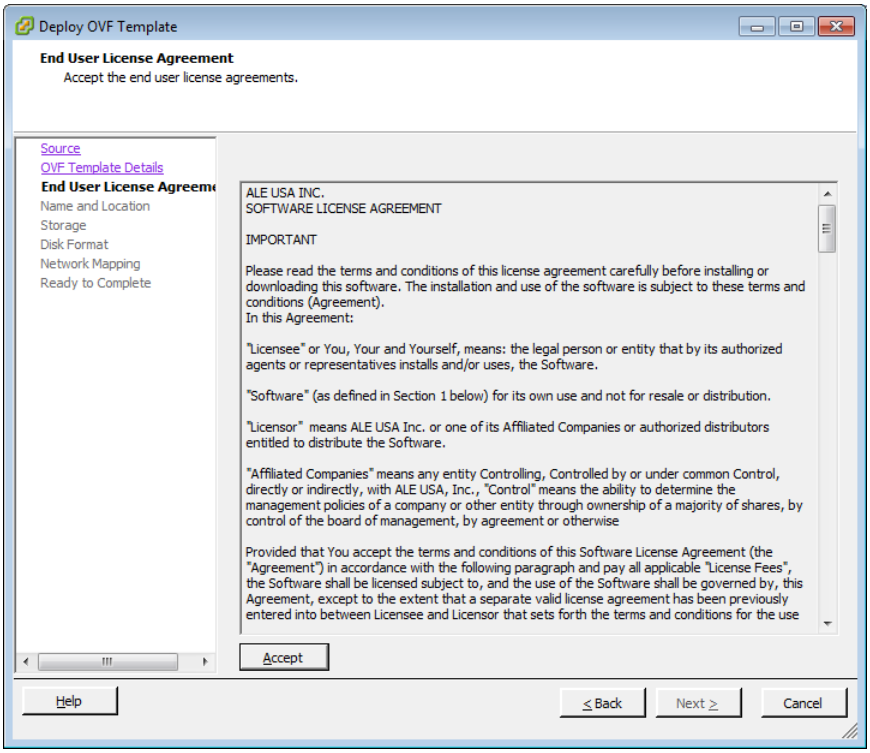
3. Select the Host on which you want to install OV 2500 NMS-E 4.2.1.R01, click on **File - Deploy OVF Template**. The Deploy OVF Template Wizard appears.

4. Click on the **Browse** button and locate the OV 2500 NMS-E 4.2.1.R01 Application file in the unzipped OVF folder (e.g., ovnmse-4.2.1.R01-65.0.ovf).

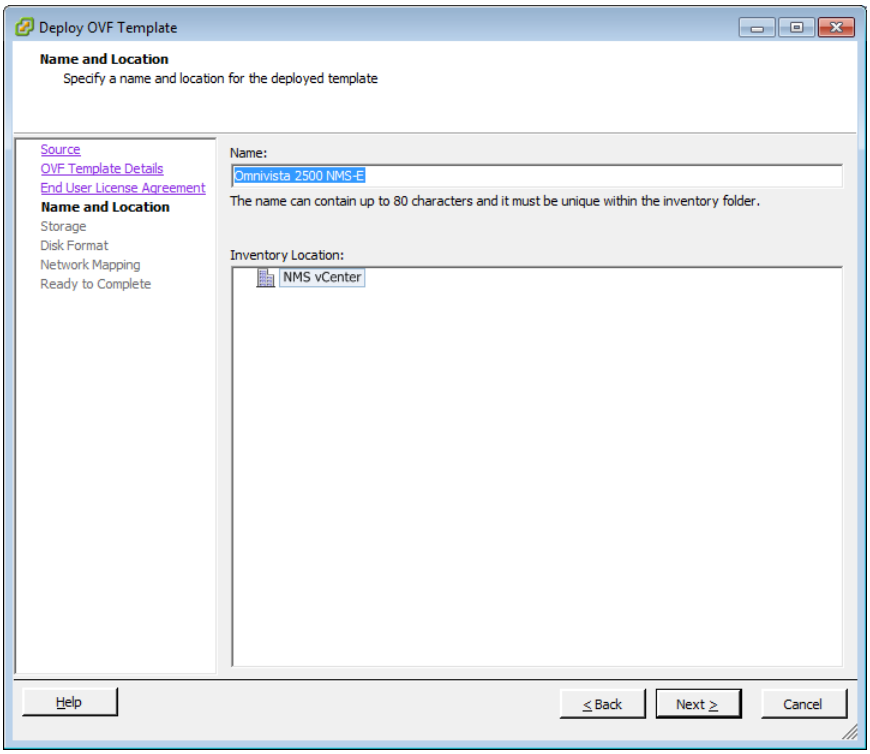
5. Select the file and click **Open** (or double click on the file). The file will appear in the “Deploy from a file or URL” field. Click **Next**. The OVF Template Details Screen appears.



6. Review the OVF details and click **Next**. The End User License Agreement Screen appears.

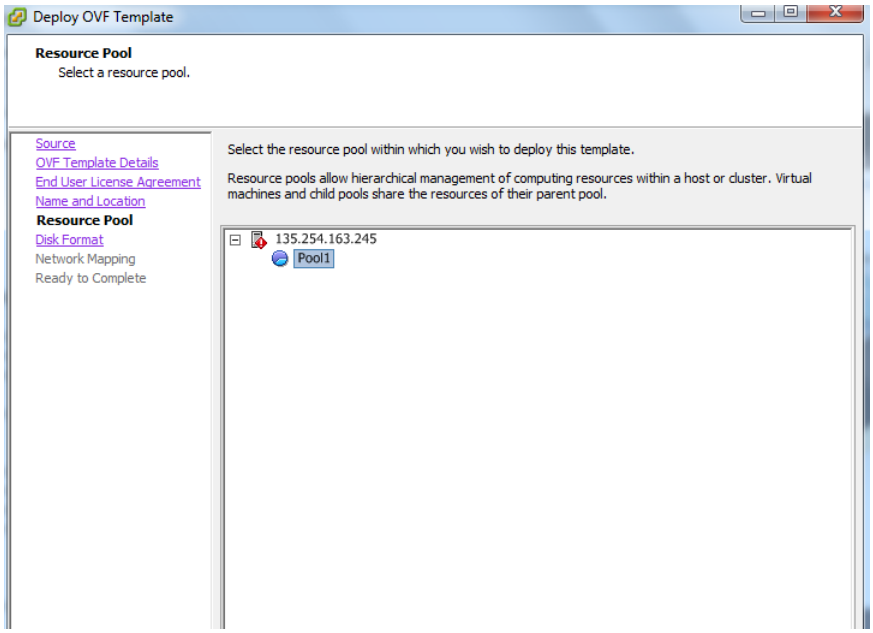


7. Review the License Agreement, click **Accept**, then click **Next**. The Name and Location Screen appears.



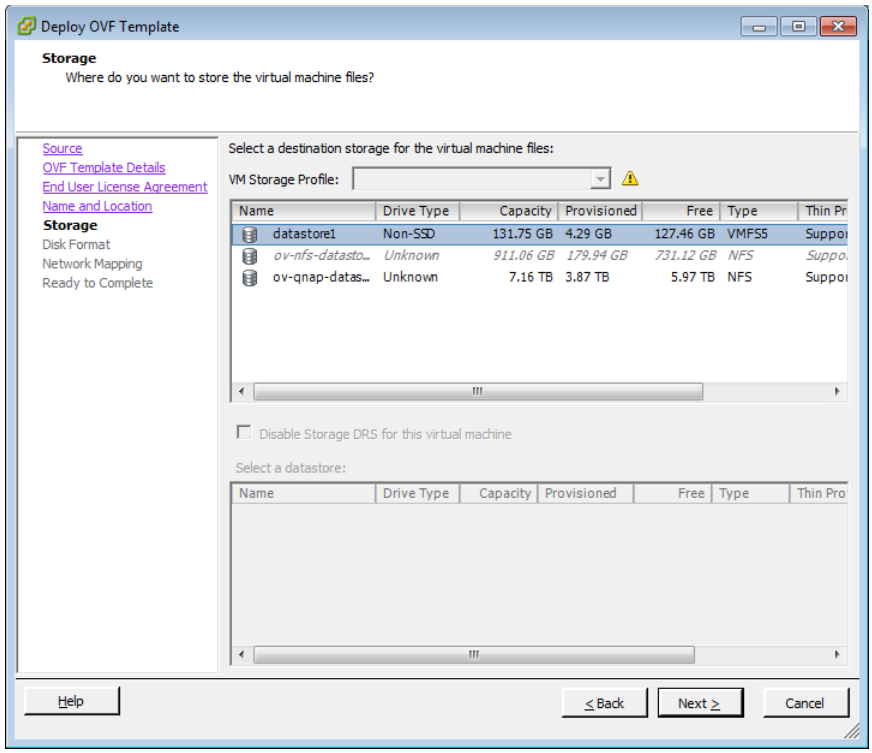
8. Specify a Name and Inventory Location for the deployed template, then click **Next**.

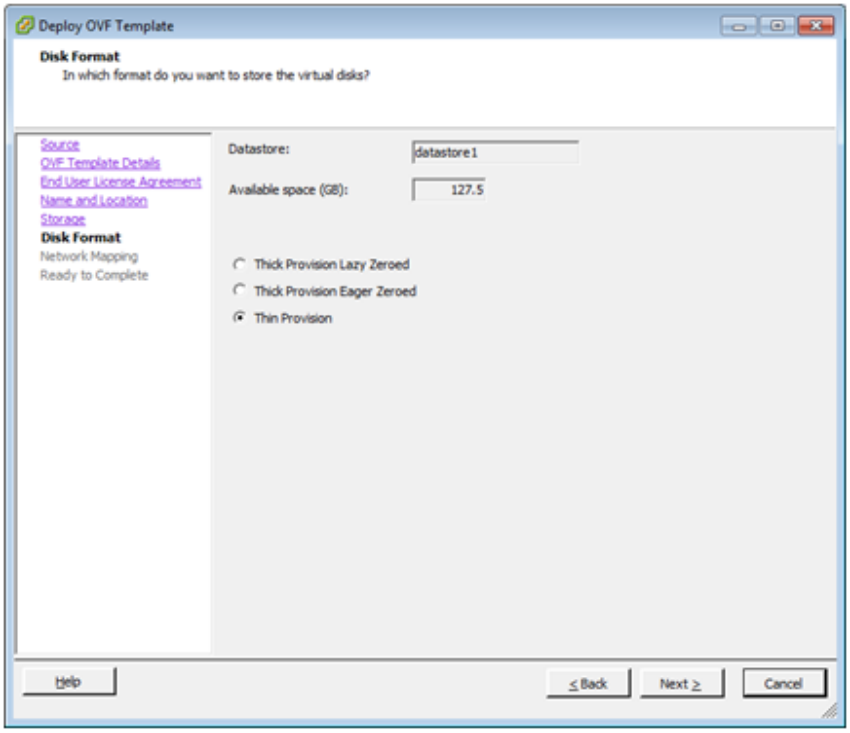
9. If you have configured a Resource Pool, the Resource Pool Screen (below) appears. Select the host server and click **Next**.



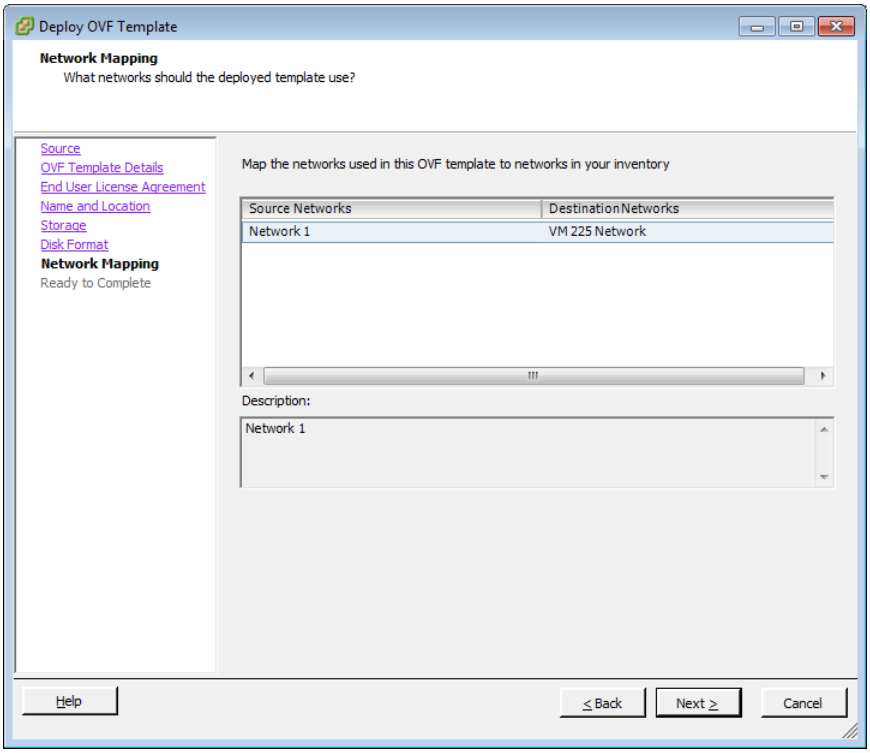
If a host server only has storage configured, the Disk Format Screen will appear.

If you have multiple storage locations configured, the Storage Screen (below) appears. Select the destination storage where the template is to be deployed, then click **Next**. The Disk Format Screen appears.

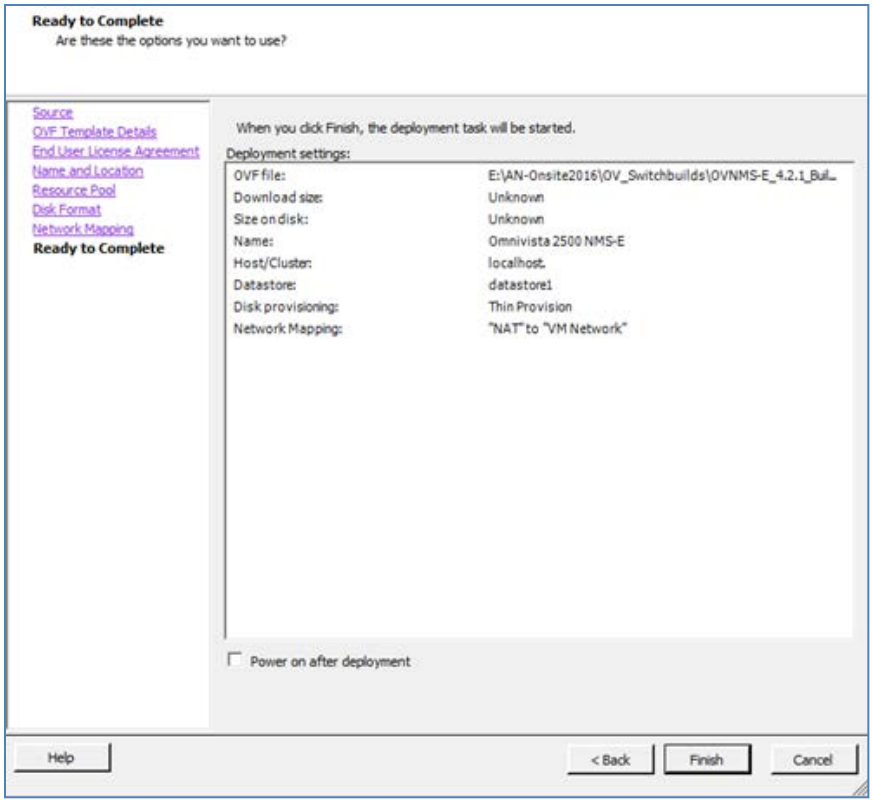




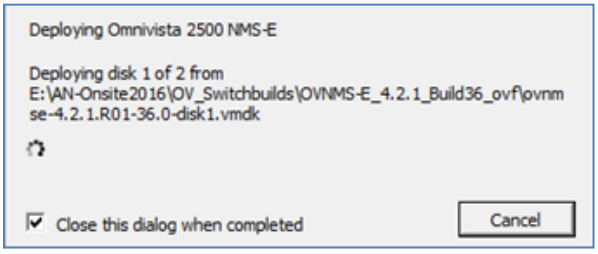
10. Select **Thin Provision**, then click **Next**. The Network Mapping Screen appears.



11. Select network that the deployed OVF template will use, then click **Next**. The Ready to Complete Screen appears.



12. Review the configuration and click **Finish**. (You can select the “Power on after deployment” option to automatically power on the VA when deployment is complete.) A status window appears and displays the progress of the deployment. If you select the “Close this dialog when completed” option, the progress window will automatically close when the deployment is complete. If not, click **Close** at the completion of the deployment to close the window.



13. If the new Virtual Appliance was not powered on via the deployment wizard, power on the VM now. Right-click on the VM in the Navigation Tree and select **Power - Power On**.

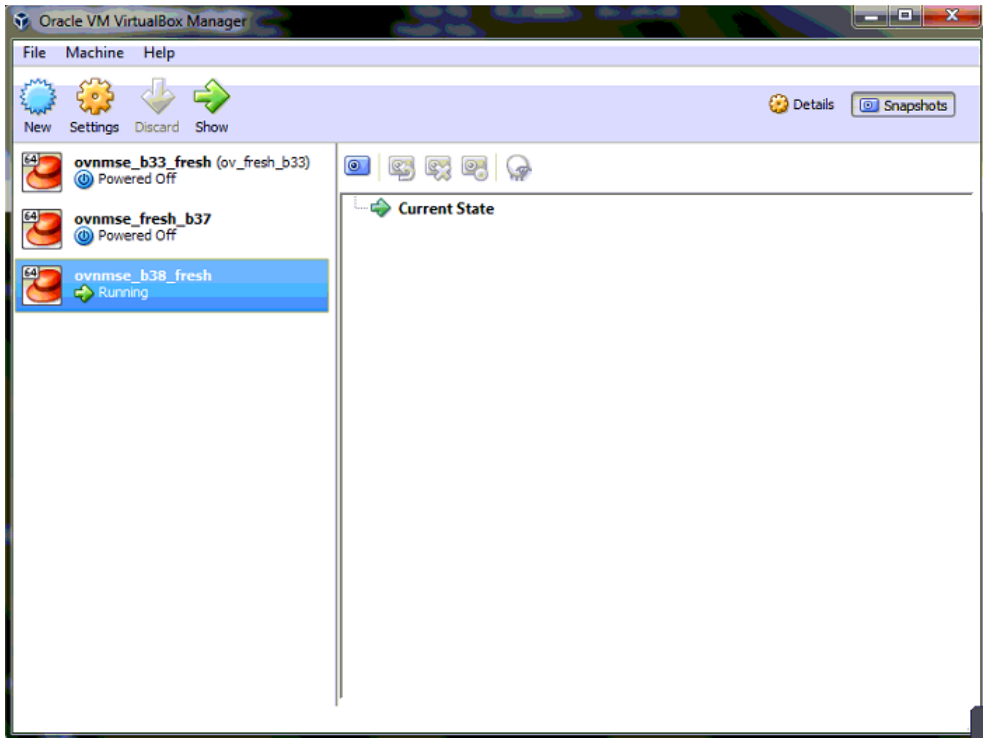
Once the Virtual Appliance is powered on, go to Completing the OmniVista 2500 NMS-E 4.2.1.R01 Installation to complete the installation.

Deploying the Virtual Appliance in VirtualBox

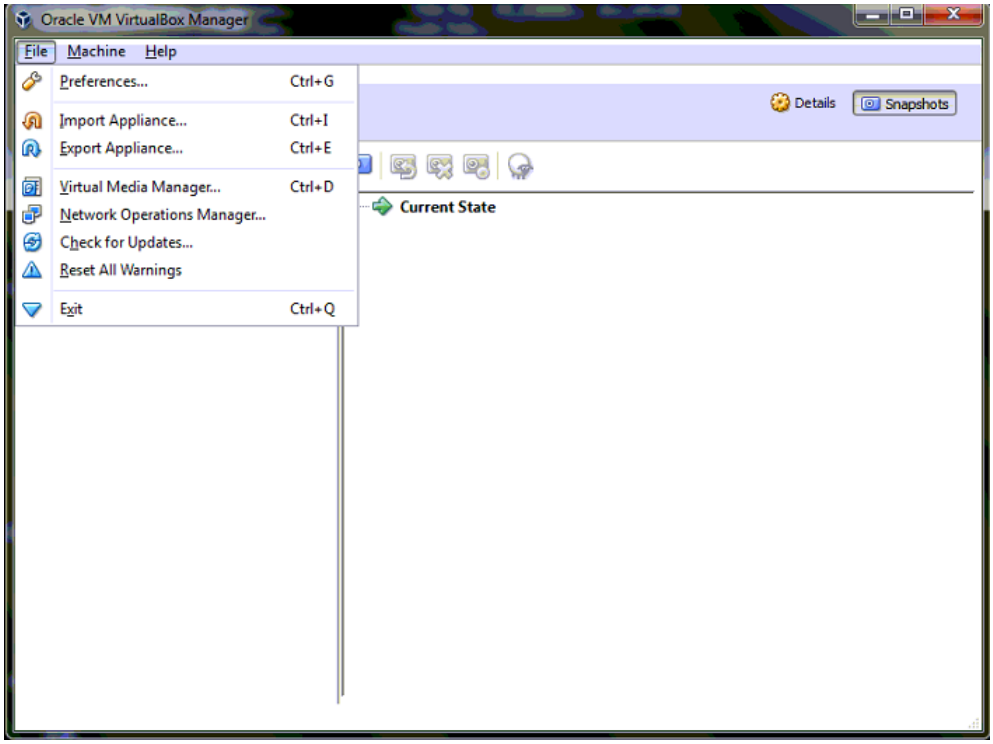
Note that in the instructions below, VirtualBox 5.0.10 in Windows 7 is used for demonstration purposes.

1. Download and unzip the OVF package.

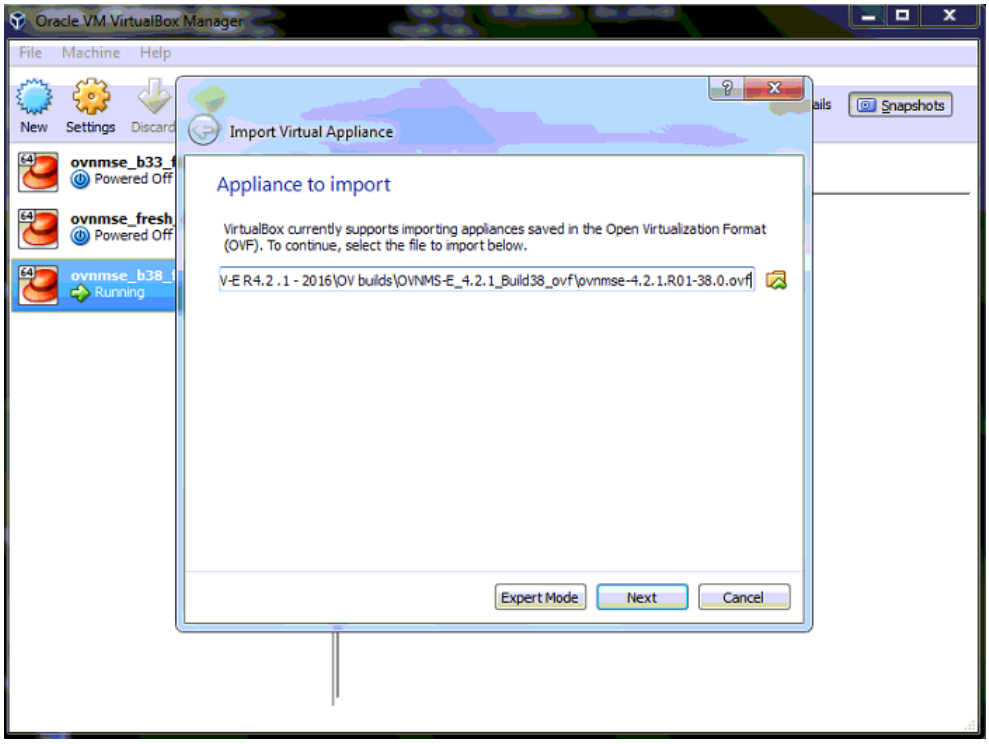
2. Log into Windows 7 and open the Oracle VM VirtualBox tool.



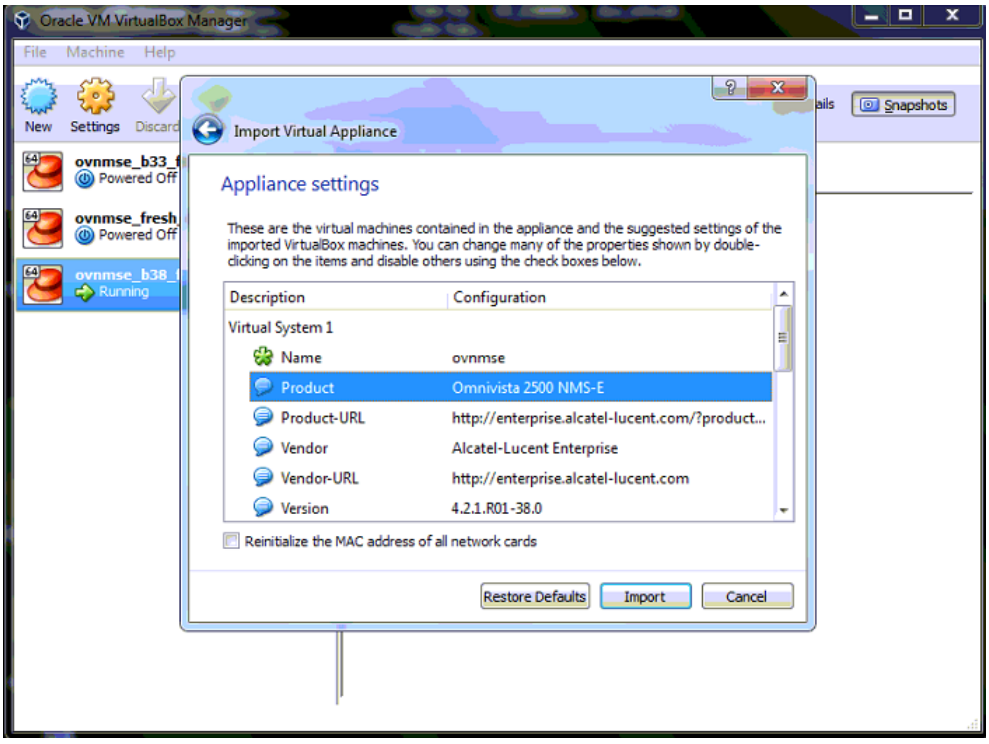
3. Click **File > Import Appliance**.



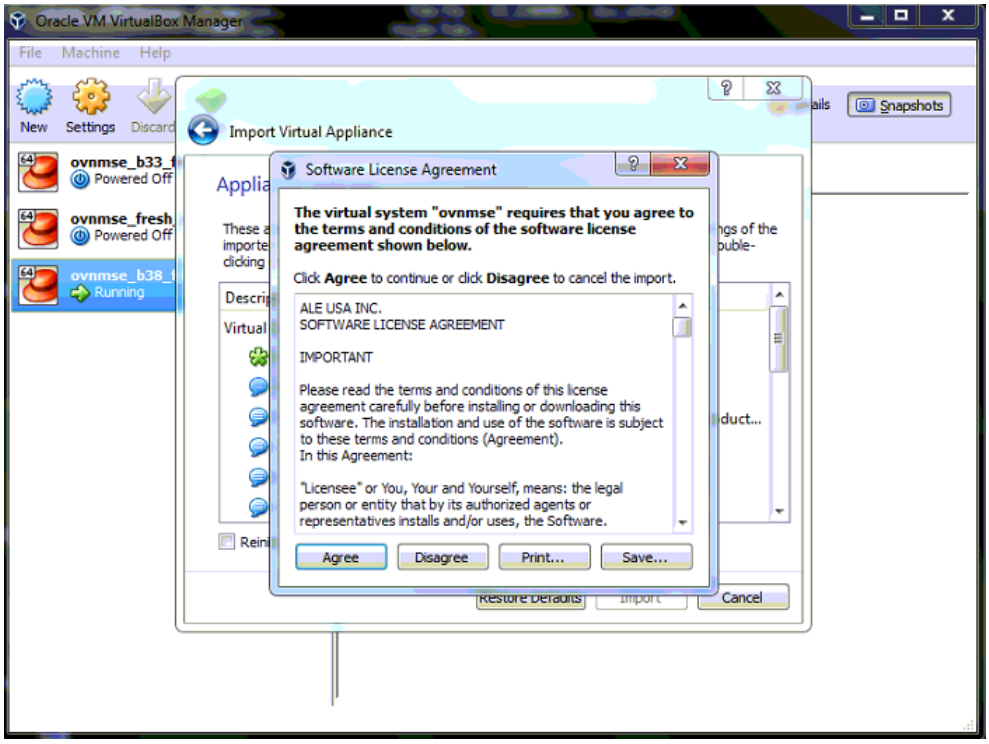
4. Click **browse** icon then select the **folder** which you extracted at step 1 above, then click **Next**.



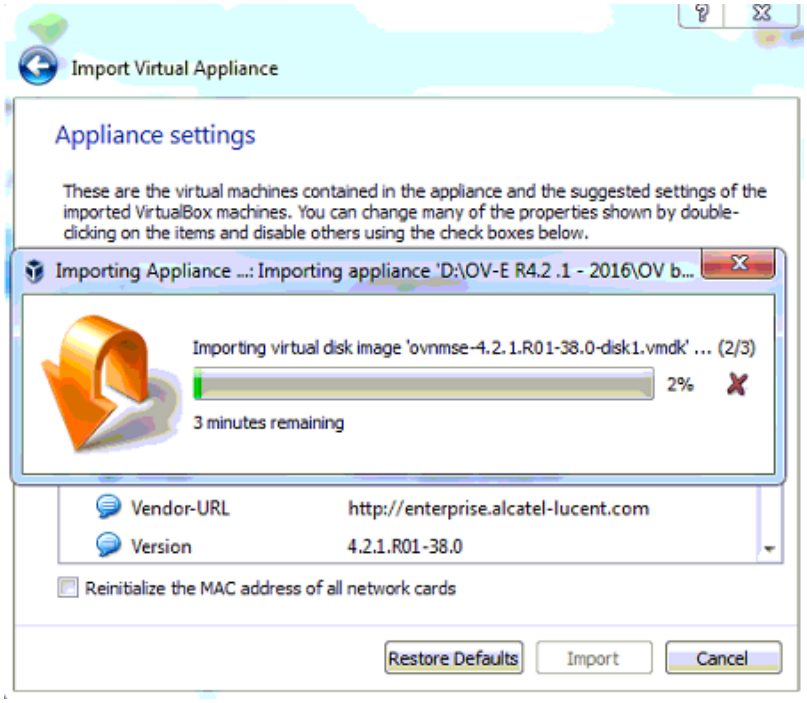
5. Review the configuration and click **Import**.



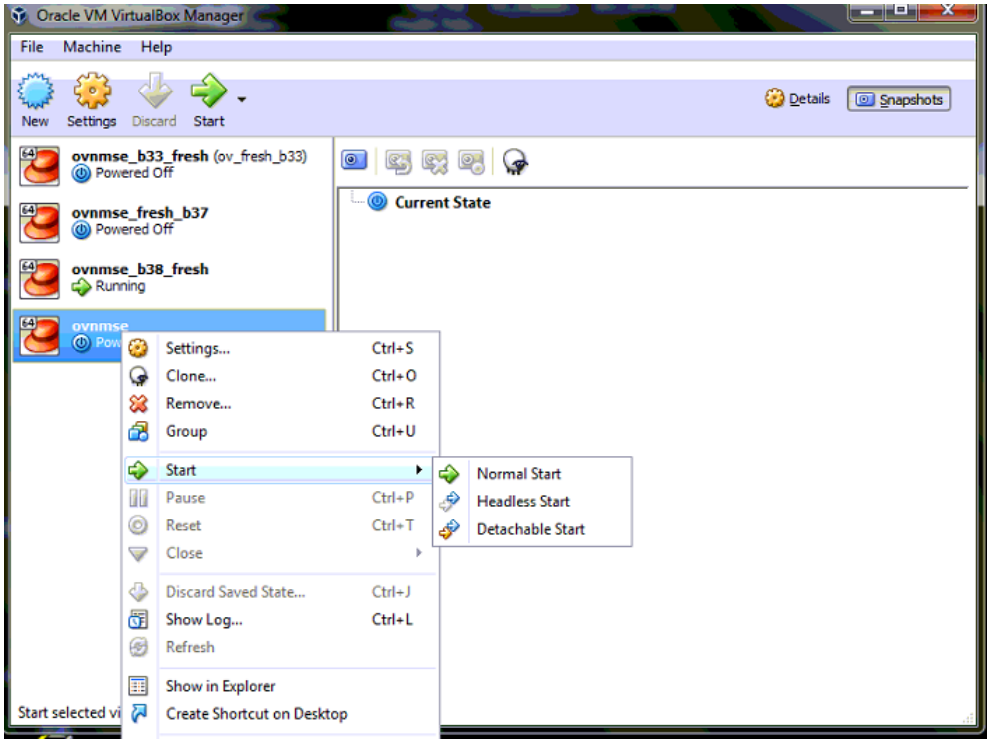
6. The **Software License Agreement** window displays, click on **Agree**.



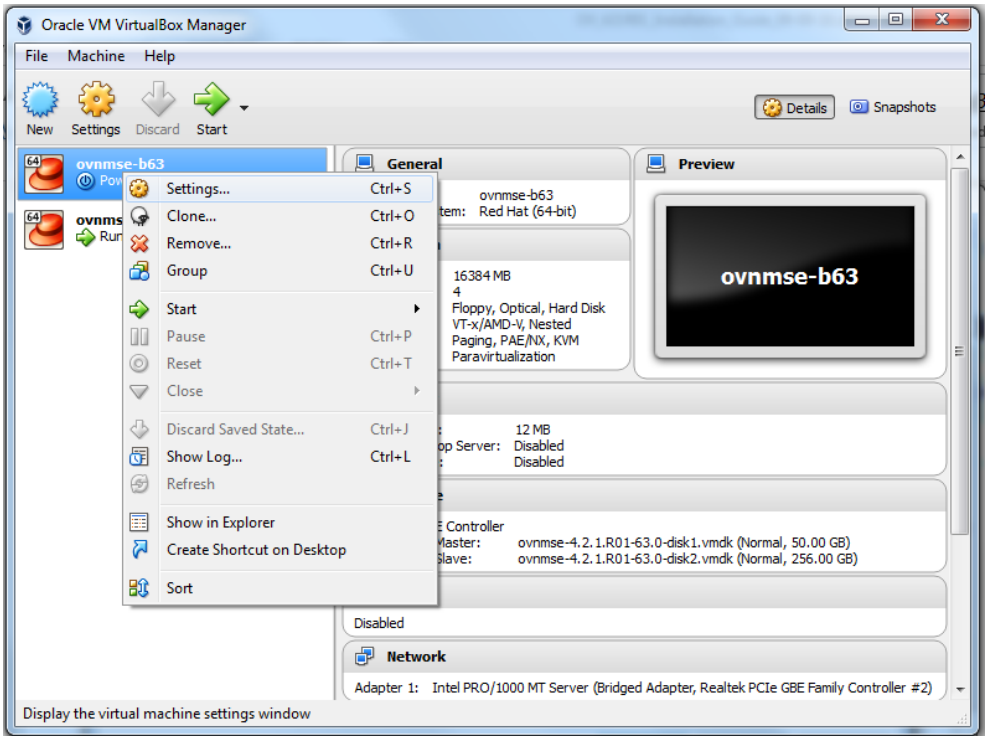
7. A status window appears and displays the progress of the deployment.



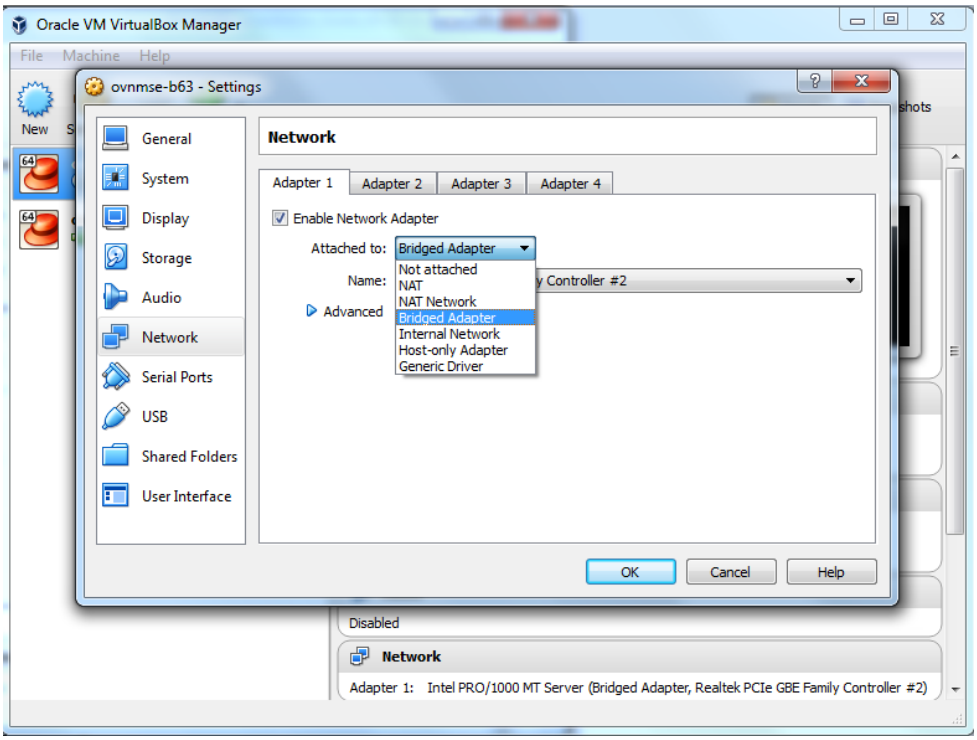
8. After the process is completed, right-click on the VM in the Navigation Panel and select **Start - Normal Start**.



9. Configure the Network Adapter. Right-click on the VA and select **Settings**.



10. Select **Network**, then select the Network Adaptor that you created when you configured VirtualBox.



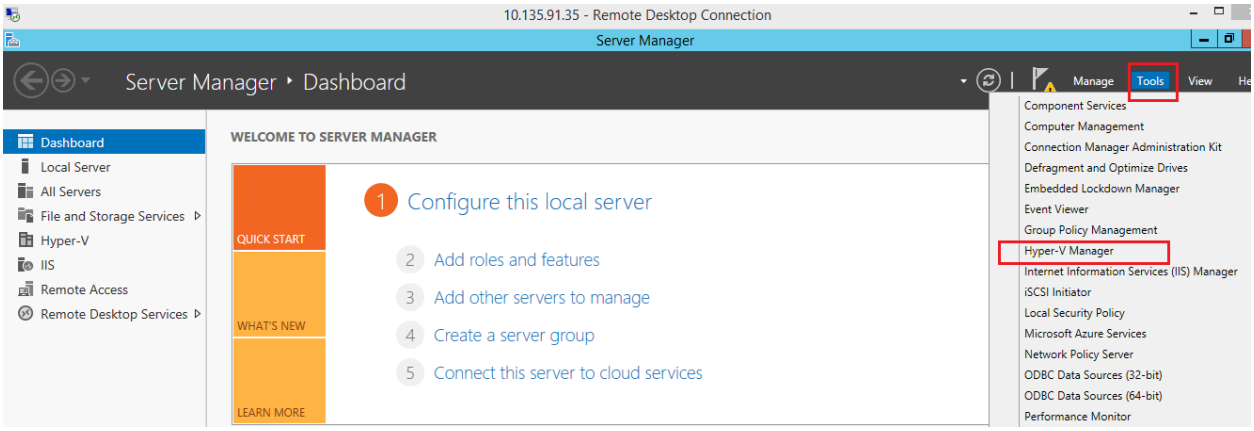
Once the Virtual Appliance is powered on, go to Completing the OmniVista 2500 NMS-E 4.2.1.R01 Installation to complete the installation.

Deploying the Virtual Appliance in Hyper-V

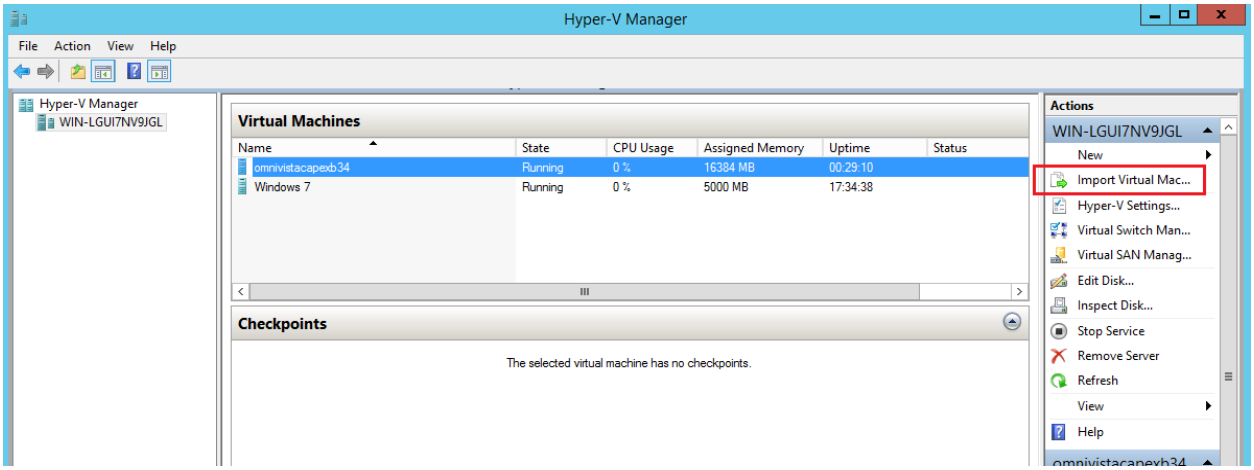
Note that in the instructions below, Hyper-V in Windows 2012 is used for demonstration purposes.

1. Download and unzip the OVF Hyper-V package.

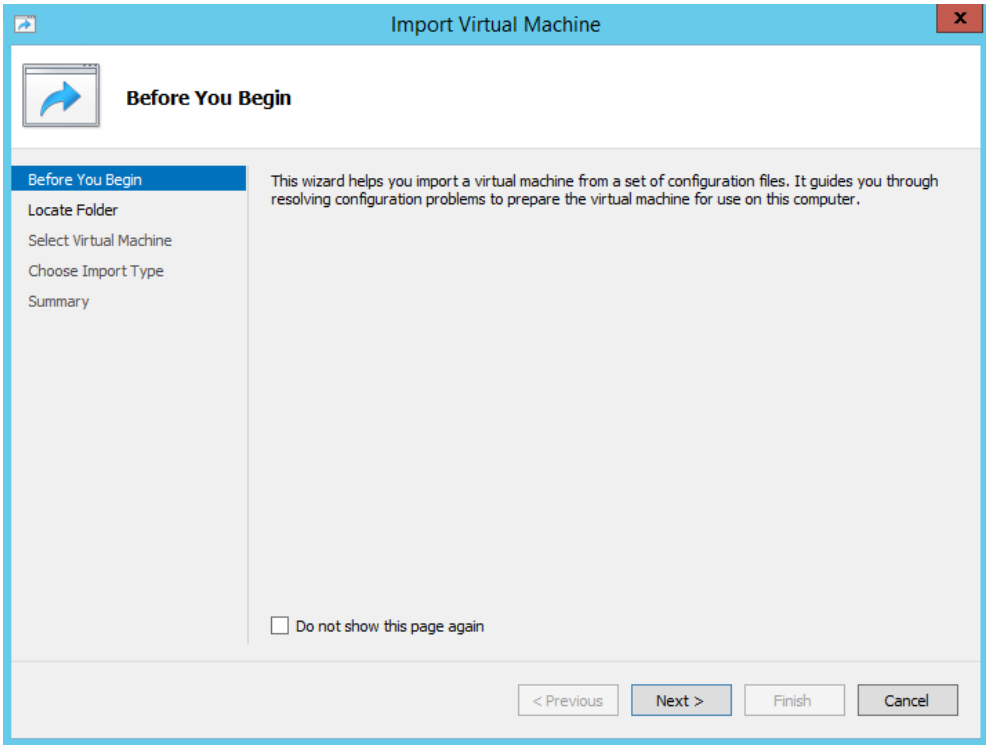
2. Log into Windows 2012 and open the Hyper-V tool.



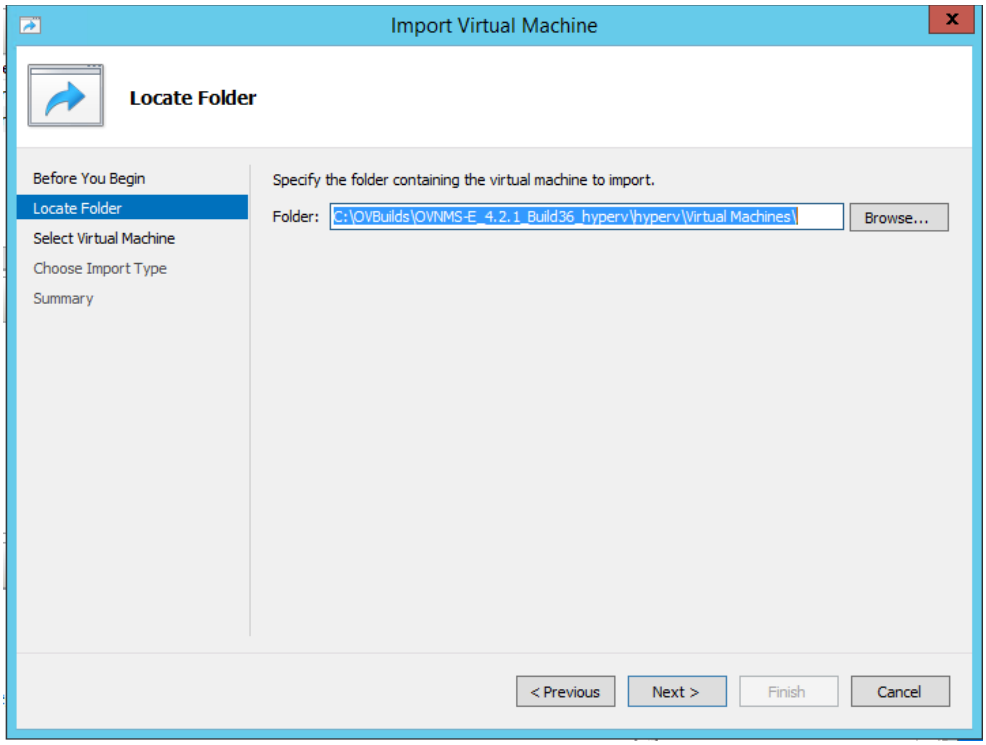
3. Select the Host on which you want to install OmniVista 2500 NMS, click on **Actions > Import Virtual Machine**.



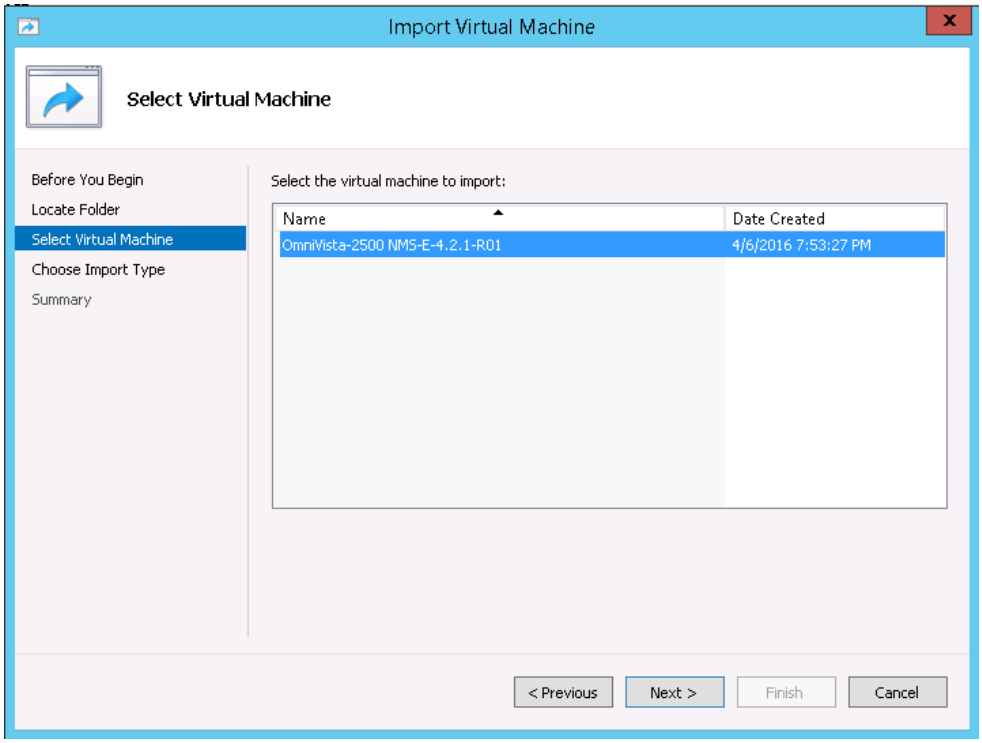
4. The Import Virtual Machine Wizard appears.



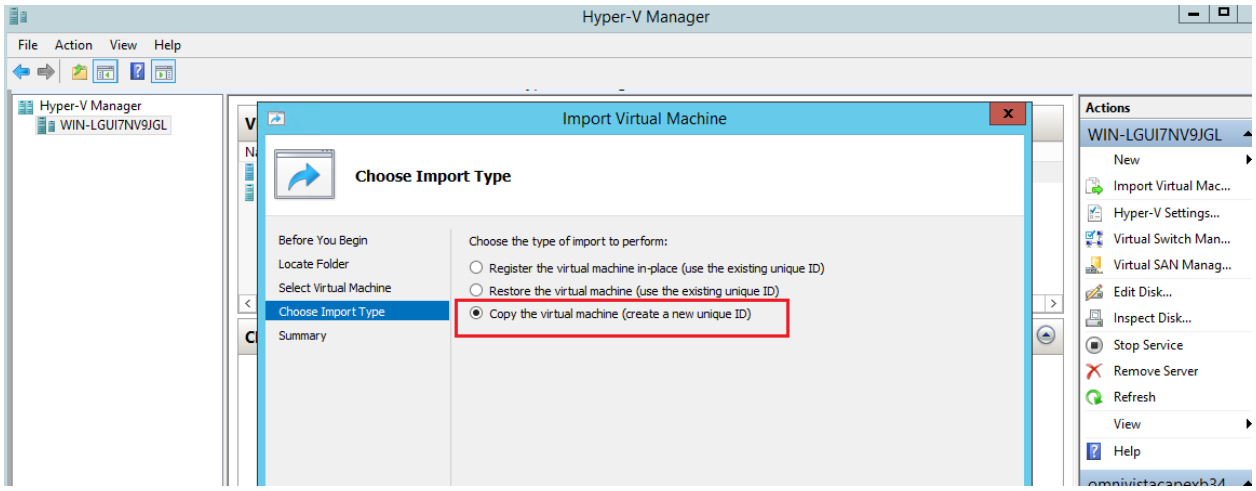
5. Click **Next** to go to the Locate Folder Screen, select the **Folder** that you extracted in Step 1, then click **Next**.



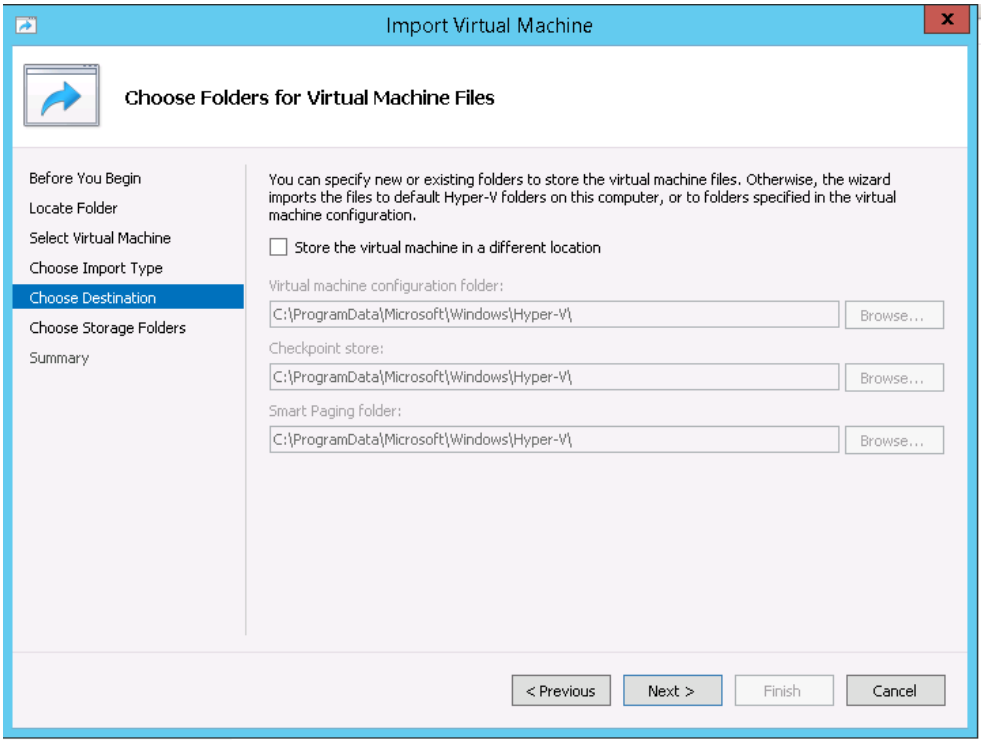
6. Select the Virtual Machine to import (Default = **OmniVista-2500 NMS-E-4.2.1.R01**), then click **Next**.



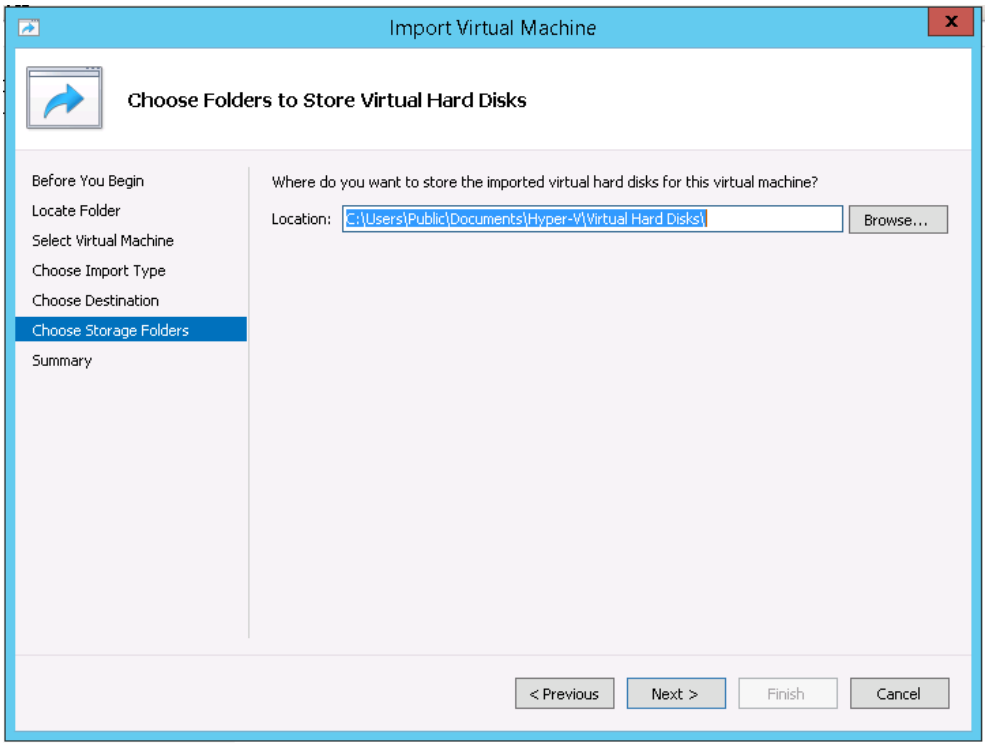
7. Select the default Import Type: **Copy the virtual machine (create a new unique ID)**, then click **Next**.



8. Specify folders to store the Virtual Machine files (or accept the default folders), then click **Next**.

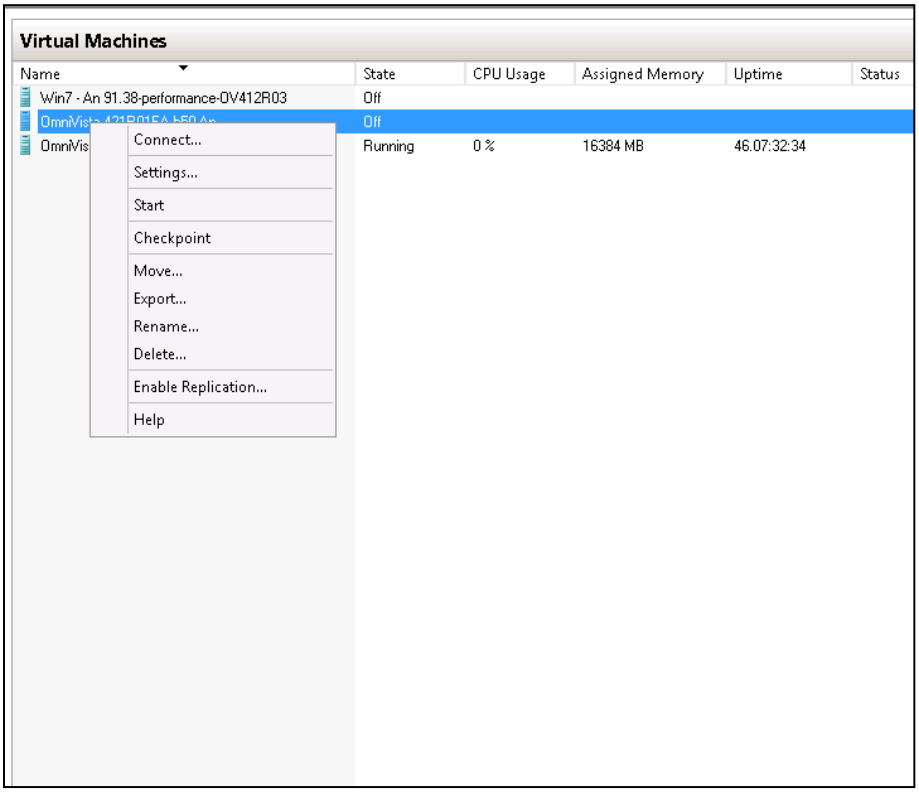


9. Choose folders to store the Virtual Hard Disks or accept the default location and click **Next**.

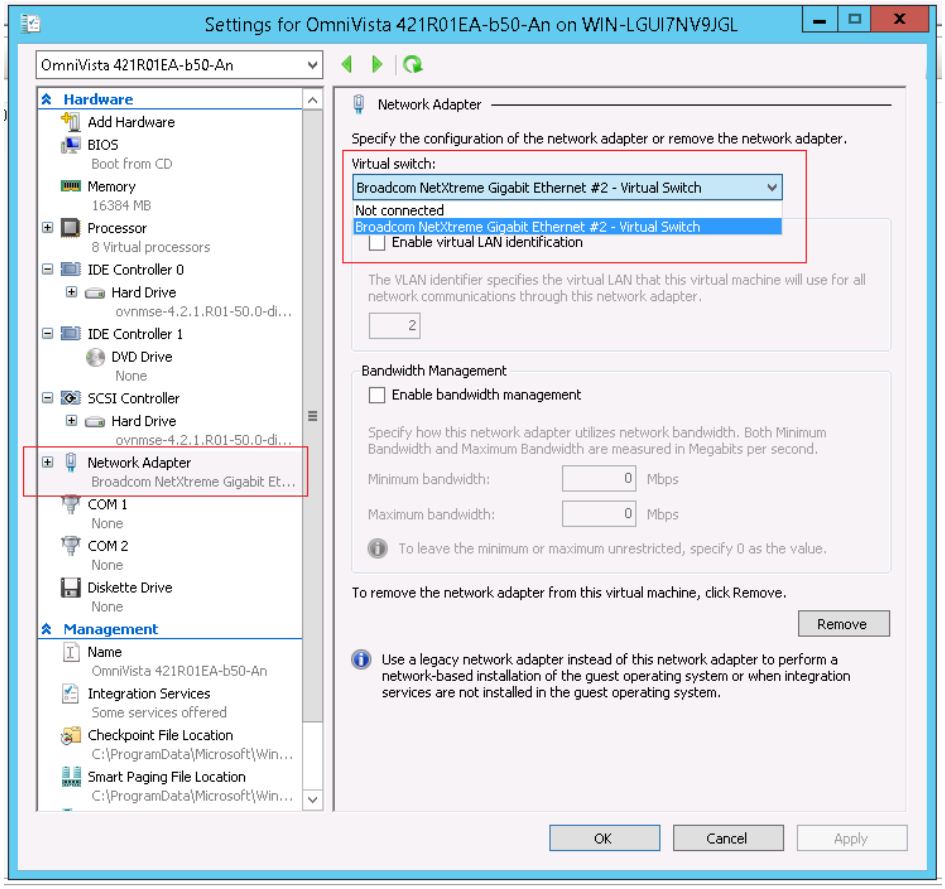


10. Review the import configuration and click **Finish**. (Click **Previous** to return to a screen and make changes.)

11. Configure the Network Adapter. Right-click on the VA and select **Settings**.



12. Select **Network Adapter**, then select the Virtual Switch that you created when you configured Hyper-V.



After the process is completed, right-click on the VM in the Navigation Panel and select **Start**. Once the Virtual Appliance is powered on, go to Completing the OmniVista 2500 NMS-E 4.2.1.R01 Installation to complete the installation.

Completing the OmniVista 2500 NMS-E 4.2.1.R01 Installation

Follow the steps in the following sections to complete the OV 2500 NMS-E 4.2.1.R01 installation.

Launching the Console, Setting a Password and an IP Address

1. Launch the Console for the new VM. (In vCenter, this can be done by right-clicking on the VM in the Navigation Tree and selecting **Open Console**.) The password prompt appears.

```
*****************************************************************************************************
* Configure "cliadmin" password                                                                     *
*****************************************************************************************************
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Changing password for user cliadmin.
passwd: all authentication tokens updated successfully.


The IP address of the Virtual Appliance is not available, you must configure it
Press [Enter] to continue
```

2. Specify a new administrative password, then re-enter to confirm the new password. Press **Enter** to configure System IP.

> **Note:** The password should be an alpha-numeric string with a minimum of eight (8) characters and should not be based on dictionary words. Be sure to store the password in a secure place. Users will be prompted for the password at the end of the installation. Lost passwords cannot be retrieved.

```
*****************************************************************************************************
* Configure IP                                                                                      *
*****************************************************************************************************
(*) Please input IPv4: 135.254.163.207
Please input subnet mask v4 [255.255.0.0]: 255.255.255.0
Would you like to configure:
        IPv4: 135.254.163.207
        subnet mask: 255.255.255.0
[y|n] (y): y
The configuration has been set
Press [Enter] to continue
```

3. Enter an IPv4 address.

4. Enter the IPv4 network mask.

5. Press **y** and **Enter** to confirm, then press **Enter** to continue.

6. The **Memory Configuration Based on Network Size** option is displayed.

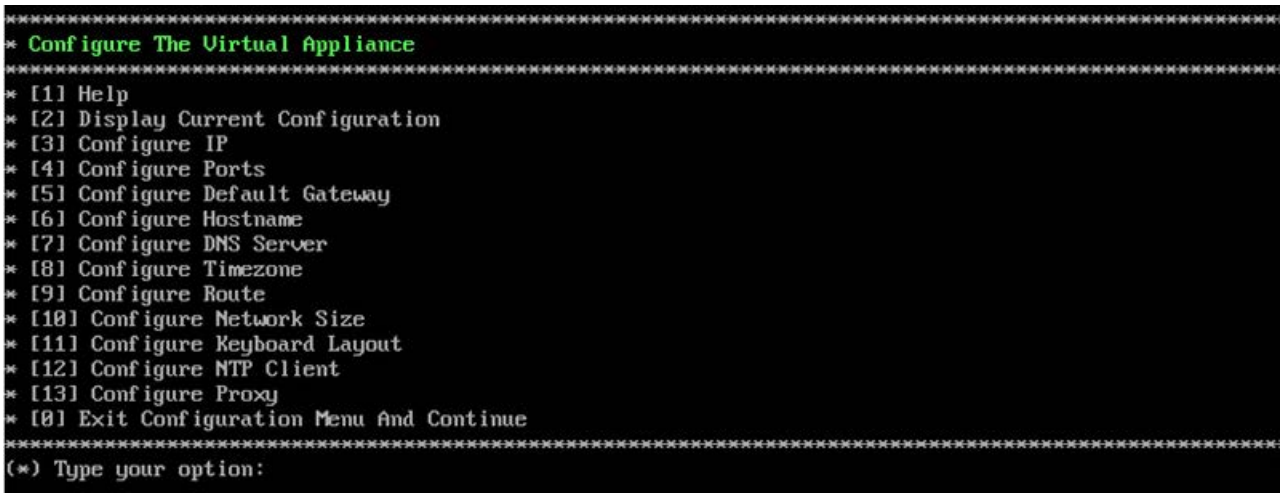
```
*****************************************************************************************************
* Memory Configuration Based on Network Size                                                        *
*****************************************************************************************************
Choose the number of devices:
[1] Low (lower than 500)
[2] Medium (500-2000)
[3] High (2000-5000)
[4] Very High (5000-10000)
[0] Exit
(*) Type your option:
```

Select the number of devices OV 2500 NMS-E 4.2.1.R01 will manage. To select a range, enter its corresponding number at the command prompt (e.g., enter **2** for Medium). Ranges include:

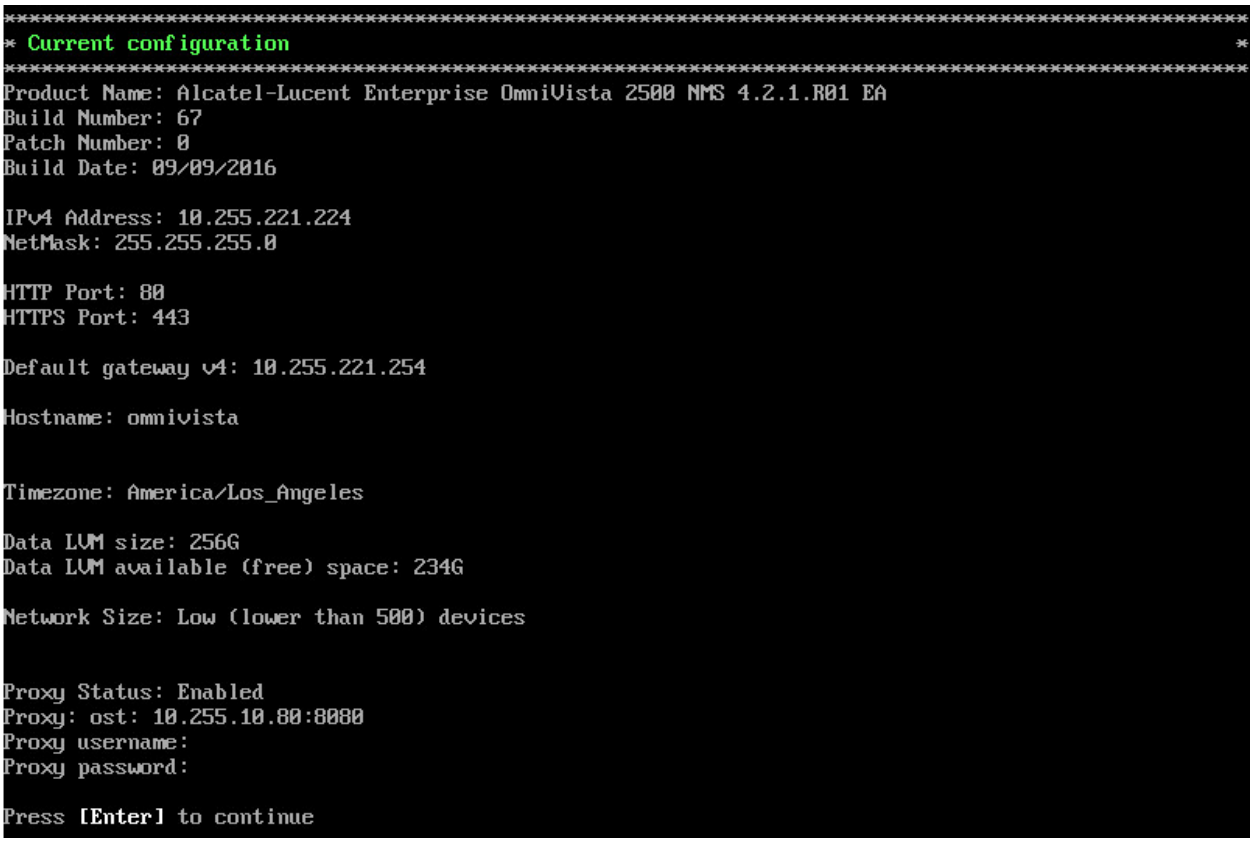
- Low (fewer than 500 devices)
- Medium (500 to 2,000 devices)
- High (2,000 to 5,000 devices)
- Very High (5,000 to 10,000 devices).

Press **y** and **Enter** to confirm, then press **Enter** to display the Configure the Virtual Appliance Main Menu.

7. The Configure The Virtual Appliance Main Menu is displayed.



8. Enter **2** and press **Enter** to display the current configuration.



The current OV appliance configuration is displayed. You can go to the Configure The Virtual Appliance Menu to configure additional settings (e.g., Default Gateway, Proxy, DNS) that may be required to access OV 2500 NMS-E 4.2.1.R01 and perform upgrades. Please configure other settings as required.

Note: OV 2500 NMS-E 4.2.1.R01 makes an HTTPS connection to the OmniVista 2500 NMS External Repository for upgrade software, Application Visibility Signature Files, and ProActive Lifecycle Management. If the OmniVista 2500 NMS Server has a direct connection to the Internet, a Proxy is not required. Otherwise, a Proxy should be configured to enable OV 2500 NMS-E 4.2.1.R01 to connect to the OmniVista 2500 NMS External Repository.

9. Press **Enter**. The Virtual Appliance Menu is displayed again.

10. After completing all required settings (and after all services are running), enter *https://<OVServerIPaddress>* in a supported browser to launch OV 2500 NMS-E 4.2.1.R01.

Note: If you changed the default HTTPs port (443) during VA configuration, you must enter the port after the IP address (e.g., *https://<OVServerIPaddress>:<HTTPsPort>).*

Upgrading from a Previous Version of OmniVista 2500 NMS

Follow the steps below to backup an existing OmniVista 2500 NMS Database and restore it to the new installation. The procedure is different depending on whether your existing installation is 3.5.7 or 4.1.2.R03.

Note: You cannot upgrade directly from OmniVista 2500 NMS 4.1.1 or 4.1.2R01/R02 to 4.2.1.R01. You must first upgrade from 4.1.1 or 4.1.2R01/R02 to 4.1.2.R03. See the applicable Installation Guide to upgrade from 4.1.1 or 4.1.2.R02/R03.

Upgrading from OmniVista 2500 NMS 3.5.7

Follow the steps below to upgrade from OmniVista 2500 NMS 3.5.7 to 4.2.1.R01.

1. On the existing installation of OmniVista 2500 NMS (3.5.7), change “admin” user's password to “switch”.

2. On the existing installation of OmniVista 2500 NMS, open the **Server Backup** Application and perform a backup. See the OmniVista 2500 NMS 3.5.7 Server Backup Application On-Line Help for more information.

3. Perform a fresh deployment of OV 2500 NMS-E 4.2.1.R01 (VMware, VirtualBox, Hyper-V).

Note: If you have not shutdown the 3.5.7 installation, make sure that it is shutdown after performing the backup so there is no IP address conflict between the 3.5.7 installation and the 4.2.1.R01 installation.

4. Use an SFTP client to copy backup file generated in Step 2 above, to a fresh installation of OV 2500 NMS-E 4.2.1.R01. Make sure the destination directory is “backups”.

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

5. Login to OV 2500 NMS-E 4.2.1.R01 VA machine using **cliadmin** account.

Note: It is recommended that you take a VM Snapshot prior to the upgrade. (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

6. Enter **4** and press **Enter** to choose the **Upgrade/Restore VA** option.

```
* The Virtual Appliance Menu                                                    *
********************************************************************************
* [1] Help                                                                     *
* [2] Configure The Virtual Appliance                                          *
* [3] Run Watchdog Command                                                     *
* [4] Upgrade/Restore VA                                                       *
* [5] Change Password                                                          *
* [6] Logging                                                                  *
* [7] Power Off                                                                *
* [8] Reboot                                                                   *
* [9] Advanced Mode                                                            *
* [0] Log Out                                                                  *
********************************************************************************
(*) Type your option: 4
```

7. Enter **6** and press **Enter** to choose the **Restore OV2500 NMS Data**.

```
********************************************************************************
* Upgrade VA                                                                   *
********************************************************************************
* [1] Help                                                                     *
* [2] 4.2.1.R01 (Current Release)                                              *
* [3] Enable Repository (Selected - ALE Central Repo)                          *
* [4] Configure Custom Repositories                                            *
* [5] Configure Update Check Interval (Selected - Disabled)                    *
* [6] Restore OV2500 NMS Data                                                  *
* [0] Exit                                                                     *
********************************************************************************
(*) Type your option: 6
```

8. The list of backup files will display, choose a Backup File by selecting the number (e.g., **1**) in the list and pressing **Enter**.

```
Choose the backup to restore:
[1] ov357bglorewin8_10.95.136.59_2016-06-17--15-28.osb
[0] Exit
(*) Type your option: 1
Would you like to restore by the backup file
        [1] ov357bglorewin8_10.95.136.59_2016-06-17--15-28.osb
[y|n] (y): y
```

9. Press **y** at the confirmation prompt, and press **Enter**. Then press **y** at the warning confirmation prompt and press **Enter**.

10. Wait for all OV 2500 NMS-E 4.2.1.R01 Services start up. Use the “Display Status of All Running Services” option of the **Run Watchdog** command in the **Virtual Appliance Menu** to view the status of services.

> **Note:** After all Services start up, it is recommended that you take a VM snapshot. (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

11. Once all services have started, enter *https://<OVServerIPaddress>* in a supported browser to launch OV 2500 NMS-E 4.2.1.R01.

> **Note:** If you changed the default HTTPs port (443) during VA configuration, you must enter the port after the IP address (e.g., *https://<OVServerIPaddress>:<HTTPsPort>).*

12. After logging into OV 2500 NMS-E 4.2.1.R01, you will be required to enter the OV 2500 NMS-E 4.2.1.R01 Production License Key. Enter the Production License Key. For procedures on generating an Evaluation License, see Appendix A.

13. You must now restart all services. Go to the **Watchdog Screen** in the OmniVista GUI (**Administrator - Control Panel – Watchdog**) and click on the **Restart All** button to restart all services again. When all services restart, you will be able to log into OV 2500 NMS-E 4.2.1.R01.

> **Note:** It is recommended that you check the OmniVista Software Repository for any new patches/updates. On **The Virtual Appliance Menu**, select **4 – Upgrade/Restore VA**, then select **2 – 4.2.1.R01 (Current Release)**.
>
> **Note:** It may take up to one (1) hour for OV 2500 NMS-E 4.2.1.R01 to populate network data (e.g., VLANs information, Unified Access information).

Upgrading from OmniVista 2500 NMS 4.1.2.R03

The procedures below detail upgrading from a 4.1.2.R03 VA installation or a 4.1.2.R03 Non-VA installation.

Upgrading from a VA Installation

Follow the steps below to upgrade from a VA installation of OmniVista 4.1.2.R03 to OV 2500 NMS-E 4.2.1.R01.

> **Important Note:** By default, OV 2500 NMS-E 4.2.1.R01 is partitioned as follows: HDD1:50GB and HDD2:256GB. If you are managing more than 500 devices it is recommended that you increase to provisioned hard disk using the Configure Network Size option in the Configure The Virtual Appliance Menu (Configure The Virtual Appliance Menu - Configure Network Size (10) - Configure Data Partition (4)).

1. From OV 4.1.2.R03 VA system, open a Console on the VM to access the Virtual Appliance Menu. Type **4** and press **Enter** to choose the **Backup/Restore OmniVista 2500 NMS** option.

2. Enter **1** and press **Enter** to choose **Backup OmniVista 2500 NMS** option from the Backup/Restore OmniVista 2500 NMS menu.

3. Enter the Backup's base name (default is "ov2500nms"), then press **Enter**. If no base name is specified, "ov2500nms" will be used as the default base name. The backup will begin.

```
**********************************************************************************
* Backup/Restore OmniVista 2500 NMS                                              *
**********************************************************************************
* [1] Backup OmniVista 2500 NMS                                                  *
* [2] Restore OmniVista 2500 NMS                                                 *
* [0] Exit                                                                       *
**********************************************************************************
Type your option? 1

Enter base name (default is "ov2500nms"):
Stopping services...
Backing up data...
Generating backup file...
Starting services...
Completed! (Output file: "ov2500nms_2016-01-20--16-15.bk")
```

After backup is finished, the output filename will be displayed: <base name>_<yyyy-MM-dd--HH-mm>.bk (e.g., ov2500nms_2016-01-20- -16-15.bk). A backup includes OV2500 data backup (.osb), MongoDB data backup (.mgb) and license data backup (.lic).

4. FTP to the OmniVista 4.1.2.R03 Server to retrieve the backup file created above (admin/admin, Port 8888).

5. Perform a fresh deployment of OV 2500 NMS-E 4.2.1.R01 (VMware, VirtualBox, Hyper-V).

6. Use an SFTP client to copy the backup file generated in Step 3 above, to the fresh installation of OV 2500 NMS-E 4.2.1.R01 VA. Make sure the destination directory is "backups".

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

7. After the installation is completed, **you must change the Mongo Administrator password and Ngnms Application password to match the ones used in OmniVista 4.1.2.R03**. This is required for the Restore operation to succeed. Open a Console on the VA, and from the Virtual Appliance Menu, enter **5** and press **Enter** to choose the **Change Password** option.

```
**********************************************************************************************************************
* The Virtual Appliance Menu                                                                                         *
**********************************************************************************************************************
* [1] Help                                                                                                           *
* [2] Configure The Virtual Appliance                                                                                *
* [3] Run Watchdog Command                                                                                           *
* [4] Upgrade/Restore VA                                                                                             *
* [5] Change Password                                                                                                *
* [6] Logging                                                                                                        *
* [7] Power Off                                                                                                      *
* [8] Reboot                                                                                                         *
* [9] Advanced Mode                                                                                                  *
* [0] Log Out                                                                                                        *
**********************************************************************************************************************
```

8. Enter **3** and press **Enter** to choose the **Change Mongodb Database Password** option.

```
*************************************************************************************************************
* Change Password                                                                                           *
*************************************************************************************************************
* [1] Help                                                                                                  *
* [2] Change "cliadmin" Password                                                                            *
* [3] Change Mongodb Database Password                                                                      *
* [4] Configure Root Password                                                                               *
* [0] Exit                                                                                                  *
*************************************************************************************************************
```

9. Enter option **1** and enter the “old” Mongo Administrator password (this is the current OmniVista 4.2.1.R01 password: **ale2@!*passwd**), then enter the “new” Mongo Administrator password (this is the 4.1.2.R03 Mongo Administrator password – see Note below for password). Enter option **2** and enter the old Ngnms Application User password (this is the current OmniVista 4.2.1.R01 password: **ale2@!*dbpasswd**); then enter new Ngnms Application Password (this is the 4.1.2.R03 Ngnms Application User password – see Note below for password). Remember, you are changing the OmniVista 4.2.1 passwords to the 4.1.2.R03 passwords.

Note:

If the 4.1.2.R03 installation was a fresh installation (or directly upgraded from 3.5.7) and you did not change the default Mongo Administrator password or Ngnms Application password, the 4.1.2.R03 passwords are as follows (same as 4.2.1.R01):

- Mongo Administrator: **ale2@!*passwd**
- Ngnms Application User: **ale2@!*dbpasswd**

If the 4.1.2.R03 installation was upgraded from 4.1.2.R01/R02 and you did not change the default Mongo Administrator password or Ngnms Application password, the 4.1.2.R03 passwords are as follows:

- Mongo Administrator: **passwd**
- Ngnms Application User: **dbpasswd**

```
(*) Type your option: 3
Would you like to change password for
        [1] Mongo administrator
        [2] Ngnms application user
Provide your option [1 OR 2]: 1
Old Password for admin user:

New Password for admin user:
Confirm Password for admin user:
```

```
(*) Type your option: 3
Would you like to change password for
        [1] Mongo administrator
        [2] Ngnms application user
Provide your option [1 OR 2]: 2
Old Password for dbadmin user:

New Password for dbadmin user:
Confirm Password for dbadmin user:
```

10. After completing the password change, use the **Run Watchdog** command in the Virtual Appliance Menu to restart all services.

```
**********************************************************************************************************
* The Virtual Appliance Menu                                                                             *
**********************************************************************************************************
* [1] Help                                                                                               *
* [2] Configure The Virtual Appliance                                                                    *
* [3] Run Watchdog Command                                                                               *
* [4] Upgrade/Restore VA                                                                                 *
* [5] Change Password                                                                                    *
* [6] Logging                                                                                            *
* [7] Power Off                                                                                          *
* [8] Reboot                                                                                             *
* [9] Advanced Mode                                                                                      *
* [0] Log Out                                                                                            *
**********************************************************************************************************
```

11. Enter **3** and press **Enter** to choose the **Run Watchdog Command** option. At the prompt, enter **5** and press **Enter** to choose **Restart All Services** option. Wait until all services have restarted, then go to Step 12.

> **Note:** It is recommended that you take a VM Snapshot prior to the upgrade (Step 12). (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

```
**********************************************************************************************************
* Run Watchdog Command                                                                                   *
**********************************************************************************************************
* [1] Help                                                                                               *
* [2] Display Status Of All Services                                                                     *
* [3] Start All Services                                                                                 *
* [4] Stop All Services                                                                                  *
* [5] Restart All Services                                                                               *
* [6] Start a Service                                                                                    *
* [7] Stop a Service                                                                                     *
* [8] Start Watchdog                                                                                     *
* [9] Shutdown Watchdog                                                                                  *
* [0] Exit                                                                                               *
**********************************************************************************************************
(*) Type your option:
```

12. From the Virtual Appliance Menu, enter **4**, then press **Enter** to select the **Upgrade/Restore VA** option.

```
**********************************************************************************************************
* The Virtual Appliance Menu                                                                             *
**********************************************************************************************************
* [1] Help                                                                                               *
* [2] Configure The Virtual Appliance                                                                    *
* [3] Run Watchdog Command                                                                               *
* [4] Upgrade/Restore VA                                                                                 *
* [5] Change Password                                                                                    *
* [6] Logging                                                                                            *
* [7] Power Off                                                                                          *
* [8] Reboot                                                                                             *
* [9] Advanced Mode                                                                                      *
* [0] Log Out                                                                                            *
**********************************************************************************************************
```

13. Enter **6** and press **Enter** to choose **Restore OmniVista 2500 NMS Data** option from the Upgrade VA menu.

```
**********************************************************************************************************
* Upgrade VA                                                                                             *
**********************************************************************************************************
* [1] Help                                                                                               *
* [2] 4.2.1.R01 (Current Release)                                                                        *
* [3] Enable Repository (Selected - ALE Central Repo)                                                    *
* [4] Configure Custom Repositories                                                                      *
* [5] Configure Update Check Interval (Selected - Disabled)                                              *
* [6] Restore OV2500 NMS Data                                                                            *
* [0] Exit                                                                                               *
**********************************************************************************************************
(*) Type your option: 6
```

14. Choose a Backup File by selecting the number (e.g., **1**) in the list and pressing **Enter**.

```
Choose the backup to restore:
[1] ov2500nms-2016-04-26--22-49.bk
[0] Exit
(*) Type your option: 1
Would you like to restore the backup file
        [1] ov2500nms-2016-04-26--22-49.bk
[y|n] (y): _
```

15. Press **y** at the confirmation prompt, and press **Enter**. Then press **y** at the warning confirmation prompt and press **Enter**.

16. Wait for all OV 2500 NMS-E 4.2.1.R01 Services start up. Use the "Display Status of All Running Services" option of the **Run Watchdog** command in the **Virtual Appliance Menu** to view the status of services.

> **Note:** After all Services start up, it is recommended that you take a VM snapshot. (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

17. Once all services have started, enter *https://<OVServerIPaddress>* in a supported browser to launch OV 2500 NMS-E 4.2.1.R01.

> **Note:** If you changed the default HTTPs port (443) during VA configuration, you must enter the port after the IP address (e.g., *https://<OVServerIPaddress>:<HTTPsPort>).*

18. After logging into OV 2500 NMS-E 4.2.1.R01, you will be required to enter the OV 2500 NMS-E 4.2.1.R01 Production License Key. Enter the Production License Key (you may also use your existing 4.1.x Production License Key). For procedures on generating an Evaluation License, see Appendix A.

19. You must now restart all services. Go to the **Watchdog Screen** in the OmniVista GUI (**Administrator - Control Panel – Watchdog**) and click on the **Restart All** button to restart all services again. When all services restart, you will be able to log into OV 2500 NMS-E 4.2.1.R01.

> **Note:** It is recommended that you check the OmniVista Software Repository for any new patches/updates. On **The Virtual Appliance Menu**, select **4 – Upgrade/Restore VA**, then select **2 – 4.2.1.R01 (Current Release)**.
>
> **Note:** It may take up to one (1) hour for OV 2500 NMS-E 4.2.1.R01 to populate network data (e.g., VLANs information, Unified Access information).
>
> **Important Note:** For security reasons, it is recommended that you change the default Mongo DB passwords (Mongo Administrator and Ngnms Application User passwords). You must remember the new passwords in order to manage the Virtual Appliance and OmniVista, and to upgrade OmniVista in the future.

Upgrading from a Non-VA Installation

Follow the steps below to upgrade from a non-VA installation of 4.1.2.R03 (Windows/Linux) to OV 2500 NMS-E 4.2.1.R01.

1. On the existing installation of OmniVista 2500 NMS (OmniVista 4.1.2.R03), change “admin” user's password to “switch”.

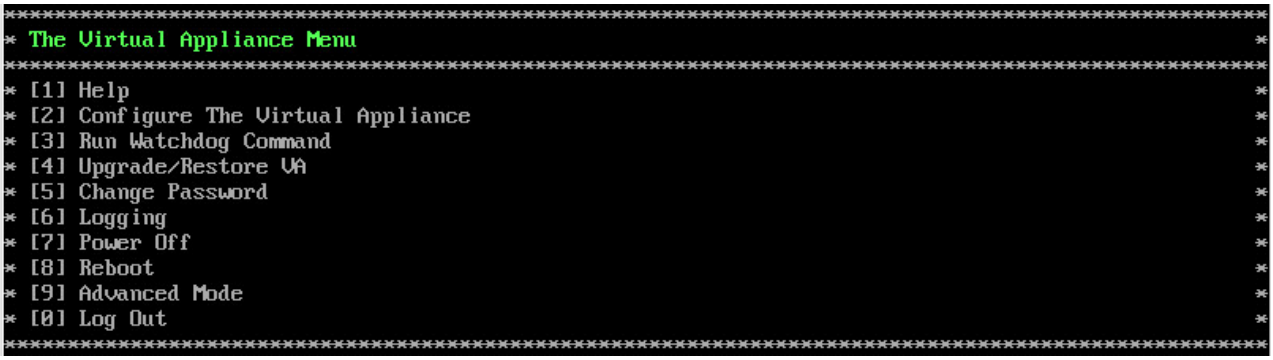
2. Perform a backup of the OmniVista 4.1.2.R03 installation and FTP it to a safe place outside of the server. Detailed backup procedures are provided below.

3. Perform a fresh deployment of OV 2500 NMS-E 4.2.1.R01 (VMware, VirtualBox, Hyper-V).

4. Use an SFTP client to copy the backup file generated in Step 2 above, to the fresh installation of OmniVista 2500 NMS VA. Make sure the destination directory is “backups”.

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

5. After the installation is completed, **you must change the Mongo Administrator password and Ngnms Application password to match the ones used in OmniVista 4.1.2.R03**. This is required for the Restore operation to succeed. Open a Console on the VA, and from the Virtual Appliance Menu, enter **5** and press **Enter** to choose the **Change Password** option.



6. Enter **3** and press **Enter** to choose the **Change Mongodb Database Password** option.

7. Enter option **1** and enter the “old” Mongo Administrator password (this is the current OmniVista 4.2.1.R01 password: **ale2@!*passwd**), then enter the “new” Mongo Administrator password (this is the 4.1.2.R03 Mongo Administrator password – see Note below for password). Enter option **2** and enter the old Ngnms Application User password (this is the current OmniVista 4.2.1.R01 password: **ale2@!*dbpasswd**); then enter new Ngnms Application Password (this is the 4.1.2.R03 Ngnms Application User password – see Note below for password). Remember, you are changing the OmniVista 4.2.1 passwords to the 4.1.2.R03 passwords.

Note:

If the 4.1.2.R03 installation was a fresh installation (or directly upgraded from 3.5.7) and you did not change the default Mongo Administrator password or Ngnms Application password, the 4.1.2.R03 passwords are as follows (same as 4.2.1.R01):

- Mongo Administrator: **ale2@!*passwd**
- Ngnms Application User: **ale2@!*dbpasswd**

If the 4.1.2.R03 installation was upgraded from 4.1.2.R01/R02 and you did not change the default Mongo Administrator password or Ngnms Application password, the 4.1.2.R03 passwords are as follows:

- Mongo Administrator: **passwd**
- Ngnms Application User: **dbpasswd**

```
(*) Type your option: 3
Would you like to change password for
        [1] Mongo administrator
        [2] Ngnms application user
Provide your option [1 OR 2]: 1
Old Password for admin user:

New Password for admin user:
Confirm Password for admin user:
```

```
(*) Type your option: 3
Would you like to change password for
        [1] Mongo administrator
        [2] Ngnms application user
Provide your option [1 OR 2]: 2
Old Password for dbadmin user:

New Password for dbadmin user:
Confirm Password for dbadmin user:
```

8. After completing the password change, use the **Run Watchdog** command in the Virtual Appliance Menu to restart all services.

```
*************************************************************************************************************
* The Virtual Appliance Menu                                                                                *
*************************************************************************************************************
* [1] Help                                                                                                  *
* [2] Configure The Virtual Appliance                                                                       *
* [3] Run Watchdog Command                                                                                  *
* [4] Upgrade/Restore VA                                                                                    *
* [5] Change Password                                                                                       *
* [6] Logging                                                                                               *
* [7] Power Off                                                                                             *
* [8] Reboot                                                                                                *
* [9] Advanced Mode                                                                                         *
* [0] Log Out                                                                                               *
*************************************************************************************************************
```

9. Enter **3** and press **Enter** to choose the **Run Watchdog Command** option. At the prompt, enter **5** and press **Enter** to choose **Restart All Services** option. Wait until all services have restarted, then go to Step 10.

> **Note:** It is recommended that you take a VM Snapshot prior to the upgrade (Step 10). (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

```
**************************************************************************************
* Run Watchdog Command                                                               *
**************************************************************************************
* [1] Help                                                                           *
* [2] Display Status Of All Services                                                 *
* [3] Start All Services                                                             *
* [4] Stop All Services                                                              *
* [5] Restart All Services                                                           *
* [6] Start a Service                                                                *
* [7] Stop a Service                                                                 *
* [8] Start Watchdog                                                                 *
* [9] Shutdown Watchdog                                                              *
* [0] Exit                                                                           *
**************************************************************************************
(*) Type your option:
```

10. From the Virtual Appliance Menu, enter **4**, then press **Enter** to select the **Upgrade/Restore VA** option.

```
**************************************************************************************
* The Virtual Appliance Menu                                                         *
**************************************************************************************
* [1] Help                                                                           *
* [2] Configure The Virtual Appliance                                                *
* [3] Run Watchdog Command                                                           *
* [4] Upgrade/Restore VA                                                             *
* [5] Change Password                                                                *
* [6] Logging                                                                        *
* [7] Power Off                                                                      *
* [8] Reboot                                                                         *
* [9] Advanced Mode                                                                  *
* [0] Log Out                                                                        *
**************************************************************************************
```

11. Enter **6** and press **Enter** to choose **Restore OmniVista 2500 NMS Data** option from the Upgrade VA menu.

```
**************************************************************************************
* Upgrade VA                                                                         *
**************************************************************************************
* [1] Help                                                                           *
* [2] 4.2.1.R01 (Current Release)                                                    *
* [3] Enable Repository (Selected - ALE Central Repo)                                *
* [4] Configure Custom Repositories                                                  *
* [5] Configure Update Check Interval (Selected - Disabled)                          *
* [6] Restore OV2500 NMS Data                                                        *
* [0] Exit                                                                           *
**************************************************************************************
(*) Type your option: 6
```

12. Choose a Backup File by selecting the number (e.g., **1**) in the list and pressing **Enter**.

```
Choose the backup to restore:
[1] ov2500nms-2016-04-26--22-49.bk
[0] Exit
(*) Type your option: 1
Would you like to restore the backup file
        [1] ov2500nms-2016-04-26--22-49.bk
[y|n] (y): _
```

13. Press **y** at the confirmation prompt, and press **Enter**. Then press **y** at the warning confirmation prompt and press **Enter**.

14. Wait for all OV 2500 NMS-E 4.2.1.R01 Services start up. Use the "Display Status of All Running Services" option of the **Run Watchdog** command in the **Virtual Appliance Menu** to view the status of services.

> **Note:** After all Services start up, it is recommended that you take a VM snapshot. (In vSphere you right-click on the VM and select **Snapshot - Take Snapshot**.)

15. Once all services have started, enter *https://<OVServerIPaddress>* in a supported browser to launch OV 2500 NMS-E 4.2.1.R01.

> **Note:** If you changed the default HTTPs port (443) during VA configuration, you must enter the port after the IP address (e.g., *https://<OVServerIPaddress>:<HTTPsPort>).*

16. After logging into OV 2500 NMS-E 4.2.1.R01, you will be required to enter the OV 2500 NMS-E 4.2.1.R01 Production License Key. Enter the Production License Key (you may also use your existing 4.1.x Production License Key). For procedures on generating an Evaluation License, see Appendix A.

17. You must now restart all services. Go to the **Watchdog Screen** in the OmniVista GUI (**Administrator - Control Panel – Watchdog**) and click on the **Restart All** button to restart all services again. When all services restart, you will be able to log into OV 2500 NMS-E 4.2.1.R01.

> **Note:** It is recommended that you check the OmniVista Software Repository for any new patches/updates. On **The Virtual Appliance Menu**, select **4 – Upgrade/Restore VA**, then select **2 – 4.2.1.R01 (Current Release)**.
>
> **Note:** It may take up to one (1) hour for OV 2500 NMS-E 4.2.1.R01 to populate network data (e.g., VLANs information, Unified Access information).
>
> **Important Note:** For security reasons, it is recommended that you change the default Mongo DB passwords (Mongo Administrator and Ngnms Application User passwords). You must remember the new passwords in order to manage the Virtual Appliance and OmniVista, and to upgrade OmniVista in the future.

Backup Procedures for OmniVista 2500 NMS 4.1.2.R03 Non-VA (Windows/Linux)

Follow the steps below to backup OmniVista 2500 NMS 4.1.2.R03 on Windows/Linux installations.

1. Go to the scripts directory of the OmniVista 2500 NMS installation folder and execute "backup-ngnms.bat" (for Windows) or "backup-ngnms.sh" (for Linux). **You must run it with Administrator privilege**.

2. To perform an immediate backup, enter **n**, then press **Enter** at the "Schedule" prompt.

3. Enter the path of the Backup Directory (default is "C:\backup" on Windows and "/root/Desktop/defaultbackupdir" on Linux), then press **Enter**.

4. Enter the Backup's base name (default is "ov2500nms"), then press **Enter**.

A "Stopping services" message will appear as the services are automatically stopped. This may take some time to complete. When the services have been stopped, the backup will start. When the process is complete, a confirmation message will appear and the backup file will be stored in the configured backup directory under the name: <base name>_<yyyy-MM-dd--HH-mm>.bk.

```
[root@localhost scripts]# ./backup-ngnms.sh
Would you like to schedule the backup? (y/n)[n]:
Enter full name of the folder to store the backup file (default is /root/Desktop/defaultbackupdir):
Enter base name for the backup file (default is ov2500nms):
Watchdog is running. So, Omnivista 2500 NMS services will have to be stopped before backup.
Start backup
Stopping services. Please wait as this will take a while...
Backing up OV2500 data. Please wait as this will take a while...
Backing up the Database. Please wait as this will take a while...
Backing up License data
Backing up openstack data directory.
Backing up captiveportal data directory.
Backing up afn data directory.
Backing up report data directory.
Backing up Locator data directory
Archiving the backup files
Starting Services. Please wait as this will take a while...
Complete. Backup file ov2500nms-2015-12-01--17-40.bk is stored in /root/Desktop/defaultbackupdir
[root@localhost scripts]#
```

Note: Old Backup Files are not automatically purged. Monitor and maintain the Backup Directory to optimize disk space.

Using the Virtual Appliance Menu

To access the Main Virtual Appliance Menu for a VM, launch the Console. (In vCenter, this can be done by right-clicking on the VM in the Navigation Tree and selecting **Open Console**.) The login prompt is displayed.

Note: You can also access the Virtual Appliance Menu by connecting via SSH using port 2222, user **cliadmin, and** password set when deploying VA (e.g., ssh cliadmin@192.160.70.230 –p 2222).

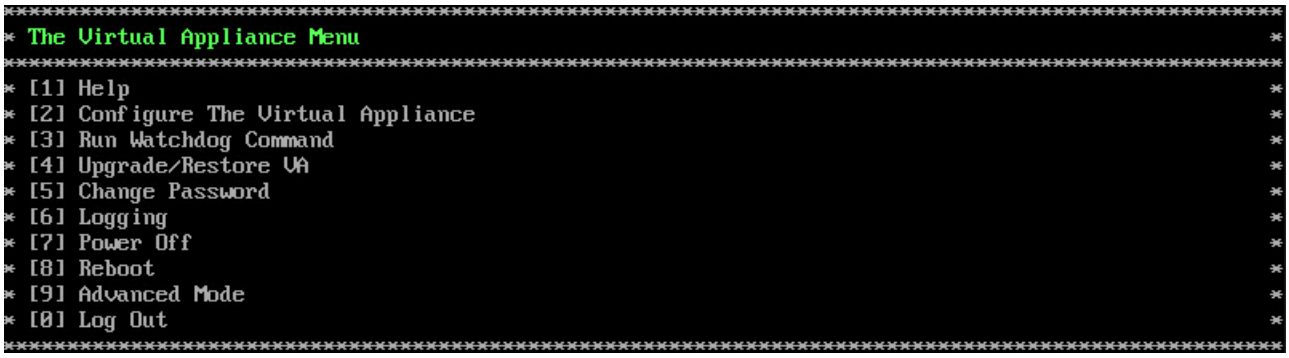
```
CentOS Linux 7 (Core)
Kernel 3.10.0-327.el7.x86_64 on an x86_64

Product Name: Alcatel-Lucent Enterprise OmniVista 2500 NMS 4.2.1.R01 EA
Build Number: 67
Patch Number: 0
Build Date: 09/09/2016
Hint: Num Lock on

omnivista login:
```

1. Enter the login (**cliadmin**) and press **Enter**.

2. Enter the password and press **Enter**. The password is the one you created when you first launched the VM Console at the beginning of the installation process. The Virtual Appliance Menu is displayed.



The Virtual Appliance Menu provides the following options:

- 1 - Help
- 2 - Configure the Virtual Appliance
- 3 - Run Watchdog CLI command
- 4 - Upgrade/Restore VA
- 5 - Change Password
- 6 - Logging
- 7 - Power Off
- 8 - Reboot
- 9 - Advanced Mode
- 0 - Log out

For information on these menu options, refer to the sections below.

Help

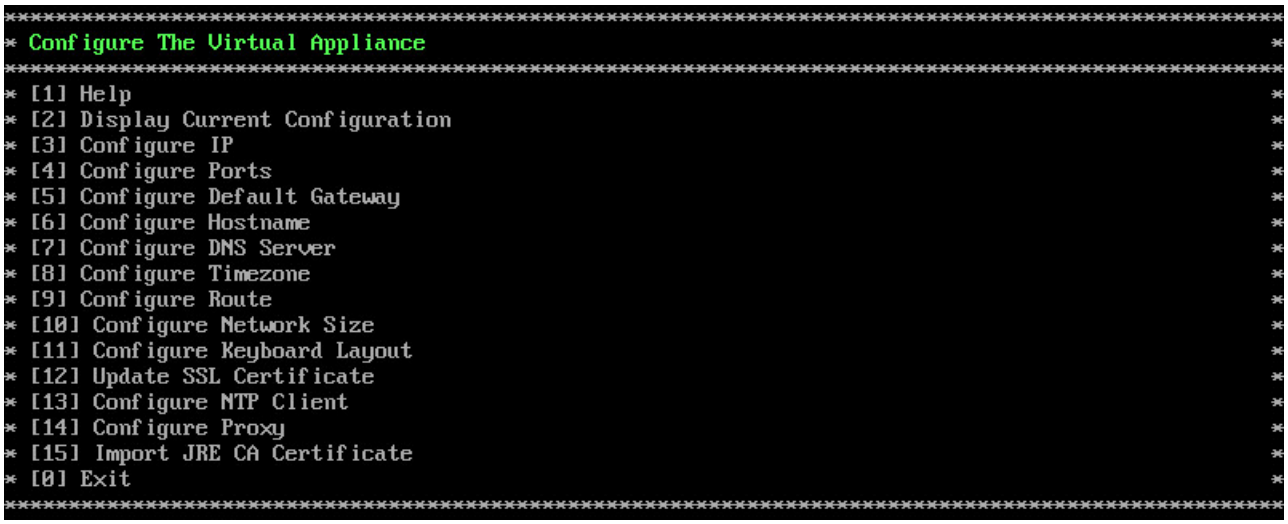
Enter **1** and press **Enter** to bring up help for the Virtual Appliance Menu.

Configure the Virtual Appliance

The “Configure the Virtual Appliance” menu provides the following options:

- 1 - Help
- 2 - Display Current Configuration
- 3 - Configure IP
- 4 - Configure Ports
- 5 - Configure Default Gateway
- 6 - Configure Hostname
- 7 - Configure DNS Server
- 8 - Configure Timezone
- 9 - Configure Route
- 10 - Configure Network Size
- 11 - Configure Keyboard Layout
- 12 - Update SSL Certificate

- 13 - Configure NTP Client
- 14 - Configure Proxy
- 15 - Import JRE Certificat
- 0 - Exit

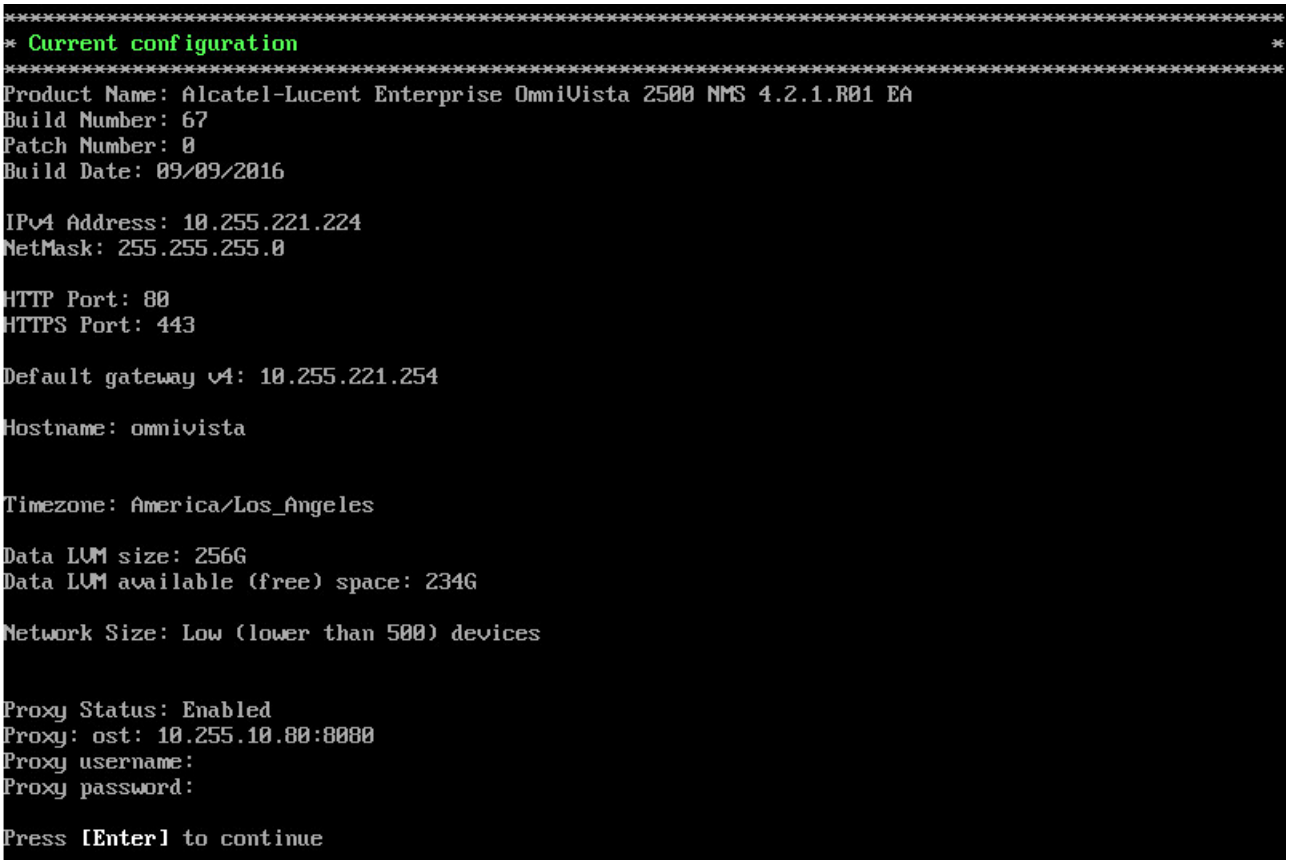


Help

Enter **1** and press **Enter** to bring up help for the Configure The Virtual Appliance Menu.

Display Current Configuration

Enter **2** and press **Enter** to display the current VA configuration. Press **Enter** to return to the Configure The Virtual Appliance Menu.



Configure IP

1. If you want to re-configure the System IP, enter **3** and press **Enter**.

2. Enter an IPv4 IP address and subnet mask.

3. Enter **y** at the confirmation prompt and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure Ports

1. Enter **4** and press **Enter** to configure System Ports.

```
*************************************************************************************************************
* Configure Ports                                                                                           *
*************************************************************************************************************
Please input http port [80]:
Please input https port [443]:
Would you like to configure:
       http port: 80
       https port: 443
[y|n] (y): _
```

2. At the prompt, enter an HTTP value and press **Enter**. Enter an HTTPS value and press **Enter**.

- HTTP Port (Valid range: 1024 to 65535, Default = 80))
- HTTPS Port (Valid range: 1024 to 65535, Default = 443)

  Note: You can press **Enter** to accept default values. New port values must be unique (i.e., they must differ from any previously-configured ports).

3. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

After entering values and confirming, you must restart all services for the changes to take effect. Use the **Restart All Services** option in the **Run Watchdog** command in the Virtual Appliance Menu.

Configure Default Gateway

1. Enter **5** and press **Enter** to configure default gateway settings.

```
*************************************************************************************************************
* Configure Default Gateway
*************************************************************************************************************
Please input defaut gateway v4 [10.255.221.254]:
Would you like to configure:
       default gateway: 10.255.221.254
[y|n] (y): y
The configuration has been set
Press [Enter] to continue
```

2. Enter an IPv4 default gateway.

3. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure Hostname

1. The default Hostname is **omnivista**. If you want to change the default Hostname, enter **6** and press **Enter**.

```
*************************************************************************************************************
* Configure Hostname
*************************************************************************************************************
Please input hostname [omnivista]:
Would you like to configure:
       hostname: omnivista
[y|n] (y):
The configuration has been set
Press [Enter] to continue
```

2. Enter a hostname.

3. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure DNS Server

1. Enter **7** to specify whether the VM will use a DNS Server.

2. If the VM will use a DNS server, enter **y**, then press **Enter**. Enter the IPv4 address for Server 1 and Server 2, if applicable.

```
******************************************************************************************************************
* Configure DNS Server                                                                                           *
******************************************************************************************************************
Would you like to use dns servers [y|n] (n): y
(*) Please input dns server 1: 192.168.70.226
Would you like to use dns server 2 [y|n] (n): y
(*) Please input dns server 2: 192.168.1.3
Would you like to configure:
       dns server 1: 192.168.70.226
       dns server 2: 192.168.1.3
[y|n] (y): _
```

Note: If **n** (No) is selected, all DNS Servers will be disabled.

3. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure Timezone

1. Enter **8** and press **Enter** to begin setting up the time zone; then confirm by typing **y** at the prompt.

2. Select the region for the VM by entering its corresponding numeric value (e.g., **10**).

```
******************************************************************************************************************
* Configure Timezone                                                                                             *
******************************************************************************************************************
Would you like to configure Timezone of system [y|n] (n): y
Please identify a location so that time zone rules can be set correctly.
Please select a continent or ocean.
1) Africa           4) Arctic Ocean     7) Australia       10) Pacific Ocean
2) Americas         5) Asia             8) Europe
3) Antarctica       6) Atlantic Ocean   9) Indian Ocean
#?
```

3. Select a country within the region by entering its corresponding numeric value (e.g., **25**).

```
Please select a country.
 1) Chile                      15) Northern Mariana Islands
 2) Cook Islands               16) Palau
 3) Ecuador                    17) Papua New Guinea
 4) Fiji                       18) Pitcairn
 5) French Polynesia           19) Samoa (American)
 6) Guam                       20) Samoa (western)
 7) Kiribati                   21) Solomon Islands
 8) Marshall Islands           22) Tokelau
 9) Micronesia                 23) Tonga
10) Nauru                      24) Tuvalu
11) New Caledonia              25) United States
12) New Zealand                26) US minor outlying islands
13) Niue                       27) Vanuatu
14) Norfolk Island             28) Wallis & Futuna
#? _
```

4. If prompted, enter the numeric value for the specific time zone within the country (e.g., **21**).

```
Please select one of the following time zone regions.
 1) Eastern Time
 2) Eastern Time - Michigan - most locations
 3) Eastern Time - Kentucky - Louisville area
 4) Eastern Time - Kentucky - Wayne County
 5) Eastern Time - Indiana - most locations
 6) Eastern Time - Indiana - Daviess, Dubois, Knox & Martin Counties
 7) Eastern Time - Indiana - Pulaski County
 8) Eastern Time - Indiana - Crawford County
 9) Eastern Time - Indiana - Pike County
10) Eastern Time - Indiana - Switzerland County
11) Central Time
12) Central Time - Indiana - Perry County
13) Central Time - Indiana - Starke County
14) Central Time - Michigan - Dickinson, Gogebic, Iron & Menominee Counties
15) Central Time - North Dakota - Oliver County
16) Central Time - North Dakota - Morton County (except Mandan area)
17) Central Time - North Dakota - Mercer County
18) Mountain Time
19) Mountain Time - south Idaho & east Oregon
20) Mountain Standard Time - Arizona (except Navajo)
21) Pacific Time
22) Pacific Standard Time - Annette Island, Alaska
23) Alaska Time
24) Alaska Time - Alaska panhandle
25) Alaska Time - southeast Alaska panhandle
26) Alaska Time - Alaska panhandle neck
27) Alaska Time - west Alaska
28) Aleutian Islands
29) Hawaii
#? _
```

5. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure Route

1. If you want to add a static route from the VM to another network enter **9** and press **Enter**.

2. Add an IPv4 route by entering **3** at the command prompt.

```
*************************************************************************************************************
* Configure Route                                                                                           *
*************************************************************************************************************
* [1] Help                                                                                                  *
* [2] Show Current Routes                                                                                   *
* [3] Add Route v4                                                                                          *
* [4] Del Route v4                                                                                          *
* [0] Exit                                                                                                  *
*************************************************************************************************************
```

3. Enter the subnet, netmask and gateway.

4. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Configure Network Size

1. At the Main Menu prompt, enter **10** and press **Enter** to begin configuring a Network Size.

2. You can re-configure OV 2500 NMS-E 4.2.1.R01 memory settings by selecting option **2**.

3. Configure Swap file by selecting option **3**.

4. Configure Data Partition by selecting option **4**.

By default, OV 2500 NMS-E 4.2.1.R01 is partitioned as follows: HDD1:50GB and HDD2:256GB. If you are managing more than 500 devices it is recommended that you increase to provisioned hard disk using the Configure Network Size option in the Configure The Virtual Appliance Menu (Configure The Virtual Appliance Menu - Configure Network Size (10) - Configure Data Partition (4)).

Configure Keyboard Layout

1. Enter **11** and press **Enter** to specify a keyboard layout.

2. Press **Enter** to see the list of keyboard layouts.

3. Enter **q** and press **Enter** to quit the view mode. At the prompt, enter a keyboard layout then press **Enter**. Press **y** at the confirmation prompt.

The table below lists all supported keyboard layouts.

amiga-de	amiga-us	atari-uk-falcon	atari-se
atari-us	atari-de	pt-olpc	es-olpc
sg-latin1	hu	sg	fr_CH
de-latin1-nodeadkeys	fr_CH-latin1	de-latin1	de_CH-latin1
cz-us-qwertz	sg-latin1-lk450	croat	slovene
sk-prog-qwertz	sk-qwertz	de	cz
wangbe	wangbe2	fr-latin9	fr-old
azerty	fr	fr-pc	be-latin1
fr-latin0	fr-latin1	tr_f-latin5	trf-fgGIod
backspace	ctrl	applkey	keypad

euro2	euro	euro1	windowkeys
unicode	se-latin1	cz-cp1250	il-heb
ttwin_cplk-UTF-8	pt-latin1	ru4	ruwin_ct_sh-CP1251
ruwin_alt-KOI8-R	no-latin1	pl1	cz-lat2
nl2	mk	es-cp850	bg-cp855
by	uk	pl	ua-cp1251
pt-latin9	sk-qwerty	se-lat6	bg_bds-cp1251
ruwin_cplk-UTF-8	br-abnt	la-latin1	sr-cy
ruwin_ctrl-CP1251	ua	dk	ru-yawerty
mk-cp1251	ruwin_cplk-KOI8-R	kyrgyz	defkeymap_V1.0
se-fi-lat6	ruwin_ctrl-UTF-8	ro	fi
sk-prog-qwerty	trq	fi-latin9	gr
ru3	us	ruwin_ct_sh-KOI8-R	nl
ro_std	ttwin_alt-UTF-8	trf	ruwin_alt-UTF-8
it-ibm	il	by-cp1251	it
emacs	fi-latin1	pc110	bg_bds-utf8
tralt	defkeymap	bg_pho-utf8	ua-ws
cf	hu101	bg_pho-cp1251	se-ir209
ttwin_ctrl-UTF-8	cz-lat2-prog	br-latin1-us	mk-utf
cz-qwerty	ruwin_cplk-CP1251	ttwin_ct_sh-UTF-8	ru1
ruwin_ctrl-KOI8-R	ru-ms	no	us-acentos
pl2	sv-latin1	br-latin1-abnt2	et
ru-cp1251	ruwin_alt-CP1251	ru	it2
lt.l4	ua-utf	bywin-cp1251	bg-cp1251
ru_win	emacs2	dk-latin1	kazakh
br-abnt2	es	pl4	mk0
is-latin1	is-latin1-us	il-phonetic	fi-old
et-nodeadkeys	jp106	lt	ru2
ruwin_ct_sh-UTF-8	pt	se-fi-ir209	gr-pc
lt.baltic	tr_q-latin5	pl3	ua-utf-ws
bashkir	no-dvorak	dvorak-r	dvorak
ANSI-dvorak	dvorak-l	mac-euro	mac-euro2
mac-fr_CH-latin1	mac-us	mac-de-latin1	mac-be
mac-es	mac-pl	mac-se	mac-dvorak
mac-fi-latin1	mac-template	mac-dk-latin1	mac-de-latin1-nodeadkeys
mac-fr	mac-pt-latin1	mac-uk	mac-it
mac-de_CH	sunt4-no-latin1	sunt5-cz-us	sundvorak
sunt5-de-latin1	sunt5-us-cz	sunt5-es	sunt4-fi-latin1
sunkeymap	sunt4-es	sunt5-ru	sunt5-uk
sun-pl	sunt5-fr-latin1	sunt5-fi-latin1	sun-pl-altgraph

4. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Update SSL Certificate

To update the SSL Certificate, you must first generate a *.crt and *.key file and use an SFTP Client to upload the files to the VA. Make sure the destination directory is “keys”.

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

1. Enter **12** and press **Enter**.

2. Choose a file certificate file (.crt) and enter **y** and **Enter**. Choose a private key file (.key) and enter **y** and **Enter**. The Tomcat service will be restarted.

```
================================================================================
Update the SSL Certificate for OV 2500 NMS...
================================================================================
Certificates available in directory /home/admin/omnivista/ng_shared/temp/admin/k
eys:
        [1] server.crt
Choose the certificate file to apply (choose 0 to exit): 1
Are you sure you want to apply this certificate?
        [1] server.crt
(y/n): y
Private keys available in directory /home/admin/omnivista/ng_shared/temp/admin/k
eys :
        [1] server.key
Choose the private key file to apply (choose 0 to exit): 1
Are you sure you want to use this private key?
        [1] server.key
(y/n): _
```

Configure NTP Client

1. Enter **13** and press **Enter** to configure an NTP Server.

```
**********************************************************************************************************
* Configure NTP Client                                                                                   *
**********************************************************************************************************
* [1] Help                                                                                               *
* [2] Configure NTP Server IP                                                                            *
* [3] Status NTP Client                                                                                  *
* [4] Disable NTP Client                                                                                 *
* [5] Enable NTP Client                                                                                  *
* [0] Exit                                                                                               *
**********************************************************************************************************
```

2. Enter **2** and press **Enter**.

3. Enter the IP address of the NTP Server and press Enter.

4. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu. You can enable the server when you create it, or enable it at a later time using option **5**.

Configure Proxy

OV 2500 NMS-E 4.2.1.R01 makes an HTTPS connection to the OmniVista 2500 NMS External Repository for upgrade software, Application Visibility Signature Files, and ProActive Lifecycle Management. If the OV 2500 NMS-E 4.2.1.R01 Server has a direct connection to the Internet, a

Proxy is not required. Otherwise, a Proxy should be configured to enable OmniVista to connect to the OmniVista 2500 NMS External Repository.

1. Enter **14** and press **Enter** to specify whether the VM will use a Proxy Server. Enter **1** and press **Enter** to configure a Proxy Server.

```
**************************************************************************************************
* Configure Proxy                                                                                *
**************************************************************************************************
* [1] Setup Proxy                                                                                *
* [2] Enable/Disable Proxy                                                                       *
* [0] Exit                                                                                       *
**************************************************************************************************
```

2. If the VM will use a proxy server, enter the Proxy Server IP address, along with the port (e.g., 8080).

```
(*) Type your option: Proxy is not set
(*) Please input proxy IP: (*) Please input proxy port: Please input proxy username :
Would you like to configure proxy with:
        IP: 10.255.10.80
        Port: 8080
        Username:
        Password:
[y|n] (y):
```

Note: If **n** (No) is selected, all proxy servers will be disabled.

3. Enter **y** and press **Enter** to confirm the settings. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Import JRE CA Certificate

To import a JRE CA Certificate (e.g., *.pem), you must first use an SFTP Client to upload the files to the VA. Make sure the destination directory is “keys”.

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

1. Enter **15** and press **Enter** to import a Private CA Certificate.

```
**************************************************************************************************
* Import JRE CA Certificate                                                                      *
**************************************************************************************************
**************************************************************************************************
* Available self sign certificate(s)                                                            *
**************************************************************************************************
* [1] TashRootCA.pem                                                                             *
* [0] Exit                                                                                       *
**************************************************************************************************
(*) Type your option: 1
Would you like to use this self sign certificate?
        [1] TashRootCA.pem
[y|n] (n): y
(*) Please input alias: tash
```

2. Enter the number for the certificate you want to import (e.g., **1**) and press **Enter**.

3. Enter an alias for the certificate and press **Enter**. The certificate will be imported.

4. Enter **y** at the confirmation prompt and press **Enter**. Press **Enter** to return to the Configure The Virtual Appliance Menu.

Exit

Enter **0** and press **Enter** to return to the Virtual Appliance Menu.

Run Watchdog Command

The Watchdog command set is used to start and stop managed services used by OV 2500 NMS-E 4.2.1.R01. To access the Watchdog CLI Command Menu, enter **3** at the command prompt. The following displays:

```
*************************************************************************************************************
* Run Watchdog Command                                                                                      *
*************************************************************************************************************
* [1] Help                                                                                                  *
* [2] Display Status Of All Services                                                                        *
* [3] Start All Services                                                                                    *
* [4] Stop All Services                                                                                     *
* [5] Restart All Services                                                                                  *
* [6] Start a Service                                                                                       *
* [7] Stop a Service                                                                                        *
* [8] Start Watchdog                                                                                        *
* [9] Shutdown Watchdog                                                                                     *
* [0] Exit                                                                                                  *
*************************************************************************************************************
(*) Type your option: _
```

Select number matching with action you want to perform and press **Enter**.

Upgrade/Restore VA

To view information about the current version of the OV 2500 NMS-E 4.2.1.R01 VA, and to update the VM, enter **4** at the command prompt. Menu options include:

- Option 1: Get Help
- Option 2: Update to new OV build or release
- Option 3: Select the Repository which stores OV build/release
- Option 4: Configure Custom Repository
- Option 5: Check available updates
- Option 6: Restore old OV release (OV 3.5.7 or OV 4.1.2 R03)
- Option 0: Exit menu

```
*************************************************************************
* Upgrade VA
*************************************************************************
* [1] Help
* [2] 4.2.1.R01 (Current Release)
* [3] Enable Repository (Selected - ALE Central Repo)
* [4] Configure Custom Repositories
* [5] Configure Update Check Interval (Selected - Disabled)
* [6] Restore OV2500 NMS Data
* [0] Exit
*************************************************************************
```

1. Enter **2** to check current version:

```
Current version of Virtual Appliance
Product Name: Alcatel-Lucent Enterprise OmniVista 2500 NMS 4.2.1.R01 EA
Build Number: 35
Patch Number: 0

Checking available packages for 4.2.1.R01 operation is in progress...
```

2. Enter **5** to check available updates, then enter **2** to check immediately.

```
**********************************************************************************
* Configure Update Check Interval
**********************************************************************************
* [1] Help
* [2] Check Now
* [3] Check Daily
* [4] Check Weekly
* [5] Check Monthly
* [6] Disable (Selected)
* [0] Exit
**********************************************************************************
(*) Type your option: 2

Checking available packages for 4.2.1.R01 operation is in progress...
No package available for 4.2.1.R01
Press [Enter] to continue
```

3. Enter **6** to Restore OV 2500 Data.

The sections below detail the backup/restore steps for virtual appliance installations. Open a Console on the VM to access the Virtual Appliance Menu. Enter **4** and press **Enter** to choose the **Update/Restore VA** option.

```
Choose the backup to restore:
[1] ov357bglorewin8_10.95.136.59_2016-06-17--15-28.osb
[0] Exit
(*) Type your option: 1
Would you like to restore by the backup file
        [1] ov357bglorewin8_10.95.136.59_2016-06-17--15-28.osb
[y|n] (y): y
Restore operation can result in data loss or corruption. We advise taking a VM snapshot prior to this.
Are you ready to proceed [y|n] (n): y
Restore operation is in progress...
```

Note: To display backup file, you have to access the Virtual Appliance for sending backup files via SFTP:

- **SFTP User:** cliadmin
- **SFTP Password:** <password when deploying VA>
- **SFTP Port:** 22

Change Password

You can change the Virtual Appliance cliadmin password and/or mongo database password.

```
**********************************************************************************
* Change Password                                                                *
**********************************************************************************
* [1] Help                                                                       *
* [2] Change "cliadmin" Password                                                 *
* [3] Change Mongodb Database Password                                           *
* [4] Configure Root Password                                                    *
* [0] Exit                                                                       *
**********************************************************************************
```

To change the VA cliadmin password, enter **2**, then press **Enter**. At the prompts, enter the current password, then enter the new password.

To change the mongo database password, enter **3**, then press **Enter**. You have two options when changing the mongo database password.

Enter **1** to change the mongo administrator password. Enter **2** to change the application user password. At the prompts, enter the current password, then enter the new password.

Logging

You can view OV 2500 NMS-E 4.2.1.R01 Logs using the “Logging” option. Enter **6**, then press **Enter**.

Power Off

Before powering off the VM, you must stop all OV 2500 NMS-E 4.2.1.R01services using the **Stop All Services** option in the **Run Watchdog Command**. After all the services are stopped, enter **7** at the command line to power off the VM. Confirm power off by entering **y**. The power off may take several minutes to complete.

> **Note:** OV 2500 NMS-E 4.2.1.R01 functions stop running following power off. The VM must be powered back on via the VMware client software and you must log back into the VM via the console.

Reboot

Before rebooting the VM, you must stop all OV 2500 NMS-E 4.2.1.R01 services using the **Stop All Services** option in the **Run Watchdog Command**. After all services are stopped, enter **8** at the command line to reboot the VM. Confirm reboot by entering **y**. The reboot may take several minutes to complete. When rebooted, you will be prompted to log in through the cliadmin user and password prompts. Note that OV 2500 NMS-E 4.2.1.R01 functions continue following reboot.

Advanced Mode

Advanced Mode enables you to use read-only UNIX commands for troubleshooting. Enter **9**, then press **Enter** to bring up the CLI prompt. Enter **exit** and press **Enter** to return to the Virtual Appliance Menu. The following commands are supported:

- /usr/bin/touch
- /usr/bin/mktemp
- /usr/bin/dig
- /usr/bin/cat
- /usr/bin/nslookup

- /usr/bin/which
- /usr/bin/less
- /usr/bin/tail
- /usr/bin/vi
- /usr/bin/tracepath
- /usr/bin/tty
- /usr/bin/systemctl
- /usr/bin/grep
- /usr/bin/egrep
- /usr/bin/fgrep
- /usr/bin/dirname
- /usr/bin/readlink
- /usr/bin/locale
- /usr/bin/ping
- /usr/bin/traceroute
- /usr/bin/netstat
- /usr/bin/id
- /usr/bin/ls
- /usr/bin/mkdir
- /usr/sbin/ifconfig
- /usr/sbin/route
- /usr/sbin/blkid
- /usr/sbin/sshd-keygen
- /usr/sbin/consoletype
- /usr/sbin/ntpdate
- /usr/sbin/ntpq
- /usr/bin/ntpstat
- /usr/bin/abrt-cli
- /usr/sbin/init
- /usr/sbin/tcpdump
- /bin/mountpoint

Log Out

To log out of the VM and return to the cliadmin login prompt, enter **0** at the command line. Confirm logout by entering **y**. Note that OV 2500 NMS-E 4.2.1.R01 functions continue following logout.

Appendix A – Generating an Evaluation License

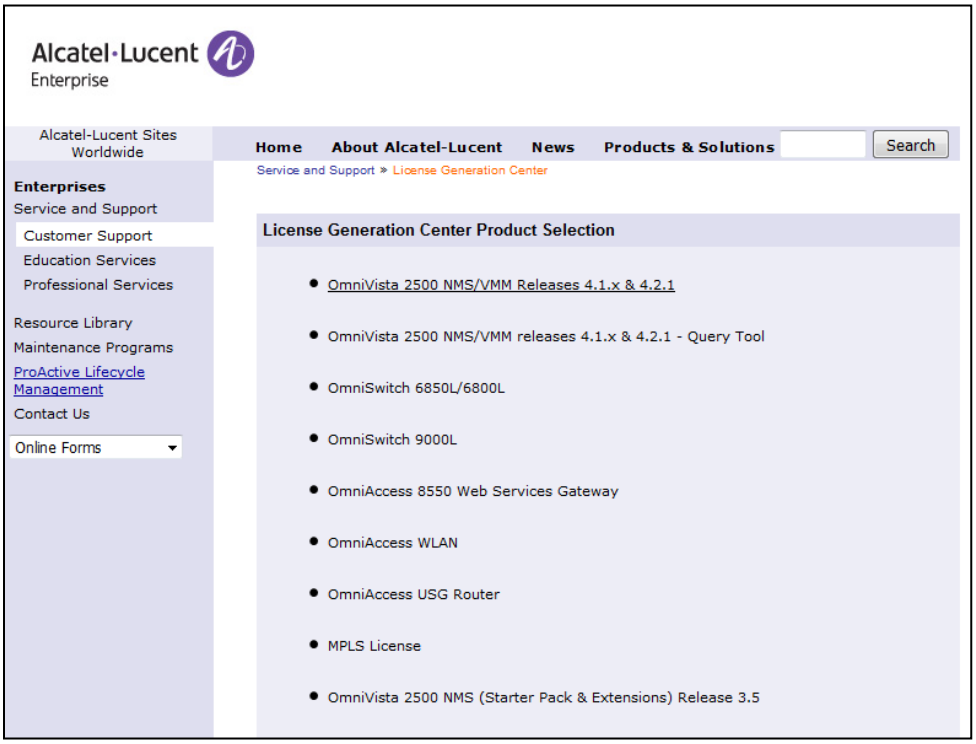
An Evaluation License provides full OV 2500 NMS-E 4.2.1.R01feature functionality, but is valid only for 60 Days (starting from the date the license is generated). There are two (2) Evaluation Licenses available. Both licenses can be generated at once or in sequence, depending on the configuration.

- NM (Node Management) – Device Management for Alcatel-Lucent Enterprise and supported Third-Party Devices. Licenses are available for 10 or 20 Nodes.
- VMM (Virtual Machine Manager) – (Optional) Features related to Virtual Machine Manager. Licenses are only available in a single quantity – 200 virtual machines.

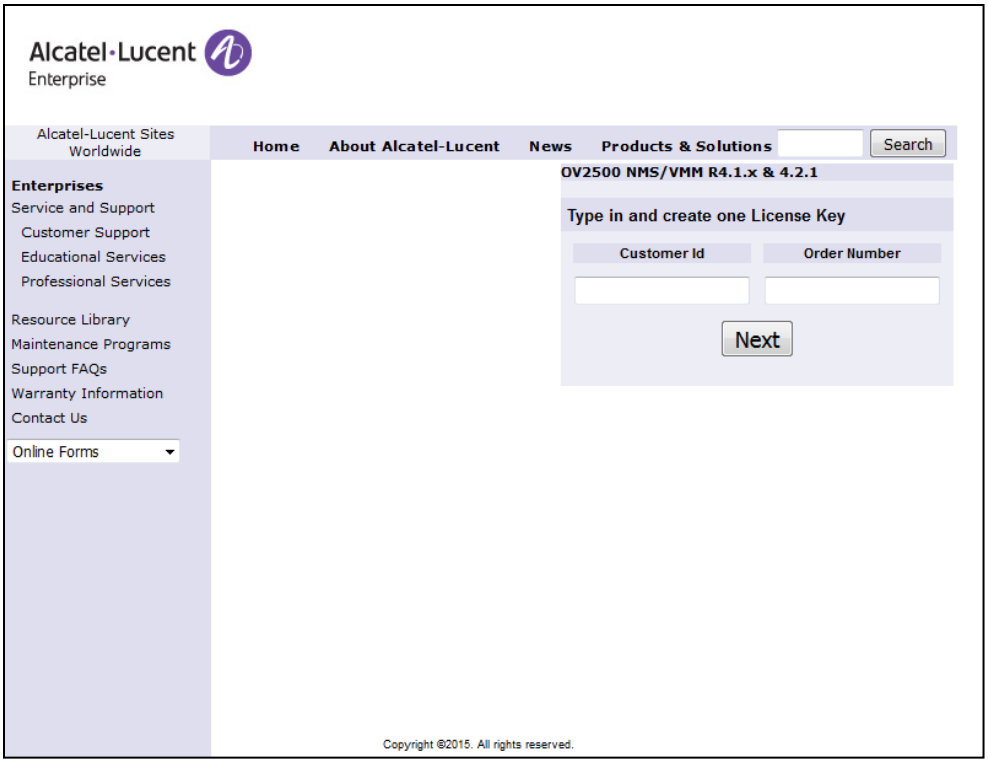
Note: A Node Management License is required to use the optional VMM License. Also, licenses cannot be cumulated at initial request or later on. This is different than a regular Production licenses.

Follow the steps below to generate an Evaluation License Key.

1. Go to https://service.esd.alcatel-lucent.com/portal/page/portal/EService/LicenseGeneration.

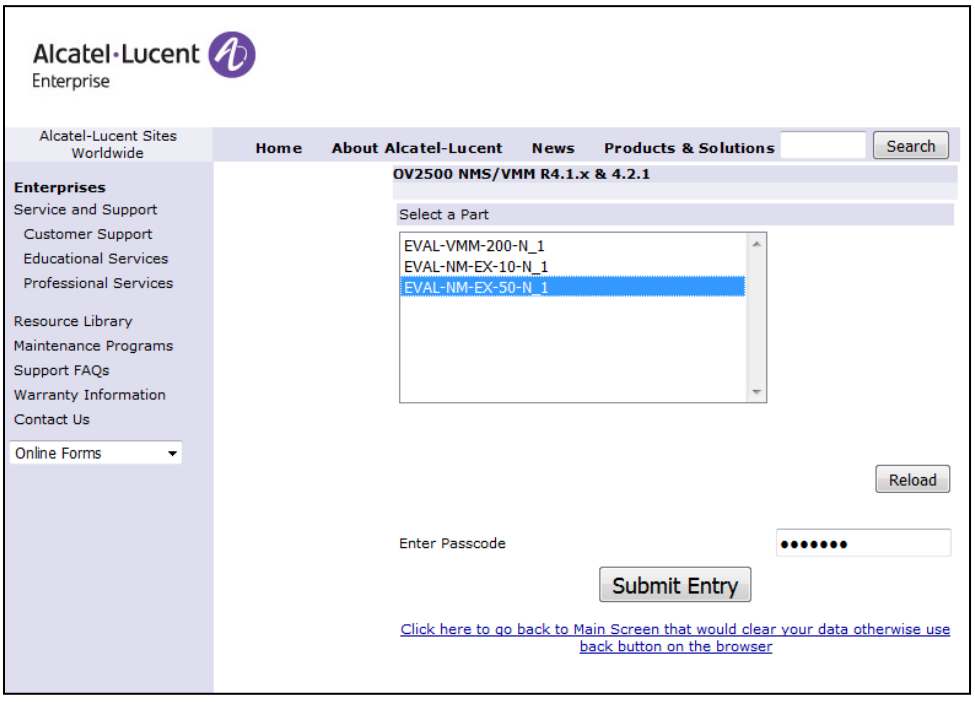


2. Click on **OmniVista 2500 NMS/VMM Releases 4.1.x & 4.2.1**.

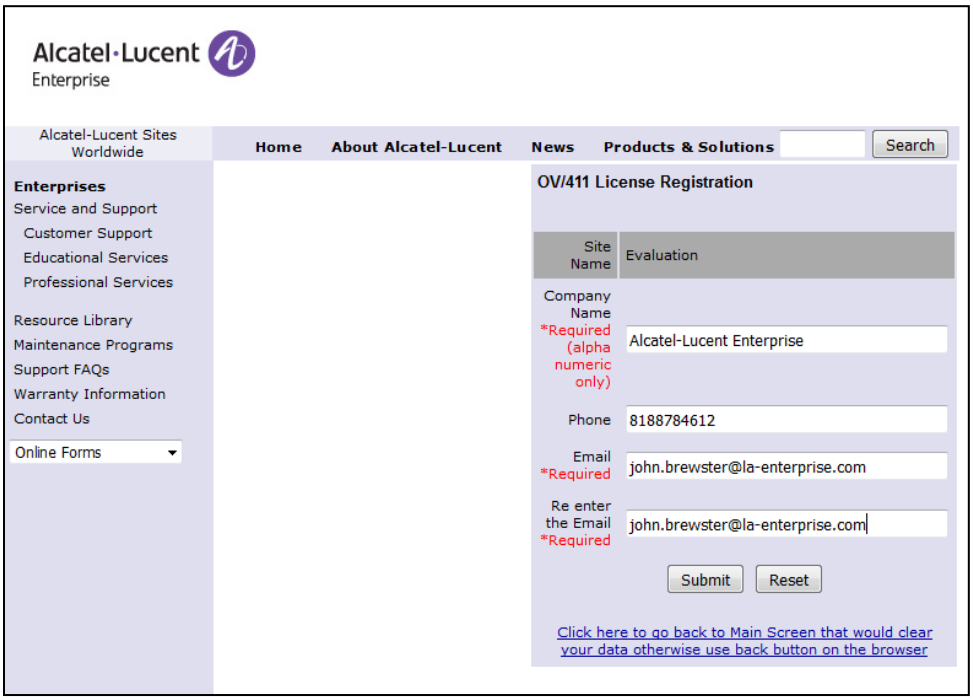


3. Enter the **Customer ID** and **Order Number**, then click **Next**.

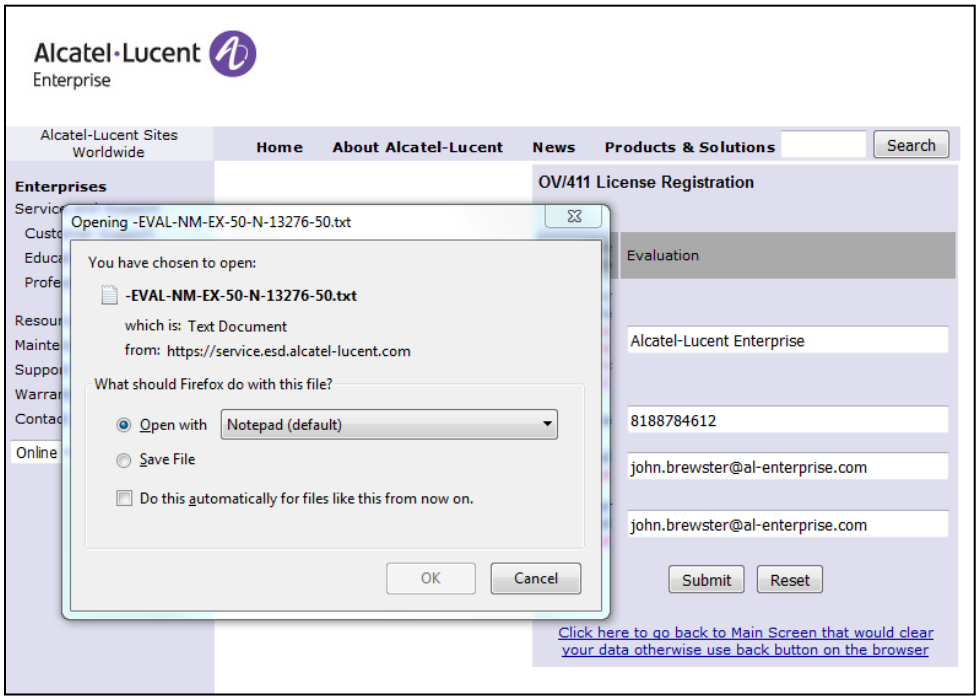
- **Customer ID –** 99999
- **Order Number –** evaluation



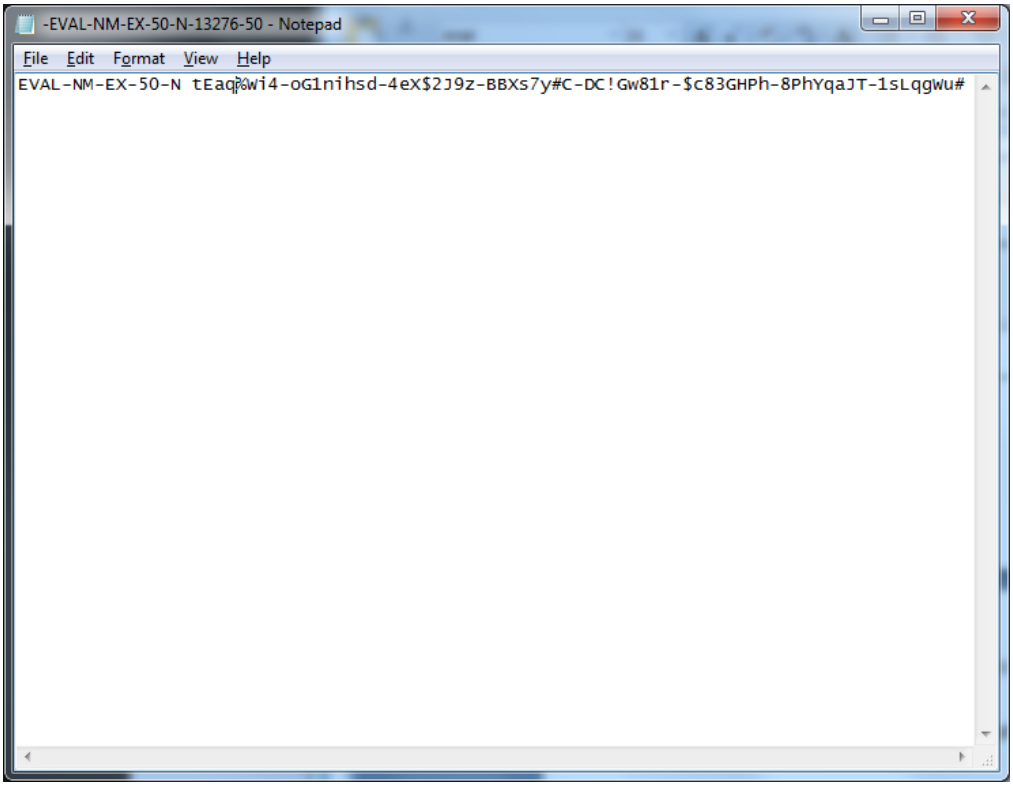
4. Select the License Type and the number of devices to be managed from the drop-down menu (e.g., Evaluation NM License for 50 devices – **EVAL-NM-EX-50-N_1**), enter the Passcode (**alcatel**), and click **Submit Entry**.



5. Complete all of the required fields on the License Registration Form and click **Submit**. A download prompt (shown below) will appear.



6. Click **OK** at the confirmation prompt to download the license key into Notepad. Notepad will open with the License Key displayed.



A confirmation e-mail will automatically be sent to the address entered on the Registration form that will include the License Key.