



CYBONET



Cybowall

Quick Installation Guide

Last Modified 30 April 2018



This Quick Installation Guide (QIG) details how to install CYBONET's Cybowall solution. It is intended for anyone who wants to install Cybowall, including network engineers, system administrators and IT managers.

Before Starting

Before starting software installation, it is important to ensure:

- That the hardware pre-requisites are met – as detailed below for physical and virtual installations.
- That the license installation key is available – it is required during the product's software installation.

Hardware Pre-requisites

Minimum installation requirements for Cybowall in both a physical and virtual environment are:

1. 1 quad core CPU
2. RAM – 16 GB
3. 2 Network Interface Cards (NIC):
 - Management and Network Scans
 - Port Mirroring
4. 1 Hard Disk (HDD) – 150 GB

Recommended (best practice) installation requirements:

1. CPU – as above (adding additional cores improves performance)
2. RAM – as above (adding additional memory improves performance)
3. NICs – as above
4. 2 HDDs:
 - A. In a **Physical Environment**:
 - HDD – as above:
 - This HDD is for the OS and Logs, and needs to be the bootable HD in the BIOS
 - Solid State Drive (SSD) – minimum 70 GB – must be smaller than the first HDD:
 - The SSD is for the Cybowall Database

**B. In a Virtual Environment:**

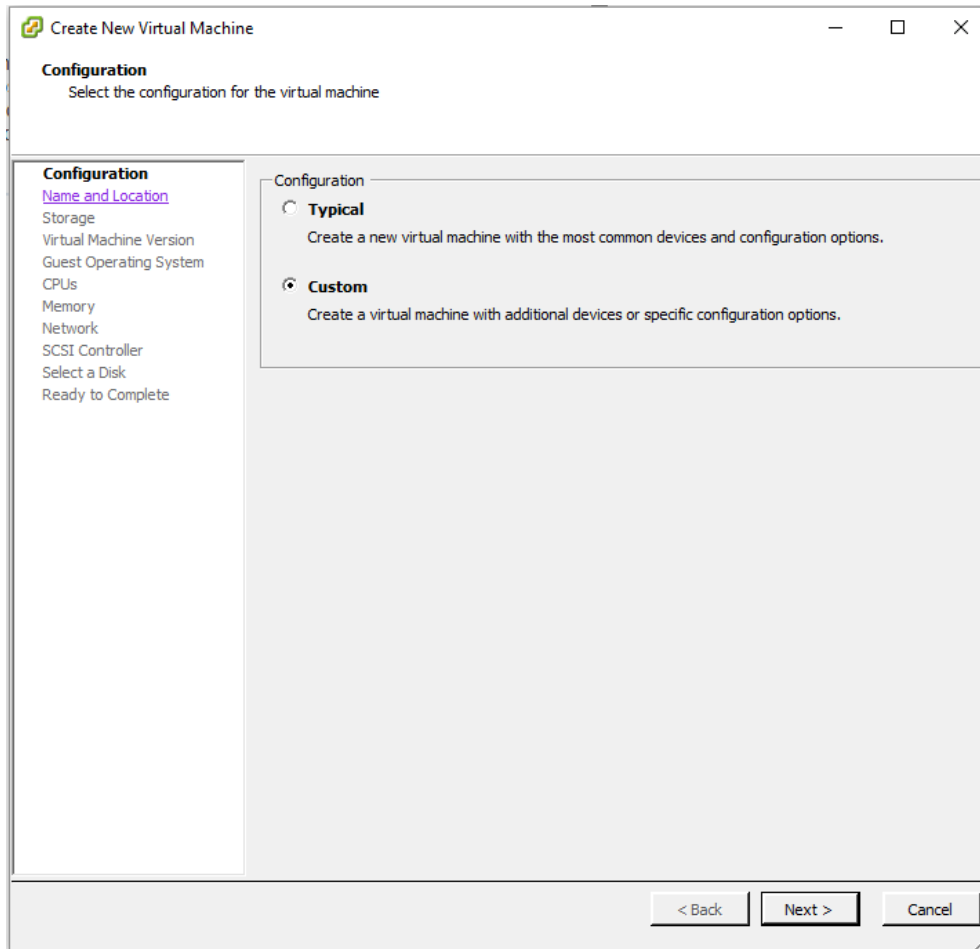
Supported virtual platforms are VMware and Hyper-V. XEN is not currently supported.

- 2 HDDs are recommended when installing Cybowall on a virtual system.
- Both HDDs need to meet/exceed the minimum sizes detailed in section A. above, and one HD must be larger than the other.
- The mirroring port should be set to a dedicated physical NIC since all network traffic is directed to that interface.
- The port mirroring interface needs to have promiscuous mode enabled so that mirrored traffic is not blocked.

Installing Cybowall as a Virtual Host on WMware

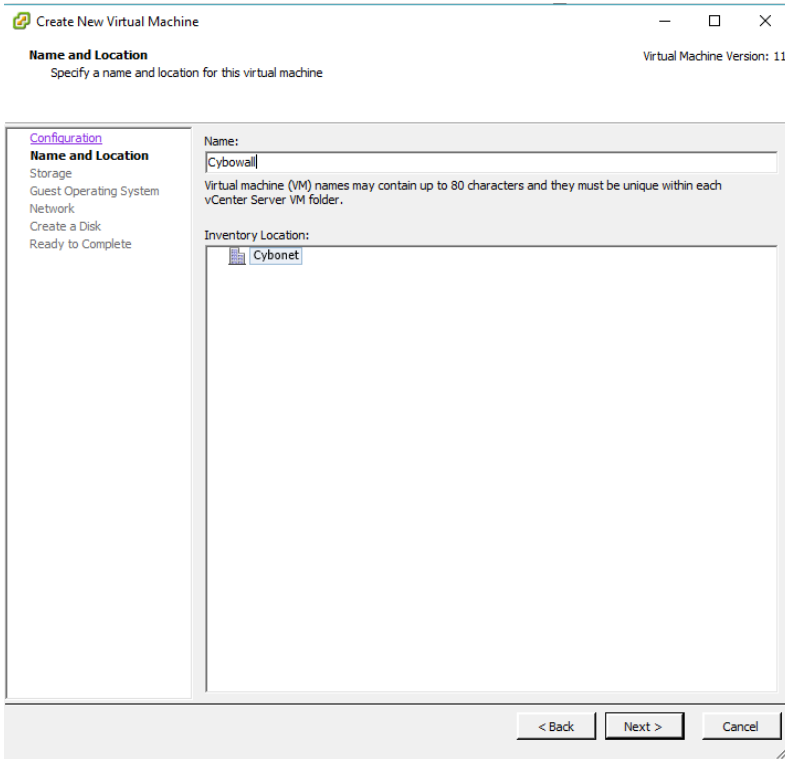
These instructions are for VMware ESXi v6.0. Installation can be performed on any ESXi version.

1. Create a new Custom virtual machine:

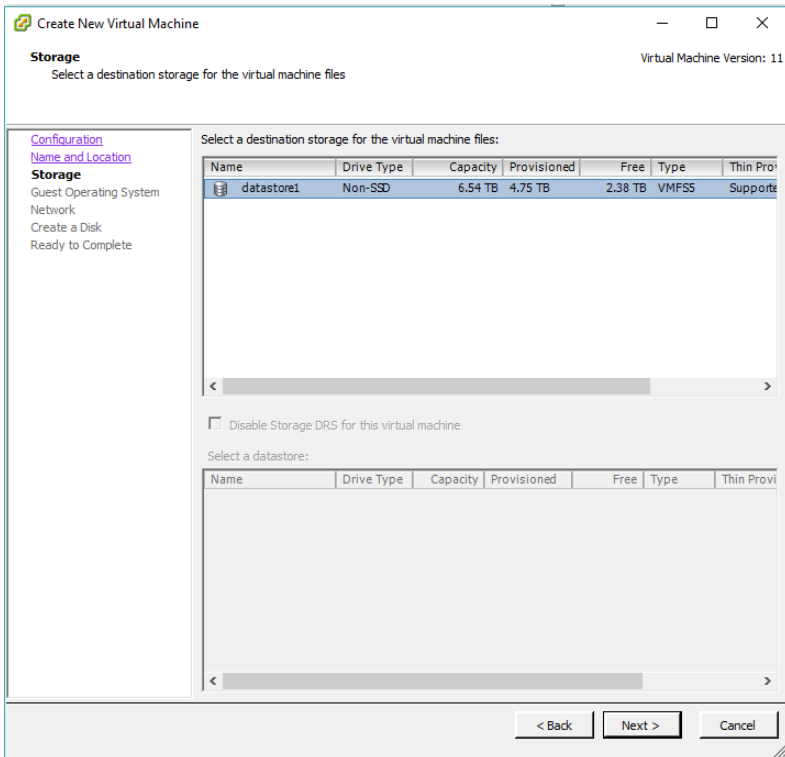




2. Give it a name:

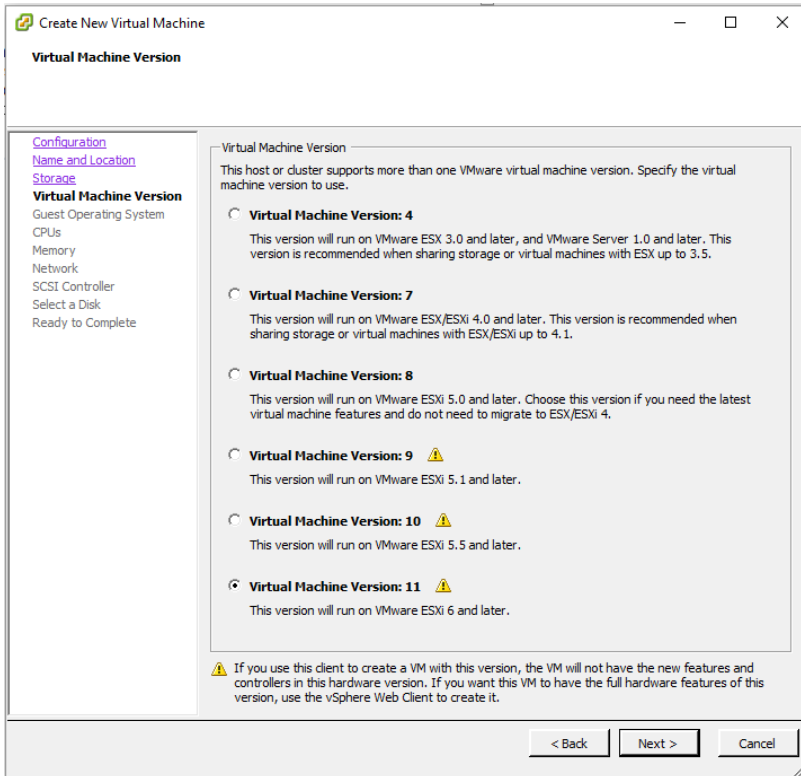


3. Choose the destination:

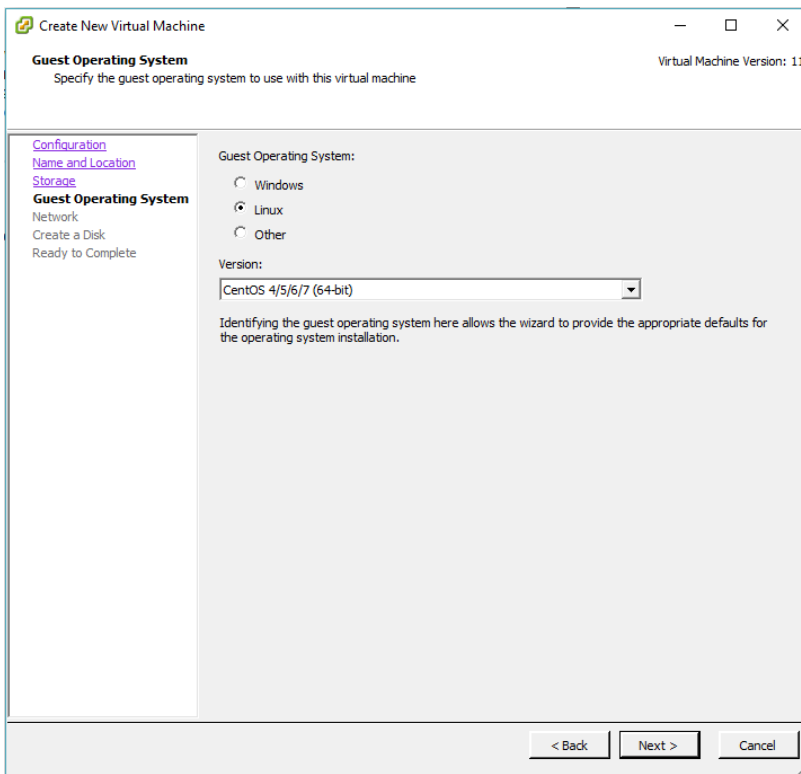




4. Select 'Virtual Machine Version 11':

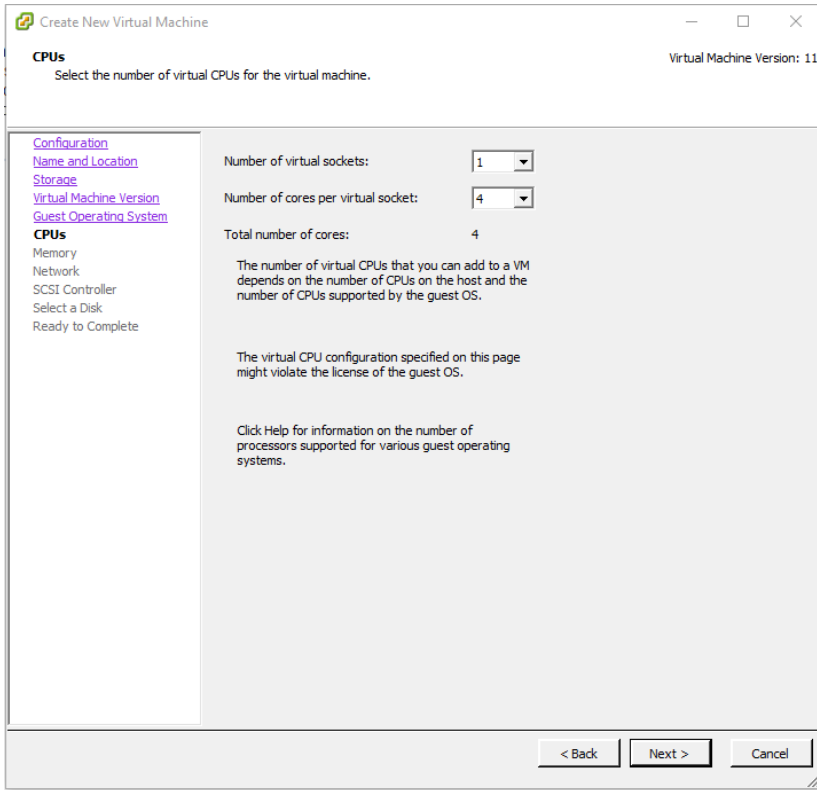


5. Select OS version Linux – CentOS 64 bit:

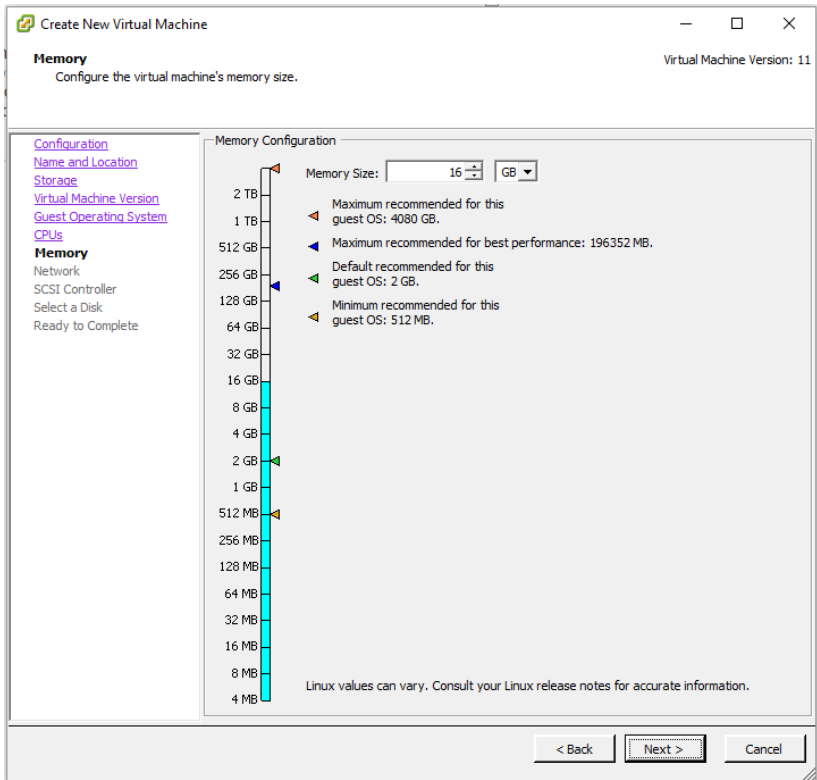




6. Add CPU – at least 4 cores:



7. Add RAM – at least 16 GB:





8. Add 2 NICs:

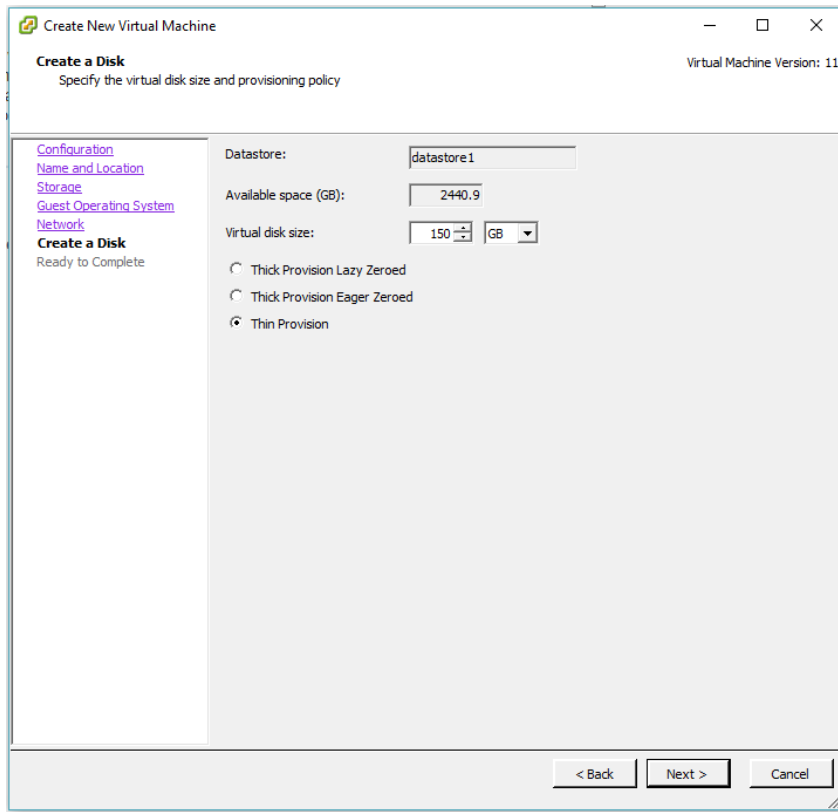
The screenshot shows the 'Create New Virtual Machine' dialog box, specifically the 'Network' configuration step. The title bar reads 'Create New Virtual Machine' and 'Virtual Machine Version: 11'. The main heading is 'Network' with the sub-heading 'Which network connections will be used by the virtual machine?'. On the left, there is a navigation pane with links for 'Configuration', 'Name and Location', 'Storage', 'Guest Operating System', and 'Network'. Below these links, it says 'Create a Disk' and 'Ready to Complete'. The main area is titled 'Create Network Connections' and asks 'How many NICs do you want to connect?' with a dropdown menu set to '2'. Below this is a table with columns for 'Network', 'Adapter', and 'Connect at Power On'. Two rows are shown: 'NIC 1' with network '4_130_171_LAN_10' and adapter 'E1000', and 'NIC 2' with network '4_130_181_LAN_12' and adapter 'E1000'. Both rows have a checked box in the 'Connect at Power On' column. Below the table, there is a note: 'If supported by this virtual machine version, more than 4 NICs can be added after the virtual machine is created, via its Edit Settings dialog.' and another note: 'Adapter choice can affect both networking performance and migration compatibility. Consult the VMware KnowledgeBase for more information on choosing among the network adapters supported for various guest operating systems and hosts.' At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

9. Choose the Controller type:

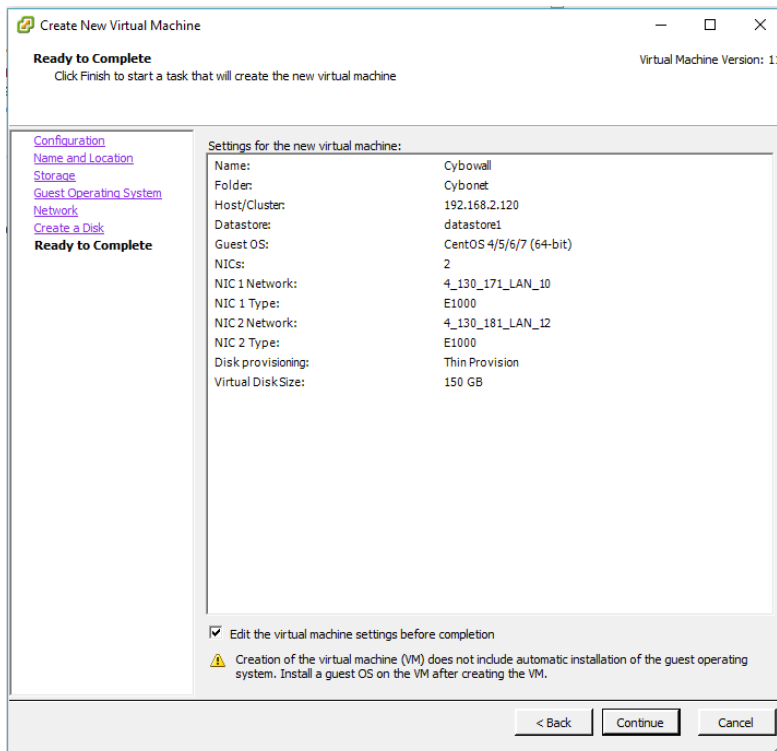
The screenshot shows the 'Create New Virtual Machine' dialog box, specifically the 'SCSI Controller' configuration step. The title bar reads 'Create New Virtual Machine' and 'Virtual Machine Version: 11'. The main heading is 'SCSI Controller' with the sub-heading 'Which SCSI controller type would you like to use?'. On the left, there is a navigation pane with links for 'Configuration', 'Name and Location', 'Storage', 'Virtual Machine Version', 'Guest Operating System', 'CPU's', 'Memory', 'Network', and 'SCSI Controller'. Below these links, it says 'Select a Disk' and 'Ready to Complete'. The main area is titled 'SCSI controller' and has four radio button options: 'BusLogic Parallel (not recommended for this guest OS)', 'LSI Logic Parallel', 'LSI Logic SAS' (which is selected), and 'VMware Paravirtual'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.



10. Create the first HDD for the OS – set size to at least 150 GB. The system boots from this disk:

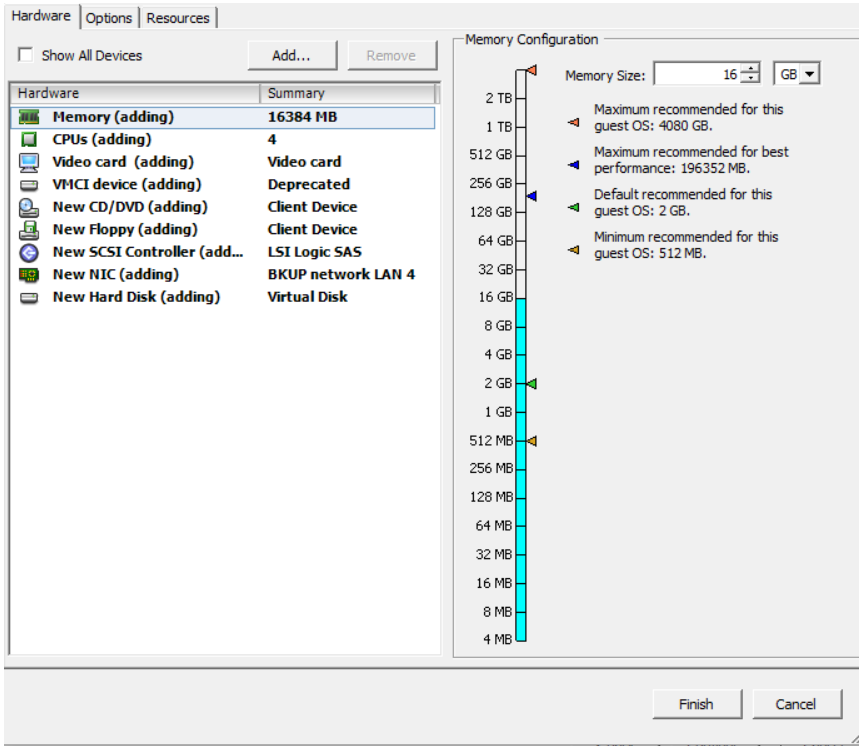


11. Click on Next, then check the 'Edit the virtual machine settings' check box. Click Continue:

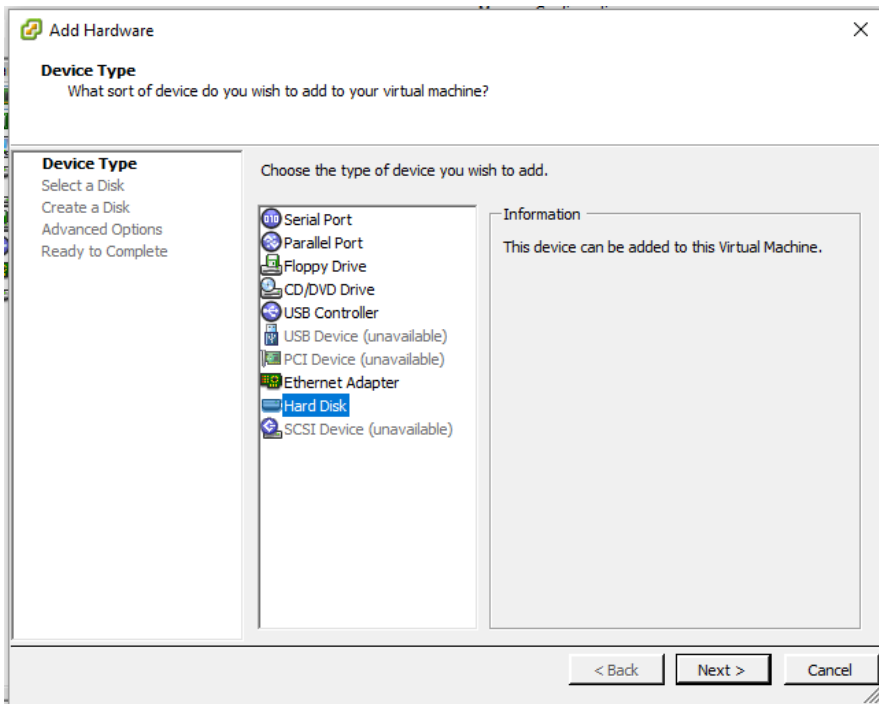




12. Click Add in order to add a second HDD:



13. Select Hard Disk and click Next:





14. Select Capacity, Disk Provisioning and Location. This HDD is for the database and needs to be smaller than the first HDD:

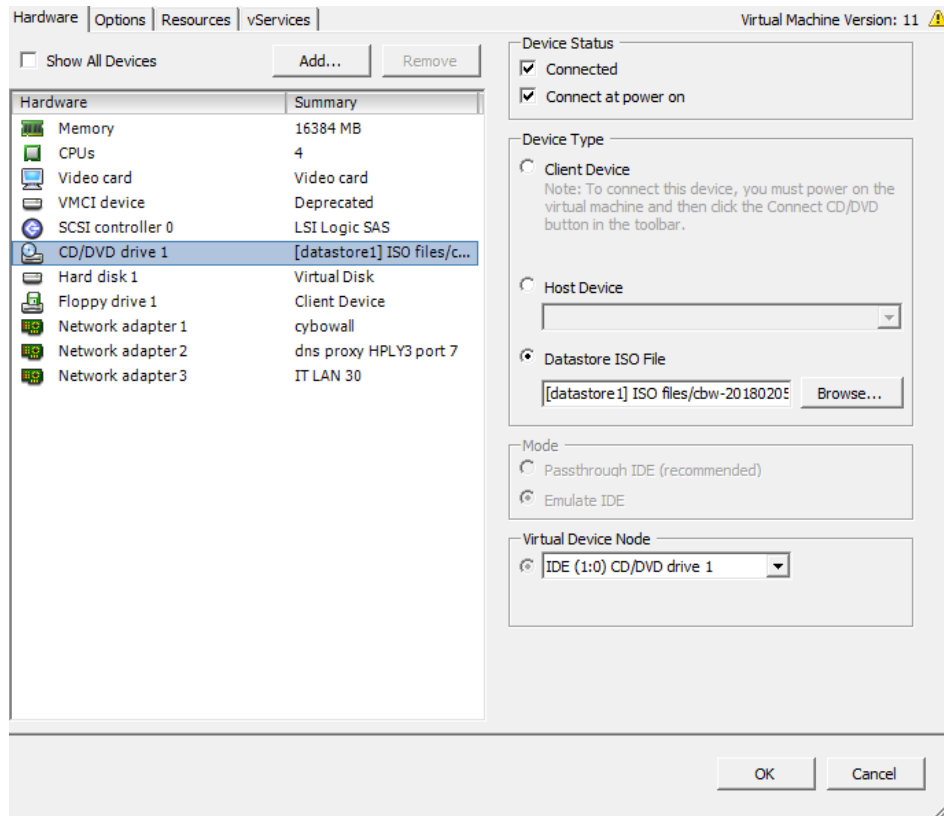
The screenshot shows the 'Add Hardware' dialog box with the 'Create a Disk' step selected. The dialog is titled 'Add Hardware' and has a close button (X) in the top right corner. Below the title bar, it says 'Create a Disk' and 'Specify the virtual disk size and provisioning policy'. On the left side, there is a navigation pane with links: 'Device Type', 'Select a Disk', 'Create a Disk' (which is highlighted), 'Advanced Options', and 'Ready to Complete'. The main area is divided into three sections: 'Capacity', 'Disk Provisioning', and 'Location'. In the 'Capacity' section, 'Disk Size' is set to 70 GB. In the 'Disk Provisioning' section, 'Thin Provision' is selected. In the 'Location' section, 'Store with the virtual machine' is selected. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

15. Click Next and then Next again (unless changing Advanced Options). Click Finish:

The screenshot shows the 'Add Hardware' dialog box with the 'Ready to Complete' step selected. The dialog is titled 'Add Hardware' and has a close button (X) in the top right corner. Below the title bar, it says 'Ready to Complete' and 'Review the selected options and click Finish to add the hardware.'. On the left side, there is a navigation pane with links: 'Device Type', 'Select a Disk', 'Create a Disk', 'Advanced Options', and 'Ready to Complete' (which is highlighted). The main area is divided into two sections: 'Options:' and a list of selected options. The 'Options:' section lists: 'Hardware type: Hard Disk', 'Create disk: New virtual disk', 'Disk capacity: 70 GB', 'Disk provisioning: Thin Provision', 'Datastore: ProdDataStore', 'Virtual Device Node: SCSI (0:1)', and 'Disk mode: Persistent'. At the bottom, there are three buttons: '< Back', 'Finish', and 'Cancel'.



16. Add the Cybowall ISO and check the 'Connect at power on' check box. Click Finish and boot the virtual machine and open the console:

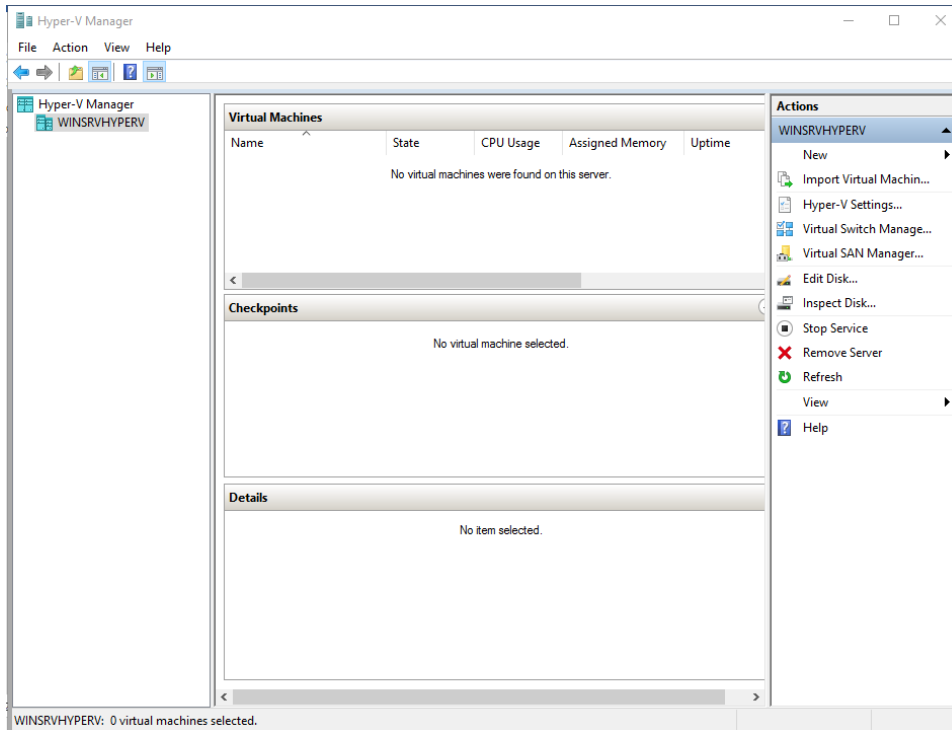


17. Refer to the Physical Installation section of this QIG and follow the instructions from step 5.

Installing Cybowall as a Virtual Host on Hyper-V

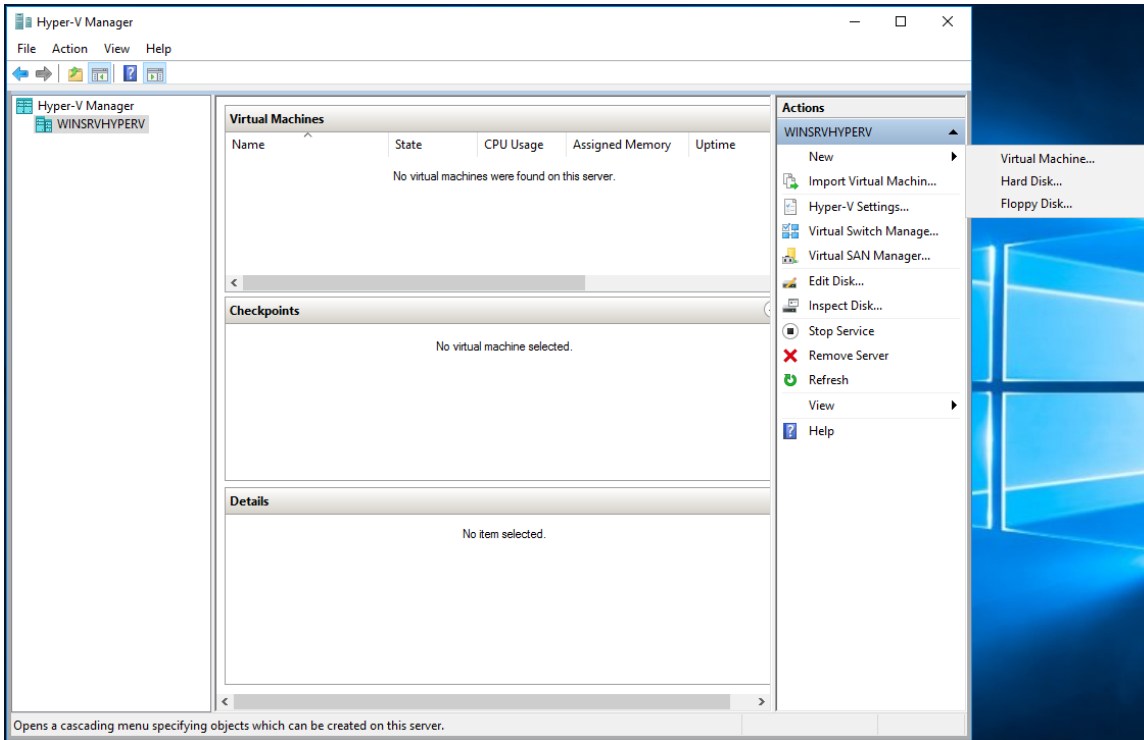
These instructions are for Hyper-V version 10.0.14393.0, on Windows Server 2016. Installation can also be performed on previous versions of Hyper-V and Windows Server.

1. Open Hyper-V Manager:

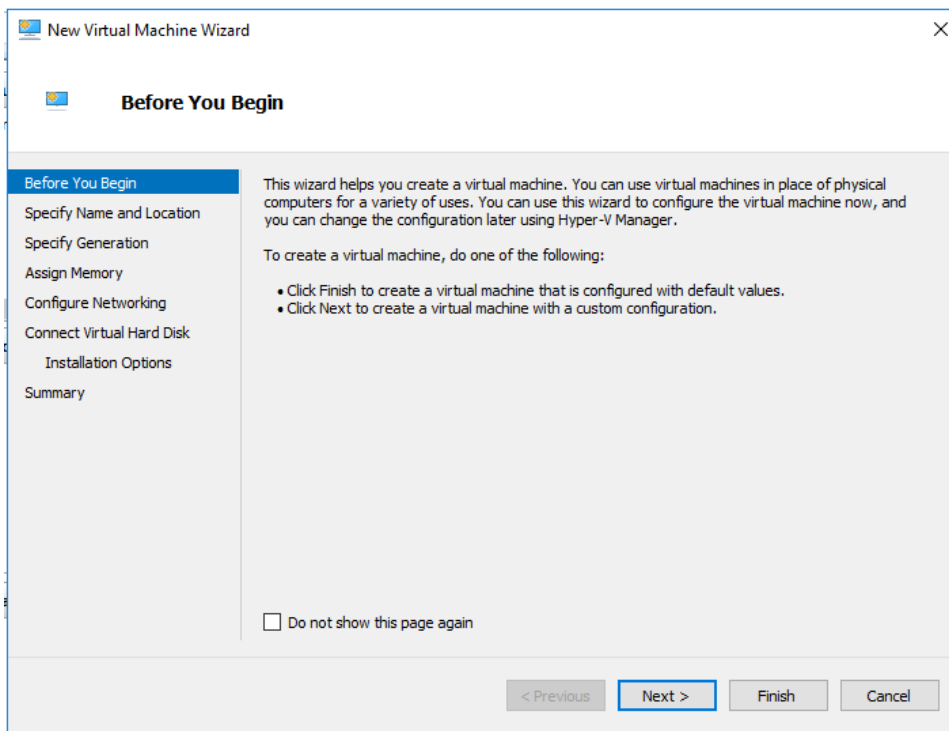




2. Click on New > Virtual Machine in the Actions pane on the right:



3. Click Next:





4. Enter the name of the virtual machine and click Next:

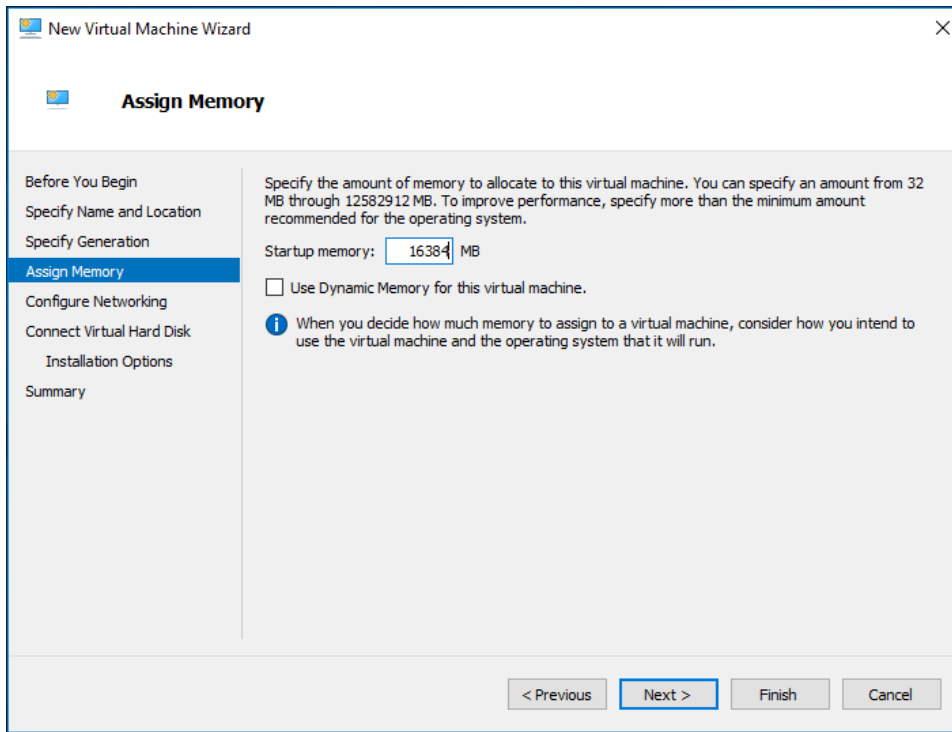
The screenshot shows the 'Specify Name and Location' step of the 'New Virtual Machine Wizard'. The left sidebar contains a list of steps: 'Before You Begin', 'Specify Name and Location' (highlighted), 'Specify Generation', 'Assign Memory', 'Configure Networking', 'Connect Virtual Hard Disk', 'Installation Options', and 'Summary'. The main area contains the following text: 'Choose a name and location for this virtual machine. The name is displayed in Hyper-V Manager. We recommend that you use a name that helps you easily identify this virtual machine, such as the name of the guest operating system or workload.' Below this, there is a 'Name:' text box containing 'Cybowall'. Further down, there is a checkbox labeled 'Store the virtual machine in a different location' which is unchecked. Below the checkbox is a 'Location:' text box containing 'C:\ProgramData\Microsoft\Windows\Hyper-V\' and a 'Browse...' button. At the bottom, there is a warning icon and text: 'If you plan to take checkpoints of this virtual machine, select a location that has enough free space. Checkpoints include virtual machine data and may require a large amount of space.' At the bottom right, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

5. Select Generation 1:

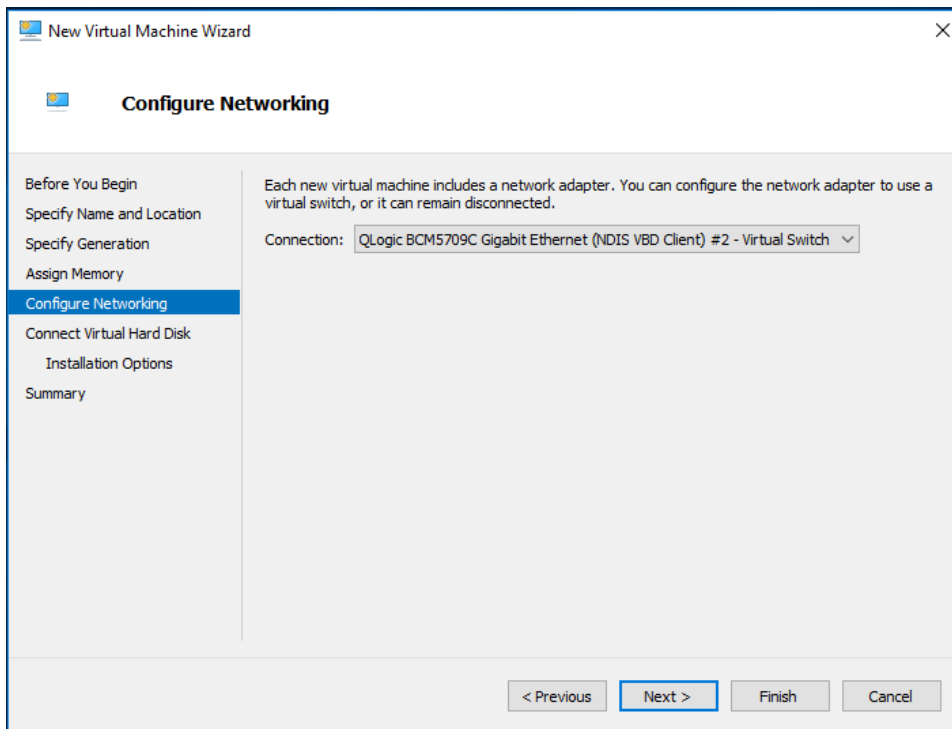
The screenshot shows the 'Specify Generation' step of the 'New Virtual Machine Wizard'. The left sidebar contains a list of steps: 'Before You Begin', 'Specify Name and Location', 'Specify Generation' (highlighted), 'Assign Memory', 'Configure Networking', 'Connect Virtual Hard Disk', 'Installation Options', and 'Summary'. The main area contains the following text: 'Choose the generation of this virtual machine.' Below this, there are two radio button options: 'Generation 1' (selected) and 'Generation 2'. Under 'Generation 1', the text reads: 'This virtual machine generation supports 32-bit and 64-bit guest operating systems and provides virtual hardware which has been available in all previous versions of Hyper-V.' Under 'Generation 2', the text reads: 'This virtual machine generation provides support for newer virtualization features, has UEFI-based firmware, and requires a supported 64-bit guest operating system.' Below the radio buttons is a warning icon and text: 'Once a virtual machine has been created, you cannot change its generation.' At the bottom, there is a blue link: 'More about virtual machine generation support'. At the bottom right, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.



6. For Startup memory, configure 16384 MB and click Next:



7. Select the relevant connector to be used for Management and Scanning, then click Next:



Note: Cybowall requires 2 interfaces. The 2nd interface is added after setup is complete and before turning on the Virtual Machine.



8. Select 'Create a virtual hard disk', give it a Name (if different than the virtual machine (VM) name), Location and Size (150 GB):

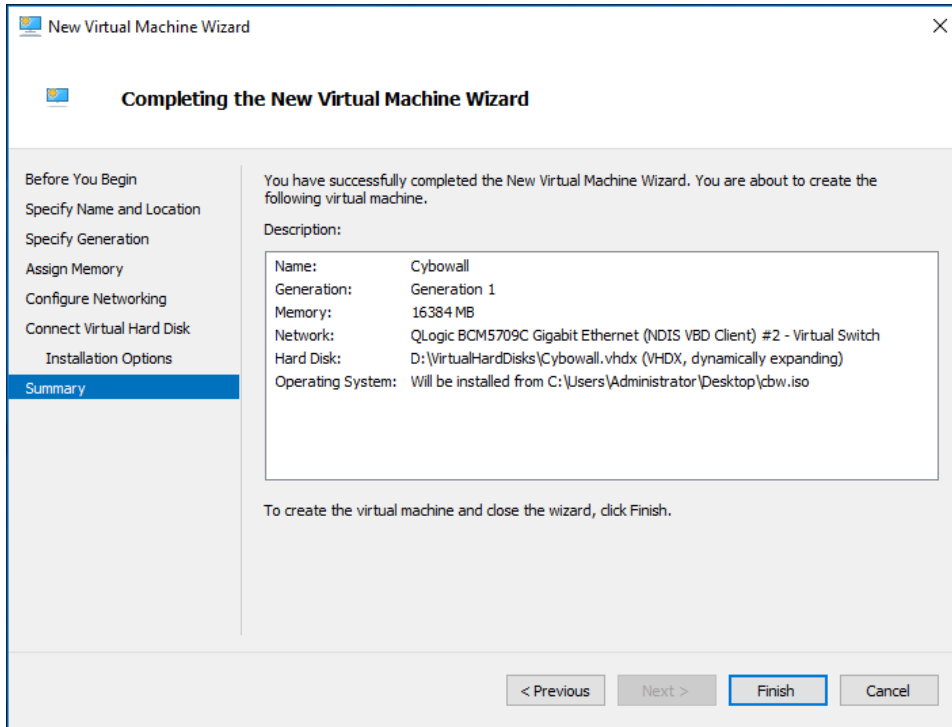
The screenshot shows the 'Connect Virtual Hard Disk' step of the 'New Virtual Machine Wizard'. The left sidebar lists steps: Before You Begin, Specify Name and Location, Specify Generation, Assign Memory, Configure Networking, Connect Virtual Hard Disk (highlighted), Installation Options, and Summary. The main area contains instructions: 'A virtual machine requires storage so that you can install an operating system. You can specify the storage now or configure it later by modifying the virtual machine's properties.' Three radio button options are present: 'Create a virtual hard disk' (selected), 'Use an existing virtual hard disk', and 'Attach a virtual hard disk later'. Under 'Create a virtual hard disk', there are input fields for Name (Cybowall.vhdx), Location (D:\VirtualHardDisks\), and Size (150 GB (Maximum: 64 TB)). 'Use an existing virtual hard disk' has a Location field (D:\VirtualHardDisks\). 'Attach a virtual hard disk later' has no fields. Navigation buttons at the bottom are '< Previous', 'Next >', 'Finish', and 'Cancel'.

9. Select 'Install an operating system from a bootable CD/DVD-ROM', browse to the Image file (.iso) and click Next:

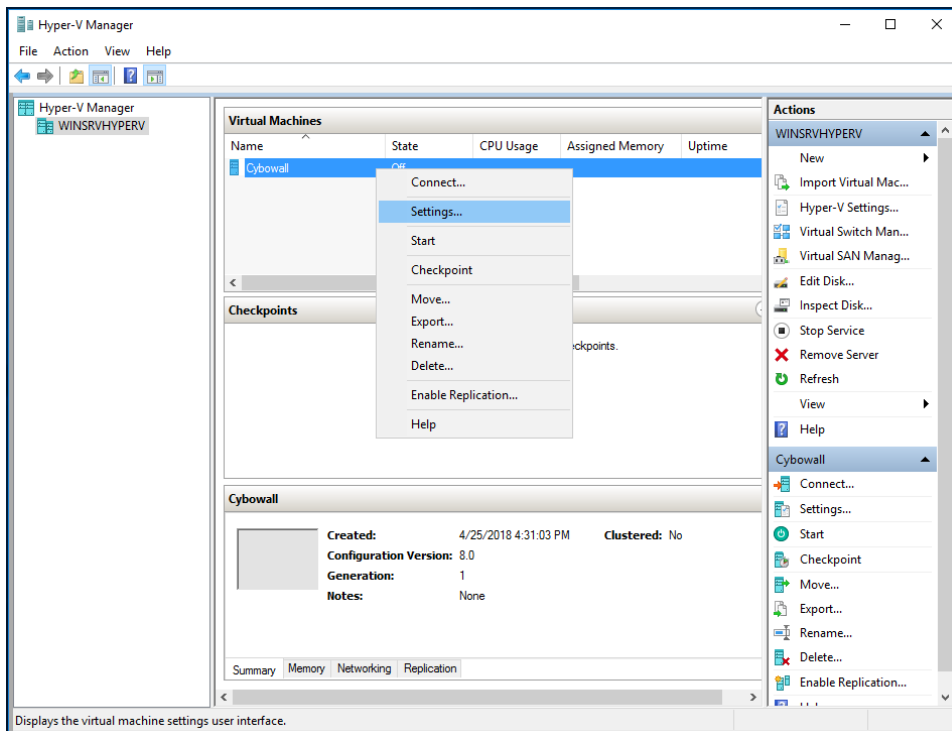
The screenshot shows the 'Installation Options' step of the 'New Virtual Machine Wizard'. The left sidebar lists steps: Before You Begin, Specify Name and Location, Specify Generation, Assign Memory, Configure Networking, Connect Virtual Hard Disk, Installation Options (highlighted), and Summary. The main area contains instructions: 'You can install an operating system now if you have access to the setup media, or you can install it later.' Three radio button options are present: 'Install an operating system later', 'Install an operating system from a bootable CD/DVD-ROM' (selected), and 'Install an operating system from a network-based installation server'. Under 'Install an operating system from a bootable CD/DVD-ROM', there are two sub-options: 'Physical CD/DVD drive' (unselected) and 'Image file (.iso):' (selected). The 'Image file (.iso):' field contains 'C:\Users\Administrator\Desktop\cbw.iso'. 'Install an operating system from a bootable floppy disk' has a 'Virtual floppy disk (.vfd):' field. 'Install an operating system from a network-based installation server' has no fields. Navigation buttons at the bottom are '< Previous', 'Next >' (highlighted), 'Finish', and 'Cancel'.



10. Review the configuration to ensure it is correct, then click Finish:

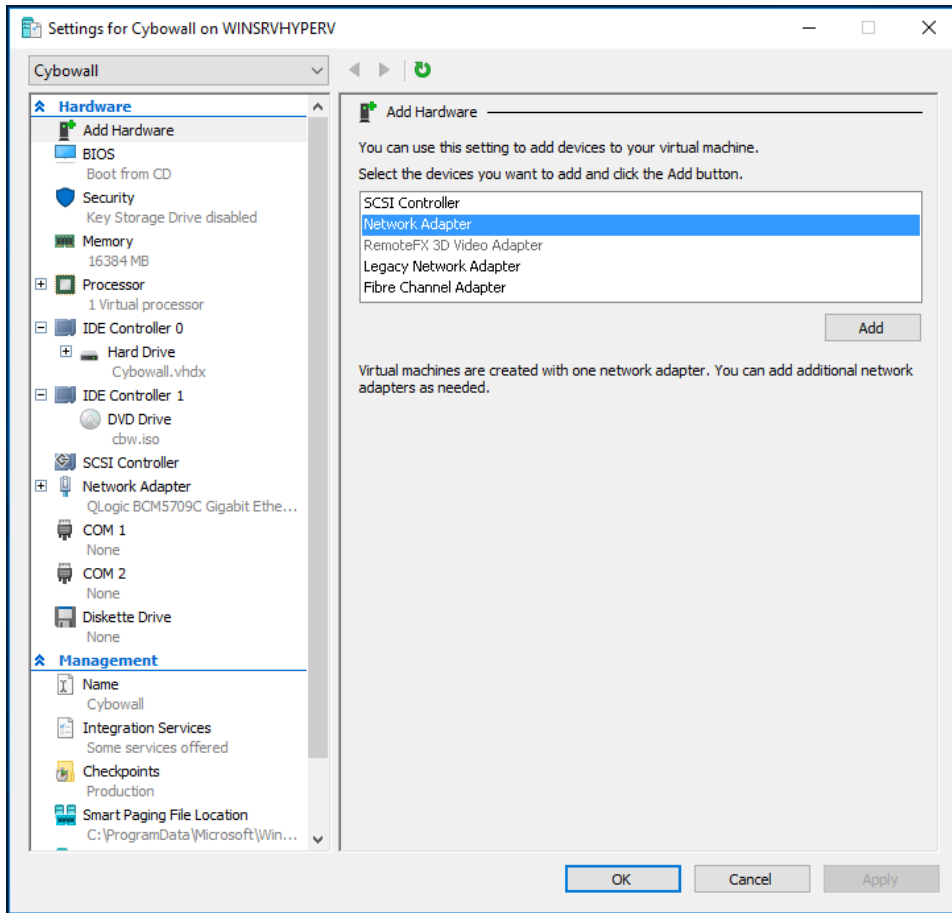


11. Before turning on the VM, it is necessary to configure several other options. In Hyper-V Manager right click the Cybowall VM and select 'Settings':

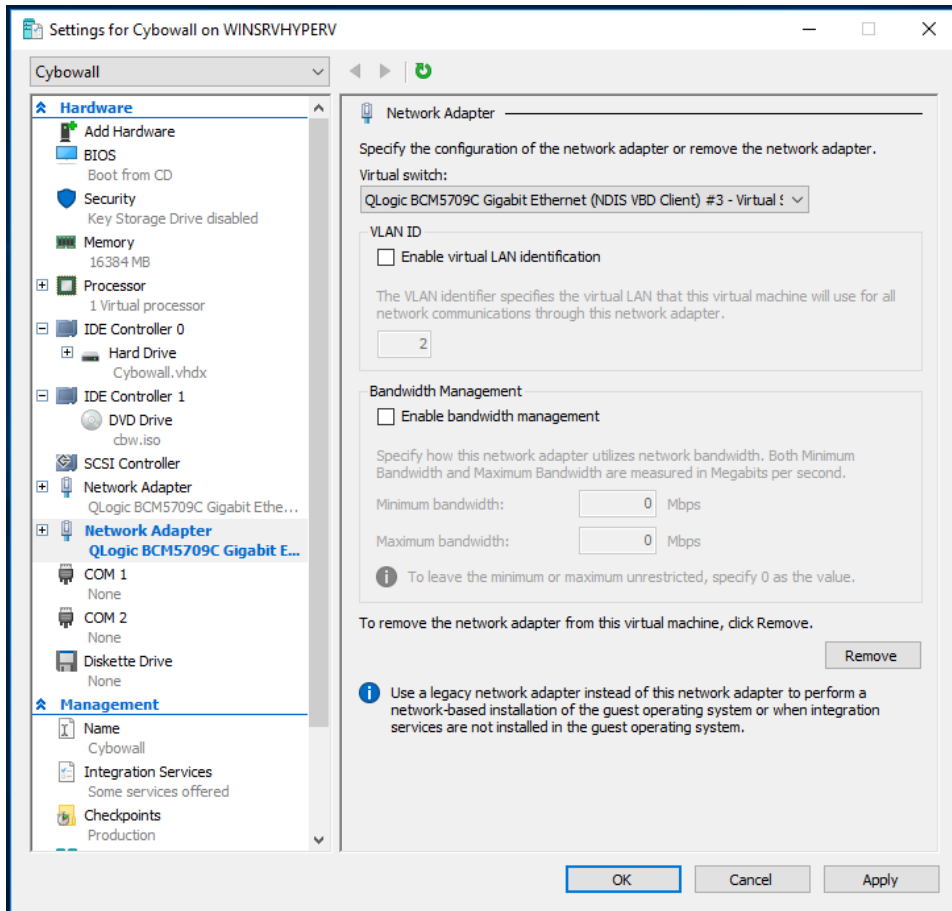




12. Click Add Hardware and choose Network Adapter:

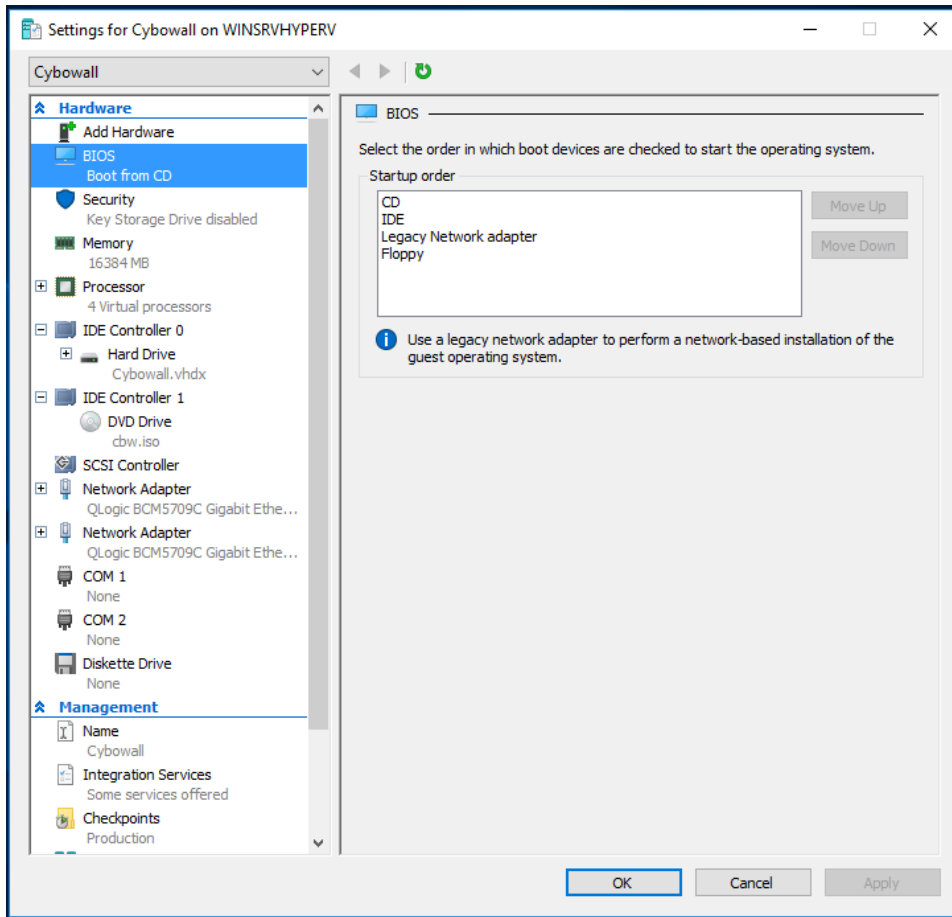


13. Select the Network Adapter added in the previous step and choose the Virtual switch relevant for Port Mirroring:



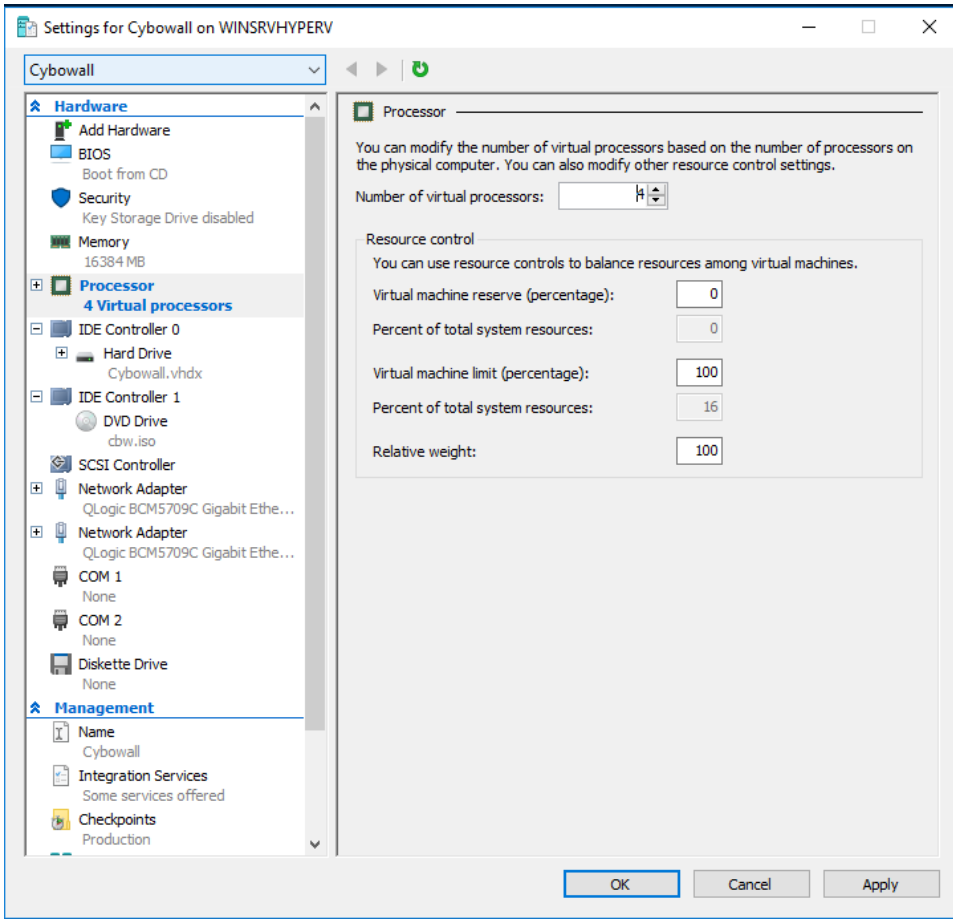


14. Select BIOS and verify that the VM is configured to Boot from CD:



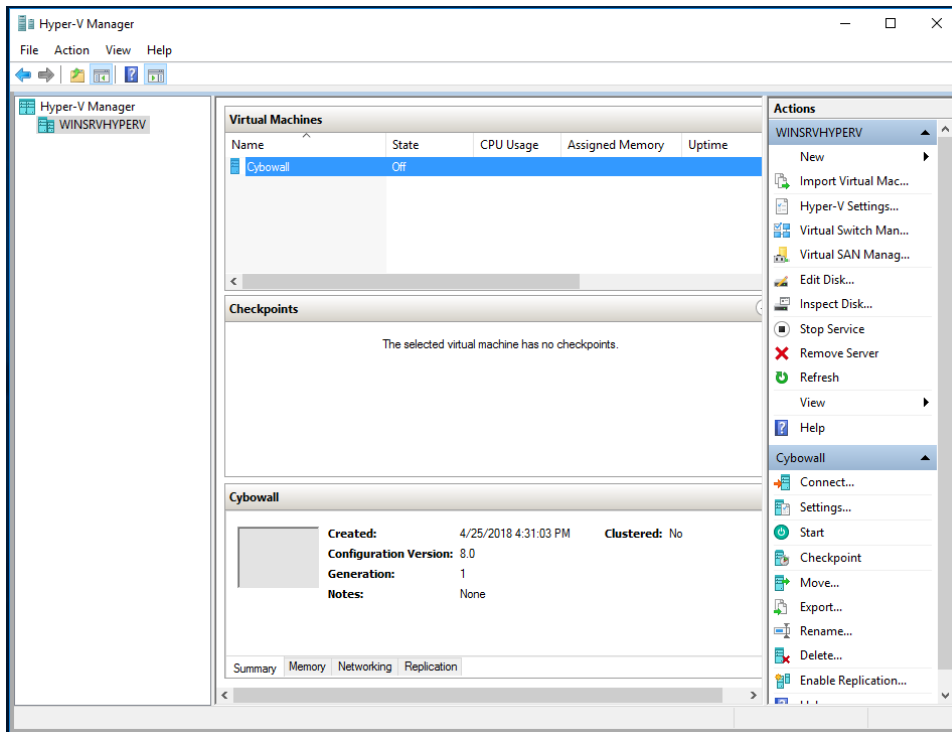


15. Select Processor and increase the 'Number of virtual processors' to 4. Click OK:

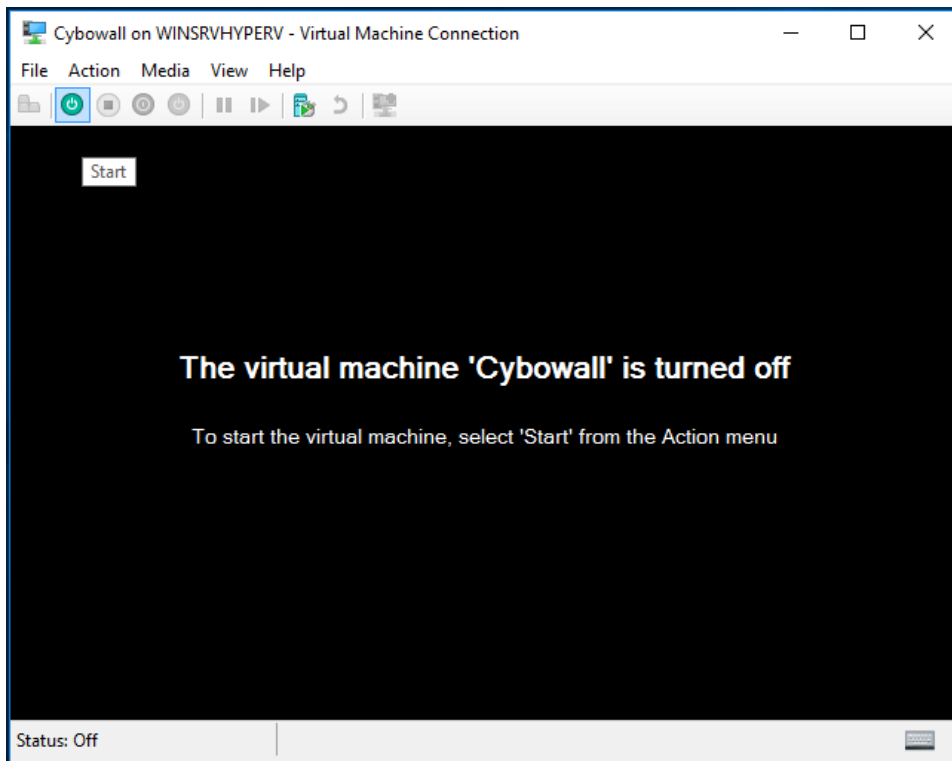




16. Return to Hyper-V Manager and double click the newly created Cybowall VM:



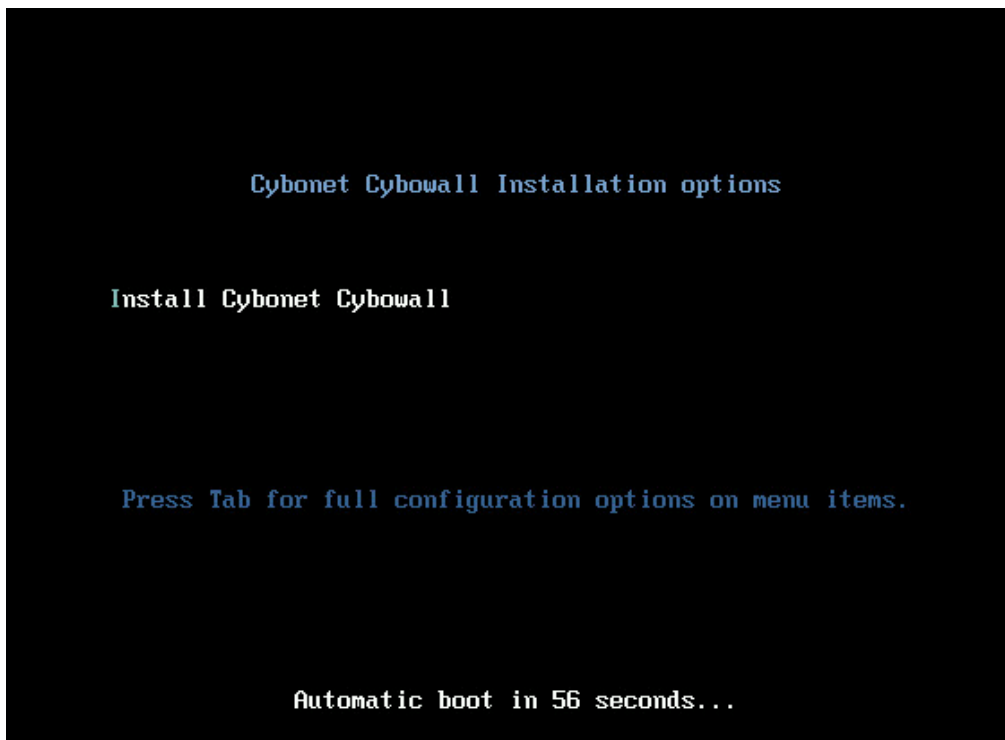
17. Start the VM by clicking the Start button:



18. Refer to the Physical Installation section on the next page and follow the instructions from step 5.

Physical Installation

1. Place the dedicated Cybowall server in a suitable location or in a standard 1U rack mount. Be sure that the cooling vents in the rear are not blocked or obstructed.
2. Connect the power cord to the rear of the unit.
3. Power up the appliance using the power switch located in the front/rear of the unit according to the appliance. The power LED on the front panel lights up. Ensure the LED is ON before continuing.
4. Insert the CD or USB drive and boot from the relevant media.
5. Connect a screen and keyboard to the physical server or open a console on a virtual host. The following screen appears:



6. Press Enter or wait for the Automatic boot to take place. The installation process is automatic and does not require any intervention.



7. Once completed, the following screen appears. Reboot as prompted:

```
17.38 Cybwall38 QA [Idan] on 192.168.2.120
File View VM
Installing iw13160-firmware (537/550)
Installing iw1135-firmware (538/550)
Installing iw17260-firmware (539/550)
Installing iw13945-firmware (540/550)
Installing iotv-firmware (541/550)
Installing iw16050-firmware (542/550)
Installing iw1100-firmware (543/550)
Installing iw17265-firmware (544/550)
Installing iw16000g2b-firmware (545/550)
Installing iw12030-firmware (546/550)
Installing iw16000g2a-firmware (547/550)
Installing iw15000-firmware (548/550)
Installing iw14965-firmware (549/550)
Installing iw1105-firmware (550/550)
Performing post-installation setup tasks
Installing boot loader
.
Performing post-installation setup tasks
.
Configuring installed system
.
Writing network configuration
.
Creating users
.
Configuring addons
.
Generating initramfs
.
Running post-installation scripts
.
Use of this product is subject to the license agreement found at /usr/share/centos-release/E
ULA
.
Installation complete. Press return to quit_
tanacondal 1:main* 2:shell 3:log 4:storage-log 5:program-log Switch tab: Alt+Tab | Help: F1
To release cursor, press CTRL + ALT
```



Configuring the Cybowall Management IP Address

Cybowall's management IP address is configured using CLI commands.

1. If installing Cybowall in a physical environment, connect a screen and a keyboard. If installing a virtual appliance, open the console.
2. Enter the default username and password. The default username is 'admin' and the default password is 'CBWadminPa\$\$'
3. To access the network configuration CLI, type 'setup' and Enter
4. Type 'show interfaces' to see the IP address:

```
[cli@Cybowall] show interfaces
System's interfaces information:

Interface "eth0":
-----
ID:                1
SERVICE:         Management
IP Address:       192.168.42.84
MASK:             255.255.255.0
```

5. Configure the Cybowall management IP address by typing 'set interface eth0 X.X.X.X/YY Management':

```
[cli@Cybowall] set interface eth0 192.168.17.36/24 Management
Changes were successfully updated/saved. In order to enforce them run "applychanges"
```

6. Configure the default gateway by typing 'set dgw X.X.X.X':


```
[cli@Cybowall] set dgw 192.168.17.254
Changes were successfully updated/saved. In order to enforce them run "applychanges"
```

7. Run 'applychanges' to save the information.
8. Once the IP address has been changed, test connectivity and access Cybowall from the network.
9. To test connectivity, exit the CLI, by typing 'exit'. This returns to the main console – admin@Cybowall.
10. Type 'ping [gateway IP address]' to ensure connectivity.



Additional Configuration Steps

1. Open a web browser and navigate to the IP configured for Cybowall: <https://X.X.X.X:7443>
2. Enter the default username and password. The default username is 'admin' and the default password is 'CBWadminPa\$\$':



Username

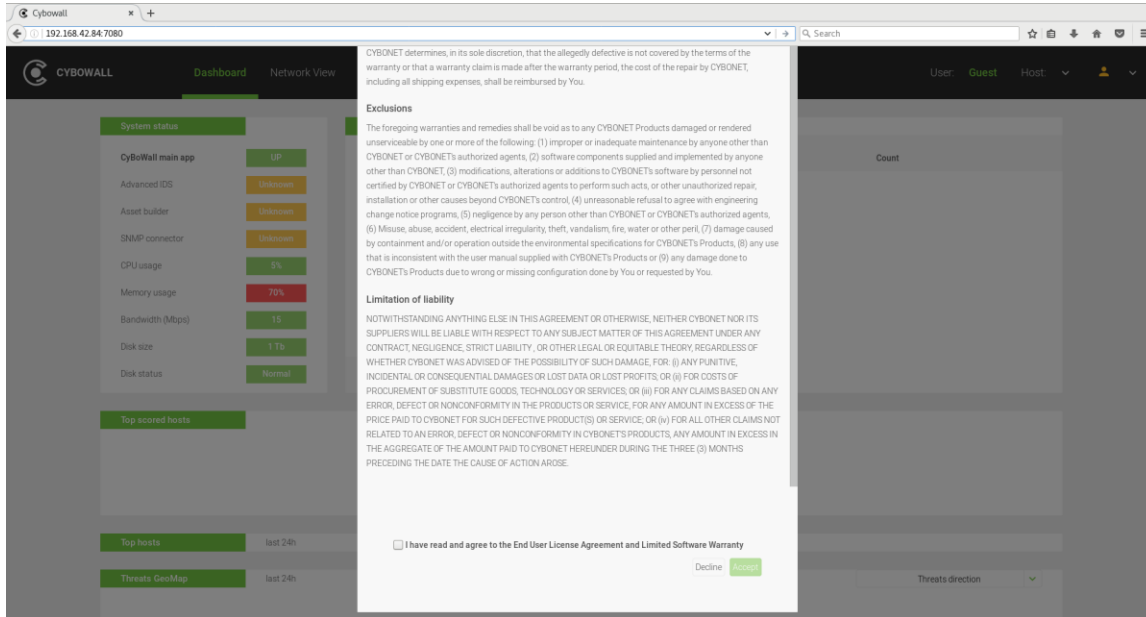
Password

Sign in

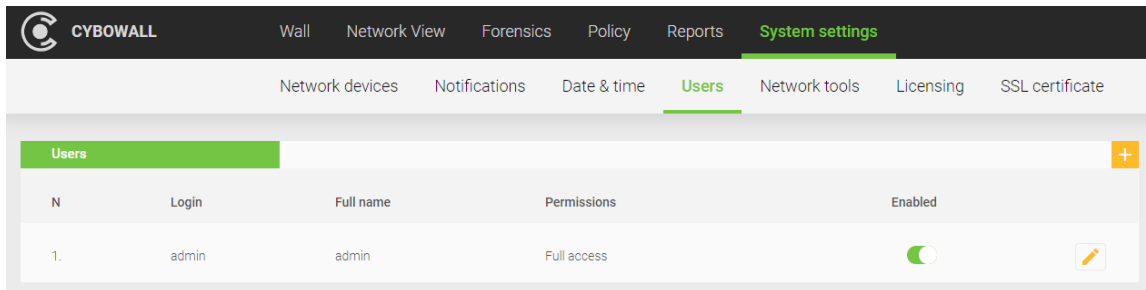
Version: 0.9 Build: 1804.04.1544



3. In order to continue, read and accept the User License Agreement:



4. Once successfully logged in, it is recommended to change the system password before continuing. Navigate from the Cybwall dashboard (the "Wall") to the System Settings > Users tab. Click the Edit icon to change the password:

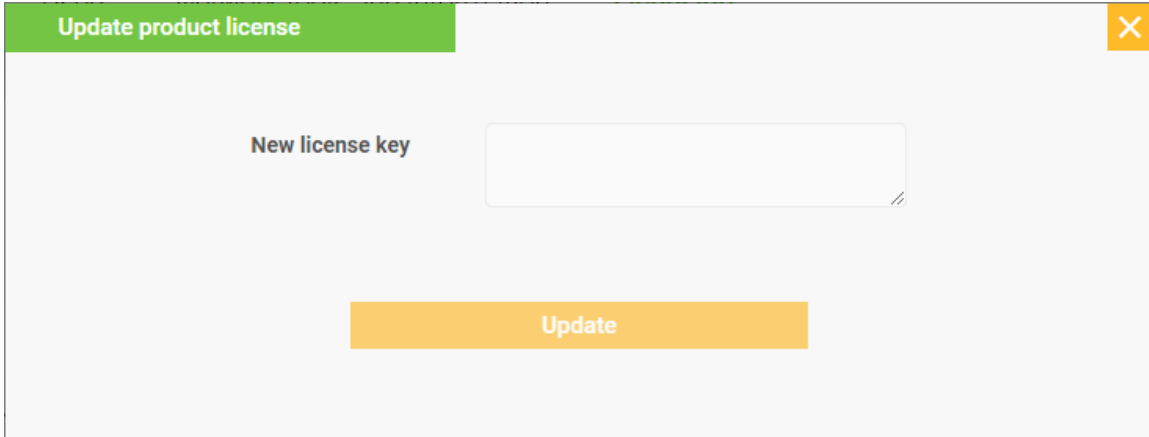


Note: It is recommended to create User accounts for each user accessing Cybwall.

Installing the Cybowall License

After configuring Cybowall's management IP address, it is necessary to install the license key in order for the Cybowall engines to operate.

1. Navigate to System settings > Licensing.
2. Click Update. The following window appears:



The screenshot shows a dialog box titled "Update product license" with a close button in the top right corner. Inside the dialog, there is a label "New license key" followed by a text input field. Below the input field is a yellow "Update" button.

3. Input the license key and click Update.



About CYBONET

CYBONET, formerly PineApp, was originally established as an email security solutions company. Since 2002, CYBONET has been providing easy to deploy, flexible and scalable security solutions that empower organizations of all sizes to actively safeguard their networks in the face of today's evolving threats. CYBONET's product suite includes our new Cybowall solution for network visibility, vulnerability management and breach detection, our flagship PineApp Mail Secure for comprehensive email security, and our carrier-grade Outbound Spam Guard (OSG). With a continued emphasis on developing and delivering high quality solutions, and in conjunction with our valued partner community, CYBONET is dedicated to security.

For further details, contact info@cybonet.com

www.cybonet.com