

How to Deploy a NextGen F-Series Vx using F-Series Install on a VMware Hypervisor

<https://campus.barracuda.com/doc/53248766/>

The OVA package uses a default configuration that may not be suitable for your deployment. If you want to use multiple network interfaces, a different type of network adapter, or a bigger size for the virtual disk, use Barracuda F-Series Install to create the custom configuration files that you need to deploy the Barracuda NextGen Firewall F-Series Vx with your specific settings.

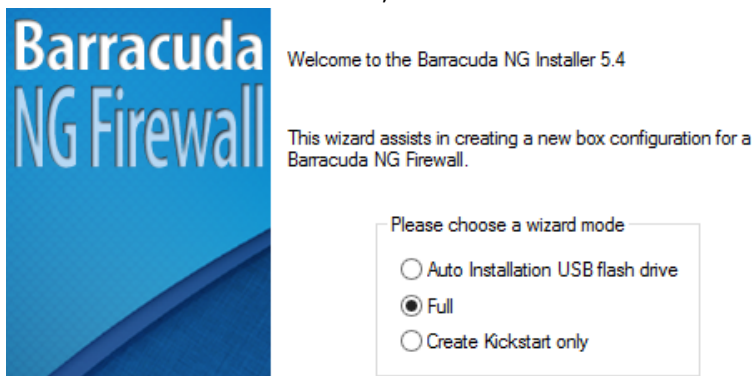
Before You Begin

- From the [Barracuda Download Portal](#), download the following:
 - The ISO image for the Barracuda NextGen Firewall F-Series Vx version that you want to install. There is only one ISO for the Barracuda NextGen Firewall F-Series and Barracuda NextGen Control Center.
 - Barracuda F-Series Install for the firmware version that you are going to install.
- [Download and install WinImage](#) or a comparable utility to create *flp* floppy images.
- You must install the [Visual C++ Redistributable for Visual Studio 2012](#) on your computer to use Barracuda F-Series Install.
- Decide on the sizing requirements for your Barracuda NextGen Firewall F-Series Vx. For more information, see [Virtual Systems \(Vx\)](#).

Step 1. Create Configuration Files with Barracuda F-Series Install

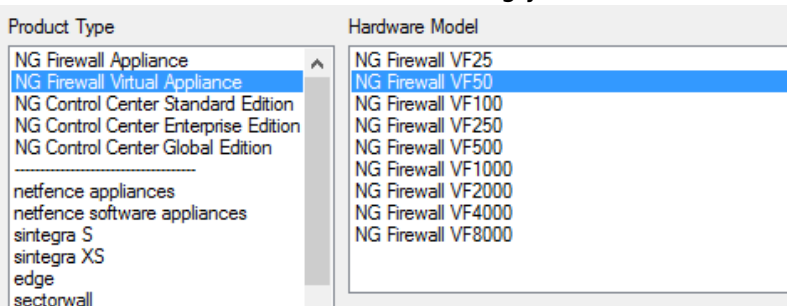
Create the configuration files with Barracuda F-Series Install.

1. Start Barracuda F-Series Install.
2. Select the **Full** wizard mode, and then click **Next**.



3. On the **Box Type Settings** page, select the **Product Type** and **Hardware Model** for your virtual appliance. You can configure Barracuda NextGen Virtual Appliances and Barracuda

NextGen Control Centers. After making your selections, click **Next**.



The screenshot shows two side-by-side lists. The left list, titled 'Product Type', includes options like 'NG Firewall Appliance', 'NG Firewall Virtual Appliance' (which is selected), 'NG Control Center Standard Edition', 'NG Control Center Enterprise Edition', 'NG Control Center Global Edition', 'netfence appliances', 'netfence software appliances', 'sintegra S', 'sintegra XS', 'edge', and 'sectorwall'. The right list, titled 'Hardware Model', includes options like 'NG Firewall VF25', 'NG Firewall VF50' (which is selected), 'NG Firewall VF100', 'NG Firewall VF250', 'NG Firewall VF500', 'NG Firewall VF1000', 'NG Firewall VF2000', 'NG Firewall VF4000', and 'NG Firewall VF8000'.

4. On the **Systems Settings** page:

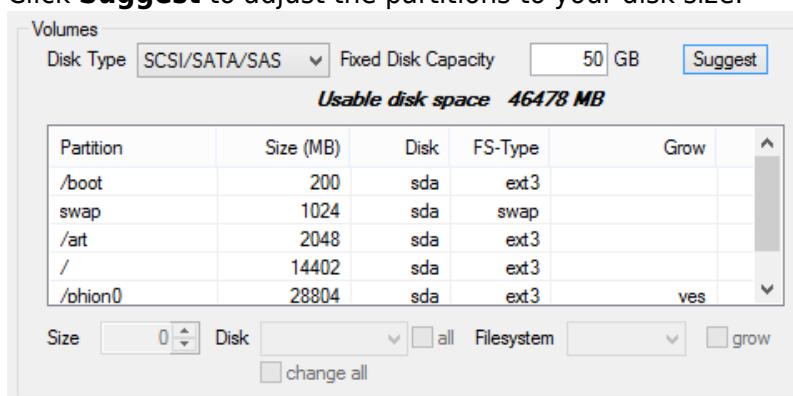
1. Enter the following settings:

- **Hostname** – Enter a hostname (e.g., Barracuda NextGen Firewall F-Series VF50).
- **Timezone** – Select the timezone that the appliance is in.
- **Keyboard Layout** – Select the keyboard layout for the console of the Barracuda NextGen Firewall F-Series Vx.
- **DNS** – Enter the DNS servers for your network.
- **Domain Suffix** – Enter the domain that your appliance is in.
- **Use NTP & IP** – Enable NTP and enter the IP address for the NTP server.

2. Click **Next**.

5. On the **Partition Settings** page:

1. In the **Fixed Disk Capacity** field, enter the virtual disk size in gigabytes. Barracuda Networks recommends that you use disks that are at least the sizes recommended in [Firewall Settings](#).
2. Click **Suggest** to adjust the partitions to your disk size.



The screenshot shows the 'Volumes' section of the partition settings. At the top, 'Disk Type' is set to 'SCSI/SATA/SAS' and 'Fixed Disk Capacity' is set to '50 GB'. A 'Suggest' button is visible. Below this, it states 'Usable disk space 46478 MB'. A table lists the partitions:

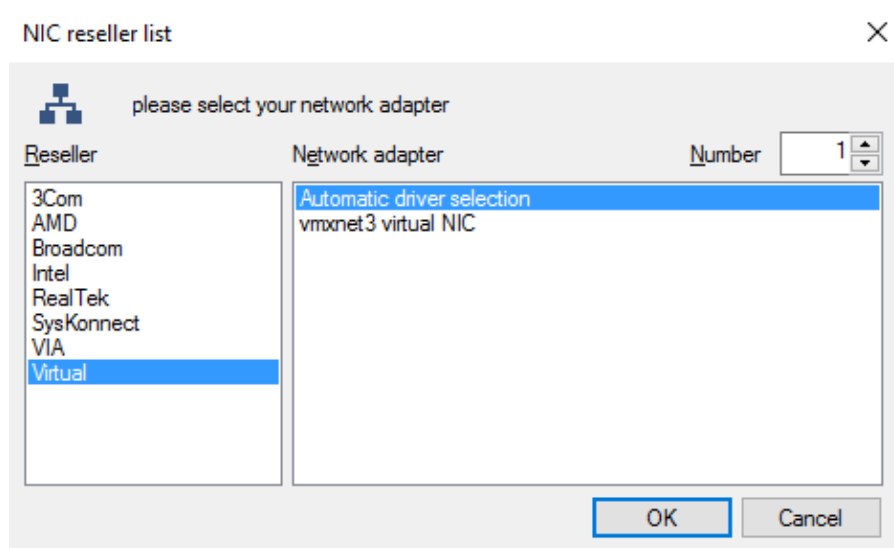
Partition	Size (MB)	Disk	FS-Type	Grow
/boot	200	sda	ext3	
swap	1024	sda	swap	
/art	2048	sda	ext3	
/	14402	sda	ext3	
/phion0	28804	sda	ext3	yes

At the bottom, there are controls for 'Size' (set to 0), 'Disk' (a dropdown), 'all' (checkbox), 'Filesystem' (a dropdown), 'grow' (checkbox), and a 'change all' button.

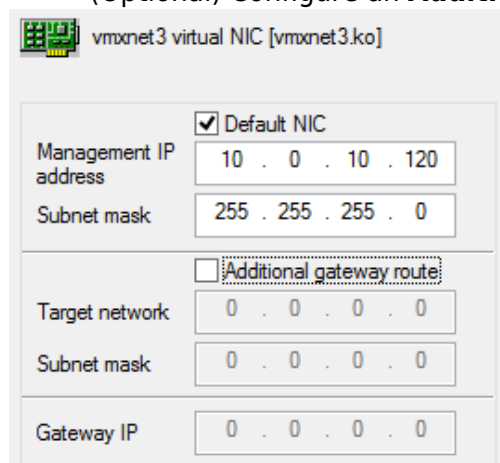
3. Click **Next**.

6. On the **Network Device Settings** page:

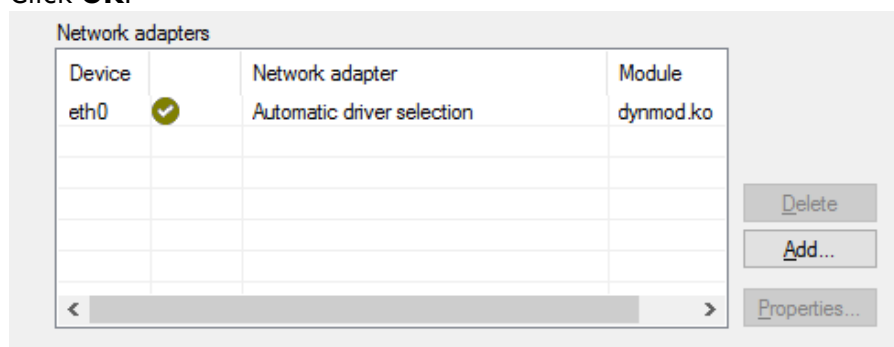
1. Click **Add** and then specify these settings in the **NIC reseller list** window:
 - **Reseller** – Select **Virtual**.
 - **Network adapter** – Select **Automatic driver selection**.
 - **Number** – Select the number of network interfaces.



2. Click **OK**.
3. Double-click the **eth0** network interface in the **Network Adapter** table and then specify these settings in the **NIC adapter configuration** window:
 - **Management IP address** – Enter the IP address that you want to use as the management IP address.
 - **Subnet mask** – Enter the subnet mask.
 - (Optional) Configure an **Additional Gateway route**.

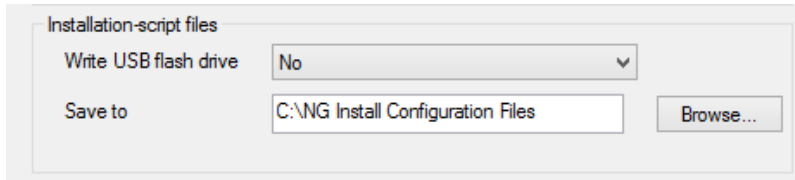


4. Click **OK**.



5. Click **Next**.
7. On the **Security Settings** page, enter the **Password** and **Service Login Password** and then click **Next**.

8. On the **Software Packages** page, click **Next**.
9. On the **Script Settings** page, enter the destination for your configuration files in the **Save to** field.

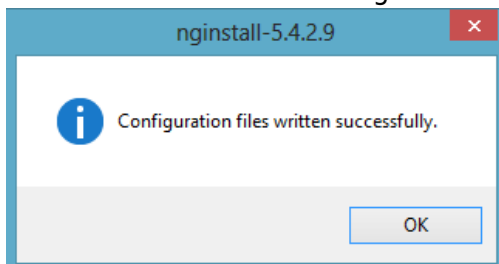


Installation-script files








Write USB flash drive

Save to

10. Click **Next**.
11. Click **Finish**. After the configuration files are successfully created, a message appears.



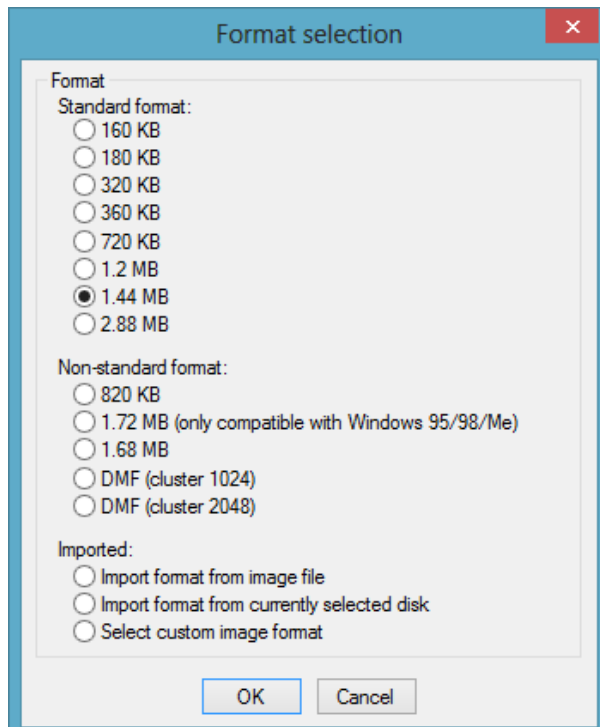
The following configuration files are created in the destination that you selected:

Name	Date modified	Type
 bootloader.conf	12.12.2013 14:19	CONF File
 box.conf	12.12.2013 14:19	CONF File
 boxadm.conf	12.12.2013 14:19	CONF File
 boxlic.conf	12.12.2013 14:19	CONF File
 boxnet.conf	12.12.2013 14:19	CONF File
 boxpriv.pem	12.12.2013 14:19	Privacy Enhanced ...
 ks.cfg	12.12.2013 14:19	CFG File

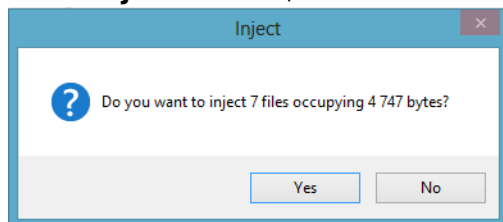
Step 2. Create a Floppy Image with WinImage

Add the configuration files that you created with Barracuda F-Series Install to a floppy image FLP file. You will attach this image to the VMware virtual machine during installation.

1. Start WinImage.
2. Locate the configuration files that you created with Barracuda F-Series Install.
3. Select all the Barracuda F-Series Install configuration files and drag them to the WinImage window.
4. In the **Format selection** window, select **1.44 MB** from the **Standard format** list and then click **OK**.



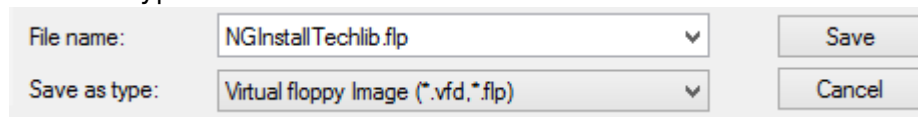
5. In the **Inject** window, click **Yes**.



6. Click the **Save** icon.

7. In the **Save as** window:

1. Select **Virtual floppy Image (*.vfd,*.flp)** from the **Save as type** list.
2. Enter a **File name** with the .flp extension (e.g., NGInstallFloppy.flp). Otherwise, WinImage saves the floppy image with the .vfd extension, which cannot be used by the VMware hypervisor.



3. Click **Save**.

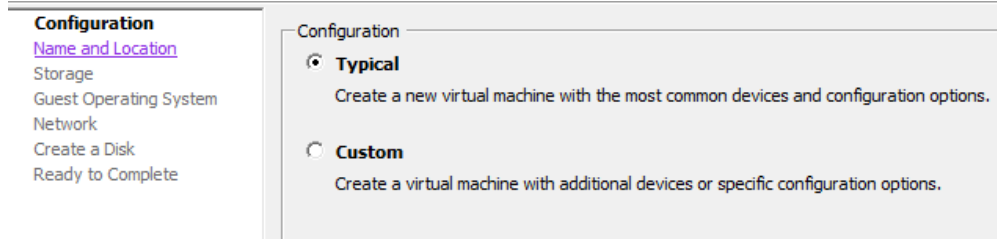
Step 3. Create a New Virtual Machine

On the VMware server, create a new virtual machine for the Barracuda NextGen Firewall F-Series Vx.

1. Using VMware vSphere Client, log into your VMware hypervisor.
2. Right-click the VMware server that you want to deploy the Barracuda NextGen Firewall F-Series Vx image on and select **New Virtual Machine**. The **Create New Virtual Machine** window

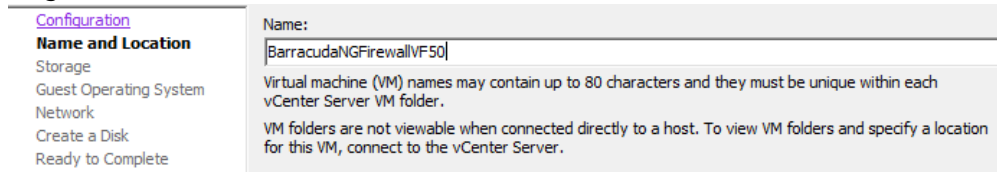
opens.

- On the **Configuration** page, select **Typical** and then click **Next**.



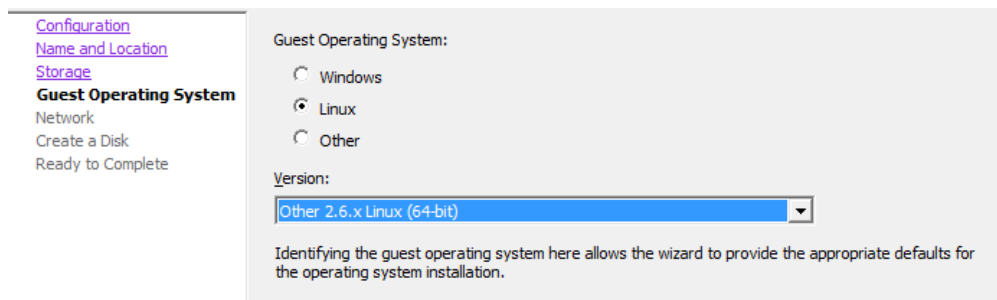
The screenshot shows the 'Configuration' page with a sidebar on the left containing links: Configuration, Name and Location, Storage, Guest Operating System, Network, Create a Disk, and Ready to Complete. The main content area has a 'Configuration' section with two radio buttons: 'Typical' (selected) and 'Custom'. The 'Typical' option is described as 'Create a new virtual machine with the most common devices and configuration options.' The 'Custom' option is described as 'Create a virtual machine with additional devices or specific configuration options.'

- On the **Name and Location** page, enter a **Name** for the virtual machine (e.g., BarracudaNGFirewallVF50) and then click **Next**.



The screenshot shows the 'Name and Location' page. The sidebar on the left has links: Configuration, Name and Location (selected), Storage, Guest Operating System, Network, Create a Disk, and Ready to Complete. The main content area has a 'Name:' field with the text 'BarracudaNGFirewallVF50' entered. Below the field, there is explanatory text: 'Virtual machine (VM) names may contain up to 80 characters and they must be unique within each vCenter Server VM folder. VM folders are not viewable when connected directly to a host. To view VM folders and specify a location for this VM, connect to the vCenter Server.'

- On the **Storage** page, select the datastore where the virtual disk should be created and then click **Next**.
- On the **Guest Operating System** page:
 - From the **Guest Operating System** list, select **Linux**.
 - From the **Version** list, select **Other 2.6.x Linux (64-bit)**.
 - Click **Next**.



The screenshot shows the 'Guest Operating System' page. The sidebar on the left has links: Configuration, Name and Location, Storage, Guest Operating System (selected), Network, Create a Disk, and Ready to Complete. The main content area has a 'Guest Operating System:' section with three radio buttons: 'Windows', 'Linux' (selected), and 'Other'. Below this is a 'Version:' dropdown menu with 'Other 2.6.x Linux (64-bit)' selected. At the bottom, there is a note: 'Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.'

- On the **Network** page:
 - Select the number of network interfaces from the **How many NICs do you want to connect** list. The number must match the number of network interfaces that you selected in [Step 1. Create Configuration Files with Barracuda F-Series Install](#).

You can only add four network interfaces in the **Create New Virtual Machine** wizard. If you need more than four virtual network interfaces, add the additional NICs by editing the finished virtual machine configuration. VMware limits the number of virtual network interfaces per guest OS to 10.

- For every NIC, specify these settings:
 - Network** – Select the virtual network that the virtual interface will connect to.
 - Adapter** – Select **VMXNET 3**. The adapter must match the Barracuda F-Series Install configuration. Barracuda Networks recommends using the VMXNET3 driver.
 - Connect at Power On** – Select this check box to connect the NIC to the VM.
- Click **Next**.

[Configuration](#)
[Name and Location](#)
[Storage](#)
[Guest Operating System](#)
Network
[Create a Disk](#)
 Ready to Complete

Create Network Connections

How many NICs do you want to connect?

	Network	Adapter	Connect at Power On
NIC 1:	Int Network	VMXNET 3	<input checked="" type="checkbox"/>
NIC 2:	HQ-ISP1	VMXNET 3	<input checked="" type="checkbox"/>
NIC 3:	HQ-ISP2	VMXNET 3	<input checked="" type="checkbox"/>
NIC 4:	HQ-DMZ	VMXNET 3	<input checked="" type="checkbox"/>

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.

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.

8. On the **Create a Disk** page:
 1. Enter the **Virtual disk size**. For more information, see [Firewall Settings](#).
 2. Select **Thick Provision Eager Zeroed**.
 3. Click **Next**.

[Configuration](#)
[Name and Location](#)
[Resource Pool](#)
[Storage](#)
[Guest Operating System](#)
[Network](#)
Create a Disk
 Ready to Complete

Datstore:

Available space (GB):

Virtual disk size:

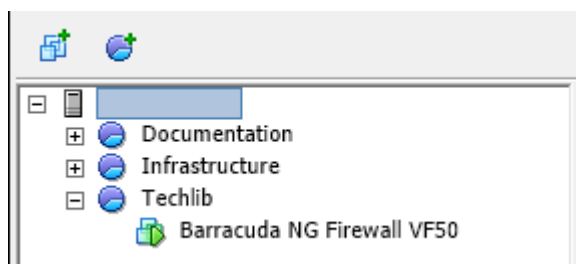
☐ Thick Provision Lazy Zeroed
☒ **Thick Provision Eager Zeroed**
☐ Thin Provision

9. On the **Ready to Complete** page, click **Finish**. Depending on your virtual disk size, it can take a couple of minutes for the VM to be created. You can view the status of the **Create Virtual Machine** task in the **Recent Tasks** pane at the bottom of the **vSphere Client** window.
10. Right-click the VM that you created and then select **Edit Settings**.
11. In the **Virtual Machine Properties** window:
 1. Configure the **Memory** and **CPUs** according to your Barracuda NextGen Firewall F-Series Vx model.

Do not assign more than the licensed number of vCPUs to your virtual machine. For more information, see [Licensing](#).


- 2. Click **OK**.

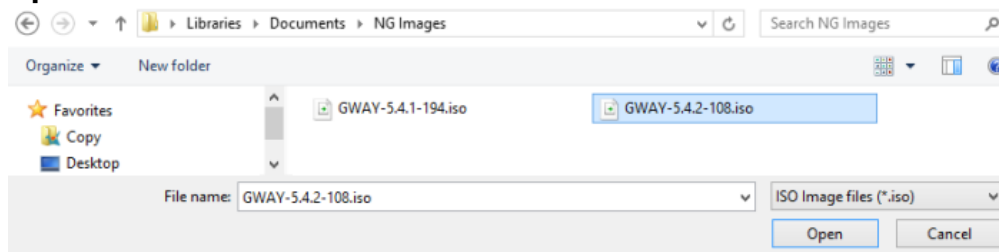
Your virtual machine is now listed in the left pane under the VMware server that you created it on.



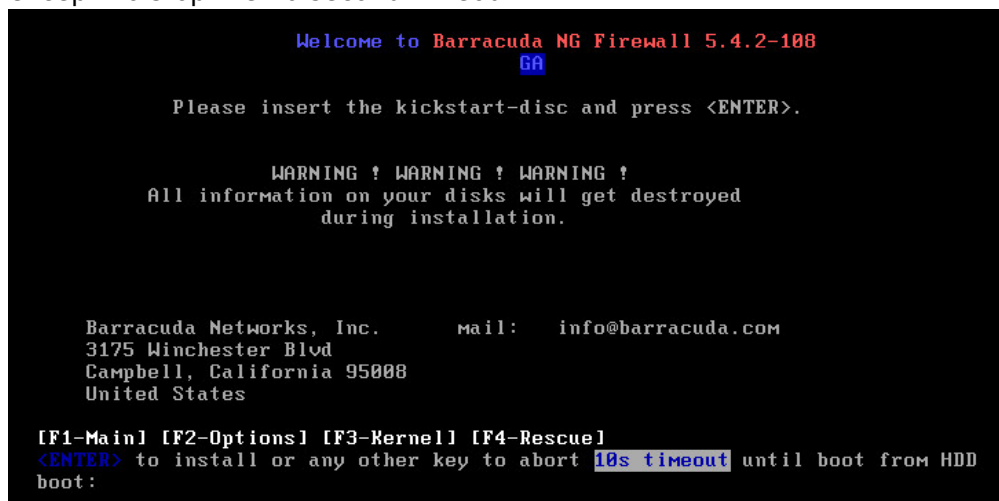
Step 4. Start the Virtual Machine


Connect the Barracuda NextGen Firewall F-Series Vx ISO and the floppy image to the virtual machine for the automated installation.

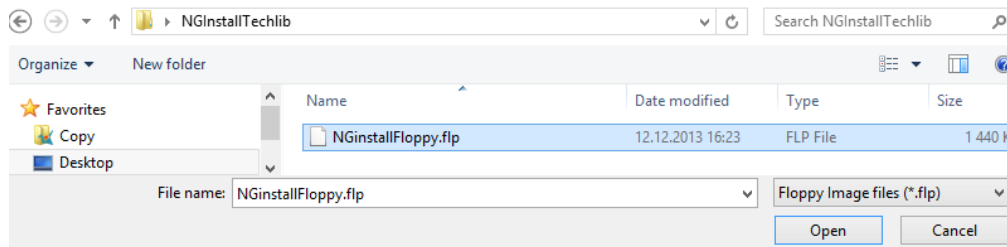
1. Using VMware vSphere Client, log into your VMware hypervisor.
2. Power on your Barracuda NextGen Firewall F-Series Vx virtual machine.
3. From the taskbar, click the **CD** icon () , click **CD/DVD Drive 1**, and then select **Connect to ISO image on local disk**.
4. Select the Barracuda NextGen Firewall F-Series Vx ISO file on the local hard disk and then click **Open**.



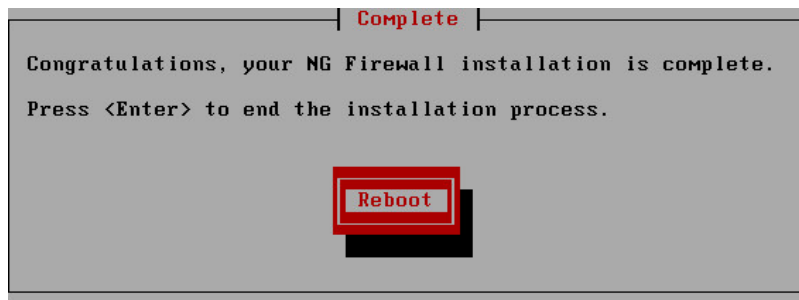
5. Press **Ctrl + Alt + Ins** to reboot the VM.
6. At the **Welcome to Barracuda NextGen Firewall F-Series** boot prompt, press any key except to stop the 10 second timeout.



7. From the taskbar, click the **Floppy** icon () and select **Connect to floppy image on local disk**.
8. From your local hard disk, select the floppy image (e.g., NGInstallFloppy.flp) that you created in [Step 2. Create a Floppy Image with WinImage](#).



9. Press **Enter** to start the installation.
10. After the installation completes, press **Enter** to reboot.



Next Step

After you deploy the Barracuda NextGen Firewall F-Series Vx unit, continue with [Getting Started](#) and optionally [Best Practice - Performance Tuning on VMware Hypervisors](#).

Figures

1. NGISelectFull.png
2. NGISelectModel.png
3. NGIDiskSize.png
4. automatic_nic_driver_selection.png
5. NGIEnterMIP.png
6. dynmod_ko.png
7. NGISaveTo.png
8. NGIFinished.png
9. NGIConfFiles.png
10. WIFormat.png
11. WIInject.png
12. WISaveFile.png
13. VMConfigurationTypical.png
14. VMEnterName.png
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23. VMSelectFLP.png
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