
How to Deploy a CloudGen Firewall Vx using Firewall Install on a VMware Hypervisor

<https://campus.barracuda.com/doc/79463322/>

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 Firewall Install to create the custom configuration files that you need to deploy the Barracuda CloudGen Firewall Vx with your specific settings. the

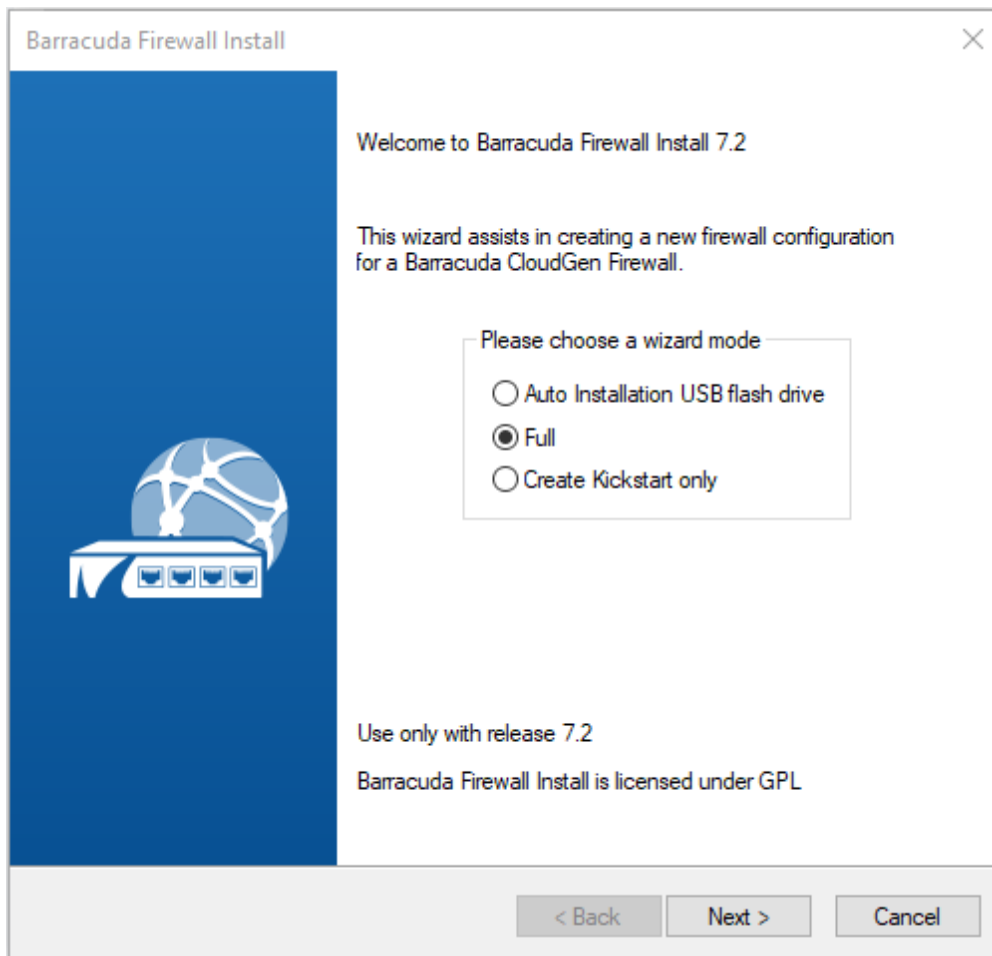
Before You Begin

- From the [Barracuda Download Portal](#), download the following:
 - The ISO image for the Barracuda CloudGen Firewall Vx version that you want to install. There is only one ISO for the Barracuda CloudGen Firewall and Barracuda Firewall Control Center.
 - Barracuda Firewall 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 Firewall Install.
- Decide on the sizing requirements for your Barracuda CloudGen Firewall Vx. For more information, see [Virtual Systems \(Vx\)](#).

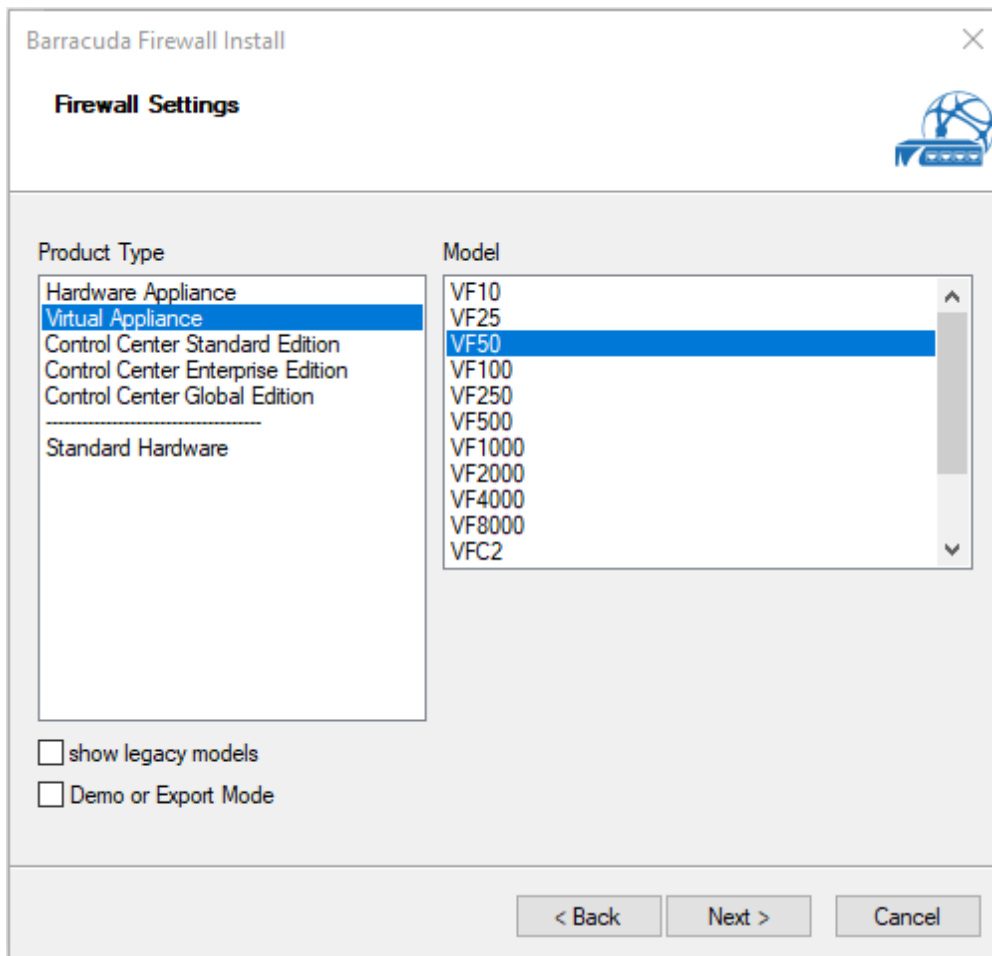
Step 1. Create Configuration Files with Barracuda Firewall Install

Create the configuration files with Barracuda Firewall Install.

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



3. On the **Box Type Settings** page, select the **Product Type** and **Model** for your virtual appliance. You can configure Barracuda CloudGen Virtual Appliances and Barracuda Firewall Control Centers. After making your selections, click **Next**.



4. On the **Systems Settings** page:
 1. Enter the following settings:
 - **Hostname** – Enter a hostname (e.g., CloudGen Firewall VF50).
 - **Timezone** – Select the timezone that the appliance is in.
 - **Keyboard Layout** – Select the keyboard layout for the console of the Barracuda CloudGen Firewall 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.

Volumes

Disk Type **SCSI/SATA/SAS** Fixed Disk Capacity GB

Usable disk space 46478 MB

Partition	Size (MB)	Disk	FS-Type	Grow
/boot	200	sda	ext3	
swap	1024	sda	swap	
/art	2048	sda	ext3	
/	14402	sda	ext3	
/bhion0	28804	sda	ext3	yes

Size Disk all Filesystem grow

change all

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** - **Automatic driver selection**.
- **Number** - Select the number of network interfaces.

NIC reseller list

please select your network adapter

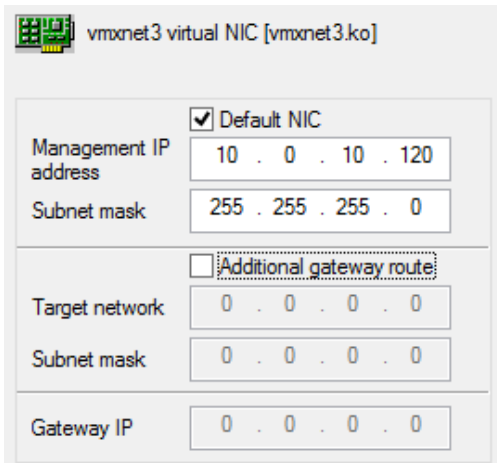
Reseller Network adapter Number

3Com	Automatic driver selection	
AMD	vmxnet3 virtual NIC	
Broadcom		
Intel		
RealTek		
SysKonnnect		
VIA		
Virtual		

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**.



vmxnet3 virtual NIC [vmxnet3.ko]

Default NIC

Management IP address: 10 . 0 . 10 . 120

Subnet mask: 255 . 255 . 255 . 0

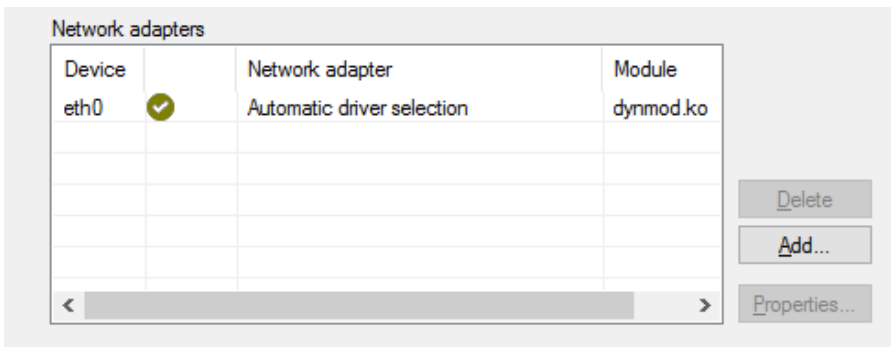
Additional gateway route

Target network: 0 . 0 . 0 . 0


Subnet mask: 0 . 0 . 0 . 0

Gateway IP: 0 . 0 . 0 . 0

4. Click **OK**.



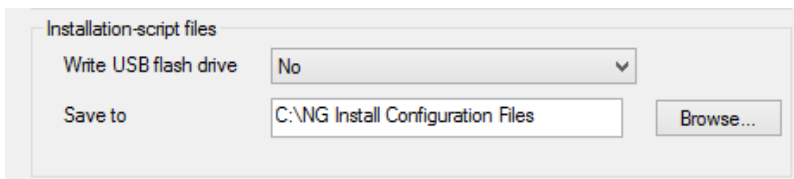
Network adapters

Device	Network adapter	Module
eth0 	Automatic driver selection	dynmod.ko

Buttons: Delete, Add..., Properties...

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: No








Save to: C:\NG Install Configuration Files

10. Click **Next**.

11. Click **Finish**.

After the configuration files are created, a message appears confirming that the configuration files were written successfully.

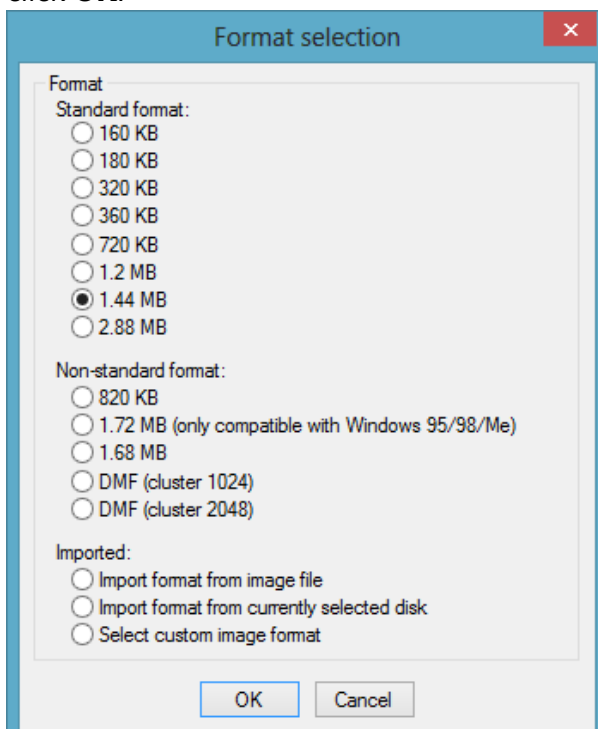
The following configuration files are created in the destination that you selected:

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

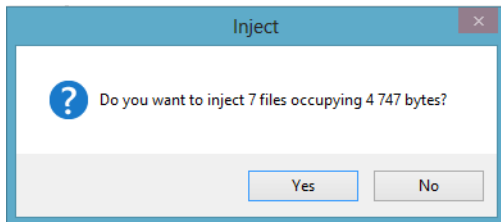
Step 2. Create a Floppy Image with WinImage

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

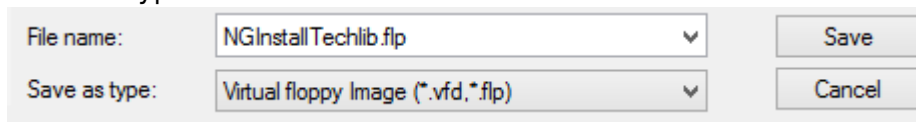
1. Start WinImage.
2. Locate the configuration files that you created with Barracuda Firewall Install.
3. Select all the Barracuda Firewall Install configuration files and drag them to the WinImage window.
4. In the **Format selection** window, select **1.44 MB** from the **Standard format** list and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

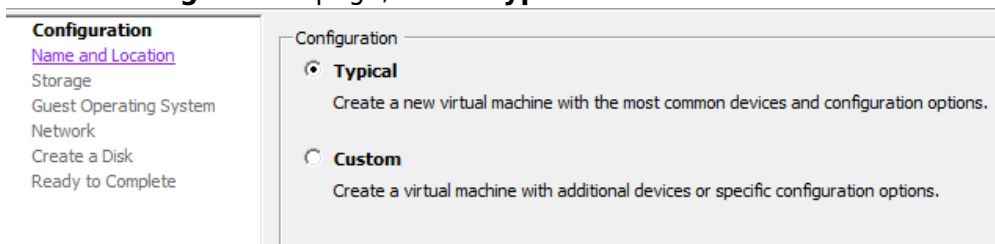


3. Click **Save**.

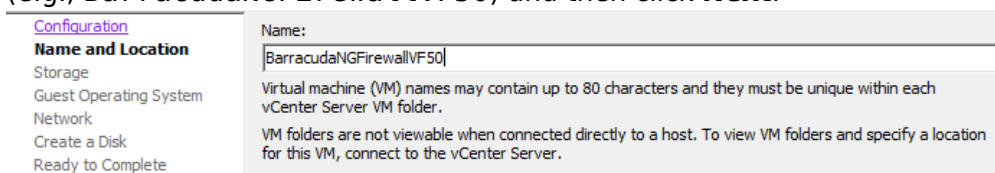
Step 3. Create a New Virtual Machine

On the VMware server, create a new virtual machine for the Barracuda CloudGen Firewall Vx.

1. Using VMware vSphere Client, log into your VMware hypervisor.
2. Right-click the VMware server that you want to deploy the Barracuda CloudGen Firewall Vx image on and select **New Virtual Machine**. The **Create New Virtual Machine** window opens.
3. On the **Configuration** page, select **Typical** and then click **Next**.



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



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

Configuration
 Name and Location
 Storage
Guest Operating System
 Network
 Create a Disk
 Ready to Complete

Guest Operating System:

Windows
 Linux
 Other

Version:
 Other 2.6.x Linux (64-bit)

Identifying the guest operating system here allows the wizard to provide the appropriate defaults for the operating system installation.

7. On the **Network** page:

1. 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 Firewall 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.


2. 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 Firewall Install configuration. Barracuda Networks recommends using the VMXNET3 driver.
 - **Connect at Power On** – Select this check box to connect the NIC to the VM.
3. 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):

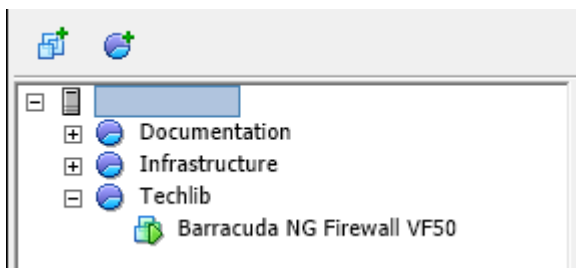
Virtual disk size:

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 CloudGen Firewall Vx model.

Do not assign more than the licensed number of vCPUs to your virtual machine. For more information, see [How to License a CloudGen Firewall](#).
 2. Click **OK**.

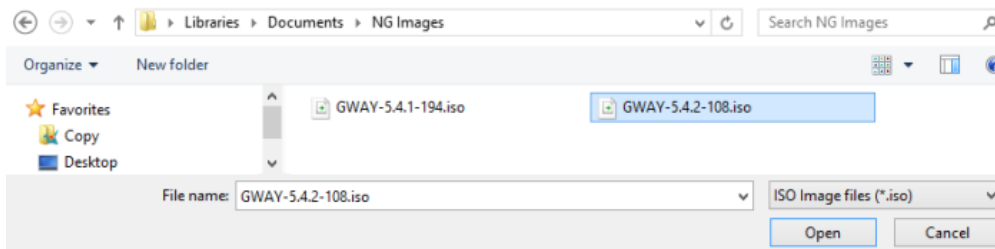
Your virtual machine is now listed in the left pane under the VMware server that you created it on.



Step 4. Start the Virtual Machine

Connect the Barracuda CloudGen Firewall 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 CloudGen Firewall 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 CloudGen Firewall 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 CloudGen Firewall** boot prompt, press any key except <Enter> to stop the 10 second timeout.

```


Welcome to Barracuda NG Firewall 5.4.2-108
GA

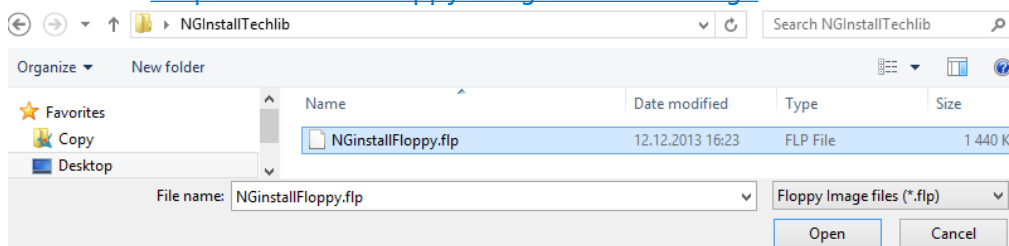
Please insert the kickstart-disc and press <ENTER>.

WARNING ! WARNING ! WARNING !
All information on your disks will get destroyed
during installation.

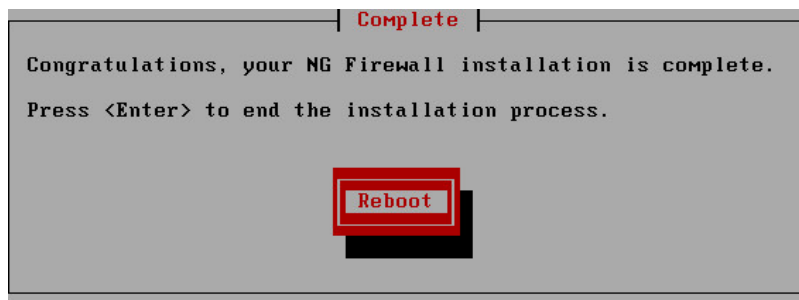
Barracuda Networks, Inc.      mail:  info@barracuda.com
3175 Winchester Blvd
Campbell, California 95008
United States

[F1-Main] [F2-Options] [F3-Kernel] [F4-Rescue]
<ENTER> to install or any other key to abort 10s timeout until boot from HDD
boot:
  
```

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 CloudGen Firewall Vx unit, continue with [Get 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
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8. NGIConfFiles.png
9. WIFormat.png
10. WIInject.png
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15. VMConfigNICs.png
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17. VMListguestOSes.png
18. VMCdromIcon.png
19. VMSelectISO.png
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22. VMSelectFLP.png
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