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## How to Deploy the Barracuda NG Vx on KVM

<https://campus.barracuda.com/doc/43847096/>

The KVM version of the Barracuda NG Vx is available as a pre-built image for your KVM hypervisor.

Before deploying the Barracuda NG Vx unit, verify that the host system meets the minimum storage requirements and review the resource recommendations for the production system.

### In this article:

### Before You Begin

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- For information on the sizing of your CPU, disk, and RAM, see [Virtual Systems \(Vx\)](#).
- Download and install a VNC viewer.
- Configure the virtual network on the KVM host server.
- Download the KVM image for the Barracuda NG Vx from the [Barracuda Download Portal](#).

### Step 1. Import and Start the Barracuda NG Vx VM

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Execute the install script to deploy the image and use virsh to define and start the virtual machine.

1. Log into the KVM host server with root permissions.
2. Copy the Barracuda NG Firewall Vx KVM install file KVM host server (e.g., *install.GWAY-5.4.4-071-VFxxx.kvm.sh*).
3. Make the file executable

```
chmod +x install.GWAY-5.4.4-071-VFxxx.kvm.sh
```

4. Start the install script.

```
./install.GWAY-5.4.4-071-VFxxx.kvm.sh
```

```

root@kvm:~# ./install.GWAY-5.4.4-071-VFxxx.kvm.sh

*** STEP 0: Introduction ***

This installation script guides you through the process of deploying
a virtual Barracuda NG Firewall appliance.

*** STEP 1: Paths and file names ***

Looking for configuration and image files in the archive file
Found:
* Configuration files:
  GWAY-5.4.4-071-VFxxx-pv
* Image file:
  GWAY-5.4.4-071-VFxxx.img
  
```

5. (optional) Enter the name and path you want the image file deployed to. Press **Enter** to use the default value.

```

Where do you want to store your image file?
Accept the default [/var/lib/libvirt/images] or enter a path:

How do you want to call the image file?
Accept the default [GWAY-5.4.4-071-VFxxx.img] or enter a name: █
  
```

6. (optional) Enter the path for the configuration file. Press **Enter** to use the default value.

```

Where do you want to store your configuration files?
Accept the default [/etc/libvirt/qemu] or enter a path:
  
```

7. Choose **non-sparse** deployment for production deployments, **sparse** for testing purposes.

```

*** STEP 2: Setting some options ***

The image can be deployed as a non-sparse file or as a sparse file.
  1) Non-sparse files improve the performance
     and avoid problems caused by a lack of disk space.
     For productive usage you should use this option.
  2) Sparse files need less space and can grow as needed.
     Use this option only for testing purposes.

Do you want to deploy the image
  1) as non-sparse file (default)
  2) as sparse file?
[1/2] █
  
```

8. Enter the domain name for the deployment. Press **Enter** to accept the default value suggested

```

How do you want to call the virtual appliance (domain name)?
Accept the default [GWAY-5.4.4-071-VFxxx] or enter a name: █
  
```

9. Enter the MAC for virtual network interface. Press **Enter** to accept the default value suggested.  
 Your license is bound to this MAC address. Changing the MAC address will result in a  
 invalid license.

```
The virtual appliance's network interface needs a unique MAC address.
We recommend to use a MAC address in the
00:50:56:00:00:00 to 00:50:56:3F:FF:FF range.
```

```
Accept the following randomly generated MAC [00:50:56:4a:90:11]
or enter a MAC address in the same format: █
```

10. (optional) Depending on the network configuration of your KVM host you must adapt the network settings in the xml configuration file. Per default the configuration file is stored in `/etc/libvirt/qemu`.
11. Connect to the virtual console.

```
virsh --connect qemu:///system
```

```
root@kvm:~# virsh --connect qemu:///system
Welcome to virsh, the virtualization interactive terminal.

Type:  'help' for help with commands
       'quit' to quit

virsh # █
```

12. Import the configuration file.

```
define /etc/libvirt/qemu/GWAY-5.4.4-071-VFxxx-pv
```

```
virsh # define /etc/libvirt/qemu/GWAY-5.4.4-071-VFxxx-pv
Domain GWAY-5.4.4-071-VFxxx defined from /etc/libvirt/qemu/GWAY-5.4.4-071-VFxxx-
pv

virsh # list --all
  Id      Name                                State
-----
-      GWAY-5.4.4-071-VFxxx                shut off
```

13. Start the virtual machine.

```
start GWAY-5.4.4-071-VFxxx-pv
```

```
virsh # start GWAY-5.4.4-071-VFxxx
Domain GWAY-5.4.4-071-VFxxx started
```

The virtual Barracuda NG Firewall Vx is now running on the KVM hypervisor.

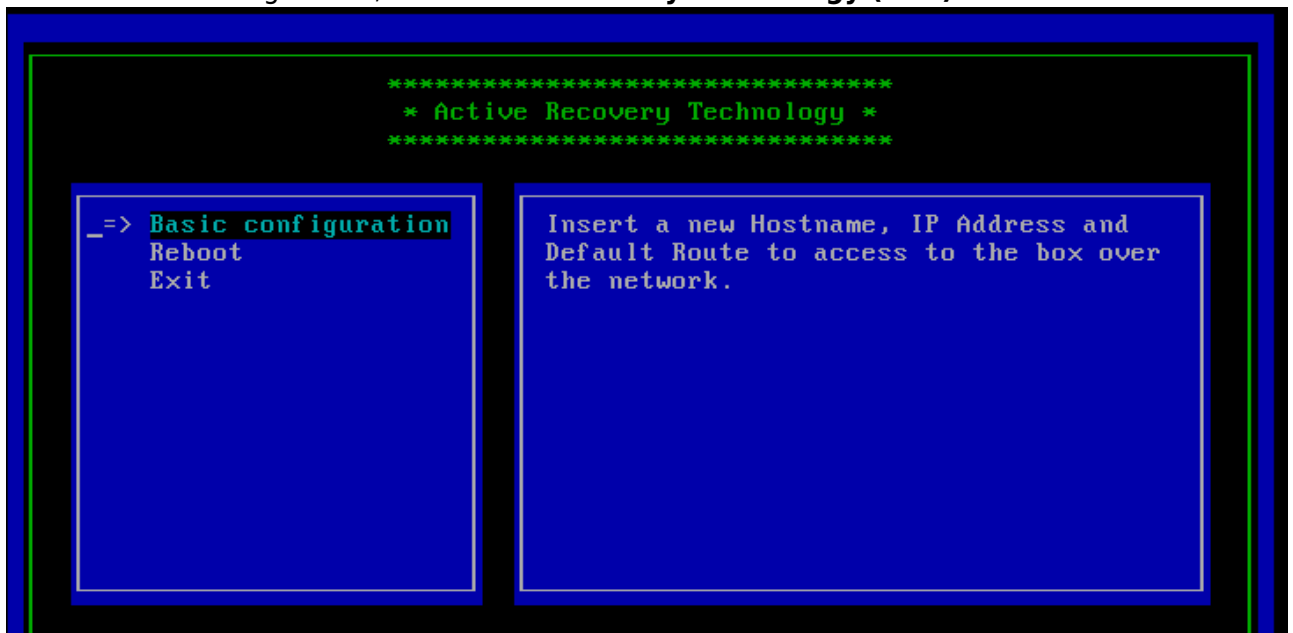
```
virsh # list --all
  Id      Name                                State
-----
  2      GWAY-5.4.2-108-VFxxx-pv            running

virsh # █
```

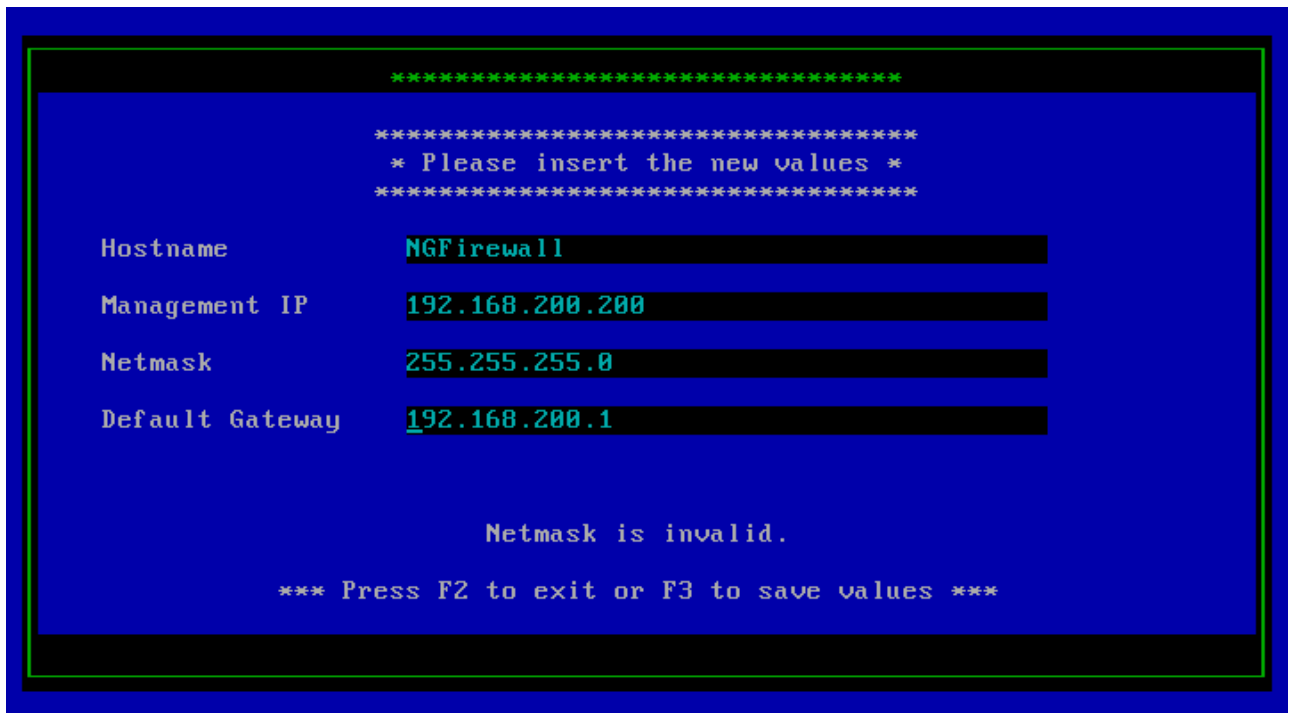
## Step 2. Configure the Barracuda NG Vx Unit on First Boot

Connect to the console of the VM to enter the minimal network configuration.

1. Use a VNC client to connect to the IP address of the KVM host server. A console appears and displays the screen output of the Barracuda NG Vx that is running on the KVM server. For a basic network configuration, the **Active Recovery Technology (ART)** menu launches.



2. Select **Basic Configuration**, enter the following network settings, and then press **F3** to save your changes:
  - o **Hostname** - A hostname for your Barracuda NG Vx unit.
  - o **Management IP** - The internal IP address for your Barracuda NG Vx unit. This IP address must be reachable from your PC (e.g., 192.168.200.200).
  - o **Netmask** - The subnet mask (e.g., 255.255.255.0).
  - o **Default Gateway** - The IP address of the next hop device that serves as an access point to another network (e.g., 192.168.200.1).



3. Press **F3** to save the configuration.
4. Select **Reboot**. The Barracuda NG Vx restarts with the new network configuration.

## Next Step

After you deploy the Barracuda NG Vx unit, continue with [Getting Started](#) and optionally [Best Practice - Performance Tuning on KVM Hypervisors](#).

## Figures

1. KVM\_install01.png
2. KVM\_install02.png
3. KVM\_install03.png
4. KVM\_install04.png
5. KVM\_install05.png
6. KVM\_install06.png
7. KVM\_install07.png
8. KVM\_install09.png
9. KVM\_install10.png
10. kvm\_04\_virsh.png
11. art\_01.png
12. art\_02.png

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