

How to Deploy a SecureEdge VTx on Hyper-V

https://campus.barracuda.com/doc/98223582/

The Barracuda SecureEdge VTx appliance is available as a Generation-1 virtual machine for your Microsoft Hyper-V hypervisor. Before deploying the Barracuda SecureEdge VTx appliance, verify that the host system meets the minimum storage requirements and review the resource recommendations for the production system. Deploying the firewall as a Generation-2 VM on Hyper-V is currently not supported.

Before You Begin

- For information regarding the sizing of your CPU, disk, and RAM, see <u>Virtual Systems (VTx)</u> <u>Deployment</u>.
- Download the Barracuda SecureEdge VTx appliance VHD virtual disk image from the <u>Barracuda</u> <u>Download Portal.</u>
- Copy the VHD virtual disk image to the Microsoft Hyper-V server.
- Make sure the Hyper-V virtual machine uses a static MAC address on the network interface 1. This lets you move the VM later without invalidating your license.

Step 1. Create a New Virtual Machine

Create a virtual machine using the sizing recommendations for your model of the Barracuda SecureEdge VTx appliance.

- 1. Launch Hyper-V Manager.
- Right-click on your Hyper-V server and select New > Virtual Machine. The New Virtual Machine Wizard opens.

Hyper-V Mar	nager		
File Action	n View Window Help		
🗢 🔿 [
Hyper-V Ma	nager Vietual Machiner		
DOCH	New 🕨	Virtual Machine	
	Import Virtual Machine	Hard Disk	sage
	Hyper-V Settings Virtual Network Manager	Floppy Disk	

3. Enter the Name. E.g., Barracuda SecureEdge VTx and click Next to proceed.

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N	New Virtual Machine Wizard		
Specify Nam	e and Location		
Before You Begin Specify Name and Location Specify Generation	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.		
Assign Memory Configure Networking Connect Virtual Hard Disk Installation Options	Name: Barracuda CloudGen WAN VTx You can create a folder or use an existing folder to store the virtual machine. If you don't select a folder, the virtual machine is stored in the default folder configured for this server. Store the virtual machine in a different location		
Summary	Location: C:\VM\ Browse		
	< Previous Next > Finish Cancel		
he Specify Gen e elect Generatio	<pre></pre>		
he Specify Gene elect Generatio	<pre></pre>		
The Specify Gene Select Generation Specify Gene	<pre>eration blade opens. n 1 and click Next to proceed. New Virtual Machine Wizard eration</pre>		
The Specify Generation Gelect Generation Specify Generation Specify Generation Specify Generation Specify Generation Specify Generation Assign Memory Configure Networking Connect Virtual Hard Disk Installation Options	<pre><previous next=""> Finish Cancel eration blade opens. n 1 and click Next to proceed. New Virtual Machine Wizard eration Choose the generation of this virtual machine. Generation 1 This virtual machine generation provides the same virtual hardware to the virtual machine as in previous versions of Hyper-V. Generation 2 This virtual machine generation provides support for features such as Secure Boot, SCSI boot, ar PXE boot using a standard network adapter. Guest operating systems must be running at least Windows Server 2012 or 64-bit versions of Windows 8.</previous></pre>		

- < Previous Next > Finish Cancel
- 6. Enter the amount of **memory** in MB. E.g., 4096. For information regarding the sizing of your CPU, disk, and RAM, see <u>Virtual Systems (VTx) Deployment</u>.



b.	New Virtual Machine Wizard
Assign Memo	οιγ
Before You Begin Specify Name and Location Specify Generation Assign Memory Configure Networking Connect Virtual Hard Disk Installation Options Summary	Specify the amount of memory to allocate to this virtual machine. You can specify an amount from 32 MB through 25364 MB. To improve performance, specify more than the minimum amount recommended for the operating system. Startup memory: 4096 MB Use Dynamic Memory for this virtual machine. (i) When you decide how much memory to assign to a virtual machine, consider how you intend to use the virtual machine and the operating system that it will run.
	< Previous Next > Finish Cancel

- 7. Click Next.
- 8. The **Configure Networking** blade opens. Select **Not Connected** from the **Connection** drop down-menu. If you are using High Availability, select the virtual switch where only port 1 of the other virtual machine of the High Availability cluster is connected to.

ð.	New Virtual Machine Wizard					
Configure Networking						
Before You Begin Specify Name and Location Specify Generation Assign Memory Configure Networking Connect Virtual Hard Disk Installation Options Summary	Each new virtual machine includes a network adapter. You can configure the network adapter to use a virtual switch, or it can remain disconnected. Connection: Not Connected					
	< Previous Next > Finish Cancel					

- 9. Click Next.
- 10. The **Connect Virtual Had Disk** blade opens.
- 11. Select Use an existing virtual hard disk and click Browse to specify the Location of the



VHD file downloaded earlier.

ð.	New Virtual Machine Wizard	X				
Connect Virtual Hard Disk						
Before You Begin Specify Name and Location Specify Generation Assian Memory	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. O Create a virtual hard disk Use this option to create a VHDX dynamically expanding virtual hard disk.					
Configure Networking Connect Virtual Hard Disk Summary	Name: Barracuda CloudGen WAN VTx.vhdx Location: C:\VM\VHDs\ Size: 127 GB (Maximum: 64 TB)					
Use an existing virtual hard disk Use this option to attach an existing virtual hard disk, either VHD or VHDX format. Location: <u>niuk\Desktop\GWAY=8.1.0-0429.nightbuild=472+HyperV=VTxxxx.vhd</u> Bro						
	 Attach a virtual hard disk later Use this option to skip this step now and attach an existing virtual hard disk later. 					
	< Previous Next > Finish Cancel					

12. Click Next.

13. The **Summary** blade opens. Review the summery and click **Finish**.

8	New Virtual Machine Wizard						
Completing the New Virtual Machine Wizard							
Before You Begin Specify Name and Location Specify Generation Assian Memory	You have successfully completed the New Virtual Machine Wizard. You are about to create the following virtual machine. Description: Name: Barracuda CloudGen WAN VTx						
Configure Networking Connect Virtual Hard Disk	Generation: Generation 1 Memory: 4096 MB Network: Not Connected						
Summary	Hard Disk: C: \Users\catamaniuk\Desktop\GWAY-8.1.0-0429.nightbuild-472+HyperV-VTxxx.vhd (VI-						
	< III >						
	To create the virtual machine and close the wizard, click Finish.						
< Previous Next > Finish Cancel							

Do not start the virtual machine at this point.



Step 2. Networking of the Virtual Machine

By default, Barracuda SecureEdge appliances use 5 network interfaces. Therefore, 4 network interfaces must be added and connected according to the configuration you applied in the <u>How to</u> <u>Create a T/VT Site Configuration in Barracuda SecureEdge</u>.

- 1. Launch Hyper-V Manager.
- 2. Right-click on your virtual machine deployed in Step 1.
- 3. Click **Settings**.

Virtual Machines			
Name	^		
Barracuda Cloud	Sen WAN VTv		
🚪 Barracuda F	Connect		
CudaCFGVx	Settings		
EngWS1 EngWS2 Linux	Start		
	Checkpoint		
<	Move		
Checkpoin	Export		
-	Rename		
	Delete	nine h	
	Enable Replication		
	Help		

- 4. Click on the first **Network Adapter** entry.
- 5. Click + next to the first **Network Adapter** entry.
- 6. Click Advanced Features.
- 7. In the MAC address section, select **Static** and enter a MAC address. This lets you move the VM later without invalidating your license.

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Ba	arracuda CloudGen WAN VTx	~	 ▲ ▶ Q. 	
*	Hardware	~	Advanced Features	_
	1 Add Hardware			
	👰 BIOS		MAC address	
	Boot from CD		O Dynamic	
	4096 MB		Static	
±	Processor		00 - 0C - 28 - 00 - 03 - 11	
	1 Virtual processor			
=	IDE Controller 0		MAC address spoofing allows virtual machines to change the source MAC	
	🗉 🧰 Hard Drive		address in outgoing packets to one that is not assigned to them.	
	GWAY-8.1.0-0429.nightbui.		Enable MAC address spoofing	
	IDE Controller 1			
	💽 DVD Drive		DHCP guard	
	None		DHCP guard drops DHCP server messages from unauthorized virtual machines	
_	SCSI Controller	=	pretending to be DHCP servers.	
	Wetwork Adapter		Enable DHCP guard	
	Hardware Acceleration			
			Router guard	
			Router guard drops router advertisement and redirection messages from	
	None		unauthorized virtual machines pretending to be routers.	
	T COM 2		Enable router advertisement guard	
	None			
	Diskette Drive		Protected network	
	None		Move this virtual machine to another cluster node if a network disconnection is	
*	Management	_ 11	detected.	
	[I] Name Barracuda CloudGen WAN VTx		✓ Protected network	
	Integration Services			
	Some services offered		Port mirroring	
	Checkpoint File Location C:\VM		Port mirroring allows the network traffic of a virtual machine to be monitored by copying incoming and outgoing packets and forwarding the copies to another virtual machine according to the provincing.	
	Smart Paging File Location		virtual machine configured for monitoring.	
	C:\VM	\sim	Mirroring mode: None 🗸	

- 8. Click Add Hardware.
- 9. Select Network Adapter.
- 10. Click **Add**.



- 11. Repeat Step 8 to Step 10 until you have 5 network adapters configured.
- 12. Click on the entry of the 4th network adapter.

If the Internet connection of the virtual appliance is secured by a firewall, verify that SSL Inspection is disabled between the Barracuda SecureEdge appliance and the Internet.

13. From the **Virtual switch** drop-down menu, select a network with Internet connection using DHCP.

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A Hardware		M
M Add Hardware		Network Adapter
BIOS		Specify the configuration of the network adapter or remove the network adapter.
Boot from CD		Virtual switch:
Memory		VSwich_eth1 V
4096 MB		VIANTD
Processor		Enable virtual LAN identification
I virtual processor		
Herd Drive		The VLAN identifier specifies the virtual LAN that this virtual machine will use for all
GWAY-8, 1.0-0429.nightbui		network communications through this network adapter.
IDE Controller 1		2
🚱 DVD Drive		
None	≡	Bandwidth Management
SCSI Controller		Enable bandwidth management
Image: Provide the second s		Specify how this petwork adapter utilizes petwork bandwidth. Both Minimum
Not connected		Bandwidth and Maximum Bandwidth are measured in Megabits per second.
Wetwork Adapter Not connected		Minimum bandwidth: 0 Mbps
Network Adapter		
Not connected		Maximum bandwidth: 0 Mbps
🗉 🖞 Network Adapter		To leave the minimum or maximum unrestricted, specify 0 as the value.
VSwich_eth1		
Wetwork Adapter		To remove the network adapter from this virtual machine, click Remove.
COM 1		Remove
None		
1 COM 2		Use a legacy network adapter instead of this network adapter to perform a network-based installation of the quest operating system or when integration
None		services are not installed in the guest operating system.
🚽 Diskette Drive		
None		
× management	-	
II Name		

- 14. Connect the other network adapters according to the configuration created in <u>How to Create a</u> <u>T/VT Site Configuration in Barracuda SecureEdge</u>.
- 15. Click **OK**.

You can start the virtual machine now.

Step 3. Enter the License Token

1. Select the virtual machine created in Step 1 and click **Start**.

IF.



	Actions
Virtual Machines	PMLAB-HYPERV
Name Barracuda CloudGen WAN VTx	State Off Barracuda CloudGen WA
Barracuda Firewall Insights CudaCFGVx EngWS1 EngWS2	Running Connect Off Running Running Ø Start
Linux	Running Checkpoint Move Export
	■ Rename Delete Enable Replication
	P Help

2. Right-click in the virtual machine and click **Connect** to open the console of the virtual machine.

Virtual Ma	achines	
Name	*	State
Barracu Barracu CudaCl EngWS EngWS Linux	Connect Settings Turn Off Shut Down Save Pause Reset Checkpoint Move Export Rename	Running Off Running Running Running
<	Enable Replication	
Checkp	Help	

The Barracuda SecureEdge VTx unit boots.



Checking filesystems			
/: clean, 28701/270912 files, 328933/1082379 blocks			
∕art: recovering journal			
/art: clean, 19/131072 files, 176553/524112 blocks			
∕phion0: recovering journal			
/phion0: clean, 193/4775936 files, 347025/19075179 blocks			
/boot: clean, 72/26104 files, 19134/104388 blocks			
	Γ	OK]
Remounting root filesystem in read-write mode:	E	OK]
Mounting local filesystems:	Γ	OK]
Enabling /etc/fstab swaps:	Ľ	OK]
Entering non-interactive startup			
Applying Intel CPU microcode update:	Γ	OK]
Starting irgbalance:	Γ	OK]
Adding udev persistent rules	Γ	OK]
Set Loopback interface up	Γ	OK]
Starting syslog dispatcher:	Ľ	OK]
Starting system logger:	Γ	OK]
Starting system message bus:	Γ	OK]
Starting NG Firewall:	Γ	OK]
Starting crond:	Γ	OK]
Starting lcd4linux: disabled	EP	ASSEI]

3. For a basic configuration, the SecureEdge unit launches the **Active Recovery Technology** menu.



- 4. Select **SecureEdge** with the arrow keys and press Enter.
- 5. Enter the license token:



	**************************************	**************************************	
License Token	****** * C ****	**************************************	
License ioken	с ок ј	[Cancel]	

- 6. Select **OK** with the arrow keys and press Enter.
- 7. The appliance connects to the SecureEdge service and applies the configuration set in <u>How to</u> <u>Create a T/VT Site Configuration in Barracuda SecureEdge</u>.



Figures

- 1. hyperV00.png
- 2. name.png
- 3. generations.png
- 4. memory.png
- 5. network1.png
- 6. hdd.png
- 7. summary.png
- 8. settings.png
- 9. static_mac1.png
- 10. add_nic.png
- 11. nics.png
- 12. start.png
- 13. connect.png
- 14. virtual-boot.png
- 15. art_basic1.png
- 16. token.png

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