FortiOS - Nutanix Cookbook

Version 6.4

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Obtaining the deployment image

To obtain the deployment image:

1. Go to Customer Service & Support and log in.
2. Go to *Download* > *VM Images*.
3. Under *Select Product*, select *FortiGate*.
4. Under *Select Platform*, select *KVM*.
5. Download the deployment package file (FGT_VM64_KVM-v6-buildXXXX-FORTINET.out.kvm.zip).

Uploading the FortiGate deployment image to Nutanix

To upload the FortiGate deployment image to Nutanix:

1. Log in to the Nutanix Prism Central console.
2. Upload the FortiGate-VM image:
   a. From the top-left corner, go to *Virtual Infrastructure* > *Images*.
   b. Click *Add Image*.
   c. Under *Image Source*, click *Image File*.
   d. In the *Add Images* window, click *Add File*.
   e. Select the VM image file downloaded in Obtaining the deployment image on page 4.
   f. In the *IMAGE TYPE* dropdown list, ensure *Disk* is selected.
   g. In the *IMAGE DESCRIPTION* field, enter the desired description.
   h. In the *Placement Method* and *Select Cluster* fields, specify settings as desired.
   i. Click *Save*.
   j. Wait a few minutes, then refresh the browser. You will find the newly created VM image in the image list.

Creating the FortiGate-VM from the image file

To create the FortiGate-VM from the image file:

1. In the Nutanix Prism Element console, go to the dashboard, then select *Create VM*.
2. Enter the following configuration information for *General Configuration* and *Compute Details*:
   a. In the *NAME* field, enter the desired name for your VM.
   b. Set the timezone.
   c. In the *VCPU(S)* field, enter the desired number.
   d. In the *MEMORY* field, enter the desired size. There are no RAM restrictions.
3. By default, a CD-ROM is listed under *Disks*. Delete the CD-ROM.
4. You must create a boot disk and a log disk for the VM. Create the boot disk:
   a. Click *Add New Disk*.
   b. The boot disk will be cloned from the VM image that you uploaded. Under *OPERATION*, select *Clone from Image Service*.
   c. Under *BUS TYPE*, select *SCSI*.
   d. Under *IMAGE*, select the FortiGate disk image.
   e. Click *Add*. The boot disk has been added.
5. Create the log disk:
   a. Click *Add New Disk*.
   b. Under *OPERATION*, select *Allocate on Storage Container*
   c. Select the desired *Bus Type* (for example, SCSI) and *Storage Container*.
   d. Under *SIZE (GB)*, enter *30*.
   e. Click *Add*. The log disk has been added.
6. Add a network interface for the VM:
   a. Double-click the FortiGate-VM in the VM list.
   b. Under *Network Adapters (NIC)*, click *Add New NIC*.
   c. Under *VLAN NAME*, select the desired VLAN. You can select DHCP fist to check connectivity. Changing the VLAN to a static IP address at a later time is recommended.
   d. Click *Add*.
7. Pin the VM to a host:
   a. In the VM configuration, under *VM Host Affinity*, click *Set Affinity*.
   b. Under *SELECT HOSTS*, select the desired host.
   c. Click *Save*.
8. Click *Save*. The system displays a *Successfully submitted Create operation* message when the VM has been created successfully with no error.

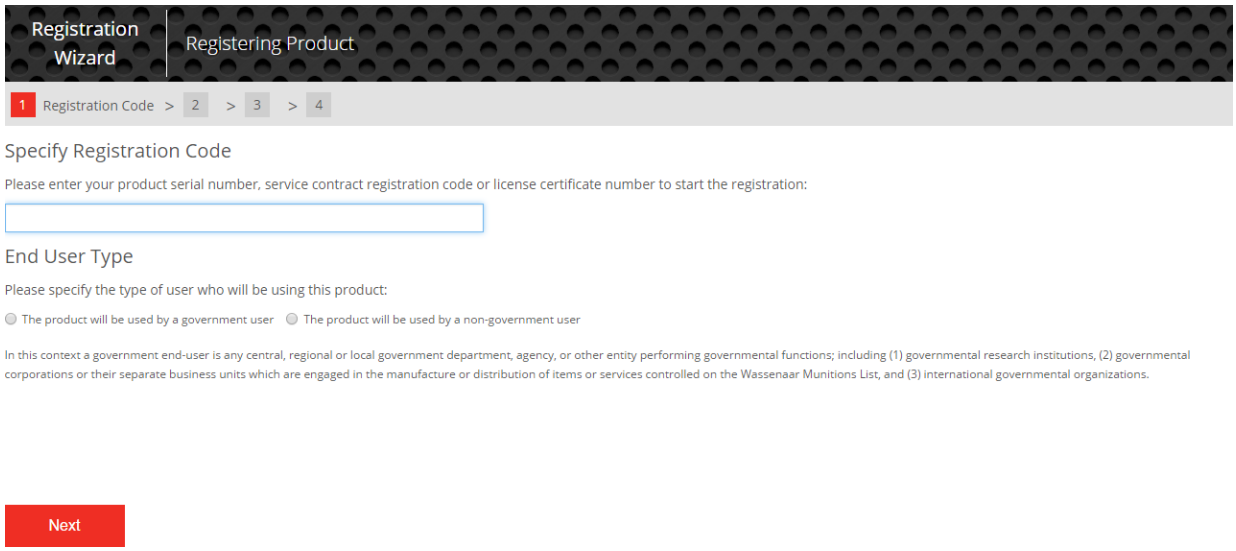
Registering and downloading your license

You can obtain licenses for the bring your own license (BYOL) licensing model through any Fortinet partner. If you do not have a partner, contact Fortinet for assistance in purchasing a license.

After you purchase a license or obtain an evaluation license (60-day term), you receive a PDF with an activation code.

To register and download your license:

1. Go to Customer Service & Support and create a new account or log in with an existing account.
2. Go to *Asset* > *Register/Activate* to start the registration process. In the *Specify Registration Code* field, enter your license activation code and select *Next* to continue registering the product. Enter your details in the other fields.



3. At the end of the registration process, download the license (.lic) file to your computer. You will upload this license later to activate the FortiGate-VM.

   After registering a license, Fortinet servers may take up to 30 minutes to fully recognize the new license. When you upload the license (.lic) file to activate the FortiGate-VM, if you get an error that the license is invalid, wait 30 minutes and try again.

Connecting to the FortiGate-VM

To connect to the FortiGate-VM:

1. Power on the VM:
   a. In Prism Element, find the newly created FortiGate-VM and go to its VM dashboard.
   b. By default, the FortiGate-VM is shutdown after initial creation. Click *Power On*. After a successful bootup, the FortiGate-VM instance now shows a green light.
2. Check the IP address on the *VM NICs* tab.
3. Access the FortiGate in your browser by going to https://<IP address>.
4. Log in to the FortiGate-VM with the username *admin* and no password.
5. After logging in successfully, upload your license (.lic) file to activate the FortiGate-VM. The FortiGate-VM automatically restarts. After it restarts, wait about 30 minutes until the license is fully registered at Fortinet, then log in again.

Configuring the second NIC

To configure the second NIC:

1. In Prism Element, find the FortiGate-VM and go to its VM dashboard.
2. Double-click the FortiGate-VM in the VM list, or click *Update*.
3. Under *Network Adapters (NIC)*, click *Add New NIC*.
4. From the *VLAN NAME* dropdown list, select the desired VLAN.
5. Click *Add*.
6. Click *Save*.
7. In your browser, log in to the FortiOS GUI.
8. Go to *Network* > *Interfaces*. The second NIC has been added, with no need to reboot the FortiGate.
9. Edit port2. Enter the IP address and netmask. Configure the other elements as needed, then click *OK*.

Change log

Date	Change Description
2020-03-31	Initial release.

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