FortiSandbox - Nutanix Installation Guide

Version 3.1.1

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About FortiSandbox on Nutanix

FortiSandbox is a 64-bit virtual appliance version of FortiSandbox. It is deployed in a virtual machine environment. Once the virtual appliance is deployed and set up, you can manage FortiSandbox via its GUI in a web browser on your management computer.

This document provides information about deploying a FortiSandbox in Nutanix server environments.

This includes how to configure the virtual hardware settings of the virtual appliance. This guide presumes that the reader has a thorough understanding of virtualization servers.

This document does not cover configuration and operation of the virtual appliance after it has been successfully installed and started. For that information, see the *FortiSandbox Administration Guide* in the Fortinet Document Library.

Licensing

Fortinet offers the FortiSandbox in a stackable license model. This model allows you to expand your VM solution as your environment expands. For information on purchasing a FortiSandbox license, contact your Fortinet Authorized Reseller, or visit https://www.fortinet.com/how_to_buy/.

When configuring your FortiSandbox, ensure to configure hardware settings as outlined in the following table and consider future expansion. Contact your Fortinet Authorized Reseller for more information.

Technical Specification	Details
Hypervisor Support	VMware ESXi version 5.1, 5.5, or 6.0 and later Kernel Virtual Machine (KVM) Microsoft Hyper-V Nutanix
HA Support	FortiSandbox 3.1.1 and later
Virtual CPUs (min / max)	4 / Unlimited*
Virtual Network Interfaces	6
Virtual Memory (min / max)	8GB / Unlimited**
Virtual Storage (min / max)	200GB / 16TB***

* Fortinet recommends that the size of virtual storage should be 1TB for a production environment.

For more information, see the FortiSandbox product data sheet available on the Fortinet web site, https://www.fortinet.com/content/dam/fortinet/assets/data-sheets/FortiSandbox.pdf.

After placing an order for FortiSandbox, a license registration code is sent to the email address used in the order form. Use the license registration code provided to register the FortiSandbox with Customer Service & Support at https://support.fortinet.com.

Upon registration, you can download the license file. You will need this file to activate your FortiSandbox. You can configure basic network settings from the CLI to complete the deployment. Once the license file is uploaded and validated, the CLI and GUI will be fully functional.

Obtaining the Deployment Image

You can find the FortiSandbox-VM deployment packages on the Customer Service & Support site.

1. Log into the Customer Service & Support site.
2. From the *Download* dropdown list, select *VM Images* to access the available VM deployment packages.
3. From the *Select Product* dropdown list, select *Other*.
4. Click *to download other firmware images, please click here.*
5. Select the FortiSandbox product, then Click the Download tab and find the latest build.
6. Download the deployment package file *FSA_KVM-v300-buildxxxx-FORTINET.out.kvm.zip* by clicking the HTTPS link in the corresponding row.
7. Extract the package file which contains the file *image.out.qcow2*.

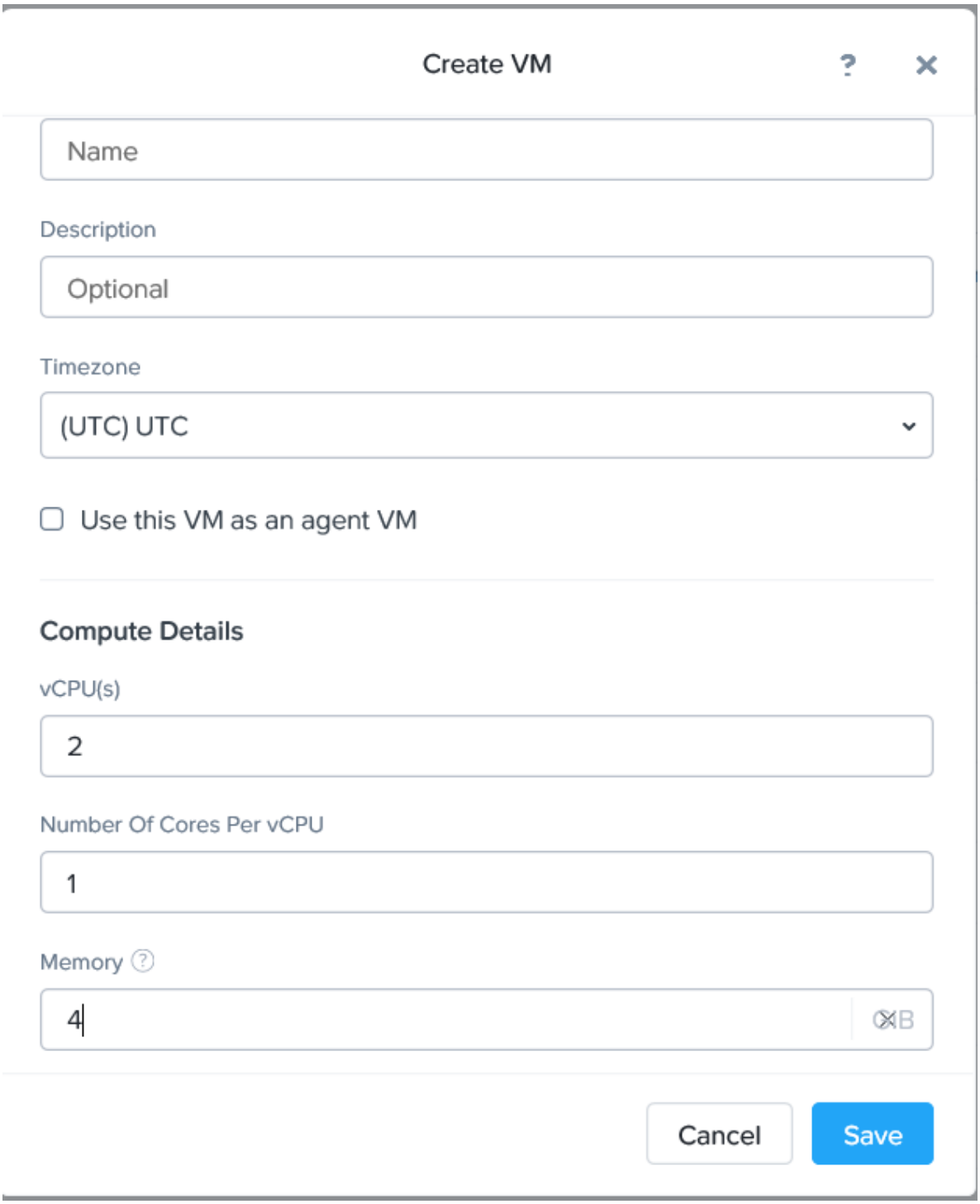
Uploading the FortiSandbox Deployment Image to Nutanix

1. Launch the Prism Element web console.
2. Go to *Settings* > *Image Configuration*.
3. Upload the FortiSandbox image by Clicking *Upload Image*.
4. In the *Name* field, enter *FortiSandbox*.
5. In the *Image Type* dropdown list, ensure *Disk* is selected.
6. In the *Image Source* window, click *Upload a file*.
7. Select the image.out.qcow2 image file downloaded in Obtaining the Deployment Image on page 6.
8. Click *Save*.
9. Wait a few minutes and you will find the newly created VM image in the list. Check to Confirm that its state is active.

Creating the FortiSandbox Deployment Image

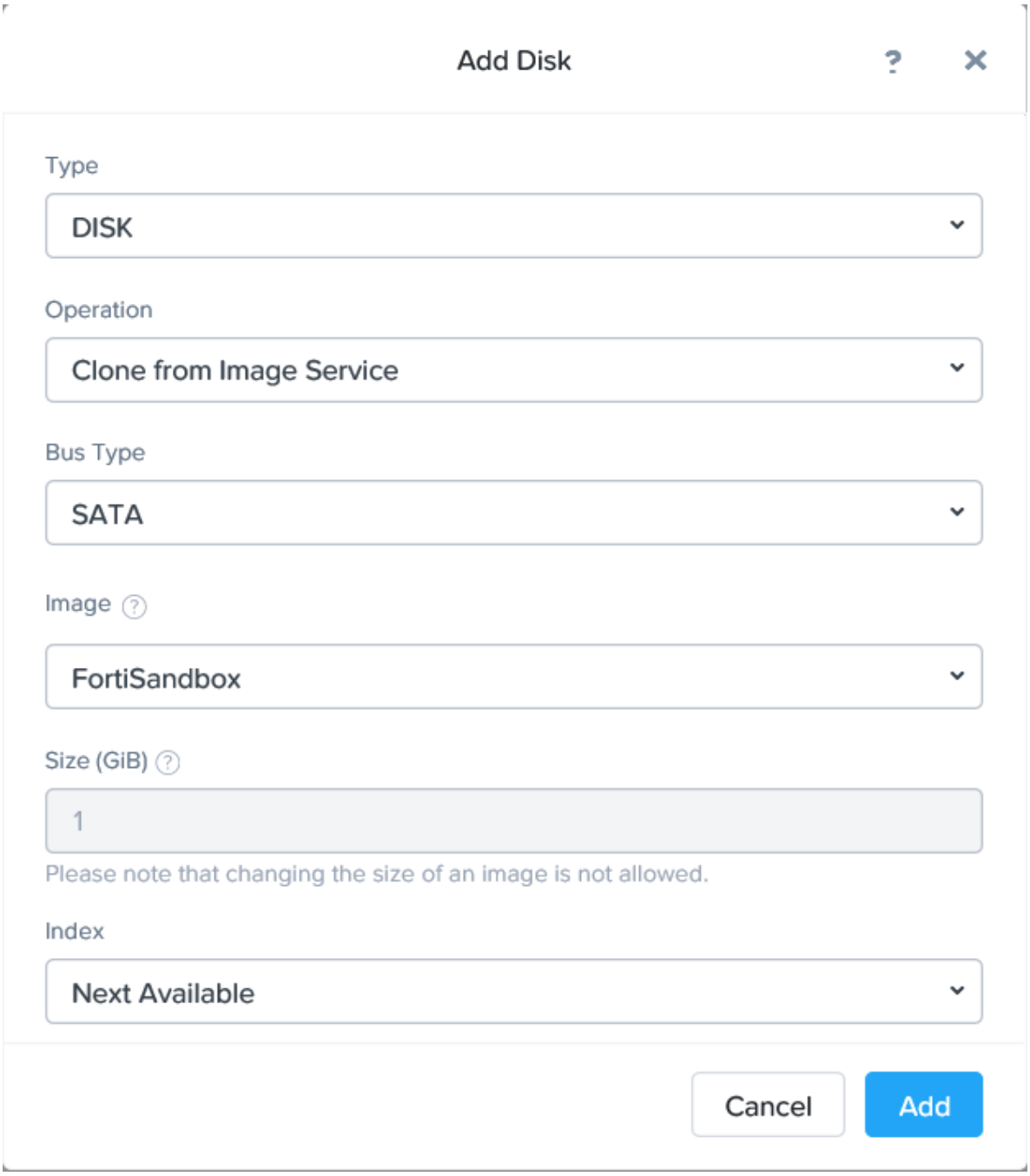
1. In the Prism Element web console, go to *VM* > *Create VM*.
2. Enter the following configuration information for General Configuration and Compute Details:
3. In the *NAME* field, enter the desired name for your VM, like FortiSandbox-VM.
4. In the *VCPU(S)* field, enter 2.

5. In the *MEMORY* field, enter 4.

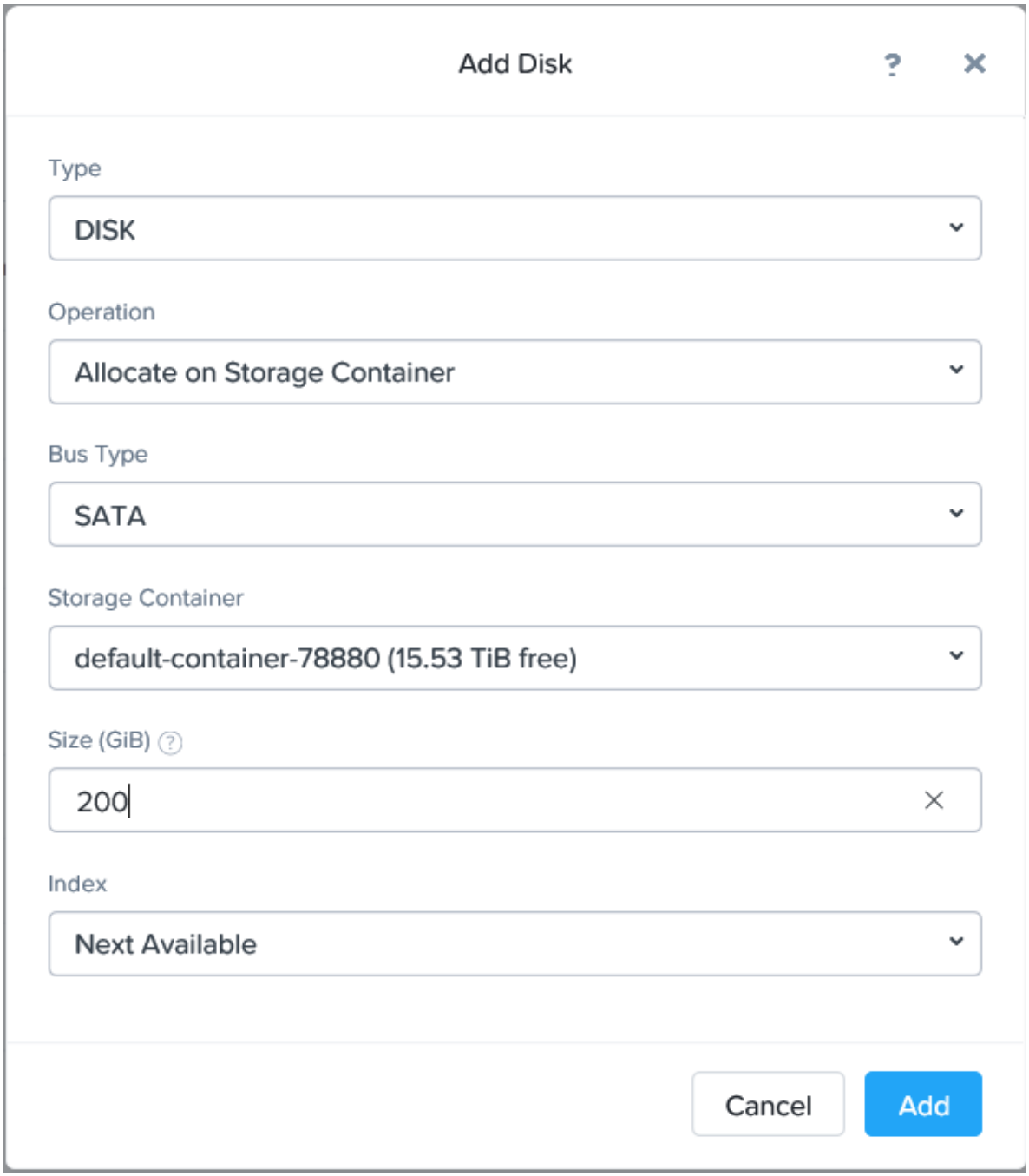


6. By default, a CD-ROM is listed under Disks. Delete the CD-ROM.
7. You must create a boot disk and a data disk for the VM. First, let's create the boot disk.
8. Click *Add New Disk*.
9. The boot disk will be cloned from the VM image that you uploaded. Under *OPERATION*, select *Clone from Image Service*.

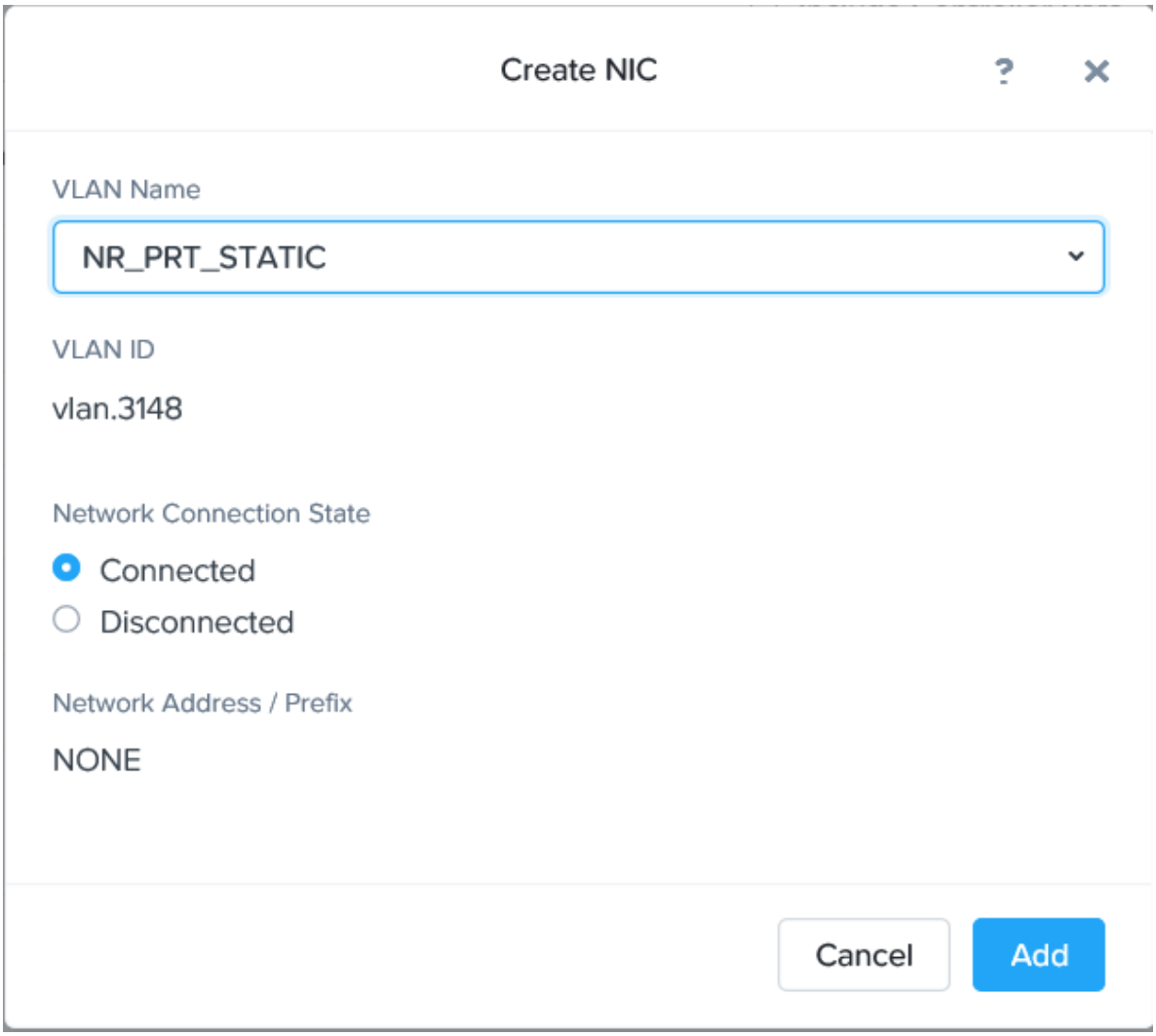
10. Under BUS TYPE, select *SATA*.
11. Under IMAGE, select the FortiSandbox disk image uploaded in Uploading the FortiSandbox Deployment Image to Nutanix.
12. Click *Add*. The boot disk has been added.



13. Create the data disk by first Clicking *Add New Disk*.
14. Under OPERATION, select Allocate on Storage Container
15. Under BUS TYPE, select SATA.
16. Under SIZE (GB), enter 200.
17. Click Add. The log disk has been added.



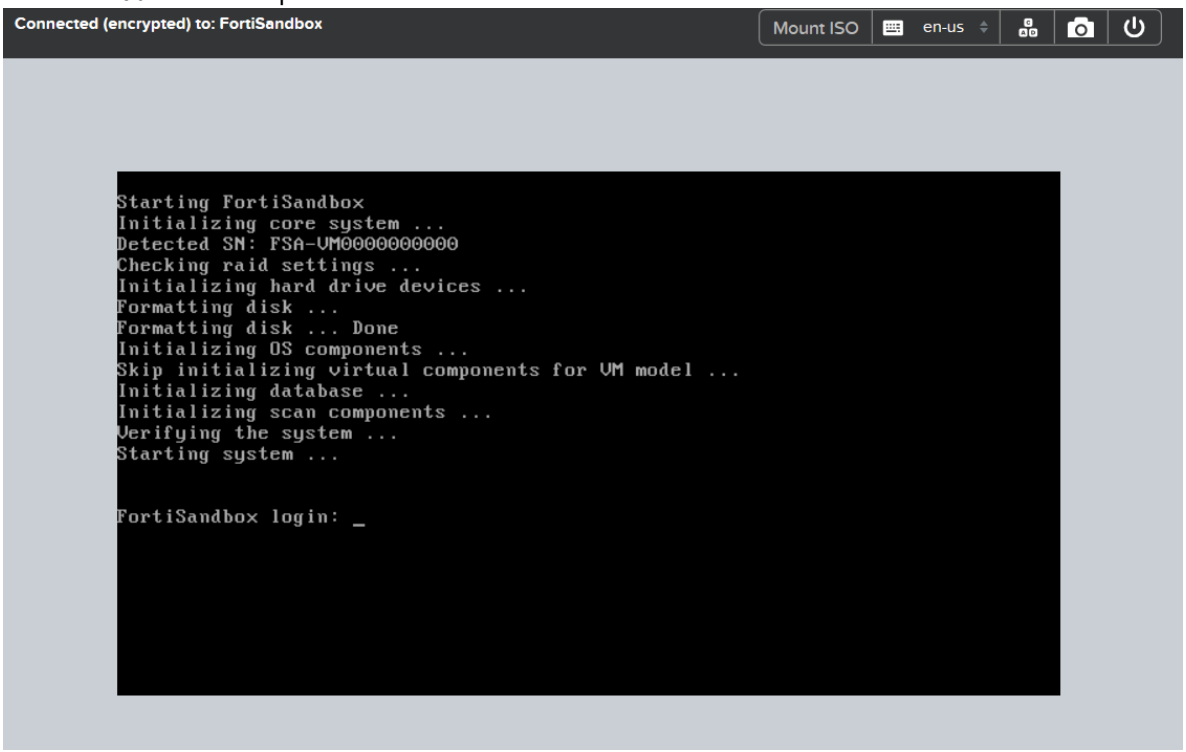
18. Add a network interface for the VM.
19. Under *Network Adapters (NIC)*, click *Add New NIC*.
20. Under *VLAN NAME*, select *NR_PRT_STATIC*.



21. Click *Add*.
22. Click *Save*. The system displays a *Successfully submitted Create operation* message when the VM has been created successfully with no error.

Connecting to the FortiSandbox-VM

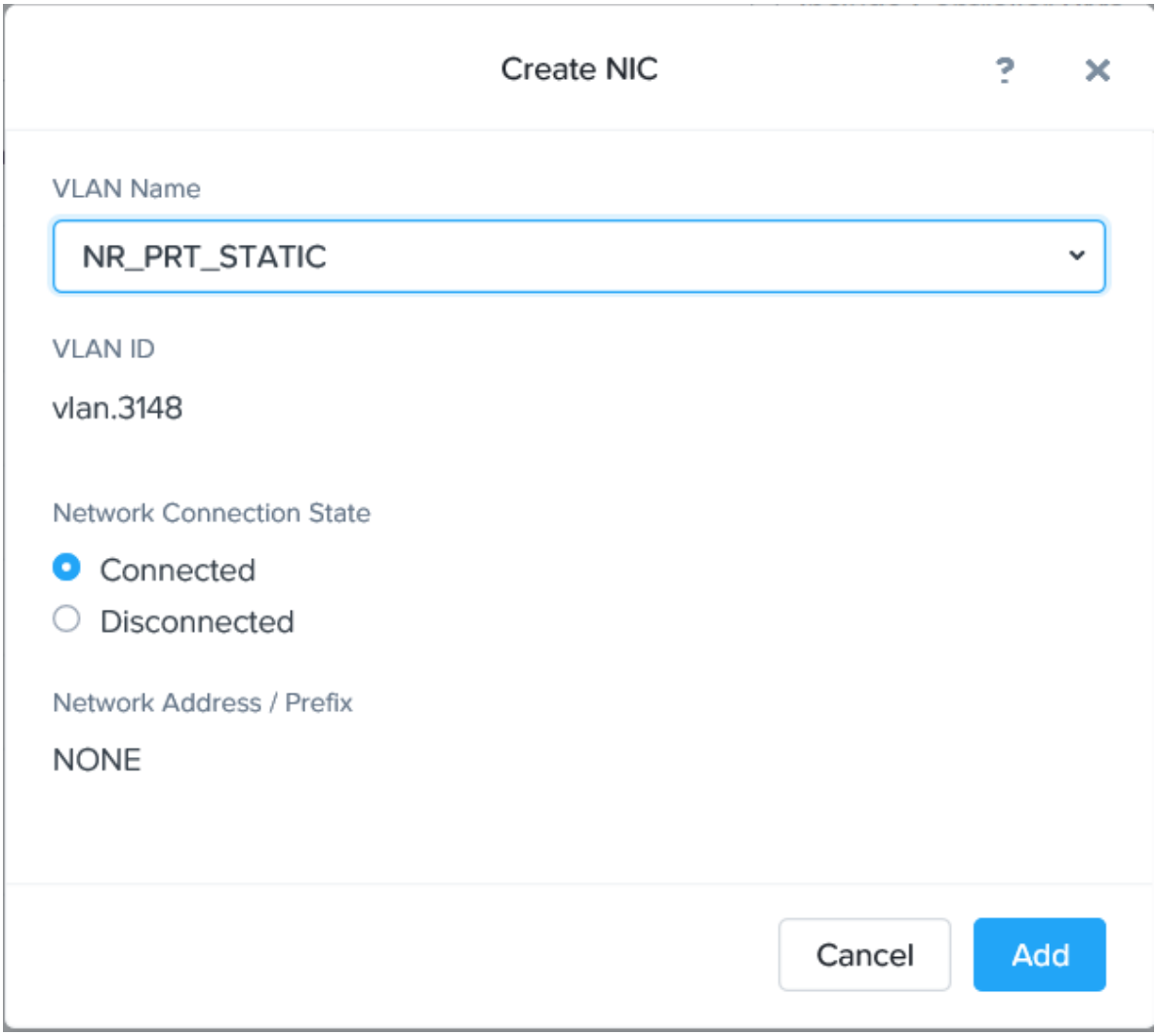
1. In the Prism Element web console, go to *VM*.
2. Click the newly created FortiSandbox-VM in Creating the FortiSandbox Deployment Image on page 8.
3. By default, the FortiSandbox-VM is shut down after initial creation. Click Power On to power on the VM.
4. Click the *Launch Console* tab to ensure that the VM boots up successfully.
5. Once booting is complete, the console prompts for login credentials. Log in to the FortiSandbox, using the username *admin* and no password.



6. Configure the interface port1 IP address by using theCLI command set port1-ip with the IP address set in Registering and Downloading Your License. For example: *set port1-ip 1.1.1.2/24*
7. Access the FortiSandbox in your browser.
8. Log in to the FortiSandbox-VM with the username admin and no password.
9. After logging in successfully, upload your license (.lic) file to activate the FortiSandbox-VM. The FortiSandbox-VM automatically restarts. After it restarts, wait about 30 minutes until the license is fully registered at Fortinet, then log in again.
10. After you log in, you will see the FortiSandbox dashboard. Go to *Network* > *Interfaces* to check the network interface setting. The assigned IP address is displayed and configurable.

Configuring the Second NIC

1. In the Prism Element web console, go to *VM*.
2. Select the FortiSandbox-VM instance.
3. Click *Update*.
4. Under *Network Adapters (NIC)*, click *Add New NIC*.
5. From the *VLAN NAME* dropdown list, select *NR_PRT_STATIC*.



6. Click *Add*.
7. Click *Save*.
8. In your browser, log into the FortiSandbox-VM.
9. Go to *Network* > *Interfaces*. The second NIC has been added, with no need to reboot the FortiSandbox.
10. Edit port2. Enter the IP address and netmask. Configure the other elements as needed, then click *OK*.

Supported VM Images in FortiSandbox-VM

Only Windows Cloud VMs are supported. No other nested windows VMs are supported.

Change log

Date	Change Description
2019-09-30	Initial release.

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