

DEPLOYMENT GUIDE

# Infoblox vNIOS for Nutanix

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# Executive Summary

This deployment guide shows the steps to upload, configure, and run vNIOs on Nutanix servers. Nutanix is a cloud computing software company that sells hyper-converged infrastructure (HCI) appliances and software-defined storage.

## Prerequisites

- To know about the supported platforms for Nutanix and vNIOs, please refer to [About Infoblox vNIOs for Nutanix AHV](#).

## Instructions

- Log into the Infoblox Support site to download the NIOS image.
- Select the **vNIOs for KVM** section to download the **qcow2** image.



The Infoblox vNIOs for KVM is a virtual appliance designed for KVM (Kernel-based Virtual Machine) hypervisor and KVM-based OpenStack deployments. The Infoblox vNIOs for KVM functions as a hardware virtual machine guest on the Linux system. It provides core network services and a framework for integrating all components of the modular Infoblox solution. You can configure some of the supported vNIOs for KVM appliances as independent or HA (high availability) Grid Masters, Grid Master Candidates, and Grid members. For information about vNIOs for KVM hypervisor, refer to the Infoblox Installation Guide for vNIOs for KVM Hypervisor and KVM-based OpenStack.

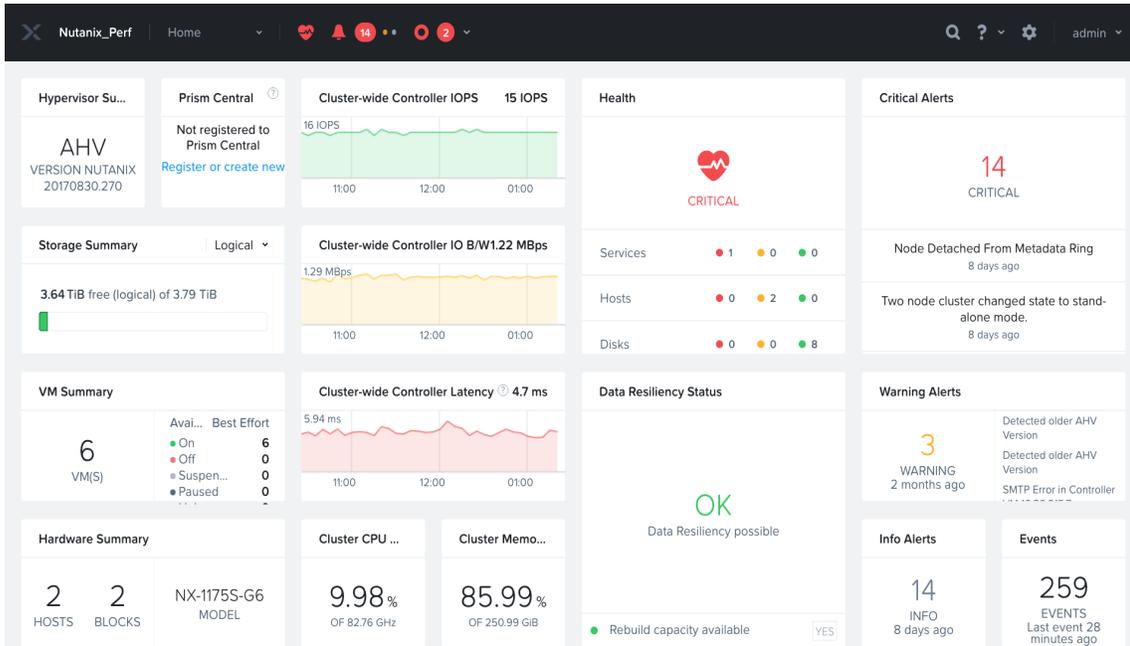
The vNIOs and Discovery resizable images give you the option to define the allocated amount of storage for vNIOs and Discovery. This optimizes the resource footprint during situations in which the standard image is not adequate starting at 70GB for vNIOs and 100GB for vDiscovery. You must use the resizable image only if explicitly recommended by Infoblox Professional Services or System Engineering.

**NOTE:**

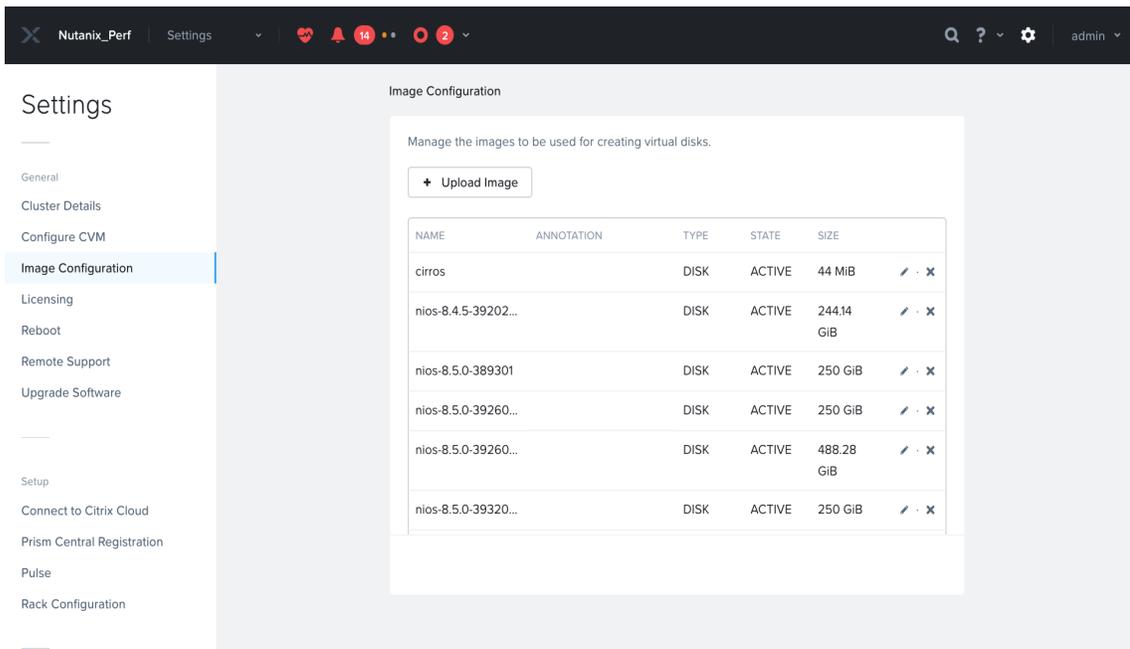
- KVM-based OpenStack deployments are supported on the RHOSP 16.0, Wallaby and Victoria (over Ubuntu) platforms.
- Discovery image is part of the DDI image

Grid Role	A qcow2 format disk image.	Link to Download Images
Member, Grid Master, Reporting	DDI: V815, V825, V1415, V1425, V2215, V2225, V4015, V4025, Flex, V926, V1516, V1526, V2326, V4126 Reporting: V805, V1405, V2205, V5005 CP: V805, V1405, V2205 Discovery: ND-V805, ND-V1405, ND-V2205, ND-V4005, ND-V906, ND-V1606, ND-V2306, ND-V4106	
Resizable of Member, Grid Master, Reporting	DDI: V815, V825, V1415, V1425, V2215, V2225, V4015, V4025, Flex, V926, V1516, V1526, V2326, V4126 Reporting: V805, V1405, V2205, V5005 CP: V805, V1405, V2205 Discovery: ND-V805, ND-V1405, ND-V2205, ND-V4005, ND-V906, ND-V1606, ND-V2306, ND-V4106	

3. Log into the Nutanix Prism GUI.



4. From the drop-down menu, select the **Settings** selection and then select **Image Configuration**.



5. Click on **'Upload Image'**. Input a name, description (ie annotation), image type of disk, storage container. Choose **'Upload a File'** and upload the file from step 2. Click **Save**.

## 6. Navigate to VM from the Prism GUI.

The screenshot displays the Nutanix Prism GUI interface for a VM. The top navigation bar shows 'Nutanix\_Perf' and 'VM' with a search icon and user 'admin'. Below the navigation bar, there are tabs for 'Overview' and 'Table', and links for '+ Create VM' and 'Network Config'.

The main content area is divided into several sections:

- Hypervisor Summary:** Shows 'AHV' as the hypervisor and 'Nutanix 20170830.270' as the version.
- VM Summary:** Shows 7 VM(S) with a status legend: On (7), Off (0), Suspended (0), and Paused (0).
- CPU:** Shows 54 PROVISIONED VCPUS and 6.25% CPU USAGE.
- Memory:** Shows 228 GB of memory usage.
- Top Guest VMs by Controller IOPS:**

VM Name	IOPS
tp-850-393451-ib2225	7 IOPS
tp-850-393451-cp	3 IOPS
tp-850-393451-cp	3 IOPS
- Top Guest VMs by Controller IO Latency:**

VM Name	Latency
tp-850-393451-ib2225	13.48 ms
tp-850-393451-cp	6.03 ms
tp-850-393451-cp	4.24 ms
- Top Guest VMs by Memory Usage:**

VM Name	Usage
jenkins-auto-vm	94.23%
tl-nios-8.5.0-393208	75.6%
tp-850-393451-ib2225	41.70%
- Top Guest VMs by CPU Usage:**

VM Name	Usage
tp-850-393451-ib2225	4.75%
- VM Critical Alerts:** No Critical Alerts.
- VM Warning Alerts:** No Warning Alerts.
- VM Events:** No Events.

7. Click on **Create VM**. Enter name, description, timezone, vCPU, cores per vCPU.

### Create VM

?

✕

#### General Configuration

Name VM name is already in use

Description

Timezone

Use this VM as an agent VM

---

#### Compute Details

vCPU(s)

Number Of Cores Per vCPU

Cancel Save

8. Scroll down and enter **memory**.

Memory ?

GiB

9. Add a disk. **Type** is disk. From the Operation drop-down list, select Clone from **Image Service**. From the Bus Type drop-down list, select **SCSI**. From the Image drop-down list, select the image that you uploaded when deploying the virtual appliance. Click **Add**.

**Add Disk** ? ×

type

DISK ▼

Operation

Clone from Image Service ▼

Bus Type

SCSI ▼

Image ?

tl-nios-85-test-image ▼

Size (GiB) ?

60

Please note that changing the size of an image is not allowed.

Index

Next Available ▼

Cancel Add

10. Select **Legacy BIOS** and then set the boot priority.

**Create VM** ? ×

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### Boot Configuration

**Legacy BIOS**

Set Boot Priority

DISK (scsi.0) ▼

Only the selected disk will be used for boot. (No fallback to other disks)

UEFI ⓘ

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11. Add the NICs (network interface cards). You can add up to 4 NICs. The NICs represent the following VLANs in this order:

*Note: You must add at least two NICs and they must be MGMT and LAN1 interfaces. Ensure that you add the NICs in the order: MGMT, LAN1, HA, and LAN2*

- a. NIC 1: MGMT
- b. NIC 2: LAN1
- c. NIC 3: HA
- d. NIC 4: LAN2

12. You must assign the VLANs in this order. Click **Add**.

**Create NIC**      ?      X

---

VLAN Name

br2\_0▼

VLAN ID

vlan.0

Network Connection State

Connected

Disconnected

Network Address / Prefix

NONE

---

Cancel      Add

13. Repeat this command for the MGMT and LAN1 interfaces.

14. Start a command prompt and run the following commands from the Nutanix controller VM:

1. Run the `acli vm.list` command and note the **VM name** and **VM user ID**.
2. If you have enabled the custom script, create a serial port by using the following command:  
`acli vm.serial_port_create <VM name> index=0 type=kServer`
3. For the VM to function properly, turn off the VM branding using the following command:  
`acli vm.update <VM uuid> disable_branding=true.`

15. Click **Save**.

16. In the Prism web console, select the new VM in the VM table, and then click the **Power On** button to start the VM.
17. If there are no Nutanix errors, refresh the screen and then launch the console.

## Configuration of Grid Master and Grid Members

1. In the console, you will need to do the following:
  - a. Execute command `set temp_license` to set the model number using the NIOS license selection. Once this is done the VM will reboot.
  - b. Execute command `set temp_license` to set DNSOne license. This selection sets the Grid Master for DNS, DHCP, and Grid.
  - c. Execute command `set network` to set the IP address of the Grid Master or Grid Member. Once this is done, the VM will reboot.
2. From your workstation, try to ping the VM that was created. If successful, then you use your browser to connect to the grid master. The syntax is `https://<IP address>`.
3. Refer to the NIOS Administrators Guide for information on grid deployment and feature integrations.



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