

Deployment Guide

Infoblox vNIOS for Nutanix

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Executive Summary

With the release of NIOS 8.5, you can now run vNIOS images on Nutanix servers. 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

- NIOS 8.5 qcow2 image,
- Nutanix AHV version 5.11

Supported Platforms

The table below shows the list of supported models in the Nutanix environment.

Trinzic Series Virtual Appliances	Overall Disk (GB)	Number of vCPUs	Number of CPU Cores	Memory Allocation	Supported as Grid Master and Grid Master Candidate
IB-V815	250	1	2	16GB	Yes
IB-V825	250	1	2	16GB	Yes
IB-V1415	250	1	4	32GB	Yes
IB-V1425	250	1	4	32GB	Yes
IB-V2215	250	1	8	64GB	Yes
IB-V2225	250	1	8	64GB	Yes
IB-V5005	User defined reporting storage	1	User defined	User defined	No

Cloud Platform Virtual Appliances	Overall Disk (GB)	Number of vCPUs	Number of CPU Cores	Memory Allocation	Supported as Grid Master and Grid Master Candidate
CP-V805	250	1	2	16GB	No
CP-V1405	250	1	4	32GB	No
CP-V2205	250	1	8	64GB	No

Network Insight Virtual Appliances	Overall Disk (GB)	Number of vCPUs	Number of CPU Cores	Memory Allocation	Supported as Grid Master and Grid Master Candidate
ND-V1405	250	1	4	30GB	No

Instructions

- 1. Log into the Infoblox Support site to download the NIOS image.
- 2. Select the vNIOS for KVM section to download the qcow2 image.
- 3. Log into the Nutanix Prism GUI.

Nutanix_Perf	Home 🗸	👽 🔺 🖬 🚥 O	2 ~			ς ?	🗸 🌣 admin 🖌
Hypervisor Su	Prism Central	Cluster-wide Control	ler IOPS 15 IOPS	Health		Critical Alerts	
AHV VERSION NUTANIX 20170830.270	Not registered to Prism Central Register or create new	16 IOPS 11:00 12:1	00 01:00	CRITICAL		CRI	4 TICAL
Storage Summary	Logical 👻	Cluster-wide Control	ler IO B/W1.22 MBps	Services • 1 •	0 • 0	Node Detached I 8 da	From Metadata Ring
3.64 TiB free (logica	l) of 3.79 TiB	11:00 12:0	00 01:00	Hosts • 0 • Disks • 0 •	2 • 0 0 • 8	Two node cluster cl alone 8 da	nanged state to stand- e mode. Ivys ago
VM Summary		Cluster-wide Control	ler Latency 🕐 4.7 ms	Data Resiliency Status		Warning Alerts	
6 vm(s)	Avai Best Effort • On 6 • Off 0 • Suspen 0 • Paused 0	5.94 ms 11:00 12:0	00 01:00	01/		3 WARNING 2 months ago	Detected older AHV Version Detected older AHV Version SMTP Error in Controller
Hardware Summary		Cluster CPU	Cluster Memo	Data Resiliency possib	ble	Info Alerts	Events
2 2 HOSTS BLOCKS	NX-1175S-G6 MODEL	9.98 % OF 82.76 GHz	85.99% OF 250.99 GIB	Rebuild capacity available	YES	14 INFO 8 days ago	259 EVENTS Last event 28 minutes ago

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

Nutanix_Perf Settings	• 🦈 🗍 💶 ••	02~					۵	? •
Settings	Im	nage Configuration						
		Manage the images to	be used for creating vir	tual disks.				
General Cluster Details		+ Upload Image						
Configure CVM		NAME	ANNOTATION	TYPE	STATE	SIZE		
nage Configuration		cirros		DISK	ACTIVE	44 MiB	× · ×	
censing		nios-8.4.5-39202		DISK	ACTIVE	244.14	2 · X	
boot						GiB		
note Support		nios-8.5.0-389301		DISK	ACTIVE	250 GiB	× · ×	
grade Software		nios-8.5.0-39260		DISK	ACTIVE	250 GiB	× + x	
stup		nios-8.5.0-39260		DISK	ACTIVE	488.28 GiB	x + x	
onnect to Citrix Cloud		nios-8.5.0-39320		DISK	ACTIVE	250 GiB	2 · X	
sm Central Registration								
e								
k 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.

Nutanix_Perf		🕸 🗍 💶 😶 🖸 🖉 🗸			Q ? v 🌣 🛛 admin v
Overview · Table					+ Create VM Network Config
Hypervisor Summary		Top Guest VMs by Controller IC	OPS	VM Critical Alerts	VM Events
	Nutanix	tp-850-393451-ib2225	7 IOPS		
AHV HYPERVISOR	20170830.270 VERSION	tp-850-393451-cp	3 IOPS		
		H alas 0 E 0 202200 mamb	21005		
VM Summary		Top Guest VMs by Controller IC	O Latency		
7	Avai Best Effort	tp-850-393451-ib2225	13.48 ms	No Critical Alerts	
VM(S)	• Off 0 • Suspen 0	tp-850-393451-cp	6.03 ms		
	Paused	tantitan anta con	4.24		
CPU		Top Guest VMs by Memory Us	age	VM Warning Alerts	EVENTS
Γ 4		jenkins-auto-vm	94.23%		No Events
54 PROVISIONED VCPUS	6.25% CPU USAGE	tl-nios-8.5.0-393208	75.6%		
		H alaa 0 E 0 202200 mamb	41 700/		
Memory		Top Guest VMs by CPU Usage		$\langle \rangle$	
220	220	tp-850-393451-ib2225	4.75%	No Warning Alerts	
// / CiP	////				

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

Create V	M ? ×
General Configuration	
Name	VM name is already in use
NIOS 8.5 Grid master	
Description	
Grid Master Test	
Timezone	
(UTC - 08:00) America/Santa_Isabel	~
Use this VM as an agent VM	(UTC - 08:0
Compute Details	
vCPU(s)	
1	
Number Of Cores Per vCPU	
2	
	Cancel

8. Scroll down and enter memory.

Memory 🕐	
250	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	?	×
туре		
DISK		~
Operation		
Clone from Image Service		~
Bus Type		
SCSI		~
mage ⑦ tl-nios-85-test-image		~
Size (GiB) ⑦		
Please note that changing the size of an image is not allowed.		
Next Available		~
Cancel	Ac	ld

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

oot Configuration		
Legacy BIOS		
Set Boot Priority		
DISK (scsi.0)		
Only the selected disk w	ill be used for boot. (No fallback to ot	her disks)

- 11. Add the NICs (network interface cards). You can add up to 4 NICs. The NICs represent the following VLANs in this order:
 - 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		?	×
VLAN Name				
br2_0				~
VLAN ID				
vlan.0				
Network Connection State				
 Connected 				
O Disconnected				
Network Address / Prefix				
NONE				
			_	
		Cancel	Ad	d

- 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.



Infoblox is the leader in modern, cloud-first networking and security services. Through extensive integrations, its solutions empower organizations to realize the full advantages of cloud networking today, while maximizing their existing infrastructure investments. Infoblox has over 12,000 customers, including 70 percent of the Fortune 500.

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Corporate Headquarters | 2390 Mission College Boulevard, Ste. 501 | Santa Clara, CA | 95054 +1.408.986.4000 | info@infoblox.com | www.infoblox.com

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