

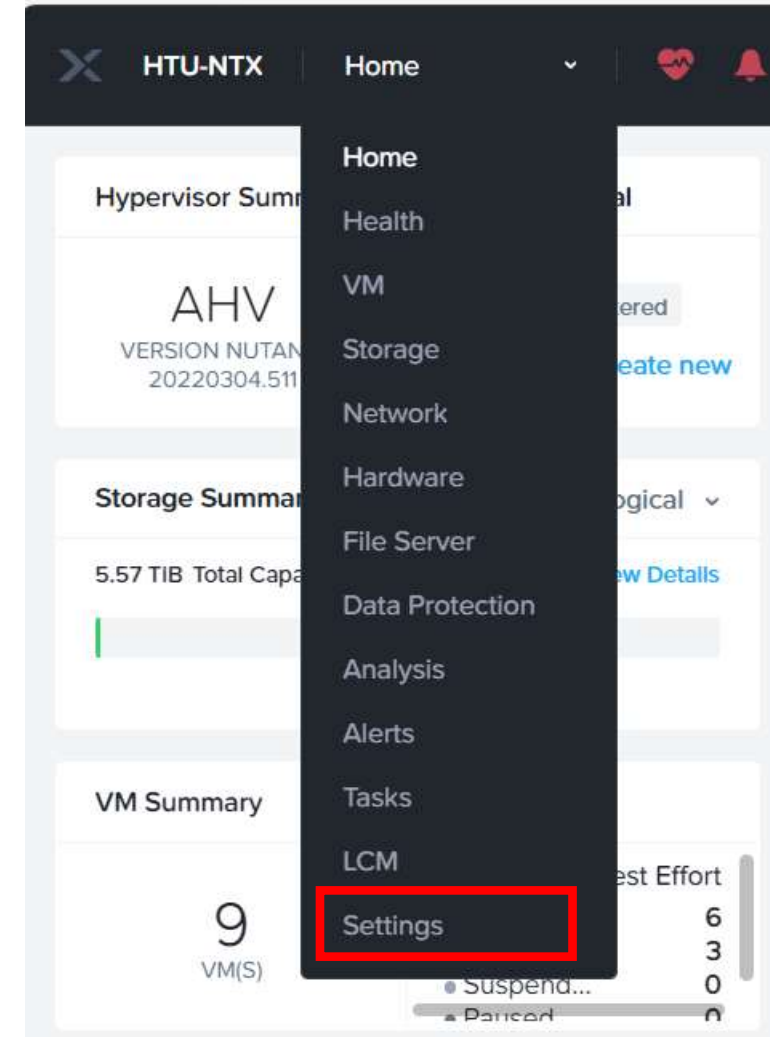
NUTANIXTM



Tunning, intro to prism element and how to use, how to create virtual machine

Tunning cluster

- After foundation succussed, you should tune cluster and double check some points.
- First check NTP server, as we know NTP server use to synchronize time in cluster



Tunning cluster

- if you did not assign SMTP during foundation , you can add it manually.

The screenshot shows the Nutanix HTU-NTX Settings page. The left sidebar contains a list of settings categories: Setup, Connect to Citrix Cloud, Prism Central Registration, Pulse, Rack Configuration, Network, HTTP Proxy, Name Servers, Network Configuration, Network Switch, and NTP Servers (highlighted with a red box). The main content area is titled 'NTP Servers' and includes a help icon. It contains instructions to configure NTP servers and a table of recommended servers.

Settings

HTU-NTX Settings

Setup

Connect to Citrix Cloud

Prism Central Registration

Pulse

Rack Configuration

Network

HTTP Proxy

Name Servers

Network Configuration

Network Switch

NTP Servers

SNMP

NTP Servers

Configure one or more NTP servers that you would like to use. Servers that have been configured are displayed below.

NTP Server

+ Add

Hostname or IP Address	
1.asia.pool.ntp.org	x
0.asia.pool.ntp.org	x
2.asia.pool.ntp.org	x
3.asia.pool.ntp.org	x

4 NTP Server recommended by nutanix

Sarah Masadeh

Tunning cluster

- Second check Name servers.

The screenshot shows the Nutanix HTU-NTX Settings page. The left sidebar contains a list of settings categories: Setup, Connect to Citrix Cloud, Prism Central Registration, Pulse, Rack Configuration, Network, HTTP Proxy, and Name Servers. The 'Name Servers' category is highlighted with a red box. The main content area is titled 'Name Servers' and contains instructions: 'Configure one or more name servers by entering their IP address in IPv4 format. Servers that have been configured are displayed below.' Below the instructions, there is a 'Server IP' input field with a '+ Add' button next to it. An arrow points from the text 'Add IP for Domain controller' to this input field. Below the input field, there is a list of configured IP addresses, currently showing '8.8.8.8' with a close button (X) to its right.

Settings

HTU-NTX Settings

Setup

Connect to Citrix Cloud

Prism Central Registration

Pulse

Rack Configuration

Network

HTTP Proxy

Name Servers

Name Servers

Configure one or more name servers by entering their IP address in IPv4 format. Servers that have been configured are displayed below.

Server IP

+ Add

IP Address

8.8.8.8

X

Add IP for Domain controller

Tunning cluster

- 3 check SMTP server.

SMTP server use to send notification about cluster health.

The screenshot displays the Nutanix HTU-NTX Settings interface. On the left, a sidebar lists various settings categories: Cluster Lockdown, Data-at-rest Encryption, Filesystem Whitelists, SSL Certificate, Users and Roles, Authentication, Local User Management, Role Mapping, Alerts and Notifications, Alert Email Configuration, and SMTP Server. The 'SMTP Server' option is highlighted with a red rectangular box. The main content area is titled 'SMTP Server Settings' and includes a help icon. It contains a descriptive text: 'Configure the SMTP server that the Nutanix software should use to send email notifications (such as alerts)'. Below this, there are four input fields: 'Hostname Or IP Address', 'Port', 'Security Mode' (a dropdown menu currently set to 'NONE'), and 'From Email Address'. At the bottom of the form, there are three buttons: 'Remove', 'Discard Changes', and 'Save'.

Tunning cluster

- 3 check SMTP server.
- User: account to send
- From: from whom

Receiver will get

SMTP Server Settings ?

Configure the SMTP server that the Nutanix software should use to send email notifications (such as alerts).

Hostname Or IP Address

Port

Security Mode

User

Password

From Email Address

SMTP Server Settings ?

Configure the SMTP server that the Nutanix software should use to send email notifications (such as alerts).

Hostname Or IP Address

Port

Security Mode

From Email Address

Tunning cluster

- 4 configure email

The screenshot displays the Nutanix HTU-NTX Settings interface. On the left, a sidebar lists various settings categories, with 'Alert Email Configuration' highlighted under the 'Alerts and Notifications' section. The main content area is titled 'Alert Email Configuration' and contains three tabs: 'Settings', 'Rules', and 'Email Content'. The 'Settings' tab is active, showing 'Email Preference' options: 'Every Single Alert' (checked), 'Daily Digest' (checked), and 'Skip empty digest email' (checked). Below these are 'Email Recipients' and 'Tunnel Connection' sections. The 'Tunnel Connection' section shows 'Mode' as 'Default Nutanix Tunnel' and 'Status' as 'DISABLED'. A 'Save' button is located at the bottom right.

HTU-NTX Settings

Settings

Alert Email Configuration

Settings Rules Email Content

Email Preference

- ☒ Every Single Alert
Send an email for every alert. If this box is unchecked, no emails are sent out except the daily digest email, if it is enabled.
- ☒ Daily Digest
A summary email is sent once a day.
- ☒ Skip empty digest email
Send a daily digest email only if there are one or more alerts.

Email Recipients

Additional email recipients

Tunnel Connection

TUNNEL CONNECTION

Mode	Default Nutanix Tunnel
Status	DISABLED

Save

Tunning cluster

- 4 configure email

Alert Email Configuration

Settings

Rules

Email Content

When

Alert Severity

Critical × Select Severity(ies)

Impact Type

Performance × Select Impact Type(s)

Alert Contains

CPU × Add Key Phrase(s)

Send Email To

presidentoffice@htu.edu.jo × Add email addresses of recipients

Back

Save Rule

Tunning cluster

- 4 configure email

Alert Email Configuration

?

SettingsRulesEmail Content

Email Content

SubjectData Disk Space Usage High

BodyDisk space usage for {mount_path} on {entity} {ip_address} has exceeded {disk_usage_threshold}%.

Prepend Subject

Enter content to prepend to the email subject

Append Body

Enter content to append to the email body

Save

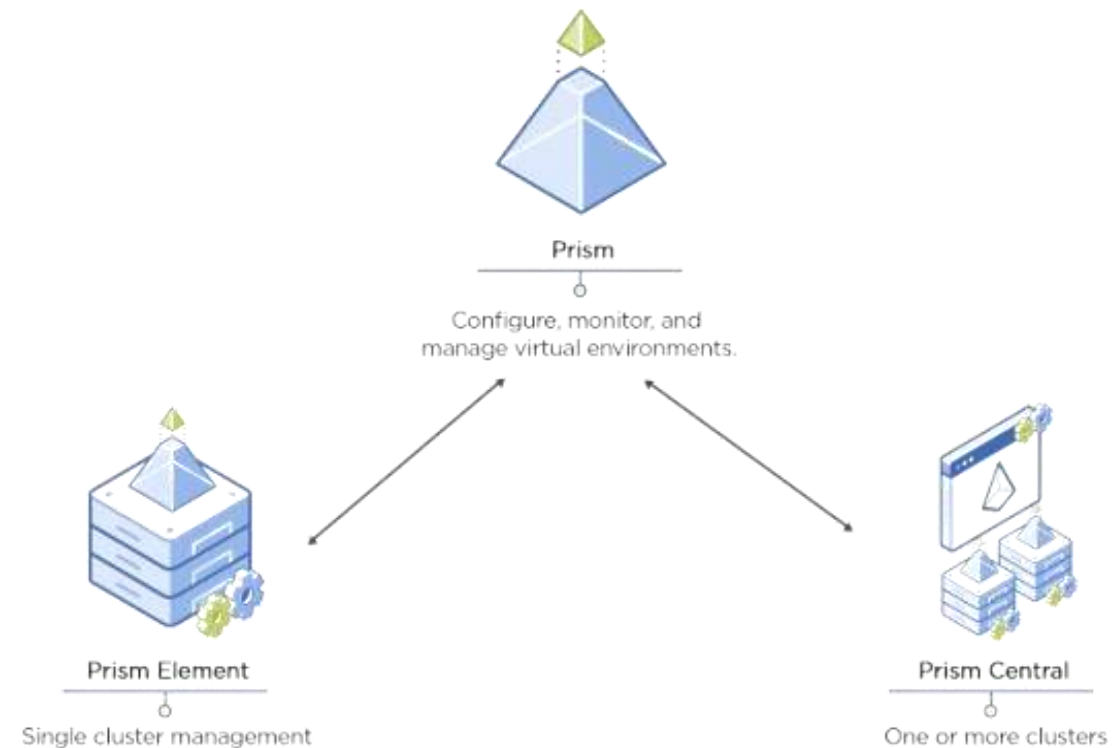
What is Nutanix Prism?

Nutanix Prism (Prism) provides central access for administrators to **configure, monitor, and manage** virtual environments by combining several aspects of data center management into a single, easy-to-use solution.

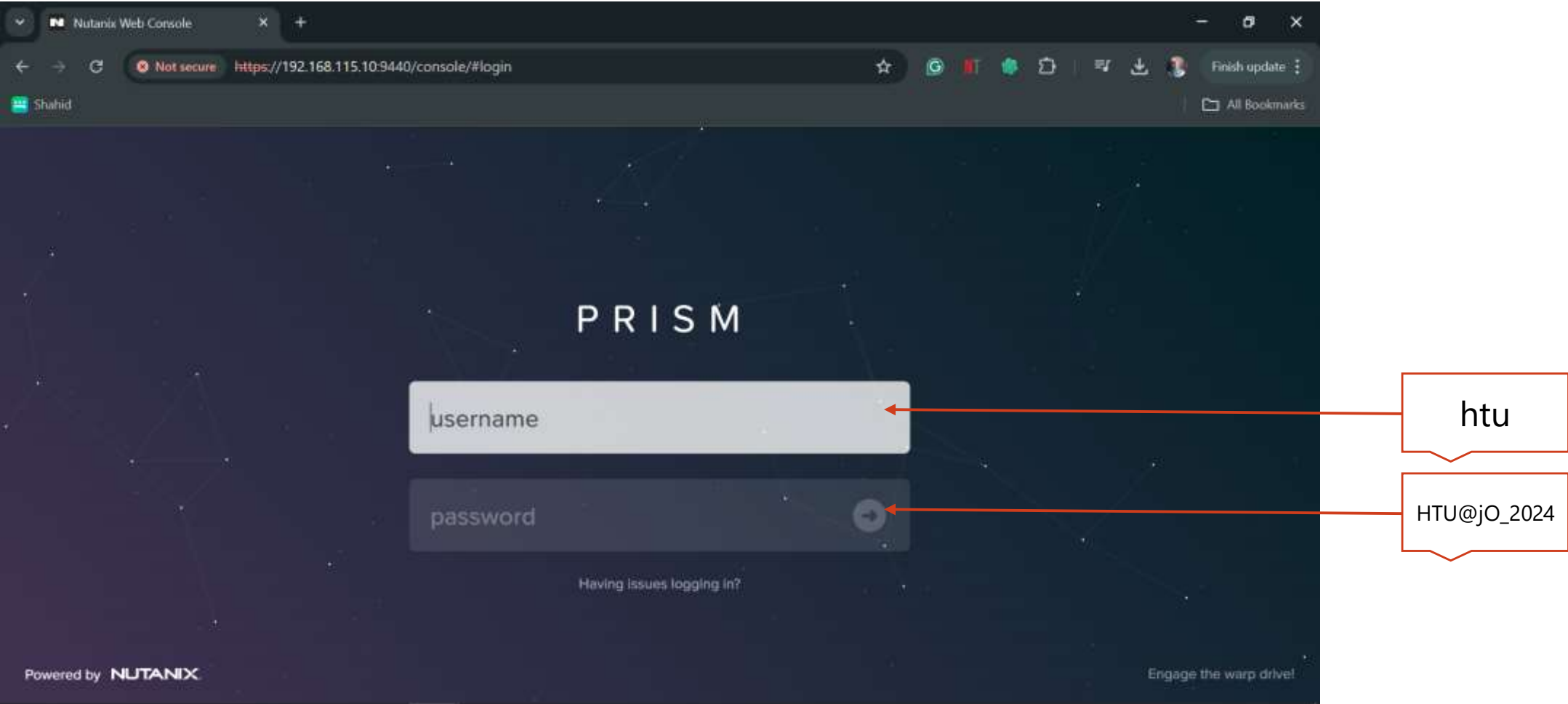
What is Nutanix Prism?

Prism is a part of every Nutanix deployment and has two core components:

- Prism Element
- Prism Central



Prism Element



←→↺

Not securehttps://192.168.115.10:9440/console/#page/dashboard

🔍☆

🌐NT🌀🗄️🎵⬇️👤

Finish update

Shahid

All Bookmarks

HTU-NTXHome

📶🔔11🔴1

🔍?⚙️admin

Hypervisor Summary

AHV

VERSION NUTANIX
20220304.511


Prism Central

Not registered

Register or create new


Cluster-wide Controller IOPS

1 IOPS




Cluster-wide Controller IO B/W

13 KBps



Cluster-wide Controller Latency

0.91 ms



Cluster CPU Usage

19.91%


OF 50.38 GHz

Cluster Memory Usa...

62.59%

OF 187.72 GiB

Health



CRITICAL

Hosts

300

Services

100

Protection Domains

010

Data Resiliency Status

OK

Data resilient as per configuration

Failure Domain

Node

Fault Tolerance

1

Critical Alerts

11

CRITICAL

Host 192.168.115.4 is using default password
11 minutes ago

IPMI 192.168.115.1 is using default password
1 month ago

IPMI 192.168.115.2 is using default password

Warning Alerts

3

WARNING
18 hours ago

Associated entities are not protected together.
2 disks of node 192.168.115.4, needs firmware upgrade
2 disks of node 192.168.115.5.

Info Alerts

4

INFO
1 month ago

Events

125

EVENTS
Last event few seconds ago

VM Summary

8

VM(S)

Availability

Best Effort

On

6

Off

2

Suspend...

0

Paused

0

Computing storage utilization...

Loading...

Sarah Masadeh

Home

- The most important widget is Data Resiliency status.
- **OK** mean that no node nether CVM are down.
- CVM leader is the CVM take the lead of all CVM's.
- What happen if a node or CMV goes down??

Data Resiliency Status

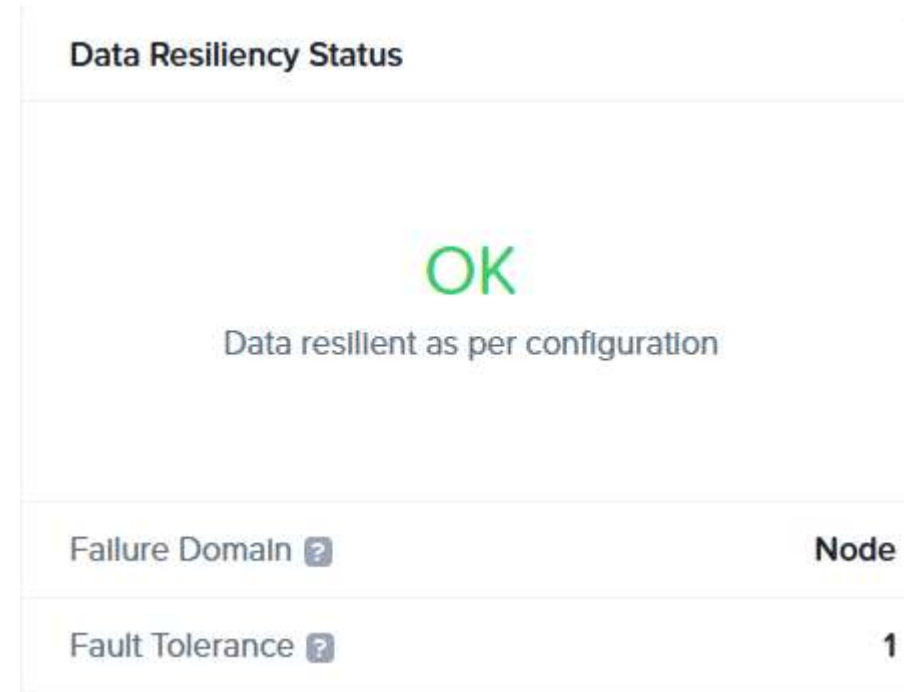
OK
Data resilient as per configuration

Failure Domain ?	Node
Fault Tolerance ?	1

Health Widgets

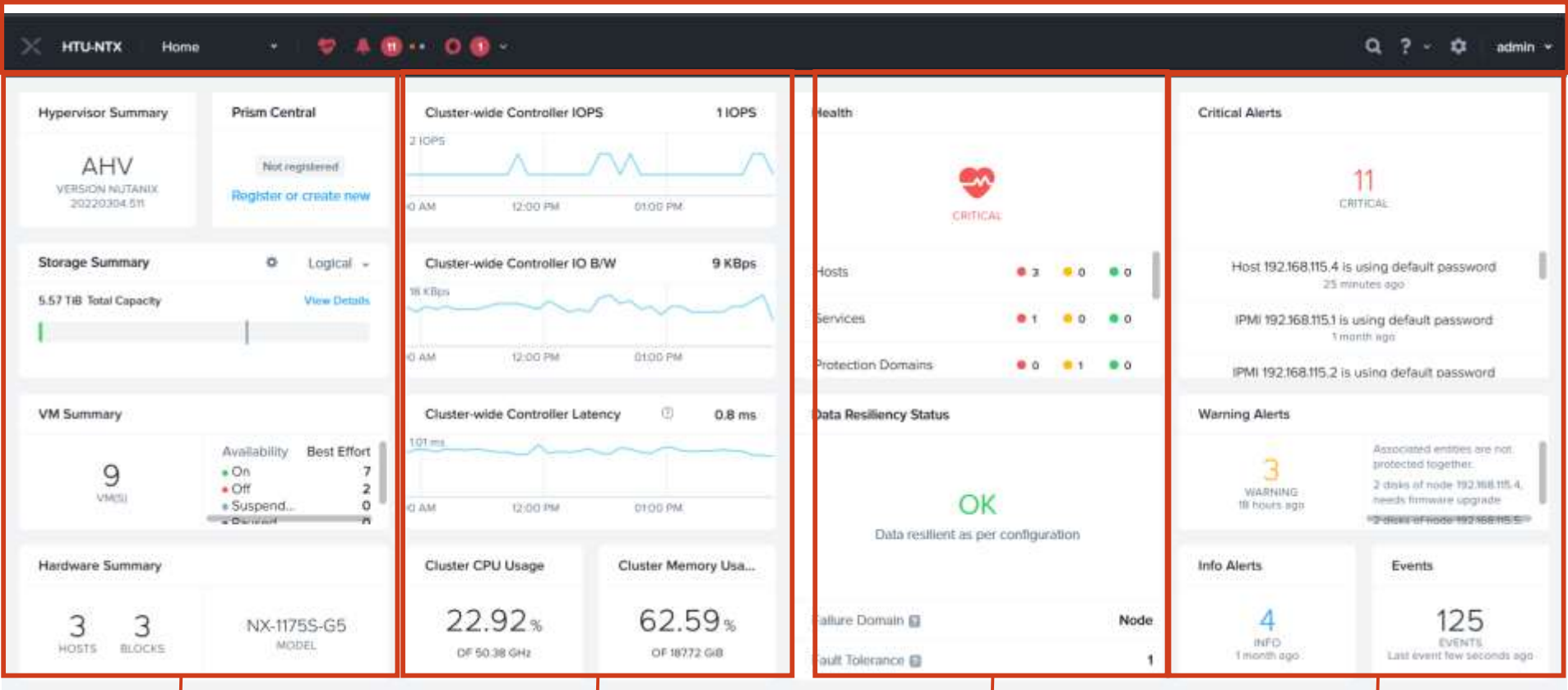
The **Data Resiliency** Status widget summarizes the number of failures that a cluster can withstand. In the figure, the sample cluster used can withstand the failure of a single node. Moving your mouse cursor over the question marks next to Failure Domain and Fault Tolerance will display a small popup with more information about each item.

Clicking the widget will display a Data Resiliency Status details page, which shows how many individual component failures the cluster can withstand based on the currently configured failure domain



An Overview of the Prism Element Home Dashboard

Main menu bar



Cluster details widget

Performance widget

Sarah Masadeh

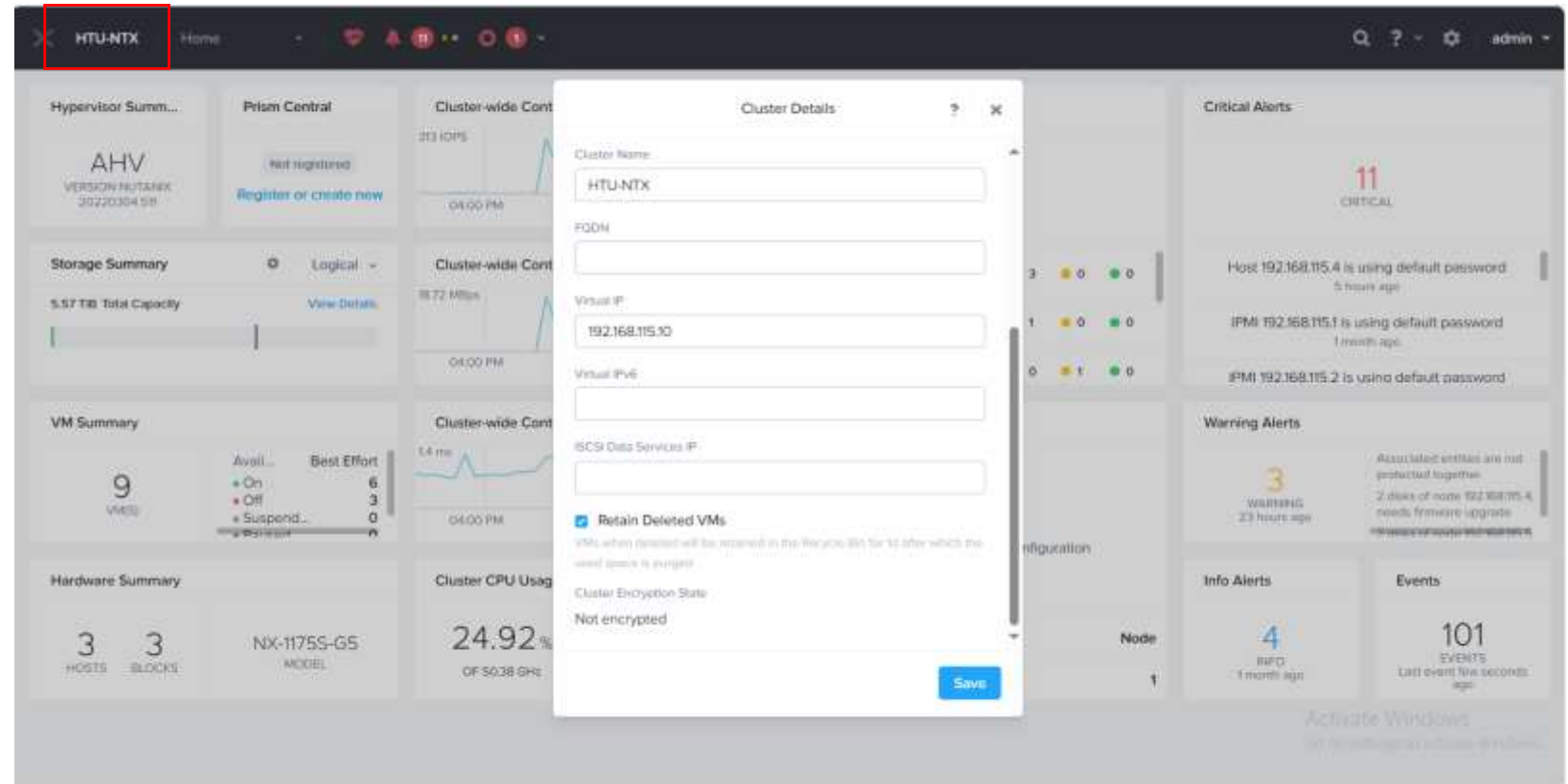
Health widget

Alert and event widget

Cluster Details Widgets

- to check cluster details click on cluster-name.

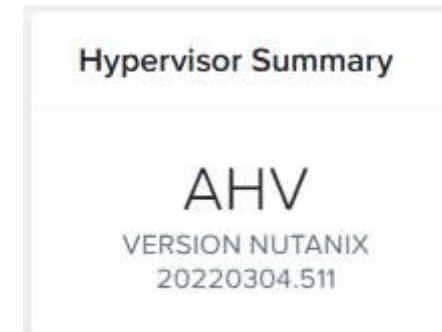
➔ Retain Deleted VMs
check it if you want any
deleted Vm to be retain
within 24 hours.



Cluster Details Widgets

This collection of widgets displays basic information about:

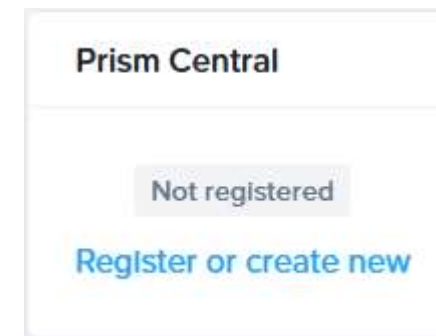
- The installed hypervisor and the associated version.



Cluster Details Widgets

This collection of widgets displays basic information about:

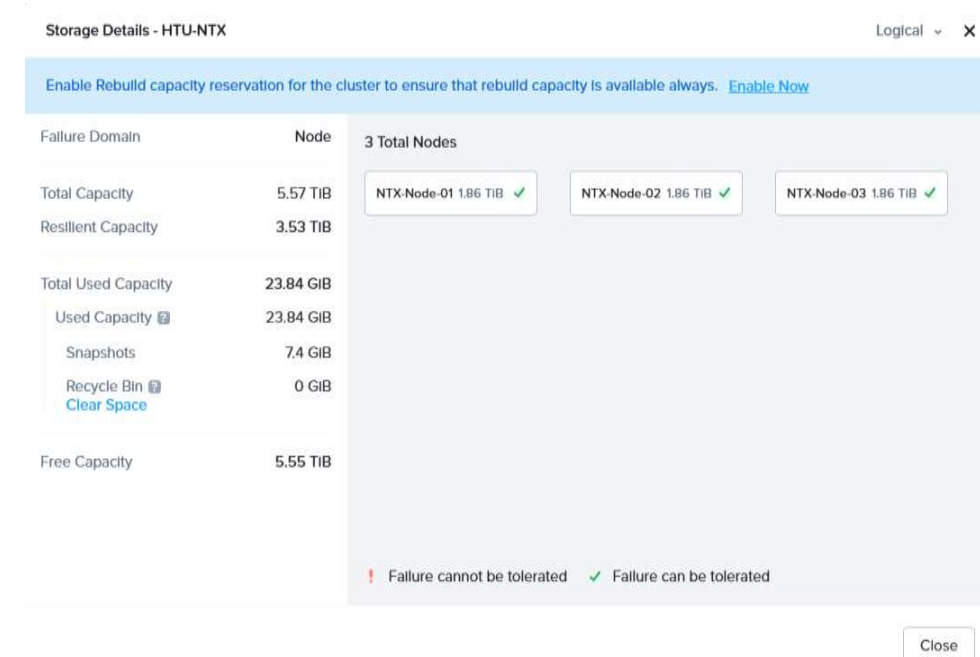
- Whether or not the cluster has been configured to Prism Central. If the cluster is configured to Prism Central, you can launch Prism Central directly from this widget.



Cluster Details Widgets

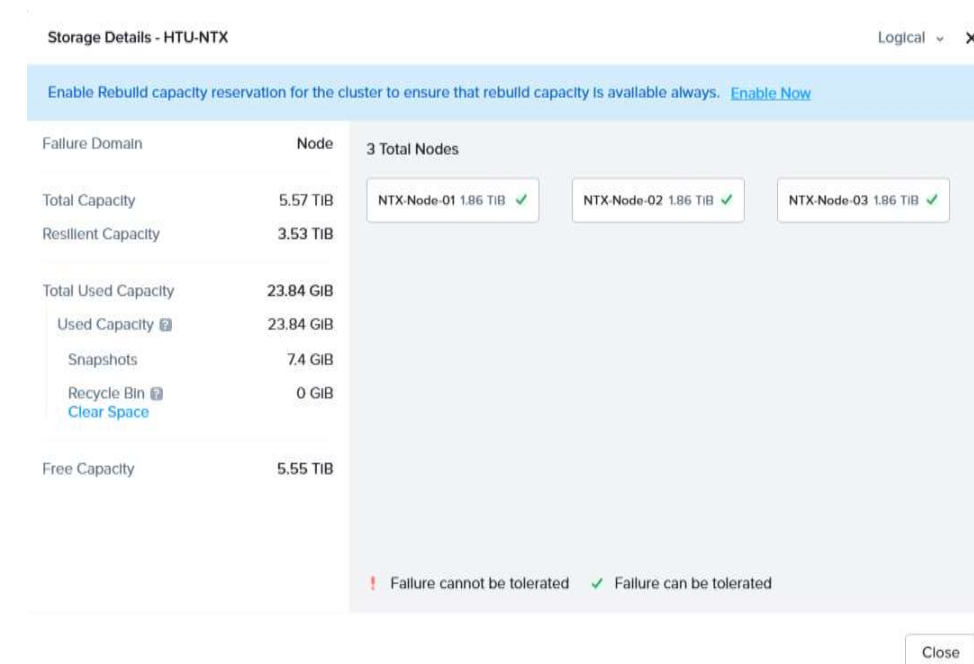
This collection of widgets displays basic information about:

- Storage on the cluster. Basic information is available at a glance and the widget is clickable, allowing you to view physical and logical storage information, configure an alert that will trigger if storage utilization crosses a specific threshold, and more



Cluster Details Widgets

- **Total capacity= available capacity.**
- **Resilient capacity=3.53 out of 5.75**
- **Snapshots (i.e if any snapshot took).**



Cluster Details Widgets

How to empty recycle bin?

Storage Details - HTU-NTX

Logical

X

Enable Rebuild capacity reservation for the cluster to ensure that rebuild capacity is available always. [Enable Now](#)

Failure Domain	Node
Total Capacity	5.57 TiB
Resilient Capacity	3.53 TiB
Total Used Capacity	23.84 GiB
Used Capacity	23.84 GiB
Snapshots	7.4 GiB
Recycle Bin	0 GiB
Free Capacity	5.55 TiB

3 Total Nodes

NTX-Node-01 1.86 TiB

NTX-Node-02 1.86 TiB

NTX-Node-03 1.86 TiB

! Failure cannot be tolerated

✓ Failure can be tolerated

Close

Recycle Bin

Clear Space

Cluster Details Widgets

How to review cluster actual storage size?

The screenshot shows the Nutanix Prism interface. At the top, the 'Hardware' tab is selected in the navigation bar. Below the navigation bar, the 'Table' view is active. The 'Disk' tab is selected in the sub-navigation bar. The table displays disk details for 12 disks, with the 'Disk Usage' column highlighted by a red box. The table includes columns for Disk ID, Serial Number, Host Name, Hypervisor IP, Tier, Status, Disk Usage, Disk IOPS, Disk IO B/W, and Disk Avg IO Latency.

Disk ID	Serial Number	Host Name	Hypervisor IP	Tier	Status	Disk Usage	Disk IOPS	Disk IO B/W	Disk Avg IO Latency
41	ZC226PC7	NTX-Node-03	192.168.115.6	HDD	Online	647.77 MiB of 1.66 TiB	0	0 KBps	16.66 ms
42	ZC22512F	NTX-Node-03	192.168.115.6	HDD	Online	603.05 MiB of 1.64 TiB	0	0 KBps	0 ms
43	S3F4NX0K310609	NTX-Node-03	192.168.115.6	SSD	Online	7.8 GiB of 211.89 GiB	1	11 KBps	0.46 ms
44	S3F4NX0K310665	NTX-Node-03	192.168.115.6	SSD	Online	7.84 GiB of 213.44 GiB	1	11 KBps	0.32 ms
45	S3F4NX0K310365	NTX-Node-02	192.168.115.5	SSD	Online	8.81 GiB of 213.44 GiB	0	1 KBps	0.06 ms
46	ZC227PW8	NTX-Node-02	192.168.115.5	HDD	Online	532.72 MiB of 1.66 TiB	0	1 KBps	20.34 ms
47	ZC227XCY	NTX-Node-02	192.168.115.5	HDD	Online	606.71 MiB of 1.64 TiB	0	0 KBps	23.75 ms
48	S3F4NX0K310351	NTX-Node-02	192.168.115.5	SSD	Online	8.63 GiB of 211.89 GiB	0	0 KBps	0.03 ms
50	S3F4NX0K310297	NTX-Node-01	192.168.115.4	SSD	Online	8.01 GiB of 211.89 GiB	0	3 KBps	0.12 ms
51	ZC2251S2	NTX-Node-01	192.168.115.4	HDD	Online	544.05 MiB of 1.64 TiB	0	0 KBps	0 ms

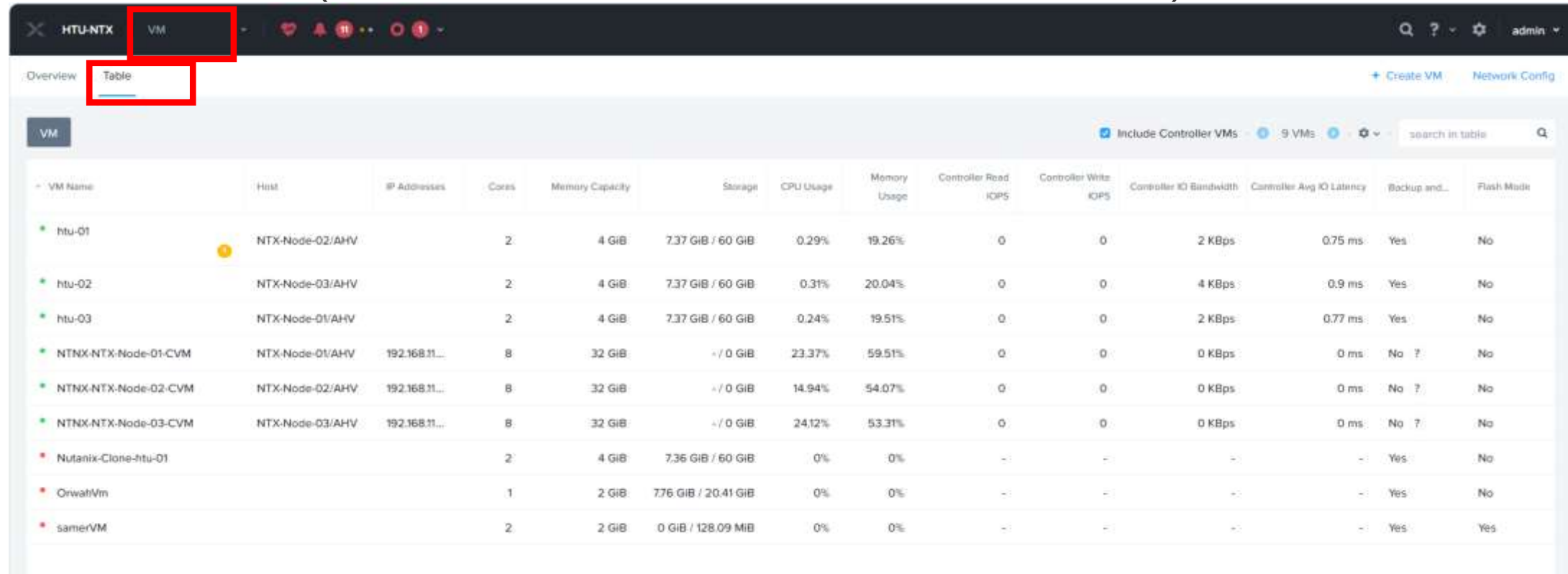
Cluster Details Widgets

- The VMs installed on the cluster. The widget groups VMs by state (on, off, suspended, paused, and unknown).



Cluster Details Widgets

- To check VM'S (You can notice that cluster has 3 VM's Off)



VM Name	Host	IP Addresses	Cores	Memory Capacity	Storage	CPU Usage	Memory Usage	Controller Read IOPS	Controller Write IOPS	Controller IO Bandwidth	Controller Avg IO Latency	Backup and...	Flash Mode
htu-01	NTX-Node-02/AHV		2	4 GiB	7.37 GiB / 60 GiB	0.29%	19.26%	0	0	2 KBps	0.75 ms	Yes	No
htu-02	NTX-Node-03/AHV		2	4 GiB	7.37 GiB / 60 GiB	0.31%	20.04%	0	0	4 KBps	0.9 ms	Yes	No
htu-03	NTX-Node-01/AHV		2	4 GiB	7.37 GiB / 60 GiB	0.24%	19.51%	0	0	2 KBps	0.77 ms	Yes	No
NTNX-NTX-Node-01-CVM	NTX-Node-01/AHV	192.168.11...	8	32 GiB	+/ 0 GiB	23.37%	59.51%	0	0	0 KBps	0 ms	No ?	No
NTNX-NTX-Node-02-CVM	NTX-Node-02/AHV	192.168.11...	8	32 GiB	+/ 0 GiB	14.94%	54.07%	0	0	0 KBps	0 ms	No ?	No
NTNX-NTX-Node-03-CVM	NTX-Node-03/AHV	192.168.11...	8	32 GiB	+/ 0 GiB	24.12%	53.31%	0	0	0 KBps	0 ms	No ?	No
Nutanix-Clone-htu-01			2	4 GiB	7.36 GiB / 60 GiB	0%	0%	-	-	-	-	Yes	No
OrwahVm			1	2 GiB	7.76 GiB / 20.41 GiB	0%	0%	-	-	-	-	Yes	No
samerVM			2	2 GiB	0 GiB / 128.09 MiB	0%	0%	-	-	-	-	Yes	Yes

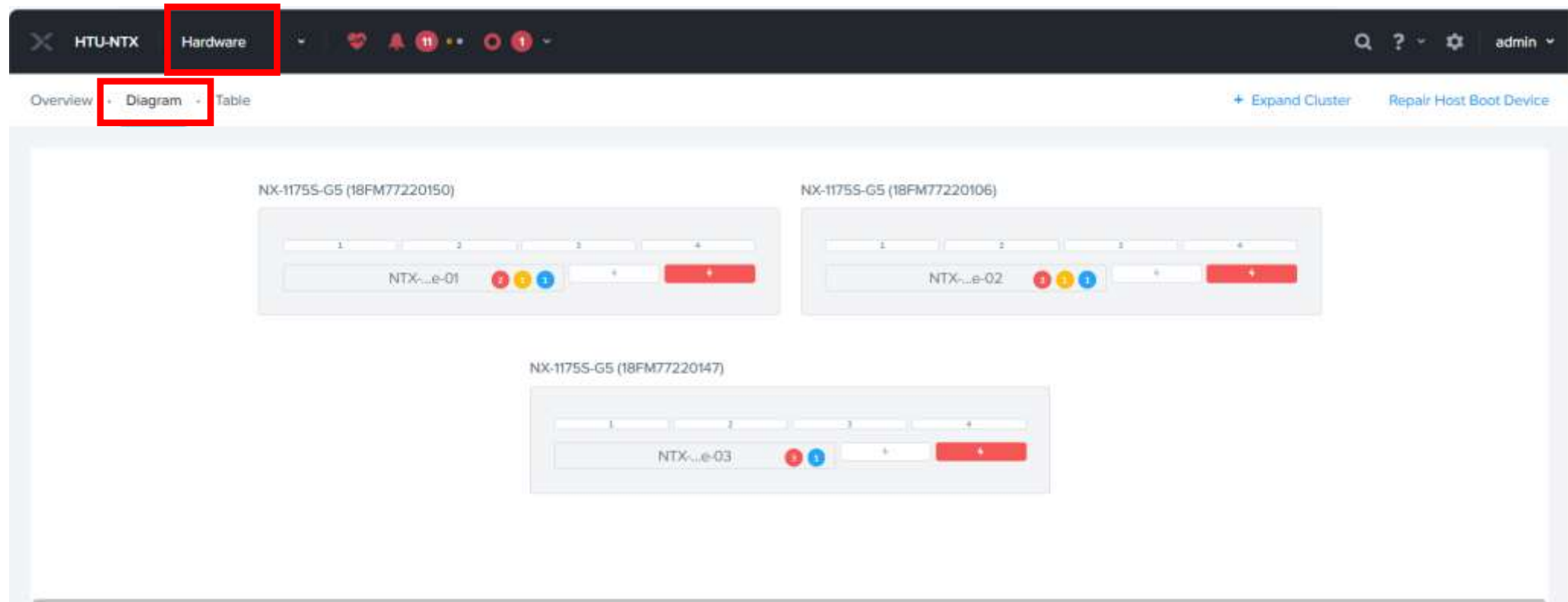
Cluster Details Widgets

- Cluster hardware. The widget displays the number of hosts (or nodes) and blocks in the cluster, as well as the model number of the blocks if applicable. A node is an x86 server with compute and storage resources. A single cluster can have a maximum of 32 nodes for an AHV cluster and 48 nodes for an ESXi cluster.
- Each block can have maximum of 2 host (node)

Hardware Summary		
3	3	NX-1175S-G5
HOSTS	BLOCKS	MODEL

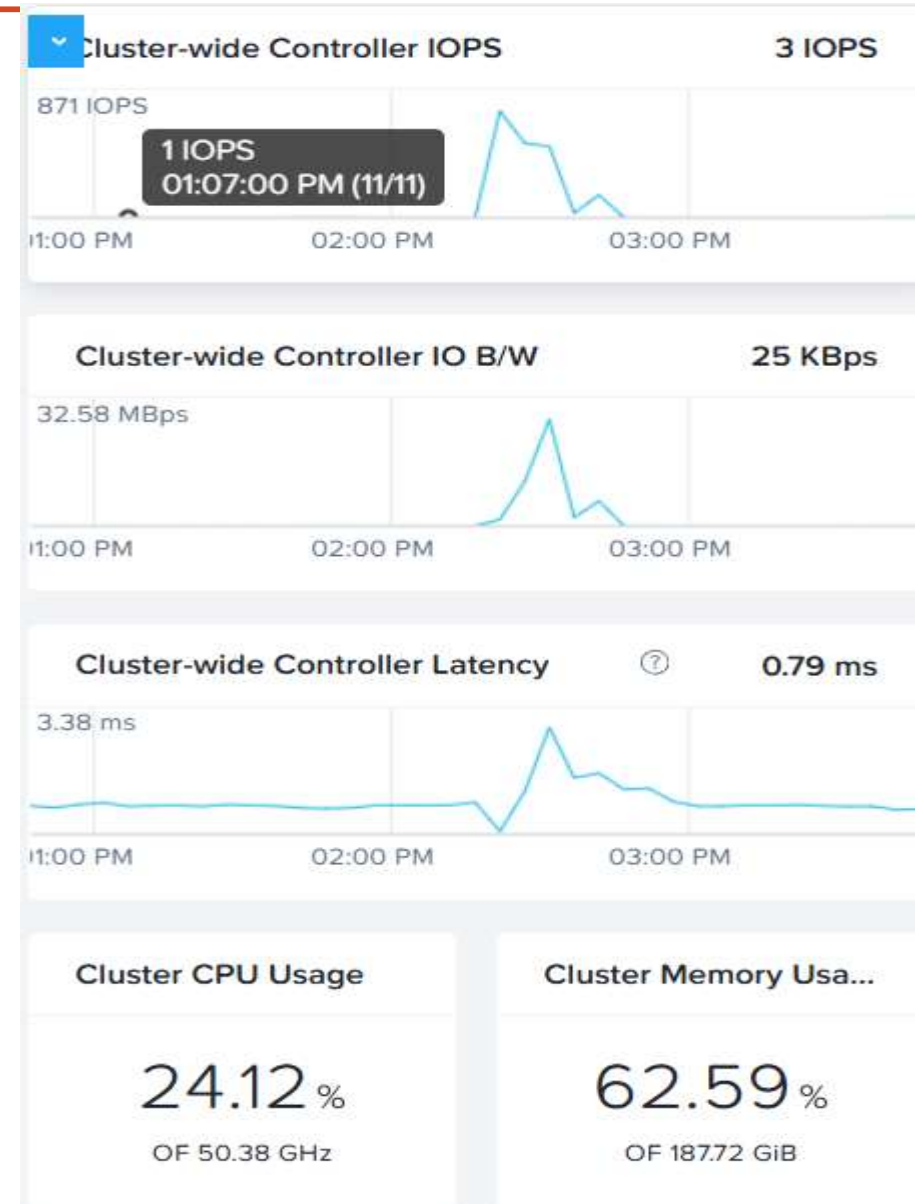
Cluster Details Widgets

- To check cluster Hardware (Blocks and nodes)



Performance Widgets

- By default, Prism Element displays a number of performance charts and statistics on the Home dashboard, designed to help you assess cluster performance at a glance.
- Moving the mouse cursor over any one of the three charts will display a button at the top left that will allow you to add a temporary, custom chart to the Analysis dashboard in Prism Element. You will be prompted to save the chart on the Analysis dashboard for future viewing.



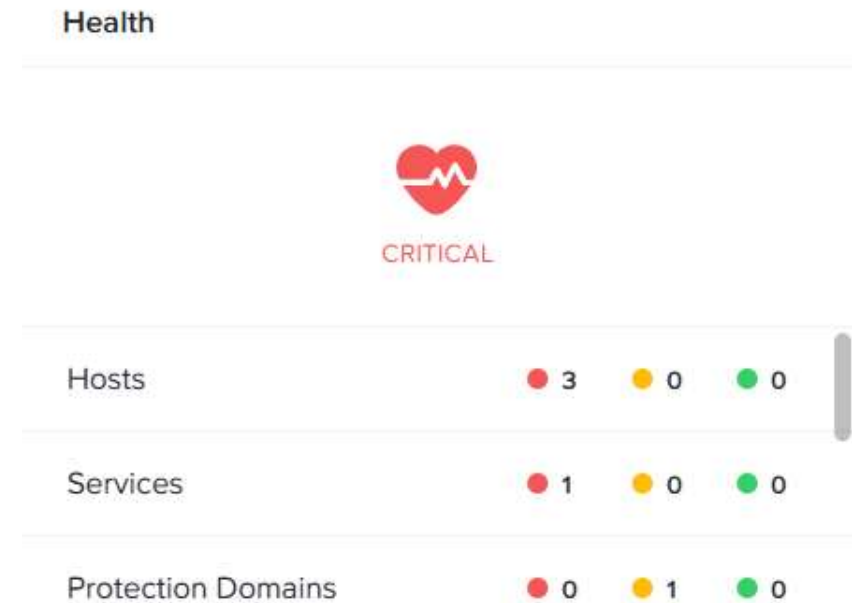
Performance Widgets

- On the Home dashboard, moving your mouse cursor over the graph itself will display details for a specific point in time.
- Moving your mouse cursor over the Cluster CPU Usage or Cluster Memory Usage widgets will display an Analyze button. Click this button to add a temporary, custom chart to the Analysis dashboard

Health Widgets

The Health widget displays the **health status** for the cluster as a whole, as well as cluster entities. The three possible health states are **good, warning, and critical**, indicated by green, yellow, and red heart icons respectively.

Scrolling down in the widget will display the health status of **hosts, VMs, cluster services, disks, storage containers, and storage pools**. Clicking the widget will take you to the Health dashboard, where you can view more details about each or all of these entities.



Health dashboard



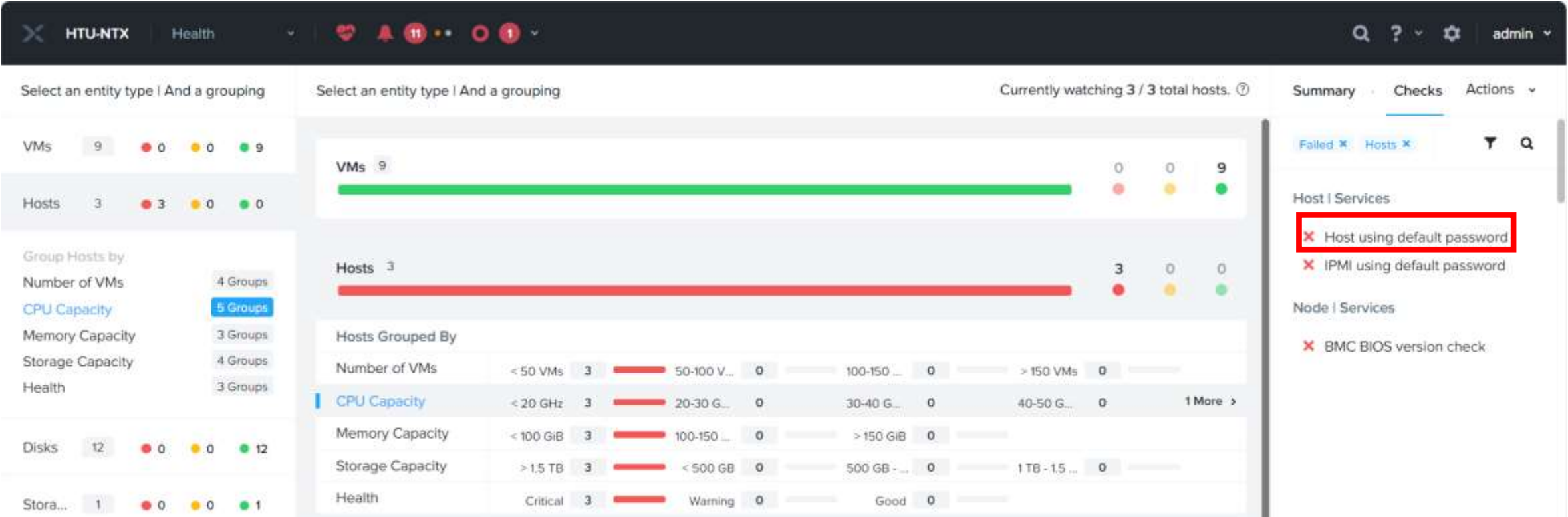
Health dashboard

How to turn off any check?



Health dashboard

How to turn off any check?



Health dashboard

How to turn off any check?

The screenshot shows the Nutanix Health dashboard for 'HTU-NTX'. The 'BMC BIOS version check' is selected. The 'Actions' menu includes 'Run Check', 'Turn Check Off' (highlighted with a red box), 'Alert Policy', and 'Schedule'. The 'Description' states: 'Check BMC/Bios version of all nodes'. The 'History of Hosts evaluated by this check' table shows results for three nodes over a period from Nov 05 to Today. The 'Causes & Resolutions' section on the right provides details on failure causes and resolutions.

	Nov 05	Nov 06	Nov 07	Nov 08	Nov 09	Nov 10	Today
NTX-Node-01	Failed	Failed	Failed	Failed	Failed	Failed	Failed
NTX-Node-02	Failed	Failed	Failed	Failed	Failed	Failed	Failed
NTX-Node-03	Passed	Passed	Passed	Passed	Passed	Passed	Passed

3 / 3

Causes & Resolutions

Causes of failure
Current BIOS/BMC version is not recommended for this node due to known issue.

Resolutions
Upgrade BMC and BIOS version. Perform inventory from Life Cycle Manager to check and update to the latest BMC/BIOS version. Check KB 2896 and 2905 for alternative update option.

Health dashboard

Summary

Checks

Actions

All Checks

844

BY CHECK STATUS

Passed

837

Failed

5

Warning

2

Error

0

Off

0

BY CHECK TYPE

Scheduled

309

Not Scheduled

55

Event Triggered

480

Summary

Checks

Actions

No filters applied, Showing all.

Availability Zone | Network

Unable to get Availability Z...

CVM | CPU

AOS upgrades are disabled...

CVM CPU Utilization

CVM active upgrade check

CVM | Containers

Containers are marked for r...

Storage container on remo...

CVM | Disk

Data Disk Usage

Disk Configuration

Disk Diagnostic Status

Disk Firmware Check

Disk Offline Status

Summary

Checks

Actions

No filters applied

Availability Zone

Unable to

CVM | CPU

AOS upgrades are disabled...

CVM CPU Utilization

CVM active upgrade check

CVM | Containers

Containers are marked for r...

Storage container on remo...

CVM | Disk

Data Disk Usage

Disk Configuration

Disk Diagnostic Status

Disk Firmware Check

Disk Offline Status

Manage Checks

Set NCC Frequency

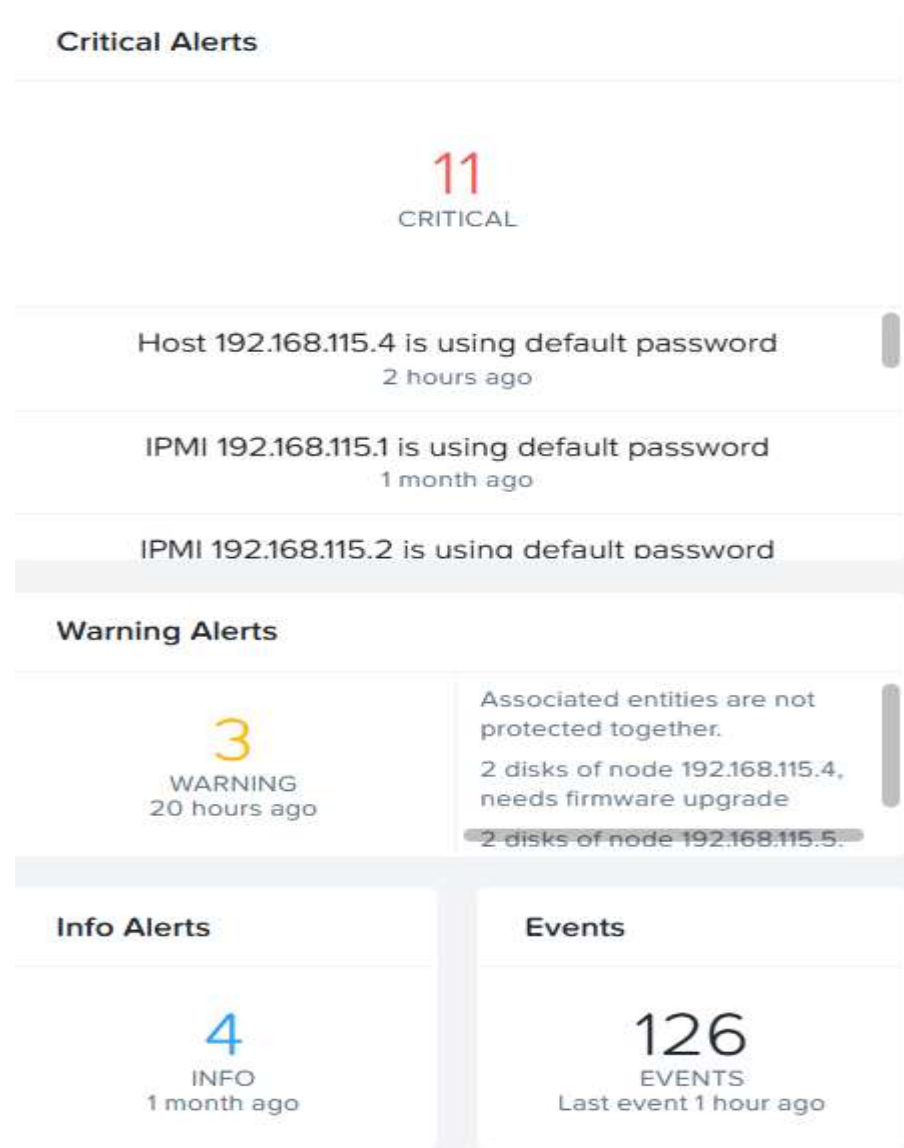
Run NCC Checks

Collect Logs

Running an **NCC (Nutanix Cluster Check)** is a key part of maintaining a Nutanix cluster's health and diagnosing potential issues. NCC is a Nutanix utility that performs a series of health checks on various components within the Nutanix environment, including cluster configuration, hardware, software, and network. Running these checks can identify and help resolve issues proactively.

Alerts and Events Widgets

- The Alerts widgets display the most recent unresolved alerts on the cluster. Each set of alerts is displayed in a separate widget, with one widget each for critical, warning, and informational alerts.
- The Events widget displays the total number of events that have occurred on the cluster, as well as how recently the last event occurred.



Alerts and Events Widgets

How to check events and alerts?

HTU-NTX

Alerts

Overview

Alerts

Alerts70

Alert Policies874

Events99

Info Alerts

4

INFO

1 month ago

Events

126

EVENTS

Last event 1 hour ago

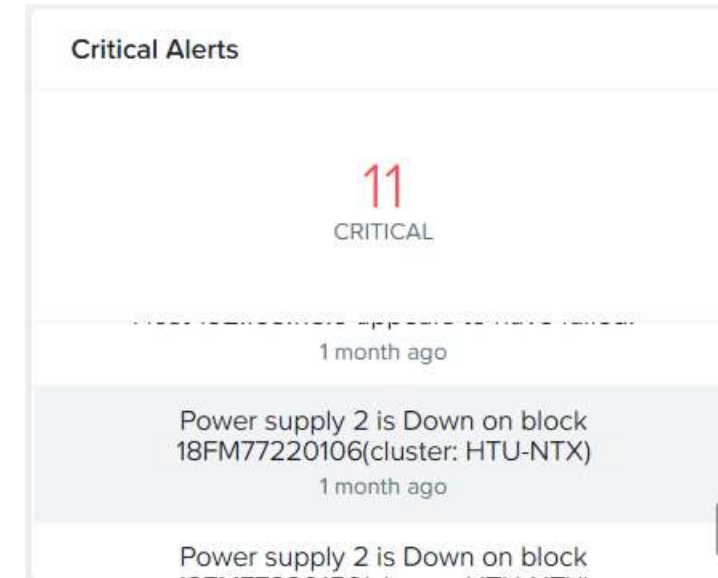
Viewing all 99 Events

Export1 - 20 of 9920 per page

Title	Source Entity	Event Type	Create Time
User Admin has logged in from 192.168.243.125: v3	Cluster	User Action	11/11/24, 06:53:35 PM
User admin has logged in from 192.168.243.125	Cluster	User Action	11/11/24, 06:53:34 PM
User admin has logged out from 192.168.243.125	Cluster	User Action	11/11/24, 02:47:47 PM
User Admin has logged in from 192.168.248.243: v3	Cluster	User Action	11/11/24, 02:10:59 PM
User admin has logged in from 192.168.248.243	Cluster	User Action	11/11/24, 02:10:59 PM
User htu has logged out from 192.168.248.243	Cluster	User Action	11/11/24, 02:10:32 PM
User htu has logged in from 192.168.248.243: v3	Cluster	User Action	11/11/24, 02:07:29 PM
User htu has logged in from 192.168.248.243	Cluster	User Action	11/11/24, 02:07:29 PM
User admin has logged out from 192.168.241.13	Cluster	User Action	11/11/24, 02:04:13 PM

Alerts and Events Widgets

- what this Alert and why it happened???



How to create virtual machine

- to create virtual machine first we need to create container.

The screenshot shows the Nutanix HTU-NTX Storage interface. The left sidebar has a menu with 'Storage' highlighted. The main area displays a table of storage containers. The table has the following columns: Name, Compression, Cache Deduplication, Capacity Deduplication, Erasure Coding, Free (Logical), Used, Reserved Capacity, Max Capacity, Controller IOPS, Controller IO B/W, and Controller IO Latency. The table contains five rows of data.

Name	Compression	Cache Deduplication	Capacity Deduplication	Erasure Coding	Free (Logical)	Used	Reserved Capacity	Max Capacity	Controller IOPS	Controller IO B/W	Controller IO Latency
default-container-3942128363813	Off	Off	Off	Off	5.55 TiB	12.05 GiB	0 GiB	5.56 TiB	1	8 KBps	0.94 ms
ISO-Images	On (60 min)	Off	Off	Off	5.55 TiB	0 GiB	0 GiB	5.55 TiB	0	0 KBps	0 ms
IT-Container	On (60 min)	Off	Off	Off	0.98 TiB	14.28 MiB	0 GiB	0.98 TiB	0	0 KBps	0 ms
NutanixManagementCenter	On	Off	Off	Off	5.55 TiB	6.18 GiB	0 GiB	5.55 TiB	-	-	-
OrwahContainer	On (60 min)	Off	Off	Off	44.25 GiB	5.75 GiB	0 GiB	50 GiB	0	0 KBps	0 ms

How to create virtual machine

HTU-NTX

Storage

Overview

Diag

Home

Health

VM

Storage

Network

Hardware

File Server

Data Protection

Analysis

Alerts

Tasks

LCM

Settings

11

1

Search

?

Settings

admin

+ Storage Container

+ Volume Group

1 – 5 of 6

search in table

Name	Compression	Cache Deduplication	Capacity Deduplication	Erasure Coding	Free (Logical)	Used	Reserved Capacity	Max Capacity	Controller IOPS	Controller IO B/W	Controller IO Latency
default-container-3942128363813	Off	Off	Off	Off	5.55 TiB	12.05 GiB	0 GiB	5.56 TiB	1	8 KBps	0.94 ms
ISO-Images	On (60 min)	Off	Off	Off	5.55 TiB	0 GiB	0 GiB	5.55 TiB	0	0 KBps	0 ms
IT-Container	On (60 min)	Off	Off	Off	0.98 TiB	14.28 MiB	0 GiB	0.98 TiB	0	0 KBps	0 ms
NutanixManagementCenter	On	Off	Off	Off	5.55 TiB	6.18 GiB	0 GiB	5.55 TiB	-	-	-
OrwahContainer	On (60 min)	Off	Off	Off	44.25 GiB	5.75 GiB	0 GiB	50 GiB	0	0 KBps	0 ms

How to create virtual machine

Name of container →

Default storage →

Create Storage Container ? X

Name

Lab2Container

Storage Pool

default-storage-pool-3942128363813

Max Capacity

11.09 TiB (Physical) Based on storage pool free unreserved capacity

⚙️ Advanced Settings

Cancel

Save

How to create virtual machine

Fixed capacity even you use it or not

Alert you if container reach limit

0 for immediate compression , 60 after one hour delay

The screenshot shows the 'Create Storage Container' dialog box with the following settings:

- Replication Factor:** 2
- Reserved Capacity:** 0 GiB
- Advertised Capacity:** 30 GiB
- Compression:** ☒ Compression. Perform post-process compression of all persistent data. For inline compression, set the delay to 0. Delay (in minutes): 60
- Buttons:** Advanced Settings, Cancel, and Save (highlighted with a red box).

How to create virtual machine

Breakdown	Storage Container Usage	Storage Container Performance	Storage Container Alerts	Storage Container Events
OrwahContainer (Storage container details)				
<div>2 Virtual Disks</div> <div>Search</div>				
VM/Volume group Name	Type	Virtual Disk	Allocated Size	Used Size
OrwahVm	VM	96102274-bb1f-459d-a7fc-c72c97794d31	20 GiB	7.42 GiB
OrwahVm	VM	34baad38-9573-4eb7-80e9-14286854aaf9	421.16 MiB	353.81 MiB

How to create virtual machine

- After create container now we should upload ISO image for VM

HTU-NTX Settings

Settings

General

Cluster Details

Configure CVM

Convert Cluster

Expand Cluster

Image Configuration

Licensing

Reboot

Remote Support

Upgrade Software

Image Configuration

Manage the images to be used for creating virtual disks.

+ Upload Image

Name	Annotation	Type	State	Size	
VirtIO		ISO	ACTIVE	128.09 MiB	✎ ✕
win10		ISO	ACTIVE	2.37 GiB	✎ ✕

How to create virtual machine

Image Name

Image type, we choose ISO

Container we just create

ISO Image downloaded before so we have it locally

Create Image

Name

WindowsServer2023

Annotation

Image Type

ISO

Storage Container

OrwahContainer

Image Source

☐ From URL

☒ Upload a file ⓘ

Choose File No file chosen

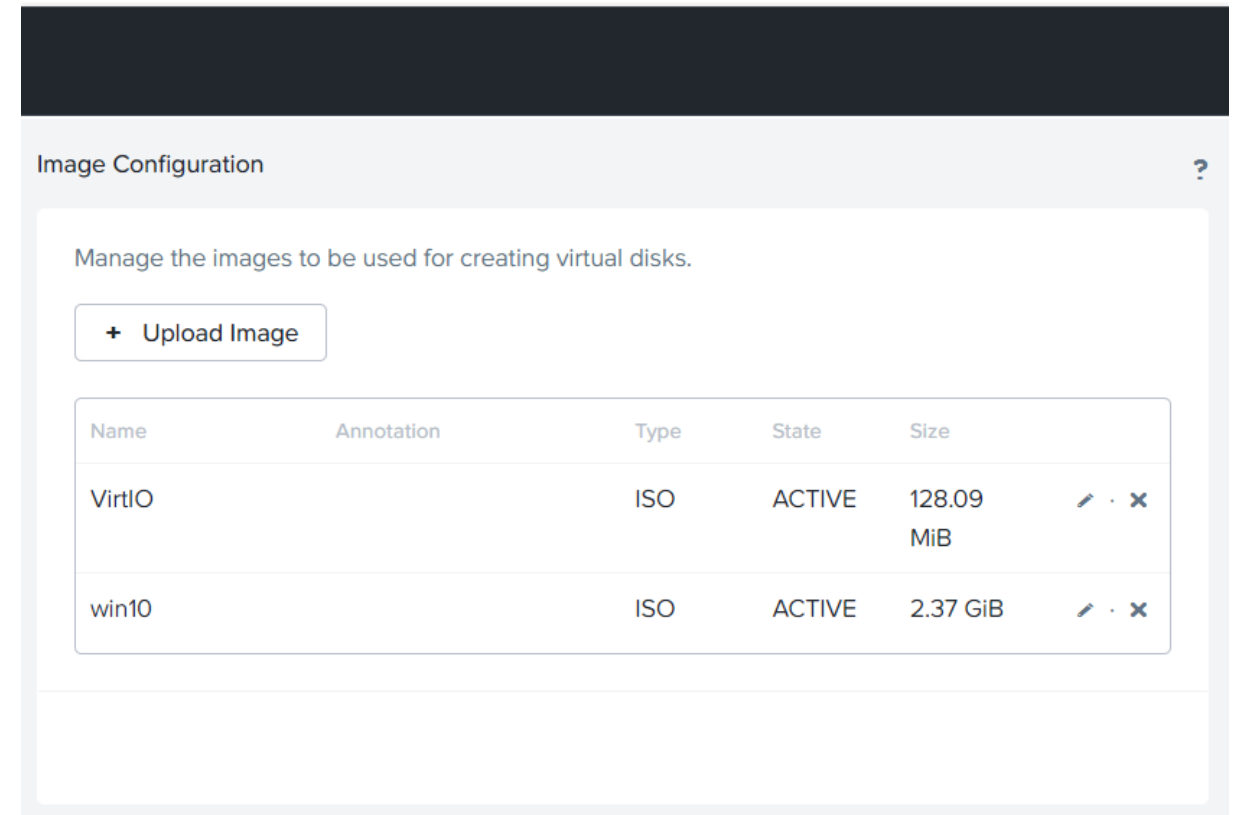
< Back

Cancel

Save

How to create virtual machine

- As we note that we already upload two ISO images, one for windows 10 and the other is called Virtio, the second image we need it with every windows VM we create.



How to create virtual machine

- to create virtual machine first go to VM from the menu.

The screenshot shows the Nutanix VM console interface. The 'VM' menu is open, displaying options: Home, Health, VM, Storage, Network, Hardware, File Server, Data Protection, Analysis, Alerts, Tasks, LCM, and Settings. The 'Create VM' button is highlighted in the top right corner. Below the menu, a table lists the VMs with columns for VM Name, IP Addresses, Cores, Memory Capacity, Storage, CPU Usage, Memory Usage, Controller Read IOPS, Controller Write IOPS, Controller IO Bandwidth, Controller Avg IO Latency, Backup, and Flash Mode.

VM Name	IP Addresses	Cores	Memory Capacity	Storage	CPU Usage	Memory Usage	Controller Read IOPS	Controller Write IOPS	Controller IO Bandwidth	Controller Avg IO Latency	Backup	Flash Mode
htu-01		2	4 GiB	7.37 GiB / 60 GiB	1.69%	19.26 %	0	0	5 KBps	1.03 ms	Yes	No
htu-02		2	4 GiB	7.37 GiB / 60 GiB	1.12%	20.04 %	0	0	3 KBps	0.77 ms	Yes	No
htu-03		2	4 GiB	7.37 GiB / 60 GiB	1.63%	19.53 %	0	0	3 KBps	0.83 ms	Yes	No
NTNX-NTX-Node-02-AHV	192.168...	8	32 GiB	- / 0 GiB	15.7%	59.57 %	0	0	0 KBps	0 ms	No ?	No
NTNX-NTX-Node-03-AHV	192.168...	8	32 GiB	- / 0 GiB	18.92 %	53.11%	0	0	0 KBps	0 ms	No ?	No
Nutanix-Clone-htu-01		2	4 GiB	7.36 GiB / 60 GiB	0%	0%	-	-	-	-	Yes	No
OrwahVm		1	2 GiB	7.76 GiB / 20.41 GiB	0%	0%	-	-	-	-	Yes	No

How to create virtual machine

VM Name

Time Zone should be Kuwait

Check this option if you want to give this VM high priority in loading

Number of virtual CPU

Create VM

General Configuration

Name

Lab2Vm

Description

Optional

Timezone

(UTC + 03:00) Asia/Kuwait

Use UTC timezone for Linux VMs and local timezone for Windows VMs.

☐ Use this VM as an agent VM

Compute Details

vCPU(s)

4

Number Of Cores Per vCPU

Sarah Masadeh

Cancel

Save

How to create virtual machine

Create VM

Disks

+ Add New Disk

Type	Address	Parameters
CD-ROM	ide.0	EMPTY=true; BUS=ide

Volume Groups

Please create a VM before you can add a volume group.

+ Add Volume Group

Network Adapters (NIC)

+ Add New NIC

Cancel

Save

Container we create

Size of VM should be less than size of container

Add Disk

Type

DISK

Operation

Allocate on Storage Container

Bus Type

SCSI

Storage Container

OrwahContainer (44.41 GiB free)

Size (GiB) ?

20

Index

Next Available

Cancel

Add

How to create virtual machine

VM Host Affinity

You haven't pinned the VM to any hosts yet.

+ Set Affinity

If you want to stick
VM on specified
host

Set VM Host Affinity

? X

Select Hosts

Select more than one host to ensure that the VM can be run even if there is a node failure.



NTX-Node-01

NTX-Node-02

NTX-Node-03

Cancel

Save

How to create virtual machine

- We need to upload ISO Image to the VM CD-Rom

OrwahVm	1	2 GiB	7.76 GiB / 20.41 GiB	0%	0%	-	-	-	-	Yes	No
samerVM	2	2 GiB	0 GiB / 128.09 MiB	0%	0%	-	-	-	-	Yes	Yes

Summary > OrwahVm

Manage Guest Tools

Launch Console

Power on

Take Snapshot

Migrate

Clone

Update



Delete

How to create virtual machine

- We need to upload ISO Image to the VM CD-Rom

Create VM

Disks [+ Add New Disk](#)

Type	Address	Parameters	
CD-ROM	ide.0	EMPTY=true; BUS=ide	 

Volume Groups

Please create a VM before you can add a volume group.

[+ Add Volume Group](#)

Network Adapters (NIC)

[+ Add New NIC](#)

[Cancel](#) [Save](#)

Add Disk

Type
CD-ROM

Operation
Clone from Image Service

Bus Type
IDE

Image [?](#)
win10
VirtIO
win10
2.38

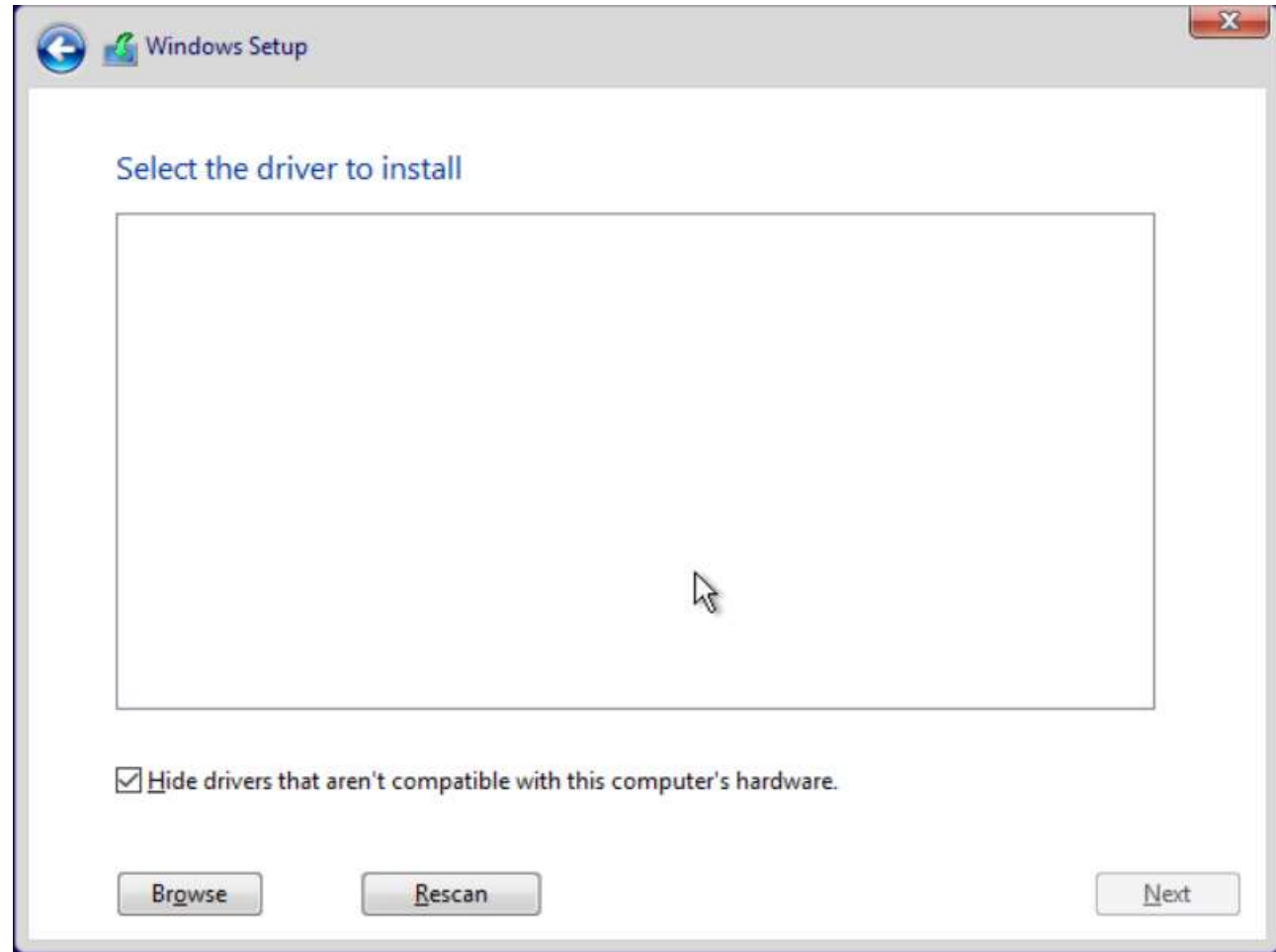
Please note that changing the size of an image is not allowed.

Index
Next Available

[Cancel](#) [Add](#)

How to create virtual machine

- after start Vm you will face the following screen.
- To create a disk in Vm first you should turn off the vm the go to update , on add disk you should add new CD-Rom and clone it to Virtio then restart Vm and lunch it in console.



How to create virtual machine

- After start Vm you will face the following screen.

Create VM

Disks

+ Add New Disk

Type	Address	Parameters
CD-ROM	ide.0	EMPTY=true; BUS=ide

Volume Groups

Please create a VM before you can add a volume group.

+ Add Volume Group

Network Adapters (NIC)

+ Add New NIC

Cancel Save

Add Disk

Type

CD-ROM

Operation

Clone from Image Service

Bus Type

IDE

Image

win10
VirtIO
win10
2.38

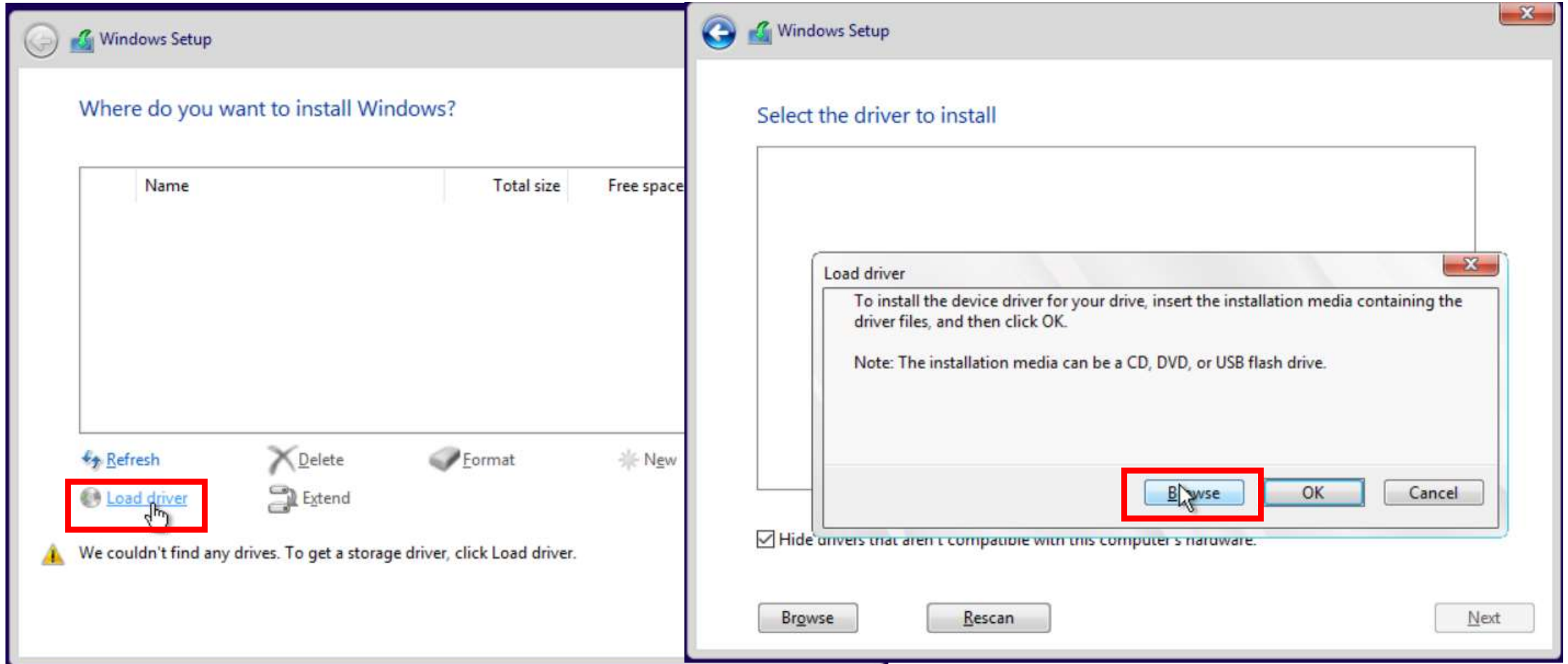
Please note that changing the size of an image is not allowed.

Index

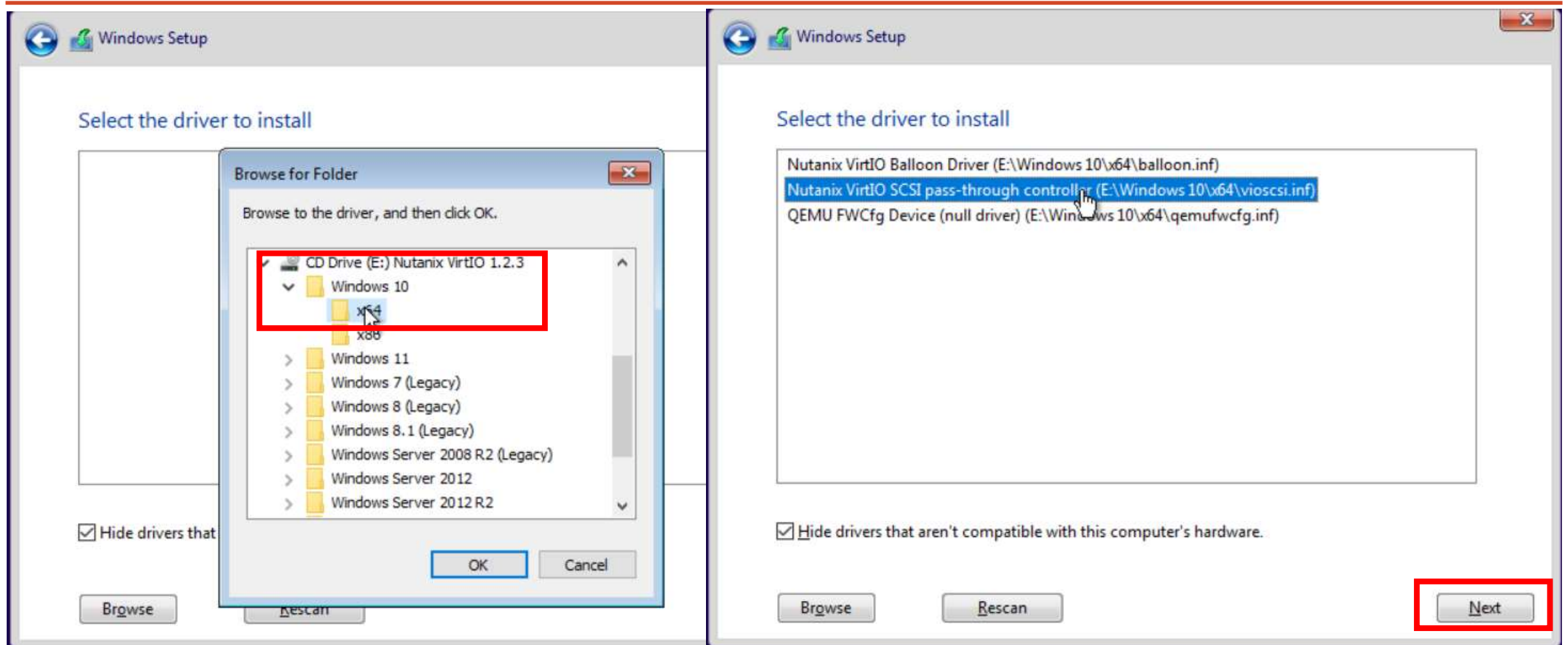
Next Available

Cancel Add

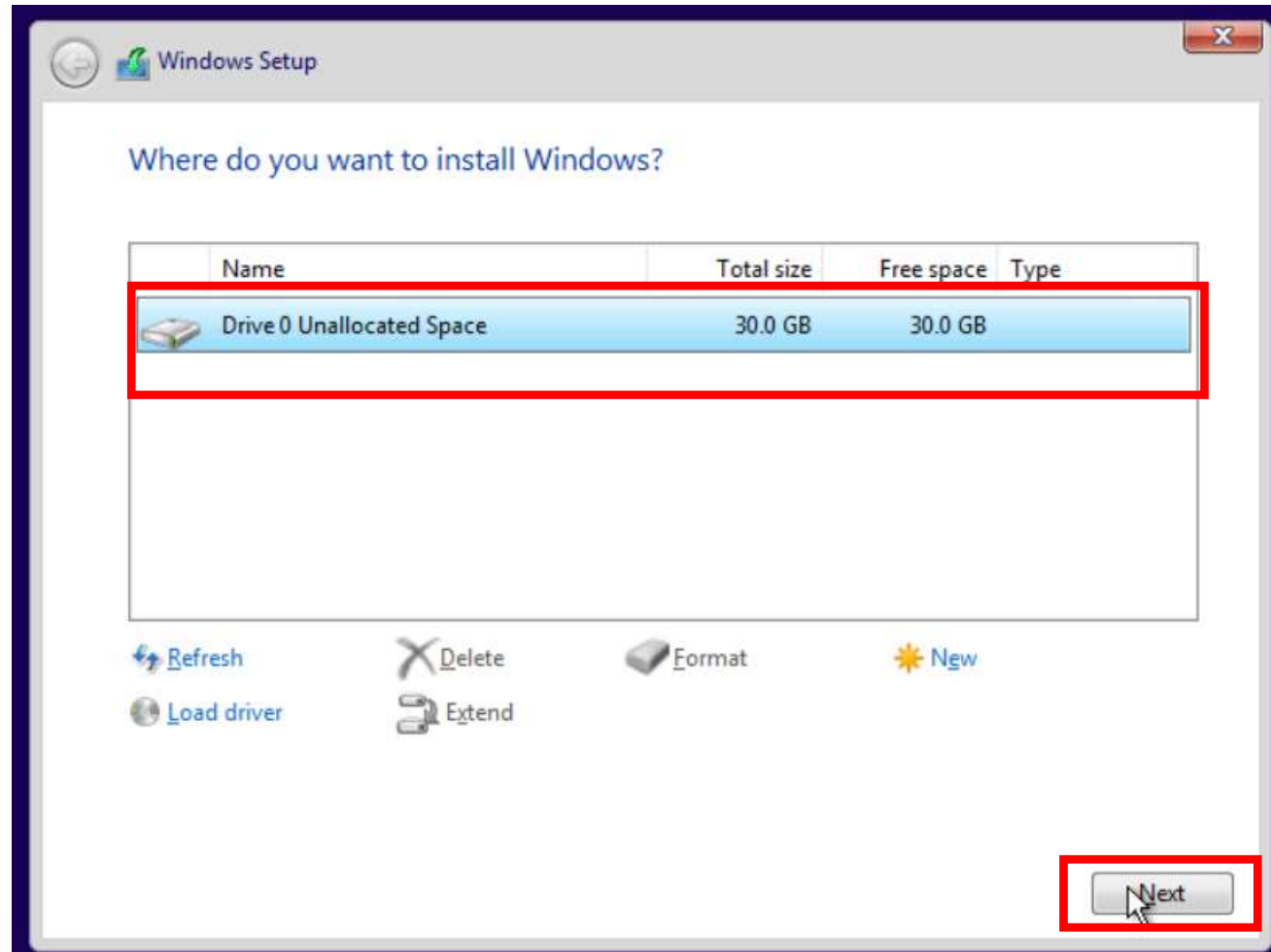
How to create virtual machine



How to create virtual machine



How to create virtual machine



How to create virtual machine

- After setup finish eject CD-Rom

Disks

[+ Add New Disk](#)

Type	Address	Parameters	
CD-ROM	ide.0	SIZE=2.39GiB; CONTAINER=...	⬆ · ✎ · ✕
CD-ROM	ide.1	SIZE=0.14GiB; CONTAINER=S...	⬆ · ✎ · ✕
DISK	scsi.0	SIZE=30GiB; CONTAINER=IT-...	✎ · ✕

How to create virtual machine

- to enable NIC card in VM click on manage Guest Tools

OrwahVm	1	2 GiB	7.76 GiB / 20.41 GiB	0%	0%	-	-	-	-	Yes	No
samerVM	2	2 GiB	0 GiB / 128.09 MiB	0%	0%	Manage VM Guest Tools				?	×

Summary > OrwahVm

[Manage Guest Tools](#) [Launch](#)

Please select the guest tool

- ☒ Enable Nutanix Guest Tools
- ☒ Mount Nutanix Guest Tools

ENABLE APPLICATIONS

- ☐ Self Service Restore (SSR) ?
- ☒ Volume Snapshot Service / Application Consistent Snapshots (VSS) ?

Cancel [Submit](#)

How to create virtual machine

- Now go to VM and setup Nutanix Tools

