

# Nutanix

## Exam Questions NCP-MCI-6.5

Nutanix Certified Professional - Multicloud Infrastructure (NCP-MCI) v6.5 exam



### NEW QUESTION 1

An administrator manages a cluster and notices several failed components shown in the exhibit.



What two options does the administrator have to run all NCC checks manually? (Choose two.)

- A. Using the Actions drop-down menu in the Health dashboard of Prism Element.
- B. Running `ncc health_checks run-all` on the CVM
- C. Using the action action drop-down menu in the Health dashboard of Prism Central
- D. Running `noc health_checks run_all` on the PC VM

**Answer: AB**

#### Explanation:

Prism Element and NCC are two ways to run all NCC checks manually on a Nutanix cluster. Prism Element is the web console that provides management and monitoring capabilities for a single Nutanix cluster. Prism Element has a Health dashboard that shows the status of various components and services in the cluster, such as disks, nodes, CVMs, NCC, and alerts. The Health dashboard also allows the administrator to run NCC checks manually by using the Actions drop-down menu on the right side of the screen. The administrator can choose to run all NCC checks or specific checks based on the category or severity. The NCC checks will run in the background and generate a report that can be viewed or downloaded from the Summary tab. This method is easier and faster than running NCC from the command line on the CVM.

NCC stands for Nutanix Cluster Check, which is a framework of scripts that performs system checks and validations on Nutanix clusters. NCC can detect issues related to hardware, software, configuration, hypervisor, networking, and more. NCC can be run from the command line interface (CLI) of any CVM in the cluster by using the `ncc` command. To run all NCC checks manually, the administrator can use the command `ncc health_checks run_all`, which will execute all available checks and display the results on the screen. This method is more comprehensive and detailed than running NCC from Prism Element. References: : [Health Dashboard - Prism Element Guide] : [Nutanix Cluster Check (NCC) - Nutanix Support & Insights] : [Running NCC Checks - Nutanix Support & Insights]

### NEW QUESTION 2

The administrator recently had a node fail in an AHV Nutanix cluster. All of the VMs restarted on other nodes in the cluster, but they discovered that the VMs that make up a SQL cluster were running on the failed host. The administrator has been asked to take measures to prevent a SQL outage in the future. What affinity option will prevent the SQL VMs from running on the same host?

- A. VM-VM anti-Affinity policy
- B. Create Affinity Category
- C. VM-Most Affinity policy
- D. Create Affinity Project

**Answer: A**

#### Explanation:

Answer A. VM-VM anti-Affinity policy

A VM-VM anti-Affinity policy is a rule that ensures that two or more VMs don't run on the same AHV host. It's useful when an application provides HA and an AHV host can't be an application's single point of failure<sup>1</sup>. In this case, the SQL cluster VMs should have a VM- VM anti-Affinity policy configured to prevent them from running on the same host and causing an outage if that host fails. A VM-VM anti-Affinity policy can be created using the aCLI commands<sup>2</sup>. The other options are not relevant for this scenario.

References: 1: Affinity Policies - Nutanix Support & Insights 2: Affinity Policies Help | Nutanix Community

### NEW QUESTION 3

How should an administrator enable secure access to Volumes using a password?

- A. iSER
- B. CHAP
- C. SAML
- D. LDAP

**Answer: B**

#### Explanation:

<https://portal.nutanix.com/page/documents/details/?targetId=Web-Console-Guide-Prism-v50:wc-block-services-enabling-t.html>

Provision storage on the Nutanix cluster by creating a volume group. Create a client whitelist to enable access to the volume group by using the IP addresses or client initiator IQNs in a whitelist (as part of the volume group configuration). Create a secret for the volume group if you are using CHAP authentication.

#### NEW QUESTION 4

An administrator is troubleshooting vDisk performance issues in a Nutanix cluster with hybrid disks. The VMs all have Flash Mode enabled. But users are reporting disk latency. What could cause the performance issues?

- A. Flash mode is disabled when a node fails.
- B. Compression is disabled on the vDisk storage container.
- C. The VMs vDisks are in multiple containers.
- D. Data size for flash mode exceeds 25% of the SSD capacity.

**Answer: D**

#### Explanation:

data size for flash mode exceeds 25% of the SSD capacity could cause the performance issues. Flash mode is a feature that allows vDisks to be pinned to SSDs for faster access, but it has a limit of 25% of the SSD capacity per node. If this limit is exceeded, some vDisks may be evicted from flash mode and cause disk latency.

#### NEW QUESTION 5

What is the function of the virbr0 bridge on AHV?

- A. To carry all traffic between the user VMs and the upstream network.
- B. To carry management and storage communication between user VMs and the CVM.
- C. To carry management and storage communication between user VMs and AHV host.
- D. To carry storage communication between the guest VMs and the CVM

**Answer: C**

#### Explanation:

<http://www.vstellar.com/2019/01/10/ahv-networking-part-1-basics/#:~:text=AHV%20Network%20Architecture&text=virbr0%20is%20an%20internal%20switch,virbr0%20have%20IP%20address%20192.168.>

#### NEW QUESTION 6

An administrator needs to boot a VM to a bootable CD. The administrator tries to configure the VM to boot to it, select to add disk, and goes to the images available. The image for the bootable CD is unavailable. What is the Likely issue?

- A. The CD-ROM interface is too slow.
- B. The administrator selected a disk attached before it can boot to a CD.
- C. The VM needs to have a standard disk attached before it can boot to a CD.
- D. The bootable CD image is corrupted during creation.

**Answer: B**

#### Explanation:

Reference: <https://next.nutanix.com/prism-infrastructure-management-26/booting-vm-to-cd- no-drives-present-31800>

#### NEW QUESTION 7

In a default configuration of an AHV cluster, a single node fails. What happens to the running VMs on that node?

- A. The cluster restarts all VMs in the event of a host failure
- B. The VMs do a live migration to the master node in the cluster
- C. The VMs do a live migration to any other node in the cluster
- D. The cluster attempts to restart VMs on other hosts

**Answer: D**

#### Explanation:

Reference: [https://portal.nutanix.com/page/documents/details?targetId=Web-Console- Guide-Prismv5\\_16:Web-Console-Guide-Prism-v5\\_16](https://portal.nutanix.com/page/documents/details?targetId=Web-Console- Guide-Prismv5_16:Web-Console-Guide-Prism-v5_16)

#### NEW QUESTION 8

In Files, how many FSVMs are deployed by default?

- A. 1
- B. 2
- C. 3
- D. 5

**Answer: C**

#### Explanation:

According to the Nutanix Files Guide, Nutanix Files instances are composed of a set of VMs (called FSVMs). Files requires at least three FSVMs running on three nodes to satisfy a quorum for high availability. By default, Files deploys three FSVMs when you create a file server instance.

#### NEW QUESTION 9

##### HOTSPOT

An administrator has created several custom alert policies, which are applied to the same entities. Prism Central displays a message that a similar policy exists. In what order of precedence are overlapping policies evaluated?

**Preference**

**Correct Sequence**

First Preference

Select

- Select
- Policy is applied to a specific entity
- Policy is applied to an entity type in a category
- Policy is applied to an entity type in a cluster
- Policy is applied to all entities of an entity type

Second Preference

Select

- Select
- Policy is applied to a specific entity
- Policy is applied to an entity type in a category
- Policy is applied to an entity type in a cluster
- Policy is applied to all entities of an entity type

Third Preference

Select

- Select
- Policy is applied to a specific entity
- Policy is applied to an entity type in a category
- Policy is applied to an entity type in a cluster
- Policy is applied to all entities of an entity type

Fourth Preference

Select

- Select
- Policy is applied to a specific entity
- Policy is applied to an entity type in a category
- Policy is applied to an entity type in a cluster
- Policy is applied to all entities of an entity type

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

First Preference:

? Policy is applied to a specific entity 2nd Preference:

? Policy is applied to an entity type in a category 3rd Preference:

? Policy is applied to an entity type in a cluster 4th Preference:

? Policy is applied to all entities of an entity type

Comprehensive Detailed Explanation with References: In Nutanix Prism, when multiple alert policies are created and applied to the same entities, the policies are evaluated based on their specificity. The order of precedence from highest to lowest is as follows:

? Policy is applied to a specific entity: Custom alert policies that are applied to specific entities take precedence over those applied to broader categories. This is because the more specific policy is usually created with a particular context or requirement in mind for that entity.

? Policy is applied to an entity type in a category: The next level of precedence is given to policies that are applied to all entities of a certain type within a specific category. Categories allow grouping of entities based on certain criteria, and policies applied here are more specific than to an entire cluster or entity type.

? Policy is applied to an entity type in a cluster: This refers to policies that are applied to all entities of a certain type within a specific cluster. This is more general than the above two but still targets a specific cluster environment.

? Policy is applied to all entities of an entity type: The lowest precedence is given to policies that are broadly applied to all entities of a particular type across the entire Nutanix environment.

This order ensures that the most specifically targeted policies are given priority, which allows for fine-tuned control and customization of alert policies. The details of alert policy precedence are typically covered in the Nutanix Prism Central Guide and the documentation related to Prism Central's alerting and policies.

**NEW QUESTION 10**

Which two access protocols are supported by Files? (Choose two.)

- A. iSCSI
- B. SMB
- C. FCOE

D. NFS

**Answer:** BD

**Explanation:**

According to the Network File System web search result<sup>3</sup>, NFS (Network File System) is a distributed file system protocol that allows a user on a client computer to access files over a network in a manner similar to how local storage is accessed. NFS is one of the access protocols supported by Files. According to the [MS-WPO]: File Access Services Protocols web search result<sup>4</sup>, SMB (Server Message Block) is a Windows file sharing protocol that enables applications to discover, access, and share files that are hosted on or made available by a file server, using a network between them, in a secure and managed environment. SMB is another access protocol supported by Files. Therefore, SMB and NFS are two access protocols supported by Files.

**NEW QUESTION 10**

When installing Nutanix Guest Tools (NGT) on an ESXi-hosted VM, which port should be enabled on the VM to allow communication with the NGT-Controller VM service?

- A. 2000
- B. 2074
- C. 8080
- D. 9943

**Answer:** D

**Explanation:**

NGT is a software package that enables advanced VM management features provided by Nutanix, such as file-level restore, VM mobility, and application-consistent snapshots<sup>12</sup>. To use NGT, you need to enable the NGT feature for a VM in the Prism Element web console, mount the NGT installer (ISO disk file) in the VM, and install NGT in the VM<sup>1</sup>. However, before installing NGT, you need to ensure that the VM can communicate with the NGT-Controller VM service, which runs on the Controller VM (CVM) of each Nutanix node<sup>3</sup>. The NGT-Controller VM service listens on port 9943 for incoming requests from the guest VMs<sup>3</sup>. Therefore, you need to enable port 9943 on the ESXi-hosted VM to allow communication with the NGT-Controller VM service.

**NEW QUESTION 11**

A newly-hired Nutanix administrator was tasked by the CIO to create a single VM on a test network. The network administrator stated that a native VLAN was used on the Cisco TOR switches with the following parameters:

IP address: 172.16.1.2 Network Mask: 255.255.255.0

Default gateway: 172.16.1.1 VLAN: 1

The same parameters were used to create a network profile on Nutanix, but when the VM was on ??

What should the Nutanix administrator do to fix this issue?

- A. Nutanix removed support for native VLAN.
- B. Change VLAN field from vln.
- C. 1 to vln.0.
- D. Enable IPv6 on the VM.
- E. Use DHCP as opposed to static IP

**Answer:** B

**Explanation:**

A native VLAN is a VLAN that is assigned to untagged traffic on a trunk port of a switch. A trunk port can carry traffic from multiple VLANs, but it needs to have a native VLAN to handle traffic that does not have a VLAN tag. The native VLAN is usually VLAN 1 by default on most switches, but it can be changed to any other VLAN number<sup>2</sup>. When creating a network profile on Nutanix, the administrator needs to specify the VLAN ID that matches the VLAN configuration on the physical switch. However, if the network profile uses the same VLAN ID as the native VLAN on the switch, it will cause network connectivity issues for the VMs connected to that network profile. This is because Nutanix AHV uses 802.1Q tagging for all network traffic, including traffic in the native VLAN. The switch will expect untagged traffic in the native VLAN and will drop any tagged traffic in that VLAN<sup>3</sup>. To fix this issue, the administrator needs to change the VLAN field from vln. 1 to vln. 0 in the network profile on Nutanix. This will tell Nutanix AHV to send untagged traffic for that network profile and match the native VLAN configuration on the switch<sup>4</sup>.

**NEW QUESTION 12**

Where can an administrator change a CVM password?

- A. KMS Server Terminal
- B. CVM setting in Prism Element
- C. CVM setting in Prism Central
- D. Prism CVM VM Console

**Answer:** D

**Explanation:**

Reference: <https://next.nutanix.com/installation-configuration-23/modifying-passwords-in-nutanix-environment-33538>

**NEW QUESTION 15**

An administrator wants to ensure that data in a container is stored in the most space efficient manner as quickly as possible after being written. Which space efficiency tool meets this requirement?

- A. Inline Compression
- B. Thin Provisioning
- C. Cache Deduplication
- D. Erasure Coding

**Answer:** A

**Explanation:**

inline compression is a technique that compresses all incoming write I/O operations over 4 KB inline in the persistent write buffer (oplog)<sup>23</sup>. This approach enables you to use oplog capacity more efficiently and helps drive sustained performance<sup>2</sup>. From AOS 5.18 onward, inline compression (compression delay=0) is enabled by default for all new containers<sup>24</sup>. <https://portal.nutanix.com/page/documents/solutions/details?targetId=TN-2032-Data-Efficiency>:TN-2032-Data-Efficiency

**NEW QUESTION 20**

Which component is supported by Prism Central storage policies?

- A. Virtual Machines
- B. Volume Groups
- C. VM Templates
- D. Storage Containers

**Answer: A**

**Explanation:**

According to the Nutanix Prism Central Guide, Prism Central allows you to apply storage policies on a per VM basis using Category, so that the VM uses the storage configuration defined in the storage policy. Using a storage policy, you can manage parameters of VMs, such as encryption, type of or lack of data compression, and IOPS or Throughput throttling values to be applied to the entities.

**NEW QUESTION 24**

An administrator has been alerted to a VM that has high I/O latency and wants to determine if there are any other factors, such as insufficient network or memory resources that correlate, as part of a troubleshooting process.

Which type of chart should the administrator create to allow all relevant data to be easily exported to CSV for later analysis?

- A. A VM entity chart with each of the relevant metrics.
- B. A cluster metric chart for each of the relevant metrics
- C. A cluster entity chart with each of the relevant metrics
- D. A VM metric chart for each of the relevant metrics

**Answer: D**

**NEW QUESTION 27**

An administrator wants to expand the Failure Domain level of a cluster. What two options are available? (Choose two.)

- A. Node
- B. Data Center
- C. Block
- D. Rack

**Answer: CD**

**Explanation:**

Nutanix clusters are resilient to a drive, node, block, and rack failures because they use redundancy factor 2 by default, allowing Nutanix clusters to self-heal<sup>2</sup>. Failure scenarios can be thought of in terms of fault domains, which are the physical or logical parts of a computing environment or location that are adversely affected when a device or service experiences an issue or outage<sup>3</sup>. There are four fault domains in a Nutanix cluster: Disk, Node, Block, and Rack<sup>4</sup>. Block and Rack are two options that are available for expanding the failure domain level of a cluster. Block fault tolerance is enabled by default and ensures that data is replicated across different blocks in a cluster<sup>5</sup>. Rack fault tolerance has to be configured manually and ensures that data is replicated across different racks in a cluster<sup>4</sup>.

References: 1: Behavioral Learning Tools - Prism Central Resource Management -Nutanix 2: How Nutanix Handles Failures | Node Failure 3: Failure Domain Considerations- Nutanix Support & Insights 4: [Understanding Fault Domains and Rack Awareness - Nutanix] 5: [Nutanix Cluster Architecture Overview - Nutanix Bible]

**NEW QUESTION 29**

An administrator is tasked with configuring networking on an AHV cluster and needs to optimize for maximum single VM throughput.

Which bond mode should the administrator select?

- A. Active-Active with Mac pinning
- B. Active-Active
- C. Active-Backup
- D. No Uplink Bond

**Answer: B**

**Explanation:**

Active-Active is a bond mode that allows all uplinks in the bond to be used simultaneously for traffic transmission and reception. This bond mode provides load balancing and increased bandwidth for the AHV host and its VMs. Active-Active bond mode uses a hashing algorithm based on source MAC addresses to distribute traffic across different uplinks in the bond. Each individual VM NIC uses only a single bond member interface at a time, but multiple VM NICs are spread across different bond member interfaces. As a result, it is possible for a Nutanix AHV node with two 10 Gb interfaces to use up to 20 Gbps of network throughput, while individual VMs have a maximum throughput of 10 Gbps<sup>6</sup>.

Therefore, if an administrator needs to optimize for maximum single VM throughput, they should select Active-Active bond mode for their AHV cluster. This bond mode can be configured using Prism Element UI or manage-ovs commands on each AHV host<sup>7</sup>. No additional configuration is required on the upstream switch side, as long as the switches are interconnected physically or virtually and both uplinks trunk the same VLANs<sup>8</sup>.

Reference: Configuring Load Balancing active-backup and balance-slb modes on AHV

**NEW QUESTION 32**

An administrator responsible for a VDI environment needs to investigate reports of slow logins. The administrator finds that increasing the number of vCPUs from 2

to 4 will reduce the login times. Production workloads are consuming 75% of the host CPU on the cluster. The administrator increases the vCPU count on all of the VDI VMs.

What are two impacts on the cluster? (Choose two)

- A. Increasing CPU counts will decrease memory utilization
- B. Increase memory utilization%
- C. Increase CPU utilization%
- D. Increase CPU ready%

**Answer:** CD

**Explanation:**

According to the web search results, the two impacts on the cluster that will result from increasing the vCPU count on all of the VDI VMs are:

? Increase CPU utilization%: CPU utilization is the percentage of time that a CPU is busy executing instructions<sup>5</sup>. By increasing the vCPU count on all of the VDI VMs, the administrator will increase the demand for CPU resources on the cluster, which will increase the CPU utilization percentage<sup>6</sup>.

? Increase CPU ready%: CPU ready is the percentage of time that a vCPU is ready

to run but is waiting for a physical CPU to become available<sup>5</sup>. By increasing the vCPU count on all of the VDI VMs, the administrator will increase the contention for physical CPU resources on the cluster, which will increase the CPU ready

percentage<sup>6</sup>. A high CPU ready percentage can indicate performance issues such as latency or slowdowns<sup>5</sup>.

**NEW QUESTION 34**

Where are Leap Availability Zones configured?

- A. Cloud Connect
- B. Controller VM
- C. Prism Element
- D. Prism Central

**Answer:** D

**Explanation:**

Terminology

? Availability Zone – it is represented by all resources (Nutanix Clusters) connected to Prism Central or Xi Leap Availability zone. Depends on the architecture, Availability zone can represent geographic territory, datacenter or server room in the datacenter. Protection policies – in protection policies you set up (RPO, Retention), rules to auto-apply policies to virtual machines

<https://vmwaremine.com/2019/02/08/nutanix-leap-runbooks-part-1/#sthash.VwrzSzhQ.dpbs>

**NEW QUESTION 39**

A user running a Computer Aided Design (CAD) application is complaining about slow response time within the VM, particular when moving windows or rendering images.

Which VM metric will guide the administrator toward diagnosing the problem?

- A. Storage Controller Latency
- B. GPU Usage
- C. Swap in Rate
- D. Hypervisor Memory Usage (%)

**Answer:** B

**Explanation:**

A GPU (graphics processing unit) is a specialized hardware device that can accelerate graphics rendering and computation for applications that use APIs such as DirectX, OpenGL, CUDA, and OpenCL. A GPU can also offload the CPU from encoding and decoding tasks for remote display protocols such as Frame Remote Desktop Protocol (FRP). A VM can use a GPU either by directly accessing a physical GPU (pGPU) on the host or by using a virtual GPU (vGPU) that shares a pGPU with other VMs. A user running a computer aided design (CAD) application may benefit from using a GPU or a vGPU to improve the performance and responsiveness of the application, especially when moving windows or rendering images. However, if the GPU or vGPU is not properly configured or provisioned, the user may experience slow response time within the VM. Therefore, to diagnose the problem, the administrator should monitor the GPU Usage metric for the VM. The GPU Usage metric shows the percentage of GPU resources that are consumed by the VM over time<sup>3</sup>. The administrator can use Prism Central to view the GPU Usage metric for each VM in a chart or a widget<sup>4</sup>. The administrator can also use Prism Central to view other metrics related to GPU performance, such as GPU Memory Usage, GPU Encoder Usage, and GPU Decoder Usage<sup>3</sup>. By analyzing these metrics, the administrator can determine if the VM is using the GPU efficiently and optimally, or if it needs more or less GPU resources.

Reference: Nutanix Frame and GPU: Options, Tools, and Best Practices

**NEW QUESTION 43**

An administrator logs into the Nutanix Support Portal and notices there is a new version of the LCM Framework available. In an effort ensure LCM is providing the latest features, the administrator would like to upgrade LCM.

How can the LCM Framework be upgraded?

- A. Perform an LCM inventory
- B. Upload the latest LCM Framework as an image in the image Configuration in Prism
- C. Upload the latest LCM Framework bundle via Upgrade Software in Prism
- D. Upgrade AOS

**Answer:** A

**Explanation:**

LCM (Life Cycle Manager) is a feature that allows Nutanix administrators to perform one-click firmware and software upgrades for Nutanix clusters and components. LCM fetches inventory and update information from a pre-configured URL that contains the latest versions of firmware and software packages. However, upgrading Nutanix AOS does not automatically update the fetch URL. To update the fetch URL, the administrator needs to update the LCM framework. The LCM framework is the core component of LCM that provides the logic and functionality for inventory, download, and upgrade operations<sup>1</sup>.

To upgrade the LCM framework, the administrator needs to perform an LCM inventory. An LCM inventory is a process that scans the cluster and its components for their current firmware and software versions and compares them with the available versions from the fetch URL. If there is a newer version of the LCM framework available, it will be shown as an update option under Cluster Software Component in the Available Updates page. The administrator can then select and apply the LCM framework update to upgrade it to the latest version<sup>2</sup>.

The administrator can perform an LCM inventory using Prism Element or Prism Central. The steps are as follows<sup>3</sup>:

? In Prism Element, go to the Network Configuration page and click Life Cycle Management.

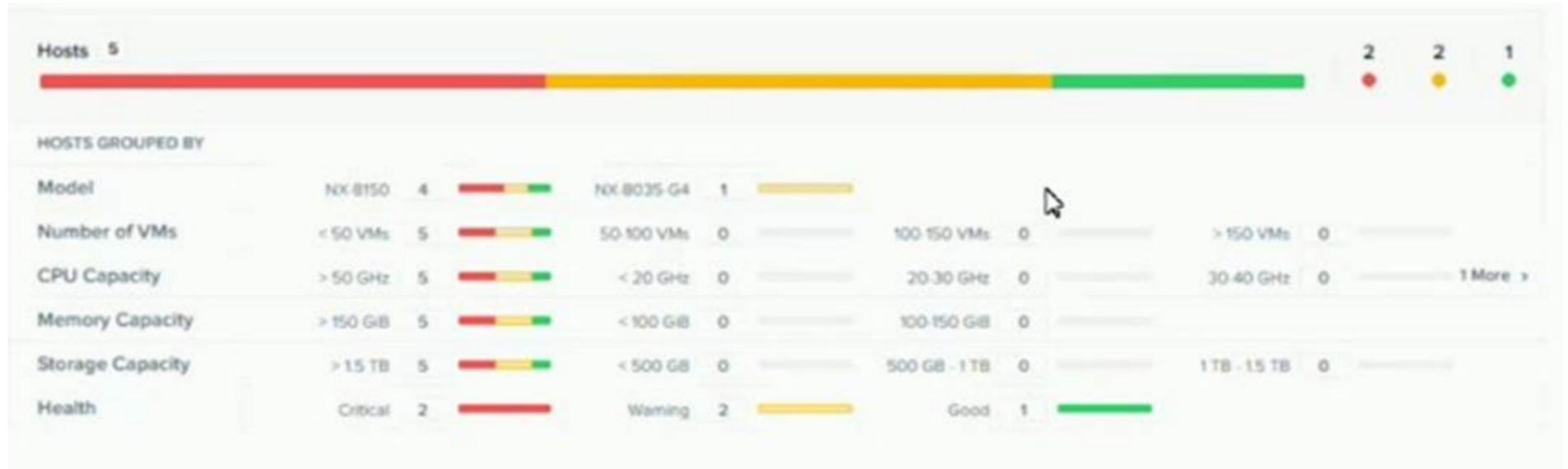
? In Prism Central, go to the Services page and click Life Cycle Management.

? Click Inventory in the toolbar and select Perform Inventory from the drop-down menu.

? Wait for the inventory process to complete and check for any available updates. Reference: LCM: Upgrade process and Path for LCM

#### NEW QUESTION 45

Refer to the exhibit.



System Non-Root Partition Usage shows a warning or critical alert. The administrator needs to change the frequency of checks and alerts to respond more quickly. Where in Prism Element should the administrator change the frequency of checks and alerts?

- A. Health Dashboard > Manage Checks > Frequency
- B. Alerts Dashboard > Manage Checks > Schedule
- C. Health Dashboard > Manage Checks > Schedule
- D. Alerts Dashboard > Manage Checks > Frequency

**Answer: C**

#### Explanation:

According to the Nutanix Support & Insights web search result<sup>1</sup>, the administrator can change the frequency of checks and alerts for the System Non-Root Partition Usage in Prism Element by going to the Health Dashboard > Manage Checks > Schedule. The administrator can select the check name, such as disk\_usage\_check, and click on Edit Schedule. The administrator can then choose the desired frequency, such as every 15 minutes, every hour, or every day, and click on Save. This will change how often the check runs and alerts are generated.

#### NEW QUESTION 47

An administrator has a Custom backup application that requires a 2TB disk and runs on Windows. Throughput is considerably lower than expected.

The application was installed on a VM with the following configuration:

- FOU vCPUs with one core/vCPU
- 4GB of Memory
- One 50GB vDisk for the Windows installation
- One 2TB vDisk for the application

What is the recommended configuration change to improve throughput?

- A. Add 4GB of memory to the VM
- B. Increase the vCPUs assigned to the VM
- C. Span the 2TB disk across four vDisks
- D. Increase the number of cores per vCPU

**Answer: C**

#### Explanation:

According to the web search results, one recommended configuration change to improve throughput for a custom backup application that requires a 2TB disk and runs on Windows is to span the 2TB disk across four vDisks. Spanning is a technique that allows you to create a single logical disk from multiple physical disks. Spanning can improve throughput by distributing I/O requests across multiple disks and reducing contention<sup>5</sup>. To span a disk across four vDisks, the administrator should create four vDisks of equal size (500 GB each) and attach them to the VM. Then, in Windows Disk Management, create a spanned volume from the four vDisks and format it as NTFS<sup>6</sup>.

#### NEW QUESTION 50

In Nutanix clusters, which feature ensures VMs can be migrated and restarted on another host in case of failure?

- A. High Availability
- B. Protection Domain
- C. Host Affinity Rules
- D. Availability Zone

**Answer: A**

#### NEW QUESTION 52

A customer has a 24-node cluster with all containers configured with RF3. Two different nodes have incurred a simultaneous HDD failure. What is the result?

- A. The cluster runs in a degraded state until the failed drives are replaced and the data has been restored to three replicas.
- B. Sixty minutes after the failures a rebuild of the lost data can remaining HDDs begins to restore to three replicas.
- C. The VMs with data on those drives crash, and an HA event occurs, restarting them on a remaining healthy node.
- D. The Nutanix cluster recognizes the failures and immediately begins to rebuild lost data to three replicas.

**Answer: D**

#### Explanation:

This is because Nutanix uses a distributed storage fabric (DSF) that replicates data across multiple nodes and drives to ensure data resiliency. When a drive fails, the cluster detects the failure and initiates a data rebuild process to restore the replication factor (RF) of the affected containers. The data rebuild process does not affect the availability or performance of the VMs, as they can still access their data from other replicas on other nodes or drives. Therefore, there is no need to wait for 60 minutes, use a shared volume group, or trigger an HA event.

#### NEW QUESTION 56

An administrator needs to configure a new subnet on an AHV cluster and want to ensure that VMs will automatically be assigned an IP address at creation time. Which type of network does the administrator need to create?

- A. Dynamic Network
- B. Unmanaged Network
- C. Managed Network
- D. DHCP Network

**Answer: C**

#### Explanation:

A managed network is a type of network that can be created on an AHV cluster and allows VMs to automatically be assigned an IP address at creation time. A managed network uses the Nutanix IP Address Management (IPAM) service, which provides DHCP and DNS functionality for the VMs on the network. A managed network can be configured with a subnet range, a default gateway, and DNS servers. The IPAM service will allocate IP addresses from the subnet range to the VMs and register their hostnames in the DNS servers. The IPAM service will also release the IP addresses when the VMs are deleted or moved to another network.

To create a managed network on an AHV cluster, the administrator can use Prism Element or Prism Central. The steps are as follows:

? In Prism Element, go to the Network Configuration page and click Create Network.

? In Prism Central, go to the Networks page and click Create.

? Enter a name and description for the network.

? Select Managed as the network type.

? Enter the subnet range, default gateway, and DNS servers for the network.

? Optionally, enable VLAN tagging and enter a VLAN ID for the network.

? Click Save.

Reference: Nutanix AHV Networking Best Practices

#### NEW QUESTION 61

What is the expected operation during node addition when the new node has a different AOS version?

- A. The entire cluster is upgraded to the latest one-click release.
- B. The node is added and a separate upgrade operation must be performed.
- C. The addition fails and forces the administrator to image using standalone Foundation.
- D. The node is automatically re-imaged using the software currently running in the cluster.

**Answer: D**

#### Explanation:

The node is automatically re-imaged using the software currently running in the cluster. This is because Nutanix supports a feature called Auto Re-Image that allows adding nodes with different AOS versions to an existing cluster without manual intervention. The Auto Re-Image feature detects the AOS version mismatch and automatically downloads and installs the same AOS version as the cluster on the new node. This ensures that the cluster remains in a consistent state and avoids any compatibility issues.

#### NEW QUESTION 66

An administrator has been notified by a user that a Microsoft SQL Server instance is not performing well.

When reviewing the utilization metrics, the following concerns are noted: Memory consumption has been above 95% for several months

Memory consumption has been spiking to 100% for the last five days Storage latency is 2ms.

When logging into Prism Central, how could the administrator quickly verify if this VM has performance bottlenecks?

- A. See Capacity Runway.
- B. Filter VM by Efficiency.
- C. Update Capacity Configurations.
- D. Perform Entity Sync

**Answer: B**

#### Explanation:

This will allow the administrator to quickly identify VMs that are overprovisioned or underutilized based on their performance metrics.

[https://www.nutanix.com/support-services/training-certification/certifications/certification-details-nutanix-certified-professional-multicloud-infrastructure-6\\_5](https://www.nutanix.com/support-services/training-certification/certifications/certification-details-nutanix-certified-professional-multicloud-infrastructure-6_5)

#### NEW QUESTION 69

An administrator is preparing to deploy a new application on an AHV cluster, Security requirements dictate that all virtual servers supporting this application must

be prevented from communicating with unauthorized hosts.  
Which option would achieve this goal?

- A. Create a new VLAN, create a subnet on the cluster with the VLAN tag, deploy servers with vNICs in the new subnet.
- B. Create a new Application Security Policy restricting communication to the authorized hosts and apply it to the servers in enforce mode.
- C. Create a new solution Environment policy apply it to the new servers and all authorized hosts.
- D. Create new' subnet and assign to an existing VPC assign the IP prefix and gateway for the subnet, deploy servers with vNIC5 in the new subnet.

**Answer: B**

**Explanation:**

An Application Security Policy is a security feature in Nutanix AHV that can be used to restrict network communication between virtual servers based on a variety of criteria, such as IP address, port, and protocol. By creating a policy that restricts communication to authorized hosts and applying it to the servers in enforce mode, the administrator can prevent unauthorized communication between virtual servers.  
<https://www.nutanix.com/products/ahv>

**NEW QUESTION 71**

Which two predefined views can be added to a report to identify inefficient VMs?

- A. Underprovisioned VMs List
- B. Zombie VMs List
- C. Constrained VMs List
- D. Overprovisioned VMs List

**Answer: BD**

**Explanation:**

Zombie VMs and overprovisioned VMs are two types of inefficient VMs that can waste resources and increase costs in a Nutanix environment. Zombie VMs are VMs that are powered on but have no activity or utilization for a long period of time. Overprovisioned VMs are VMs that have more resources allocated than they actually need or use. Both types of VMs can be identified by adding predefined views to a report in Prism Central. A predefined view is a template that defines what data is displayed and how that data is represented in a report. Prism Central provides several predefined views for different purposes, such as capacity planning, performance analysis, anomaly detection, and efficiency optimization. To add a predefined view to a report, go to Operations > Reports > New Report and select the desired view from the list1. The Zombie VMs List view shows the list of zombie VMs in the environment based on the CPU usage, memory usage, disk IOPS, and network throughput metrics. The view also shows the amount of resources wasted by these VMs and the potential savings that can be achieved by deleting or resizing them2. The Overprovisioned VMs List view shows the list of overprovisioned VMs in the environment based on the CPU usage, memory usage, disk IOPS, and network throughput metrics. The view also shows the amount of resources wasted by these VMs and the potential savings that can be achieved by resizing them3. By adding these two views to a report, an administrator can identify inefficient VMs and take appropriate actions to optimize resource utilization and reduce costs. References: 1: Reports Management - Prism Central Guide 2: Zombie VMs List - Prism Central Guide 3: Overprovisioned VMs List - Prism Central Guide

**NEW QUESTION 72**

Which two capabilities does IPAM provide in a Nutanix networking configuration? (Choose two.)

- A. Allows proxy server settings to be set up for a defined network
- B. Allows AHV to assign IP addresses automatically to VMs using DHCP
- C. Configures a VLAN with an IP subnet and assigns a group of IP addresses
- D. Configures firewall rules to prevent or allow certain TCP/IP traffic

**Answer: BC**

**Explanation:**

According to the Nutanix Support & Insights, IPAM enables AHV to assign IP addresses automatically to VMs using DHCP. You can configure each virtual network and associated VLAN with a specific IP subnet, associated domain settings, and group of IP address pools available for assignment.

**NEW QUESTION 74**

Which algorithm do snapshots and clones leverage to maximize efficiency and effectiveness?

- A. Continuous Data Protection
- B. Copy-on-Write
- C. Split-mirror
- D. Redirect-On-Write

**Answer: B**

**Explanation:**

According to the Dell Unity: Data Reduction Technical White Paper1, snapshots and clones on Dell Unity use the Copy-on-Write (CoW) algorithm to maximize efficiency and effectiveness. CoW is a technique that defers the copying of data until it is modified. This means that snapshots and clones only consume space when changes are made to the source or the clone, respectively. CoW also preserves the original data in case of a rollback or recovery operation.

**NEW QUESTION 77**

CPU utilization climbs above 90% on several VMs. This causes performance degradation for a business-critical application. How can alerts be configured to notify the administrator before VM CPU utilization hits 90%?

- A. On a CVM, use ncli to set the VM CPU Check threshold for the critical VMs to a value below 90%.
- B. On the Health dashboard, locate the VM CPU Check and lower the alert threshold below 90%.
- C. On a CVM, configure a cron job to run the VM CPU Check more frequently and email the result.
- D. On the Alerts dashboard, ensure that the VM CPU usage alert is not set to auto-resolve.

**Answer:** B

**Explanation:**

Reference: [https://portal.nutanix.com/page/documents/details?targetId=Web-Console-Guide-Prismv5\\_16:Web-Console-Guide-Prism-v5\\_16](https://portal.nutanix.com/page/documents/details?targetId=Web-Console-Guide-Prismv5_16:Web-Console-Guide-Prism-v5_16)

**NEW QUESTION 79**

Which command should an administrator run from the CLI to view the uplink state of all AHV nodes in the cluster?

- A. allssh show\_uplinks
- B. manage\_ovs show\_uplinks
- C. allssh manage\_ovs show\_uplinks
- D. manage\_ovs show uplinks

**Answer:** C

**Explanation:**

According to section 4 of the exam blueprint guide<sup>1</sup>, one of the topics covered is AHV networking components and configuration settings. One of these components is Open vSwitch (OVS), which is a software switch that provides network connectivity between VMs and physical networks. OVS has two types of ports:

? Uplink ports: These are physical ports that connect to external networks or switches.

? Internal ports: These are virtual ports that connect to VMs or other internal networks.

To view the uplink state of all AHV nodes in the cluster, an administrator can use the manage\_ovs command with the show\_uplinks option. This command displays information such as port name, link state, speed, duplex mode, MTU size, bond mode, and bond status. However, this command only works on a single node. To run the command on all nodes in the cluster, an administrator can use the allssh command, which executes a command on all CVMs in parallel. Therefore, the correct command is:

allssh manage\_ovs show\_uplinks

**NEW QUESTION 80**

An administrator is setting up a Nutanix cluster and needs to configure the default VLAN. Which configuration should the administrator choose?

- A. Vlan.0
- B. Vlan.1
- C. Vlan.2
- D. Vlan.7

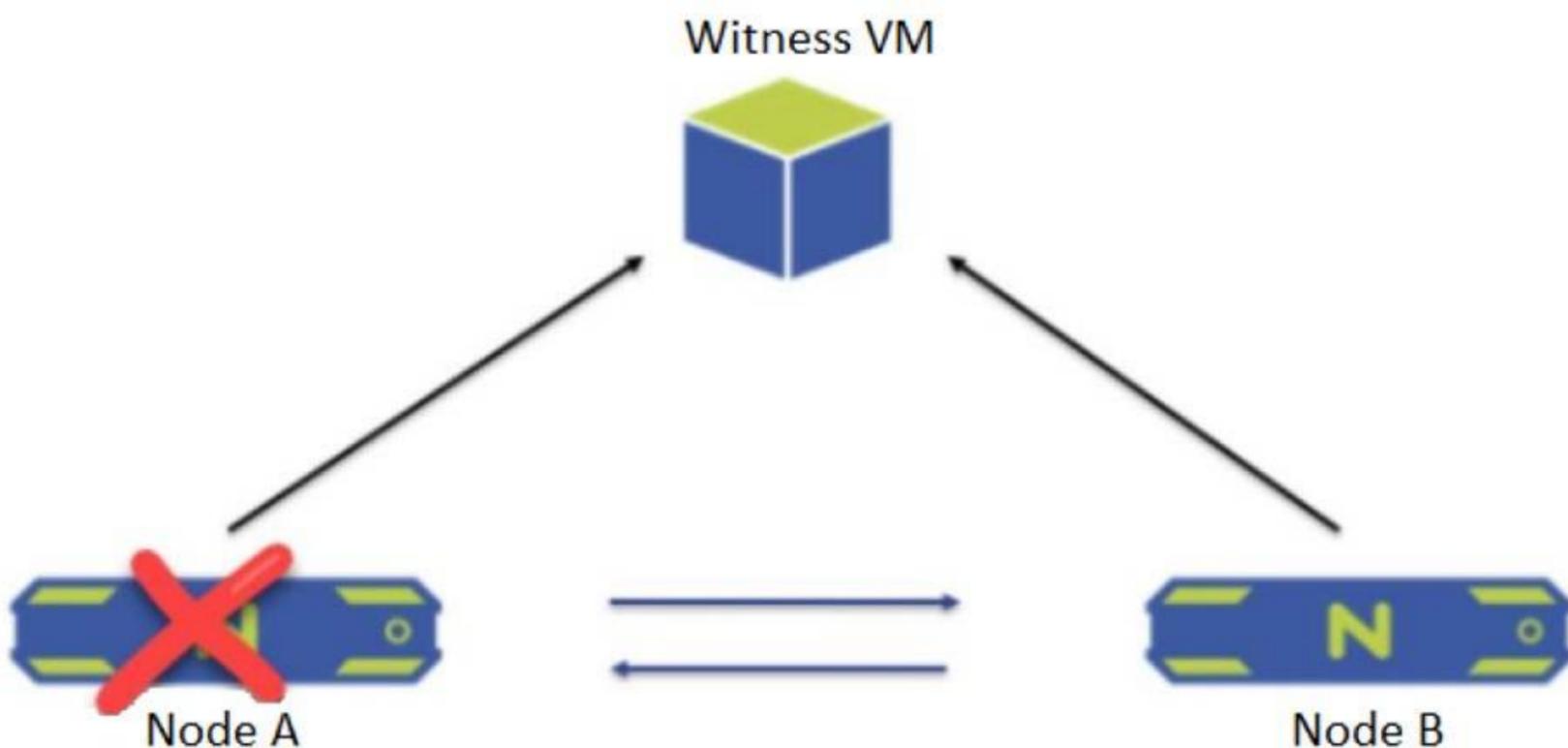
**Answer:** A

**Explanation:**

<https://next.nutanix.com/installation-configuration-23/nutanix-vlan-34170>

**NEW QUESTION 81**

A two-node ROBO cluster is configured with a witness VM.



What happens when Node A goes down?

- A. The- cluster becomes unavailable and goes into read-only mode.
- B. All operations and services on the Node B are shut down and go into a waiting state.
- C. The cluster is unaffected and no administrator intervention is required.
- D. Node B sends a leadership request to the Witness VM and goes into single-node mode.

**Answer:** D

**Explanation:**

According to the Nutanix Support & Insights, in a two-node ROBO cluster with a witness VM, if one node goes down, the other node sends a leadership request to the witness VM and goes into single-node mode. The cluster remains available and can tolerate another failure of either the witness VM or the network link.

**NEW QUESTION 83**

**HOTSPOT**

What is the proper sequence to perform a one-click upgrade to a Nutanix cluster?

Item instructions: For each procedure, indicate the order in which that procedure must take place to meet the item requirements. Not all procedures are valid. Identify any invalid procedures using the drop-down option.

**Answer Area**

Procedure	Step
Select the Gear icon at top right of the page	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Select the component to upgrade	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Once the download completes, select Upgrade	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Log into Prism Central	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Select the User login name at the top right of the page	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
On the left, select Upgrade Prism Central	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Click Download	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
On the left under Settings, select Upgrade Software	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>
Log in to Prism Element	<ul style="list-style-type: none"><li>Step 1</li><li>Step 2</li><li>Step 3</li><li>Step 4</li><li>Step 5</li><li>Step 6</li><li>Invalid Step</li></ul>

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Step 1 ---> Login into Prism Element.  
Step 2 ---> Select the Gear Icon at top right of the page.  
Step 3 ---> Click Upgrade Software.  
Step 4 ---> Select the component to upgrade.  
Step 5 ---> Click download.  
Step 6 ---> Once the download completes, select upgrade.  
Invalid:-  
1 - Select Prism Central. 2 - Select user login. 3 - On left select upgrade Prism Central.

**NEW QUESTION 85**

Which component ensures uniform distribution of data throughout the cluster to eliminate hot spots and speed up rebuilds?

- A. Cassandra
- B. Distributed Storage Fabric
- C. High Availability
- D. Acropolis App Mobility Fabric

**Answer:** B

**Explanation:**

According to the web search results, Distributed Storage Fabric (DSF) is the scale-out storage technology that makes HCI and cloud possible<sup>45</sup>. DSF pools the storage devices that are directly attached to a cluster of servers and presents them to applications across a variety of storage protocols<sup>4</sup>. DSF also manages and protects data by a fine-grained, distributed metadata system that ensures uniform distribution of data throughout the cluster to eliminate hot spots and speed up rebuilds

**NEW QUESTION 89**

A configuration is single domain, single forest, and does not use SSL.  
Which port number should be used to configure LDAP?

- A. 389
- B. 3269
- C. 636
- D. 3268

**Answer:** A

**Explanation:**

Port 389 is the default port for LDAP without SSL encryption. Port 636 is used for LDAP over SSL (LDAPS). Port 3268 and 3269 are used for Global Catalog (GC) and Global Catalog over SSL (GCSSL), respectively<sup>2</sup>.

**NEW QUESTION 91**

An administrator is not able to log into Prism Central by using a new Active Directory user account. After Logging with the local user, the administrator verified that Directory Services and Role Mapping setting are valid.  
What is the most likely cause of this issue?

- A. Change password at next logon attribute is set.
- B. User does not belong to the Administrators group.
- C. Active Directory functional level is wrong.
- D. Prism Element authentication is not configured.

**Answer:** A

**Explanation:**

The change password at next logon attribute is a setting that forces a user to change their password when they log on to a domain for the first time or after their password has expired. This attribute is enabled by default for new Active Directory user accounts or when an administrator resets a user's password<sup>4</sup>. However, Prism Central does not support this attribute for Active Directory authentication. Users with this attribute enabled will not be able to log on to Prism Central using their Active Directory credentials. They will receive an error message saying "Invalid credentials" or "Authentication failed" when they try to log on<sup>5</sup>.

Therefore, if an administrator is not able to log on to Prism Central using a new Active Directory user account, the most likely cause of this issue is that the change password at next logon attribute is set for that user account. To resolve this issue, the administrator should disable this attribute for the user account or log on to a domain workstation first and change their password before accessing Prism Central<sup>6</sup>.

Reference: KB-1050 Procedure to Change Timezone

**NEW QUESTION 95**

Refer to Exhibit:

Turn On LED

Turn Off LED

Enter Maintenance Mode

Repair Host Boot Device

An administrator wants to replace an old node with a node of newer generation in a 3-node cluster. The administrator has already chosen the appropriate node. But unable to remove it from the cluster.

Why is the Remove Host option not shown in the exhibit?

- A. The host needs to be placed into maintenance Mode before.
- B. It is only possible to remove a host from a cluster using CLI.
- C. It is not possible to remove a node from a the cluster using Prism Central
- D. It is not possible to remove a host from a 3-node cluster.

**Answer: D**

**Explanation:**

A Nutanix cluster requires a minimum of three nodes to maintain quorum and data availability. Removing a node from a 3-node cluster would violate the redundancy factor and cause data loss. Therefore, it is not possible to remove a host from a 3-node cluster using Prism or CLI. The only way to replace a node in a 3-node cluster is to use the Foundation tool, which will erase the existing cluster configuration and create a new cluster with the new node1.

**NEW QUESTION 98**

An administrator manages an AHV cluster that is dedicated to a dev/test environment. The administrator receiving complaints from users that they are unable to create new VMs on the cluster.

After the reviewing the cluster, the administrator finds that the memory resources are almost fully utilized, with many VMs over-provisioned on memory.

What option is the most efficient resolution to enable additional VMs to be created?

- A. Enable Memory Overcommit on the over-provisioned VMs.
- B. Enable Memory HA on the over-provisioned VMs.
- C. Upgrade the nodes with additional memory DIMMs.
- D. Disable HA Reservation on the cluster.

**Answer: A**

**Explanation:**

Enable Memory Overcommit on the over-provisioned VMs is the most efficient resolution to enable additional VMs to be created. Memory overcommit allows VMs to use more memory than physically available on a host by compressing and swapping memory pages to storage1. This can improve memory utilization and increase VM density on a cluster1. However, memory overcommit is not supported when HA is configured to use reserved hosts, so you may need to disable HA reservation on the cluster before enabling memory overcommit1.

**NEW QUESTION 99**

Microsegmentation was recently enabled in a Nutanix environment. The administrator wants to leverage Prism Central to create a policy that will block all traffic regardless of direction, between two groups of VMs identified by their category.

Which policy should be used to meet this requirement?

- A. An Application Security Policy
- B. A Quarantine Policy
- C. A Whitelist-Based Policy
- D. An Isolation Environment Policy

**Answer: D**

**Explanation:**

According to the web search results, the policy that should be used to meet this requirement is an Isolation Environment Policy. An Isolation Environment Policy is a type of security policy that can be created in Prism Central using Flow Network Security, which is a feature that provides microsegmentation and network security for Nutanix environments1. An Isolation Environment Policy allows the administrator to isolate a group of VMs from another group of VMs based on their categories, and block all traffic between them regardless of direction2. This policy can be useful for creating isolated environments for testing, development, or compliance purposes2.

**NEW QUESTION 103**

A customer wants to isolate a group of VMs within their Nutanix environment for security reasons. The customer creates a VM with two NICs to act as a firewall and installs the appropriate software and certificates.

However, no one from the outside can access the application. What is the likely cause of this problem?

- A. A shared volume group must be used by all isolated VMs
- B. More than one NIC cannot be added to a VM
- C. One of the NICs needs to be configured on the internal VLAN
- D. Wireshark is installed on the NAT VM

**Answer: C**

**Explanation:**

One of the NICs needs to be configured on the internal VLAN. This is because the VMs that are isolated need to communicate with the firewall VM through a private network, and the firewall VM needs to communicate with the external network through a public network. The internal VLAN is a logical network that can be created and managed by AHV1. If the firewall VM does not have a NIC on the internal VLAN, it will not be able to route traffic between the isolated VMs and the outside world.

#### NEW QUESTION 106

Which best practice should be followed when creating a bond in a Nutanix cluster?

- A. Place NICs of different speeds within the same bond
- B. Configure the bond to use LACP
- C. Only utilize NICs of the same speed within the same bond
- D. Use the default bond configuration after installation

**Answer:** A

#### Explanation:

Reference: <https://next.nutanix.com/blog-40/maximum-performance-from-acropolis-hypervisor-and-openvswitch-6312>

#### NEW QUESTION 108

When VM HA Reservation is enabled, what is the expected behavior for all failed VMs in the event of a host failure?

- A. Restart on a best-effort basis if resources are available
- B. Perform a live migration to other hosts in the AHV cluster
- C. Restart on other hosts in the AHV cluster
- D. Perform a live migration on a best-effort basis if resources are available

**Answer:** C

#### Explanation:

Reference: <http://www.nutanixpedia.com/p/configuring-ha.html>

#### NEW QUESTION 109

An administrator has an AHV cluster that is comprised of 4 nodes with the following configuration in each node:

CPU:2 each 2.4GHz, 12 core Memory: 256GB

Disk: 6 each 1.92 SSD

A VM with 16 vCPUs and 96GB of RAM is being created on the cluster.

How should the administrator configure the VM to assure optimal performance?

- A. With an affinity policy
- B. With memory overcommit
- C. With 2 vNUMA nodes
- D. With Flash Mode enabled

**Answer:** C

#### Explanation:

The best way to configure the VM for optimal performance is to set it up with 2 vNUMA nodes. This will ensure that the VM is configured to take advantage of the CPU and memory resources available in each node, and it will also ensure that all of the cores are utilized for the best performance. Additionally, the administrator should ensure that the VM has an affinity policy set up so that the vCPUs are evenly distributed across the four nodes. Finally, Flash Mode should be enabled in order to take advantage of the high-performance SSDs that are available in the cluster

#### NEW QUESTION 111

The Linux administration team has requested access rights to any current or future Linux VM in the environment

What entity should be selected when assigning this new role?

- A. Image
- B. AHV Cluster
- C. Category
- D. Project

**Answer:** C

#### Explanation:

Categories are key-value pairs that can be used to tag entities such as VMs, images, networks, and projects in Prism Central. Categories can be used to create dynamic groups of entities based on their attributes, and assign roles and permissions to those groups. In this case, a category such as OS=Linux can be used to group all Linux VMs and grant access rights to the Linux administration team.

#### NEW QUESTION 115

A Nutanix cluster is equipped with four nodes. Four VMs on this cluster have been configured with a VM-VM anti-affinity policy and are each being hosted by a different node.

What occurs to the cluster and these VMs during an AHV upgrade?

- A. One node hosts two VMs while the node being upgraded is in maintenance mode.
- B. One VM out of the four powers down when the node hosting it reboots.
- C. The AHV pre-upgrade checks fail until the administrator disables the anti-affinity policy.
- D. The AHV pre-upgrade checks fail until the four VMs are powered off.

**Answer:** A

#### Explanation:

One node hosts two VMs while the node being upgraded is in maintenance mode. This is because Nutanix supports a feature called Rolling Upgrade that allows upgrading AHV on a cluster without any downtime or impact to the VMs. The Rolling Upgrade feature performs the upgrade one node at a time, by putting the

node in maintenance mode, evacuating the VMs to other nodes, upgrading AHV, and then bringing the node back online. The VM-VM anti-affinity policy ensures that the four VMs are not placed on the same node during the evacuation process, so one node will host two VMs temporarily while the other node is being upgraded.

**NEW QUESTION 119**

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