

# 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

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 3

The customer is seeing high memory utilization on a mission critical VM. Users report that the application is unavailable. The guest OS does not support hot add components.

How should the administrator fix this issue?

- A. Access the CVM on the host that is running the VM:\*Open `acli`\*Run a command to increase the amount of RAM assigned to the VM
- B. From the Prism web console:\*Go to the VM dashboard\*Select the VM from the VMs list\*Choose Update\*Adjust the amount of memory assigned to the VM
- C. Go to Control Panel in the VM:\*Select the Computer Properties\*Increase the amount of RAM assigned
- D. During the next maintenance window:\*Select the VM from the VMs list\*Perform a graceful shutdown

**Answer: B**

#### Explanation:

The best way to fix this issue is to increase the amount of memory assigned to the VM from the Prism web console. This option allows the administrator to modify the VM configuration without accessing the CVM or shutting down the VM. The Prism web console provides a simple and intuitive interface for managing Nutanix clusters and VMs<sup>1</sup>. To change the memory allocation for a VM, the administrator can follow these steps<sup>2</sup>:

? Go to the VM dashboard

? Select the VM from the VMs list

- ? Choose Update
- ? Adjust the amount of memory assigned to the VM
- ? Click Save

#### NEW QUESTION 4

An administrator recently added new SSDs to a Nutanix cluster and knows the firmware will be out of date. Due to security constraints, the cluster does not have access to the Internet.

Which two steps must be completed to update the firmware? (Choose two.)

- A. Download the disk firmware from the OEM's website.
- B. Download a darksite bundle and deploy an internal webserver,
- C. Select Upgrade Software, then upload the firmware bundle.
- D. update the LCM Source and URL to access the firmware bundle.

**Answer:** AB

#### NEW QUESTION 5

An administrator wants to have a VM on an AHV cluster with access to multiple VLANs. What is the most efficient way to achieve this?

- A. Update a vNIC on the VM to operate in trunked mode for all desired VLANs.
- B. Create a network in AHV associated with all those VLANs on all hosts.
- C. Use SFPs that allow the needed VLANs.
- D. Use one vNIC per VLAN for the VM.

**Answer:** A

#### Explanation:

According to the Nutanix Support & Insights web search result2, VM NICs on AHV can operate in two modes: Access and Trunked. Access NICs are the default, and allow one VLAN on the NIC. Trunked NICs allow multiple VLANs on a single NIC for VMs that are VLAN aware. If you must use trunked NICs, follow the steps described in the web search result2. Therefore, the most efficient way to have a VM on an AHV cluster with access to multiple VLANs is to update a vNIC on the VM to operate in trunked mode for all desired VLANs.

#### NEW QUESTION 6

An administrator has been asked to enable block awareness and increase the fault tolerance to FT2 on a Nutanix AHV cluster with the following configuration:

Four blocks

One node per block

Will the administrator be able to accomplish these tasks?

- A. No-Fault tolerance changes are not supported.
- B. Yes-FT2 requires a minimum of three nodes.
- C. Yes-Block awareness requires a minimum of three blocks.
- D. No-FT2 requires a minimum of five nodes.

**Answer:** D

#### Explanation:

Fault tolerance (FT) is the ability of a cluster to withstand node failures and maintain data availability. FT is determined by the replication factor (RF) of the data, which is the number of copies of each data block stored on different nodes.  $FT = RF - 1$ , meaning that the cluster can tolerate as many node failures as one less than the RF. Block awareness is a feature that enhances fault tolerance by ensuring that data copies are distributed across different blocks, which are groups of nodes that share a power source and network switch. Block awareness requires a minimum of three blocks and a minimum of six nodes in the cluster.

In this scenario, the administrator has been asked to enable block awareness and increase the fault tolerance to FT2 on a Nutanix AHV cluster with the following configuration: Four blocks, One node per block. The administrator will not be able to accomplish these tasks because:

? To enable block awareness, the cluster needs at least six nodes, but it only has four nodes.

? To increase the fault tolerance to FT2, the cluster needs at least five nodes per RF3 or seven nodes per RF4, but it only has four nodes.

Therefore, the administrator will need to add more nodes to the cluster before enabling block awareness and increasing the fault tolerance to FT2.

#### NEW QUESTION 7

An administrator has created a Nutanix managed it a VLAN ID of 512.

Several VMs have been created, and the administrator notices that the can successfully communicate with other VMs on that VLAN.

Provided they are on the host, but cannot communicate with VMs that reside on different hosts in the cluster.

What is most likely thee cause of this issue?

- A. There is a firewall rule blockingVLAN512 traffic.
- B. VLANS12 is a reserved VLAN ID, and not usable for guest VMs.
- C. The VLAN was not created on the upstream switches.
- D. The administrator did not create the VLAN on all hosts

**Answer:** C

#### Explanation:

The correct answer is C. The VLAN was not created on the upstream switches.

A VLAN (virtual local area network) is a logical segmentation of a physical network that allows devices on the same VLAN to communicate with each other, regardless of their physical location. A VLAN also isolates the devices on different VLANs from each other, unless there is a router or a layer 3 switch that can route traffic between VLANs. To create a VLAN, the administrator needs to configure the network devices that are involved in the VLAN, such as switches, routers, and hosts. The administrator also needs to assign a unique VLAN ID to each VLAN, which is a number between 1 and 4094 that identifies the VLAN1.

In Nutanix AHV, the administrator can create a Nutanix managed network with a specific VLAN ID for guest VMs. This network can be assigned to VM NICs using Prism Element or Prism Central. However, creating a Nutanix managed network does not automatically create the VLAN on the upstream switches that connect the AHV hosts. The administrator needs to manually configure the upstream switches to allow the VLAN traffic on the ports that connect to the AHV hosts. The administrator also needs to ensure that the upstream switches are interconnected physically or virtually and can forward traffic between different VLANs if

needed2.

Therefore, if an administrator has created a Nutanix managed network with a VLAN ID of 512 and notices that the VMs on that network can only communicate with other VMs on the same host, but not with VMs on different hosts in the cluster, the most likely cause of this issue is that the VLAN was not created on the upstream switches. This means that the switches are dropping or blocking the traffic with VLAN ID 512 and preventing it from reaching other hosts or VMs. To resolve this issue, the administrator should create the VLAN on the upstream switches and allow it on the ports that connect to the AHV hosts3.

Reference: Nutanix AHV Networking Best Practices

#### NEW QUESTION 8

In which two scenarios is Native Key Management Server supported? (Choose two)

- A. XenServer and AHV mixed cluster.
- B. Hyper-V and AHV mixed cluster.
- C. KVM and AHV mixed cluster.
- D. ESXi and AHV mixed cluster.

**Answer:** BD

#### NEW QUESTION 9

Which three configuration scenarios are valid for the deployment of Prism Central? (Choose three.)

- A. Environments use Network Address Translation.
- B. Prism Elements and Prism Central are in different subnets.
- C. Environments do not have Internet access.
- D. Prism Elements and Prism Central have proxy configured.
- E. Environments use the 192.168.5.0/24 CVM management network.

**Answer:** ABC

#### Explanation:

Prism Central is a multi-cluster manager that provides a single, centralized management interface for Nutanix environments1. Prism Central can be deployed in different configuration scenarios, depending on the network and security requirements of the environment. Some of the valid scenarios are:

? Environments use Network Address Translation (NAT): NAT is a method of

mapping one IP address space to another by modifying network address information in IP datagram packet headers while they are in transit across a traffic routing device2. NAT can be used to enable communication between Prism Central and Prism Elements that are in different networks or subnets3. For example, Prism Central can be deployed in a public cloud and use NAT to access Prism Elements that are in a private data center3.

? Prism Elements and Prism Central are in different subnets: A subnet is a logical

subdivision of an IP network that allows multiple networks to share a single physical network4. Prism Elements and Prism Central can be in different subnets as long as they can communicate with each other through routing or NAT3. For example, Prism Central can be deployed in a management subnet and access Prism Elements that are in different application subnets3.

? Environments do not have Internet access: Internet access is not required for the

deployment of Prism Central, as long as the environment meets the prerequisites and considerations for installing or upgrading Prism Central. For example, Prism Central can be deployed in a dark site, which is an environment that does not have Internet access or has restricted Internet access. In this case, the administrator needs to manually enable microservices infrastructure and download the required software packages from another source.

#### NEW QUESTION 10

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 the 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 via
- C. 1 to vlan.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 number2. 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 VLAN3. To fix this issue, the administrator needs to change the VLAN field from vlan. 1 to vlan. 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 switch4.

#### NEW QUESTION 10

A node with Erasure Coding fails. What is the impact?

- A. The node stops utilizing Erasure Coding.
- B. Potentially increased amount of data stored in the SSD tier.
- C. Increased Controller VM CPU Load.
- D. AQS unable to do deduplication during the Erasure Coding failure.

**Answer:** B



**Explanation:**

When a node with Erasure Coding fails, the cluster will automatically rebuild the missing data using replication factor (RF) 2 or 3, depending on the cluster configuration. This means that the data that was previously stored using Erasure Coding will now be stored using full copies, which may increase the amount of data stored in the SSD tier1.

**NEW QUESTION 12**

Refer to Exhibit:

## Settings

### Update Source

LCM currently fetches updates from the following source.

Source

Nutanix Portal

URL

Nutanix Portal URL

☒ Enable HTTPS

Allow LCM to access Nutanix Portal over HTTPS.

The Update Source for LCM has been configured as shown in the exhibit. Inventory is failing consistently. What is the likely cause of this issue?

- A. Port 433 Is blocked by a firewall.
- B. Port 80 is blocked by a firewall.
- C. The administrator does not have a valid portal account.
- D. The license assigned to the cluster has expired.

**Answer:** A

**Explanation:**

<https://hyperhci.com/2019/07/22/nutanix-lcm-upgrade-process-failed-trouble-shooting/>

**NEW QUESTION 17**

What is the default network bond setting for an AHV host configuration?

- A. active-backup
- B. active-active
- C. balance-slb
- D. balance-tcp

**Answer:** A

**Explanation:**

<https://next.nutanix.com/blog-40/network-load-balancing-with-acropolis-hypervisor-6463>

**NEW QUESTION 19**

Which three upgrades should an administrator be able to perform using Lifecycle Management? (Choose Three)

- A. AOS
- B. BMC
- C. BIOS
- D. Hypervisor
- E. HBA Firmware

**Answer:** BCE

**Explanation:**

Reference: <https://portal.nutanix.com/page/documents/kbs/details?targetId=kA00e000000LMglCAW>

**NEW QUESTION 22**

An administrator needs to bring down a host in a Nutanix Cluster for maintenance reasons. The administrator puts the host in maintenance mode. What should the administrator do to perform an orderly shutdown of the CVM?

- A. Execute the `cvm_shutdown -P new` command from the CVM.
- B. Enter Fever off Server - immediate from the IPMI console.
- C. Enter Fever off Server-orderly Shutdown from the IPMI console.
- D. Execute the `cvm_shutdown -P now` command from the host.

**Answer:** A

**Explanation:**

According to the How to use the cvm\_shutdown script web search result3, the cvm\_shutdown script signals HA when shutting down the CVM (Controller VM) to forward the storage traffic to another healthy CVM. Instead of using sudo shutdown or sudo reboot commands, this script should be used to minimize I/O hits in user VMs running on the present hypervisor host. The cvm\_shutdown -P now command will initiate the shutdown process on the CVM immediately. Therefore, if the administrator needs to perform an orderly shutdown of the CVM, they should execute this command from the CVM.

**NEW QUESTION 27**

An administrator notices that most of the VMs in the cluster are on one host. Users report that an application seems to respond slowly. The application server VM has significantly more memory assigned to it than other VMs. How should the administrator fix this issue?

- A. Reduce the amount of memory assigned to the VM.
- B. Migrate the VM to a different host.
- C. Add more memory to the VM.
- D. Increase the memory on the CVM.

**Answer:** A

**Explanation:**

According to the Troubleshoot high memory issues on Azure virtual machines web search result2, one of the common factors in a low memory situation is over-provisioning memory for a VM. Over-provisioning memory can cause memory pressure, which leads to swapping and degraded performance. Therefore, to fix this issue, the administrator should reduce the amount of memory assigned to the VM, based on the average hardware requirements for that operating system and application load.

**NEW QUESTION 31**

An administrator wants to receive an environment summary report when a host failure occurs. Which action would address the administrator's need?

- A. Enable App Discovery
- B. Edit report schedule
- C. Configure an alert policy
- D. Create a playbook

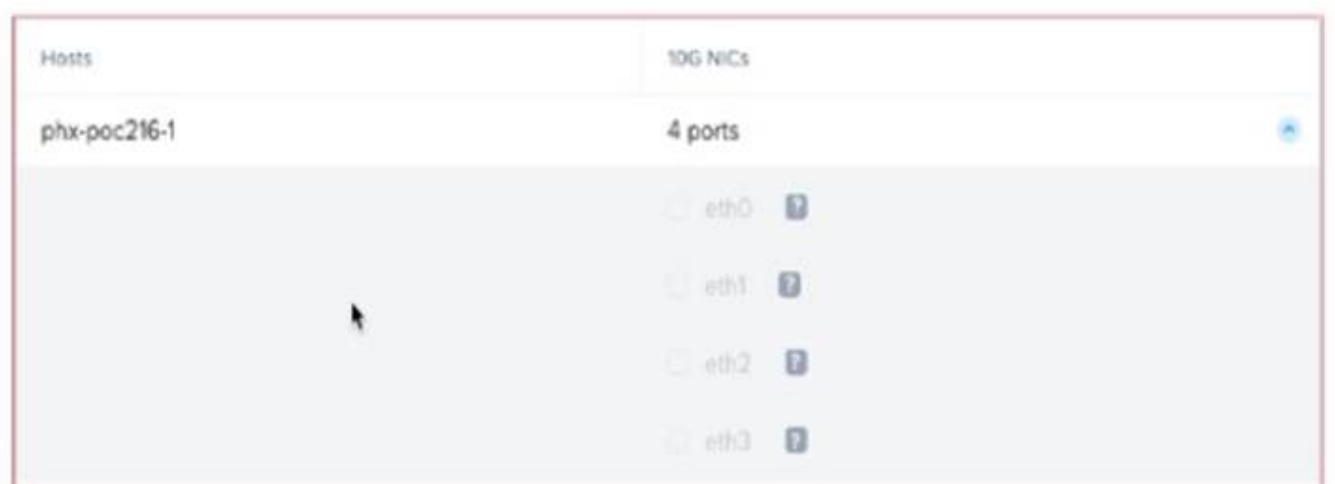
**Answer:** D

**Explanation:**

"Playbook allows you to define a trigger that results in the execution of an action or a series of actions. A trigger may be an event that occurs in the system, such as an alert or a request made by you. The resultant actions that you configure can be VM actions, communication actions, alert actions, or report actions." [https://portal.nutanix.com/page/documents/details?targetId=Intelligent-Operations-Guide-vpc\\_2023\\_3:ssp-report-management-ssp-pc-c.html#:~:text=The%20environment%20summary%20report%20provides,is%20registered%20to%20Prism%20Central.](https://portal.nutanix.com/page/documents/details?targetId=Intelligent-Operations-Guide-vpc_2023_3:ssp-report-management-ssp-pc-c.html#:~:text=The%20environment%20summary%20report%20provides,is%20registered%20to%20Prism%20Central.)

**NEW QUESTION 33**

Refer to Exhibit:



Under Active-Backup bond type, at least TWO uplink ports need to be selected per host for all selected hosts.

An administrator is attempting to create an additional virtual switch on a newly deployed AHV cluster, using the two currently disconnected interfaces. The administrator is unable to select the disconnected interfaces when creating the virtual switch. What is the likely cause of this issue?

- A. Only one interface is available on the selected hosts.
- B. Interfaces must be connected to the network before they can be assigned.
- C. The disconnected interfaces are currently assigned to virtual switch 0,
- D. Interfaces must be assigned to virtual switches via the cli

**Answer: B**

**Explanation:**

In Nutanix AHV, when creating a virtual switch and trying to add network interfaces (NICs) to it, the NICs must be connected to the network before they can be selected and assigned to the switch. If the interfaces are showing as disconnected, the system will not allow them to be added to a virtual switch because it cannot verify their operational status or the presence of a live network connection.

It is a standard requirement for the interfaces to have physical connectivity (i.e., network cables plugged in and connected to a live switch port) so that the AHV host can detect the link status as up. Once the interfaces are connected and recognized by the host, they can then be added to a virtual switch in the Nutanix AHV. It's important to note that while the command-line interface (CLI) is indeed a powerful tool for managing network configurations on AHV hosts, and some configurations do indeed require CLI, the inability to select disconnected interfaces is not specifically a limitation that requires the use of CLI to overcome. The focus should be on ensuring that the physical connectivity is established for the interfaces in question.

This behavior is consistent with networking best practices and Nutanix's network configuration guidelines, as detailed in the Nutanix AHV Networking Guide. This guide explains the requirements and procedures for configuring virtual switches and managing NICs in a Nutanix AHV environment.

**NEW QUESTION 35**

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 40**

Which scenario would benefit most from Erasure Coding being enabled on a container?

- A. Long term storage of data which is written once and read infrequently
- B. High performance database where all is relatively hot.
- C. VDI use cases where a single VM is cloned 100??s of times
- D. WEB and API Servers

**Answer: A**

**Explanation:**

The correct answer is A. Long term storage of data which is written once and read infrequently.

Erasure Coding is a feature that increases the usable capacity on a Nutanix cluster by reducing the amount of data replication. Instead of replicating data, Erasure Coding uses parity information to rebuild data in the event of a disk failure. The capacity savings of Erasure Coding is in addition to deduplication and compression savings<sup>1</sup>.

Erasure Coding is most beneficial for scenarios where the data is written once and read infrequently, such as long term storage of archival data, backup data, or cold data. This is because Erasure Coding has some trade-offs and limitations that may affect the performance and availability of the cluster. Some of these trade-offs and limitations are<sup>2</sup>:

? Erasure Coding requires more CPU and memory resources than replication, as it involves more complex calculations for encoding and decoding data.

? Erasure Coding increases the network bandwidth consumption, as it involves more data transfers between nodes for encoding and decoding data.

? Erasure Coding reduces the resiliency of the cluster, as it can tolerate fewer node failures than replication. For example, a cluster with redundancy factor 2 can tolerate one node failure with replication, but only two disk failures with Erasure Coding.

? Erasure Coding is not effective for workloads that have many overwrites or random writes, as it involves more overhead for updating the parity information.

? Erasure Coding is not supported for some features, such as volume groups, file server VMs, or Metro Availability.

Therefore, if an administrator needs to configure a container on a Nutanix cluster, they should enable Erasure Coding only if the container will store data that is written once and read infrequently. This way, they can maximize the capacity savings of Erasure Coding without compromising the performance and availability of the cluster.

Reference: Erasure Coding | Nutanix Community

**NEW QUESTION 41**

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<sup>1</sup>.

To create a managed network on an AHV cluster, the administrator can use Prism Element or Prism Central. The steps are as follows<sup>2</sup>:

? 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 45**

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 49**

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 list<sup>1</sup>.

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 them<sup>2</sup>.

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 them<sup>3</sup>.

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 50**

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 52**

Prism Central will be installed manually on an AHV cluster.

Which three disk images must be downloaded from the portal for the Prism Central VM? (Choose three.)



- A. var
- B. tmp
- C. boot
- D. home
- E. data

**Answer:** CDE

**Explanation:**

[https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-Prism-v5\\_10:mul-pc-install-scratch-c.html](https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-Prism-v5_10:mul-pc-install-scratch-c.html)

According to the Nutanix Support & Insights web search result<sup>4</sup>, Prism Central can be installed manually on an AHV cluster by using three disk images: boot, home, and data. These disk images must be downloaded from the portal for the Prism Central VM and uploaded to an image service on the AHV cluster. The boot image contains the operating system and kernel for Prism Central. The home image contains the configuration files and logs for Prism Central. The data image contains the database and application files for Prism Central.

**NEW QUESTION 55**

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 56**

What are two minimum prerequisites for live migration to succeed? (Choose two.)

- A. All AHV hosts have IP addresses in the same subnet
- B. All AHV hosts must be configured on the same VLAN
- C. All VMs have an IP address in the same subnet
- D. All VMs are configured for the same VLAN

**Answer:** AD

**Explanation:**

According to section 5 of the exam blueprint guide<sup>1</sup>, one of the topics covered is live migration. Live migration is the process of moving a running VM from one host to another without any downtime or interruption of service. To perform live migration, there are some prerequisites that must be met, such as:

- ? All AHV hosts have IP addresses in the same subnet
- ? All VMs are configured for the same VLAN
- ? The source and destination hosts have enough resources to accommodate the VM
- ? The VM does not have any PCI devices attached

**NEW QUESTION 60**

Administrator is creating a Windows 10 VM that will be used for a virtual desktop template. After creating the VM and booting to the ISO, the administrator is unable to install Windows and receives the following error.



What steps does the administrator need to take to install the OS?

- A. Load the Nutanix VirtIO Serial Bus Driver.
- B. Load the VirtIO Network Ethernet Adapter.
- C. Load the Nutanix Virtual Balloon Driver.
- D. Load the Virtual SCSI pass-through controller.

**Answer:** D

**Explanation:**

Answer D. Load the Virtual SCSI pass-through controller.

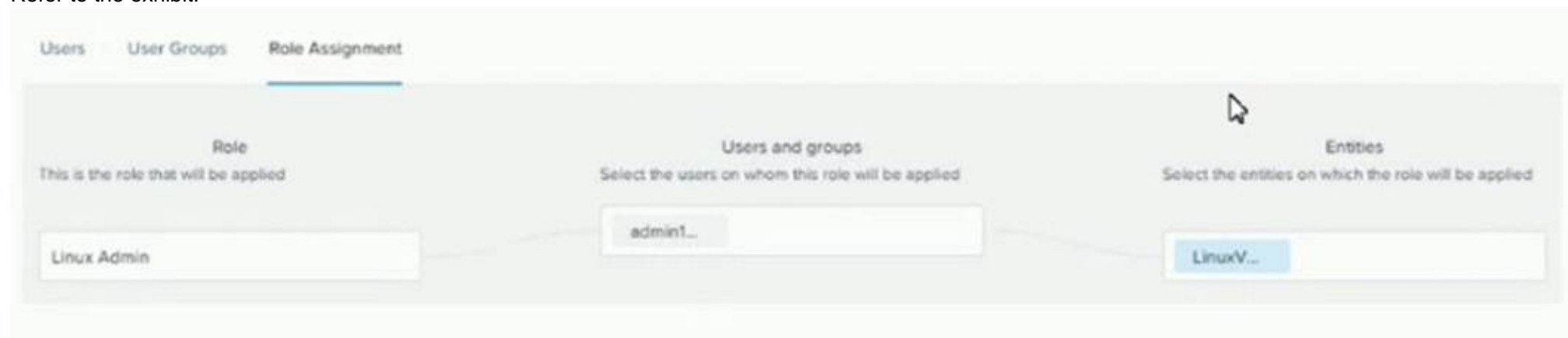
The error message shown in the image indicates that Windows 10 setup cannot find any drives to install the OS. This is because the Nutanix AHV hypervisor uses a virtual SCSI pass-through controller to present disks to the VMs, and Windows 10 does not have a built-in driver for this device. Therefore, the administrator needs to load the Nutanix VirtIO driver for the virtual SCSI pass-through controller during the OS installation process. The Nutanix VirtIO driver package contains various drivers that are specifically used by Windows VMs hosted in the Nutanix environment to enhance their stability and performance<sup>1</sup>. The administrator can download the latest Nutanix VirtIO driver package from the VirtIO

downloads page of the Nutanix support portal. The administrator can then follow these steps to load the driver and install the OS<sup>2</sup>:

- ? On the Windows 10 setup screen, click Load driver.
- ? Insert a USB drive or mount an ISO image that contains the Nutanix VirtIO driver package.
- ? Browse to the location of the driver package and select the folder that matches the OS architecture (32-bit or 64-bit).
- ? Select the vioscsi.inf file and click Next.
- ? Wait for the driver to load and then click Refresh.
- ? Select the disk where you want to install Windows 10 and click Next. References: 1: VirtIO Driver Versions for Windows 2: Installing Windows on AHV

**NEW QUESTION 62**

Refer to the exhibit.



The Linux Admin role has been created to manage only Linux VMs in the environment. However, the Admin1 user does not have access to all Linux VMs. What step should be taken to grant the proper access?

- A. Add the hosts to the entities KM for the role.
- B. Grant the admin1 user the viewer role (or the cluster).
- C. Add the role to the Linux images.
- D. Add the proper category to each Linux VM.

**Answer:** D

**Explanation:**

According to the Nutanix Prism Central Guide, role-based access control (RBAC) in Prism Central allows you to create custom roles and assign them to users or groups based on the categories of the entities they need to manage<sup>1</sup>. Categories are key- value pairs that you can assign to entities such as VMs, hosts, clusters, images, etc. to group them logically<sup>2</sup>. For example, you can create a category key called ??OS?? and assign values such as ??Linux?? or ??Windows?? to different VMs based on their operating system.

In the exhibit, the Linux Admin role has been created with the following settings:

? The role has the ??VM Admin?? permission, which allows the user to perform all actions on VMs<sup>3</sup>.

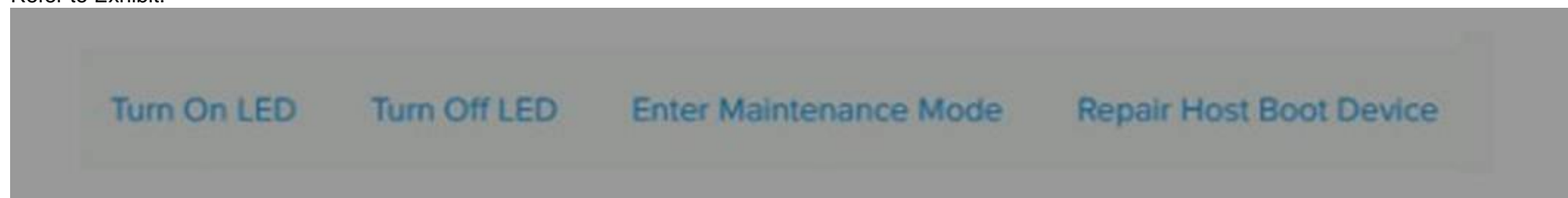
? The role has been assigned to the admin1 user.

? The role has been scoped to the entities that have the category key ??OS?? and the value ??Linux??.

However, the admin1 user does not have access to all Linux VMs in the environment. This means that some of the Linux VMs do not have the proper category assigned to them. To grant the proper access, the administrator should add the category key ??OS?? and the value ??Linux?? to each Linux VM that needs to be managed by the Linux Admin role. This can be done either individually or in bulk through Prism Central<sup>4</sup>. Once the categories are added, the admin1 user will be able to see and manage all Linux VMs in the environment.

**NEW QUESTION 64**

Refer to Exhibit:



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 node<sup>1</sup>.

**NEW QUESTION 68**

AHV IPAM assigns an IP address from the address pool when creating a managed VM NIC.

At which two instances does the address release back to the pool? (Choose two)

- A. The IP address lease expires
- B. The VM NIC is deleted.
- C. The IP address is changed to static.
- D. The VM is deleted.

**Answer:** BD

**Explanation:**

[https://portal.nutanix.com/page/documents/solutions/details/?targetId=BP-2029\\_AHV:BP-2029\\_AHV](https://portal.nutanix.com/page/documents/solutions/details/?targetId=BP-2029_AHV:BP-2029_AHV)

Administrators can use Acropolis with IPAM to deliver a complete virtualization deployment, including network management, from the unified Prism interface. This capability radically simplifies the traditionally complex network management associated with provisioning VMs and assigning network addresses. To avoid address overlap, be sure to work with your network team to reserve a range of addresses for VMs before enabling the IPAM feature. The Acropolis master assigns an IP

address from the address pool when creating a managed VM NIC; the address releases back to the pool when the VM NIC or VM is deleted.

#### NEW QUESTION 72

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 76

A recently configured cluster is leveraging NearSync with a recovery schedule of 15 minutes. It is noticed that the cluster is consistently transitioning in an Out of NearSyne.

What action should be taken to potentially address this issue?

- A. Increase network bandwidth
- B. Change the NearSync schedule to 30 minutes.
- C. Add a vCPUs to the user VMs.
- D. Configure a secondary schedule in the same Protection Domain.

**Answer: A**

#### Explanation:

One of the possible reasons for a cluster to transition out of NearSync is insufficient network bandwidth between the source and target clusters. NearSync requires a minimum network bandwidth of 10 Mbps per VM for replication<sup>3</sup>. If the network bandwidth is lower than the required amount, the replication of recovery points may take longer than the configured RPO, resulting in an Out of NearSync condition. To address this issue, you can increase the network bandwidth between the clusters or reduce the number of VMs protected by NearSync<sup>4</sup>.

References: 1: Stargate - Nutanix Bible 2: Nutanix Cluster Architecture Overview - Nutanix Bible 3: NearSync Disaster Recovery (RPO <= 15 minutes) - Nutanix Support &

Insights 4: Transitioning in and out of NearSync - Nutanix Support & Insights

#### NEW QUESTION 78

An Administrator has been asked to deploy VMs using a specific image. The image has been configured with settings and applications that will be used by engineering to develop a new product by the company.

The image is not available on the desired cluster, but it is available in other cluster associated with Prism Central.

Why isn't the image available?

- A. The image bandwidth policy has prevented the image upload.
- B. The cluster should be removed from all categories.
- C. The cluster has not been added to the correct category
- D. The image placement policy was configured with enforcement.

**Answer: C**

#### NEW QUESTION 83

Which baseline is used to identify a Zombie VM?

- A. VM is powered off for the past 21 days.
- B. Memory usage is less than 1% and memory swap rate is equal to 0 Kbps for the past 21 days.VM has no logins for the past 21 days
- C. VM has no logins for the past 21 days
- D. Fewer than 30 I/Os and less than 1000 bytes per day of network traffic for the past 21 days

**Answer: D**

#### Explanation:

The correct answer is D. Fewer than 30 I/Os and less than 1000 bytes per day of network traffic for the past 21 days.

A zombie VM is a type of inactive VM that is powered on but does very little activity. A zombie VM wastes host resources such as CPU, memory, disk, and network that could be used by other VMs. A zombie VM can be identified by using the VM Profile feature in Prism Central. The VM Profile feature analyzes the resource utilization of each VM and assigns it a profile based on its efficiency and impact on other VMs. The profiles are as follows<sup>1</sup>:

? Efficient: The VM is well-provisioned and has optimal resource utilization.

? Over-provisioned: The VM has more resources than it needs and has low resource utilization.

? Constrained: The VM has less resources than it needs and has high resource utilization.

? Inactive: The VM has no resource utilization and is idle or powered off.

? Bully: The VM has high resource utilization and causes contention for other VMs. A zombie VM is a subtype of an inactive VM that meets the following criteria<sup>2</sup>:

? The VM is powered on for the past 21 days.

? The VM does fewer than 30 read or write I/Os (total) per day for the past 21 days.

? The VM receives or transfers fewer than 1000 bytes per day of network traffic for the past 21 days.

To identify a zombie VM, the administrator can use Prism Central to view the VM Profile dashboard and filter by profile type. The dashboard shows the number of VMs in each profile type, as well as their resource consumption and efficiency score. The administrator can also drill down into each VM to see its detailed metrics and recommendations for optimization.

Reference: VM Profile

#### NEW QUESTION 88

Upon logging into Prism Central, an administrator notices high cluster latency. How can the administrator analyze data with the least number of steps or actions?

- A. Modify Data Density in the main Prism Central dashboard.
- B. Click on the chart in the widget to expand the data elements.
- C. Take note of the cluster name and create a new Analysis chart.
- D. Click the cluster name in the cluster quick access widget.

**Answer:** B

#### **Explanation:**

According to the Nutanix Prism Central Guide, you can click on any chart in a widget to expand it and view more details about the data elements.

#### NEW QUESTION 90

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