

# Nutanix

## Exam Questions NCP-MCI-6.5

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



### NEW QUESTION 1

Refer to Exhibit:

```
<ncli> rsyslog-config list-modules server-name=nutanix

Module Name           : STARGATE
Log Level              : EMERGENCY
Include Monitor Logs   : true
```

After configuring modules for a Remote Syslog Server, the settings are as shown. The administrator notices that even though the level parameter is set to EMERGENCY, that all monitor logs are being sent. What is the likely cause of this issue?

- A. A second rsyslog server is configured to send all monitor logs.
- B. Having the Module Name set to STARGATE sends all monitor logs regardless of the level.
- C. A Log Level of EMERGENCY includes all monitor logs.
- D. The true setting for Include Monitor Logs sends all monitor logs regardless of the level.

**Answer: C**

### NEW QUESTION 2

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 3

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 hos?

- 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 4**

An administrator migrates a VM onto a new Nutanix cluster- After the migration, the administrator observes the following conditions:

- Cluster memory utilization: 64%
- Cluster CPU utilization: 19%
- Cluster storage utilization. 32%
- Average VM CPU utilization: 25%
- Average VM CPU ready%: 24%
- Average VM memory utilization: 60%

Which two changes should the administrator make to improve VM performance? (Choose two.)

- A. Reduce the number of vCPUs assigned to VMs.
- B. Add more memory to the VMs.
- C. Reduce the number of VMs on the hosts.
- D. Replace high core count CPUs with high clock rate CPUs.

**Answer:** AC

**Explanation:**

According to the CPU (%) - VMware Docs web search result<sup>2</sup>, one of the possible causes of high CPU ready % is over-provisioning vCPUs for a VM or having too many VMs on a host. CPU ready % indicates the percentage of time that the VM was ready, but could not get scheduled to run on the physical CPU. High CPU ready % can lead to VM performance problems, such as slow response time or application latency. To improve VM performance, the administrator should reduce the number of vCPUs assigned to VMs or reduce the number of VMs on the hosts, so that there is less contention for CPU resources.

**NEW QUESTION 5**

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 6**

What is Prism Central primarily used for?

- A. Multi-cluster network configuration
- B. Container creation
- C. Multi-cluster Single Sign On
- D. Data reduction configuration

**Answer:** C

**Explanation:**

According to the web search results, Prism Central is a multi-cluster manager that provides a single, centralized management interface for Nutanix environments<sup>12</sup>. One of the features of Prism Central is multi-cluster Single Sign On (SSO), which allows users to log in once and access multiple clusters without re-entering credentials<sup>3</sup>.

**NEW QUESTION 7**

An administrator is implementing a VDI solution. The workload will be a series of persistent desktops in a dedicated storage container within a four-node cluster Storage optimizations should be set on the dedicated storage container to give optimal performance including during a node failure event

Which storage optimizations should the administrator set to meet the requirements?

- A. Compression only
- B. Deduplication and Erasure Coding
- C. Compression and Deduplication
- D. Compression Deduplication and Erasure Coding

**Answer:** D

**Explanation:**

According to the web search results, three storage optimizations that should be set on a dedicated storage container for a VDI solution with persistent desktops are compression, deduplication and erasure coding. Compression is a technique that reduces the size of data by removing redundant information. Deduplication is

a technique that eliminates duplicate copies of data blocks and stores only unique blocks. Erasure coding is a technique that increases usable capacity by reducing the replication factor of data blocks and using parity information instead<sup>7</sup>. These three optimizations can improve performance and save storage space for VDI workloads, especially during a node failure event when data needs to be rebuilt from parity information<sup>8</sup>. The administrator can enable these optimizations by using Prism Element web console or ncli command-line interface<sup>9</sup>.

**NEW QUESTION 8**

After running an LCM inventory it is noticed that there are a number of firmware and software updates available. The administrator would like to avoid any host reboots, but would like to apply some of the available updates? Which two updates can be done while avoiding a host reboot? (Choose two.)

- A. M.2 Drives
- B. AHV
- C. Data Drives
- D. AOS

**Answer:** CD

**NEW QUESTION 9**

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 10**

In the event of a disk failure, which process will immediately and automatically scans Cassandra to find all data previously hosted on the failed disk, and all disks in that node?

- A. Curator
- B. Stargate
- C. Genesis
- D. Prism

**Answer:** A

**Explanation:**

Curator is the process that runs on every node in a Nutanix cluster and is responsible for data management tasks such as deduplication, compression, erasure coding, and replication factor compliance. Curator also handles disk failure recovery by scanning Cassandra to find all data previously hosted on the failed disk, and all disks in that node. Curator then rebuilds the data on other nodes in the cluster using the distributed storage fabric<sup>1</sup>.

**NEW QUESTION 10**

An administrator wants to create a trunked interface on a VM on AOS 5.15x. Which two steps should the administrator take first to achieve this? (Choose two)

- A. Use acli
- B. Log in over PE web UI.
- C. SSH to CVM.
- D. Update VM dialog.

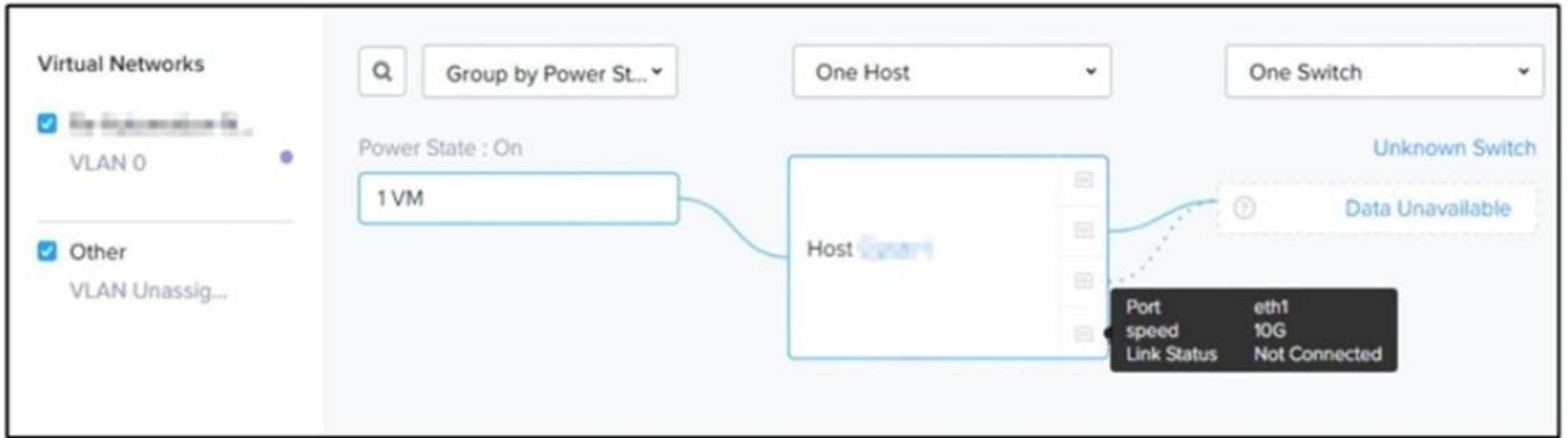
**Answer:** AC

**Explanation:**

Reference: <https://vmwaremine.com/2019/05/09/enable-vlan-trunking-on-nutanix-ahv-vm/#sthash.3ulAHeXZ.dpbs>

**NEW QUESTION 15**

An administrator logs in to Prism Element goes to the Network view, and sees the output shown in the exhibit.



Which three steps must the administrator take to increase throughput to the host? (Choose three.)

- A. Connect the 10Gb interfaces to the physical switch.
- B. Change the bond mode to balance-slb or balance—tcp.
- C. Remove any 1Gb interfaces still connected from the default bond.
- D. Add a new switch to the network and connect 1Gb interfaces to it.
- E. Change the VLAN ID to a higher priority ID.

**Answer:** ABC

**Explanation:**

These are the three steps that the administrator must take to increase throughput to the host. According to the network diagram, the host has two 10Gb interfaces and two 1Gb interfaces in the default bond, but only one of the 10Gb interfaces is connected to a switch. The other 10Gb interface is disconnected and has a red 'X' on it. The two 1Gb interfaces are also disconnected and have dotted lines. This means that the host is using only one 10Gb interface for all its network traffic, which limits its maximum bandwidth to 10 Gbps.

To increase the throughput, the administrator should connect both 10Gb interfaces to the physical switch, preferably to different switches for redundancy and high availability. This will allow the host to use both 10Gb interfaces for network traffic, which can increase its maximum bandwidth to 20 Gbps. However, this also requires changing the bond mode from active-backup to balance-slb or balance-tcp, which are load balancing modes that distribute network traffic across multiple interfaces based on source MAC address or TCP session<sup>1</sup>. The default bond mode of active-backup only uses one interface at a time and switches to another interface only when the active one fails<sup>2</sup>.

Finally, the administrator should remove any 1Gb interfaces still connected from the default bond, as they are not needed and may cause performance issues or conflicts with the load balancing modes. The 1Gb interfaces can be used for other purposes, such as management or backup networks, by creating separate bonds or bridges for them<sup>3</sup>. Alternatively, they can be left disconnected if they are not required.

**NEW QUESTION 17**

An administrator is commissioning a Nutanix Enterprise Cloud. Once the user VMs have been deployed and are running, the administrator finds that VMs on the same host are able to communicate, but are unable to communicate between hosts. What must be changed to enable full inter-VM communications?

- A. Change the spanning-tree port type on the switch.
- B. Change the network the VMs are connected to
- C. Update the switch to specifically allow VLAN 15
- D. The VMs need to have static IP addresses.

**Answer:** C

**Explanation:**

According to the web search results, one possible cause of inter-VM communication failure between hosts is that the switch is not configured to allow VLAN 15 traffic. VLAN 15 is the default VLAN ID used by AHV for internal communication between CVMs and hosts. If the switch blocks or drops VLAN 15 packets, it will prevent inter-VM communication across hosts<sup>4</sup>. To enable full inter-VM communication, the administrator should update the switch to specifically allow VLAN 15 traffic on the ports connected to the AHV hosts.

**NEW QUESTION 21**

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:**

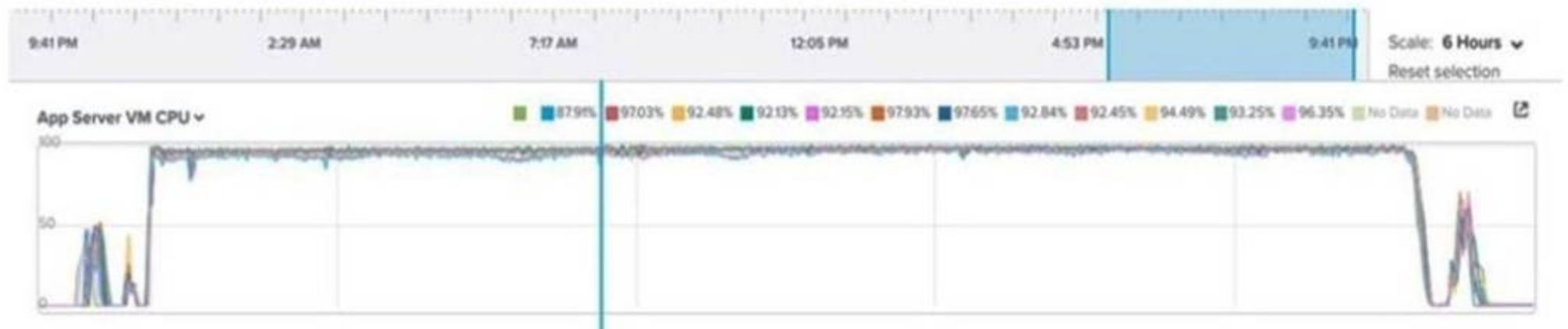
NGT is a software package that enables advanced VM management features provided by Nutanix, such as file-level restore, VM mobility, and application-consistent snapshots<sup>12</sup>. To use NGT, you need to enable the NGT feature for a VM in the Prism Element web console, mount the NGT installer (ISO 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 23**

An administrator is reviewing performance of a core banking system that routinely has 20,000 concurrent users. During, business hours, the CPU on the



applications servers runs at close to 100%. The administrator needs to determine if there is a performance issue specific to the app servers, the database servers, or all servers on the cluster.



Which metrics should the administrator review in Prism Analysis Graphs?

- A. Cluster IO, Network, Database and App Server CPU
- B. Cluster CPU and Memory Only
- C. Cluster IO, CPU, Memory and Database and App Server CPU
- D. Cluster IO, CPU, Memory, Network, App Server CPU

**Answer: D**

**Explanation:**

In this case, the administrator wants to investigate the performance of a core banking system that consists of application servers and database servers. The application servers have high CPU utilization during business hours, which may indicate a bottleneck or a resource contention issue. The administrator needs to review multiple metrics in Prism Analysis Graphs to identify the root cause and determine if there is a problem with the app servers only, or with other components as well.

The metrics that are relevant for this analysis are:

? Cluster IO: This metric shows the input/output operations per second (IOPS) and throughput (MBps) of the cluster. It can help to understand if there is a high demand for disk IO from the VMs or if there is any latency or congestion in the storage layer.

? Cluster CPU: This metric shows the CPU utilization (%) and load average of the cluster. It can help to understand if there is enough CPU capacity in the cluster to handle the workload or if there is any imbalance or contention among hosts.

? Cluster Memory: This metric shows the memory utilization (%) and available memory (GB) of the cluster. It can help to understand if there is enough memory capacity in the cluster to support the VMs or if there is any pressure or swapping in the memory layer.

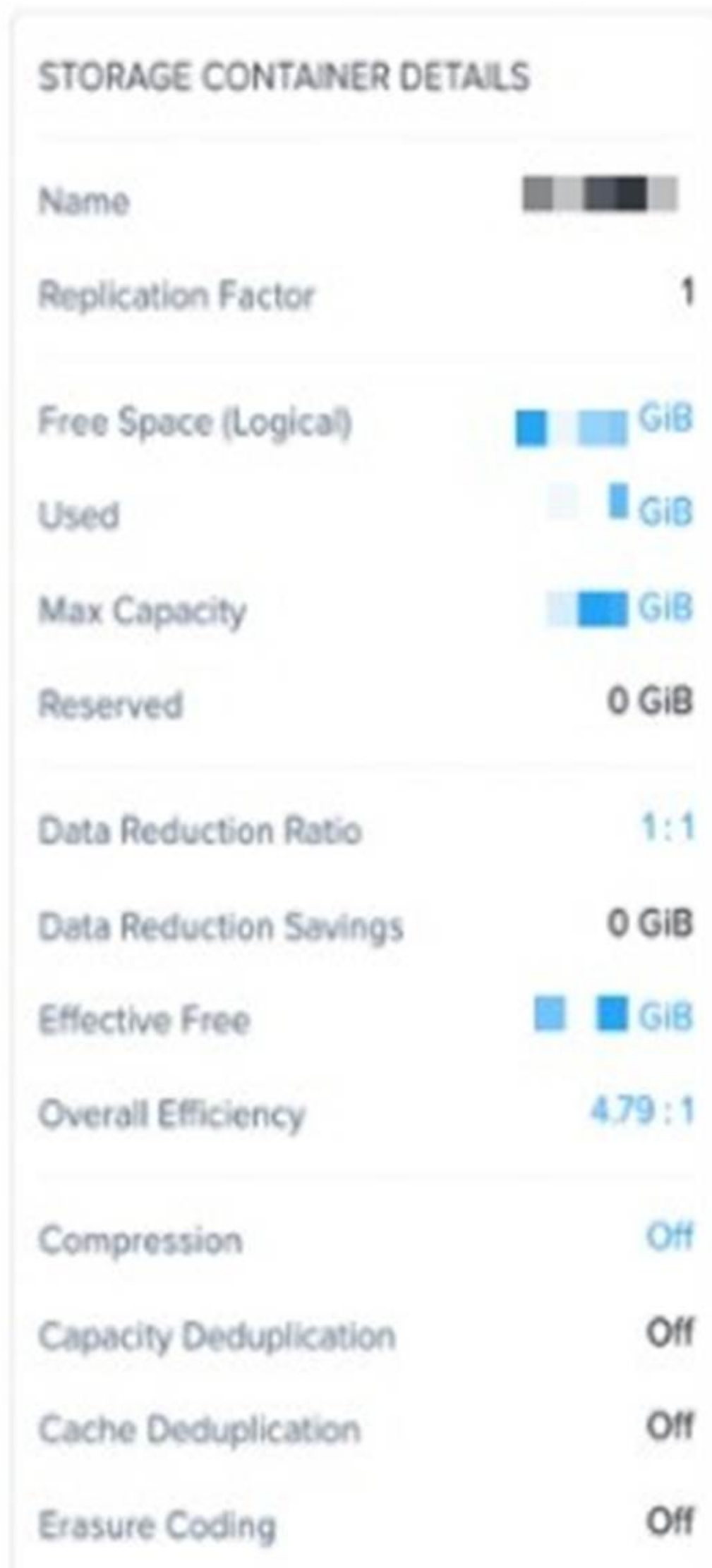
? Network: This metric shows the network throughput (MBps) and packets per second (pps) of the cluster. It can help to understand if there is enough network bandwidth in the cluster to transfer data between hosts and VMs or if there is any congestion or packet loss in the network layer.

? App Server CPU: This metric shows the CPU utilization (%) and load average of each application server VM. It can help to understand if there is any variation or anomaly in the performance of each app server or if there is any correlation with other metrics.

? Database Server CPU: This metric shows the CPU utilization (%) and load average of each database server VM. It can help to understand if there is any variation or anomaly in the performance of each database server or if there is any correlation with other metrics.

**NEW QUESTION 26**

Refer to Exhibit:



An administrator needs to enable inline deduplication for a pre-existing storage container. When trying to enable deduplication on the storage container, this feature is grayed-out.  
What is the reason for this behavior?

- A. Replication Factor 1 is configured on the storage container.
- B. The cluster has less than 5 nodes which is the minimum node-count to enable deduplication.
- C. Capacity reservation is not enabled on the storage container.
- D. The cluster has hybrid storage and deduplication is supported only on all-flash clusters.

**Answer:** D

**Explanation:**

Nutanix supports two types of deduplication: post-process and inline. Post- process deduplication runs periodically on a schedule and can be enabled on any cluster. Inline deduplication runs in real time before data is written to disk and can be enabled only on all-flash clusters.

Therefore, by checking the type of storage and the type of deduplication, you can determine if you can enable inline deduplication on a storage container or not. Nutanix inline deduplication is a feature that reduces the stored size and avoids duplicate data on a storage container<sup>1</sup>. It is recommended only on some specific scenarios, such as when using Nutanix Files or virtual desktop infrastructure (VDI) workloads<sup>2</sup>.

**NEW QUESTION 29**

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 environments<sup>1</sup>. 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 device<sup>2</sup>. NAT can be used to enable communication between Prism Central and Prism Elements that are in different networks or subnets<sup>3</sup>. For example, Prism Central can be deployed in a public cloud and use NAT to access Prism Elements that are in a private data center<sup>3</sup>.

? 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 network<sup>4</sup>. Prism Elements and Prism Central can be in different subnets as long as they can communicate with each other through routing or NAT<sup>3</sup>. For example, Prism Central can be deployed in a management subnet and access Prism Elements that are in different application subnets<sup>3</sup>.

? 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 33**

An administrator needs to ensure logs, alerts and information is consistent across clusters that are located in different countries. Which service needs to be configured?

- A. SMTP
- B. DNS
- C. SNMP
- D. NTP

**Answer:** D

**Explanation:**

NTP service needs to be configured to ensure logs, alerts and information is consistent across clusters that are located in different countries. NTP stands for Network Time Protocol and it is used to synchronize the clocks of all the nodes in a cluster<sup>1</sup>. This helps to maintain accurate timestamps for logs, alerts and other information that are generated by Nutanix clusters<sup>1</sup>.

**NEW QUESTION 35**

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 tier<sup>1</sup>.

**NEW QUESTION 38**

How many Prism Central instances are required to deploy Leap?

- A. One per availability zone
- B. One per customer environment
- C. One per physical site
- D. One per AHV cluster

**Answer:** B

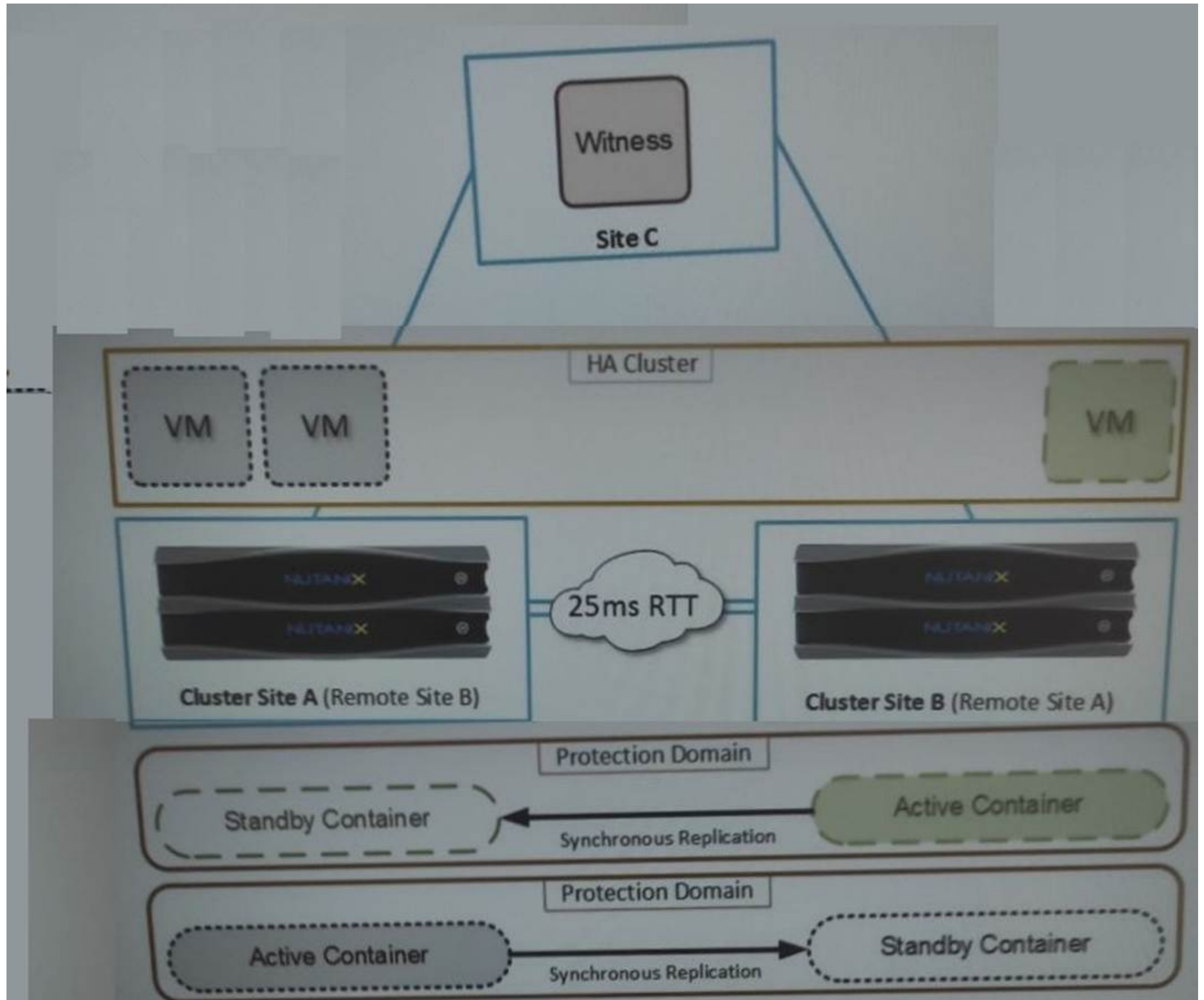
**Explanation:**

The number of Prism Central instances required to deploy Leap is one per customer environment. Prism Central is a multi-cluster manager that provides a single, centralized management interface for Nutanix environments<sup>3</sup>. Leap is a native cloud extension that provides disaster recovery as a service (DRaaS) for Nutanix environments<sup>4</sup>. To use Leap, customers need to have one Prism Central instance deployed in their primary site, and register it with their Xi Cloud Services account<sup>5</sup>. This Prism Central instance can manage multiple Nutanix clusters across different physical sites or availability zones<sup>6</sup>.



**NEW QUESTION 41**

Refer to the exhibit.



An administrator is trying to implement the solution that is shown in the exhibit, but has been unsuccessful. Based on the diagram, what is causing the issue?

- A. A remote Witness VM
- B. Active containers in both sites
- C. Network latency
- D. Unsupported hypervisor

**Answer: C**

**Explanation:**

The correct answer is C. Network latency.

The diagram shows a solution that uses synchronous replication between two remote protection domains, cluster site A and cluster site B. Synchronous replication is a feature that allows near-zero RPO (recovery point objective) by replicating data to the remote site before acknowledging writes to the local site. However, synchronous replication has some requirements and limitations that must be met for it to work properly. One of these requirements is that the network latency between the two sites must be less than or equal to 5 ms<sup>1</sup>. If the network latency is higher than 5 ms, the synchronous replication will fail and the protection policy will be suspended<sup>2</sup>.

Therefore, based on the diagram, the most likely cause of the issue is that the network latency between cluster site A and cluster site B is higher than 5 ms, which prevents the synchronous replication from working. To verify this, the administrator can use the `??ncli cluster ping??` command to measure the network latency between the two sites<sup>3</sup>. If the network latency is indeed higher than 5 ms, the administrator can either improve the network performance or switch to a different replication mode, such as near-synchronous or asynchronous.

Reference: Synchronous Replication Requirements

**NEW QUESTION 44**

The Stargate service becomes unavailable on a single CVM on an AHV node. What is used to maintain I/O operations in the cluster?

- A. Route injection
- B. iSCSI redirector
- C. Hypervisor HA
- D. ha.py

**Answer:** A

**Explanation:**

According to the Nutanix Support & Insights web search result<sup>1</sup>, route injection is used to maintain I/O operations in the cluster when the Stargate service becomes unavailable on a single CVM on an AHV node. Route injection is a mechanism that allows the CVMs to communicate with each other and redirect the I/O requests to another healthy CVM in the cluster. Route injection uses the Linux kernel routing table to add or delete routes dynamically, based on the availability of the Stargate service on each CVM.

**NEW QUESTION 47**

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 51**

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=kA00e000000LMgICAW>

**NEW QUESTION 54**

An administrator adds a node with older generation processors to an existing AHV cluster with newer generation processors. What is the effect on live migration?

- A. Live migration continues to function as expected and VMs can move to any AHV host.
- B. Live migration is prevented until the administrator enables the legacy migration option.
- C. Live migration is prevented until the administrator manually changes the newer processor level.
- D. Live migration of VMs is prevented between newer and older processors.

**Answer:** D

**Explanation:**

According to the Migration to a different processor web search result<sup>2</sup>, live migration of VMs depends on the source and destination hosts having the same CPU functions (CPU flags). Live migration requires the source and destination hosts to have CPUs from the same manufacturer, and only CPU functions which both hosts support are provided (same CPU generation, or by using VMware Enhanced vMotion Compatibility (EVC)). If the administrator adds a node with older generation processors to an existing AHV cluster with newer generation processors, then live migration of VMs is prevented between newer and older processors, unless EVC is enabled.

**NEW QUESTION 56**

What is the expected behavior of the VMs residing on that host when a controller VM becomes unavailable?

- A. A Live Migration will be performed on the affected VMs.
- B. The host will automatically redirect I/O and VMs will continue running.
- C. The impacted host and VMs will automatically shut down.
- D. VM High Availability will restart the impacted VMs on another host

**Answer:** B

**Explanation:**

According to the Nutanix Support & Insights web search result<sup>1</sup>, if the owner Controller VM becomes unavailable, the address moves to another Controller VM, ensuring that it is always available. This IP address is also used as a cluster-wide address by clients configured as part of Nutanix Files and other products. Therefore, the host will automatically redirect I/O and VMs will continue running without any interruption.

**NEW QUESTION 61**

An administrator is tasked with configuring network on an AHV cluster and wants to maximize throughput for the host with many small VMs while minimizing network switch configuration.

Which bond mode should the administrator select?

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

**Answer:** A

**Explanation:**

According to the Nutanix AHV Networking Guide, active-active bond mode provides load balancing and fault tolerance for network traffic by distributing packets across multiple interfaces using a hashing algorithm based on source and destination MAC addresses, IP addresses, and TCP/UDP ports. This mode does not require any special configuration on the network switch and can improve throughput for hosts with many small VMs.

**NEW QUESTION 63**

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 67**

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 network1.

To create a managed network on an AHV cluster, the administrator can use Prism Element or Prism Central. The steps are as follows2:

? 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 69**

What requires iSCSI initiator configuration in the guest OS to use Volumes?

- A. SQL Server Always On Availability Group
- B. Microsoft Windows Failover Cluster
- C. Oracle RAC
- D. Exchange DAG

**Answer:** B

**Explanation:**

The only option that requires iSCSI initiator configuration in the guest OS to use Volumes is Microsoft Windows Failover Cluster. Volumes is an enterprise-class, software-defined block storage solution that exposes storage resources directly to virtualized guest operating systems or physical hosts using the iSCSI protocol7. To use Volumes, customers need to configure iSCSI initiators on their hosts or guest OSes. However, some applications or services can use native storage adapters instead of iSCSI initiators when running on AHV VMs. These include:

? SQL Server Always On Availability Group: This is a high availability and disaster

recovery solution for SQL Server databases that uses Windows Server Failover Clustering (WSFC) and Availability Groups (AGs) as its core components. When running on AHV VMs, SQL Server Always On Availability Group can use native storage adapters instead of iSCSI initiators.

? Oracle RAC: This is a clustered database system that provides high availability

and scalability for Oracle databases. When running on AHV VMs, Oracle RAC can use native storage adapters instead of iSCSI initiators.

? Exchange DAG: This is a group of up to 16 mailbox servers that hosts a set of

databases and provides automatic database-level recovery from failures that affect individual servers or databases. When running on AHV VMs, Exchange DAG can use native storage adapters instead of iSCSI initiators.

**NEW QUESTION 70**

What is the recommended approach for a constrained VM?

- A. Reboot the VM



- B. Delete the VM.
- C. Increase the VM resources.
- D. Decrease the VM resources

**Answer:** C

**Explanation:**

A constrained VM is one that does not have enough resources for the demand and can lead to performance bottlenecks. A VM is considered constrained when it exhibits one or more of the following baseline values, based on the past 21 days: CPU usage > 90% (moderate), 95% (severe) CPU ready time > 5%, 10% Memory usage > 90%, 95% Memory swap rate > 0 Kbps<sup>1</sup>. To provide adequate host resources, resize (increase) the constrained VMs<sup>1</sup>.

**NEW QUESTION 73**

An administrator needs to deploy an application with a large amount of data connected via Nutanix volumes. Which two actions should the administrator take when designing the Volume Group? (Choose two.)

- A. Distribute workload across multiple virtual disks
- B. Enable RSS (Receive Side Scaling)
- C. Use multiple subnets for iSCSI traffic
- D. Enable thick provisioning on the Volume Group(s)

**Answer:** AB

**Explanation:**

According to the Nutanix Volumes - Recommendations And Best Practices web search result<sup>3</sup>, two actions that the administrator should take when designing the Volume Group are:

? Distribute workload across multiple virtual disks: Use multiple disks rather than a single large disk for an application. Consider using a minimum of one disk per Nutanix node to distribute the workload across all nodes in a cluster. Multiple disks per Nutanix node may also improve an application's performance. For performance-intensive environments, we recommend using between four and eight disks per CVM for a given workload.

? Enable RSS (Receive Side Scaling): Receive-side scaling (RSS) allows the system to use multiple CPUs for network activity. With RSS enabled, multiple CPU cores process network traffic, preventing a single CPU core from becoming a bottleneck. Enabling RSS within hosts can be beneficial for heavy iSCSI workloads. For VMs running in ESXi environments, RSS requires VMXNET3 VNICs. For Hyper-V environments, enable VMQ to take full advantage of Virtual RSS.

**NEW QUESTION 77**

An administrator needs to provide access for a user to view real-time performance metric for all VMs on all clusters across the datacenter. Which method accomplishes this with the least effort and ongoing maintenance?

- A. Configure IDP authentication and assign the user to the Cluster Admin role in Prism Central.
- B. Configure AD authentication and assign the user to the Viewer role in Prism Element.
- C. Configure AD authentication create a custom role, assign the user to the role, and apply the role to all clusters and VMs

**Answer:** C

**Explanation:**

The best method to provide access for a user to view real-time performance metrics for all VMs on all clusters across the datacenter is to configure AD authentication create a custom role, assign the user to the role, and apply the role to all clusters and VMs. This method accomplishes this with the least effort and ongoing maintenance because:

? AD authentication allows Nutanix Prism Central to integrate with an existing Active Directory (AD) domain and use AD users and groups for authentication and authorization<sup>5</sup>. This simplifies user management and avoids creating local users on Prism Central.

? Creating a custom role allows Nutanix Prism Central to define granular permissions for different actions and entities based on specific needs<sup>6</sup>. This ensures that users only have access to what they need and nothing more.

? Assigning the user to the custom role allows Nutanix Prism Central to grant access rights for that user based on the role definition<sup>7</sup>. This avoids assigning permissions individually for each user.

? Applying the role to all clusters and VMs allows Nutanix Prism Central to propagate the access rights for that role across all entities in scope<sup>8</sup>. This ensures that users can view real-time performance metrics for all VMs on all clusters without having to configure each entity separately.

References: 1: Health Dashboard - Prism Element Guide 2: Understanding Native VLANs - Cisco 3: VMs may lose network connectivity if connected to virtual network with ?? -

Nutanix Support & Insights 4: VLAN Configuration - AHV Networking Guide 5: Active Directory Authentication - Prism Central Guide 6: Create Custom Roles - Prism Central

Guide 7: Assign Roles - Prism Central Guide 8: Apply Roles - Prism Central Guide

**NEW QUESTION 80**

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 83**

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 84**

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 88**

Where should an administrator unregister Prism Element from Prism Central?

- A. From a Host SSH session
- B. From the Prism Central web console
- C. From the Prism Element web console
- D. From a CVM SSH session

**Answer:** A

**Explanation:**

This is because there is no GUI method to unregister a cluster from Prism Central, so the process requires SSH access to the PC VM as well as to a CVM of the cluster<sup>2</sup>. The unregistration process involves getting the UUID of the cluster from the CVM and then using that to trigger de-registration from PC command line<sup>2</sup>. The unregistration process also involves cleaning up any associated metadata and configuration on both PC and PE<sup>2</sup>. Therefore, the administrator needs to use a Host SSH session to perform this task.

**NEW QUESTION 89**

Which component can be associated with a storage policy?

- A. Subnet
- B. Catalog
- C. Vm
- D. Category

**Answer:** C

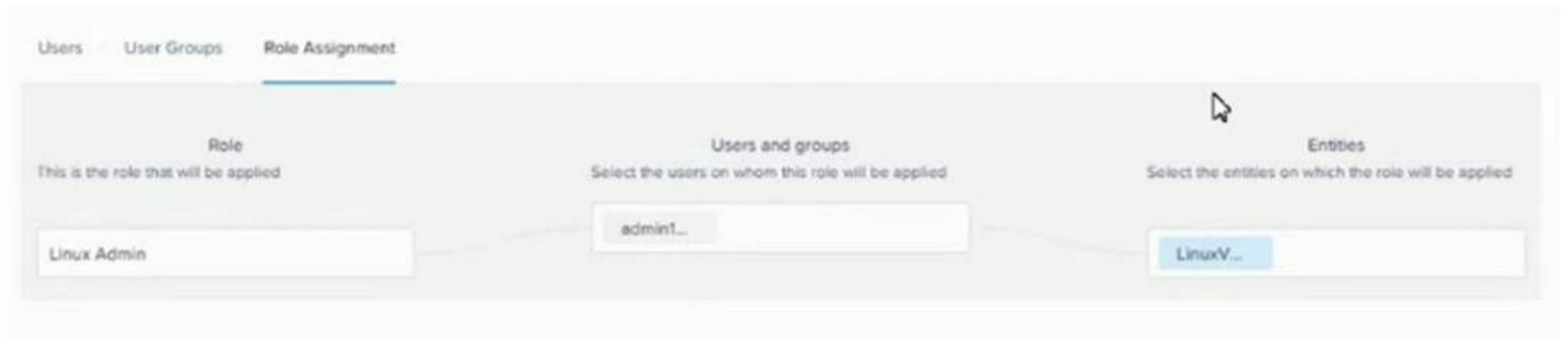
**Explanation:**

A storage policy can be associated with a VM. A storage policy is a set of rules that define how data objects are stored and protected. It specifies the characteristics of storage, data protection, and data placement for virtual disks that are assigned to a VM. Subnets, catalogs, and categories are not associated with storage policies.[https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-vpc\\_2022\\_6:mul-cluster-storage-policy-summary-view-pc-r.html](https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-vpc_2022_6:mul-cluster-storage-policy-summary-view-pc-r.html)

**NEW QUESTION 93**

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 97**

**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	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Select the component to upgrade	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Once the download completes, select Upgrade	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Log into Prism Central	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Select the User login name at the top right of the page	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
On the left, select Upgrade Prism Central	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Click Download	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
On the left under Settings, select Upgrade Software	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>
Log in to Prism Element	<div>▼</div> <div> Step 1  Step 2  Step 3  Step 4  Step 5  Step 6  Invalid Step </div>

- 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 101**

An administrator needs to periodically send information about cluster efficiency via email to a set of users. What should be configured to accomplish this task?

- A. Configure Efficiency widget in Prism Central.
- B. Create a new' prism Central project.
- C. update Capacity Configurations in Prism Central.
- D. Add a schedule to Prism Central reports.

**Answer:** D

**Explanation:**

To periodically send information about cluster efficiency via email to a set of users, the administrator can follow these steps:  
? Create a report in Prism Central that contains the relevant information about cluster efficiency.  
? Add a schedule to the report to generate and send the report via email to the set of users at a specified frequency.  
This will ensure that the users receive regular updates about the cluster efficiency without the need for manual intervention.

**NEW QUESTION 106**

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 storage<sup>1</sup>. This can improve memory utilization and increase VM density on a cluster<sup>1</sup>. 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 overcommit<sup>1</sup>.

**NEW QUESTION 109**

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 113**

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 117

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 119

When creating a VM on an AHV cluster, how is the initial placement of the VM determined?

- A. AHV uses a round robin algorithm, placing new VMs onto hosts based on the numerical order of their UUID
- B. The administrator right clicks on the desired host and selects Power on VM from the dropdown menu
- C. The Acropolis Dynamic Scheduler selects a host which provides adequate resources for the VMs configuration
- D. Placement is determined by the host that holds the new\_VM token at the time of VM creation

**Answer:** C

**Explanation:**

According to section 6 of the exam blueprint guide<sup>1</sup>, one of the topics covered is VM placement options. When creating a new VM on an AHV cluster, there are two ways to determine its initial placement:

? Automatic placement: The Acropolis Dynamic Scheduler (ADS) selects a host that provides adequate resources for the VM's configuration, such as CPU, memory, disk space, and network bandwidth. ADS also considers factors such as host load, power state, availability domains, and affinity rules.

? Manual placement: The administrator can specify a host or a host group where they want to place the VM.

#### NEW QUESTION 123

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 125

An Administrator is working on a one-node ROBO cluster configurations Which statement is true for this configuration?

- A. Witness vm required to break cluster quorum
- B. Supported hardware is NX-1175-G5 and G6
- C. witness vm should be 8vcp and 20gb ram
- D. the minimum RPO 8 hours required

**Answer:** B

**Explanation:**

Reference: <https://www.nutanix.com/blog/unlocking-the-roboedge-it-landscape-with-the-launch-of-nutanix-1-node-cluster>

#### NEW QUESTION 127

How should an administrator configure a custom alert for a specific VM in Prism?

- A. Modify an existing alert to only alert on the specific VM.
- B. Modify VM settings to add the custom alert.
- C. Modify the alerts to add a new custom alert policy.
- D. Modify node settings to add the custom alert.

**Answer:** C

**Explanation:**

<https://portal.nutanix.com/page/documents/details/?targetId=Prism-Central-Guide-Prism-v510:mul-alert-policies-user-defined-configure-pc-c.html>

**NEW QUESTION 131**

What is the minimum time a newly created Deduplication storage policy takes to apply to the VMs in the container?

- A. 5 Minutes
- B. 10 minutes
- C. 30 minutes
- D. 60 minutes

**Answer:** C

**Explanation:**

[https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-vpc\\_2023\\_3:mul-cluster-storage-policy-pc-c.html](https://portal.nutanix.com/page/documents/details?targetId=Prism-Central-Guide-vpc_2023_3:mul-cluster-storage-policy-pc-c.html)

**NEW QUESTION 132**

A cluster has RF2. The cluster loses two drives on different nodes in the same storage tier. What is the effect on the replicas of the VMs?

- A. Some VM data may be lost
- B. No VMs lose data if the node has two or more SSDs
- C. Some VMs may reboot and gain access to data
- D. No VMs lose data because of RF2

**Answer:** A

**Explanation:**

Reference: <https://next.nutanix.com/how-it-works-22/disk-fault-tolerance-8822>

**NEW QUESTION 136**

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