



CompTIA

Exam Questions CV0-003

CompTIA Cloud+ Certification Exam

NEW QUESTION 1

- (Topic 1)

A systems administrator has migrated an internal application to a public cloud. The new web server is running under a TLS connection and has the same TLS certificate as the internal application that is deployed. However, the IT department reports that only internal users who are using new versions of the OSs are able to load the application home page.

Which of the following is the MOST likely cause of the issue?

- A. The local firewall from older OSs is not allowing outbound connections
- B. The local firewall from older OSs is not allowing inbound connections
- C. The cloud web server is using a self-signed certificate that is not supported by older browsers
- D. The cloud web server is using strong ciphers that are not supported by older browsers

Answer: D

Explanation:

Ciphers are algorithms or methods that are used to encrypt and decrypt data for secure communication. Strong ciphers are ciphers that use high-level encryption techniques and keys to provide stronger security and protection for data. The cloud web server is using strong ciphers that are not supported by older browsers is the most likely cause of the issue of only internal users who are using new versions of the OSs being able to load the application home page after the administrator configured a redirect from HTTP to HTTPS on the web server. Older browsers may not support the strong ciphers used by the cloud web server for HTTPS connections, which can result in a failure to establish a secure connection and load the application home page. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 2

SIMULATION - (Topic 1)

The QA team is testing a newly implemented clinical trial management (CTM) SaaS application that uses a business intelligence application for reporting. The UAT users were instructed to use HTTP and HTTPS.

Refer to the application dataflow:

- 1A – The end user accesses the application through a web browser to enter and view clinical data.
- 2A – The CTM application server reads/writes data to/from the database server.
- 1B – The end user accesses the application through a web browser to run reports on clinical data.
- 2B – The CTM application server makes a SOAP call on a non-privileged port to the BI application server.
- 3B – The BI application server gets the data from the database server and presents it to the CTM application server.

When UAT users try to access the application using <https://ctm.app.com> or <http://ctm.app.com>, they get a message stating: "Browser cannot display the webpage." The QA team has raised a ticket to troubleshoot the issue.

INSTRUCTIONS

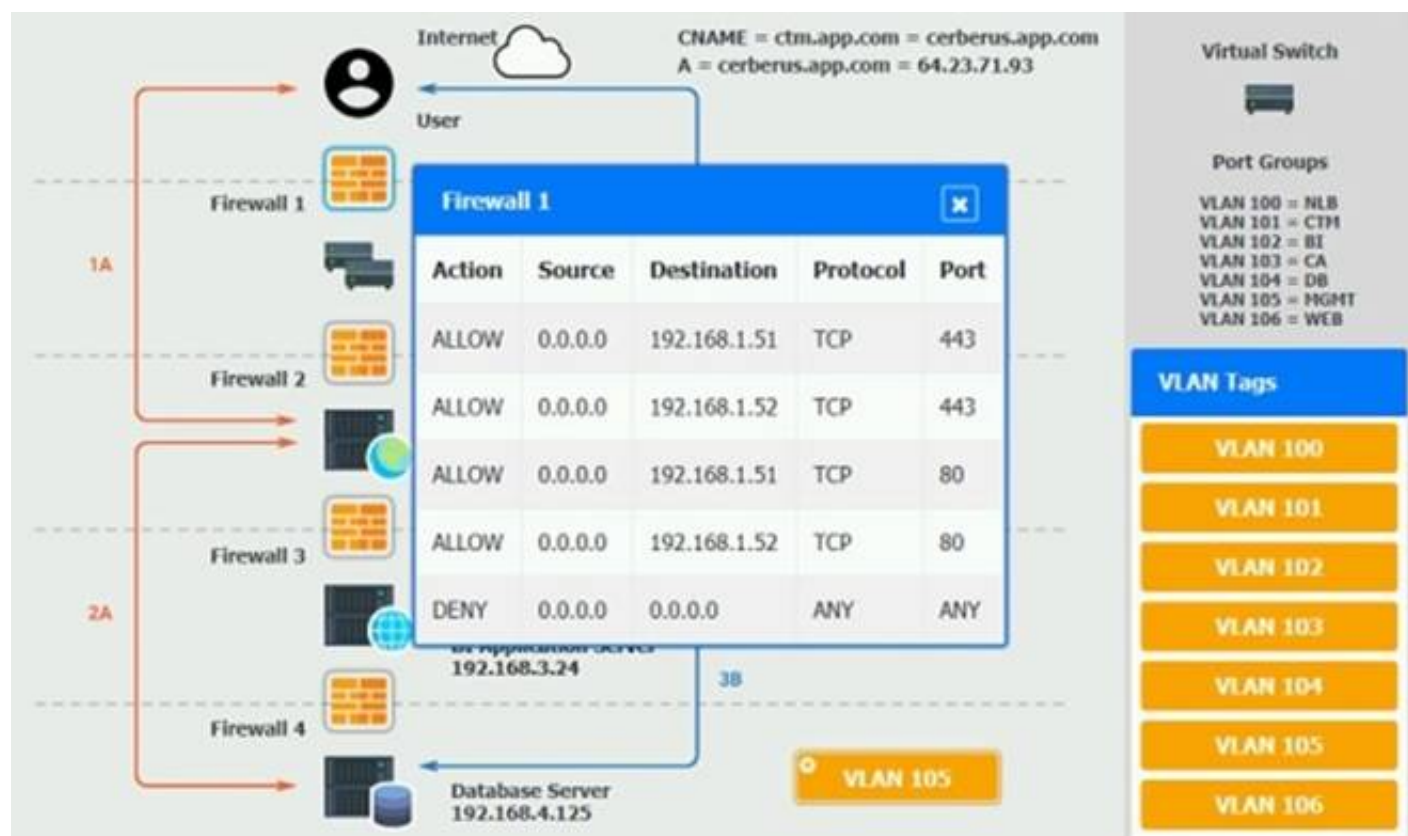
You are a cloud engineer who is tasked with reviewing the firewall rules as well as virtual network settings.

You should ensure the firewall rules are allowing only the traffic based on the dataflow. You have already verified the external DNS resolution and NAT are working.

Verify and appropriately configure the VLAN assignments and ACLs. Drag and drop the appropriate VLANs to each tier from the VLAN Tags table. Click on each Firewall to change ACLs as needed.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.







- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

On firewall 3, change the DENY 0.0.0.0 entry to rule 3 not rule 1.

NEW QUESTION 3

- (Topic 1)

Due to a policy change, a few of a customer's application VMs have been migrated to synchronously replicated storage. The customer now reports that performance is lower. The systems administrator checks the resource usage and discovers CPU utilization is at 60% and available memory is at 30%. Which of the following is the MOST likely cause?

- A. There is not enough vCPU assigned
- B. The application is not compatible with the new settings
- C. The new configuration is adding latency
- D. The memory of the VM is underallocated

Answer: C

Explanation:

Latency is the delay or time taken for data to travel from one point to another in a network or system. Latency can affect the performance of applications and processes that depend on fast and reliable data transfer. Synchronous replication is a method of data replication that ensures that data is written to two or more storage devices at the same time, providing high availability and consistency. However, synchronous replication can also introduce latency, as the write operation has to wait for the confirmation from all the replicated devices before completing. The new configuration of migrating some application VMs to synchronously replicated storage is most likely adding latency, which can lower the performance of the applications. References: [CompTIA Cloud+ Certification Exam Objectives], page 10, section 1.5

NEW QUESTION 4

- (Topic 1)

An SQL injection vulnerability was reported on a web application, and the cloud platform team needs to mitigate the vulnerability while it is corrected by the development team. Which of the following controls will BEST mitigate the risk of exploitation?

- A. DLP
- B. HIDS
- C. NAC
- D. WAF

Answer: D

Explanation:

A web application firewall (WAF) is a type of network security device or software that monitors and filters HTTP traffic between a web application and the Internet. A WAF can help mitigate the risk of exploitation of an SQL injection vulnerability reported on a web application while it is corrected by the development team, as it can detect and block any malicious requests or queries that attempt to inject SQL commands into the web application's database. A WAF can also help protect the web application from other common web-based attacks, such as cross-site scripting (XSS), remote file inclusion (RFI), or denial-of-service (DoS). References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 5

- (Topic 1)

A SAN that holds VM files is running out of storage space. Which of the following will BEST increase the amount of effective storage on the SAN?

- A. Enable encryption
- B. Increase IOPS
- C. Convert the SAN from RAID 50 to RAID 60
- D. Configure deduplication

Answer: D

Explanation:

Deduplication is a type of data compression technique that eliminates redundant or duplicate data blocks or segments in a storage system or device. Configuring deduplication can help increase the amount of effective storage on a SAN that holds VM files and is running out of storage space, as it can reduce the storage space consumption and increase the storage space utilization by storing only unique data blocks or segments. Configuring deduplication can also improve performance and efficiency, as it can speed up data transfer and backup processes and save network bandwidth and power consumption. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 6

- (Topic 1)

The security team for a large corporation is investigating a data breach. The team members are all trying to do the same tasks but are interfering with each other's work. Which of the following did the team MOST likely forget to implement?

- A. Incident type categories
- B. A calling tree
- C. Change management
- D. Roles and responsibilities

Answer: D

Explanation:

Roles and responsibilities are definitions or descriptions of what each team member or stakeholder is expected to do or perform in a project or process. Roles and responsibilities can help clarify the scope, authority, and accountability of each team member or stakeholder and avoid any confusion or duplication of work. The security team most likely forgot to implement roles and responsibilities when investigating a data breach, as they are all trying to do the same tasks but are interfering with each other's work. Implementing roles and responsibilities can help improve efficiency and effectiveness, as it can ensure that each team member or stakeholder knows what tasks they need to do and how they need to coordinate with others. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 7

- (Topic 1)

A systems administrator is deploying a GPU-accelerated VDI solution. Upon requests from several users, the administrator installs an older version of the OS on their virtual workstations. The majority of the VMs run the latest LTS version of the OS.

Which of the following types of drivers will MOST likely ensure compatibility with all virtual workstations?

- A. Alternative community drivers
- B. Legacy drivers
- C. The latest drivers from the vendor's website
- D. The drivers from the OS repository

Answer: D

Explanation:

The drivers from the OS repository are the drivers that are included or available in the official software repository or package manager of the operating system. The drivers from the OS repository are most likely to ensure compatibility with all virtual workstations that use a GPU-accelerated VDI solution, as they are tested and verified to work with different versions of the operating system and the hardware. The drivers from the OS repository can also provide stability and security, as they are regularly updated and patched by the operating system vendor or community. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 8

- (Topic 1)

A company wants to implement business continuity, and the cloud solution architect needs to design the correct solution.

Which of the following will provide the data to measure business continuity? (Choose two.)

- A. A service-level agreement
- B. Automation scripts
- C. Playbooks
- D. A network diagram
- E. A backup and restore
- F. A recovery time objective

Answer: AF

Explanation:

A service-level agreement (SLA) is a contract or document that defines the level of service and performance expected from a service provider or vendor. A recovery time objective (RTO) is a metric that specifies the maximum acceptable time for restoring a system or service after a disruption or outage. Both SLA and RTO can provide the data to measure business continuity, as they can indicate the availability, reliability, and recoverability of a system or service in case of a failure or disaster. SLA and RTO can also help evaluate the effectiveness and efficiency of the business continuity plan and solution. References: CompTIA Cloud+ Certification Exam Objectives, page 20, section 4.2

NEW QUESTION 9

- (Topic 1)

A cloud administrator is switching hosting companies and using the same script that was previously used to deploy VMs in the new cloud. The script is returning errors that the command was not found.

Which of the following is the MOST likely cause of the script failure?

- A. Account mismatches
- B. IP address changes
- C. API version incompatibility
- D. Server name changes

Answer: C

Explanation:

An application programming interface (API) is a set of rules or protocols that defines how different systems or applications can communicate or interact with each other. An API version is a specific iteration or release of an API that may have different features or functionalities than previous or subsequent versions. API version incompatibility is the most likely cause of the script failure when switching hosting companies and using the same script that was previously used to deploy VMs in the new cloud, as it can result in errors or failures when trying to execute commands or functions that are not supported or recognized by the new cloud provider's API version. The issue can be resolved by updating or modifying the script to match the new cloud provider's API version.

References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 10

- (Topic 1)

A cloud administrator has built a new private cloud environment and needs to monitor all computer, storage, and network components of the environment.

Which of the following protocols would be MOST useful for this task?

- A. SMTP
- B. SCP
- C. SNMP
- D. SFTP

Answer: C

Explanation:

Simple Network Management Protocol (SNMP) is a protocol that enables monitoring and managing network devices and components in an IP network. SNMP can help monitor all computer, storage, and network components of a private cloud environment, as it can collect and report information about their status, performance, configuration, and events. SNMP can also help troubleshoot and optimize the private cloud environment, as it can detect and alert any issues or anomalies related to the network devices and components. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 10

- (Topic 1)

A company wants to check its infrastructure and application for security issues regularly. Which of the following should the company implement?

- A. Performance testing
- B. Penetration testing
- C. Vulnerability testing
- D. Regression testing

Answer: C

Explanation:

Vulnerability testing is a type of testing that identifies and evaluates the weaknesses or flaws in a system or application that could be exploited by attackers. Vulnerability testing can help check the infrastructure and application for security issues regularly, as it can reveal the potential risks and exposures that may compromise the confidentiality, integrity, or availability of the system or application. Vulnerability testing can also help remediate or mitigate the vulnerabilities by providing recommendations or solutions to fix or reduce them. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1

Reference: <https://pure.security/services/technical-assurance/external-penetration-testing/>

NEW QUESTION 12

- (Topic 1)

A cloud administrator recently deployed an update to the network drivers of several servers. Following the update, one of the servers no longer responds to remote login requests. The cloud administrator investigates the issue and gathers the following information:

- ? The cloud management console shows the VM is running and the CPU and memory utilization is at or near 0%.
- ? The cloud management console does not show an IP address for that server.
- ? A DNS lookup shows the hostname resolves to an IP address.
- ? The server is a member of the same security group as the others.
- ? The cloud administrator is able to log in remotely to the other servers without issue.

Which of the following is the MOST likely cause of the server being unavailable?

- A. The network driver updates did not apply successfully, and the interface is in a down state.
- B. The ACL policy for the server was updated as part of the server reboot, preventing login access.
- C. The server was assigned a new IP address, and DNS entry for the server name was not updated.
- D. The update caused an increase in the output to the logs, and the server is too busy to respond.

Answer: A

NEW QUESTION 15

- (Topic 1)

A company has developed a cloud-ready application. Before deployment, an administrator needs to select a deployment technology that provides a high level of portability and is lightweight in terms of footprint and resource requirements.

Which of the following solutions will be BEST to help the administrator achieve the requirements?

- A. Containers
- B. Infrastructure as code

- C. Desktop virtualization
- D. Virtual machines

Answer: A

Explanation:

Containers are a type of deployment technology that packages an application and its dependencies into a lightweight and portable unit that can run on any platform or environment. Containers can provide a high level of portability and are lightweight in terms of footprint and resource requirements, as they do not need a full operating system or hypervisor to run. Containers can also enable faster and easier deployment, scaling, and management of cloud-based applications. Containers are the best solution to help the administrator achieve the requirements for deploying a cloud-ready application. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6
Reference: <https://blog.netapp.com/blogs/containers-vs-vms/>

NEW QUESTION 20

- (Topic 1)

A systems administrator is creating a playbook to run tasks against a server on a set schedule.

Which of the following authentication techniques should the systems administrator use within the playbook?

- A. Use the server's root credentials
- B. Hard-code the password within the playbook
- C. Create a service account on the server
- D. Use the administrator's SSO credentials

Answer: C

Explanation:

A service account is a type of user account that is created for a specific service or application to run on a server or system. Creating a service account on the server is the best authentication technique to use within the playbook to run tasks against the server on a set schedule, as it can provide secure and consistent access to the server without exposing or hard-coding any sensitive credentials within the playbook. Creating a service account can also help manage and monitor the tasks and activities performed by the service or application on the server. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 23

- (Topic 1)

A global web-hosting company is concerned about the availability of its platform during an upcoming event. Web traffic is forecasted to increase substantially during the next week. The site contains mainly static content.

Which of the following solutions will assist with the increased workload?

- A. DoH
- B. WAF
- C. IPS
- D. CDN

Answer: D

Explanation:

A content delivery network (CDN) is a distributed network of servers that delivers web content to users based on their geographic location, origin server, and content delivery server. A CDN can assist with the increased workload caused by sudden continuous bursts of traffic, as it can reduce the load on the origin server by caching and serving static content from edge servers closer to the users. A CDN can also improve the performance and availability of web content delivery, as it can reduce latency, bandwidth consumption, and network congestion. References: CompTIA Cloud+ Certification Exam Objectives, page 12, section 2.2
Reference: <https://www.globaldots.com/content-delivery-network-explained>

NEW QUESTION 25

- (Topic 1)

An organization requires the following to be achieved between the finance and marketing departments:

? Allow HTTPS/HTTP.

? Disable FTP and SMB traffic.

Which of the following is the MOST suitable method to meet the requirements?

- A. Implement an ADC solution to load balance the VLAN traffic
- B. Configure an ACL between the VLANs
- C. Implement 802.1X in these VLANs
- D. Configure on-demand routing between the VLANs

Answer: B

Explanation:

An access control list (ACL) is a set of rules that defines which traffic is allowed or denied between different network segments or devices. An ACL can be used to filter traffic based on various criteria, such as source and destination addresses, ports, protocols, and applications. Configuring an ACL between the VLANs of the finance and marketing departments is the most suitable method to meet the requirements of allowing HTTPS/HTTP and disabling FTP and SMB traffic. An ACL can specify which ports and protocols are permitted or blocked between the VLANs, such as allowing port 80 (HTTP) and port 443 (HTTPS), and denying port 21 (FTP) and port 445 (SMB). References: [CompTIA Cloud+ Certification Exam Objectives], page 15, section 2.8

NEW QUESTION 26

- (Topic 1)

A company needs to rehost its ERP system to complete a datacenter migration to the public cloud. The company has already migrated other systems and configured VPN connections.

Which of the following MOST likely needs to be analyzed before rehosting the ERP?

- A. Software

- B. Licensing
- C. Right-sizing
- D. The network

Answer: D

Explanation:

The network is the set of devices, connections, protocols, and configurations that enable communication and data transfer between different systems and applications. The network can affect the rehosting of an ERP system to complete a datacenter migration to the public cloud, as it can influence factors such as bandwidth, latency, availability, security, and compatibility. The network needs to be analyzed before rehosting the ERP system to ensure that the network requirements and specifications are met, the network performance and reliability are maintained or improved, and the network security and integrity are preserved or enhanced. References: CompTIA Cloud+ Certification Exam Objectives, page 18, section 3.5

NEW QUESTION 28

- (Topic 1)

Which of the following is relevant to capacity planning in a SaaS environment?

- A. Licensing
- B. A hypervisor
- C. Clustering
- D. Scalability

Answer: D

Explanation:

Scalability is the ability of a system or service to handle increased workload or demand by adding or removing resources or capacity as needed. Scalability is relevant to capacity planning in a SaaS environment, as it can affect the performance, availability, and cost of the SaaS service. Scalability can help optimize the capacity planning process by ensuring that the SaaS service has enough resources or capacity to meet the current and future needs of the customers without wasting or underutilizing resources or capacity. References: CompTIA Cloud+ Certification Exam Objectives, page 12, section 2.2

NEW QUESTION 31

- (Topic 1)

A cloud administrator is building a new VM for a network security appliance. The security appliance installer says the CPU clock speed does not meet the requirements.

Which of the following will MOST likely solve the issue?

- A. Move the VM to a host with a faster CPU
- B. Add more vCPUs to the VM
- C. Enable CPU masking on the VM
- D. Enable hyperthreading on the virtual host

Answer: A

Explanation:

Moving the VM to a host with a faster CPU is the best way to solve the issue of the security appliance installer saying the CPU clock speed does not meet the requirements when building a new VM for a network security appliance. Moving the VM to a host with a faster CPU can ensure that the VM meets the minimum CPU clock speed requirement for the security appliance, as it can use the physical CPU resources of the host. Moving the VM to a host with a faster CPU can also improve the performance and reliability of the security appliance, as it can reduce latency, contention, and overhead.

References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 32

- (Topic 1)

A systems administrator recently upgraded the processors in a web application host. Upon the next login, the administrator sees a new alert regarding the license being out of compliance.

Which of the following licensing models is the application MOST likely using?

- A. Per device
- B. Per user
- C. Core-based
- D. Volume-based

Answer: C

Explanation:

Core-based licensing is a type of licensing model that charges based on the number of processor cores in a system or server. Core-based licensing is often used by software vendors to align their pricing with the performance and capacity of modern hardware. Core-based licensing can also enable customers to optimize their licensing costs by choosing the appropriate hardware configuration for their needs. Upgrading the processors in a web application host can affect the core-based licensing of the application, as it may increase the number of cores that need to be licensed. This can result in an alert regarding the license being out of compliance if the license is not updated accordingly. References: CompTIA Cloud+ Certification Exam Objectives, page 20, section 4.2

Reference: https://download.microsoft.com/download/3/d/4/3d42bdc2-6725-4b29-b75a-a5b04179958b/percorelicensing_definitions_vlbrief.pdf

NEW QUESTION 37

- (Topic 1)

A systems administrator is provisioning VMs in a cloud environment and has been told to select an OS build with the furthest end-of-life date.

Which of the following OS builds would be BEST for the systems administrator to use?

- A. Open-source
- B. LTS
- C. Canary

- D. Beta
- E. Stable

Answer: B

Explanation:

Long-term support (LTS) is a type of release cycle that provides extended support and maintenance for software products or operating systems. LTS releases typically have longer end-of-life dates than regular releases, as they receive security updates, bug fixes, and patches for several years after their initial release date. LTS releases can also offer higher stability, reliability, and compatibility than regular releases, as they undergo more testing and quality assurance processes before being released. LTS is the best OS build for a systems administrator to use when provisioning VMs in a cloud environment and being told to select an OS build with the furthest end-of-life date. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 40

- (Topic 1)

A company just successfully completed a DR test and is ready to shut down its DR site and resume normal operations. Which of the following actions should the cloud administrator take FIRST?

- A. Initiate a failover
- B. Restore backups
- C. Configure the network
- D. Perform a failback

Answer: D

Explanation:

A failback is a process of restoring or returning a system or service to its original state or location after a failure or disaster recovery event. Performing a failback is the first action that a cloud administrator should take after successfully completing a DR test and being ready to shut down its DR site and resume normal operations, as it can ensure that all data and configurations are synchronized and consistent between the primary site and the DR site before switching back to the primary site. Performing a failback can also help minimize downtime or disruption, as it can verify that all systems or services are functioning properly before resuming normal operations. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 45

- (Topic 2)

A systems administrator is using a configuration management tool to perform maintenance tasks in a system. The tool is leveraging the target system's API to perform these maintenance tasks. After a number of features and security updates are applied to the target system, the configuration management tool no longer works as expected. Which of the following is the MOST likely cause of the issue?

- A. The target system's API functionality has been deprecated
- B. The password for the service account has expired
- C. The IP addresses of the target system have changed
- D. The target system has failed after the updates

Answer: A

Explanation:

The target system's API (Application Programming Interface) functionality has been deprecated is what will most likely cause the issue of configuration management tool no longer working as expected after using it to perform maintenance tasks in a system using its API, and applying features and security updates to it. An API is a set of rules or specifications that defines how different software components or systems can communicate and interact with each other. An API functionality is a feature or function that an API provides or supports, such as methods, parameters, responses, etc. An API functionality can be deprecated when it is no longer maintained or supported by the API provider or developer, and is replaced or removed by a newer or better functionality. The target system's API functionality has been deprecated can cause the issue by making the configuration management tool unable to use or access the API functionality that it relies on to perform maintenance tasks in the system, which may result in errors or failures.

NEW QUESTION 48

- (Topic 2)

A systems administrator is deploying a new cloud application and needs to provision cloud services with minimal effort. The administrator wants to reduce the tasks required for maintenance, such as OS patching, VM and volume provisioning, and autoscaling configurations. Which of the following would be the BEST option to deploy the new application?

- A. A VM cluster
- B. Containers
- C. OS templates
- D. Serverless

Answer: D

Explanation:

Serverless is what would be the best option to deploy a new cloud application and provision cloud services with minimal effort while reducing the tasks required for maintenance such as OS patching, VM and volume provisioning, and autoscaling configurations. Serverless is a cloud service model that provides customers with a platform to run applications or functions without having to manage or provision any underlying infrastructure or resources, such as servers, storage, network, OS, etc. Serverless can provide benefits such as:

? Minimal effort: Serverless can reduce the effort required to deploy a new cloud application and provision cloud services by automating and abstracting away all the infrastructure or resource management or provisioning tasks from customers, and allowing them to focus only on writing code or logic for their applications or functions.

? Reduced maintenance: Serverless can reduce the tasks required for maintenance by handling all the infrastructure or resource maintenance tasks for customers, such as OS patching, VM and volume provisioning, autoscaling configurations, etc., and ensuring that they are always up-to-date and optimized.

NEW QUESTION 49

- (Topic 2)

A cloud architect is reviewing four deployment options for a new application that will be hosted by a public cloud provider. The application must meet an SLA that allows for no more than five hours of downtime annually. The cloud architect is reviewing the SLAs for the services each option will use:

Option A		Option B	
VM servers	99.00%	Container hosting	99.90%
Attached block storage	99.99%	Shared network storage	99.90%
Total uptime	99.00%	Total uptime	99.90%
Option C		Option D	
Container deployment services	99.95%	Container application services	99.99%
Attached block storage	99.99%	Shared network storage	99.99%
Total uptime	99.95%	Total uptime	99.99%

Based on the information above, which of the following minimally complies with the SLA requirements?

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Answer: B

Explanation:

Option B is what minimally complies with the SLA (Service Level Agreement) requirements of allowing for no more than five hours of downtime annually for a new application that will be hosted by a public cloud provider. An SLA is a contract or agreement that defines the level of service or performance that a customer expects from a provider, such as availability, reliability, scalability, security, etc. An SLA can help to measure and monitor the quality and satisfaction of service or performance, as well as identify any penalties or rewards for meeting or failing to meet the SLA. Option B minimally complies with the SLA requirements by using services that have availability percentages that are equal to or higher than 99.95%, which translates to no more than five hours of downtime annually. Option B uses services such as:

? Compute: This is a service that provides computing resources such as servers, processors, memory, etc., to run applications or functions. Option B uses compute service with availability percentage of 99.95%, which means that it guarantees to be available for 99.95% of the time in a year, and allows for no more than five hours of downtime in a year.

? Storage: This is a service that provides storage resources such as disks, volumes, files, etc., to store data or information. Option B uses storage service with availability percentage of 99.99%, which means that it guarantees to be available for 99.99% of the time in a year, and allows for no more than one hour of downtime in a year.

? Database: This is a service that provides database resources such as tables, records, queries, etc., to store and retrieve data or information. Option B uses database service with availability percentage of 99.95%, which means that it guarantees to be available for 99.95% of the time in a year, and allows for no more than five hours of downtime in a year.

NEW QUESTION 52

- (Topic 2)

A company is concerned about the security of its data repository that contains customer PII. A systems administrator is asked to deploy a security control that will prevent the exfiltration of such data. Which of the following should the systems administrator implement?

- A. DLP
- B. WAF
- C. FIM
- D. ADC

Answer: A

Explanation:

Reference: <https://cloud.google.com/blog/products/identity-security/4-steps-to-stop-data-exfiltration-with-google-cloud>

Implementing DLP (Data Loss Prevention) is the best solution to prevent the exfiltration of customer PII (Personally Identifiable Information) from a data repository. DLP is a security control that monitors, detects, and blocks sensitive data from leaving or being accessed by unauthorized parties. DLP can be applied at different levels, such as network, endpoint, storage, or cloud. DLP can help to protect customer PII from being leaked, stolen, or compromised.

NEW QUESTION 54

- (Topic 2)

After announcing a big sales promotion, an e-commerce company starts to experience a slow response on its platform that is hosted in a public cloud. When checking the resources involved, the systems administrator sees the following consumption:

VM	Memory used	CPU used	Network used
webserver01	89%	98%	12%
appserver01	45%	43%	13%
appserver02	43%	44%	15%
database01	55%	50%	60%

Considering all VMs were built from the same templates, which of the following actions should the administrator perform FIRST to speed up the response of the e-commerce platform?

- A. Spin up a new web server
- B. Spin up a new application server
- C. Add more memory to the web server
- D. Spin up a new database server

Answer: D

Explanation:

Spinning up a new web server is what the administrator should perform first to speed up the response of the e-commerce platform that is hosted in a public cloud and starts to experience a slow response after announcing a big sales promotion. A web server is a system or service that hosts and delivers web content, such as web pages, images, videos, etc., to clients over a network or internet connection. A web server can affect the response of an e-commerce platform by determining how fast it can process and serve web requests or responses from clients. Spinning up a new web server can speed up the response of an e-commerce platform by providing benefits such as:

? Scalability: Spinning up a new web server can increase the scalability of the e-commerce platform by adding more capacity or resources to handle the increased demand or load caused by the sales promotion, without affecting the existing web servers.

? Performance: Spinning up a new web server can improve the performance of the e-commerce platform by reducing the latency or overhead of processing and serving web requests or responses from clients, which may cause delays or errors.

NEW QUESTION 59

- (Topic 2)

A cloud administrator is building a new VM for machine-learning training. The developer requesting the VM has stated that the machine will need a full GPU dedicated to it.

Which of the following configuration options would BEST meet this requirement?

- A. Virtual GPU
- B. External GPU
- C. Passthrough GPU
- D. Shared GPU

Answer: C

Explanation:

Reference: <https://blogs.vmware.com/apps/2018/09/using-gpus-with-virtual-machines-on-vsphere-part-2-vmdirectpath-i-o.html>

Passthrough GPU is a configuration option that allows a VM to access a physical GPU directly without any virtualization layer or sharing mechanism. This provides the VM with full and exclusive access to the GPU resources and performance. Passthrough GPU is suitable for applications that require intensive graphics processing or machine learning training.

NEW QUESTION 61

- (Topic 2)

A cloud administrator is reviewing the annual contracts for all hosted solutions. Upon review of the contract for the hosted mail solution, the administrator notes the monthly subscription rate has increased every year. The provider has been in place for ten years, and there is a large amount of data being hosted. Which of the following is a barrier to switching providers?

- A. Service-level agreement
- B. Vendor lock-in
- C. Memorandum of understanding
- D. Encrypted data

Answer: B

Explanation:

Vendor lock-in is a barrier to switching providers for a hosted mail solution that has increased its monthly subscription rate every year. Vendor lock-in is a situation where a customer becomes dependent on a vendor or provider for a product or service and faces difficulties or costs in switching to another vendor or provider. Vendor lock-in can occur due to various factors, such as proprietary technology, contractual obligations, data migration challenges, compatibility issues, etc. In this case, the customer may face vendor lock-in due to the large amount of data being hosted by the mail provider and the potential challenges or costs of transferring or migrating the data to another provider.

NEW QUESTION 66

- (Topic 2)

A cloud administrator has been using a custom VM deployment script. After three months of use, the script no longer joins the LDAP domain. The cloud administrator verifies the account has the correct permissions. Which of the following is the MOST likely cause of the failure?

- A. Incorrect encryption ciphers
- B. Broken trust relationship
- C. Invalid certificates
- D. Expired password

Answer: D

Explanation:

An expired password is the most likely cause of the failure of a custom VM deployment script that no longer joins the LDAP domain. LDAP (Lightweight Directory Access Protocol) is a protocol that allows access and management of directory services, such as user accounts, groups, permissions, etc., over a network. LDAP can be used to authenticate and authorize users or devices to access network resources or systems. An expired password is a password that has reached its validity period and needs to be changed or renewed. An expired password can prevent users or devices from joining or accessing an LDAP domain, as it may indicate that the account is inactive, compromised, or outdated.

NEW QUESTION 67

- (Topic 2)

A systems administrator has been asked to restore a VM from backup without changing the current VM's operating state. Which of the following restoration methods would BEST fit this scenario?

- A. Alternate location
- B. Rolling
- C. Storage live migration

D. In-place

Answer: C

Explanation:

Storage live migration is the best restoration method to restore a VM from backup without changing the current VM's operating state. Storage live migration is a process of moving or transferring storage resources or data from one location to another without affecting or interrupting the operation or performance of the VMs that use them. Storage live migration can help to restore a VM from backup by copying the backup data to a new storage location and switching the VM's storage configuration to point to the new location, without requiring any downtime or reboot.

NEW QUESTION 71

- (Topic 2)

Some VMs that are hosted on a dedicated host server have each been allocated with 32GB of memory. Some of VMs are not utilizing more than 30% of the allocation. Which of the following should be enabled to optimize the memory utilization?

- A. Auto-scaling of compute
- B. Oversubscription
- C. Dynamic memory allocations on guests
- D. Affinity rules in the hypervisor

Answer: C

Explanation:

Enabling dynamic memory allocations on guests is the best option to optimize memory utilization for VMs that have been allocated with 32GB of memory but are not utilizing more than 30% of it. Dynamic memory allocation is a feature that allows a VM to adjust its memory usage according to its workload and demand, without requiring a reboot or manual intervention. Dynamic memory allocation can help to improve memory utilization and efficiency by allocating more memory to VMs that need it and releasing memory from VMs that do not need it.

NEW QUESTION 75

- (Topic 2)

Users of an enterprise application, which is configured to use SSO, are experiencing slow connection times. Which of the following should be done to troubleshoot the issue?

- A. Perform a memory dump of the O
- B. Analyze the memory dump.Upgrade the host CPU to a higher clock speed CPU.
- C. Perform a packet capture during authenticatio
- D. Validate the load-balancing configuration.Analyze the network throughput of the load balancer.
- E. Analyze the storage system IOP
- F. Increase the storage system capacit
- G. Replace the storage system disks to SS
- H. Evaluate the OS ACL
- I. Upgrade the router firmware.Increase the memory of the router.

Answer: B

Explanation:

These are the steps that should be done to troubleshoot the issue of slow connection times for users of an enterprise application that is configured to use SSO (Single Sign-On). SSO is a feature that allows users to access multiple applications or services with one login credential, without having to authenticate separately for each application or service. SSO can improve user experience and security, but it may also introduce performance issues if not configured properly. To troubleshoot the issue, the administrator should perform a packet capture during authentication to analyze the network traffic and identify any delays or errors in the SSO process. The administrator should also validate the load-balancing configuration to ensure that the SSO requests are distributed evenly and efficiently among the available servers or instances. The administrator should also analyze the network throughput of the load balancer to check if there is any congestion or bottleneck that may affect the SSO performance.

NEW QUESTION 76

- (Topic 2)

Users are experiencing slow response times from an intranet website that is hosted on a cloud platform. There is a site-to-site VPN connection to the cloud provider over a link of 100Mbps.

Which of the following solutions will resolve the issue the FASTEST?

- A. Change the connection to point-to-site VPN
- B. Order a direct link to the provider
- C. Enable quality of service
- D. Upgrade the link to 200Mbps

Answer: B

Explanation:

Ordering a direct link to the provider is the fastest solution to resolve the issue of slow response times from an intranet website that is hosted on a cloud platform. A direct link is a dedicated, high-bandwidth, low-latency connection between the customer's network and the cloud provider's network. It bypasses the public internet and provides better performance, security, and reliability. Examples of direct links are AWS Direct Connect, Azure ExpressRoute, Google Cloud Interconnect, etc.

NEW QUESTION 77

- (Topic 2)

A systems administrator is configuring updates on a system. Which of the following update branches should the administrator choose to ensure the system receives updates that are maintained for at least four years?

- A. LTS

- B. Canary
- C. Beta
- D. Stable

Answer: A

Explanation:

LTS (Long Term Support) is the update branch that the administrator should choose to ensure the system receives updates that are maintained for at least four years. An update branch is a category or group of updates that have different characteristics or features, such as frequency, stability, duration, etc. An update branch can help customers to choose the type of updates that suit their needs and preferences. LTS is an update branch that provides updates that are stable, reliable, and secure, and are supported for a long period of time, usually four years or more. LTS can help customers who value stability and security over new features or functions, and who do not want to change or upgrade their systems frequently.

NEW QUESTION 78

- (Topic 2)

Which of the following cloud services is fully managed?

- A. IaaS
- B. GPU in the cloud
- C. IoT
- D. Serverless compute
- E. SaaS

Answer: E

Explanation:

SaaS (Software as a Service) is a cloud service model that provides fully managed applications to the end users. The users do not have to worry about installing, updating, or maintaining the software, as the cloud provider handles all these tasks. Examples of SaaS are Gmail, Office 365, Salesforce, etc.

NEW QUESTION 81

- (Topic 2)

A technician just received the lessons learned from some recent data that was lost due to an on-premises file-server crash. The action point is to change the backup strategy to minimize manual intervention. Which of the following is the BEST approach for the technician to implement?

- A. Backup as a service
- B. RAID 1
- C. Long-term storage
- D. New backup devices

Answer: A

Explanation:

Backup as a service (BaaS) is the best approach for changing the backup strategy to minimize manual intervention after a data loss due to an on-premises file-server crash. BaaS is a cloud-based service that provides backup and recovery solutions for customers' data and systems. BaaS can automate and simplify backup processes by using cloud storage, encryption, deduplication, compression, scheduling, etc., without requiring customers to purchase or maintain backup hardware or software.

NEW QUESTION 86

- (Topic 2)

A system administrator is migrating a bare-metal server to the cloud. Which of the following types of migration should the systems administrator perform to accomplish this task?

- A. V2V
- B. V2P
- C. P2P
- D. P2V

Answer: D

Explanation:

P2V (Physical to Virtual) is a type of migration that converts a physical server into a virtual machine (VM). P2V migration can help to move a bare-metal server to the cloud by creating an image of its disk and configuration and uploading it to a cloud platform that supports VM creation from custom images.

NEW QUESTION 88

- (Topic 2)

A cloud administrator is setting up a new coworker for API access to a public cloud environment. The administrator creates a new user and gives the coworker access to a collection of automation scripts. When the coworker attempts to use a deployment script, a 403 error is returned. Which of the following is the MOST likely cause of the error?

- A. Connectivity to the public cloud is down.
- B. User permissions are not correct.
- C. The script has a configuration error.
- D. Oversubscription limits have been exceeded.

Answer: B

Explanation:

User permissions are not correct is the most likely cause of the error 403 (Forbidden) that is returned when a coworker attempts to use a deployment script after

being set up for API access to a public cloud environment by an administrator. API (Application Programming Interface) is a set of rules or specifications that defines how different software components or systems can communicate and interact with each other. API access is the ability to use or access an API to perform certain actions or tasks on a software component or system. User permissions are the settings or policies that control and restrict what users can do or access on a software component or system. User permissions can affect API access by determining what actions or tasks users can perform using an API on a software component or system. User permissions are not correct if they do not match or align with the intended or expected actions or tasks that users want to perform using an API on a software component or system. User permissions are not correct can cause error 403 (Forbidden), which means that the user does not have the necessary permission or authorization to perform the requested action or task using an API on a software component or system.

NEW QUESTION 93

- (Topic 2)

A systems administrator swapped a failed hard drive on a server with a RAID 5 array. During the RAID resynchronization, a second hard drive failed. Which of the following actions will make the server fully operational?

- A. Restart the RAID resynchronization process
- B. Perform a P2V migration of the server
- C. Swap the failed hard drive with a fresh one
- D. Restore the server from backup

Answer: D

Explanation:

RAID 5 is a disk array configuration that uses parity to provide fault tolerance and data recovery. RAID 5 can tolerate the failure of one disk, but not two or more disks. If a second disk fails during the resynchronization process, the data on the RAID 5 array will be lost and unrecoverable. The only way to make the server fully operational is to restore the data from a backup source.

NEW QUESTION 94

- (Topic 2)

A systems administrator is configuring network management but is concerned about confidentiality. Which of the following should the administrator configure to address this concern?

- A. SNMPv3
- B. Community strings
- C. IPSec tunnels
- D. ACLs

Answer: A

Explanation:

SNMPv3 is the protocol that the administrator should configure to address the concern about confidentiality for network management. SNMP (Simple Network Management Protocol) is a standard protocol that allows network devices and systems to exchange information and perform management tasks. SNMPv3 is the latest version of SNMP that provides security enhancements, such as authentication, encryption, and access control, to protect the confidentiality, integrity, and availability of network data.

NEW QUESTION 95

- (Topic 2)

A systems administrator has finished installing monthly updates to servers in a cloud environment. The administrator notices certain portions of the playbooks are no longer functioning. Executing the playbook commands manually on a server does not work as well. There are no other reports of issues. Which of the following is the MOST likely cause of this issue?

- A. Change management failure
- B. Service overload
- C. Patching failure
- D. Job validation issues
- E. Deprecated features

Answer: E

Explanation:

Deprecated features are features that are no longer supported or recommended by the software vendor or provider. They may be removed or replaced by newer features in future updates or versions. If a playbook relies on deprecated features, it may stop functioning after an update or patch is applied to the software. The administrator should check the release notes or documentation of the software to identify and replace any deprecated features in the playbook.

NEW QUESTION 99

- (Topic 2)

A VDI administrator has received reports from the drafting department that rendering is slower than normal. Which of the following should the administrator check FIRST to optimize the performance of the VDI infrastructure?

- A. GPU
- B. CPU
- C. Storage
- D. Memory

Answer: A

Explanation:

Checking the GPU (Graphics Processing Unit) is the first thing that the VDI administrator should do to optimize the performance of the VDI infrastructure for rendering tasks. GPU is a specialized hardware device that accelerates graphics processing and rendering. GPU can improve the user experience and performance of VDI applications that require intensive graphics processing, such as drafting, gaming, video editing, etc.

NEW QUESTION 101

- (Topic 2)

A technician is trying to delete six decommissioned VMs. Four VMs were deleted without issue. However, two of the VMs cannot be deleted due to an error. Which of the following would MOST likely enable the technician to delete the VMs?

- A. Remove the snapshots
- B. Remove the VMs' IP addresses
- C. Remove the VMs from the resource group
- D. Remove the lock from the two VMs

Answer: D

Explanation:

Removing the lock from the two VMs is what would most likely enable the technician to delete the VMs that cannot be deleted due to an error. A lock is a feature that prevents certain actions or operations from being performed on a resource or service, such as deleting, modifying, moving, etc. A lock can help to protect a resource or service from accidental or unwanted changes or removals. Removing the lock from the two VMs can enable the technician to delete them by allowing the delete action or operation to be performed on them.

NEW QUESTION 103

- (Topic 2)

A systems administrator is working in a globally distributed cloud environment. After a file server VM was moved to another region, all users began reporting slowness when saving files. Which of the following is the FIRST thing the administrator should check while troubleshooting?

- A. Network latency
- B. Network connectivity
- C. Network switch
- D. Network peering

Answer: A

Explanation:

Network latency is the first thing that the administrator should check while troubleshooting slowness when saving files after a file server VM was moved to another region in a globally distributed cloud environment. Network latency is a measure of how long it takes for data to travel from one point to another over a network or connection. Network latency can affect performance and user experience of cloud applications or services by determining how fast data can be transferred or processed between clients and servers or vice versa. Network latency can vary depending on various factors, such as distance, bandwidth, congestion, interference, etc. Network latency can increase when a file server VM is moved to another region in a globally distributed cloud environment, as it may increase the distance and decrease the bandwidth between clients and servers, which may result in delays or errors in data transfer or processing.

NEW QUESTION 105

- (Topic 2)

A cloud administrator is assigned to establish a connection between the on-premises data center and the new CSP infrastructure. The connection between the two locations must be secure at all times and provide service for all users inside the organization. Low latency is also required to improve performance during data transfer operations. Which of the following would BEST meet these requirements?

- A. A VPC peering configuration
- B. An IPSec tunnel
- C. An MPLS connection
- D. A point-to-site VPN

Answer: B

Explanation:

An IPSec tunnel is what would best meet the requirements of establishing a connection between the on-premises data center and the new CSP infrastructure that is secure at all times and provides service for all users inside the organization with low latency. IPSec (Internet Protocol Security) is a protocol that encrypts and secures network traffic over IP networks. IPSec tunnel is a mode of IPSec that creates a virtual private network (VPN) tunnel between two endpoints, such as routers, firewalls, gateways, etc., and encrypts and secures all traffic that passes through it. An IPSec tunnel can meet the requirements by providing:

? Security: An IPSec tunnel can protect network traffic from interception, modification, spoofing, etc., by using encryption, authentication, integrity, etc., mechanisms.

? Service: An IPSec tunnel can provide service for all users inside the organization by allowing them to access and use network resources or services on both ends of the tunnel, regardless of their physical location.

? Low latency: An IPSec tunnel can provide low latency by reducing the number of hops or devices that network traffic has to pass through between the endpoints of the tunnel.

NEW QUESTION 106

- (Topic 2)

A systems administrator is trying to reduce storage consumption. Which of the following file types would benefit the MOST from compression?

- A. System files
- B. User backups
- C. Relational database
- D. Mail database

Answer: B

Explanation:

User backups are the file type that would benefit the most from compression to reduce storage consumption. Compression is a process of reducing the size of data by removing redundant or unnecessary information or using algorithms to encode data more efficiently. Compression can save storage space and bandwidth, but it may also affect the quality or performance of data depending on the compression method and ratio. User backups are typically large files that contain various types of data, such as documents, images, videos, etc., that can be compressed without significant loss of quality or functionality.

NEW QUESTION 110

- (Topic 2)

A resource pool in a cloud tenant has 90 GB of memory and 120 cores. The cloud administrator needs to maintain a 30% buffer for resources for optimal performance of the hypervisor. Which of the following would allow for the maximum number of two-core machines with equal memory?

- A. 30 VMs, 3GB of memory
- B. 40 VMs, 1,5GB of memory
- C. 45 VMs, 2 GB of memory
- D. 60 VMs, 1 GB of memory

Answer: C

Explanation:

To calculate the maximum number of two-core machines with equal memory, we need to consider the resource pool capacity and the buffer requirement. The resource pool has 90 GB of memory and 120 cores, but the cloud administrator needs to maintain a 30% buffer for optimal performance. This means that only 70% of the resources can be used for VM allocation. Therefore, the available memory is $90 \text{ GB} \times 0.7 = 63 \text{ GB}$, and the available cores are $120 \times 0.7 = 84 \text{ cores}$. To allocate two-core machines with equal memory, we need to divide the available memory by the available cores and multiply by two. This gives us the memory size per VM: $(63 \text{ GB} / 84 \text{ cores}) \times 2 = 1.5 \text{ GB}$. However, this is not a valid answer option, so we need to find the closest option that does not exceed the available resources. The best option is C, which allocates 45 VMs with 2 GB of memory each. This uses up $45 \times 2 = 90 \text{ GB}$ of memory and $45 \times 2 = 90 \text{ cores}$, which are within the available limits.

NEW QUESTION 111

- (Topic 2)

A company wants to move its environment from on premises to the cloud without vendor lock-in. Which of the following would BEST meet this requirement?

- A. DBaaS
- B. SaaS
- C. IaaS
- D. PaaS

Answer: C

Explanation:

IaaS (Infrastructure as a Service) is what would best meet the requirement of moving an environment from on premises to the cloud without vendor lock-in. Vendor lock-in is a situation where customers become dependent on or tied to a specific vendor or provider for their products or services, and face difficulties

NEW QUESTION 112

- (Topic 2)

An organization suffered a critical failure of its primary datacenter and made the decision to switch to the DR site. After one week of using the DR site, the primary datacenter is now ready to resume operations.

Which of the following is the MOST efficient way to bring the block storage in the primary datacenter up to date with the DR site?

- A. Set up replication.
- B. Copy the data across both sites.
- C. Restore incremental backups.
- D. Restore full backups.

Answer: A

Explanation:

Reference: <https://www.ibm.com/docs/en/cloud-pak-system-w3550/2.3.3?topic=system-administering-block-storage-replication>

Setting up replication is the most efficient way to bring the block storage in the primary datacenter up to date with the DR site after a critical failure. Replication is a process of copying data from one location to another in real-time or near real-time. Replication can be synchronous or asynchronous, depending on the latency and bandwidth requirements. Replication can ensure data consistency and availability across multiple sites and facilitate faster recovery.

NEW QUESTION 115

- (Topic 2)

An engineer is responsible for configuring a new firewall solution that will be deployed in a new public cloud environment. All traffic must pass through the firewall. The SLA for the firewall is 99.999%. Which of the following should be deployed?

- A. Two load balancers behind a single firewall
- B. Firewalls in a blue-green configuration
- C. Two firewalls in a HA configuration
- D. A web application firewall

Answer: C

Explanation:

Deploying two firewalls in a HA (High Availability) configuration is the best option to ensure all traffic passes through the firewall and meets the SLA (Service Level Agreement) of 99.999%. HA is a design principle that aims to minimize downtime and ensure continuous operation of a system or service. HA can be achieved by using redundancy, failover, load balancing, clustering, etc. Two firewalls in a HA configuration can provide redundancy and failover in case one firewall fails or becomes overloaded.

NEW QUESTION 117

- (Topic 2)

Which of the following would be the BEST option for discussion of what individuals should do in an incident response or disaster recovery scenario?

- A. A business continuity plan
- B. Incident response/disaster recovery documentation

- C. A tabletop exercise
- D. A root cause analysis

Answer: C

Explanation:

A tabletop exercise is the best option for discussion of what individuals should do in an incident response or disaster recovery scenario. A tabletop exercise is a simulated scenario that involves key stakeholders and decision-makers who review and discuss their roles and responsibilities in response to an emergency situation or event. A tabletop exercise can help to test and evaluate plans, procedures, policies, training, and communication.

NEW QUESTION 122

- (Topic 2)

A cloud provider wants to make sure consumers are utilizing its IaaS platform but prevent them from installing a hypervisor on the server. Which of the following will help the cloud provider secure the environment and limit consumers' activity?

- A. Patch management
- B. Hardening
- C. Scaling
- D. Log and event monitoring

Answer: B

Explanation:

Hardening is the best option to help the cloud provider secure the environment and limit consumers' activity on its IaaS platform. Hardening is a process of reducing the attack surface and vulnerabilities of a system or device by applying security configurations, patches, updates, policies, rules, etc. Hardening can prevent consumers from installing unauthorized or unsupported software on their cloud servers, such as hypervisors.

NEW QUESTION 127

- (Topic 2)

A systems administrator is deploying a VM and would like to minimize storage utilization by ensuring the VM uses only the storage it needs. Which of the following will BEST achieve this goal?

- A. Compression
- B. Deduplication
- C. RAID
- D. Thin provisioning

Answer: D

Explanation:

Reference: https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-4C0F4D73-82F2-4B81-8AA7-1DD752A8A5AC.html
Thin provisioning is the technique that will minimize storage utilization by ensuring the VM uses only the storage it needs. Thin provisioning is a storage allocation method that assigns disk space to a VM on demand, rather than in advance. Thin provisioning can improve storage utilization and efficiency by avoiding overprovisioning and wasting disk space. Thin provisioning can also allow for more flexibility and scalability of storage resources.

NEW QUESTION 131

- (Topic 2)

A company is preparing a hypervisor environment to implement a database cluster. One of the requirements is to share the disks between the nodes of the cluster to access the same LUN. Which of the following protocols should the company use? (Choose two.)

- A. CIFS
- B. FTP
- C. iSCSI
- D. RAID 10
- E. NFS
- F. FC

Answer: CF

Explanation:

These are the protocols that should be used to share the disks between the nodes of a database cluster to access the same LUN (Logical Unit Number). A LUN is an identifier that represents a logical unit of storage, such as a disk, partition, volume, etc., that can be accessed by a host system or device. To share the disks between the nodes of a cluster, the following protocols can be used:

? iSCSI (Internet Small Computer System Interface): This is a protocol that allows SCSI commands to be sent over IP networks. iSCSI can enable block-level storage access over a network, which means that the host system or device can access the storage as if it were a local disk.

? FC (Fibre Channel): This is a protocol that provides high-speed and low-latency data transfer over optical fiber cables. FC can also enable block-level storage access over a network, which means that the host system or device can access the storage as if it were a local disk.

NEW QUESTION 132

- (Topic 2)

An administrator recently provisioned a file server in the cloud. Based on financial considerations, the administrator has a limited amount of disk space. Which of the following will help control the amount of space that is being used?

- A. Thick provisioning
- B. Software-defined storage
- C. User quotas
- D. Network file system

Answer: C

Explanation:

User quotas are what will help control the amount of space that is being used by a file server in the cloud that has a limited amount of disk space due to financial considerations. User quotas are the limits or restrictions that are imposed on the amount of space that each user can use or consume on a file server or storage device. User quotas can help to control the amount of space that is being used by:

- ? Preventing or reducing wastage or overuse of space by users who may store unnecessary or redundant files or data on the file server or storage device.
- ? Ensuring fair and equal distribution or allocation of space among users who may have different needs or demands for space on the file server or storage device.
- ? Monitoring and managing the usage or consumption of space by users who may need to be notified or alerted when they reach or exceed their quota on the file server or storage device.

NEW QUESTION 133

- (Topic 2)

Users of a public website that is hosted on a cloud platform are receiving a message indicating the connection is not secure when landing on the website. The administrator has found that only a single protocol is opened to the service and accessed through the URL <https://www.comptiasite.com>. Which of the following would MOST likely resolve the issue?

- A. Renewing the expired certificate
- B. Updating the web-server software
- C. Changing the crypto settings on the web server
- D. Upgrading the users' browser to the latest version

Answer: A

Explanation:

Renewing the expired certificate is what would most likely resolve the issue of users receiving a message indicating the connection is not secure when landing on a website that is hosted on a cloud platform and accessed through <https://www.comptiasite.com>. A certificate is a digital document that contains information such as identity, public key, expiration date, etc., that can be used to prove one's identity and establish secure communication over a network. A certificate can expire when it reaches its validity period and needs to be renewed or replaced. An expired certificate can cause users to receive a message indicating the connection is not secure by indicating that the website's identity or security cannot be verified or trusted. Renewing the expired certificate can resolve the issue by extending its validity period and restoring its identity or security verification or trust.

NEW QUESTION 137

- (Topic 2)

A company recently experienced a power outage that lasted 30 minutes. During this time, a whole rack of servers was inaccessible, even though the servers did not lose power.

Which of the following should be investigated FIRST?

- A. Server power
- B. Rack power
- C. Switch power
- D. SAN power

Answer: C

Explanation:

If a whole rack of servers was inaccessible during a power outage, even though the servers did not lose power, it is likely that the switch that connects them to the network lost power. Without network connectivity, the servers would not be able to communicate with other devices or services. The administrator should investigate the switch power source and ensure it has a backup power supply or UPS.

NEW QUESTION 139

- (Topic 2)

A systems administrator is about to deploy a new VM to a cloud environment. Which of the following will the administrator MOST likely use to select an address for the VM?

- A. CDN
- B. DNS
- C. NTP
- D. IPAM

Answer: D

Explanation:

IPAM (IP Address Management) is what the administrator will most likely use to select an address for the new VM that is about to be deployed to a cloud environment. IPAM is a tool or service that allows customers to plan, track, and manage the IP addresses and DNS names of their cloud resources or systems. IPAM can help to select an address for the new VM by providing information such as available IP addresses, IP address ranges, subnets, domains, etc., as well as ensuring that the address is unique and valid.

NEW QUESTION 140

- (Topic 2)

A cloud administrator set up a link between the private and public cloud through a VPN tunnel. As part of the migration, a large set of files will be copied. Which of the following network ports are required from a security perspective?

- A. 22, 53, 445
- B. 22, 443, 445
- C. 25, 123, 443
- D. 137, 139, 445

Answer: B

Explanation:

These are the network ports that are required from a security perspective to copy a large set of files between the private and public cloud through a VPN tunnel. A VPN (Virtual Private Network) tunnel is a secure and encrypted connection that allows data to be transferred between two networks or locations over the public internet. To copy files between the private and public cloud, the following ports are needed:

? Port 22: This is the port used by SSH (Secure Shell) protocol, which is a method of remotely accessing and managing cloud resources or systems using a command-line interface. SSH can also be used to securely transfer files using SCP (Secure Copy Protocol) or SFTP (SSH File Transfer Protocol).

? Port 443: This is the port used by HTTPS (Hypertext Transfer Protocol Secure), which is a protocol that encrypts and secures web traffic. HTTPS can also be used to transfer files using web browsers or tools such as curl or wget.

? Port 445: This is the port used by SMB (Server Message Block) protocol, which is a protocol that allows file sharing and access over a network. SMB can also be used to transfer files using tools such as robocopy or rsync.

NEW QUESTION 142

SIMULATION - (Topic 1)

A company has decided to scale its e-commerce application from its corporate datacenter to a commercial cloud provider to meet an anticipated increase in demand during an upcoming holiday.

The majority of the application load takes place on the application server under normal conditions. For this reason, the company decides to deploy additional application servers into a commercial cloud provider using the on-premises orchestration engine that installs and configures common software and network configurations.

The remote computing environment is connected to the on-premises datacenter via a site-to-site IPsec tunnel. The external DNS provider has been configured to use weighted round-robin routing to load balance connections from the Internet.

During testing, the company discovers that only 20% of connections completed successfully.

INSTRUCTIONS

Review the network architecture and supporting documents and fulfill these requirements: Part 1:

- _ Analyze the configuration of the following components: DNS, Firewall 1, Firewall 2, Router 1, Router 2, VPN and Orchestrator Server.
- _ Identify the problematic device(s).

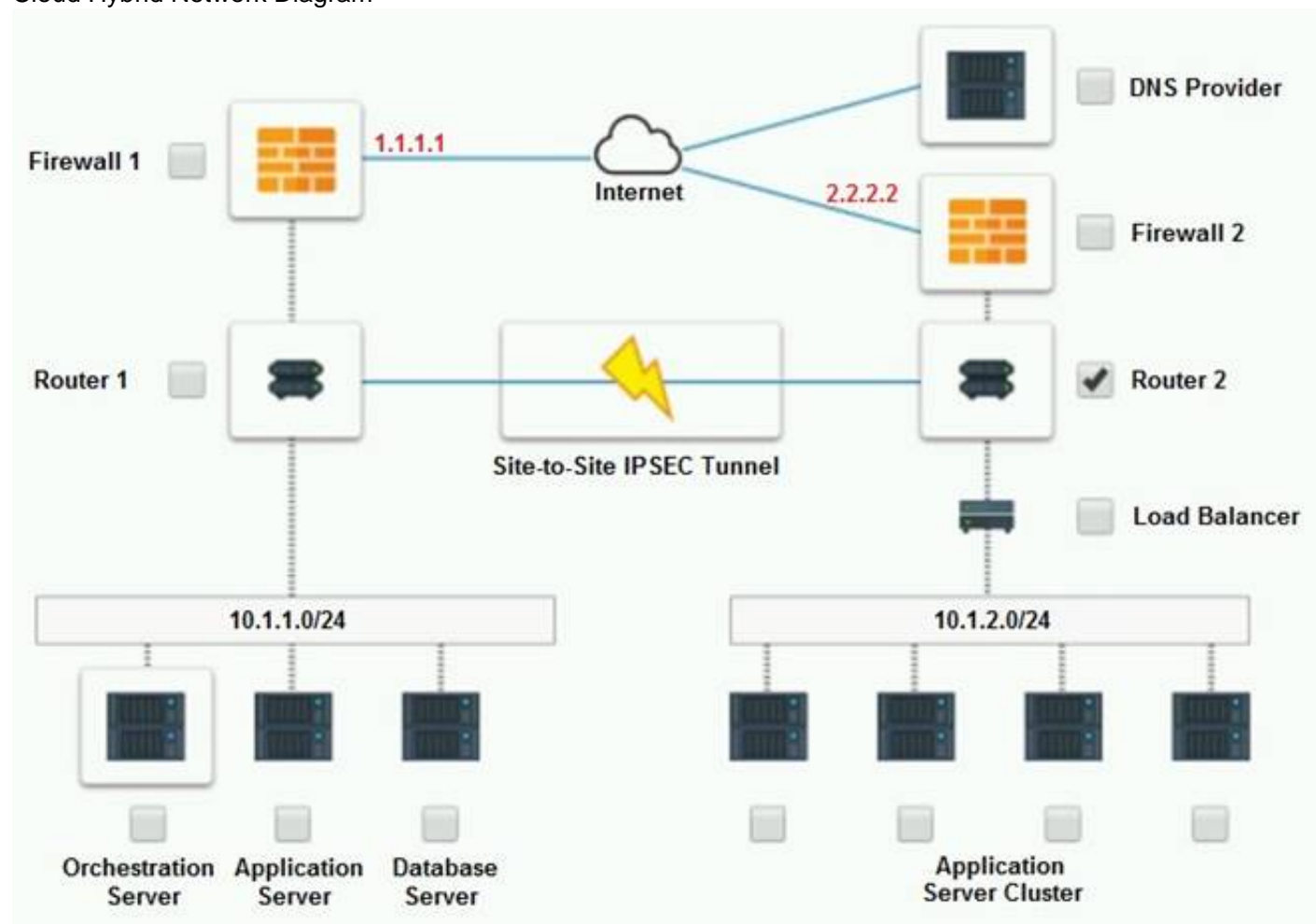
Part 2:

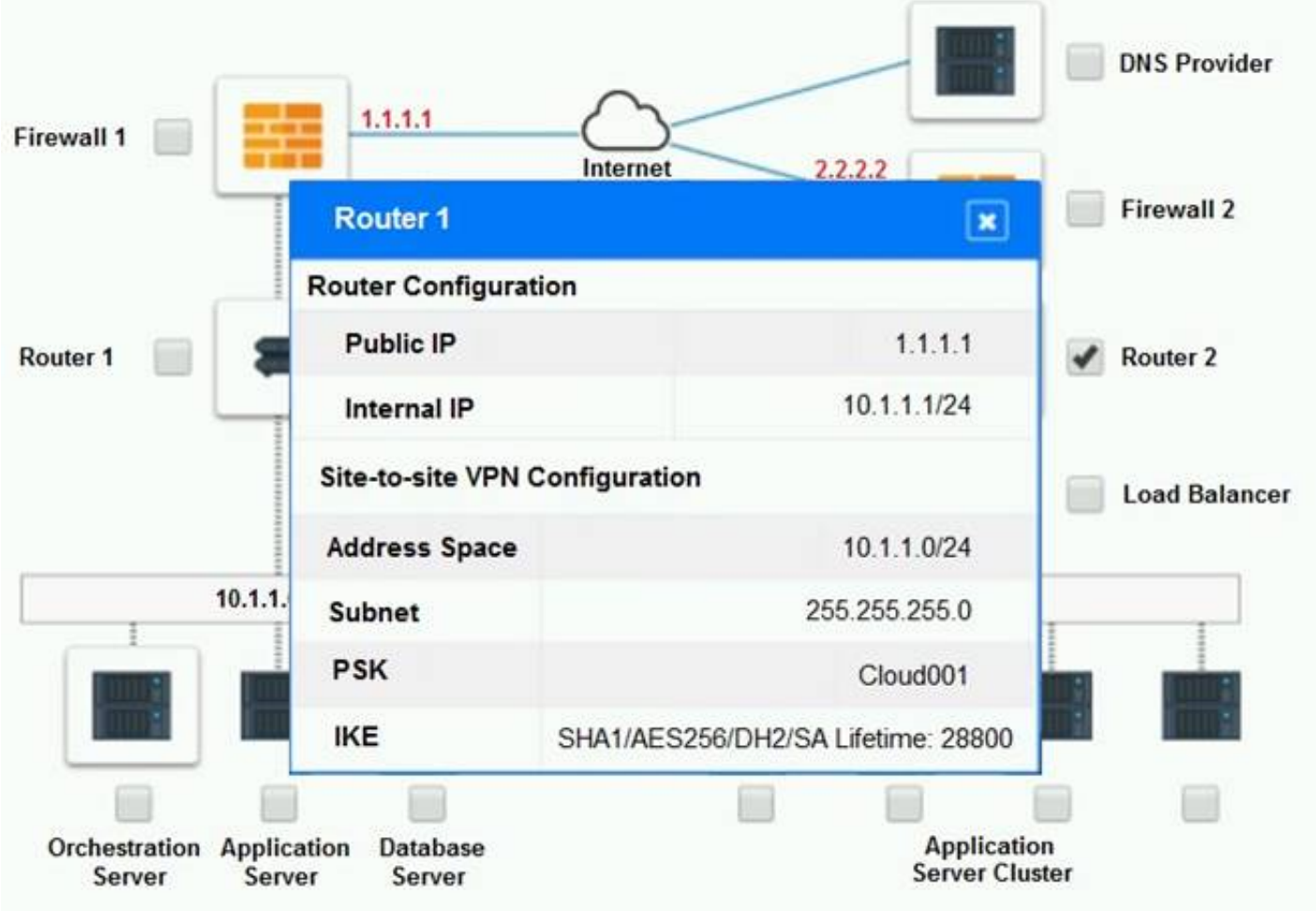
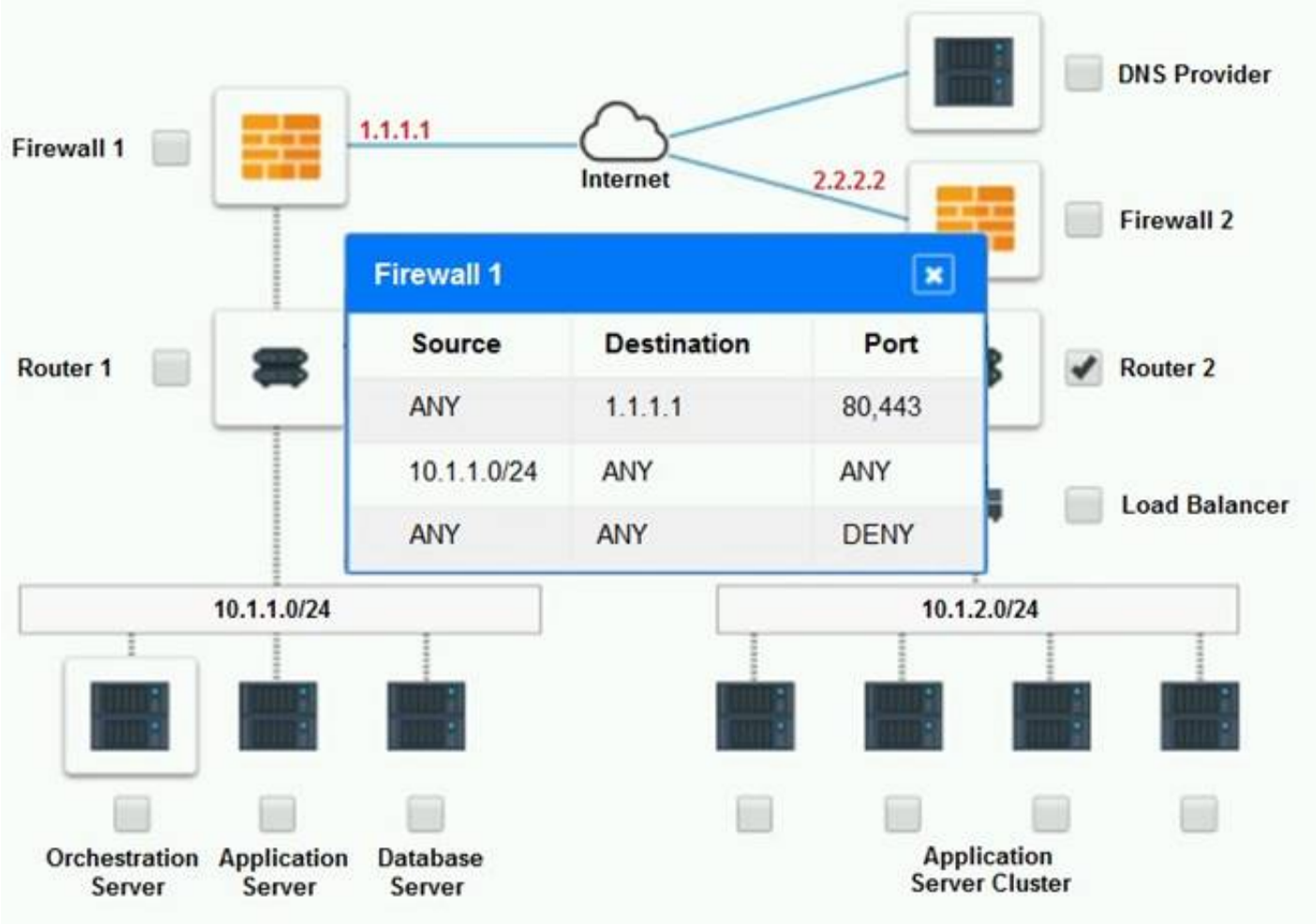
- _ Identify the correct options to provide adequate configuration for hybrid cloud architecture.

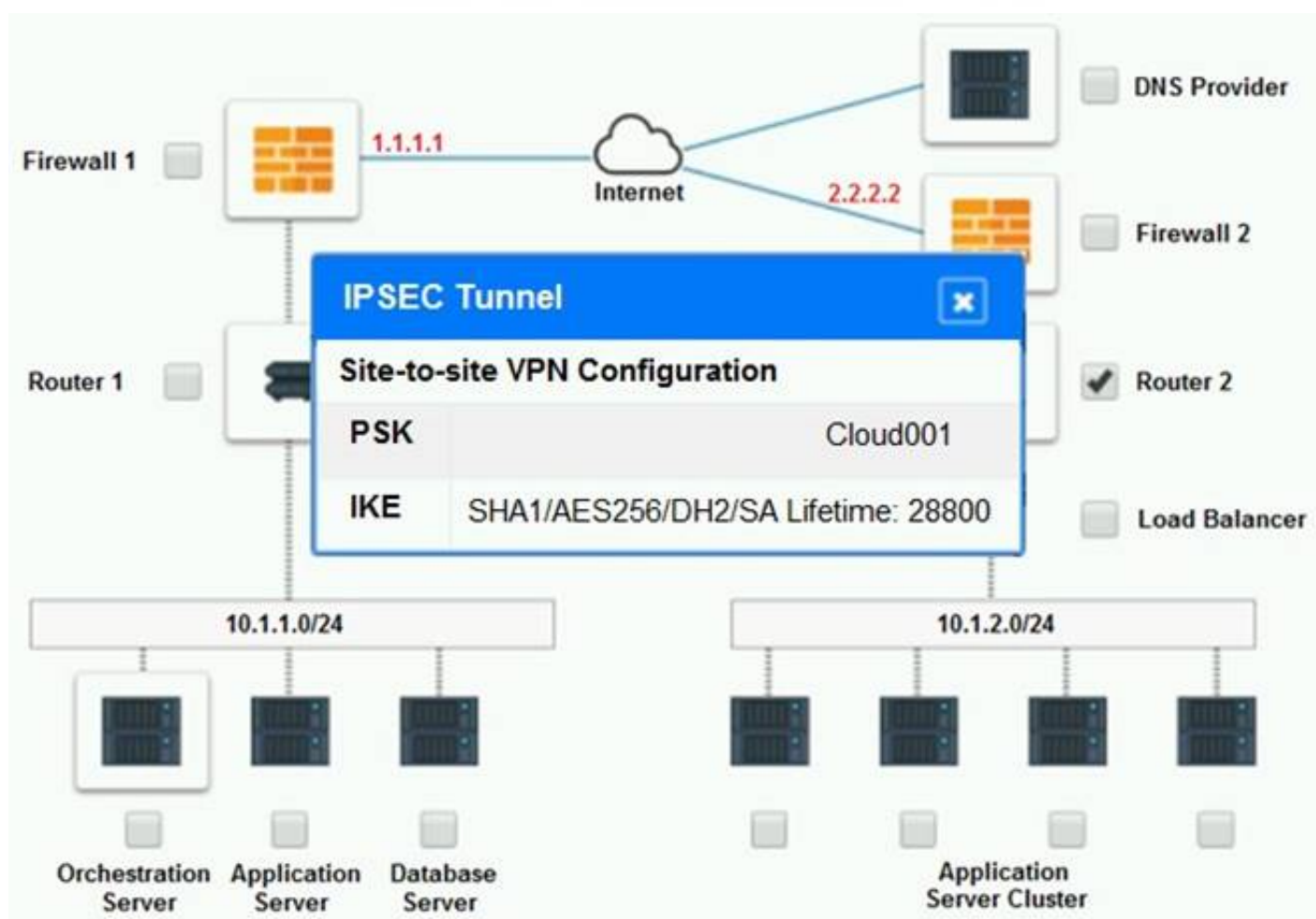
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

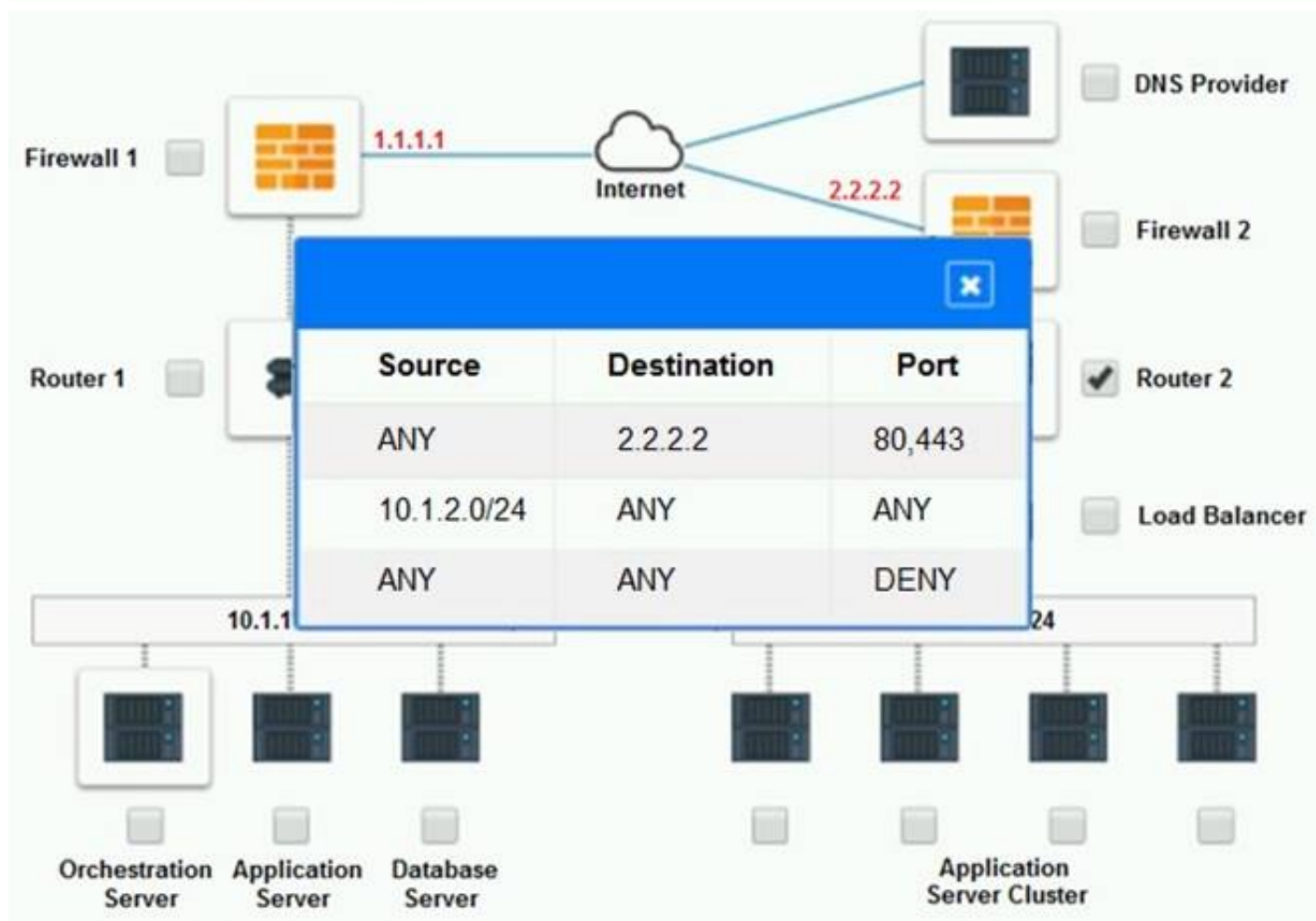
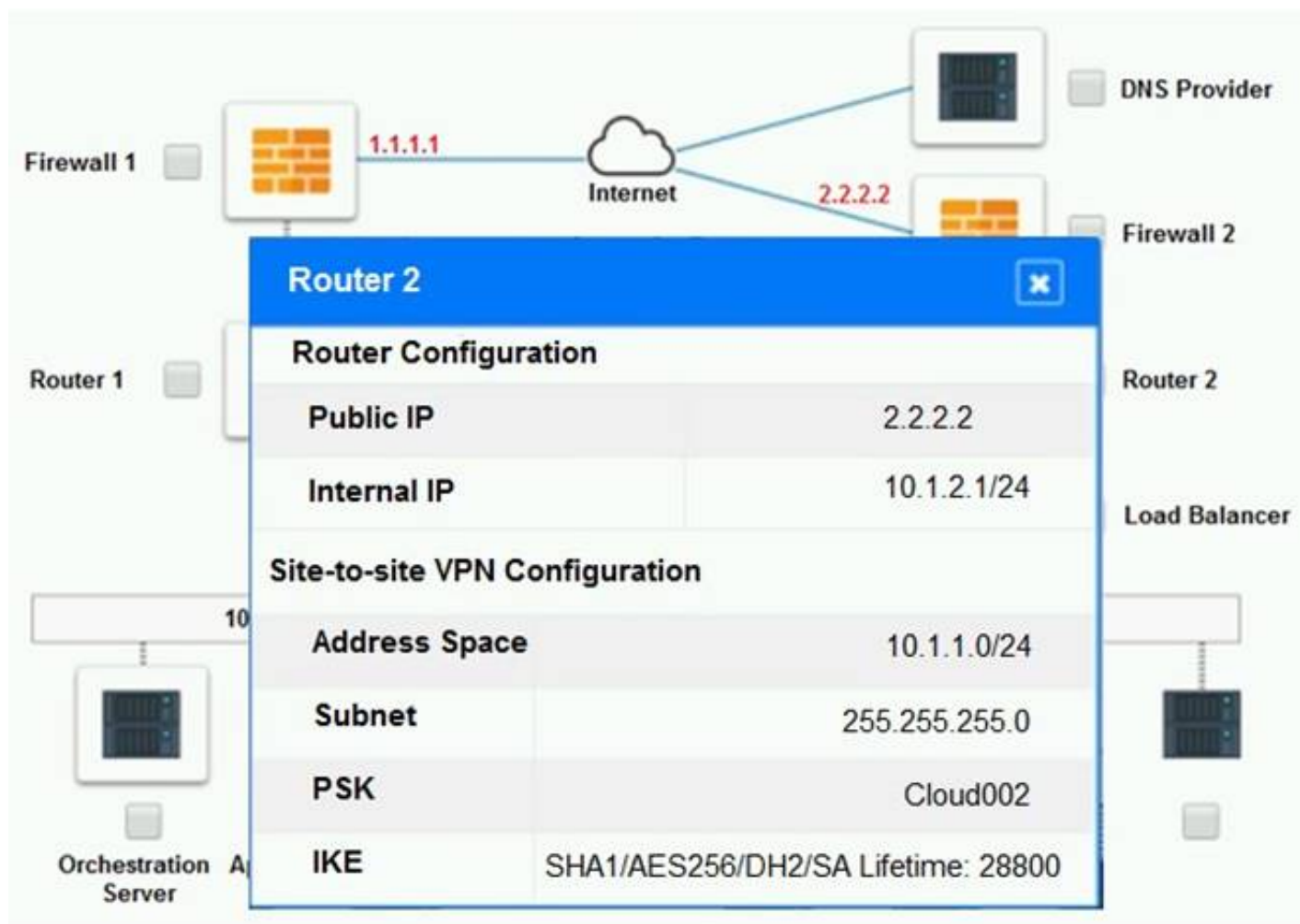
Part 1:

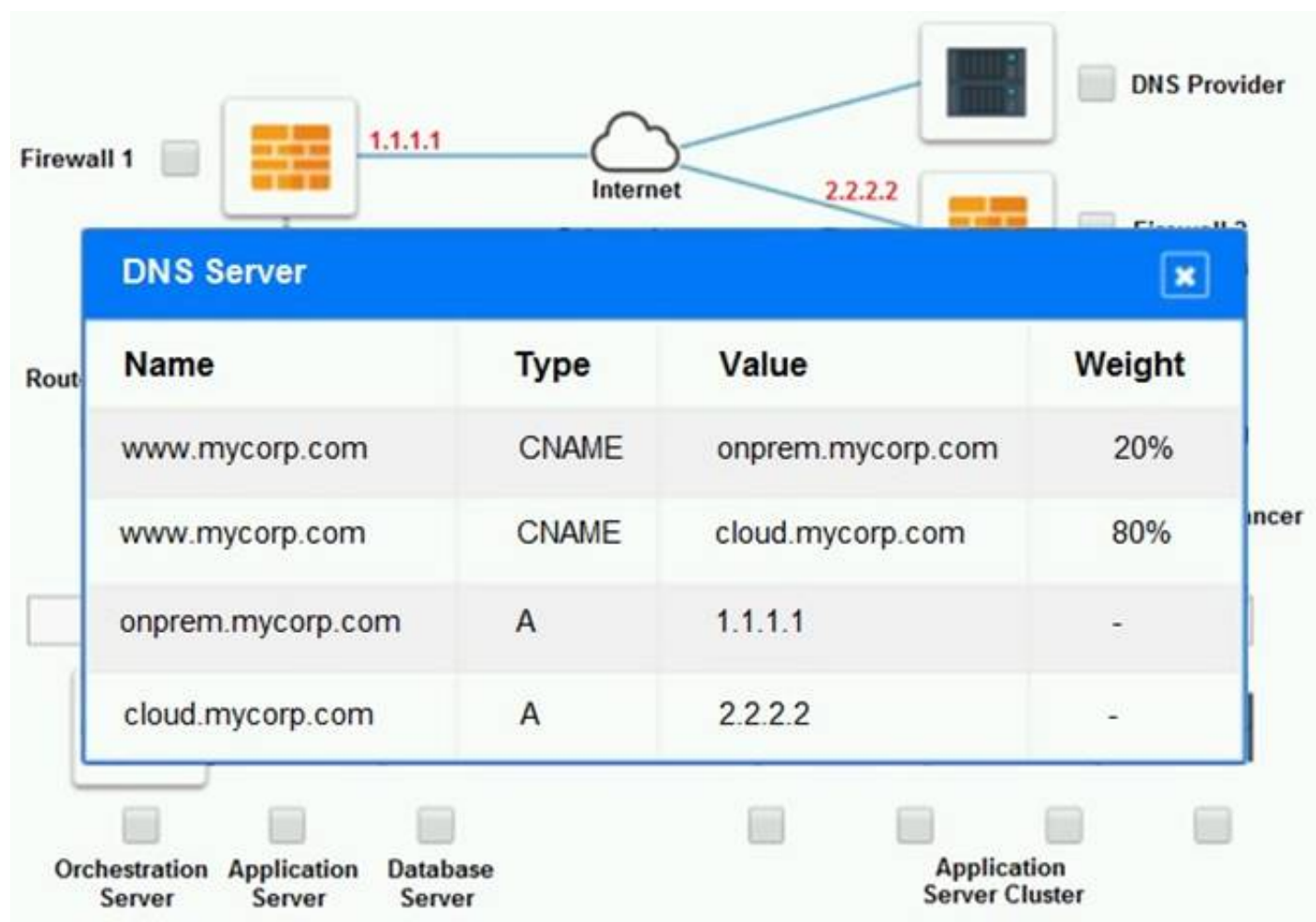
Cloud Hybrid Network Diagram











Part 2:

Only select a maximum of TWO options from the multiple choice question

- ☐ Deploy a Replica of the Database Server in the Cloud Provider.
- ☐ Update the PSK (Pre-shared key) in Router 2.
- ☐ Update the A record on the DNS from 2.2.2.2 to 1.1.1.1.
- ☐ Promote deny All to allow All in Firewall 1 and Firewall 2.
- ☐ Change the Address Space on Router 2.
- ☐ Change internal IP Address of Router 1.
- ☐ Reverse the Weight property in the two CNAME records on the DNS.
- ☐ Add the Application Server at on-premises to the Load Balancer.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Part 1: Router 2

The problematic device is Router 2, which has an incorrect configuration for the IPsec tunnel. The IPsec tunnel is a secure connection between the on-premises datacenter and the cloud provider, which allows the traffic to flow between the two networks. The IPsec tunnel requires both endpoints to have matching parameters, such as the IP addresses, the pre-shared key (PSK), the encryption and authentication algorithms, and the security associations (SAs).

According to the network diagram and the configuration files, Router 2 has a different PSK and a different address space than Router 1. Router 2 has a PSK of "1234567890", while Router 1 has a PSK of "0987654321". Router 2 has an address space of 10.0.0.0/8, while Router 1 has an address space of 192.168.0.0/16. These mismatches prevent the IPsec tunnel from establishing and encrypting the traffic between the two networks.

The other devices do not have any obvious errors in their configuration. The DNS provider has two CNAME records that point to the application servers in the cloud provider, with different weights to balance the load. The firewall rules allow the traffic from and to the application servers on port 80 and port 443, as well as the traffic from and to the VPN server on port 500 and port 4500. The orchestration server has a script that installs and configures the application servers in the cloud provider, using the DHCP server to assign IP addresses.

Part 2:

The correct options to provide adequate configuration for hybrid cloud architecture are:

- ? Update the PSK in Router 2.
- ? Change the address space on Router 2.

These options will fix the IPsec tunnel configuration and allow the traffic to flow between the on-premises datacenter and the cloud provider. The PSK should match the one on Router 1, which is "0987654321". The address space should also match the one on Router 1, which is 192.168.0.0/16.

- * B. Update the PSK (Pre-shared key in Router2)
- * E. Change the Address Space on Router2

NEW QUESTION 145

- (Topic 1)

A systems administrator is informed that a database server containing PHI and PII is unencrypted. The environment does not support VM encryption, nor does it have a key management system. The server needs to be able to be rebooted for patching without manual intervention. Which of the following will BEST resolve this issue?

- A. Ensure all database queries are encrypted
- B. Create an IPSec tunnel between the database server and its clients
- C. Enable protocol encryption between the storage and the hypervisor
- D. Enable volume encryption on the storage
- E. Enable OS encryption

Answer: D

Explanation:

Volume encryption is a type of encryption that protects data at the storage level by encrypting an entire disk or partition. Volume encryption can provide strong security for data at rest, as it prevents unauthorized access to the data even if the storage device is lost, stolen, or compromised. Volume encryption can also support automatic booting without manual intervention, as it can use a pre-boot authentication mechanism that does not require user input. Enabling volume encryption on the storage is the best way to resolve the issue of having an unencrypted database server containing PHI and PII, as it can protect the sensitive data without relying on VM encryption or a key management system. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 149

- (Topic 1)

A systems administrator is troubleshooting network throughput issues following a deployment. The network is currently being overwhelmed by the amount of traffic between the database and the web servers in the environment. Which of the following should the administrator do to resolve this issue?

- A. Set up affinity rules to keep web and database servers on the same hypervisor
- B. Enable jumbo frames on the gateway
- C. Move the web and database servers onto the same VXLAN
- D. Move the servers onto thick-provisioned storage

Answer: C

Explanation:

A virtual extensible local area network (VXLAN) is a type of network virtualization technology that creates logical networks or segments that span across multiple physical networks or locations. Moving the web and database servers onto the same VXLAN can help resolve the network throughput issues following a deployment, as it can reduce the network traffic between the database and the web servers by using a common virtual network identifier (VNI) and encapsulating the traffic within UDP packets. Moving the web and database servers onto the same VXLAN can also improve performance and security, as it can provide higher scalability, isolation, and encryption for the network traffic. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 153

- (Topic 1)

An IaaS application has a two-hour RTO and a four-hour RPO. The application takes one hour to back up its data or restore from a local backup file. A systems administrator is tasked with configuring the backup policy. Which of the following should the administrator configure to achieve the application requirements with the LEAST cost?

- A. Back up to long-term storage every night
- B. Back up to object storage every three hours
- C. Back up to long-term storage every four hours
- D. Back up to object storage every hour

Answer: B

Explanation:

Object storage is a type of storage service that stores data as objects with unique identifiers and metadata in a flat namespace or structure. Backing up to object storage every three hours can help achieve the application requirements with the least cost for an IaaS application that has a two-hour RTO and a four-hour RPO, as it can provide scalable, durable, and cost-effective storage for backup data while meeting the recovery time and point objectives. Backing up to object storage every three hours can ensure that the backup data is no more than four hours old and can be restored within two hours in case of a disaster or failure. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 155

- (Topic 1)

A systems administrator is deploying a solution that requires a virtual network in a private cloud environment. The solution design requires the virtual network to transport multiple payload types. Which of the following network virtualization options would BEST satisfy the requirement?

- A. VXLAN
- B. STT
- C. NVGRE
- D. GENEVE

Answer: D

Explanation:

Generic Network Virtualization Encapsulation (GENEVE) is a type of network virtualization technology that creates logical networks or segments that span across multiple physical networks or locations. GENEVE can satisfy the requirement of transporting multiple payload types in a virtual network in a private cloud environment, as it can support various network protocols and services by using a flexible and extensible header format that can encapsulate different types of payloads within UDP packets. GENEVE can also provide interoperability and compatibility, as it can integrate with existing network virtualization

technologies such as VXLAN, STT, or NVGRE. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 156

- (Topic 1)

A systems administrator is building a new virtualization cluster. The cluster consists of five virtual hosts, which each have flash and spinning disks. This storage is shared among all the virtual hosts, where a virtual machine running on one host may store data on another host.

This is an example of:

- A. a storage area network
- B. a network file system
- C. hyperconverged storage
- D. thick-provisioned disks

Answer: C

Explanation:

Hyperconverged storage is a type of storage architecture that combines compute, storage, and network resources into a single system or appliance. Hyperconverged storage uses software-defined storage (SDS) to pool and share the local storage of each node in the cluster, creating a distributed storage system that can be accessed by any node or virtual machine in the cluster. Hyperconverged storage can provide high performance, scalability, and efficiency for virtualized environments. The scenario of building a new virtualization cluster with five virtual hosts that share their flash and spinning disks among all the virtual hosts is an example of hyperconverged storage. References: [CompTIA Cloud+ Certification Exam Objectives], page 9, section 1.4

NEW QUESTION 161

- (Topic 1)

A systems administrator is reviewing two CPU models for a cloud deployment. Both CPUs have the same number of cores/threads and run at the same clock speed.

Which of the following will BEST identify the CPU with more computational power?

- A. Simultaneous multithreading
- B. Bus speed
- C. L3 cache
- D. Instructions per cycle

Answer: D

Explanation:

Instructions per cycle (IPC) is a metric that measures how many instructions a CPU can execute in one clock cycle. IPC can help identify the CPU with more computational power when comparing two CPU models that have the same number of cores/threads and run at the same clock speed, as it indicates the efficiency and performance of the CPU architecture and design. A higher IPC means that the CPU can process more instructions in less time, resulting in faster and better performance. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

Reference: https://en.wikipedia.org/wiki/Central_processing_unit

NEW QUESTION 165

- (Topic 1)

A systems administrator would like to reduce the network delay between two servers.

Which of the following will reduce the network delay without taxing other system resources?

- A. Decrease the MTU size on both servers
- B. Adjust the CPU resources on both servers
- C. Enable compression between the servers
- D. Configure a VPN tunnel between the servers

Answer: A

Explanation:

The maximum transmission unit (MTU) is the largest size of a packet or frame that can be sent over a network. Decreasing the MTU size on both servers can reduce the network delay between them, as it can reduce the fragmentation and reassembly of packets, improve the transmission efficiency, and avoid packet loss or errors. Decreasing the MTU size can also avoid taxing other system resources, as it does not require additional CPU, memory, or disk resources. References:

CompTIA Cloud+ Certification Exam Objectives, page 16, section 3.2

Reference: <https://cseweb.ucsd.edu/~calder/papers/HPDC-01-DynComp.pdf>

NEW QUESTION 169

- (Topic 1)

Which of the following will mitigate the risk of users who have access to an instance modifying the system configurations?

- A. Implement whole-disk encryption
- B. Deploy the latest OS patches
- C. Deploy an anti-malware solution
- D. Implement mandatory access control

Answer: D

Explanation:

Mandatory access control (MAC) is a type of access control model that enforces strict security policies based on predefined rules and labels. MAC assigns security labels to subjects (users or processes) and objects (files or resources) and allows access only if the subject has the appropriate clearance and need-to-know for the object. MAC can mitigate the risk of users who have access to an instance modifying the system configurations, as it can prevent unauthorized or accidental changes to critical files or settings by restricting access based on predefined rules and labels. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 170

- (Topic 1)

A SaaS provider wants to maintain maximum availability for its service. Which of the following should be implemented to attain the maximum SLA?

- A. A hot site
- B. An active-active site
- C. A warm site
- D. A cold site

Answer: B

Explanation:

An active-active site is a type of disaster recovery (DR) site that runs simultaneously with the primary site and handles part of the normal workload or traffic. An active-active site can help maintain maximum availability for a SaaS service, as it can provide load balancing, redundancy, and failover capabilities for the SaaS service in case of an outage or disruption at the primary site. An active-active site can also improve performance and scalability, as it can distribute the workload or traffic across multiple sites and handle increased demand or peak periods. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 174

- (Topic 1)

An organization's web server farm, which is hosted in the cloud with DNS load balancing, is experiencing a spike in network traffic. This has caused an outage of the organization's web server infrastructure.

Which of the following should be implemented to prevent this in the future as a mitigation method?

- A. Enable DLP
- B. Configure microsegmentation
- C. Enable DNSSEC
- D. Deploy a vADC appliance

Answer: D

Explanation:

A virtual application delivery controller (vADC) is a type of network device or software that provides load balancing, security, and optimization for web applications or services. Deploying a vADC appliance can help prevent an outage of the organization's web server infrastructure due to a spike in network traffic, as it can distribute the traffic across multiple web servers and improve the performance and availability of web applications or services. Deploying a vADC appliance can also provide mitigation methods such as DDoS protection, SSL offloading, and caching to enhance the security and efficiency of web traffic delivery. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 175

- (Topic 1)

A systems administrator recently deployed a VDI solution in a cloud environment; however, users are now experiencing poor rendering performance when trying to display 3-D content on their virtual desktops, especially at peak times.

Which of the following actions will MOST likely solve this issue?

- A. Update the quest graphics drivers from the official repository
- B. Add more vGPU licenses to the host
- C. Instruct users to access virtual workstations only on the VLAN
- D. Select vGPU profiles with higher video RAM

Answer: D

Explanation:

A vGPU profile is a configuration option that defines the amount of video RAM (vRAM) and other resources that are allocated to a virtual machine (VM) that uses a virtual graphics processing unit (vGPU). A vGPU profile can affect the rendering performance of a VM, as it determines how much graphics memory and processing power are available for displaying complex graphics content. Selecting vGPU profiles with higher video RAM can most likely solve the issue of poor rendering performance when trying to display 3-D content on virtual desktops, especially at peak times, as it can provide more graphics resources and improve the quality and speed of rendering. References: CompTIA Cloud+ Certification Exam Objectives, page 11, section 1.6

NEW QUESTION 179

- (Topic 1)

Lateral-moving malware has infected the server infrastructure.

Which of the following network changes would MOST effectively prevent lateral movement in the future?

- A. Implement DNSSEC in all DNS servers
- B. Segment the physical network using a VLAN
- C. Implement microsegmentation on the network
- D. Implement 802.1X in the network infrastructure

Answer: C

Explanation:

Microsegmentation is a type of network security technique that divides a network into smaller logical segments or zones based on workload or application characteristics and applies granular policies and rules to control and isolate traffic within each segment or zone. Implementing microsegmentation on the network can help prevent lateral movement in the future after lateral-moving malware has infected the server infrastructure, as it can limit the exposure and spread of malware by restricting access and communication between different segments or zones based on predefined criteria such as identity, role, or behavior. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 183

- (Topic 1)

A company developed a product using a cloud provider's PaaS platform and many of the platform-based components within the application environment.

Which of the following would the company MOST likely be concerned about when utilizing a multicloud strategy or migrating to another cloud provider?

- A. Licensing
- B. Authentication providers
- C. Service-level agreement
- D. Vendor lock-in

Answer: D

Explanation:

Vendor lock-in is a situation where a customer becomes dependent on a specific vendor for products or services and faces high switching costs or barriers when trying to change vendors. Vendor lock-in is most likely to be a concern for a company that developed a product using a cloud provider's PaaS platform and many of the platform-based components within the application environment when utilizing a multicloud strategy or migrating to another cloud provider, as it can limit the flexibility, scalability, and portability of the product and increase the complexity, risk, and cost of moving or integrating with other cloud platforms or providers. References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2

NEW QUESTION 187

- (Topic 1)

An organization is required to set a custom registry key on the guest operating system. Which of the following should the organization implement to facilitate this requirement?

- A. A configuration management solution
- B. A log and event monitoring solution
- C. A file integrity check solution
- D. An operating system ACL

Answer: A

Explanation:

A configuration management solution is a type of tool or system that automates and standardizes the configuration and deployment of cloud resources or services according to predefined policies or rules. A configuration management solution can help set a custom registry key on the guest operating system in an IaaS instance, as it can apply the desired registry setting to one or more virtual machines (VMs) without manual intervention or scripting. A configuration management solution can also help maintain consistency, compliance, and security of cloud configurations by monitoring and enforcing the desired state. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 188

- (Topic 4)

A systems administrator is trying to connect to a remote KVM host. The command line appears as follows:

```
serveradmin@localhost:~$ virsh remotehost
Error: daemon not running on remote host.
```

After logging in to the remote server, the administrator verifies the daemon is running. Which of the following should the administrator try NEXT?

- A. Opening port 22 on the firewall
- B. Running the command with elevated privileges
- C. Checking if the SSH password is correct
- D. Ensuring the private key was properly imported

Answer: B

Explanation:

The answer is B. Running the command with elevated privileges. According to the web search results, the error message "End of file while reading data: sh: 1: nc: not found: Input/output error" indicates that the remote host does not have the nc (netcat) command installed or available in the PATH. The nc command is used by libvirt to establish a connection between the client and the server. To fix this error, the administrator should install nc on the remote host or ensure that it is in the PATH. However, to do this, the administrator needs to have elevated privileges, such as sudo or root, on the remote host. Therefore, the administrator should try running the command with elevated privileges, such as sudo virsh remotehost or su -c 'virsh remotehost'. This will allow the administrator to install nc or modify the PATH on the remote host and then connect to it using libvirt.

NEW QUESTION 190

- (Topic 4)

As a result of an IT audit, a customer has decided to move some applications from an old legacy system to a private cloud. The current server location is remote with low bandwidth. Which of the following is the best migration strategy to use for this deployment?

- A. P2V with physical data transport
- B. P2P with remote data copy
- C. V2V with physical data transport
- D. V2P with physical data transport
- E. V2P with remote data copy

Answer: A

Explanation:

P2V stands for physical to virtual, which is the process of converting a physical server into a virtual machine. This is a common migration strategy for moving legacy systems to the cloud, as it preserves the existing configuration and data of the server. Physical data transport means using a physical device, such as a hard disk drive or a USB flash drive, to transfer the data from the source location to the destination location. This method is suitable for remote locations with low bandwidth, as it avoids the network latency and congestion that may occur with remote data copy. P2P, V2V, and V2P are other types of migration strategies, but they are not applicable for this scenario. P2P stands for physical to physical, which is the process of moving a physical server to another physical server. V2V

stands for virtual to virtual, which is the process of moving a virtual machine to another virtual machine. V2P stands for virtual to physical, which is the process of converting a virtual machine into a physical server. Remote data copy means using a network connection, such as FTP or SCP, to transfer the data from the source location to the destination location. This method is suitable for locations with high bandwidth and reliable network connectivity. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 21, Cloud Migration, page 3371.

NEW QUESTION 192

- (Topic 4)

A company uses multiple SaaS-based cloud applications. All the applications require authentication upon access. An administrator has been asked to address this issue and enhance security. Which of the following technologies would be the BEST solution?

- A. Single sign-on
- B. Certificate authentication
- C. Federation
- D. Multifactor authentication

Answer: A

Explanation:

Single sign-on (SSO) is a technology that allows a user to access multiple applications or services with a single login and authentication process. SSO can enhance security by reducing the number of passwords that a user has to remember and enter, and by enabling centralized management and enforcement of security policies .

SSO can help address the issue of multiple SaaS-based cloud applications requiring authentication upon access. By implementing SSO, an administrator can: Simplify the user experience and increase productivity by eliminating the need to enter multiple usernames and passwords for different applications .

Improve the security and compliance of the applications by using a trusted identity provider (IdP) that can verify the user's identity and credentials, and grant or deny access based on predefined rules .

Reduce the risk of password breaches, phishing, or identity theft by minimizing the exposure of passwords to third-party applications or malicious actors .

NEW QUESTION 197

- (Topic 4)

A cloud administrator created a developer desktop image and added it to the VDI farm in a private cloud environment. One of the developers opened a VDI session and noticed that compiling the code was taking up to one hour to complete. However, when the developer compiles the code on a local machine, the job completes in less than five minutes. Which of the following sizing techniques would be best to use to improve the performance of the compile job?

- A. Add more servers to the VDI environment.
- B. Increase the CPU and the memory on the VDI template.
- C. Configure the VDI environment to increase sessions automatically.
- D. Migrate code compile jobs to a public cloud provider.

Answer: B

Explanation:

The most likely cause of the poor performance of the compile job is that the VDI template does not have enough CPU and memory resources to handle the task efficiently. Compiling code is a CPU-intensive and memory-intensive process that requires sufficient computing power to run smoothly. By increasing the CPU and memory on the VDI template, the cloud administrator can improve the performance of the compile job and reduce the time it takes to complete. Adding more servers to the VDI environment or configuring the VDI environment to increase sessions automatically would not help, as they would only affect the scalability and availability of the VDI farm, not the performance of individual sessions. Migrating code compile jobs to a public cloud provider would incur additional costs and complexity, and may not be feasible or desirable for the organization. References: The Official CompTIA Cloud+ Self-Paced Study Guide (CV0-003) eBook, Chapter 3, Section 3.3, page 971

NEW QUESTION 198

- (Topic 4)

Which of the following enables CSPs to offer unlimited capacity to customers?

- A. Adequate budget
- B. Global data center distribution
- C. Economies of scale
- D. Agile project management

Answer: C

Explanation:

The correct answer is C. Economies of scale.

Economies of scale are the cost advantages that CSPs can achieve by increasing the size and scale of their operations. By spreading the fixed costs of infrastructure, software, and personnel over a larger customer base and data volume, CSPs can reduce the average cost per unit of service and offer unlimited capacity to customers at competitive prices¹. Adequate budget is not a sufficient condition for offering unlimited capacity, as CSPs still need to optimize their resource utilization and efficiency to meet the growing demand for data storage and processing.

Global data center distribution is a strategy that CSPs use to improve their service availability, reliability, and performance by locating their servers closer to their customers and reducing network latency. However, this does not necessarily imply unlimited capacity, as CSPs still need to manage the trade-offs between data center size, cost, and power consumption.

Agile project management is a methodology that CSPs use to deliver their services faster, better, and cheaper by adopting iterative, incremental, and collaborative approaches. However, this does not directly affect their capacity, as CSPs still need to scale their infrastructure and software to handle the increasing data load.

NEW QUESTION 202

- (Topic 4)

A cloud administrator must ensure all servers are in compliance with the company's security policy Which of the following should the administrator check FIRST?

- A. The application version
- B. The OS version

- C. Hardened baselines
- D. Password policies

Answer: C

Explanation:

Hardened baselines are a set of security best practices that reduce the vulnerability of a system to exploits by reducing its attack surface¹. They are also known as security configurations or benchmarks, and they provide a standard level of system hardening for an organization²³.

Checking the hardened baselines of the servers is the first step that a cloud administrator should take to ensure compliance with the company's security policy.

This is because hardened baselines can help to:

Identify and eliminate common vulnerabilities and exposures (CVEs) that attackers can exploit¹.

Remove unnecessary or unused services, accounts, software, and ports that can increase the attack surface²³.

Apply appropriate settings and controls for encryption, authentication, authorization, firewall, and logging²³.

Streamline audits and testing by reducing complexity and providing a reliable benchmark²³.

NEW QUESTION 203

- (Topic 4)

A company's marketing department is running a rendering application on virtual desktops. Currently, the application runs slowly, and it takes a long time to refresh the screen. The virtualization administrator is tasked with resolving this issue. Which of the following is the BEST solution?

- A. GPU passthrough
- B. Increased memory
- C. Converged infrastructure
- D. An additional CPU core

Answer: A

Explanation:

GPU passthrough is a technique that allows a virtual machine to access and use the physical GPU of the host machine directly. This can improve the performance and quality of graphics-intensive applications, such as rendering, gaming, or video editing, that run on the virtual machine¹²³.

GPU passthrough can help resolve the issue of the rendering application running slowly and taking a long time to refresh the screen on the virtual desktops. By enabling GPU passthrough, the virtualization administrator can allow the rendering application to leverage the full power and features of the host GPU, rather than relying on the limited and shared resources of a virtual GPU. This can result in faster rendering, smoother animations, and higher resolution¹²

NEW QUESTION 205

- (Topic 4)

A systems administrator is reviewing the logs from a company's IDS and notices a large amount of outgoing traffic from a particular server. The administrator then runs a scan on the server, which detects malware that cannot be removed. Which of the following should the administrator do first?

- A. Determine the root cause.
- B. Disconnect the server from the network.
- C. Perform a more intrusive scan.
- D. Restore the server from a backup.

Answer: B

Explanation:

The first step in any incident response procedure is to contain the incident and prevent it from spreading or causing more damage. In this scenario, the systems administrator is reviewing the logs from a company's IDS and notices a large amount of outgoing traffic from a particular server. The administrator then runs a scan on the server, which detects malware that cannot be removed. This indicates that the server is compromised and may be sending malicious or sensitive data to an external source. Therefore, the best thing to do first is to disconnect the server from the network, which will isolate it from the rest of the system and stop the data exfiltration. Determining the root cause, performing a more intrusive scan, and restoring the server from a backup are all important steps, but they should be done after the server is disconnected from the network. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 10, Incident Response Procedures, page 1771.

NEW QUESTION 207

- (Topic 4)

A cloud administrator needs to deploy a security virtual appliance in a private cloud environment, but this appliance will not be part of the standard catalog of items for other users to request. Which of the following is the BEST way to accomplish this task?

- A. Create an empty V
- B. import the hard disk of the virtual appliance
- C. and configure the CPU and memory.
- D. Acquire the build scripts from the vendor and recreate the appliance using the baseline templates
- E. Import the virtual appliance into the environment and deploy it as a VM
- F. Convert the virtual appliance to a template and deploy a new VM using the template.

Answer: C

Explanation:

The correct answer is C. Import the virtual appliance into the environment and deploy it as a VM.

A virtual appliance is a pre-packaged and pre-configured software solution that runs on a virtual machine (VM). A virtual appliance typically consists of an operating system, an application, and any required dependencies, and is designed to provide a specific function or service. A virtual appliance can be distributed as a single file or a set of files that can be imported into a virtualization platform, such as VMware, Hyper-V, or KVM .

A cloud administrator can deploy a security virtual appliance in a private cloud environment by importing the virtual appliance into the environment and deploying it as a VM. This is the best way to accomplish this task because it preserves the original configuration and functionality of the virtual appliance, and does not require any additional installation or customization. The cloud administrator can also control the access and visibility of the virtual appliance, and prevent other users from requesting it from the standard catalog of items .

Creating an empty VM, importing the hard disk of the virtual appliance, and configuring the CPU and memory is not the best way to accomplish this task because it involves more steps and complexity than importing the virtual appliance as a whole. It also introduces the risk of losing or corrupting some data or settings during

the import process, or misconfiguring the CPU and memory for the virtual appliance.

Acquiring the build scripts from the vendor and recreating the appliance using the baseline templates is not the best way to accomplish this task because it involves more time and effort than importing the virtual appliance directly. It also depends on whether the vendor provides the build scripts or not, and whether they are compatible with the baseline templates or not.

Converting the virtual appliance to a template and deploying a new VM using the template is not the best way to accomplish this task because it adds an unnecessary step of creating a template from the virtual appliance. It also does not prevent other users from accessing or requesting the template from the catalog of items.

NEW QUESTION 210

- (Topic 4)

A cloud administrator receives an email stating the following:

"Clients are receiving emails from our web application with non-encrypted links."

The administrator notices that links generated from the web application are opening in http://. Which of the following should be configured to redirect the traffic to https://?

- A. User account access
- B. Programming code
- C. Web server configuration
- D. Load balancer setting

Answer: C

Explanation:

To redirect the traffic from HTTP to HTTPS, the web server configuration should be modified to include a rule that forces the HTTP requests to be redirected to HTTPS. This can be done by using the web server's configuration file or a .htaccess file. The exact syntax may vary depending on the web server software, but the general idea is to use a rewrite rule that matches the HTTP protocol and changes it to HTTPS. For example, on Apache web server, the following code can be added to the .htaccess file: RewriteEngine On

RewriteCond %{HTTPS} off

RewriteRule ^(.*)\$ https://%{HTTP_HOST}%{REQUEST_URI} [L,R=301]

This code will check if the HTTPS is off, and if so, it will rewrite the URL to use HTTPS and redirect the client with a 301 status code, which means permanent redirection. This way, the clients will always use HTTPS to access the web application, and the links generated from the web application will be encrypted.

User account access (A) is not relevant to the redirection of HTTP to HTTPS, as it only controls who can access the web application. Programming code (B) may be used to generate the links with HTTPS, but it will not redirect the existing HTTP requests to HTTPS. Load balancer setting (D) may also be used to redirect the traffic to HTTPS, but it is not the most efficient or secure way, as it will add an extra layer of processing and expose the HTTP traffic to the load balancer.

Therefore, web server configuration © is the best option to redirect the traffic to HTTPS.

Reference: The Official CompTIA Cloud+ Student Guide (Exam CV0-003), Chapter 4:

Cloud Security, Section 4.3: Secure Cloud Services, p. 4-23.

NEW QUESTION 211

- (Topic 4)

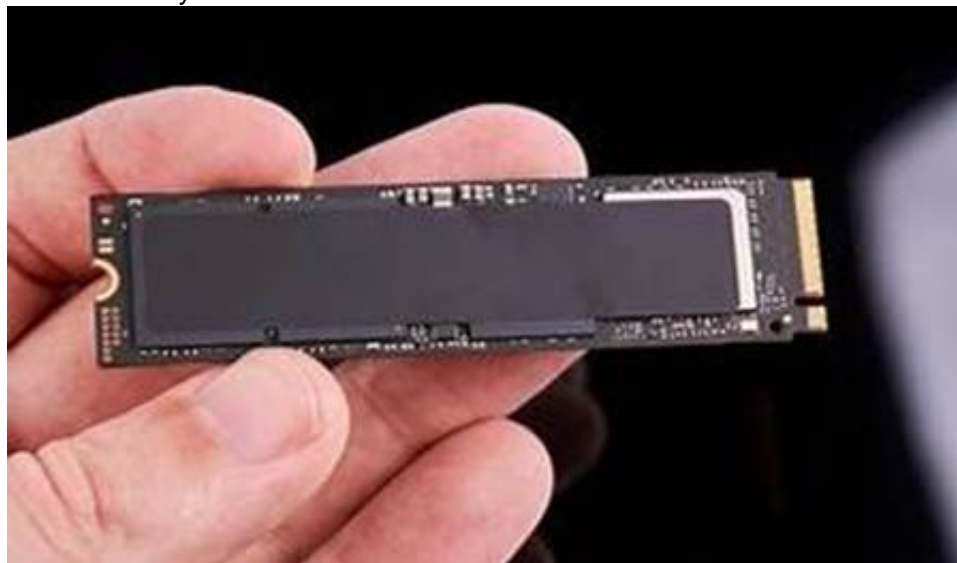
A technician deployed a VM with NL-SAS storage to host a critical application. Two weeks later, users have begun to report high application latency. Which of the following is the best action to correct the latency issue?

- A. Increase the capacity of the data storage.
- B. Migrate the data to SAS storage.
- C. Increase the CPU of the VM.
- D. Migrate the data to flash storage.

Answer: D

Explanation:

Flash memory



Explore

One possible answer is:

D. Migrate the data to flash storage.

Flash storage is a type of solid-state storage technology that uses flash memory chips to store data. Flash storage has several advantages over NL-SAS storage, which is a hybrid of SATA and SAS technologies that uses spinning disks to store data. Flash storage can provide much faster performance, lower latency, higher reliability, and lower power consumption than NL-SAS storage¹². Therefore, migrating the data to flash storage can help correct the latency issue for the critical application. However, flash storage may also be more expensive and have lower capacity than NL-SAS storage, so these factors should also be considered before making the migration decision¹².

NEW QUESTION 215

- (Topic 4)

An integration application that communicates between different application and database servers is currently hosted on a physical machine. A P2V migration needs to be done to reduce the hardware footprint. Which of the following should be considered to maintain the same level of network throughput and latency in the virtual server?

- A. Upgrading the physical server NICs to support 10Gbps
- B. Adding more vCPU
- C. Enabling SR-IOV capability
- D. Increasing the VM swap/paging size

Answer: C

Explanation:

SR-IOV stands for Single Root I/O Virtualization, which is a technology that allows a physical network adapter to be partitioned into multiple virtual functions (VFs) that can be directly assigned to virtual machines (VMs). This way, the network traffic bypasses the software layer of the hypervisor and the virtual switch, and goes directly from the VM to the physical adapter. This reduces the CPU overhead, the network latency, and the packet loss, and improves the network throughput and scalability. SR-IOV can achieve near-native performance for network-intensive applications, such as an integration application that communicates between different application and database servers. By enabling SR-IOV capability on the physical server and the virtual server, the P2V migration can maintain the same level of network throughput and latency as the original physical machine. References: High performance network virtualization with SR-IOV; Supercharge Your Network Throughput via Single Root I/O Virtualization (SR-IOV); Overview of Single Root I/O Virtualization (SR-IOV).

NEW QUESTION 216

- (Topic 4)

A company has a web application running in an on-premises environment that needs to be migrated to the cloud. The company wants to implement a solution that maximizes scalability, availability, and security, while requiring no infrastructure administration. Which of the following services would be BEST to meet this goal?

- A. A PaaS solution
- B. A hybrid solution
- C. An IaaS solution
- D. A SaaS solution

Answer: A

Explanation:

A PaaS solution, or platform as a service, is a cloud computing service that provides a complete, ready-to-use, cloud-hosted platform for developing, running, maintaining and managing applications¹. A PaaS solution would meet the company's goal of maximizing scalability, availability, and security, while requiring no infrastructure administration, because:

Scalability: A PaaS solution can automatically scale up or down the resources needed to run the application based on the demand and traffic. The company does not need to worry about provisioning or managing servers, storage, network, or load balancers²³.

Availability: A PaaS solution can ensure high availability and reliability of the application by replicating it across multiple regions and zones. The company does not need to worry about backup, recovery, or failover²³.

Security: A PaaS solution can provide built-in security features such as encryption, authentication, authorization, and firewall. The company does not need to worry about installing or updating security patches or software²³.

No infrastructure administration: A PaaS solution can abstract away the underlying infrastructure and hardware from the company. The company only needs to focus on developing and deploying the application code and data. The PaaS provider takes care of the rest²³.

A hybrid solution (B) is a cloud computing service that combines on-premises and cloud resources. It may offer some benefits such as flexibility and cost optimization, but it would not meet the company's goal of requiring no infrastructure administration. The company would still need to manage and maintain the on-premises part of the solution⁴.

An IaaS solution ©, or infrastructure as a service, is a

NEW QUESTION 221

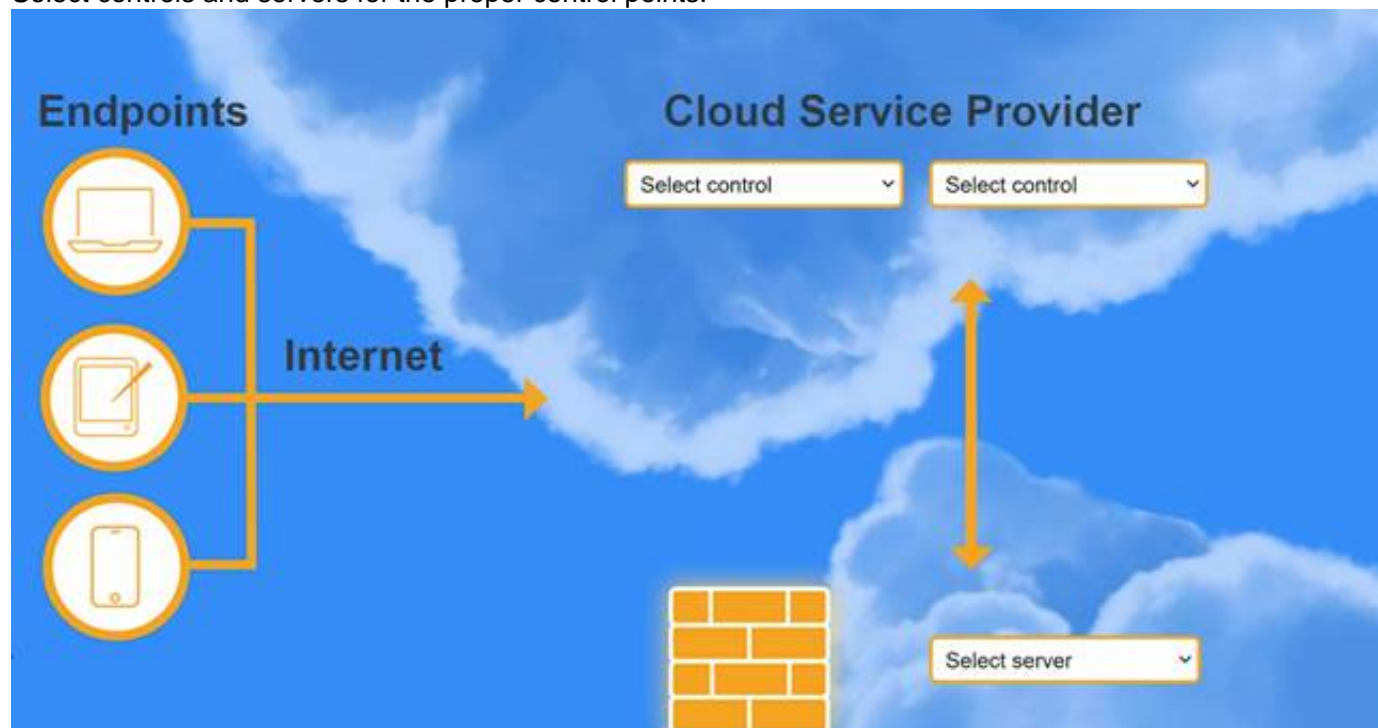
HOTSPOT - (Topic 4)

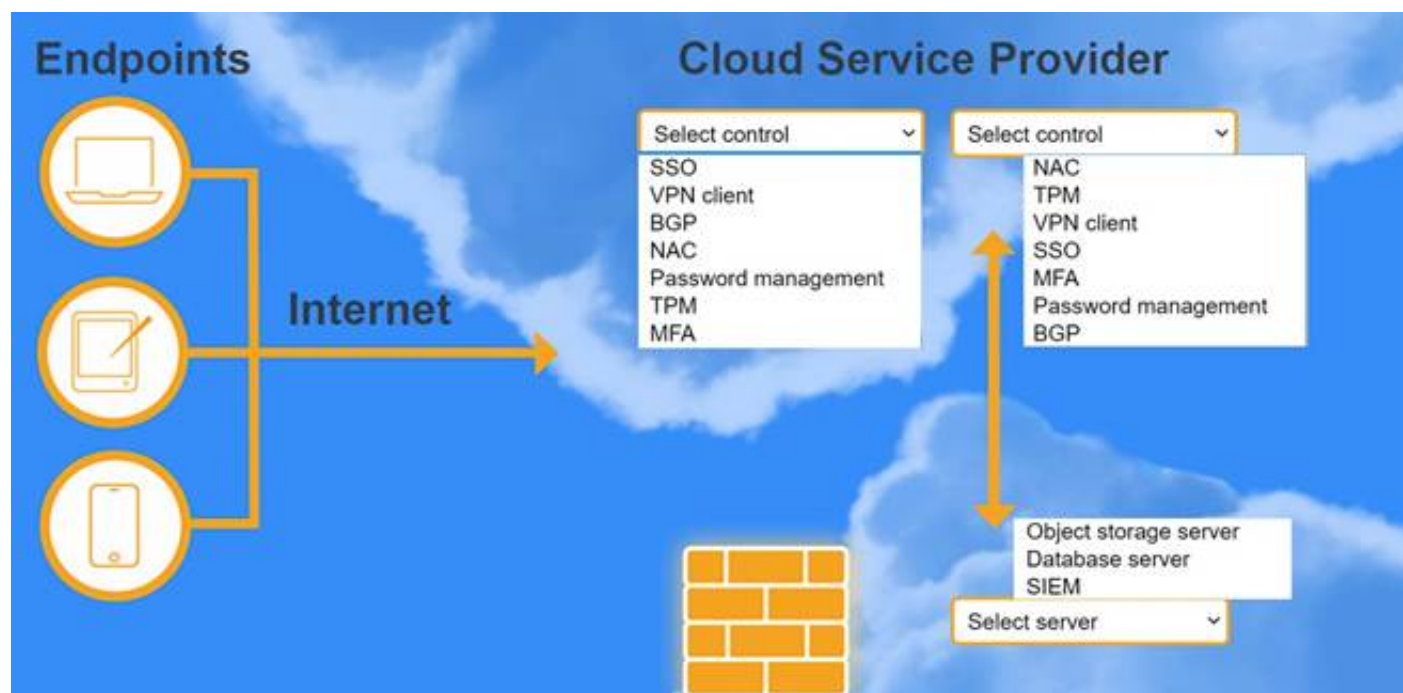
A highly regulated business is required to work remotely, and the risk tolerance is very low. You are tasked with providing an identity solution to the company cloud that includes the following:

- ? secure connectivity that minimizes user login
- ? tracks user activity and monitors for anomalous activity
- ? requires secondary authentication

INSTRUCTIONS

Select controls and servers for the proper control points.

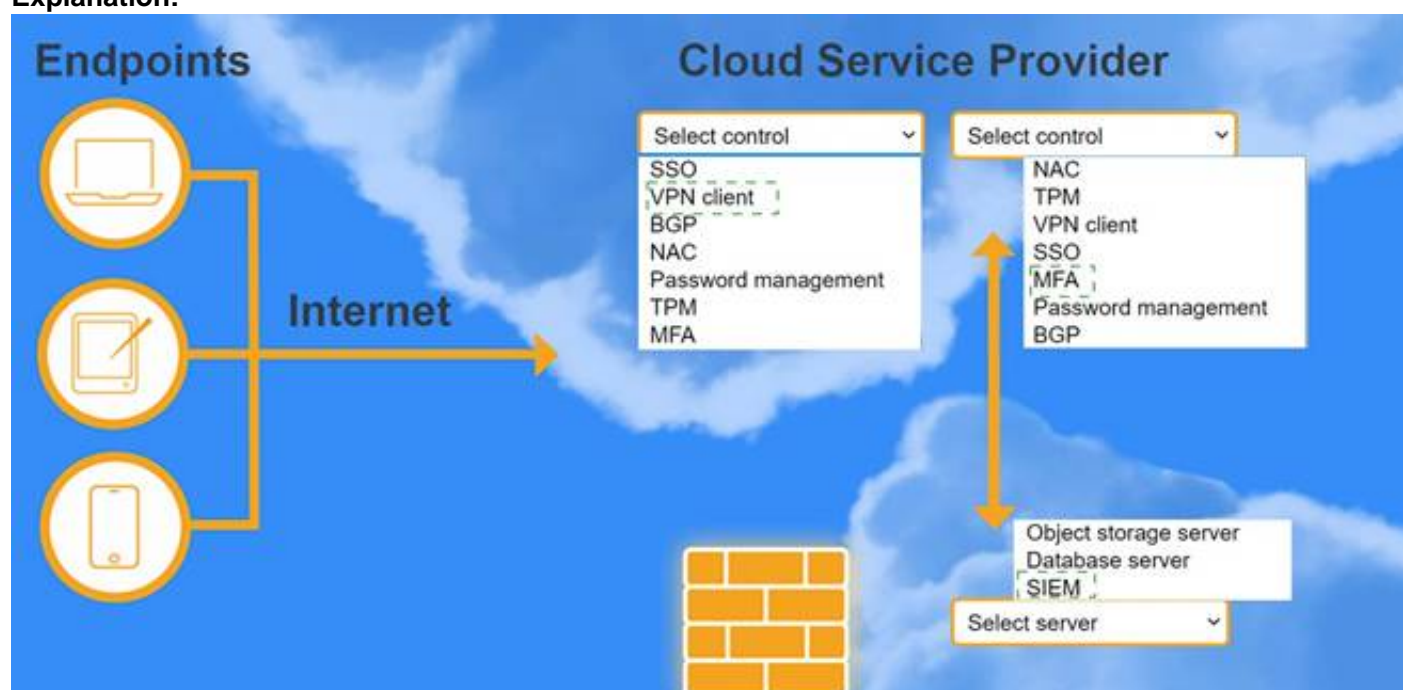




- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 222

- (Topic 4)

An organization hosts an ERP database in on-premises infrastructure. A recommendation has been made to migrate the ERP solution to reduce operational overhead in the maintenance of the data center. Which of the following should be considered when migrating this on-premises database to DBaaS?

- ? • Database application version compatibility
- Database IOPS values
- Database storage utilization
- ? • Physical database server CPU cache value
- Physical database server DAS type
- Physical database server network I/O
- ? • Database total user count
- Database total number of tables
- Database total number of storage procedures
- Physical database server memory configuration
- Physical database server CPU frequency

- A. • Physical database server operating system

Answer: A

Explanation:

When migrating an on-premises database to DBaaS, it is important to consider the database application version compatibility, the database IOPS values, and the database storage utilization. These factors can affect the performance, functionality, and cost of the migration. Database application version compatibility refers to the ability of the DBaaS provider to support the same or compatible version of the database software as the on-premises database. This can ensure that the database features, syntax, and behavior are consistent and compatible across the environments. Database IOPS values refer to the input/output operations per second that the database performs. This can indicate the workload and throughput of the database, and help determine the appropriate size and configuration of the DBaaS instance. Database storage utilization refers to the amount of disk space that the database consumes. This can affect the cost and scalability of the DBaaS service, and help optimize the storage allocation and backup strategies. References := CompTIA Cloud+ source documents or study guide

? CompTIA Cloud+ Certification Exam Objectives, Domain 2.0: Deployment, Objective 2.1: Given a scenario, execute and implement solutions using appropriate cloud migration tools and methods.

? Migrate your relational databases to Azure - .NET | Microsoft Learn, Migrate On-premises Tablespaces to DBaaS Database Using Cross-Platform Tablespace

Transport

? Migrating On-Premises Databases to the DBaaS Database Using RMAN - Oracle, Overview

NEW QUESTION 224

- (Topic 4)

A cloud administrator received a request to provision a set of cloud resources in an effort to switch to infrastructure as code to automate and optimize operations. The administrator decides to try to run some tests with the following definition:

```
#Cloud provider
provider "Cloud" {
  cloud_api_key    = "${var.cloud_api_key}"
  region          = "us-north"

#Resources
resource "key_is_ssh_key" "ssh_public" {
  name      = "testssh"
  public_key = var.ssh_public_key
}
resource "virtual-server" "vml" {
  name      = "vml"
  image     = "${var.image}"
  keys      = [key_is_ssh_key.ssh_public]

variable "ssh_public_key" {
  default = "test.pub"
```

However, the test fails with the following error:

```
Error: [DEBUG] Create SSH key illegal base64 data at input
```

Which of the following is the most likely cause of the issue?

- A. The cloud provider is expecting the private key.
- B. The incorrect resource name was used.
- C. The environment variable for the public key path has not been set.
- D. An unexpected variable was provided.

Answer: C

Explanation:

The error message indicates that the cloud provider is unable to find the public key file that is specified in the definition. The definition uses an environment variable called PUBLIC_KEY_PATH to refer to the location of the public key file. However, if this environment variable has not been set or exported in the shell, the cloud provider will not be able to resolve it and will fail to provision the resources. To fix this issue, the cloud administrator should set and export the environment variable for the public key path before running the definition. References: [CompTIA Cloud+ CV0-003 Certification Study Guide], Chapter 8, Objective 8.1: Given a scenario, implement cloud automation and orchestration.

NEW QUESTION 225

- (Topic 4)

When designing a three-node, load-balanced application, a systems administrator must ensure each node runs on a different physical server for HA purposes. Which of the following does the systems administrator need to configure?

- A. Round-robin methods
- B. Live migration
- C. Anti-affinity rule
- D. Priority queues

Answer: C

Explanation:

The correct answer is C. Anti-affinity rule.

An anti-affinity rule is a configuration option that prevents two or more virtual machines (VMs) from running on the same physical host. This can improve the availability and fault tolerance of the VMs, as it reduces the risk of losing multiple VMs due to a single host failure. An anti-affinity rule can also improve the performance and load balancing of the VMs, as it distributes the workload across different hosts and avoids resource contention. A round-robin method is a load balancing algorithm that distributes incoming requests to a pool of servers in a circular order. A round-robin method does not consider the availability, capacity, or location of the servers, and may assign requests to servers that are overloaded, offline, or far away. A round-robin method does not ensure that each node runs on a different physical server.

A live migration is a process that allows moving a running VM from one physical host to another without interrupting its operation. A live migration can improve the availability and performance of the VMs, as it enables dynamic load balancing, maintenance, and disaster recovery. However, a live migration does not prevent two or more VMs from running on the same physical host in the first place.

A priority queue is a data structure that stores elements based on their priority values. A priority queue allows inserting and removing elements in order of their priority, such that the element with the highest priority is always at the front of the queue. A priority queue can be used to implement scheduling algorithms for processes or tasks, but it does not affect where they run on physical servers.

NEW QUESTION 228

- (Topic 4)

An organization is implementing a new requirement to facilitate faster downloads for users of corporate application content. At the same time, the organization is also expanding cloud regions. Which of the following would be suitable to optimize the network for this requirement?

- A. Implement CDN for overall cloud application.
- B. Implement autoscaling of the compute resources.
- C. Implement SR-IOV on the server instances.
- D. Implement an application container solution.

Answer: A

Explanation:

CDN, or content delivery network, is a system of distributed servers that deliver web content to users based on their geographic location, the origin of the web page, and the content delivery server¹. A CDN can improve the performance, availability, and scalability of cloud applications by caching static and dynamic content at the edge of the network, reducing the latency and bandwidth consumption between the users and the cloud servers². A CDN can also provide security features such as encryption, authentication, and DDoS protection³.

Autoscaling, SR-IOV, and containerization are other techniques that can optimize the network for cloud applications, but they are not directly related to the requirement of faster downloads for users. Autoscaling is the process of automatically adjusting the number and size of compute resources based on the demand and workload of the application. SR-IOV, or single root I/O virtualization, is a technology that allows a physical network device to be partitioned into multiple virtual devices that can be assigned to different virtual machines or containers, bypassing the hypervisor and improving the network performance and efficiency.

Containerization is the process of packaging an application and its dependencies into a lightweight and portable unit that can run on any platform, providing isolation, consistency, and portability.

References:

? CompTIA Cloud+ CV0-003 Study Guide, Chapter 4: Network Optimization, Section 4.1: Content Delivery Networks, Page 17523

? CompTIA Cloud+ CV0-003 Study Guide, Chapter 4: Network Optimization, Section 4.2: Autoscaling, Page 180

? CompTIA Cloud+ CV0-003 Study Guide, Chapter 4: Network Optimization, Section 4.3: SR-IOV, Page 184

? CompTIA Cloud+ CV0-003 Study Guide, Chapter 4: Network Optimization, Section 4.4: Containerization, Page 187

? What is a CDN?

NEW QUESTION 231

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