

Exam Questions CV0-003

CompTIA Cloud+ Certification Exam

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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

- (Topic 1)

An organization is running a database application on a SATA disk, and a customer is experiencing slow performance most of the time.

Which of the following should be implemented to improve application performance?

- A. Increase disk capacity
- B. Increase the memory and network bandwidth
- C. Upgrade the application
- D. Upgrade the environment and use SSD drives

Answer: D

Explanation:

Upgrading the environment and using solid state drives (SSDs) can improve application performance for a database application that is running on a serial advanced technology attachment (SATA) disk and experiencing slow performance most of the time. Upgrading the environment can involve updating or replacing the hardware, software, or network components that support the application to enhance their functionality, capacity, or compatibility. Using SSDs can provide faster and more reliable data access and storage than SATA disks, as they use flash memory instead of spinning disks to store data. SSDs can also reduce latency, power consumption, and heat generation. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 3

- (Topic 1)

Which of the following cloud deployment models allows a company to have full control over its IT infrastructure?

- A. Private
- B. Cloud within a cloud
- C. Hybrid
- D. Public

Answer: A

Explanation:

A private cloud is a type of cloud deployment model that provides cloud services exclusively to a single organization or tenant. A private cloud allows a company to have full control over its IT infrastructure, as it can customize, configure, manage, and secure its own cloud environment according to its specific needs and preferences. A private cloud can also offer higher performance, reliability, and privacy than other cloud deployment models, as it does not share resources or data with other customers.

References: CompTIA Cloud+ Certification Exam Objectives, page 8, section 1.2 Reference: <https://www.sciencedirect.com/topics/computer-science/private-cloud>

NEW QUESTION 4

- (Topic 1)

A systems administrator disabled TLS 1.0 and 1.1, as well as RC4, 3DES, and AES-128 ciphers for TLS 1.2, on a web server. A client now reports being unable to access the web server, but the administrator verifies that the server is online, the web service is running, and other users can reach the server as well.

Which of the following should the administrator recommend the user do FIRST?

- A. Disable antivirus/anti-malware software
- B. Turn off the software firewall
- C. Establish a VPN tunnel between the computer and the web server
- D. Update the web browser to the latest version

Answer: D

Explanation:

Updating the web browser to the latest version is the first action that the user should do when experiencing a connection timeout error after the administrator configured a redirect from HTTP to HTTPS on the web server. Updating the web browser can ensure that it supports the latest security protocols and standards, such as TLS 1.2 or 1.3, which are required for HTTPS connections. If the web browser is outdated or incompatible with the security protocols or standards used by the web server, it may fail to establish a secure connection and result in a connection timeout error. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 5

- (Topic 1)

A DevOps administrator is automating an existing software development workflow. The administrator wants to ensure that prior to any new code going into production, tests confirm the new code does not negatively impact existing automation activities.

Which of the following testing techniques would be BEST to use?

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

Answer: B

Explanation:

Regression testing is a type of testing that ensures that new code or changes to existing code do not break or degrade the functionality of the software. Regression testing is often used in software development workflows to verify that new features or bug fixes do not introduce new errors or affect the performance of the software. Regression testing can help prevent negative impacts on existing automation activities by checking that the new code is compatible with the existing code and does not cause any unexpected failures or errors. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1
Reference: <https://www.softwaretestinghelp.com/regression-testing-tools-and-methods/>

NEW QUESTION 6

- (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 7

- (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 8

- (Topic 1)

After analyzing a web server's logs, a systems administrator sees that users are connecting to the company's application through HTTP instead of HTTPS. The administrator then configures a redirect from HTTP to HTTPS on the web server, and the application responds with a connection time-out message.

Which of the following should the administrator verify NEXT?

- A. The TLS certificate
- B. The firewall rules
- C. The concurrent connection limit
- D. The folder permissions

Answer: B

Explanation:

The firewall rules are the set of policies that define which traffic is allowed or denied between different network segments or devices. The firewall rules can affect the redirect from HTTP to HTTPS on the web server, as they can block or allow traffic based on ports and protocols. If the firewall rules are not configured properly to allow HTTPS traffic on port 443, the application may respond with a connection time-out message. The administrator should verify the firewall rules next to ensure that HTTPS traffic is permitted between the web server and its clients. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 9

- (Topic 1)

An organization is hosting a DNS domain with private and public IP ranges. Which of the following should be implemented to achieve ease of management?

- A. Network peering
- B. A CDN solution
- C. A SDN solution
- D. An IPAM solution

Answer: D

Explanation:

An IP address management (IPAM) solution is a type of tool or system that automates and standardizes the allocation, tracking, and management of IP addresses in an IP network. An IPAM solution can help achieve ease of management for hosting a DNS domain with private and public IP ranges, as it can simplify and centralize the process of assigning and updating IP addresses for different DNS records or zones without manual intervention or errors. An IPAM solution can also help optimize DNS performance and security, as it can monitor and report any issues or conflicts related to IP addresses or DNS records. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8
Reference: <https://www.infoblox.com/glossary/ipam-ip-address-management/>

NEW QUESTION 10

- (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 14

- (Topic 1)

A systems administrator is configuring RAID for a new server. This server will host files for users and replicate to an identical server. While redundancy is necessary, the most important need is to maximize storage.

Which of the following RAID types should the administrator choose?

- A. 5
- B. 6
- C. 10
- D. 50

Answer: C

Explanation:

RAID 50 is a type of RAID level that combines RAID 5 and RAID 0 to create a nested RAID configuration. RAID 50 consists of two or more RAID 5 arrays that are striped together using RAID 0. RAID 50 can provide redundancy, fault tolerance, and high performance for large data sets. RAID 50 can also maximize storage, as it has a higher usable capacity than other RAID levels with similar features, such as RAID 6 or RAID 10. The administrator should choose RAID 50 to configure a new server that will host files for users and replicate to an identical server, as it can meet the needs of redundancy and storage maximization. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 16

- (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 20

- (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 23

- (Topic 1)

A systems administrator wants the VMs on the hypervisor to share CPU resources on the same core when feasible.

Which of the following will BEST achieve this goal?

- A. Configure CPU passthrough
- B. Oversubscribe CPU resources
- C. Switch from a Type 1 to a Type 2 hypervisor
- D. Increase instructions per cycle
- E. Enable simultaneous multithreading

Answer: E

Explanation:

Simultaneous multithreading (SMT) is a type of CPU technology that allows multiple threads to run concurrently on a single CPU core. Enabling SMT can help achieve

the goal of having the VMs on the hypervisor share CPU resources on the same core when feasible, as it can increase the CPU utilization and efficiency by executing more instructions per cycle and reducing idle time or wasted cycles. Enabling SMT can also improve performance and throughput, as it can speed up processing and handle increased workload or demand. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 27

- (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 30

- (Topic 1)

A systems administrator needs to configure a set of policies to protect the data to comply with mandatory regulations.

Which of the following should the administrator implement to ensure DLP efficiently prevents the exposure of sensitive data in a cloud environment?

- A. Integrity
- B. Versioning
- C. Classification
- D. Segmentation

Answer: C

Explanation:

Classification is a process of assigning labels or categories to data based on its sensitivity, value, or risk level. Classification can help implement data loss prevention (DLP) policies by identifying which data needs to be protected and how to protect it according to its classification level. Classification can also help comply with mandatory regulations by ensuring that data is handled and stored appropriately based on its legal or contractual requirements. Classification is essential for DLP to efficiently prevent the exposure of sensitive data in a cloud environment. References: CompTIA Cloud+ Certification Exam Objectives, page 14, section 2.7

NEW QUESTION 35

- (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 36

- (Topic 1)

A cloud administrator is reviewing a new application implementation document. The administrator needs to make sure all the known bugs and fixes are applied, and unwanted ports and services are disabled.

Which of the following techniques would BEST help the administrator assess these business requirements?

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

Answer: D

Explanation:

Regression testing is a type of software testing that verifies that existing features or functionalities of a system or application are not affected by any changes or updates made to it. Regression testing can help assess whether all the known bugs and fixes are applied and unwanted ports and services are disabled when reviewing a new application implementation document for a cloud deployment, as it can detect any errors or defects that may have been introduced or re-introduced after applying patches, updates, or configurations to the application. References: CompTIA Cloud+ Certification Exam Objectives, page 19, section 4.1

NEW QUESTION 40

- (Topic 1)

A company has a cloud infrastructure service, and the cloud architect needs to set up a DR site.

Which of the following should be configured in between the cloud environment and the DR site?

- A. Failback
- B. Playbook
- C. Zoning
- D. Replication

Answer: D

Explanation:

Replication is a process of copying or synchronizing data from one location to another to ensure consistency and availability. Replication can help set up a disaster recovery (DR) site for a cloud environment, as it can enable data backup and recovery in case of a failure or outage in the primary site. Replication can also improve performance and reliability, as it can reduce latency and load by distributing data across multiple sites. Replication should be configured between the cloud environment and the DR site to ensure data protection and continuity. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 45

- (Topic 1)

A cloud administrator is setting up a DR site on a different zone of the same CSP. The application servers are replicated using the VM replication, and the database replication is set up using log shipping. Upon testing the DR site, the application servers are unable to access the database servers. The administrator has verified the systems are running and are accessible from the CSP portal.

Which of the following should the administrator do to fix this issue?

- A. Change the database application IP
- B. Create a database cluster between the primary site and the DR site
- C. Update the connection string
- D. Edit the DNS record at the DR site for the application servers

Answer: C

Explanation:

A connection string is a parameter that specifies how to connect to a database server or instance. A connection string typically includes information such as the server name, database name, user name, password, and other options. Updating the connection string is the best way to fix the issue of application servers being unable to access the database servers after setting up a DR site on a different zone of the same CSP and replicating the application and database servers using VM replication and log shipping. Updating the connection string can ensure that the application servers can connect to the correct database server or instance in the DR site, as the server name or IP address may have changed after the replication. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 46

- (Topic 1)

An IaaS provider has numerous devices and services that are commissioned and decommissioned automatically on an ongoing basis. The cloud administrator needs to implement a solution that will help reduce administrative overhead.

Which of the following will accomplish this task?

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

Answer: A

Explanation:

IP address management (IPAM) is a type of tool or system that automates and standardizes the allocation, tracking, and management of IP addresses in an IP network. IPAM can help reduce administrative overhead for an IaaS provider that has numerous devices and services that are commissioned and decommissioned automatically on an ongoing basis, as it can simplify and centralize the process of assigning and reclaiming IP addresses for different devices and services without manual intervention or errors. IPAM can also help optimize network performance and security, as it can monitor and report any issues or conflicts related to IP addresses. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8
Reference: <https://www.infoblox.com/glossary/ipam-ip-address-management/>

NEW QUESTION 51

- (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 53

- (Topic 1)

A VDI administrator has received reports of poor application performance. Which of the following should the administrator troubleshoot FIRST?

- A. The network environment
- B. Container resources
- C. Client devices
- D. Server resources

Answer: A

Explanation:

The network environment is the set of network devices, connections, protocols, and configurations that enable communication and data transfer between different systems and applications. The network environment can affect the performance of a virtual desktop infrastructure (VDI) by influencing factors such as bandwidth, latency, jitter, packet loss, and congestion. Poor network performance can result in slow or unreliable application delivery, degraded user experience, and reduced productivity.

Therefore, troubleshooting the network environment should be the first step for a VDI administrator who receives reports of poor application performance.

References: CompTIA Cloud+ Certification Exam Objectives, page 17, section 3.4

NEW QUESTION 56

- (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 59

- (Topic 2)

A systems administrator is troubleshooting a performance issue with a virtual database server. The administrator has identified the issue as being disk related and believes the cause is a lack of IOPS on the existing spinning disk storage. Which of the following should the administrator do NEXT to resolve this issue?

- A. Upgrade the virtual database server.
- B. Move the virtual machine to flash storage and test again.
- C. Check if other machines on the same storage are having issues.
- D. Document the findings and place them in a shared knowledge base.

Answer: B

Explanation:

Moving the virtual machine to flash storage and testing again is what the administrator should do next to resolve the issue of disk-related performance issue with a virtual database server that has been identified as being caused by a lack of IOPS on the existing spinning disk storage. IOPS (Input/Output Operations Per Second) is a measure of how fast a storage device can read and write data. IOPS can affect performance of a virtual database server by determining how quickly it can access and process data from storage. Spinning disk storage is a type of storage device that uses rotating magnetic disks to store data. Spinning disk storage has lower IOPS than flash storage, which is a type of storage device that uses solid-state memory chips to store data. Flash storage has higher IOPS than spinning disk storage, which means that it can read and write data faster and more efficiently than spinning disk storage. Moving the virtual machine to flash storage and testing again can help to resolve the issue by increasing the IOPS and improving the performance of the virtual database server.

NEW QUESTION 63

- (Topic 2)

A vendor is installing a new retail store management application for a customer. The application license ensures software costs are low when the application is not being used, but costs go up when use is higher.

Which of the following licensing models is MOST likely being used?

- A. Socket-based
- B. Core-based
- C. Subscription
- D. Volume-based

Answer: D

Explanation:

Volume-based licensing is a pricing model that charges the customers based on the amount of usage or consumption of a software product or service. The more the customers use the software, the higher the costs will be. This model is suitable for applications that have variable or seasonal demand patterns. Examples of volume-based licensing are AWS Lambda, Azure Functions, Google Cloud Run, etc.

NEW QUESTION 64

- (Topic 2)

A cloud administrator wants to have a central repository for all the logs in the company's private cloud. Which of the following should be implemented to BEST meet this requirement?

- A. SNMP
- B. Log scrubbing
- C. CMDB
- D. A syslog server

Answer: D

Explanation:

Reference: <https://www.itpro.com/infrastructure/network-internet/355174/how-to-build-a-dedicated-syslog-server>

A syslog server is what the administrator should implement to have a central repository for all the logs in the company's private cloud. Syslog is a standard protocol that allows network devices and systems to send log messages to a centralized server or collector. Syslog can help to consolidate and manage logs from different sources in one place, which can facilitate monitoring, analysis, troubleshooting, auditing, etc.

NEW QUESTION 68

- (Topic 2)

A system administrator has provisioned a new web server. Which of the following, in combination, form the best practice to secure the server's OS? (Choose three.)

- A. Install TLS certificates on the server.
- B. Forward port 80 traffic to port 443.
- C. Disable TLS 1.0/1.1 and SSL.
- D. Disable password authentication.
- E. Enable SSH key access only.
- F. Provision the server in a separate VPC.
- G. Disable the superuser/administrator account.
- H. Restrict access on port 22 to the IP address of the administrator's workstation.

Answer: ADE

Explanation:

These are the best practices to secure the OS of a new web server that has been provisioned in a cloud environment:

? Install TLS certificates on the server: TLS (Transport Layer Security) certificates are digital documents that contain 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. Installing TLS certificates on the web server can encrypt and secure web traffic between the server and the clients, as well as prevent spoofing or impersonation attacks.

? Disable password authentication: Password authentication is a method of verifying and authenticating users or devices based on passwords or other credentials. Password authentication can be insecure or vulnerable to attacks such as brute force, dictionary, phishing, etc., especially if passwords are weak, reused, or compromised. Disabling password authentication can enhance security by preventing unauthorized or malicious access to the web server using passwords.

? Enable SSH key access only: SSH key access is a method of verifying and authenticating users or devices based on digital keys issued by a trusted authority. SSH key access can provide more security and convenience than password authentication, as it does not require users or devices to remember or enter passwords every time they access the web server. Enabling SSH key access only can ensure that only authorized or trusted users or devices can access the web server using keys.

NEW QUESTION 69

- (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 74

- (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 79

- (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 83

- (Topic 2)

All of a company's servers are currently hosted in one cloud MSP. The company created a new cloud environment with a different MSP. A cloud engineer is now tasked with preparing for server migrations and establishing connectivity between clouds. Which of the following should the engineer perform FIRST?

- A. Peer all the networks from each cloud environment.
- B. Migrate the servers.
- C. Create a VPN tunnel.
- D. Configure network access control lists.

Answer: C

Explanation:

Creating a VPN tunnel is the first action that the engineer should perform to prepare for server migrations and establish connectivity between clouds. 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. Creating a VPN tunnel can enable communication and interoperability between different cloud environments, as well as protect data from interception or modification during migration.

NEW QUESTION 86

- (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 87

- (Topic 2)

A company is planning to migrate applications to a public cloud, and the Chief Information Officer (CIO) would like to know the cost per business unit for the applications in the cloud. Before the migration, which of the following should the administrator implement FIRST to assist with reporting the cost for each business unit?

- A. An SLA report
- B. Tagging
- C. Quotas
- D. Showback

Answer: B

Explanation:

Tagging is what the administrator should implement first to assist with reporting the cost for each business unit for applications in a public cloud environment. Tagging is a technique that allows customers to assign metadata or labels to their cloud resources, such as applications, instances, volumes, etc., based on their attributes or criteria. Tagging can help customers to organize, manage, monitor, and report their cloud resources and costs by business unit, project, owner, environment, etc.

NEW QUESTION 88

- (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 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 95

- (Topic 2)

A systems administrator has received an email from the virtualized environment's alarms indicating the memory was reaching full utilization. When logging in, the administrator notices that one out of a five-host cluster has a utilization of 500GB out of 512GB of RAM. The baseline utilization has been 300GB for that host. Which of the following should the administrator check NEXT?

- A. Storage array
- B. Running applications
- C. VM integrity
- D. Allocated guest resources

Answer: D

Explanation:

Allocated guest resources is what the administrator should check next after receiving an email from the virtualized environment's alarms indicating the memory was reaching full utilization and noticing that one out of a five-host cluster has a utilization of 500GB out of 512GB of RAM. Allocated guest resources are the amount of resources or capacity that are assigned or reserved for each guest system or device within a host system or device. Allocated guest resources can affect performance and utilization of host system or device by determining how much resources or capacity are available or used by each guest system or device. Allocated guest resources should be checked next by comparing them with the actual usage or demand of each guest system or device, as well as identifying any overallocation or underallocation of resources that may cause inefficiency or wastage.

NEW QUESTION 97

- (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 98

- (Topic 2)

An organization is using multiple SaaS-based business applications, and the systems administrator is unable to monitor and control the use of these subscriptions. The administrator needs to implement a solution that will help the organization apply security policies and monitor each individual SaaS subscription. Which of the following should be deployed to achieve these requirements?

- A. DLP
- B. CASB
- C. IPS
- D. HIDS

Answer: B

Explanation:

CASB (Cloud Access Security Broker) is what should be deployed to monitor and control the use of multiple SaaS-based business applications in a cloud environment. SaaS (Software as a Service) is a cloud service model that provides customers with access to software applications hosted on remote servers over a network or internet connection. SaaS can provide customers with convenience, flexibility, and scalability, but it may also introduce security risks such as data breaches, leaks, losses, etc., especially if customers have multiple SaaS subscriptions from different providers. CASB is a tool or service that acts as an intermediary between customers and SaaS providers. CASB can help to monitor and control the use of multiple SaaS subscriptions by providing features such as:

? Visibility: CASB can provide visibility into what SaaS applications are being used, by whom, when, where, how, etc., as well as identify any unauthorized or suspicious activities.

? Compliance: CASB can provide compliance with various laws, regulations, standards, policies, etc., that apply to SaaS applications and data, such as GDPR, HIPAA, PCI DSS, etc., as well as enforce them using rules or actions.

? Security: CASB can provide security for SaaS applications and data by detecting and preventing any threats or attacks, such as malware, phishing, ransomware, etc., as well as protecting them using encryption, authentication, authorization, etc.

NEW QUESTION 102

- (Topic 2)

A cloud administrator needs to reduce the cost of cloud services by using the company's off-peak period. Which of the following would be the BEST way to achieve this with minimal effort?

- A. Create a separate subscription.
- B. Create tags.
- C. Create an auto-shutdown group.
- D. Create an auto-scaling group.

Answer: C

Explanation:

Creating an auto-shutdown group is the best way to reduce the cost of cloud services by using the company's off-peak period with minimal effort. An auto-shutdown group is a feature that allows customers to automatically turn off or shut down certain cloud resources or services during a specified time period or schedule. An auto-shutdown group can help to reduce the cost of cloud services by minimizing the consumption of resources or services during off-peak periods, when they are not needed or used. An auto-shutdown group can also help to reduce the effort of managing cloud resources or services by automating the shutdown process, without requiring any manual intervention or configuration.

NEW QUESTION 106

- (Topic 2)

After a few new web servers were deployed, the storage team began receiving incidents in their queue about the web servers. The storage administrator wants to verify the incident tickets that should have gone to the web server team. Which of the following is the MOST likely cause of the issue?

- A. Incorrect assignment group in service management
- B. Incorrect IP address configuration
- C. Incorrect syslog configuration on the web servers
- D. Incorrect SNMP settings

Answer: C

Explanation:

Incorrect syslog configuration on the web servers is the most likely cause of the issue of storage team receiving incidents in their queue about web servers after new web servers were deployed in a cloud environment. Syslog is a standard protocol that allows network devices and systems to send log messages to a centralized server or collector. Syslog can help to consolidate and manage logs from different sources in one place, which can facilitate monitoring, analysis, troubleshooting, auditing, etc. Incorrect syslog configuration on the web servers can cause them to send log messages to the wrong destination or queue, such as the storage team's queue, rather than the web server team's queue.

NEW QUESTION 108

- (Topic 2)

A systems administrator is performing upgrades to all the hypervisors in the environment. Which of the following components of the hypervisors should be upgraded? (Choose two.)

- A. The fabric interconnects
- B. The virtual appliances
- C. The firmware
- D. The virtual machines
- E. The baselines
- F. The operating system

Answer: CF

Explanation:

These are the components of the hypervisors that should be upgraded by the administrator who is performing upgrades to all the hypervisors in the environment. A hypervisor is a software or hardware that allows multiple VMs (Virtual Machines) to run on a single physical host or server. A hypervisor consists of various components, such as:

? The firmware: This is the software that controls the basic functions and operations of the hardware or device. The firmware can affect the performance, compatibility, and security of the hypervisor and the VMs. The firmware should be upgraded to ensure that it supports the latest features and functions of the hardware or device, as well as fix any bugs or vulnerabilities.

? The operating system: This is the software that manages the resources and activities of the hypervisor and the VMs. The operating system can affect the functionality, reliability, and efficiency of the hypervisor and the VMs. The operating system should be upgraded to ensure that it supports the latest applications and services of the hypervisor and the VMs, as well as improve stability and performance.

NEW QUESTION 113

- (Topic 2)

A DevOps administrator is designing a new machine-learning platform. The application needs to be portable between public and private clouds and should be kept as small as possible. Which of the following approaches would BEST meet these requirements?

- A. Virtual machines
- B. Software as a service
- C. Serverless computing
- D. Containers

Answer: D

Explanation:

Containers are the best approach to design a new machine-learning platform that needs to be portable between public and private clouds and should be kept as small as possible. Containers are isolated environments that can run applications and their dependencies without interfering with other processes or systems. Containers are lightweight, portable, and scalable, which makes them ideal for machine-learning applications. Containers can be moved easily between public and private clouds without requiring any changes or modifications. Containers can also reduce the size and complexity of applications by using only the necessary components and libraries.

NEW QUESTION 114

- (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 118

- (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 123

- (Topic 2)

A cloud administrator is upgrading a cloud environment and needs to update the automation script to use a new feature from the cloud provider. After executing the script, the deployment fails. Which of the following is the MOST likely cause?

- A. API incompatibility
- B. Location changes
- C. Account permissions
- D. Network failure

Answer: A

Explanation:

API incompatibility is the most likely cause of the failure of an automation script to use a new feature from the cloud provider. 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 incompatibility is a situation where an API does not work or function properly with another software component or system due to differences or changes in versions, formats, parameters, etc. API incompatibility can cause errors or issues when using an automation script to deploy or configure cloud resources or services, especially if the script is not updated or modified according to the new API specifications.

NEW QUESTION 124

- (Topic 2)

A company needs a solution to find content in images. Which of the following technologies, when used in conjunction with cloud services, would facilitate the BEST solution?

- A. Internet of Things
- B. Digital transformation
- C. Artificial intelligence
- D. DNS over TLS

Answer: C

Explanation:

Artificial intelligence (AI) is the technology that, when used in conjunction with cloud services, would facilitate the best solution for finding content in images. AI is a branch of computer science that aims to create machines or systems that can perform tasks that normally require human intelligence, such as reasoning, learning, decision making, etc. AI can be used to analyze images and extract information such as objects, faces, text, emotions, etc., using techniques such as computer vision, machine learning, natural language processing, etc. AI can help to find content in images faster, more accurately, and more efficiently than manual methods.

NEW QUESTION 125

- (Topic 2)

A systems administrator wants to ensure two VMs remain together on the same host. Which of the following must be set up to enable this functionality?

- A. Affinity
- B. Zones
- C. Regions
- D. A cluster

Answer: A

Explanation:

Affinity is what must be set up to ensure two VMs remain together on the same host. Affinity is a feature that allows customers to specify preferences or requirements for placing VMs on certain hosts or clusters within a cloud environment. Affinity can help to improve performance, availability, compatibility, or security of VMs by ensuring they are located on optimal hosts or clusters. Affinity can also help to keep two VMs together on the same host by creating an affinity rule that binds them together.

NEW QUESTION 130

- (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 132

- (Topic 2)

A software development manager is looking for a solution that will allow a team of developers to work in isolated environments that can be spun up and torn down quickly.

Which of the following is the MOST appropriate solution?

- A. Containers
- B. File subscriptions
- C. Ballooning
- D. Software-defined storage

Answer: A

Explanation:

Containers are isolated environments that can run applications and their dependencies without interfering with other processes or systems. Containers are lightweight, portable, and scalable, which makes them ideal for development and testing purposes. Containers can be spun up and torn down quickly using tools such as Docker, Kubernetes, etc.

NEW QUESTION 133

- (Topic 2)

A systems administrator is examining a managed hosting agreement and wants to determine how much data would be lost if a server had to be restored from backups. To which of the following metrics should the administrator refer?

- A. RTO
- B. MTBF
- C. RPO
- D. MTTR

Answer: C

Explanation:

RPO (Recovery Point Objective) is the metric that the administrator should refer to determine how much data would be lost if a server had to be restored from

backups. RPO is a metric that measures how much data can be lost or how far back in time a recovery point can be without causing significant impact or damage. RPO can help to determine how much data would be lost by comparing the time of the disruption or disaster with the time of the last backup or snapshot. RPO can also help to determine how frequently backups or snapshots should be performed to minimize data loss.

NEW QUESTION 136

- (Topic 2)

A systems administrator is deploying a solution that includes multiple network I/O-intensive VMs. The solution design requires that vNICs of the VMs provide low-latency, near-native performance of a physical NIC and data protection between the VMs. Which of the following would BEST satisfy these requirements?

- A. SR-IOV
- B. GENEVE
- C. SDN
- D. VLAN

Answer: A

Explanation:

SR-IOV (Single Root Input/Output Virtualization) is what would best satisfy the requirements of low-latency, near-native performance of a physical NIC and data protection between VMs for multiple network I/O-intensive VMs. SR-IOV is a technology that allows a physical NIC to be partitioned into multiple virtual NICs that can be assigned to different VMs. SR-IOV can provide the following benefits:

? Low-latency: SR-IOV can reduce latency by bypassing the hypervisor and allowing direct communication between the VMs and the physical NIC, without any overhead or interference.

? Near-native performance: SR-IOV can provide near-native performance by allowing the VMs to use the full capacity and functionality of the physical NIC, without any emulation or translation.

? Data protection: SR-IOV can provide data protection by isolating and securing the network traffic between the VMs and the physical NIC, without any exposure or leakage.

NEW QUESTION 140

- (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 145

- (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 150

- (Topic 2)

A company had a system compromise, and the engineering team resolved the issue after 12 hours. Which of the following information will MOST likely be requested by the Chief Information Officer (CIO) to understand the issue and its resolution?

- A. A root cause analysis
- B. Application documentation
- C. Acquired evidence
- D. Application logs

Answer: A

Explanation:

A root cause analysis is what will most likely be requested by the Chief Information Officer (CIO) to understand the issue and its resolution after a system compromise that was resolved by the engineering team after 12 hours. A root cause analysis is a technique of investigating and identifying the underlying or fundamental cause or reason for an incident or issue that affects or may affect the normal operation or performance of a system or service. A root cause analysis can help to understand the issue and its resolution by providing information such as:

? What happened: This describes what occurred during the incident or issue, such as symptoms, effects, impacts, etc.

? Why it happened: This explains why the incident or issue occurred, such as triggers, factors, conditions, etc.

? How it was resolved: This details how the incident or issue was fixed or mitigated, such as actions, steps, methods, etc.

? How it can be prevented: This suggests how the incident or issue can be avoided or reduced in the future, such as recommendations, improvements, changes, etc.

NEW QUESTION 151

- (Topic 2)

A company needs to migrate the storage system and batch jobs from the local storage system to a public cloud provider. Which of the following accounts will MOST likely be created to run the batch processes?

- A. User
- B. LDAP
- C. Role-based
- D. Service

Answer: D

Explanation:

A service account is what will most likely be created to run the batch processes that migrate the storage system and batch jobs from the local storage system to a public cloud provider. A service account is a special type of account that is used to perform automated tasks or operations on a system or service, such as running scripts, applications, or processes. A service account can provide benefits such as:

? Security: A service account can have limited or specific permissions and roles that are required to perform the tasks or operations, which can prevent unauthorized or malicious access or actions.

? Efficiency: A service account can run the tasks or operations without any human intervention or interaction, which can save time and effort.

? Reliability: A service account can run the tasks or operations consistently and accurately, which can reduce errors or failures.

NEW QUESTION 154

- (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 158

- (Topic 2)

A company needs to access the cloud administration console using its corporate identity. Which of the following actions would MOST likely meet the requirements?

- A. Implement SSH key-based authentication.
- B. Implement cloud authentication with local LDAP.
- C. Implement multifactor authentication.
- D. Implement client-based certificate authentication.

Answer: D

Explanation:

Implementing client-based certificate authentication is what the administrator should do to access the cloud administration console using corporate identity. Client-based certificate authentication is a method of verifying and authenticating users or devices based on digital certificates issued by a trusted authority. Digital certificates are electronic documents that contain 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. Client-based certificate authentication can allow users or devices to access cloud resources or services using their corporate identity without requiring passwords or other credentials.

NEW QUESTION 159

- (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 163

- (Topic 2)

A cloud security analyst needs to ensure the web servers in the public subnet allow only secure communications and must remediate any possible issue. The stateful configuration for the public web servers is as follows:

ID	Direction	Protocol	Port	Source	Action
1	inbound	TCP	80	any	allow
2	inbound	TCP	443	any	allow
3	inbound	TCP	3306	any	allow
4	inbound	TCP	3389	any	allow
5	outbound	UDP	53	any	allow
*	both	any	any	any	deny

Which of the following actions should the analyst take to accomplish the objective?

- A. Remove rules 1, 2, and 5.
- B. Remove rules 1, 3, and 4.
- C. Remove rules 2, 3, and 4.
- D. Remove rules 3, 4, and 5.

Answer: A

Explanation:

To ensure the web servers in the public subnet allow only secure communications and remediate any possible issue, the analyst should remove rules 1, 2, and 5 from the stateful configuration. These rules are allowing insecure or unnecessary traffic to or from the web servers, which may pose security risks or performance issues. The rules are:

? Rule 1: This rule allows inbound traffic on port 80 (HTTP) from any source to any destination. HTTP is an unencrypted and insecure protocol that can expose web traffic to interception, modification, or spoofing. The analyst should remove this rule and use HTTPS (port 443) instead, which encrypts and secures web traffic.

? Rule 2: This rule allows outbound traffic on port 25 (SMTP) from any source to any destination. SMTP is a protocol that is used to send email messages. The web servers in the public subnet do not need to send email messages, as this is not their function. The analyst should remove this rule and block outbound SMTP traffic, which may prevent spamming or phishing attacks from compromised web servers.

? Rule 5: This rule allows inbound traffic on port 22 (SSH) from any source to any destination. SSH is a protocol that allows remote access and management of systems or devices using a command-line interface. The web servers in the public subnet do not need to allow SSH access from any source, as this may expose them to unauthorized or malicious access. The analyst should remove this rule and restrict SSH access to specific sources, such as the administrator's workstation or a bastion host.

NEW QUESTION 165

- (Topic 2)

Which of the following actions should a systems administrator perform during the containment phase of a security incident in the cloud?

- A. Deploy a new instance using a known-good base image.
- B. Configure a firewall rule to block the traffic on the affected instance.
- C. Perform a forensic analysis of the affected instance.
- D. Conduct a tabletop exercise involving developers and systems administrators.

Answer: B

Explanation:

Configuring a firewall rule to block the traffic on the affected instance is what the administrator should perform during the containment phase of a security incident in the cloud. A security incident is an event or situation that affects or may affect the confidentiality, integrity, or availability of cloud resources or data. A security incident response is a process of managing and resolving a security incident using various phases, such as identification, containment, eradication, recovery, etc. The containment phase is where the administrator tries to isolate and prevent the spread or escalation of the security incident. Configuring a firewall rule to block the traffic on the affected instance can help to contain a security incident by cutting off any communication or interaction between the instance and other systems or networks, which may stop any malicious or unauthorized activity or access.

NEW QUESTION 169

- (Topic 1)

A web server has been deployed in a public IaaS provider and has been assigned the public IP address of 72.135.10.100. Users are now reporting that when they browse to the website, they receive a message indicating the service is unavailable. The cloud administrator logs into the server, runs a netstat command,

and notices the following relevant output:

```
TCP 17.3.130.3:0 72.135.10.100:5500 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5501 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5502 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5503 TIME_WAIT
TCP 17.3.130.3:0 72.135.10.100:5504 TIME_WAIT
```

Which of the following actions should the cloud administrator take to resolve the issue?

- A. Assign a new IP address of 192.168.100.10 to the web server
- B. Modify the firewall on 72.135.10.100 to allow only UDP
- C. Configure the WAF to filter requests from 17.3.130.3
- D. Update the gateway on the web server to use 72.135.10.1

Answer: D

Explanation:

Updating the gateway on the web server to use 72.135.10.1 is the best action to take to resolve the issue of the web server being unavailable after being deployed in a public IaaS provider and assigned the public IP address of 72.135.10.100. Updating the gateway can ensure that the web server can communicate with the Internet and other networks by using the correct router or device that connects the web server's network to other networks. Updating the gateway can also improve performance and reliability, as it can avoid any routing errors or conflicts that may prevent the web server from responding to remote login requests. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 170

- (Topic 1)

A company is utilizing a private cloud solution that is hosted within its datacenter. The company wants to launch a new business application, which requires the resources below:

Maximum concurrent sessions	Number of nodes required	Required per-node vCPU	Required per-node RAM
1,000	2	4	32
5,000	4	6	64
10,000	6	8	64
25,000	8	8	128

The current private cloud has 30 vCPUs and 512GB RAM available. The company is looking for a quick solution to launch this application, with expected maximum sessions to be close to 24,000 at launch and an average of approximately 5,000 sessions.

Which of the following solutions would help the company accommodate the new workload in the SHORTEST amount of time and with the maximum financial benefits?

- A. Configure auto-scaling within the private cloud
- B. Set up cloud bursting for the additional resources
- C. Migrate all workloads to a public cloud provider
- D. Add more capacity to the private cloud

Answer: B

Explanation:

Cloud Bursting can be used for both compute and storage. This question is about compute capability. "Compute Bursting" unleashes the high-performance compute capabilities of the cloud for processing locally created datasets. (reference: <https://www.ctera.com/it-initiatives/cloud-bursting/>)
<https://azure.microsoft.com/en-us/overview/what-is-cloud-bursting/>

NEW QUESTION 172

- (Topic 1)

A cloud engineer is responsible for managing two cloud environments from different MSPs. The security department would like to inspect all traffic from the two cloud environments.

Which of the following network topology solutions should the cloud engineer implement to reduce long-term maintenance?

- A. Chain
- B. Star
- C. Mesh
- D. Hub and spoke

Answer: D

Explanation:

Hub and spoke is a type of network topology that consists of a central node or device (hub) that connects to multiple peripheral nodes or devices (spokes). Hub and spoke can help reduce long-term maintenance for managing two cloud environments from different MSPs, as it can simplify and centralize the network configuration and management by using the hub as a single point of contact and control for the spokes. Hub and spoke can also improve network performance and security, as it can reduce latency, bandwidth consumption, and network congestion by routing traffic through the hub. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 174

- (Topic 1)

An organization purchased new servers with GPUs for render farms. The servers have limited CPU resources.

Which of the following GPU configurations will be the MOST optimal for virtualizing this environment?

- A. Dedicated
- B. Shared
- C. Passthrough
- D. vGPU

Answer: C

Explanation:

Passthrough is a type of GPU configuration that allows a VM to directly access a physical GPU on the host system without any virtualization layer or sharing mechanism. Passthrough can provide optimal performance and compatibility for GPU-intensive applications, such as rendering or gaming, as it eliminates any overhead or contention caused by virtualization or sharing. Passthrough is also suitable for servers with limited CPU resources, as it reduces the CPU load and offloads the graphics processing to the GPU. Passthrough is the most optimal GPU configuration for virtualizing a new server with GPUs for render farms.

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

NEW QUESTION 177

- (Topic 1)

A cloud architect is designing the VPCs for a new hybrid cloud deployment. The business requires the following:

- ? High availability
- ? Horizontal auto-scaling
- ? 60 nodes peak capacity per region
- ? Five reserved network IP addresses per subnet
- ? /24 range

Which of the following would BEST meet the above requirements?

- A. Create two /25 subnets in different regions
- B. Create three /25 subnets in different regions
- C. Create two /26 subnets in different regions
- D. Create three /26 subnets in different regions
- E. Create two /27 subnets in different regions
- F. Create three /27 subnets in different regions

Answer: C

Explanation:

A /26 subnet is a subnet that has a network prefix of 26 bits and a host prefix of 6 bits. A /26 subnet can support up to 64 hosts (62 usable hosts) and has a subnet mask of 255.255.255.192. Creating two /26 subnets in different regions can best meet the business requirements for deploying a high availability, horizontally auto-scaling solution that has a peak capacity of 60 nodes per region and five reserved network IP addresses per subnet. Creating two /26 subnets can provide enough host addresses for the peak capacity and the reserved addresses, as well as allow for some growth or redundancy. Creating the subnets in different regions can provide high availability and horizontal auto-scaling, as it can distribute the workload across multiple locations and scale out or in based on demand. References: CompTIA Cloud+ Certification Exam Objectives, page 15, section 2.8

NEW QUESTION 181

- (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 186

- (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 190

- (Topic 1)

A systems administrator wants to have near-real-time information on the volume of data being exchanged between an application server and its clients on the Internet.

Which of the following should the systems administrator implement to achieve this objective?

- A. A stateful firewall
- B. DLP
- C. DNSSEC
- D. Network flows

Answer: D

Explanation:

Network flows are records of network traffic that capture information such as source and destination IP addresses, ports, protocols, timestamps, and byte and packet counts. Network flows can provide near-real-time information on the volume of data being exchanged between a system and its clients on the Internet, as they can measure and monitor the amount and rate of network traffic for each connection or session. Network flows can also help analyze network performance, troubleshoot network issues, and detect network anomalies or security incidents. A systems administrator should implement network flows to achieve the objective of having near-real-time information on the volume of data being exchanged between an application server and its clients on the Internet. References: CompTIA Cloud+ Certification Exam Objectives, page 16, section 3.2

NEW QUESTION 192

- (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 194

- (Topic 1)

A cloud administrator needs to implement a mechanism to monitor the expense of the company's cloud resources.

Which of the following is the BEST option to execute this task with minimal effort?

- A. Ask the cloud provider to send a daily expense report
- B. Set custom notifications for exceeding budget thresholds
- C. Use the API to collect expense information from cloud resources
- D. Implement a financial tool to monitor cloud resource expenses

Answer: B

Explanation:

Setting custom notifications for exceeding budget thresholds is the best option to execute the task of monitoring the expense of the company's cloud resources with minimal effort, as it can automate and simplify the process of tracking and alerting the cloud administrator about any overspending or wastage of cloud resources. Setting custom notifications can also help optimize the cost and performance of cloud resources, as it can enable timely and proactive actions to adjust or optimize the resource allocation or consumption based on the budget limits. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5

NEW QUESTION 195

- (Topic 1)

A systems administrator is deploying a new storage array for backups. The array provides 1PB of raw disk space and uses 14TB nearline SAS drives. The solution must tolerate at least two failed drives in a single RAID set.

Which of the following RAID levels satisfies this requirement?

- A. RAID 0
- B. RAID 1
- C. RAID 5
- D. RAID 6
- E. RAID 10

Answer: D

Explanation:

RAID 6 is a type of RAID level that uses block-level striping with two parity blocks distributed across all member disks. RAID 6 can provide redundancy and fault tolerance, as it can survive the failure of up to two disks without losing any data. RAID 6 can also support large data sets and high-capacity disks, as it can offer more usable space and better performance than other RAID levels with similar features, such as RAID 5 or RAID 10. RAID 6 is the best RAID level for a systems administrator to use when deploying a new

storage array for backups that provides 1PB of raw disk space and uses 14TB nearline SAS drives and must tolerate at least two failed drives in a single RAID set. References: CompTIA Cloud+ Certification Exam Objectives, page 9, section 1.4

NEW QUESTION 198

- (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 201

- (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 202

- (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 203

- (Topic 1)

An OS administrator is reporting slow storage throughput on a few VMs in a private IaaS cloud. Performance graphs on the host show no increase in CPU or memory. However, performance graphs on the storage show a decrease of throughput in both IOPS and MBps but not much increase in latency. There is no increase in workload, and latency is stable on the NFS storage arrays that are used by those VMs.

Which of the following should be verified NEXT?

- A. Application
- B. SAN
- C. VM GPU settings
- D. 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 performance of storage throughput by influencing factors such as bandwidth, latency, jitter, packet loss, and congestion. Poor network performance can result in low storage throughput in both IOPS and MBps, as it can limit the amount and speed of data that can be sent or received by the storage devices. Verifying the network should be the next step for troubleshooting the issue of slow storage throughput on a few VMs in a private IaaS cloud, as it can help identify and resolve any network-related problems that may be causing the issue. References: CompTIA Cloud+ Certification Exam Objectives, page 17, section 3.4

NEW QUESTION 207

- (Topic 1)

A systems administrator is using VMs to deploy a new solution that contains a number of application VMs. Which of the following would provide high availability to the application environment in case of hypervisor failure?

- A. Anti-affinity rules
- B. Cold migration
- C. Live migration
- D. Affinity rules

Answer: A

Explanation:

Anti-affinity rules are rules or policies that prevent two or more VMs from running on the same host or cluster in a cloud environment. Anti-affinity rules can provide high availability to an application environment in case of hypervisor failure, as they can distribute or separate the application VMs across different hosts or clusters and avoid having a single point of failure. Anti-affinity rules can also improve performance and reliability, as they can reduce contention and load by balancing the resource utilization across multiple hosts or clusters. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5
Reference: <https://www.vmware.com/products/vsphere/high-availability.html>

NEW QUESTION 211

- (Topic 1)

A systems administrator for an e-commerce company will be migrating the company's main website to a cloud provider. The principal requirement is that the website must be highly available. Which of the following will BEST address this requirement?

- A. Vertical scaling
- B. A server cluster
- C. Redundant switches
- D. A next-generation firewall

Answer: B

Explanation:

A server cluster is a group of servers that work together to provide high availability, load balancing, and scalability for applications or services. A server cluster can help ensure the high availability requirement for migrating an e-commerce company's main website to a cloud provider, as it can prevent downtime or disruption in case of a server failure or outage by automatically switching the workload to another server in the cluster. A server cluster can also improve performance and reliability, as it can distribute the workload across multiple servers and handle increased traffic or demand. References: CompTIA Cloud+ Certification Exam Objectives, page 10, section 1.5

NEW QUESTION 214

- (Topic 1)

A marketing team is using a SaaS-based service to send emails to large groups of potential customers. The internally managed CRM system is configured to generate a list of target customers automatically on a weekly basis, and then use that list to send emails to each customer as part of a marketing campaign. Last week, the first email campaign sent emails successfully to 3,000 potential customers. This week, the email campaign attempted to send out 50,000 emails, but only 10,000 were sent.

Which of the following is the MOST likely reason for not sending all the emails?

- A. API request limit
- B. Incorrect billing account
- C. Misconfigured auto-scaling
- D. Bandwidth limitation

Answer: A

Explanation:

An API request limit is a restriction on the number of requests that can be made to a web service or application programming interface (API) within a certain time period. API request limits are often used by SaaS-based services to control the usage and traffic of their customers and prevent overloading or abuse of their resources. An API request limit can cause a failure to send all the emails if the marketing team exceeds the number of requests allowed by the SaaS-based service in a week. The service may reject or block any requests that go beyond the limit, resulting in fewer emails being sent than expected. References: CompTIA Cloud+ Certification Exam Objectives, page 13, section 2.5
Reference: <https://developers.google.com/analytics/devguides/config/mgmt/v3/limits-quotas>

NEW QUESTION 216

- (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 218

- (Topic 1)

An organization has multiple VLANs configured to segregate the network traffic. Following is the breakdown of the network segmentation:

? Production traffic (10.10.0.0/24)

? Network backup (10.20.0.0/25)

? Virtual IP network (10.20.0.128/25)

The following configuration exists on the server:

Server name	Interface	IP address	Gateway
COMPSRV01	Production	10.10.0.12/24	10.10.0.1
COMPSRV01	Network backup	10.20.0.12/25	10.10.0.1

The backup administrator observes that the weekly backup is failing for this server. Which of the following commands should the administrator run to identify the issue?

- A. ROUTE PRINT
- B. NETSTAT -A
- C. IPCONFIG /ALL
- D. NET SM

Answer: A

Explanation:

ROUTE PRINT is a command that displays the routing table of a system, which shows the destination network, the gateway, the interface, and the metric for each route. ROUTE PRINT can help identify the issue of the weekly backup failing for this server, as it can show if there is a valid route to the network backup segment (10.20.0.0/25) from the production traffic segment (10.10.0.0/24). If there is no route or an incorrect route, the backup will fail to reach the destination. The administrator can use ROUTE PRINT to verify and troubleshoot the routing configuration of the server. References: CompTIA Cloud+ Certification Exam Objectives, page 16, section 3.2

Reference: <https://www.toolbox.com/tech/operating-systems/blogs/using-the-route-print-command-in-windows-7-022310/>

NEW QUESTION 221

- (Topic 4)

A systems administrator is attempting to gather information about services and resource utilization on VMs in a cloud environment. Which of the following will best accomplish this objective?

- A. Syslog
- B. SNMP
- C. CMDB
- D. Service management
- E. Performance monitoring

Answer: E

Explanation:

Performance monitoring is a technique that collects and analyzes data about the services and resource utilization on VMs in a cloud environment. Performance monitoring can help the systems administrator to gather information about the CPU, memory, disk, network, and application performance of the VMs, as well as identify any bottlenecks, errors, or anomalies that may affect the cloud service quality. Performance monitoring can be implemented using various tools or agents that can collect and report the performance metrics from the VMs to a centralized dashboard or console. Performance monitoring can also help the systems administrator to optimize, troubleshoot, and plan the cloud resources and services. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 5, Objective 5.1: Given a scenario, monitor cloud resources and services.

NEW QUESTION 224

- (Topic 4)

Which of the following are advantages of a public cloud? (Select TWO).

- A. Full control of hardware
- B. Reduced monthly costs
- C. Decreased network latency
- D. Pay as you use
- E. Availability of self-service
- F. More secure data

Answer: BD

Explanation:

The correct answers are B and D.

* B. Reduced monthly costs: One of the main advantages of public cloud is that it lowers the costs of IT infrastructure and maintenance for the customers. They do not need to purchase, install, or manage any hardware or software, and they only pay for the resources they use. This can result in significant savings compared to owning and operating a private cloud or an on-premise data center¹²³⁴

* D. Pay as you use: Another benefit of public cloud is that it offers a flexible and scalable pricing model based on the actual usage of the customers. They can adjust their resource consumption according to their changing needs and demands, and only pay for what they use. This eliminates the need for upfront capital investment or long-term contracts, and allows customers to optimize their spending and performance¹²³⁴

NEW QUESTION 228

- (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 229

- (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 231

- (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 234

- (Topic 4)

A systems administrator audits a cloud application and discovers one of the key regulatory requirements has not been addressed. The requirement states that if a physical breach occurs and hard drives are stolen, the contents of the drives should not be readable. Which of the following should be used to address the requirement?

- A. Obfuscation
- B. Encryption
- C. EDR
- D. HIPS

Answer: B

Explanation:

Encryption is the process of transforming data into an unreadable format using a secret key or algorithm. Encryption can be used to protect data at rest or in transit from unauthorized access or theft. If a physical breach occurs and hard drives are stolen, encryption can prevent the contents of the drives from being readable by anyone who does not have the decryption key or algorithm.

References: [CompTIA Cloud+ Study Guide], page 236.

NEW QUESTION 239

- (Topic 4)

A cloud engineer is migrating a customer's web servers from a hypervisor platform to a CSP environment. The engineer needs to decouple the infrastructure and components during the migration to reduce the single points of failure. Which of the following storage options should the cloud engineer migrate the content to in order to improve availability?

- A. Block
- B. File
- C. Object
- D. iSCSI
- E. NFS

Answer: C

Explanation:

Object storage is a storage option that stores data as discrete units called objects, which are identified by a unique identifier and can have metadata attached to them. Object storage can help the cloud engineer migrate the content to improve availability by decoupling the data from the underlying infrastructure and components. Object storage can also provide high scalability, durability, and redundancy for the data, as well as support for multiple protocols and access methods. Object storage can be accessed through APIs, web interfaces, or gateways that can emulate file or block storage. Object storage is suitable for storing unstructured or static data, such as web content, images, videos, or documents. References: CompTIA Cloud+ CV0-003 Certification Study Guide, Chapter 4, Objective 4.1: Given a scenario, implement cloud storage solutions.

NEW QUESTION 240

- (Topic 4)

A cloud administrator is having difficulty correlating logs for multiple servers. Upon inspection, the administrator finds that the time-zone settings are mismatched throughout the deployment. Which of the following solutions can help maintain time synchronization between all the resources?

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

Answer: C

Explanation:

The correct answer is C. NTP.

NTP stands for Network Time Protocol, which is a standard protocol for synchronizing the clocks of computers over a network. NTP uses a hierarchical, client-server architecture, where a client requests the current time from a server, and the server responds with a timestamp. The client then adjusts its own clock to match the server's time, taking into account the network delay and clock drift. NTP can achieve sub-millisecond accuracy over local area networks and a few milliseconds over the internet¹².

NTP can help maintain time synchronization between all the resources in a distributed cloud environment, as it allows each resource to get the accurate time from a reliable source. This can help with correlating logs, auditing, security, and other time-sensitive operations. NTP can also handle different time zones, as it uses Coordinated Universal Time (UTC) as the reference time, and each resource can convert UTC to its local time zone¹².

DNS stands for Domain Name System, which is a protocol for resolving domain names into IP addresses. DNS does not provide any functionality for time synchronization³.

IPAM stands for IP Address Management, which is a method for planning, tracking, and managing the IP address space used in a network. IPAM does not provide any functionality for time synchronization.

SNMP stands for Simple Network Management Protocol, which is a protocol for collecting and organizing information about managed devices on a network. SNMP can be used to monitor the performance, availability, configuration, and security of network devices, but it does not provide any functionality for time synchronization.

NEW QUESTION 244

- (Topic 4)

A systems administrator deployed a new web application in a public cloud and would like to test it, but the company's network firewall is only allowing outside connections to the cloud provider network using TCP port 22. While waiting for the network administrator to open the required ports, which of the following actions should the systems administrator take to test the new application? (Select two).

- A. Create an IPSec tunnel.
- B. Create a VPN tunnel.
- C. Open a browser using the default gateway IP address.
- D. Open a browser using the localhost IP address.
- E. Create a GRE tunnel.
- F. Create a SSH tunnel.

Answer: BF

Explanation:

To test the new web application in the public cloud, the systems administrator should create a replica database, synchronize the data, and switch to the new instance, and create a SSH tunnel. Creating a replica database can help minimize the downtime and ensure data consistency during the migration. Synchronizing the data can help keep the replica database up to date with the original database. Switching to the new instance can help activate the new web application in the public cloud. Creating a SSH tunnel can help bypass the network firewall and access the web application using TCP port 22. SSH is a secure protocol that can create encrypted tunnels between the local and remote hosts. By creating a SSH tunnel, the systems administrator can forward the web application traffic through the tunnel and test it using a web browser. References: [CompTIA Cloud+ CV0-003 Certification Study Guide], Chapter 7, Objective 7.1: Given a scenario, migrate applications and data to the cloud.

NEW QUESTION 246

- (Topic 4)

A company would like to move all its on-premises platforms to the cloud. The company has enough skilled Linux and web-server engineers but only a couple of skilled database administrators. It also has little expertise in managing email services. Which of the following solutions would BEST match the skill sets of available personnel?

- A. Run the web servers in PaaS, and run the databases and email in SaaS.
- B. Run the web servers, databases, and email in SaaS.
- C. Run the web servers in IaaS, the databases in PaaS, and the email in SaaS.
- D. Run the web servers, databases, and email in IaaS.

Answer: C

Explanation:

To answer this question, we need to understand the different types of cloud computing models and how they suit the skill sets of the available personnel. According to Google Cloud, there are three main models for cloud computing: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). Each model provides different levels of control, flexibility, and management over the cloud resources and services¹.

? IaaS: This model provides access to networking features, computers (virtual or on dedicated hardware), and data storage space. It gives the highest level of flexibility and management control over the IT resources and is most similar to existing IT resources that many IT departments and developers are familiar with².

? PaaS: This model provides a complete cloud platform for developing, running, and managing applications without the cost, complexity, and inflexibility of building and maintaining the underlying infrastructure. It removes the need for organizations to manage the hardware and operating systems and allows them to focus on the deployment and management of their applications².

? SaaS: This model provides a completed product that is run and managed by the service provider. It does not require any installation, maintenance, or configuration by the customers. It is typically used for end-user applications that are accessed through a web browser or a mobile app².

Based on these definitions, we can evaluate each option:

? Option A: Run the web servers in PaaS, and run the databases and email in SaaS. This option is not the best match for the skill sets of the available personnel because it does not leverage their expertise in Linux and web-server engineering. Running the web servers in PaaS means that they will have less control and customization over the web server environment and will have to rely on the service provider's platform features. Running the databases and email in SaaS means that they will not need any database administration or email management skills, but they will also have less flexibility and security over their data and communication.

? Option B: Run the web servers, databases, and email in SaaS. This option is not a good match for the skill sets of the available personnel because it does not utilize their skills at all. Running everything in SaaS means that they will have no control or responsibility over any aspect of their cloud environment and will have to depend entirely on the service provider's products. This option may be suitable for some small businesses or non-technical users who do not have any IT skills or resources, but not for a company that has skilled Linux and web-server engineers.

? Option C: Run the web servers in IaaS, the databases in PaaS, and the email in SaaS. This option is the best match for the skill sets of the available personnel because it balances their strengths and weaknesses. Running the web servers in IaaS means that they can use their Linux and web-server engineering skills to configure, manage, and optimize their web server infrastructure according to their needs. Running the databases in PaaS means that they can leverage the service provider's platform features to simplify their database development and administration tasks without having to worry about the underlying hardware and operating systems. Running the email in SaaS means that they can outsource their email services to a reliable and secure service provider without having to invest in or manage their own email infrastructure.

? Option D: Run the web servers, databases, and email in IaaS. This option is not a good match for the skill sets of the available personnel because it puts too much burden on them. Running everything in IaaS means that they will have to handle all aspects of their cloud environment, including networking, computing, storage, security, backup, scaling, patching, etc. This option may be suitable for some large enterprises or highly technical users who have full control and customization over their cloud environment, but not for a company that has only a couple of skilled database administrators and little expertise in managing email services.

Therefore, option C is the correct answer.

NEW QUESTION 250

- (Topic 4)

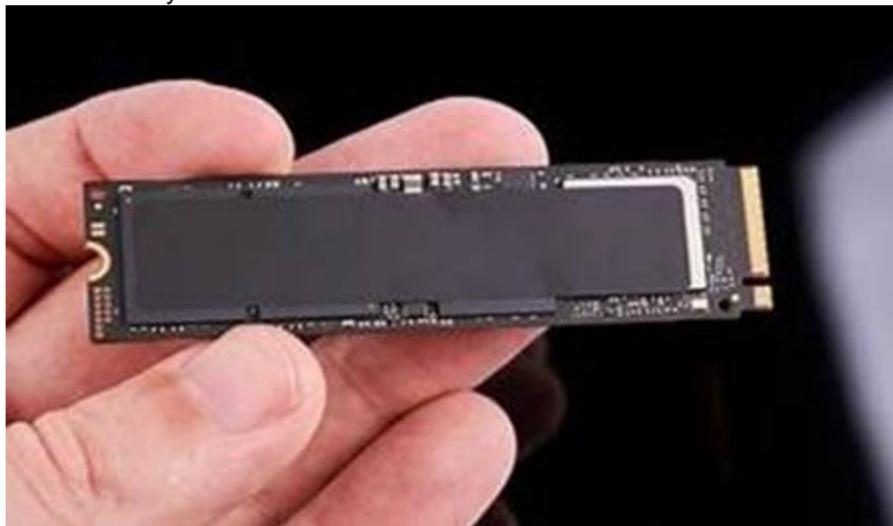
A technician deployed a VM with NL-SAS storage to host a critical application. Two weeks later, users have begun to report high application latency. Which of the following is the best action to correct the latency issue?

- 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 251

- (Topic 4)

A cloud administrator needs to verify domain ownership with a third party. The third party has provided a secret that must be added to the DNS server. Which of the following DNS records does the administrator need to update to include the secret?

- A. NS
- B. TXT
- C. AAAA
- D. SOA

Answer: B

Explanation:

TXT is a type of DNS record that can store arbitrary text data, such as a secret, a verification code, or a configuration parameter. TXT records are often used to verify domain ownership with a third party, such as a certificate authority, an email service provider, or a cloud service provider. The third party can check the TXT record of the domain and compare it with the secret they provided to confirm the identity and authority of the domain owner .

NEW QUESTION 256

- (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 261

- (Topic 4)

A cloud solutions architect has an environment that must only be accessed during work hours. Which of the following processes should be automated to BEST reduce cost?

- A. Scaling of the environment after work hours
- B. Implementing access control after work hours
- C. Shutting down the environment after work hours
- D. Blocking external access to the environment after work hours

Answer: C

Explanation:

One of the main benefits of cloud computing is that you only pay for the resources that you use. However, this also means that you need to manage your cloud resources efficiently and avoid paying for idle or unused resources¹.

Shutting down the environment after work hours is a process that can be automated to best reduce cost in a cloud environment that must only be accessed during work hours. This process involves stopping or terminating the cloud resources, such as virtual machines, databases, load balancers, etc., that are not needed outside of the work hours. This can significantly reduce the cloud bill by avoiding charges for compute, storage, network, and other services that are not in use².

The other options are not the best processes to automate to reduce cost in this scenario:

? Option A: Scaling of the environment after work hours. Scaling is a process that involves adjusting the number or size of cloud resources to match the demand or workload. Scaling can be done manually or automatically using triggers or policies. Scaling can help optimize the performance and availability of a cloud environment, but it does not necessarily reduce the cost. Scaling down the environment after work hours may reduce some costs, but it may still incur charges for the remaining resources. Scaling up the environment before work hours may increase the cost and also introduce delays or errors in provisioning new resources³.

? Option B: Implementing access control after work hours. Access control is a process that involves defining and enforcing rules and policies for who can access what resources in a cloud environment. Access control can help improve the security and compliance of a cloud environment, but it does not directly affect the cost. Implementing access control after work hours may prevent unauthorized access to the environment, but it does not stop or terminate the resources that are still running and consuming cloud services⁴.

? Option D: Blocking external access to the environment after work hours. Blocking external access is a process that involves restricting or denying network traffic from outside sources to a cloud environment. Blocking external access can help protect the environment from potential attacks or breaches, but it does not impact the cost. Blocking external access after work hours may prevent unwanted requests or connections to the environment, but it does not shut down or release the resources that are still active and generating cloud charges.

NEW QUESTION 265

- (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 Tablespace to DBaaS Database Using Cross-Platform Tablespace Transport

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

NEW QUESTION 269

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