



CompTIA

Exam Questions CV0-004

CompTIA Cloud+

NEW QUESTION 1

A cloud administrator recently created three servers in the cloud. The goal was to create ACLs so the servers could not communicate with each other. The servers were configured with the following IP addresses:

	Server 1	Server 2	Server 3
IP address	172.16.12.7	172.16.12.14	172.16.13.4
Subnet mask	255.255.255.240	255.255.255.240	255.255.255.240
Default gateway	172.16.12.1	172.16.12.17	172.16.13.15

After implementing the ACLs, the administrator confirmed that some servers are still able to reach the other servers. Which of the following should the administrator change to prevent the servers from being on the same network?

- A. The IP address of Server 1 to 172.16.12.36
- B. The IP address of Server 1 to 172.16.12.2
- C. The IP address of Server 2 to 172.16.12.18
- D. The IP address of Server 2 to 172.16.14.14

Answer: B

Explanation:

To prevent the servers from being on the same network and communicating with each other, the administrator should change the IP address of Server 1 to 172.16.12.2. This IP address is outside the subnet defined by the subnet mask 255.255.255.240, which would place Server 1 on a different subnet, preventing direct communication without routing. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 2

A cloud solutions architect needs to have consistency between production, staging, and development environments. Which of the following options will best achieve this goal?

- A. Using Terraform templates with environment variables
- B. Using Grafana in each environment
- C. Using the ELK stack in each environment
- D. Using Jenkins agents in different environments

Answer: A

Explanation:

Terraform templates with environment variables can ensure consistency across different environments such as production, staging, and development. Terraform allows for infrastructure as code, which can be used to define and maintain infrastructure with consistency. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 3

A cross-site request forgery vulnerability exploited a web application that was hosted in a public IaaS network. A security engineer determined that deploying a WAF in blocking mode at a CDN would prevent the application from being exploited again. However, a week after implementing the WAF, the application was exploited again. Which of the following should the security engineer do to make the WAF control effective?

- A. Configure the DDoS protection on the CDN.
- B. Install endpoint protection software on the VMs
- C. Add an ACL to the VM subnet.
- D. Deploy an IDS on the IaaS network.

Answer: C

Explanation:

After a WAF deployment fails to prevent an exploit, adding an Access Control List (ACL) to the Virtual Machine (VM) subnet can be an effective control. ACLs provide an additional layer of security by explicitly defining which traffic can or cannot enter a network segment. By setting granular rules based on IP addresses, protocols, and ports, ACLs help to restrict access to resources, thereby mitigating potential exploits and enhancing the security of the IaaS network. References: CompTIA Cloud+ materials cover governance, risk, compliance, and security for the cloud, including the implementation of network security controls like ACLs, to protect cloud environments from unauthorized access and potential security threats.

NEW QUESTION 4

Which of the following is a difference between a SAN and a NAS?

- A. A SAN works only with fiber-based networks.
- B. A SAN works with any Ethernet-based network.

- C. A NAS uses a faster protocol than a SAN
- D. A NAS uses a slower protocol than a SAN.

Answer: D

Explanation:

A NAS (Network Attached Storage) typically uses file-level protocols such as NFS or SMB, which are generally considered slower and less efficient than the block-level protocols used by SANs (Storage Area Networks), such as iSCSI or Fibre Channel. SANs are designed for high performance and low latency, making them more suitable for applications requiring fast and efficient storage access.

NEW QUESTION 5

A company requests that its cloud administrator provision virtual desktops for every user. Given the following information:

- One hundred users are at the company.
- A maximum of 30 users work at the same time.
- Users cannot be interrupted while working on the desktop. Which of the following strategies will reduce costs the most?

- A. Provisioning VMs of varying sizes to match user needs
- B. Configuring a group of VMs to share with multiple users
- C. Using VMs that have spot availability
- D. Setting up the VMs to turn off outside of business hours at night

Answer: D

Explanation:

Setting up the VMs to turn off outside of business hours at night will reduce costs the most, especially since a maximum of 30 users work at the same time and users cannot be interrupted while working. This approach ensures that resources are used only when necessary. References: Cost management and efficient resource utilization strategies like scheduling VMs to turn off during idle times are discussed within the financial management aspects of cloud services in the CompTIA Cloud+ exam objectives.

NEW QUESTION 6

Which of the following is used to deliver code quickly and efficiently across the development, test, and production environments?

- A. Snapshot
- B. Container image
- C. Serverless function
- D. VM template

Answer: B

Explanation:

A container image is used to deliver code quickly and efficiently across the development, test, and production environments. Container images are lightweight, standalone, executable software packages that include everything needed to run a piece of software, including the code, runtime, system tools, libraries, and settings. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Deployment Methods

NEW QUESTION 7

A systems administrator needs to configure a script that will monitor whether an application is healthy and stop the VM if an unsuccessful code is returned. Which of the following scripts should the systems administrator use to achieve this goal?

- A.

```
RESPONSE_CODE }string APP_URLbool RESPONSE_CODEstring VMhealth checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { echo RESPONSE_CODE }else{ stop (VM) echo
```
- B.

```
else{ echostring APP_URLfloat RESPONSE_CODE string VMhealth_checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { stop (RESPONSE_CODE)echo VM } stop (VM)RESPONSE CODE }
```
- C.

```
else{ echostring APP_URLint RESPONSE CODEstring VMhealth checker (APP_URL, VM) {if [ http_probe (APP_URL) == 200] { echo RESPONSE_CODE }stop (VM) RESPONSE_CODE }
```
- D.

```
else{ echostring APP_URLint RESPONSE_CODEstring VMhealth_checker (APP_URL, VM) { if [ http_probe (VM) == 200] { stop (VM)echo RESPONSE_CODE } RESPONSE CODE }
```

Answer: A

Explanation:

Script A is designed to monitor the health of an application by checking its response code. If the application returns a 200 (OK) status, it indicates that the application is healthy. Otherwise, the script will stop the VM to address the issue, which is a common approach to handle unhealthy application states in automated environments. This script effectively achieves the goal of monitoring application health and taking corrective action when an unsuccessful code is returned. References: CompTIA Cloud+ resources and general scripting practices for cloud environments

NEW QUESTION 8

Servers in the hot site are clustered with the main site.

- A. Network traffic is balanced between the main site and hot site servers.
- B. Offline server backups are replicated hourly from the main site.
- C. All servers are replicated from the main site in an online status.
- D. Which of the following best describes a characteristic of a hot site?

Answer: C

Explanation:

When servers in a hot site are clustered with the main site, it indicates that all servers are replicated from the main site in an online status. This means that the hot site maintains a live, real-time copy of data and applications, ensuring immediate availability in the event of a failure at the main site. Unlike options A and B, which

describe load balancing and backup strategies respectively, clustering with a hot site as described in option C ensures that the hot site can take over with minimal downtime, maintaining business continuity.

References: CompTIA Cloud+ CV0-004 Study Guide and Official CompTIA Content

NEW QUESTION 9

Which of the following would allow a cloud engineer to flatten a deeply nested JSON log to improve readability for analysts?

- A. Grafana
- B. Kibana
- C. Elasticsearch
- D. Logstash

Answer: D

Explanation:

Logstash can be used to flatten a deeply nested JSON log, which would improve readability for analysts. Logstash is a data processing pipeline that ingests data from various sources, transforms it, and then sends it to a "stash" like Elasticsearch. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Data Management

NEW QUESTION 10

A technician receives an email from a vendor who is requesting payment of an invoice for human resources services. The email contains a request for bank account numbers. Which of the following types of attacks does this behavior most likely indicate?

- A. Malware
- B. Cryptojacking
- C. Ransomware
- D. Phishing

Answer: D

Explanation:

The behavior described in the question indicates a phishing attack. Phishing typically involves an attacker masquerading as a legitimate entity to trick individuals into providing sensitive information, such as bank account numbers, through seemingly trustworthy communication channels like email. References: Understanding security concerns and measures is part of the Governance, Risk, Compliance, and Security domain of the CompTIA Cloud+ objectives.

NEW QUESTION 10

A cloud security analyst is investigating the impact of a recent cyberattack. The analyst is reviewing the following information:

Web server access log:

```
* 104.210.233.225 - - [21/10/2022:11:17: 40] "POST /uploadfile.html?f=myfile.php" 200 1638674
* 45.32.10.66 - - [21/10/2022:11:19:12] "GET /welcome.html" 200 5812
* 104.210.233.225 - - [21/10/2022:11:21:19] "GET /.. / .. / .. / .. /conf/server.xml HTTP/1.1" 200 74458
* 45.32.10.66 - - [21/10/22:11:22:32] "GET /admin.html HTTP/1.1" 200 9518
```

Web application firewall log:

```
"2022/10/21 11:17:33" "10.25.2.35" "104. 210.233.225" "user1" "File transfer completed successfully."
"2022/10/21 11:21:05" "10. 25.2. 35" "104. 210.233.225" "user1" "Accessed application page."
"2022/10/21 11:22:13" "10.25.2.35" "45. 32. 10. 66" "user2" "Accessing admin page. " Which of the following has occurred?
```

- A. The corporate administration page was defaced by the attacker.
- B. A denial-of-service attack was successfully performed on the web server.
- C. A new user was created on the web server by the attacker.
- D. Sensitive information from the corporate web server was leaked.

Answer: D

Explanation:

The logs indicate that the IP address 104.210.233.225 made a GET request that appears to traverse directories (as indicated by the '/../..') to access 'server.xml', which is a configuration file for the server. This type of request is indicative of a directory traversal attack, which can lead to unauthorized access to sensitive files on the server. The successful 200 response code suggests that the file was accessed, implying that sensitive configuration data could have been leaked. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 11

Which of the following cloud deployment strategies is best for an organization that wants to run open-source workloads with other organizations that are sharing the cost?

- A. Community
- B. Public
- C. Hybrid
- D. Private

Answer: A

Explanation:

A community cloud deployment strategy is best for an organization that wants to run open-source workloads with other organizations while sharing the cost. Community clouds are collaborative efforts where infrastructure is shared between several organizations with common concerns, which could be regulatory, security, or compliance- related. References: The concept of community clouds is discussed in the domain of Cloud Concepts within the CompTIA Cloud+ exam objectives.

NEW QUESTION 14

An e-commerce store is preparing for an annual holiday sale. Previously, this sale has increased the number of transactions between two and ten times the normal level of transactions. A cloud administrator wants to implement a process to scale the web server seamlessly. The goal is to automate changes only when necessary and with minimal cost.

Which of the following scaling approaches should the administrator use?

- A. Scale horizontally with additional web servers to provide redundancy.
- B. Allow the load to trigger adjustments to the resources.
- C. When traffic increases, adjust the resources using the cloud portal.
- D. Schedule the environment to scale resources before the sale begins.

Answer: B

Explanation:

To seamlessly scale the web server for an e-commerce store during an annual sale, it's best to allow the load to trigger adjustments to the resources. This approach uses autoscaling to automatically adjust the number of active servers based on the current load, ensuring an automated change that is cost-effective.

References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Scalability

NEW QUESTION 16

A cloud developer needs to update a REST API endpoint to resolve a defect. When too many users attempt to call the API simultaneously, the following message is displayed:

Error: Request Timeout - Please Try Again Later

Which of the following concepts should the developer consider to resolve this error?

- A. Server patch
- B. TLS encryption
- C. Rate limiting
- D. Permission issues

Answer: C

Explanation:

To resolve the issue of a REST API endpoint timing out when too many users attempt to call the API simultaneously, the developer should consider implementing rate limiting. Rate limiting controls the number of requests a user can submit in a given amount of time, preventing overuse of the API resources and ensuring availability for all users. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Maintenance and Management

NEW QUESTION 20

A company wants to use a solution that will allow for quick recovery from ransomware attacks, as well as intentional and unintentional attacks on data integrity and availability. Which of the following should the company implement that will minimize administrative overhead?

- A. Object versioning
- B. Data replication
- C. Off-site backups
- D. Volume snapshots

Answer: D

Explanation:

Implementing volume snapshots is an effective solution for quick recovery from ransomware attacks and protecting data integrity and availability. Snapshots capture the state of a storage volume at a point in time and can be used to restore data quickly with minimal administrative overhead. References: Data protection strategies like volume snapshots are discussed under cloud data management and protection in the CompTIA Cloud+ objectives.

NEW QUESTION 21

For compliance purposes, a cloud developer at an insurance company needs to save all customer policies for more than ten years. Which of the following options is the most cost-efficient tier to save the data in the cloud?

- A. Archive
- B. Hot
- C. Cold
- D. Warm

Answer: A

Explanation:

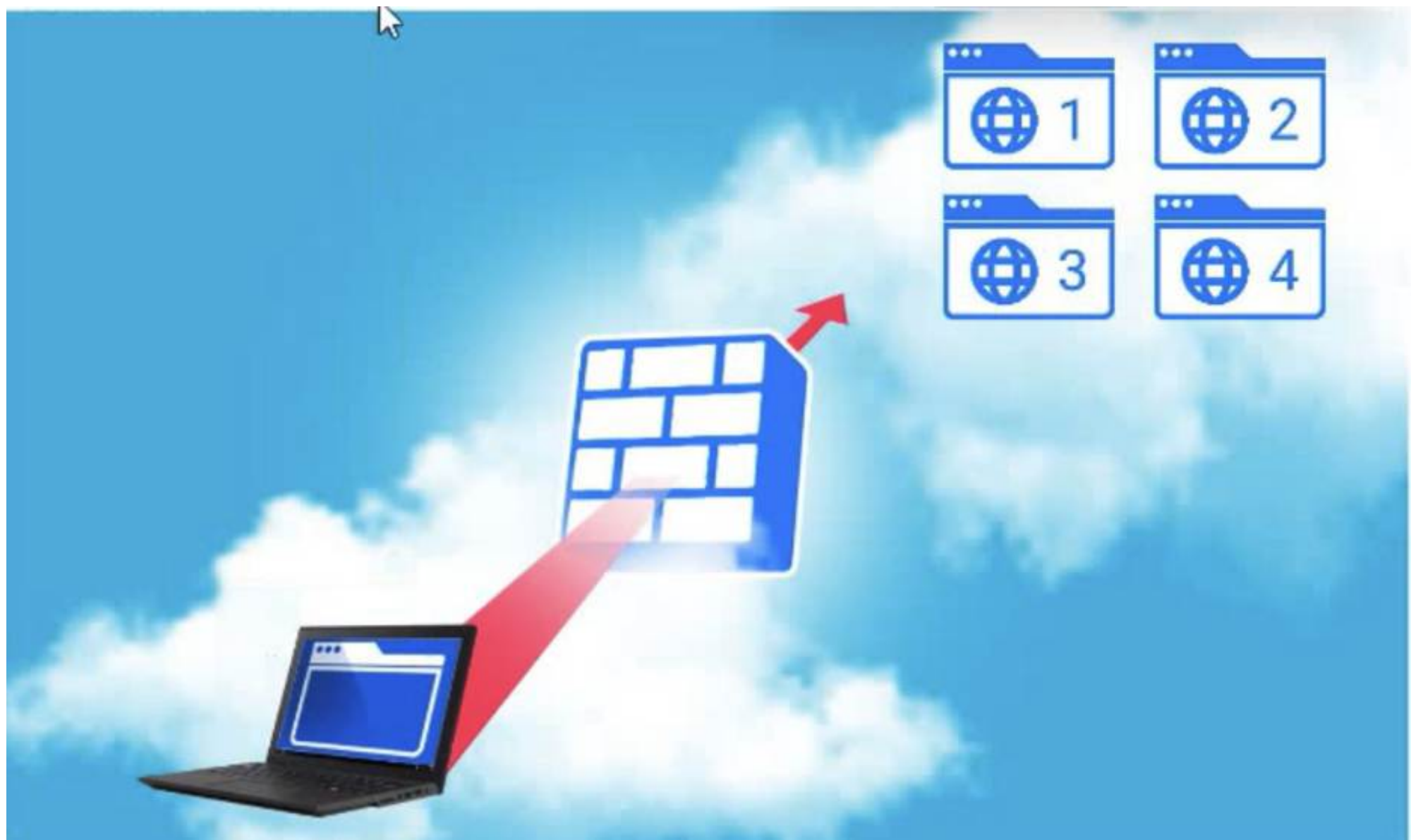
For compliance purposes, saving customer policies for more than ten years most cost-efficiently can be achieved by using the Archive storage tier. Archive or archival storage is designed for data that needs to be retained over the long term but accessed infrequently. It is generally the most cost-effective storage tier for this type of data. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 22

SIMULATION

A company hosts various containerized applications for business uses. A client reports that one of its routine business applications fails to load the web-based login prompt hosted in the company cloud.

Click on each device and resource. Review the configurations, logs, and characteristics of each node in the architecture to diagnose the issue. Then, make the necessary changes to the WAF configuration to remediate the issue.



Web app 1



SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp1	FIN	10.22.10.11	443

Web app 2



SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp2	VIDEO	10.22.10.21	443

Web app 3



SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp3	API	10.22.10.31	443

Web app 4			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp4	CHAT	10.22.10.41	443

WAF				
Edit config		WAF logs		
Rule ID	Description	Service	Action	Availability zone
1001	Brute force attempt	^https://webapp[.]comptia[.]org/\$	Block	A
1002	Botnet	^https://webapp[.]compha[.]org/\$	Block	A
1003	API web server	^https://webapp3[.]compha[.]org/([0-9A-Za-z]([0-9A-Za-z_?]*))+\$	Allow	B
1004	Chat web traffic	^https://webapp4[.]comptia[.]org/chat/request[.]php\$	Allow	B
1005	Finance application 1	^https://webapp1[.]comptia[.]org/([0-9A-Za-z]([0-9A-Za-z_?]*))+\$	Allow	B
1006	Finance application 2	^https://webapp1[.]comptia[.]org/login[.]html\$	Block	A
1007	Video application	^https://webapp2[.]comptia[.]org/video/stream\$	Allow	A

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

From the image, it's noticeable that some finance application rules are set to "Block" traffic. If the client's issue is with a finance-related application not loading the login prompt, these rules could be the cause. The rule with ID 1005, labeled "Finance application 1", is configured to allow access to "webapp1" for finance-related paths. However, rule 1006, labeled "Finance application 2", is set to block access to "webapp1" for login-related paths. To remediate the issue based on the WAF configuration you have provided, you would want to:

- ? Ensure that the correct paths to the finance application are allowed through the WAF.
- ? Modify any rules that are incorrectly blocking access to the application.

If the client's problem is specifically with the login prompt, then rule 1006 seems the most likely culprit. Changing the action from "Block" to "Allow" for rule 1006 could potentially resolve the client's issue. The rule should be carefully reviewed and updated to ensure legitimate traffic is not being blocked while still protecting against unauthorized access.

NEW QUESTION 23

A company's engineering department is conducting a month-long test on the scalability of an in-house-developed software that requires a cluster of 100 or more servers. Which of the following models is the best to use?

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

Answer: D

Explanation:

For testing the scalability of an in-house-developed software that requires a cluster of 100 or more servers, Infrastructure as a Service (IaaS) is the best model. IaaS provides the necessary computer resources and allows the engineering department to configure the environment as needed for their specific test without the constraints that might be present in PaaS or SaaS offerings. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Models

NEW QUESTION 24

A list of CVEs was identified on a web server. The systems administrator decides to close the ports and disable weak TLS ciphers. Which of the following describes this vulnerability management stage?

- A. Scanning

- B. Identification
- C. Assessment
- D. Remediation

Answer: D

Explanation:

Closing the ports and disabling weak TLS ciphers as a response to a list of identified CVEs (Common Vulnerabilities and Exposures) describes the vulnerability management stage of 'remediation'. This stage involves taking actions to resolve vulnerabilities and mitigate potential risks. References: Vulnerability management stages, including remediation efforts, are a key aspect of the security measures discussed in CompTIA Cloud+.

NEW QUESTION 27

A company operates a website that allows customers to upload, share, and retain full ownership of their photographs. Which of the following could affect image ownership as the website usage expands globally?

- A. Sovereignty
- B. Data classification
- C. Litigation holds
- D. Retention

Answer: A

Explanation:

Data sovereignty refers to the legal implications of storing data in a country, subject to that country's laws. As the website's usage expands globally, data sovereignty becomes a critical concern because laws governing data ownership, privacy, and rights can vary significantly from one jurisdiction to another, potentially affecting the users' ownership rights over their photographs.

NEW QUESTION 28

A customer relationship management application, which is hosted in a public cloud IaaS network, is vulnerable to a remote command execution vulnerability. Which of the following is the best solution for the security engineer to implement to prevent the application from being exploited by basic attacks?

- A. IPS
- B. ACL
- C. DLP
- D. WAF

Answer: D

Explanation:

A Web Application Firewall (WAF) is the best solution to implement for a public cloud IaaS hosted customer relationship management application vulnerable to remote command execution attacks. WAFs are designed to monitor, filter, and block malicious HTTP/S traffic to and from a web application to protect against various application layer attacks, including remote command execution. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Security in the Cloud

NEW QUESTION 33

An IT security team wants to ensure that the correct parties are informed when a specific user account is signed in. Which of the following would most likely allow an administrator to address this concern?

- A. Creating an alert based on user sign-in criteria
- B. Aggregating user sign-in logs from all systems
- C. Enabling the collection of user sign-in logs
- D. Configuring the retention of all sign-in logs

Answer: A

Explanation:

To ensure that the correct parties are informed when a specific user account is signed in, the best action is to create an alert based on user sign-in criteria. This alert can notify administrators or security personnel when the specified event occurs. References: Security monitoring and alerting are critical components of managing cloud environments securely, as discussed in the CompTIA Cloud+ certification.

NEW QUESTION 34

An administrator needs to adhere to the following requirements when moving a customer's data to the cloud:

- The new service must be geographically dispersed.
- The customer should have local access to data
- Legacy applications should be accessible.

Which of the following cloud deployment models is most suitable?

- A. On-premises
- B. Private
- C. Hybrid
- D. Public

Answer: C

Explanation:

A hybrid cloud deployment model is most suitable given the requirements. This model combines on-premises infrastructure (or private cloud) with public cloud services, providing geographic dispersion while allowing local access to data. It also facilitates the use of legacy applications that might not be well-suited for a full public cloud environment. References: The hybrid model is a fundamental concept within the CompTIA Cloud+ curriculum, under the section of Cloud Concepts,

that explains deployment models.

NEW QUESTION 36

An administrator needs to provide a backup solution for a cloud infrastructure that enables the resources to run from another data center in case of a outage. Connectivity to the backup data center is via a third-party, untrusted network. Which of the following is the most important feature required for this solution?

- A. Deduplication
- B. Replication
- C. Compression
- D. Encryption
- E. Labeling

Answer: D

Explanation:

When backing up data that will traverse a third-party, untrusted network, encryption is the most important feature to ensure the confidentiality and integrity of the data. Encryption will protect the data from potential interception or tampering during transit to the backup data center. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 39

A developer is building an application that has multiple microservices that need to communicate with each other. The developer currently manually updates the IP address of each service. Which of the following best resolves the communication issue and automates the process?

- A. Service discovery
- B. Fan-out
- C. Managed container services
- D. DNS

Answer: A

Explanation:

Service discovery is a key component in microservices architectures, allowing services to dynamically discover and communicate with each other. By implementing service discovery, the developer can automate the process of updating service addresses, resolving the communication issue without manual updates to IP addresses, thus ensuring seamless interaction between the microservices. References: CompTIA Cloud+ resources and microservices architecture principles

NEW QUESTION 42

A systems engineer is migrating a batch of 25 VMs from an on-premises compute cluster to a public cloud using the public cloud's migration agent. The migration job shows data copies at a rate of 250Mbps. After five servers migrate, the data copies at a rate of 25Mbps. Which of the following should the engineer review first to troubleshoot?

- A. The on-premises VM host hardware utilization
- B. The on-premises ISP throttling rate
- C. The IOPS on the SAN backing the on-premises cluster
- D. The compute utilization of the VMs being migrated

Answer: A

Explanation:

The engineer should review the on-premises VM host hardware utilization first. A decrease in transfer rate after a batch of migrations could suggest that the host hardware resources (like CPU, RAM, or network bandwidth) are becoming saturated, which would slow down additional migrations. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 44

Which of the following storage resources provides higher availability and speed for currently used files?

- A. Warm/HDD
- B. Cold/SSD
- C. Hot/SSD
- D. Archive/HDD

Answer: C

Explanation:

Hot storage using Solid State Drives (SSD) is designed for data that needs to be accessed frequently and quickly. SSDs provide faster access times compared to HDDs, making them suitable for high-availability and speed-critical files, such as those currently in use or requiring rapid access. References: CompTIA Cloud+ resources and storage tiering concepts

NEW QUESTION 49

HOTSPOT

An e-commerce company is migrating from an on-premises private cloud environment to a public cloud IaaS environment. You are tasked with right-sizing the environment to save costs after the migration. The company's requirements are to provide a 20% overhead above the average resource consumption, rounded up.

INSTRUCTIONS

Review the specifications and graphs showing resource usage for the web and database servers. Determine the average resource usage and select the correct specifications from the available drop-down options.





Web Server

Current Specifications

CPU: 4vCPU
RAM: 16GB
Disk Speed: 20MB/s

Target Specifications

CPU: Select
2 vCPUs
6 vCPUs
4 vCPUs
8 vCPUs
1 vCPU


RAM: Select
32GB
16GB
128GB
1GB
8GB
4GB
64GB
2GB

Disk Speed: Select
120MBps
70MBps
110MBps
5MBps
80MBps
100MBps
90MBps
30MBps
10MBps
15MBps
25MBps

Processor Usage (%)



RAM Usage (%)



Disk Throughput (MBps)





Database Server

Current Specifications

CPU: 4vCPU
RAM: 16GB
Disk Speed: 20MB/s

Target Specifications

CPU: Select
2 vCPUs
6 vCPUs
4 vCPUs
8 vCPUs
1 vCPU

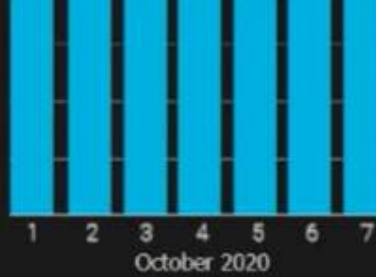
RAM: Select
32GB
16GB
128GB
1GB
8GB
4GB
64GB
2GB

Disk Speed: Select
120MBps
70MBps
110MBps
5MBps
80MBps
100MBps
90MBps
30MBps
10MBps
15MBps
25MBps

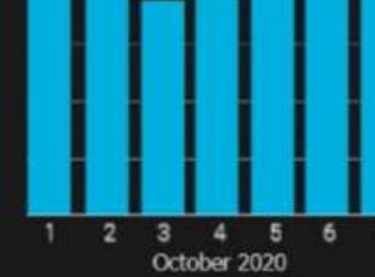
Processor Usage (%)



RAM Usage (%)



Disk Throughput (MBps)



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

For the Web Server:
? CPU: 2 vCPUs
? RAM: 2GB
? Disk Speed: 10MBps
For the Database Server:
? CPU: 6 vCPUs
? RAM: 128GB
? Disk Speed: 110MBps

These selections are based on maintaining a 20% overhead above the average resource consumption and rounding up to the next available option in the dropdowns provided.

NEW QUESTION 51

Which of the following integration systems would best reduce unnecessary network traffic by allowing data to travel bidirectionally and facilitating real-time results for developers who need to display critical information within applications?

- A. REST API
- B. RPC
- C. GraphQL
- D. Web sockets

Answer: D

Explanation:

Web sockets provide a full-duplex communication channel over a single, long-lived connection, allowing data to flow bidirectionally between a client and a server. This is ideal for real-time applications where developers need to display critical information without unnecessary network overhead, as it reduces the need for repetitive HTTP requests and allows for more efficient, instantaneous data updates and interactions.

NEW QUESTION 53

An administrator is setting up a cloud backup solution that requires the following features:

- Cost effective
- Granular recovery
- Multilocation

Which of the following backup types best meets these requirements?

- A. Off-site, full, incremental, and differential
- B. Cloud site, full, and differential
- C. On-sit
- D. full, and incremental
- E. On-sit
- F. full, and differential

Answer: A

Explanation:

An off-site cloud backup solution that offers full, incremental, and differential backups would best meet the requirements of being cost-effective, allowing granular recovery, and supporting multi-location storage. This combination allows for comprehensive backup strategies that can be tailored to the company's needs while optimizing storage costs. References: Backup strategies, including full, incremental, and differential backups, are an integral part of data management and protection strategies discussed in the CompTIA Cloud+ objectives.

NEW QUESTION 56

A cloud engineer is troubleshooting a connectivity issue. The application server with IP 192.168.1.10 in one subnet is not connecting to the MySQL database server with IP 192.168.2.20 in a different subnet. The cloud engineer reviews the following information: Application Server Stateful Firewall

Inbound rules	Outbound rules
PERMIT ANY 443	PERMIT ANY 443
DENY ANY ANY	PERMIT ANY 3306
	PERMIT ANY 53
	DENY ANY ANY

Application Server Subnet Routing Table

Destination	Gateway
default	192.168.1.1
192.168.1.0/24	local

MySQL Server Stateful Firewall

Inbound rules	Outbound rules
PERMIT 192.168.1.10/32 3306	DENY ANY ANY
DENY ANY ANY	

MySQL Server Subnet Routing Table

Destination	Gateway
192.168.2.0/24	192.168.1.1
192.168.1.0/24	local

Which of the following should the cloud engineer address to fix the communication issue?

- A. The Application Server Stateful Firewall
- B. The Application Server Subnet Routing Table
- C. The MySQL Server Stateful Firewall
- D. The MySQL Server Subnet Routing Table

Answer: C

Explanation:

The connectivity issue between the application server and the MySQL database server in different subnets is likely due to the MySQL Server Stateful Firewall's inbound rules. The application server has an IP of 192.168.1.10, but the MySQL server's inbound rules only permit IP 192.168.1.10/32 on port 3306. This rule allows only a single IP address (192.168.1.10) to communicate on port 3306, which is typical for MySQL. However, if the application server's IP is not 192.168.1.10 or the application is trying to communicate on a different port, it would be blocked. To fix the communication issue, the cloud engineer should address the inbound rules on the MySQL Server Stateful Firewall to ensure that the application server's IP address and the required port are allowed. References: Based on the information provided in the question and general networking principles.

NEW QUESTION 57

Which of the following network protocols is generally used in a NAS environment?

- A. BGP
- B. RDP
- C. TCP/IP
- D. iSCSI

Answer: C

Explanation:

The network protocol generally used in a NAS (Network Attached Storage) environment is TCP/IP (Transmission Control Protocol/Internet Protocol). NAS devices are accessed over a network rather than being directly connected to the computer, and they utilize the TCP/IP protocol to enable this network communication. References: Understanding of networking protocols, including TCP/IP in the context of NAS environments, is part of the foundational networking knowledge for cloud services in CompTIA Cloud+.

NEW QUESTION 61

A cloud administrator learns that a major version update, 4.6.0, is available for a business-critical application. The application is currently on version 4.5.2, with additional minor versions 3, 4, and 5 available. The administrator needs to perform the update while minimizing downtime. Which of the following should the administrator do first?

- A. Apply the minor updates and then restart the machine before applying the major update.
- B. During off hours, decommission the machine and create a new one directly on major update 4.6.0.
- C. Stop the service and apply the major updates directly.
- D. Create a test environment and apply the major update

Answer: D

Explanation:

The first step the administrator should take is to create a test environment and apply the major update there. This allows for testing the new version without impacting the production environment, thus minimizing downtime and the potential for unexpected issues. References: Creating test environments and conducting thorough testing before applying updates in production is a risk mitigation strategy covered under cloud deployment and operations in the CompTIA Cloud+ certification.

NEW QUESTION 64

An organization has been using an old version of an Apache Log4j software component in its critical software application. Which of the following should the organization use to calculate the severity of the risk from using this component?

- A. CWE
- B. CVSS
- C. CWSS
- D. CVE

Answer: B

Explanation:

The Common Vulnerability Scoring System (CVSS) is what the organization should use to calculate the severity of the risk from using an old version of Apache Log4j software component. CVSS provides an open framework for communicating the characteristics and impacts of IT vulnerabilities. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Risk Management

NEW QUESTION 68

A system surpasses 75% to 80% of resource consumption. Which of the following scaling approaches is the most appropriate?

- A. Trending
- B. Manual
- C. Load
- D. Scheduled

Answer: C

Explanation:

Load scaling is the most appropriate approach when a system surpasses 75% to 80% of resource consumption. This method involves adjusting resources dynamically in response to the current load, ensuring the system can handle increased demand without performance degradation. Load scaling can be automatic, allowing systems to scale up or down based on predefined metrics like CPU usage, memory, or network traffic, providing an efficient way to manage resources and maintain optimal performance. References: The CompTIA Cloud+ exam objectives include understanding cloud management and technical operations, which encompass knowledge of various scaling approaches, including load scaling, to ensure efficient resource utilization in cloud environments.

NEW QUESTION 73

A log-parsing application requires significant processing power to ingest the logs streaming from web servers. The engineering team presents the cloud architect with four proposals using the same underlying hardware. Which of the following should the cloud architect select in order to minimize the impact of an instance failure while keeping the cost as low as possible?

- A. Four instances of 4vCPU, 8GB RAM, 80GB SSD
- B. Four instances of 4vCPU, 8GB RAM, 80GB HDD
- C. Two instances of 8vCPU, 16GB RAM, 80GB SSD
- D. Two instances of 8vCPU, 16GB RAM, 80GB HDD

Answer: A

Explanation:

Choosing four instances with the given specifications would distribute the load and reduce the impact of any single instance failure. Using SSDs over HDDs would provide faster data processing capabilities which is crucial for a log-parsing application. This setup also retains cost efficiency by not over-provisioning resources. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 77

Which of the following compute resources is the most optimal for running a single scripted task on a schedule?

- A. Bare-metal server
- B. Managed container
- C. Virtual machine
- D. Serverless function

Answer: D

Explanation:

Serverless functions are ideal for running scripted tasks on a schedule because they can be triggered by events, run the task, and then shut down, incurring costs only for the actual compute time used. This eliminates the need for a continuously running server and is optimal for sporadic or scheduled tasks. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 78

A cloud engineer is designing a high-performance computing cluster for proprietary software. The software requires low network latency and high throughput between cluster nodes.

Which of the following would have the greatest impact on latency and throughput when designing the HPC infrastructure?

- A. Node placement
- B. Node size
- C. Node NIC
- D. Node OS

Answer: A

Explanation:

Node placement is critical in high-performance computing (HPC) clusters where low network latency and high throughput are required. Proper placement of nodes within the network infrastructure, including proximity to each other and to key network components, can significantly reduce latency and increase throughput. Ensuring that nodes are physically close and well-connected can facilitate faster data transfer rates between them. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 82

A cloud engineer wants containers to run the latest version of a container base image to reduce the number of vulnerabilities. The applications in use require Python 3.10 and are not compatible with any other version. The containers' images are created every time a new version is released from the source image. Given

the container Dockerfile below:

```
FROM cgr.dev/chainguard/python:3.10
WORKDIR /myapp
COPY main.py ./
ENTRYPOINT ["python", "/myapp/main.py"]
```

Which of the following actions will achieve the objectives with the least effort?

- A. Perform docker pull before executing docker run.
- B. Execute docker update using a local cron to get the latest container version.
- C. Change the image to use python:latest on the image build process.
- D. Update the Dockerfile to pin the source image version.

Answer: A

Explanation:

Performing a "docker pull" before executing "docker run" ensures that the latest version of the container base image is used, aligning with the objective of reducing vulnerabilities. This command fetches the latest image version from the repository, ensuring that the container runs the most up-to-date and secure version of the base image. This approach is efficient and requires minimal effort, as it automates the process of maintaining the latest image versions for container deployments. References: Within the CompTIA Cloud+ examination scope, understanding management and technical operations in cloud environments, including container management and security, is critical. This includes best practices for maintaining up-to-date container images to minimize vulnerabilities.

NEW QUESTION 84

A company's main web application is no longer accessible via the internet. The cloud administrator investigates and discovers the application is accessible locally and only via an IP address. Which of the following was misconfigured?

- A. IP
- B. DHCP
- C. NAT
- D. DNS

Answer: D

Explanation:

When a web application is accessible locally via an IP address but not via the internet, the issue likely lies with the Domain Name System (DNS). DNS is responsible for translating domain names into IP addresses. A misconfiguration in DNS records or failure in DNS resolution can prevent users from accessing the application through its domain name, even though the application itself is running and accessible via its direct IP address. References: In the CompTIA Cloud+ curriculum, understanding cloud concepts and networking fundamentals, including DNS, is crucial for troubleshooting and ensuring applications are accessible and perform optimally in cloud environments.

NEW QUESTION 85

A cloud engineer needs to determine a scaling approach for a payroll-processing solution that runs on a biweekly basis. Given the complexity of the process, the deployment to each new VM takes about 25 minutes to get ready. Which of the following would be the best strategy?

- A. Horizontal
- B. Scheduled
- C. Trending
- D. Event

Answer: B

Explanation:

For a biweekly payroll-processing solution that takes a significant amount of time to deploy to each new VM, the best scaling strategy is Scheduled scaling. This strategy involves preparing new instances in advance of when they are needed based on a known schedule, which in this case is the biweekly payroll process. By scheduling the scaling actions in advance, the cloud engineer ensures that the resources are ready when needed without incurring extra costs for running them all the time. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 88

A company recently set up a CDN for its photography and image-sharing website. Which of the following is the most likely reason for the company's action?

- A. To eliminate storage costs
- B. To improve site speed
- C. To enhance security of static assets
- D. To prevent unauthorized access

Answer: B

Explanation:

The most likely reason for setting up a Content Delivery Network (CDN) is to improve site speed, especially for a photography and image-sharing website. CDNs cache content at edge locations closer to end-users, significantly reducing load times for static assets like images and videos. This enhancement in speed can improve user experience and site performance.

References: CompTIA Cloud+ resources and CDN functionality

NEW QUESTION 89

A developer is building a new application version using a CI/CD pipeline. The developer receives the following error message log when the build fails:

```
Traceback (most recent call last):  
File "app.py", line 4, in <module>  
import requests  
ModuleNotFoundError: No module named 'requests'
```

Which of the following is the most likely cause of this failure?

- A. Incorrect version
- B. Test case failure
- C. Broken build pipeline
- D. Dependency issue

Answer: D

Explanation:

The error message indicates that the 'requests' module, which is a dependency, is not found. The failure is most likely due to the 'requests' library not being installed or not included in the environment where the application is running. References: Dependency management is a crucial part of maintaining a CI/CD pipeline, a topic included in the CompTIA Cloud+ examination objectives.

NEW QUESTION 92

Users report being unable to access an application that uses TLS 1.1. The users are able to access other applications on the internet. Which of the following is the most likely reason for this issue?

- A. The security team modified user permissions.
- B. Changes were made on the web server to address vulnerabilities.
- C. Privileged access was implemented.
- D. The firewall was modified.

Answer: B

Explanation:

If users are unable to access an application that uses TLS 1.1 but can access other internet applications, it is likely that changes were made on the web server to address vulnerabilities, such as disabling outdated and less secure protocols like TLS 1.1. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security

NEW QUESTION 94

A cloud engineer is reviewing the following Dockerfile to deploy a Python web application:

```
FROM cgr.dev/chainguard/python:latest  
WORKDIR /myapp  
COPY main.py ./  
ENTRYPOINT ["python", "/myapp/main.py"]
```

Which of the following changes should the engineer make to the file to improve container security?

- A. Add the instruction "USER nonroot."
- B. Change the version from latest to 3.11.
- C. Remove the ENTRYPOINT instruction.
- D. Ensure myapp/main.py is owned by root.

Answer: A

Explanation:

To improve container security, the engineer should add the instruction "USER nonroot" to the Dockerfile. This change ensures that the container does not run as the root user, which reduces the risk of privilege escalation attacks. Running containers as a non-root user is a best practice for enhancing security in containerized environments. References: CompTIA Cloud+ content includes security concerns, measures, and concepts for cloud operations, highlighting container security best practices such as running containers with least privilege to mitigate security risks.

NEW QUESTION 97

Which of the following is true of SSDs?

- A. SSDs do not have self-encrypting capabilities.
- B. SSDs have small storage capacities.
- C. SSDs can be used for high-IOP applications.
- D. SSDs are used mostly in cold storage.

Answer: C

Explanation:

SSDs (Solid State Drives) are known for their high performance and can handle a high number of input/output operations per second (IOPS). This makes them ideal for applications and workloads that require rapid access to storage, such as databases and high-performance computing applications. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Storage Options

NEW QUESTION 101

A security analyst confirms a zero-day vulnerability was exploited by hackers who gained access to confidential customer data and installed ransomware on the server. Which of the following steps should the security analyst take? (Select two).

- A. Contact the customers to inform them about the data breach.
- B. Contact the hackers to negotiate payment to unlock the server.
- C. Send a global communication to inform all impacted users.
- D. Inform the management and legal teams about the data breach.
- E. Delete confidential data used on other servers that might be compromised.
- F. Modify the firewall rules to block the IP addresses and update the ports.

Answer: AD

Explanation:

After a zero-day exploit resulting in a data breach and ransomware installation, it is critical to inform affected customers about the breach and the potential impact on their data. Additionally, the management and legal teams should be notified to handle the situation in compliance with regulatory requirements and to coordinate an appropriate response. References: Handling security incidents and communication strategies after a data breach are crucial elements of the governance and risk compliance domains in CompTIA Cloud+.

NEW QUESTION 104

A company wants to build its new platform using a public cloud. The workload requirements include the following:

- Implementation of custom CIS compliance
 - Patch for vulnerabilities within 24 hours
 - Warrant at least 1,800 IOPS per volume
- Which of the following meets the requirements?

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

Answer: B

Explanation:

Infrastructure as a Service (IaaS) provides the most flexibility among cloud service models, allowing for the implementation of custom security and compliance standards, such as CIS compliance. IaaS environments offer control over the infrastructure, enabling patch management within specific time frames. Additionally, IaaS providers typically offer configurable storage options, including the ability to specify IOPS (Input/Output Operations Per Second) per volume to meet performance requirements.

NEW QUESTION 109

A cloud administrator deploys new VMs in a cluster and discovers they are getting IP addresses in the range of 169.254.0.0/16. Which of the following is the most likely cause?

- A. The scope has been exhausted.
- B. The network is overlapping.
- C. The VLAN is missing.
- D. The NAT is improperly configured.

Answer: A

Explanation:

IP addresses in the range of 169.254.0.0/16 are Automatic Private IP Addressing (APIPA) addresses, which devices assign themselves when they are configured to obtain an IP automatically but are unable to reach a DHCP server to get one. The most likely cause for VMs in a cluster to receive APIPA addresses is the exhaustion of the DHCP scope, meaning there are no more available IP addresses in the DHCP range to be assigned.

NEW QUESTION 110

Which of the following cloud deployment models is the best way to replicate a workload non-disruptively between on-premises servers and a public cloud?

- A. Public
- B. Community
- C. Private
- D. Hybrid

Answer: D

Explanation:

A hybrid cloud deployment model is the best way to replicate workloads non-disruptively between on-premises servers and a public cloud. This model integrates on-premises infrastructure, or private clouds with public clouds, allowing data and applications to be shared between them. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Deployment Models

NEW QUESTION 115

A company is required to save historical data for seven years. A cloud administrator implements a script that automatically deletes data older than seven years. Which of the following concepts best describes why the historical data is being deleted?

- A. End of life
- B. Data loss prevention
- C. Cost implications
- D. Tiered storage for archiving

Answer: A

Explanation:

Deleting historical data older than seven years as described is an example of data end of life (EOL) policies in action. These policies dictate when data is no longer needed or relevant and should be securely disposed of, often for compliance, legal, or cost- saving reasons.

References: CompTIA Cloud+ resources and data management strategies

NEW QUESTION 118

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