

CV0-004 Dumps

CompTIA Cloud+

<https://www.certleader.com/CV0-004-dumps.html>



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

Between 11:00 a.m. and 1:00 p.m. on workdays, users report that the sales database is either not accessible, sluggish, or difficult to connect to. A cloud administrator discovers that during the impacted time, all hypervisors are at capacity. However, when 70% of the users are using the same database, those issues are not reported. Which of the following is the most likely cause?

- A. Oversubscription
- B. Resource allocation
- C. Sizing issues
- D. Service quotas

Answer: A

Explanation:

The most likely cause of accessibility and performance issues during specific times is oversubscription. This happens when more users are trying to access the database than the hypervisors can handle, due to their resources being allocated to more virtual machines or processes than they can efficiently support. References: Resource management concepts such as avoiding oversubscription are covered under the Management and Technical Operations domain of the CompTIA Cloud+ exam objectives.

NEW QUESTION 5

Which of the following network types allows the addition of new features through the use of network function virtualization?

- A. Local area network
- B. Wide area network
- C. Storage area network
- D. Software-defined network

Answer: D

Explanation:

A Software-Defined Network (SDN) is a network approach that allows the addition of new features through software configurations rather than hardware updates, making use of network function virtualization (NFV). NFV decouples network functions from proprietary hardware appliances, so they can run in software, which aligns with the flexibility offered by SDN. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Network Management

NEW QUESTION 6

A cloud engineer is troubleshooting an application that consumes multiple third-party REST APIs. The application is randomly experiencing high latency. Which of the following would best help determine the source of the latency?

- A. Configuring centralized logging to analyze HTTP requests
- B. Running a flow log on the network to analyze the packets
- C. Configuring an API gateway to track all incoming requests
- D. Enabling tracing to detect HTTP response times and codes

Answer: D

Explanation:

Enabling tracing in the application can help determine the source of high latency by providing detailed information on HTTP request and response times, as well as response codes. This can identify which API calls are experiencing delays and contribute to overall application latency, allowing for targeted troubleshooting and optimization.

NEW QUESTION 7

Which of the following strategies requires the development of new code before an application can be successfully migrated to a cloud provider?

- A. Refactor
- B. Re-architect
- C. Rehost
- D. Replatform

Answer: A

Explanation:

Refactoring requires the development of new code before an application can be successfully migrated to a cloud provider. It often involves restructuring and optimizing the existing code without changing its external behavior to fit into the new cloud environment. References: Application migration strategies and the requirements for each, like refactoring, are included in cloud migration best practices covered in CompTIA Cloud+.

NEW QUESTION 8

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 9

A company experienced a data leak through its website. A security engineer, who is investigating the issue, runs a vulnerability scan against the website and receives the following output:

```
Nmap scan report for www.example.com (93.184.216.34)
Host is up (0.020s latency).
```

```
PORT STATE SERVICE
21/tcp open  ftp
443/tcp open  ssl/https
1119/tcp closed bnetgame
1935/tcp closed rtmp
```

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

- A. RTMP port open
- B. SQL injection
- C. Privilege escalation
- D. Insecure protocol

Answer: D

Explanation:

The data leak is most likely caused by the use of an insecure protocol. The vulnerability scan output shows that port 21/tcp for FTP (File Transfer Protocol) is open. FTP is known for transmitting data unencrypted, which could allow sensitive data to be intercepted during transfer. References: The security risks associated with the use of insecure or unencrypted protocols are covered under cloud security best practices in the CompTIA Cloud+ curriculum.

NEW QUESTION 10

Which of the following are best practices when working with a source control system? (Select two).

- A. Merging code often
- B. Pushing code directly to production
- C. Performing code deployment
- D. Maintaining one branch for all features
- E. Committing code often
- F. Initiating a pull request

Answer: AE

Explanation:

Best practices when working with a source control system include merging code often to ensure that changes from different team members are integrated regularly, reducing integration issues. Committing code often is also recommended to save small changes frequently, which helps in tracking changes and resolving issues more effectively. References: Source control system best practices are part of the software development and deployment guidelines discussed in the CompTIA Cloud+ examination objectives.

NEW QUESTION 10

Which of the following requirements are core considerations when migrating a small business's on-premises applications to the cloud? (Select two).

- A. Availability
- B. Hybrid
- C. Testing
- D. Networking
- E. Compute
- F. Logs

Answer: AD

Explanation:

When migrating on-premises applications to the cloud for a small business, availability and networking are core considerations. Ensuring that applications are available and that the network is capable of handling the new cloud traffic are pivotal for a successful transition. References: The migration process and its core considerations, including availability and networking, are topics within the Business Principles of Cloud Environments in the CompTIA Cloud+ material.

NEW QUESTION 11

A cloud infrastructure administrator updated the IP tables to block incoming connections and outgoing responses to 104.225.110.203. Which of the following vulnerability management steps is this an example of?

- A. Scanning scope

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

Answer: B

Explanation:

Updating the IP tables to block connections to a specific IP address as a response to vulnerabilities is an example of remediation. Remediation involves taking direct action to fix vulnerabilities, such as by applying patches, changing configurations, or, in this case, updating firewall rules to block potentially harmful traffic. References: CompTIA Cloud+ resources and vulnerability management processes

NEW QUESTION 15

A junior cloud administrator was recently promoted to cloud administrator and has been added to the cloud administrator group. The cloud administrator group is the only one that can access the engineering VM. The new administrator unsuccessfully attempts to access the engineering VM. However, the other administrators can access it without issue. Which of the following is the best way to identify the root cause?

- A. Rebooting the engineering VM
- B. Reviewing the administrator's permissions to access the engineering VM
- C. Allowing connections from 0.0.0.0/70 to the engineering VM
- D. Performing a packet capture on the engineering VM

Answer: B

Explanation:

The best way to identify the root cause of why the new cloud administrator cannot access the engineering VM is by reviewing the administrator's permissions. It is possible that, despite being added to the cloud administrator group, the specific permissions to access the engineering VM were not properly configured. References: Permission issues are a common problem in cloud environments, and troubleshooting such issues is part of the cloud management skills discussed in the CompTIA Cloud+ certification

NEW QUESTION 20

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 23

Which of the following is the most cost-effective and efficient strategy when migrating to the cloud?

- A. Retire
- B. Replatform
- C. Retain
- D. Refactor

Answer: A

Explanation:

The most cost-effective and efficient strategy when migrating to the cloud can often be to 'retire' or turn off legacy systems that are no longer useful or necessary. This avoids spending resources on migrating and maintaining systems that do not provide value in a cloud environment. References: Cloud migration strategies, including retiring outdated systems, are part of the decision-making process for cloud adoption in the CompTIA Cloud+ certification material.

NEW QUESTION 26

A company is developing a new web application that requires a relational database management system with minimal operational overhead. Which of the following should the company choose?

- A. A database installed on a virtual machine
- B. A managed SQL database on the cloud
- C. A database migration service
- D. A hybrid database setup

Answer: B

Explanation:

For a new web application that requires a relational database management system with minimal operational overhead, the company should choose a managed SQL database on the cloud. Managed databases provide automated backups, patching, and other management tasks, reducing the administrative burden. References: The use of managed services, like managed databases, to minimize operational overhead is a strategic decision in cloud computing covered in CompTIA Cloud+.

NEW QUESTION 31

A company has decided to adopt a microservices architecture for its applications that are deployed to the cloud. Which of the following is a major advantage of this type of architecture?

- A. Increased security
- B. Simplified communication
- C. Reduced server cost
- D. Rapid feature deployment

Answer: D

Explanation:

A major advantage of adopting a microservices architecture is rapid feature deployment. Microservices allow for independent development, deployment, and scaling of individual service components, enabling teams to bring new features to market more quickly and efficiently compared to monolithic architectures. References: The CompTIA Cloud+ certification covers cloud design aspects, including architectural models like microservices, emphasizing their role in facilitating agile development practices and rapid feature release cycles in cloud environments.

NEW QUESTION 35

An administrator is creating a cron job that shuts down the virtual machines at night to save on costs. Which of the following is the best way to achieve this task?
A)

```
for X in list_vms() do
if [ describe_vm_status(X) == running ]
shutdown_vm(X)
else
echo "vm $X stopped"
done
```

B)

```
for X in list_vms() do
if [ describe_vm_status(X) > running ]
shutdown_vm(X)
else
echo "vm $X stopped"
done
```

C)

```
for X in list_vms() do
if [ describe_vm_status(X) == running ]
shutdown_vm(X)
else
echo "vm $X stopped"
done
```

D)

```
for X in list_vms() do
if [ describe_vm_status(X) != running]
shutdown_vm(X)
else
echo "vm $X is stopped"
done
```

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

Answer: C

Explanation:

Option C is the correct script for shutting down virtual machines that are currently running. It iterates through a list of VMs, checks if the status of each VM is 'running', and if so, proceeds to shut down the VM. The script then prints a message stating that the VM has been stopped. This approach ensures that only VMs that are actively running are targeted for shutdown, optimizing resource utilization and cost savings.

NEW QUESTION 39

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 43

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 46

Which of the following is the best type of database for storing different types of unstructured data that may change frequently?

- A. Vector
- B. Relational
- C. Non-relational
- D. Graph

Answer: C

Explanation:

Non-relational (NoSQL) databases are best for storing different types of unstructured data that may change frequently. They are designed to handle a wide variety

of data types and are not constrained by the fixed schema of relational databases, making them more flexible and scalable for unstructured data. References: The distinction between relational and non-relational databases and their use cases is part of the foundational knowledge for cloud databases discussed in the CompTIA Cloud+ certification.

NEW QUESTION 48

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				
Rule ID	Description	Service	Action	Availability zone
1001	Brute force attempt	^https://webapp[.]compta[.]org/\$	Block	A
1002	Botnet	^https://webapp[.]compta[.]org/\$	Block	A
1003	API web server	^https://webapp3[.]compta[.]org/[[0-9A-Za-z]][[0-9A-Za-z_?]]*\$/	Allow	B
1004	Chat web traffic	^https://webapp4[.]compta[.]org/chat/request[.]php\$	Allow	B
1005	Finance application 1	^https://webapp1[.]compta[.]org/[[0-9A-Za-z]][[0-9A-Za-z_?]]*\$/	Allow	B
1006	Finance application 2	^https://webapp1[.]compta[.]org/login[.]html\$	Block	A
1007	Video application	^https://webapp2[.]compta[.]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 51

A company just learned that the data in its object storage was accessed by an unauthorized party. Which of the following should the company have done to make the data unusable?

- A. The company should have switched from object storage to file storage.
- B. The company should have hashed the data.
- C. The company should have changed the file access permissions.

D. The company should have encrypted the data at rest.

Answer: D

Explanation:

Encrypting the data at rest is a crucial security measure to make the data unusable to unauthorized parties. If the object storage data was accessed by an unauthorized party, having the data encrypted would ensure that the data remains confidential and inaccessible without the proper encryption keys, thus mitigating the impact of the breach.

References: CompTIA Cloud+ resources and data security practices

NEW QUESTION 53

Which of the following is a customer be responsible for in a provider-managed database service? (Select two).

- A. Operating system patches
- B. Table-level permissions
- C. Minor database engine updates
- D. Cluster configuration
- E. Row-level encryption
- F. Availability of hardware for scaling

Answer: BE

Explanation:

In a provider-managed database service, the cloud provider typically manages the infrastructure, operating system, and database engine updates. However, the customer is responsible for the data and its security within the database, which includes setting table-level permissions and row-level encryption to ensure that data access and security is managed appropriately. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 57

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 60

A CI/CD pipeline is used to deploy VMs to an IaaS environment. Which of the following can be used to harden the operating system once the VM is running?

- A. Docker
- B. Kubernetes
- C. Git
- D. Ansible

Answer: D

Explanation:

Ansible can be used to harden the operating system once the VM is running. It is an automation tool that can configure systems, deploy software, and orchestrate more advanced IT tasks such as continuous deployments or zero downtime rolling updates. References: Ansible and other configuration management tools are part of the cloud management strategies discussed in the CompTIA Cloud+ certification material.

NEW QUESTION 63

A cloud administrator wants to provision a host with two VMs. The VMs require the following:

	Host	VM1	VM2
NIC	1Gbps	1Gbps	1Gbps
CPU	4	1	1
RAM	8	2	2
Storage (thin provisioned)	2TB	1.5TB	1.2TB
Storage utilization		22.5%	50%
Daily network traffic		1.2TB	200GB

After configuring the servers, the administrator notices that during certain hours of the day, the performance heavily degrades. Which of the following is the best explanation?

- A. The host requires additional physical CPUs.
- B. A higher number of processes occur at those times.
- C. The RAM on each VM is insufficient.
- D. The storage is overutilized.

Answer: C

Explanation:

Given the provided table, the VMs have been allocated 2GB of RAM each, which may be insufficient for their workload, especially during peak hours which could lead to performance degradation. Insufficient RAM can cause the VMs to use swap space on disk, which is significantly slower and can lead to poor performance. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg.

NEW QUESTION 68

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 71

A cloud engineer is collecting web server application logs to troubleshoot intermittent issues. However, the logs are piling up and causing storage issues. Which of the following log mechanisms should the cloud engineer implement to address this issue?

- A. Splicing
- B. Rotation
- C. Sampling
- D. Inspection

Answer: B

Explanation:

Log rotation is the mechanism the cloud engineer should implement to address the issue of logs piling up and causing storage issues. Log rotation involves automatically archiving old log files and creating new ones after a certain size or time period, preventing storage issues. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Monitoring and Management

NEW QUESTION 75

A cloud engineer is deploying a cloud solution that will be used on premises with need-to-know access. Which of the following cloud deployment models best meets this requirement?

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

D. Hybrid

Answer: C

Explanation:

A private cloud deployment model is the most appropriate when the requirement is for 'need-to-know' access, as it offers a more secure environment with resources dedicated to a single organization. It can be hosted on-premises or off-premises but is maintained on a private network, ensuring greater control over the data, security, and compliance when compared to other cloud models. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 76

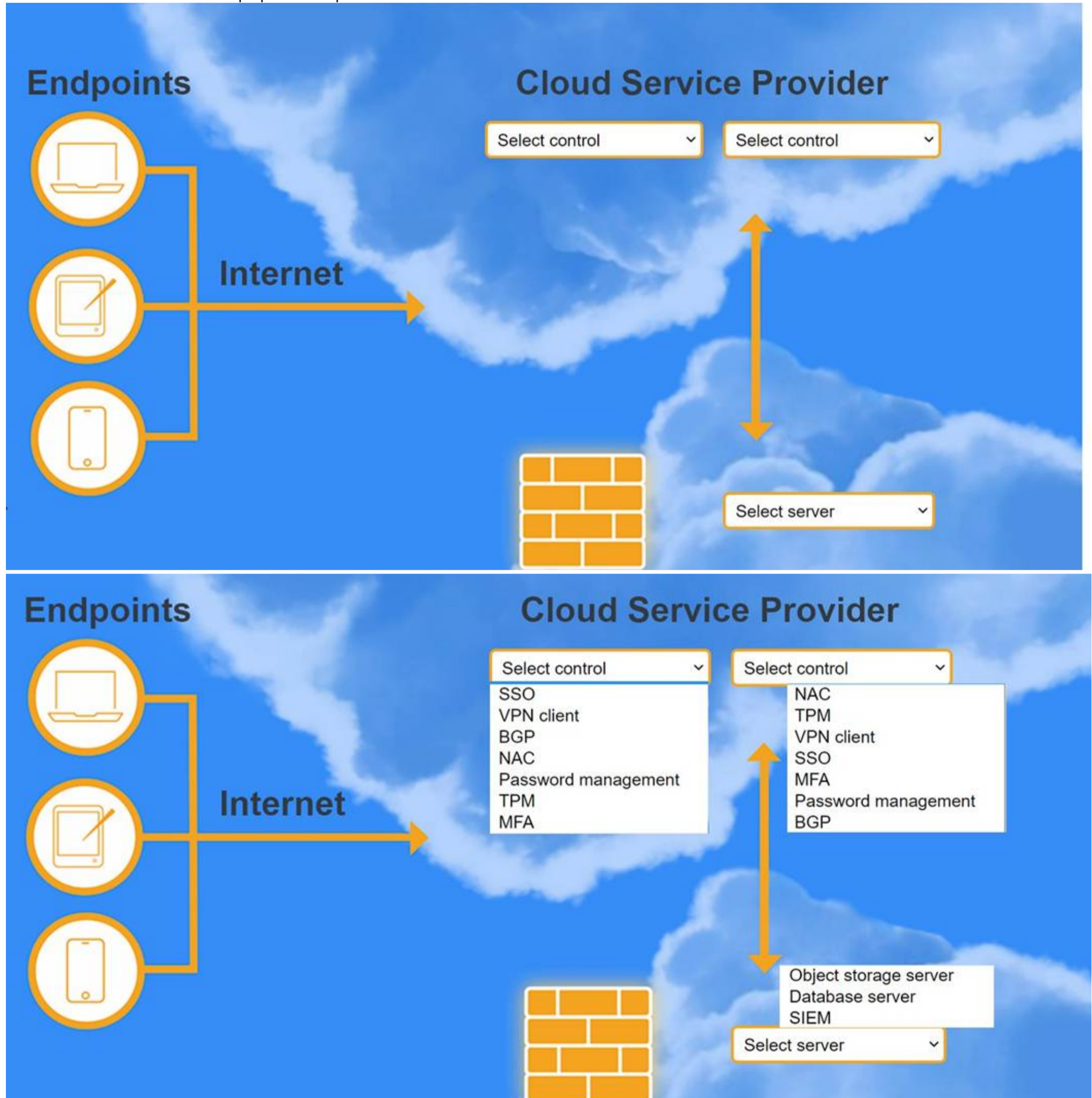
HOTSPOT

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

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

INSTRUCTIONS

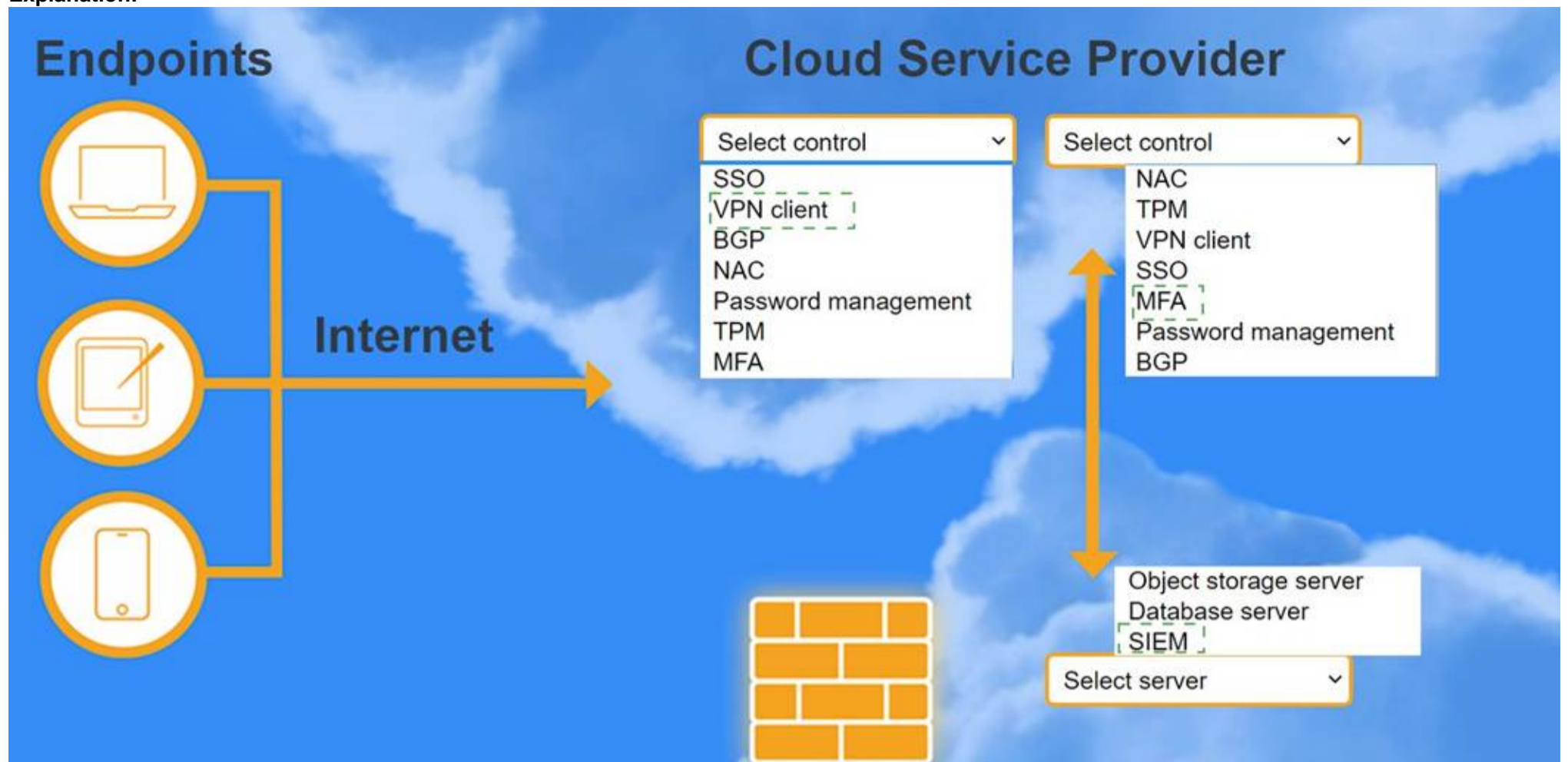
Select controls and servers for the proper control points.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 77

A cloud solutions architect needs to design a solution that will collect a report and upload it to an object storage service every time a virtual machine is gracefully or non-gracefully stopped. Which of the following will best satisfy this requirement?

- A. An event-driven architecture that will send a message when the VM shuts down to a log-collecting function that extracts and uploads the log directly from the storage volume
- B. Creating a webhook that will trigger on VM shutdown API calls and upload the requested files from the volume attached to the VM into the object-defined storage service
- C. An API of the object-defined storage service that will scrape the stopped VM disk and self-upload the required files as objects
- D. A script embedded on the stopping VM's OS that will upload the logs on system shutdown

Answer: A

Explanation:

An event-driven architecture is suited for this scenario, where an event (like a VM shutdown) triggers a function to execute specific tasks (log collection and upload). This approach is efficient and ensures that the logs are collected and uploaded to an object storage service every time the VM is stopped, regardless of whether it is a graceful or non-graceful shutdown. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Delivery Implementations

NEW QUESTION 82

A cloud administrator shortens the amount of time a backup runs. An executive in the company requires a guarantee that the backups can be restored with no data loss. Which of the following backup features should the administrator test for?

- A. Encryption
- B. Retention
- C. Schedule
- D. Integrity

Answer: D

Explanation:

To guarantee that backups can be restored with no data loss, the administrator should test for data integrity. This ensures that the data has not been altered during the backup process and that it can be restored to its original state. References: Backup integrity is a critical aspect of data management and protection, which falls under the best practices for backups and restoration in the CompTIA Cloud+ curriculum.

NEW QUESTION 87

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 90

An organization's security policy states that software applications should not exchange sensitive data in cleartext. The security analyst is concerned about a software application that uses Base64 to encode credit card data. Which of the following would be the best algorithm to replace Base64?

- A. 3DES
- B. AES
- C. RC4
- D. SHA-3

Answer: B

Explanation:

AES (Advanced Encryption Standard) is the best algorithm to replace Base64 for secure data exchange. Base64 is an encoding method that is not secure by itself, as it's easily reversible. AES, on the other hand, is a widely used encryption standard that ensures data is protected and is not readable without the correct encryption key. References: Encryption standards and practices, including the use of AES for securing data, are essential knowledge in cloud security covered in CompTIA Cloud+.

NEW QUESTION 93

Which of the following is a direct effect of cloud migration on an enterprise?

- A. The enterprise must reorganize the reporting structure.
- B. Compatibility issues must be addressed on premises after migration.
- C. Cloud solutions will require less resources than on-premises installations.
- D. Utility costs will be reduced on premises.

Answer: D

Explanation:

Cloud migration typically results in a reduction of on-premises utility costs because the physical infrastructure requirements, such as power and cooling, are transferred to the cloud provider. This shift can lead to significant savings in utility expenses for the enterprise. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274- 282-2)

NEW QUESTION 98

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 101

A cloud administrator needs to collect process-level, memory-usage tracking for the virtual machines that are part of an autoscaling group. Which of the following is the best way to accomplish the goal by using cloud-native monitoring services?

- A. Configuring page file/swap metrics
- B. Deploying the cloud-monitoring agent software
- C. Scheduling a script to collect the data
- D. Enabling memory monitoring in the VM configuration

Answer: B

Explanation:

To collect process-level, memory-usage tracking for virtual machines, deploying cloud- monitoring agent software is the best approach. The agent can gather detailed system metrics and send them to the cloud-native monitoring services for analysis and visualization. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Monitoring

NEW QUESTION 103

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 108

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 111

A cloud security analyst is concerned about security vulnerabilities in publicly available container images. Which of the following is the most appropriate action for the analyst to recommend?

- A. Using CIS-hardened images
- B. Using watermarked images
- C. Using digitally signed images
- D. Using images that have an application firewall

Answer: A

NEW QUESTION 112

A cloud engineer is reviewing a disaster recovery plan that includes the following requirements:

- System state, files, and configurations must be backed up on a weekly basis.
- The system state, file, and configuration backups must be tested annually.

Which of the following backup methods should the engineer implement for the first week the plan is executed?

- A. Differential
- B. Incremental
- C. Snapshot
- D. Full

Answer: D

Explanation:

A full backup method should be implemented for the first week the disaster recovery plan is executed. This will ensure that a complete copy of the system state, files, and configurations are backed up. Subsequent backups can be differential or incremental as per the plan. References: Backup methodologies, including the importance of full backups, are part of the data management strategies in cloud computing covered in the CompTIA Cloud+ certification.

NEW QUESTION 113

A cloud engineer hardened the WAF for a company that operates exclusively in North America. The engineer did not make changes to any ports, and all protected applications have continued to function as expected. Which of the following configuration changes did the engineer most likely apply?

- A. The engineer implemented MFA to access the WAF configurations.
- B. The engineer blocked all traffic originating outside the region.
- C. The engineer installed the latest security patches on the WAF.
- D. The engineer completed an upgrade from TLS version 1.1 to version 1.3.

Answer: B

Explanation:

Given that the WAF was hardened without changing any ports and all protected applications continued to function as expected, it is most likely that the engineer blocked all traffic originating outside of North America, which is the company's operating region. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security Best Practices

NEW QUESTION 114

Which of the following service options would provide the best availability for critical applications in the event of a disaster?

- A. Edge computing
- B. Cloud bursting
- C. Availability zones
- D. Multicloud tenancy

Answer: C

Explanation:

Availability zones provide the best availability for critical applications in the event of a disaster. They are distinct locations within a cloud region that are engineered to be isolated from failures in other availability zones, thus providing redundancy and failover capabilities, which is essential for maintaining high availability of critical applications. References: The concept of availability zones and their importance in disaster recovery and high availability is covered under the domain of Management and Technical Operations in the CompTIA Cloud+ objectives.

NEW QUESTION 118

Which of the following is used to detect signals and measure physical properties, such as the temperature of the human body?

- A. Beacon
- B. Transmission protocols
- C. Sensors
- D. Gateways

Answer: C

Explanation:

Sensors are used to detect signals and measure physical properties, such as temperature. They are devices that respond to a physical stimulus (like heat, light, sound, pressure, magnetism, or a particular motion) and transmit a resulting impulse for detection and measurement. References: The use of sensors in cloud environments, particularly in IoT (Internet of Things) applications, is included in the technical domains of the CompTIA Cloud+ material.

NEW QUESTION 120

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 121

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 125

The company's IDS has reported an anomaly. The cloud engineer remotely accesses the cloud instance, runs a command, and receives the following information:

```

UID    PID    PPID   CMD
0      987    1      sshd /usr/sbin/sshd -D [listener] 0 of 10-100
        startups
0      915    915    sshd: su seceng
0      45078 987    sshd: seceng [priv]
1000   45418 45078  sshd: seceng @pts/0
1000   45419 45418  -bash
1000   45440 45419  ps -elf
0      50596 1      /usr/sbin/apache2 -k start
65535 50597 50596  /usr/sbin/apache2 -k start
0      50612 50597  /var/www/command.py

```

Which of the following is the most likely root cause of this anomaly?

- A. Privilege escalation
- B. Leaked credentials
- C. Cryptojacking
- D. Defaced website

Answer: A

Explanation:

The output from the 'ps' command indicates there is a process running under the UID (User ID) of 0, which is the root user, and the command that was run is '/var/www/command.py'. Given that the normal Apache processes are running under their own UID (65535), this suggests that a command was executed with root privileges that typically should not have such high-level access. This is a strong indicator of privilege escalation, where an unauthorized user or process gains elevated access to resources that are normally protected from an application or user. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 128

An administrator used a script that worked in the past to create and tag five virtual machines. All of the virtual machines have been created: however, the administrator sees the following results:

```
{ tags: [] }
```

Which of the following is the most likely reason for this result?

- A. API throttling
- B. Service quotas
- C. Command deprecation
- D. Compatibility issues

Answer: C

Explanation:

The most likely reason for the script creating virtual machines without tags, despite working in the past, is command deprecation. Cloud service providers update their APIs and CLI commands over time, and a previously used command to tag resources might no longer be valid. References: Understanding cloud service APIs and the importance of keeping up with updates is part of cloud technical operations covered in CompTIA Cloud+.

NEW QUESTION 130

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 134

A developer is deploying a new version of a containerized application. The DevOps team wants:

- No disruption
- No performance degradation
- * Cost-effective deployment
- Minimal deployment time

Which of the following is the best deployment strategy given the requirements?

- A. Canary
- B. In-place
- C. Blue-green
- D. Rolling

Answer: C

Explanation:

The blue-green deployment strategy is the best given the requirements for no disruption, no performance degradation, cost-effective deployment, and minimal deployment time. It involves maintaining two identical production environments (blue and green), where one hosts the current application version and the other is used to deploy the new version. Once testing on the green environment is complete, traffic is switched from blue to green, ensuring a seamless transition with no downtime. References: Understanding various cloud deployment strategies, such as blue-green deployments, is essential for managing cloud environments effectively, as highlighted in the CompTIA Cloud+ objectives, to ensure smooth and efficient application updates.

NEW QUESTION 138

A cloud engineer wants to implement a monitoring solution to detect cryptojacking and other cryptomining malware on cloud instances. Which of the following metrics would most likely be used to identify the activity?

- A. Disk I/O
- B. Network packets
- C. Average memory utilization
- D. Percent of CPU utilization

Answer: D

Explanation:

To detect cryptojacking and other cryptomining malware on cloud instances, monitoring the percent of CPU utilization is most effective. Cryptomining malware typically consumes a significant amount of CPU resources for mining operations, leading to unusually high CPU usage. Monitoring and analyzing CPU utilization metrics can help identify instances of cryptojacking by highlighting abnormal levels of resource consumption. References: Understanding management and technical operations in cloud environments, as outlined in the CompTIA Cloud+ objectives, includes the use of monitoring solutions to detect and respond to security threats like cryptomining malware, ensuring the integrity and performance of cloud resources.

NEW QUESTION 139

An organization's critical data was exfiltrated from a computer system in a cyberattack. A cloud analyst wants to identify the root cause and is reviewing the following security logs of a software web application:

```
"2021/12/18 09:33:12" "10. 34. 32.18" "104. 224. 123. 119" "POST / login.php?u=administrator&p=or%20%20=1"  
"2021/12/18 09:33:13" "10.34. 32.18" "104. 224. 123.119" "POST /login.php?u=administrator&p=%27%0A"  
"2021/12/18 09:33:14" "10. 34. 32.18" "104. 224. 123. 119" "POST /login.php?u=administrator&p=%26"  
"2021/12/18 09:33:17" "10.34. 32.18" "104. 224. 123.119" "POST / login.php?u=administrator&p=%3B"  
"2021/12/18 09:33:12" "10.34. 32. 18" "104. 224. 123. 119" "POST / login.php?u=admin&p=or%20%20=1"  
"2021/12/18 09:33:19" "10.34.32.18" "104. 224. 123.119" "POST / login.php?u=admin&p=%27%0A"  
"2021/12/18 09:33:21" "10. 34. 32.18" "104.224. 123.119" "POST / login.php?u=admin&p=%26"  
"2021/12/18 09:33:23" "10. 34. 32.18" "104. 224. 123.119" "POST / login.php?u=admin&p=%3B"
```

Which of the following types of attacks occurred?

- A. SQL injection
- B. Cross-site scripting
- C. Reuse of leaked credentials
- D. Privilege escalation

Answer: A

Explanation:

The security logs of the software web application show patterns that are typical of an SQL injection attack. This is evidenced by the inclusion of SQL syntax in the user input fields in an attempt to manipulate the database. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security Threats

NEW QUESTION 143

An organization's internal security team mandated that public cloud resources must be accessible only by a corporate VPN and not by direct public internet access. Which of the following would achieve this objective?

- A. WAF
- B. ACL
- C. VPC
- D. SSH

Answer: C

Explanation:

A Virtual Private Cloud (VPC) allows users to create a secluded section of the public cloud where resources can be launched in a defined virtual network. This enables an organization to have a section of the cloud that is secured and isolated from the public internet, thus, access to public cloud resources can be restricted to only a corporate VPN. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security

NEW QUESTION 147

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 151

A company wants to combine solutions in a central and scalable environment to achieve the following goals:

- Control
- Visibility
- Automation
- Cost efficiency

Which of the following best describes what the company should implement?

- A. Batch processing
- B. Workload orchestration
- C. Containerization
- D. Application modernization

Answer: B

Explanation:

Workload orchestration is the best description of what the company should implement to achieve control, visibility, automation, and cost efficiency. It involves using orchestration tools to manage workloads in cloud environments, ensuring resources are used efficiently and operations are automated. References: Workload orchestration is a part of cloud management strategies discussed under the Management and Technical Operations domain in the CompTIA Cloud+ objectives.

NEW QUESTION 153

Which of the following industry standards mentions that credit card data must not be exchanged or stored in cleartext?

- A. CSA
- B. GDPR
- C. SOC2
- D. PCI-DSS

Answer: D

Explanation:

The Payment Card Industry Data Security Standard (PCI-DSS) is the industry standard that mandates that credit card data must not be stored or transmitted in

cleartext. It includes requirements for encryption, access control, and other security measures to protect cardholder data. References: Official PCI Security Standards Council Site.

NEW QUESTION 154

A developer is testing code that will be used to deploy a web farm in a public cloud. The main code block is a function to create a load balancer and a loop to create 1.000 web servers, as shown below:

```
my_load_balancer()
for x in range(1000):
    my_web_server()
```

The developer runs the code against the company's cloud account and observes that the load balancer is successfully created, but only 100 web servers have been created. Which of the following should the developer do to fix this issue?

- A. Request an increase of Instance quota.
- B. Run the code multiple times until all servers are created.
- C. Check the my_web_server () function to ensure it is using the right credentials.
- D. Place the my_load_balancer () function after the loop.

Answer: A

Explanation:

The developer should request an increase of the instance quota from the cloud provider. Cloud services often have a limit on the number of instances that can be created, which is known as an instance quota. If the load balancer is successfully created but the number of web servers is limited to 100, it suggests that the quota has been reached. Increasing the quota will allow the creation of additional web server instances up to the desired number. References: The scenario reflects an understanding of cloud resource management and limitations, which is a part of the CompTIA Cloud+ curriculum, specifically under the domain of Management and Technical Operations.

NEW QUESTION 158

A cloud networking engineer is troubleshooting the corporate office's network configuration. Employees in the IT and operations departments are unable to resolve IP addresses on all devices, and the IT department cannot establish a connection to other departments' subnets. The engineer identifies the following configuration currently in place to support the office network:

Subnet	Department	Employees
10.1.20.1/24	Finance	50
10.1.30.1/24	IT	90
10.1.40.1/24	Legal	30
10.1.50.1/24	Operations	100

Each employee needs to connect to the network with a maximum of three hosts. Each subnet must be segregated, but the IT department must have the ability to communicate with all subnets. Which of the following meet the IP addressing and routing requirements? (Select two).

- A. Modifying the subnet mask to 255 255 254.0 for IT and operations departments
- B. Configuring static routing to allow access from each subnet to 10.1.40.1
- C. Modifying the BYOD policy to reduce the volume of devices that are allowed to connect to the corporate network
- D. Configuring static routing to allow access from 10.1.30.1 to each subnet
- E. Combining the subnets and increasing the allocation of IP addresses available to support three hosts for each employee
- F. Modifying the subnet mask to 255.255.255.128 for the IT and operations departments

Answer: DF

Explanation:

To meet the requirements of allowing the IT department to communicate with all subnets while keeping each department segregated and ensuring a maximum of three hosts per employee, two actions are required. First, configuring static routing from the IT subnet (10.1.30.1) to each of the other subnets would establish the necessary connectivity. Second, modifying the subnet mask to 255.255.255.128 for the IT and operations departments would provide the needed number of host addresses while maintaining subnet segregation. References: This solution is based on networking and subnetting principles, which are part of the foundational knowledge for cloud networking within the CompTIA Cloud+ framework.

NEW QUESTION 162

A cloud engineer needs to deploy a new version of a web application to 100 servers. In the past, new version deployments have caused outages. Which of the following deployment types should the cloud engineer implement to prevent the outages from happening this time?

- A. Rolling
- B. Blue-green
- C. Canary
- D. Round-robin

Answer: C

Explanation:

A canary deployment is a pattern that reduces the risk of introducing a new software version in production by slowly rolling out the change to a small subset of users before rolling it out to the entire infrastructure. It's an effective strategy to prevent outages since it allows for monitoring and quick rollback if issues arise without affecting all users. References: Canary releases are part of deployment strategies that can help mitigate the risk of outages during updates, a concept included in the CompTIA Cloud+ curriculum.

NEW QUESTION 163

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 168

A company has developed an online trading platform. The engineering team selected event-based scaling for the platform's underlying resources. The platform resources scale up with every 2,000 subscribed users. The engineering team finds out that although compute utilization is low, scaling is still occurring. Which of the following statements best explains why this is the case?

- A. Event-based scaling does not scale down resources.
- B. Event-based scaling should not be triggered at the 2,000-user frequency.
- C. Event-based scaling should not track user subscriptions.
- D. Event-based scaling does not take resource load into account.

Answer: D

Explanation:

Event-based scaling triggers based on specific events, such as the number of user subscriptions in this case. It does not necessarily account for the actual load or utilization of compute resources. This is why the platform's resources continue to scale up even though compute utilization is low; the scaling decision is being made based on the number of subscribed users rather than the current resource usage. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 170

Which of the following AI/ML technologies consumes text input to discern tone?

- A. Text recognition
- B. Computer vision
- C. Visual recognition
- D. Sentiment analysis

Answer: D

Explanation:

Sentiment analysis is an AI/ML technology that processes text to determine the tone. It helps in understanding the sentiments behind the words by analyzing the text input, which can be positive, negative, or neutral. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Technologies and Applications

NEW QUESTION 175**SIMULATION**

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

instructed to use HTTP and HTTPS. Refer to the application dataflow:

1A– The end user accesses the application through a web browser to enter and view clinical data.

2A– The CTM application server reads/writes data to/from the database server.

1B– The end user accesses the application through a web browser to run reports on clinical data.

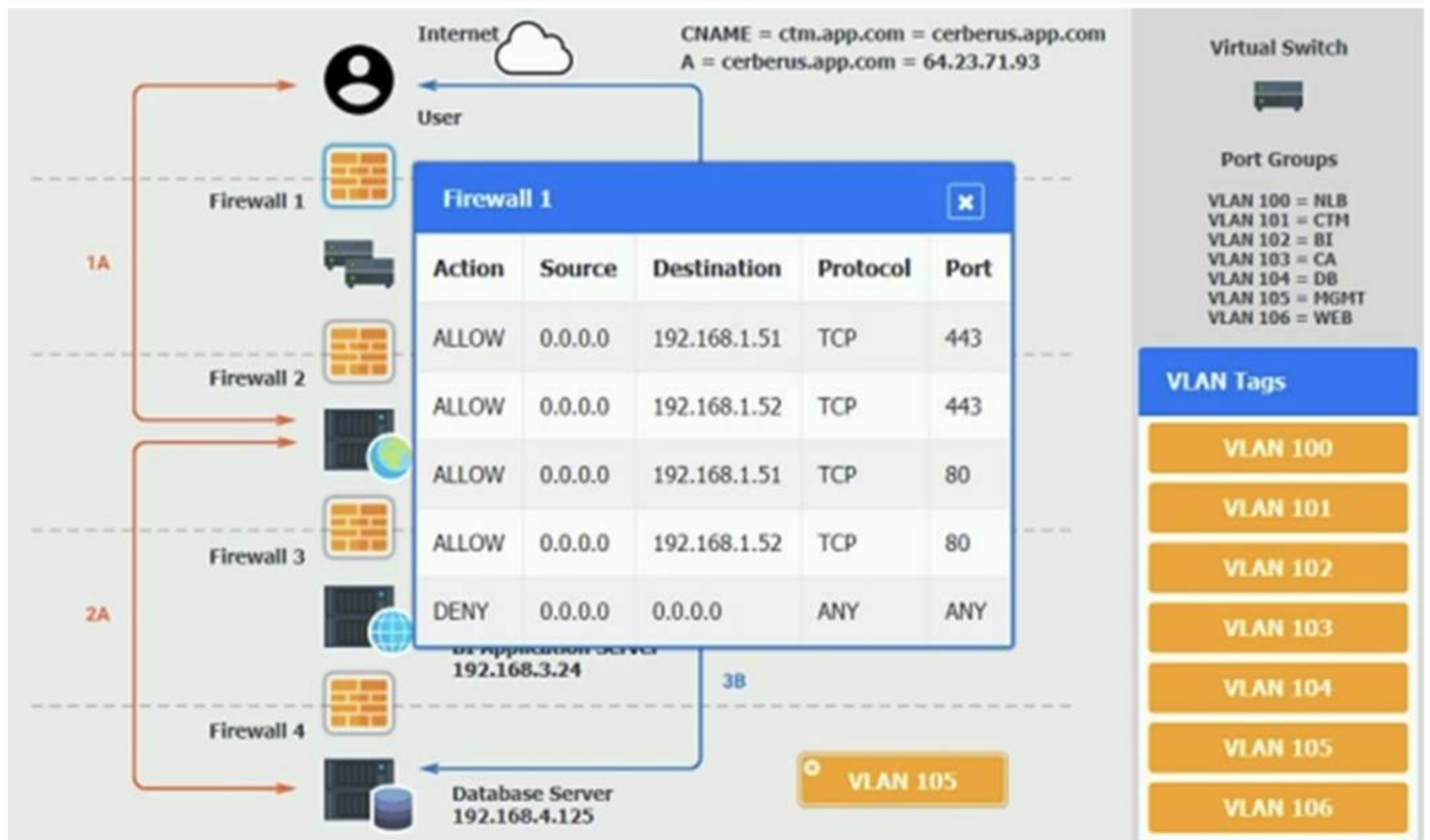
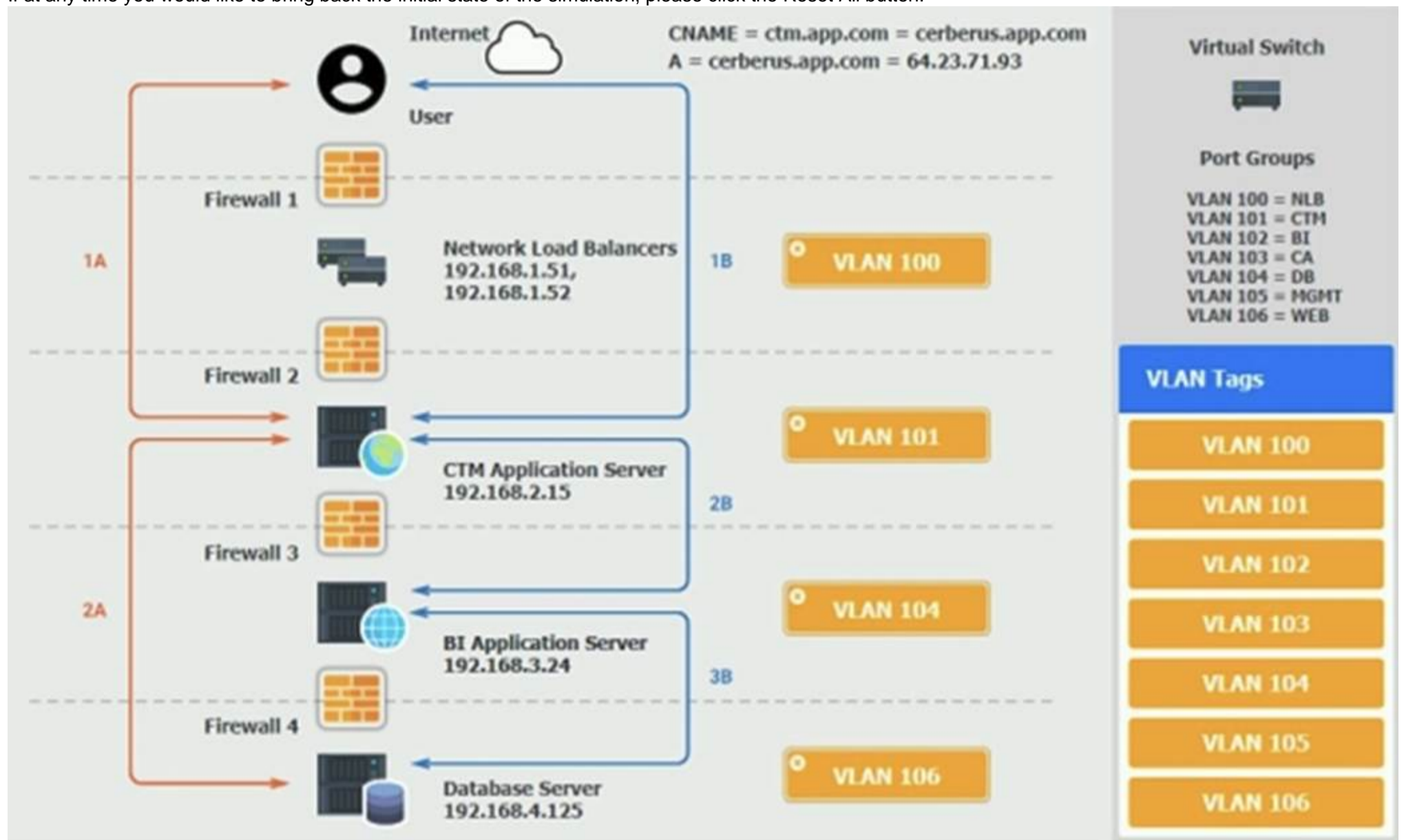
2B– The CTM application server makes a SOAP call on a non-privileged port to the BI application server.

3B– The BI application server gets the data from the database server and presents it to the CTM application server.

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

INSTRUCTIONS

You are a cloud engineer who is tasked with reviewing the firewall rules as well as virtual network settings. You should ensure the firewall rules are allowing only the traffic based on the dataflow. You have already verified the external DNS resolution and NAT are working. Verify and appropriately configure the VLAN assignments and ACLs. Drag and drop the appropriate VLANs to each tier from the VLAN Tags table. Click on each Firewall to change ACLs as needed. If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



Internet CNAME = ctm.app.com = cerberus.app.com
A = cerberus.app.com = 64.23.71.93

Virtual Switch

Port Groups

- VLAN 100 = NLB
- VLAN 101 = CTM
- VLAN 102 = BI
- VLAN 103 = CA
- VLAN 104 = DB
- VLAN 105 = MGMT
- VLAN 106 = WEB

VLAN Tags

- VLAN 100
- VLAN 101
- VLAN 102
- VLAN 103
- VLAN 104
- VLAN 105
- VLAN 106

Firewall 2

Action	Source	Destination	Protocol	Port
ALLOW	192.168.1.51	192.168.2.15	TCP	88
DENY	192.168.1.52	0.0.0.0	TCP	80
ALLOW	0.0.0.0	127.0.0.1	UDP	88
DENY	64.23.71.93	64.23.71.93	ANY	443
ALLOW	192.168.1.51	192.168.1.52	ANY	1533
DENY	192.168.1.52	192.168.2.15	UDP	9400
DENY	192.168.2.15	192.168.2.24	TCP	443
DENY	192.168.2.24	192.168.3.24	ANY	ANY
DENY	192.168.3.24	192.168.4.125	ANY	ANY
DENY	192.168.4.125	0.0.0.0	ANY	ANY

Reset Answer Save Close

Database Server 192.168.4.125

VLAN 105

Internet CNAME = ctm.app.com = cerberus.app.com
A = cerberus.app.com = 64.23.71.93

Virtual Switch

Port Groups

- VLAN 100 = NLB
- VLAN 101 = CTM
- VLAN 102 = BI
- VLAN 103 = CA
- VLAN 104 = DB
- VLAN 105 = MGMT
- VLAN 106 = WEB

VLAN Tags

- VLAN 100
- VLAN 101
- VLAN 102
- VLAN 103
- VLAN 104
- VLAN 105
- VLAN 106

Firewall 3

Action	Source	Destination	Protocol	Port
DENY	0.0.0.0	0.0.0.0	ANY	ANY
ALLOW	192.168.2.15	192.168.3.24	TCP	9400
ALLOW	192.168.2.15	192.168.4.125	TCP	1533

Reset Answer Save Close

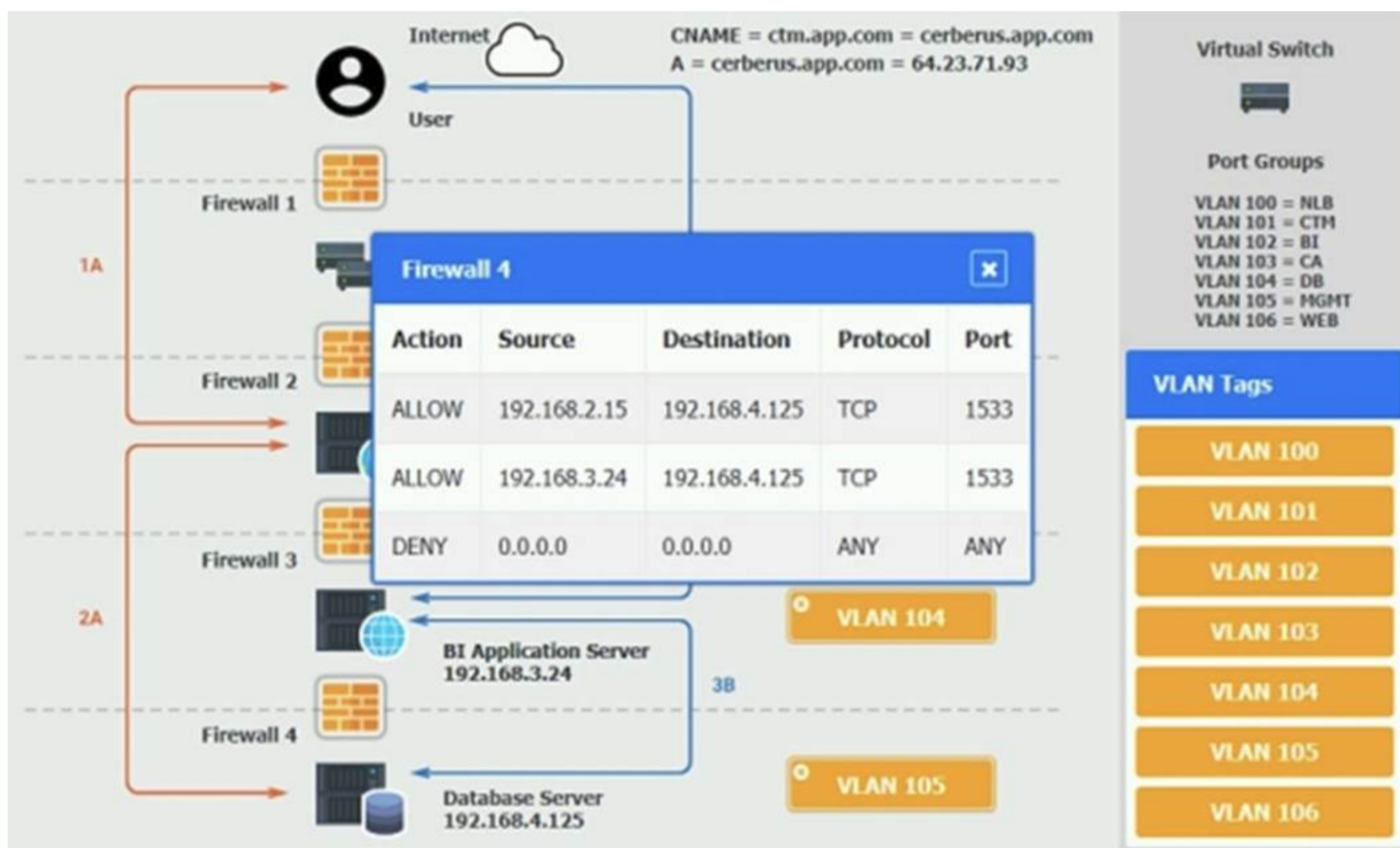
Application Server 192.168.3.24

3B

Database Server 192.168.4.125

VLAN 105

Firewall 4



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 179

A cloud engineer is designing a cloud-native, three-tier application. The engineer must adhere to the following security best practices:

- Minimal services should run on all layers of the stack.
- The solution should be vendor agnostic.
- Virealization could be used over physical hardware.

Which of the following concepts should the engineer use to design the system to best meet these requirements?

- A. Virtual machine
- B. Micro services
- C. Fan-out
- D. Cloud-provided managed services

Answer: B

Explanation:

Microservices architecture is the most suitable design principle that aligns with the security best practices mentioned. It involves developing a suite of small services, each running in its own process and communicating with lightweight mechanisms, often an HTTP resource API. This architecture minimizes the services running on each layer, allows for vendor-agnostic solutions, and is well-suited for virtualization over physical hardware. References: Microservices as an architectural approach is discussed in the context of cloud-native applications within the CompTIA Cloud+ material.

NEW QUESTION 181

A cloud engineer wants to replace the current on-premises. unstructured data storage with a solution in the cloud. The new solution needs to be cost-effective and highly scalable. Which of the following types of storage would be best to use?

- A. File
- B. Block
- C. Object
- D. SAN

Answer: C

Explanation:

Object storage is ideal for cost-effective and highly scalable unstructured data. It allows for the storage of massive amounts of unstructured data in a flat namespace and is not constrained by the rigid structures of file or block storage. Object storage is highly durable and designed for high levels of scalability and accessibility. References: The suitability of object storage for unstructured data and scalability is a part of cloud storage technologies covered in CompTIA Cloud+ materials.

NEW QUESTION 184

A cloud service provider requires users to migrate to a new type of VM within three months. Which of the following is the best justification for this requirement?

- A. Security flaws need to be patched.
- B. Updates could affect the current state of the VMs.
- C. The cloud provider will be performing maintenance of the infrastructure.
- D. The equipment is reaching end of life and end of support.

Answer: D

Explanation:

The best justification for a cloud service provider requiring users to migrate to a new type of VM within a specific time frame is that the equipment is reaching end of life and end of support (EOL/EOS). This means that the older type of VM will no longer receive updates or support, which could include important security patches, so it is necessary to move to newer VM types to maintain security and performance. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 186

A company migrated its CRM system to a SaaS solution. The security team is updating the RAG matrix for the newly migrated CRM. Given the following table:

	Data-center security	CRM software security	CRM server patching	CRM development life cycle
Customer	C,I	I	A, I	A,C,I
CSP	R,A	R,A,C	R,C	R

Which of the following responsibility assignments best aligns with the shared responsibility model for the new CRM?

- A. Data-center security
- B. CRM software security
- C. CRM server patching
- D. CRM development life cycle

Answer: A

Explanation:

For the newly migrated SaaS CRM, the responsibility assignment that best aligns with the shared responsibility model is data-center security. In a SaaS model, the cloud service provider (CSP) is responsible for the security of the infrastructure, including data centers, while the customer is typically responsible for the data and possibly the user access management. References: The shared responsibility model and its implications for different service models are foundational concepts included in the CompTIA Cloud+ certification, under the domain of Governance, Risk, Compliance, and Security.

NEW QUESTION 187

A cloud engineer is in charge of deploying a platform in an IaaS public cloud. The application tracks the state using session cookies, and there are no affinity restrictions.

Which of the following will help the engineer reduce monthly expenses and allow the application to provide the service?

- A. Resource metering
- B. Reserved resources
- C. Dedicated host
- D. Pay-as-you-go model

Answer: D

Explanation:

A pay-as-you-go model would be beneficial for the cloud engineer because it allows the application to be scaled based on demand, reducing monthly expenses since costs are only incurred for the resources actually used. Since there are no affinity restrictions and the application uses session cookies for state tracking, the pay-as-you-go model can handle fluctuating workloads without the need to pay for unused reserved resources or dedicated hosts. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Service Models

NEW QUESTION 189

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 191

A company receives files daily from a bank. The company requires that the files must be copied from the cloud storage resource to another cloud storage resource for further processing. Which of the following methods requires the least amount of effort to achieve the task?

- A. Remote procedure call
- B. SOAP
- C. Event-driven architecture
- D. REST

Answer: C

Explanation:

An event-driven architecture is the most efficient method for automating the task of copying files from one cloud storage resource to another upon their arrival. This architecture allows systems to automatically trigger actions based on specific events, such as the arrival of new files, minimizing manual effort and ensuring timely processing. References: CompTIA Cloud+ resources and cloud service architectures

NEW QUESTION 196

A company implements a web farm with 100 servers behind an application load balancer. During scaling events, new web servers that are placed in service have not loaded all their modules, which causes some requests to the web farm to fail. Which of the following should the cloud engineer implement to address the scaling issue?

- A. Instance warm-up
- B. Scheduled scaling
- C. Event-based scaling
- D. Load balancer passthrough

Answer: A

Explanation:

Implementing an instance warm-up period can address the issue of new web servers not having all modules loaded during scaling events. This warm-up period allows new instances to fully initialize and start serving traffic only when they are ready, preventing failed requests. References: Scaling strategies and their operational impact, including the concept of instance warm-up, are covered under cloud infrastructure management in the CompTIA Cloud+ curriculum.

NEW QUESTION 197

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 201

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 204

.....

Thank You for Trying Our Product

* 100% Pass or Money Back

All our products come with a 90-day Money Back Guarantee.

* One year free update

You can enjoy free update one year. 24x7 online support.

* Trusted by Millions

We currently serve more than 30,000,000 customers.

* Shop Securely

All transactions are protected by VeriSign!

100% Pass Your CV0-004 Exam with Our Prep Materials Via below:

<https://www.certleader.com/CV0-004-dumps.html>