

# CompTIA

## Exam Questions CV0-004

CompTIA Cloud+



#### NEW QUESTION 1

A systems administrator needs to configure backups for the company's on-premises VM cluster. The storage used for backups will be constrained on free space until the company can implement cloud backups. Which of the following backup types will save the most space, assuming the frequency of backups is kept the same?

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

**Answer:** D

#### Explanation:

An incremental backup strategy saves space because it only backs up data that has changed since the last backup. Compared to full and differential backups, incremental backups are smaller and save more space, which is essential when storage is constrained. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

#### NEW QUESTION 2

A cloud engineer is running a latency-sensitive workload that must be resilient and highly available across multiple regions. Which of the following concepts best addresses these requirements?

- A. Cloning
- B. Clustering
- C. Hardware passthrough
- D. Stand-alone container

**Answer:** B

#### Explanation:

Clustering refers to the use of multiple servers/computers to form what appears to be a single system. This concept is key for achieving high availability and resilience, especially for latency-sensitive workloads. By distributing the workload across a cluster that spans multiple regions, the system can continue to operate even if one or more nodes fail, thus maintaining performance and availability. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

#### NEW QUESTION 3

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 4

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. Rearchitect
- 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 5

A customer's facility is located in an area where natural disasters happen frequently. The customer requires the following:

- Data resiliency due to exposure to frequent natural disasters
- Data localization because of privacy regulations in the country
- High availability

Which of the following cloud resources should be provisioned to meet these requirements?

- A. Storage in a separate data center located in same region

- B. An on-premises private cloud carrying duplicate data
- C. Storage in an availability zone outside the region
- D. Storage in the same availability zone as the primary data

**Answer: C**

**Explanation:**

To meet the requirements of data resiliency, data localization, and high availability in a region prone to natural disasters, the customer should provision storage in an availability zone outside the region. This ensures that data is not affected by regional disasters and complies with data localization by remaining within the country's borders, while also providing high availability. References: Disaster recovery and high availability strategies, including the use of multiple availability zones, are discussed in the CompTIA Cloud+ certification material.

**NEW QUESTION 6**

A systems administrator is configuring backups on a VM and needs the process to run as quickly as possible, reducing the bandwidth on the network during all times from Monday through Saturday. In the event of data corruption, the management team expects the mean time to recovery to be as low as possible. Which of the following backup methods can the administrator use to accomplish these goals?

- A. Incremental backup daily to the cloud
- B. Full backup on Sunday and incremental backups on all other days of the week
- C. Differential backup daily to the cloud
- D. Incremental backups during off-hours on Monday, Wednesday, and Friday

**Answer: B**

**Explanation:**

To achieve a quick backup process and reduce bandwidth use, the administrator should perform a Full backup on Sunday and incremental backups on all other days of the week. This method ensures that only the changes made since the last full backup are copied, reducing the amount of data that needs to be transferred each time, and thus the time and bandwidth required. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

**NEW QUESTION 7**

A systems administrator notices a surge of network traffic is coming from the monitoring server. The administrator discovers that large amounts of data are being downloaded to an external source. While investigating, the administrator reviews the following logs:

Protocol	Local address	Foreign address	State
TCP	10.181.12.5:20	172.17.250.12	ESTABLISHED
TCP	10.181.12.5:22	172.32.58.39	ESTABLISHED
TCP	10.181.12.5:443	172.30.252.204	ESTABLISHED
TCP	10.181.12.5:4443	10.11.15.82	ESTABLISHED
TCP	10.181.12.5:8048	172.24.255.192	TIME_WAIT

Which of the following ports has been compromised?

- A. Port 20
- B. Port 22
- C. Port 443
- D. Port 4443
- E. Port 8048

**Answer: E**

**Explanation:**

Based on the logs provided, the port that has been compromised is Port 8048. The state "TIME\_WAIT" indicates that this port was recently used to establish a connection that has now ended. This could be indicative of the recent activity where large amounts of data were downloaded to an external source, suggesting a potential security breach. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

**NEW QUESTION 8**

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 9

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 10

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 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 15

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 20

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 24**

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 28**

Which of the following is the most cost-effective way to store data that is infrequently accessed?

- A. Cold site
- B. Hot site
- C. Off-site
- D. Warm site

**Answer: C**

**Explanation:**

The most cost-effective way to store data that is infrequently accessed is typically an off-site storage service, often referred to as cold or archival storage. This type of storage is designed for data that is rarely accessed, providing lower storage costs. References: Data storage solutions and their cost implications, including off-site (cold or archival) storage for infrequently accessed data, are part of the cloud storage options discussed in CompTIA Cloud+.

**NEW QUESTION 30**

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 33**

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 38**

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 43**

A cloud consultant needs to modernize a legacy application that can no longer address user demand and is expensive to maintain. Which of the following is the best migration strategy?

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

**Answer:** C

**Explanation:**

Refactoring is the process of restructuring existing computer code without changing its external behavior. In cloud computing, it often means modifying the application to better leverage cloud-native features and services. This can address user demand and reduce maintenance costs by making the application more scalable, resilient, and manageable. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

**NEW QUESTION 44**

A customer is migrating applications to the cloud and wants to grant authorization based on the classification levels of each system. Which of the following should the customer implement to ensure authorization to systems is granted when the user and system classification properties match? (Select two).

- A. Resource tagging
- B. Discretionary access control
- C. Multifactor authentication
- D. Role-based access control
- E. Token-based authentication
- F. Bastion host

**Answer:** BD

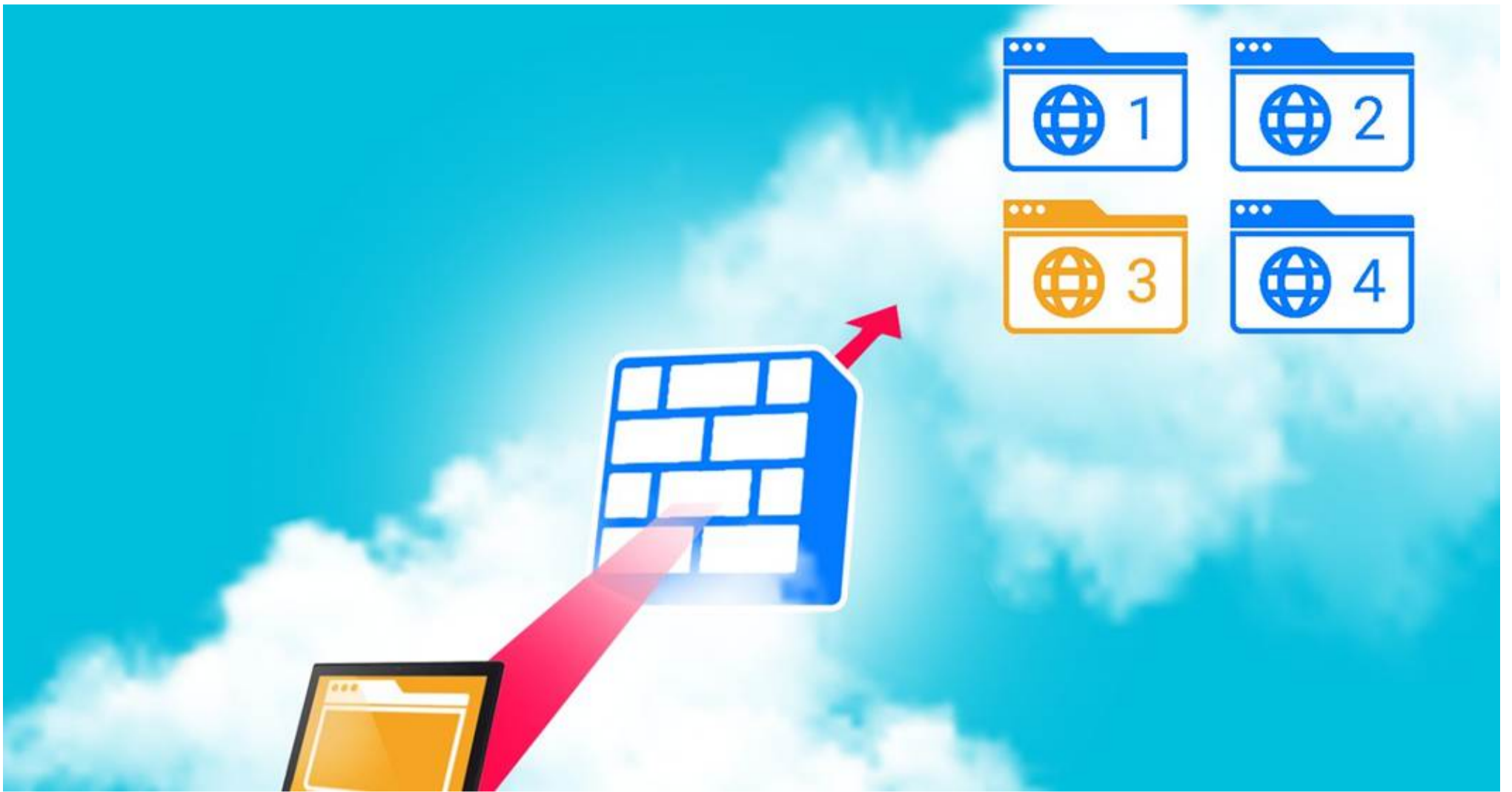
**Explanation:**

Discretionary Access Control (DAC) and Role-Based Access Control (RBAC) are effective methods for granting authorization based on system classification levels. DAC allows resource owners to grant access rights, making it flexible for environments with varying classification levels. RBAC assigns permissions based on roles within an organization, aligning access rights with the user's job functions and ensuring that users access only what is necessary for their role, which can be mapped to system classifications. References: CompTIA Cloud+ content covers various access control models, emphasizing the importance of implementing appropriate security measures that align with organizational policies and classification levels to ensure secure and authorized access to cloud systems.

**NEW QUESTION 49**

**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.



**INSTRUCTIONS**

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

Web app 1 <span style="float: right;">✕</span>			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp1	FIN	10.22.10.11	443

Web app 2

Web app 2 <span style="float: right;">✕</span>			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp2	VIDEO	10.22.10.21	443

Web app 3

Web app 3 <span style="float: right;">✕</span>			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp3	API	10.22.10.31	443

Web app 4

Web app 4 <span style="float: right;">✕</span>			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp4	CHAT	10.22.10.41	443

Client app

Client app <span style="float: right;">✕</span>	
Client laptop	App config
https_enabled	true
cert_status	valid
start	login

## Client app ✕

Client laptop

App config

Host	client142
IP	192.168.10.142

## WAF ✕

Edit config

WAF logs

Rule ID	Description	Service	Action	Availability zone
1001	Brute-force attempt	<input type="text" value="^https://webapp[.]comptia[.]org/\$"/>	Block <span style="font-size: small;">▼</span>	A
1002	Botnet	<input type="text" value="^https://webapp[.]comptia[.]org/\$"/>	Block <span style="font-size: small;">▼</span>	A
1003	API web server	<input type="text" value="^https://webapp3[.]comptia[.]org/([0-9A-Za-z][0-9A-Za-z_?]*)*\$"/>	Allow <span style="font-size: small;">▼</span>	B
1004	Chat web traffic	<input type="text" value="^https://webapp4[.]comptia[.]org/chat/request[.]php\$"/>	Allow <span style="font-size: small;">▼</span>	B
1005	Finance application 1	<input type="text" value="^https://webapp1[.]comptia[.]org/([0-9A-Za-z][0-9A-Za-z_?]*)*\$"/>	Allow <span style="font-size: small;">▼</span>	B
1006	Finance application 2	<input type="text" value="^https://webapp1[.]comptia[.]org/login[.]html\$"/>	Block <span style="font-size: small;">▼</span>	A
1007	Video application	<input type="text" value="^https://webapp2[.]comptia[.]org/video/stream\$"/>	Allow <span style="font-size: small;">▼</span>	A

## WAF ✕

Edit config

WAF logs

```

...
Dec 12 21:50:45 10.1.105.1 CEF:0|Sec|Gateway|1.0|WAF|WAF_INSPECT|5|src=192.168.11.129 spt=39110 method=POST
request="PASS991!!" msg=Unauthorized content. cn1=2002 cn2=104 cs1= cs2= cs3= cs4=ALERT cs5=2020 act=blocked

Dec 12 22:20:17 10.1.105.1 CEF:0|Sec|Gateway|1.0|WAF|WAF_STARTURL|6|src=192.168.10.142 spt=48909 method=GET
request=https://webapp1.comptia.org/FIN/login.html msg=Start URL Check Failed. cn1=1005 cn2=248 cs1= cs2= cs3= cs4=ALERT cs5=2020 act=blocked

Dec 12 22:23:20 10.1.105.1 CEF:0|Sec|Gateway|1.0|WAF|WAF_STARTURL|1|src=192.168.11.129 spt=38995 method=GET
request=https://webapp2.comptia.org/VIDEO/stream msg=Start URL Check Passed. cn1=1007 cn2=106 cs1= cs2= cs3= cs4=INFO cs5=2020 act=allow

Dec 12 22:23:20 10.1.105.1 CEF:0|Sec|Gateway|1.0|WAF|WAF_STARTURL|1|src=192.168.10.142 spt=49015 method=GET
request=https://webapp4.comptia.org/CHAT/request.php msg=Start URL Check Passed. cn1=1004 cn2=332 cs1= cs2= cs3= cs4=INFO cs5=2020 act=allow

Dec 12 22:25:01 10.1.105.1 CEF:0|Sec|Gateway|1.0|WAF|WAF_URIINSPECT|2|src=192.168.10.142 spt=49117 method=GET
request=https://webapp3.comptia.org/api?reqStatus=1 msg=Log sensitive request. cn1=1003 cn2=432 cs1= cs2= cs3= cs4=INFO cs5=2020 act=allow
...
                    
```

Reset to Default

Save

Close

A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

The issue is with Web app 1 (Finance application).

From the WAF logs, we can see that requests to <https://webapp1.comptia.org/FIN/login.html> are being blocked (Rule ID 1006). The rule is configured to block access to the finance application's login page. This corresponds to the reported issue of the web-based login prompt not loading.

To remediate the issue, the WAF configuration for Rule ID 1006 should be changed from "Block" to "Allow". This will enable the web-based login prompt to load for the client. Additionally, the client app configuration indicates that the client laptop (IP 192.168.10.142) is trying to access the service, and the WAF logs show that requests from this IP are being blocked due to the current rule set. Changing the action for Rule ID 1006 will also ensure that legitimate attempts to access the login page from this IP are not blocked.

Steps for remediation:

? Go to the WAF configuration.

? Find Rule ID 1006 for the Finance application 1.

? Change the action from "Block" to "Allow".

? Save the changes.

References:

? Web application firewall (WAF) configurations typically include rules that define which traffic should be allowed or blocked. Blocking legitimate traffic to login pages can prevent users from accessing the application, which seems to be the case here.

? Client application configurations and WAF logs provide valuable insights into the source of the traffic and the rules that are affecting it. It's important to ensure that the rules align with the intended access policies for the application.

**NEW QUESTION 54**

Department supervisors have requested a report that will help them understand the utilization of cloud resources, make decisions about budgeting for the following year, and reduce costs. Which of the following are the most important requisite steps to create the report? (Select two).

- A. Set the desired retention of resource logs.
- B. Configure application tracing.
- C. Integrate email alerts with ticketing software.
- D. Enable resource tagging.
- E. Configure the collection of performance/utilization logs.
- F. Configure metric threshold alerts.

**Answer:** DE

**Explanation:**

To create a report that helps understand the utilization of cloud resources, make budget decisions, and reduce costs, the most important steps are to enable resource tagging and configure the collection of performance/utilization logs. Resource tagging helps in categorizing and tracking costs by associating tags with resources, while performance/utilization logs are essential for analyzing resource usage over time. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Management

**NEW QUESTION 58**

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 61**

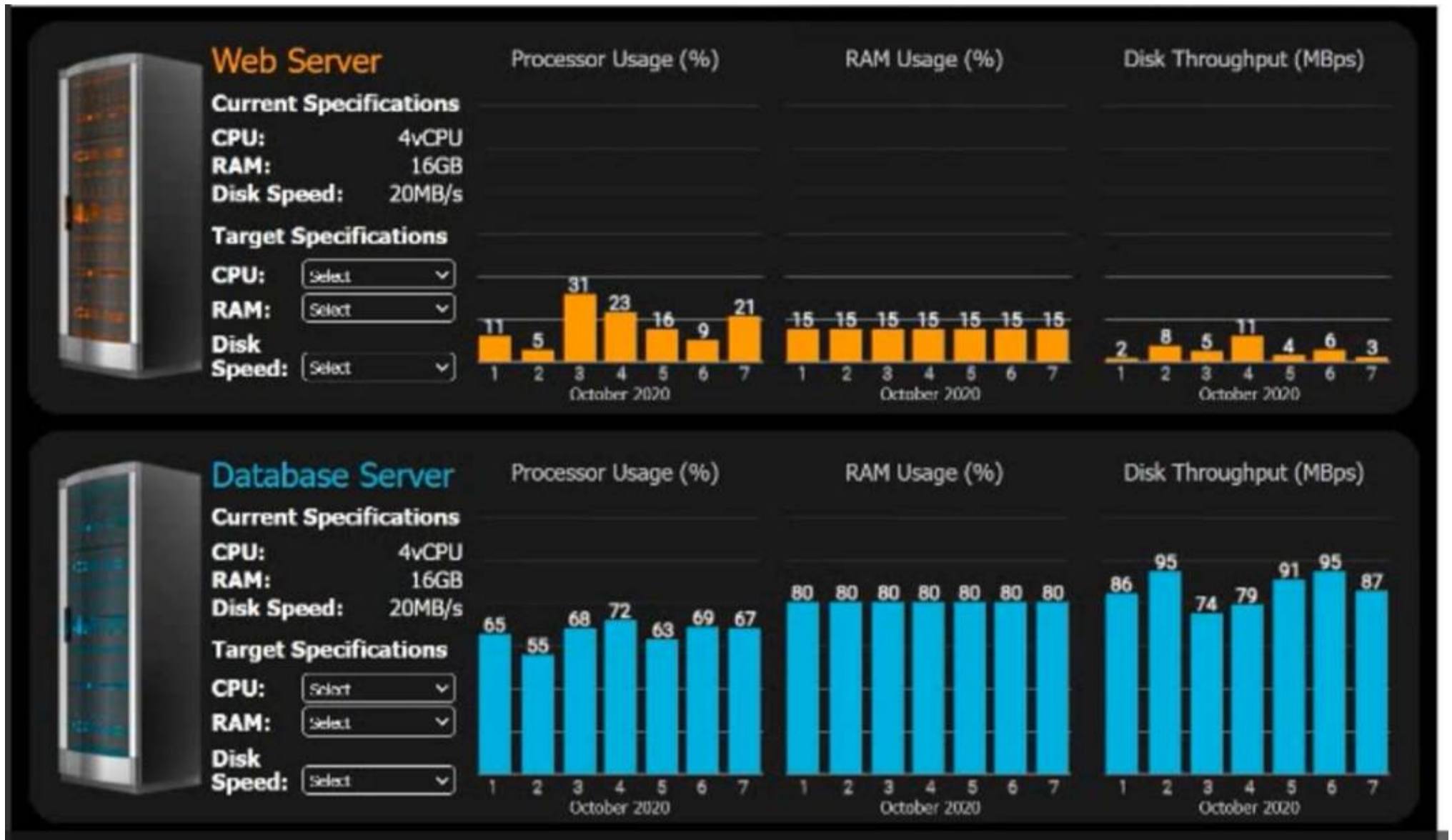
**HOTSPOT**


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:   
 RAM:   
 Disk Speed:

- 2 vCPUs
- 6 vCPUs
- 4 vCPUs
- 8 vCPUs
- 1 vCPU

- 32GB
- 16GB
- 128GB
- 1GB
- 8GB
- 4GB
- 64GB
- 2GB


- 120MBps
- 70MBps
- 110MBps
- 5MBps
- 80MBps
- 100MBps
- 90MBps
- 30MBps
- 10MBps
- 15MBps
- 25MBps

Processor Usage (%)




Day	Usage (%)
1	11
2	5
3	31
4	23
5	16
6	9
7	21

RAM Usage (%)




Day	Usage (%)
1	15
2	15
3	15
4	15
5	15
6	15
7	15

Disk Throughput (MBps)



Day	Throughput (MBps)
1	2
2	8
3	5
4	11
5	4
6	6
7	3



### Database Server

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

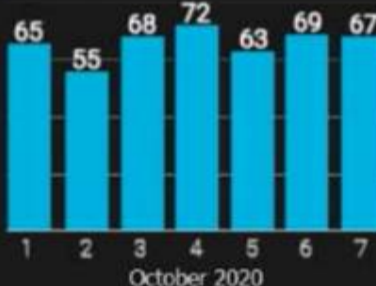
**Target Specifications**  
 CPU:   
 RAM:   
 Disk Speed:

- 2 vCPUs
- 6 vCPUs
- 4 vCPUs
- 8 vCPUs
- 1 vCPU

- 32GB
- 16GB
- 128GB
- 1GB
- 8GB
- 4GB
- 64GB
- 2GB

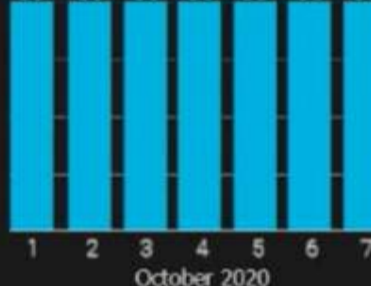
- 120MBps
- 70MBps
- 110MBps
- 5MBps
- 80MBps
- 100MBps
- 90MBps
- 30MBps
- 10MBps
- 15MBps
- 25MBps

Processor Usage (%)




Day	Usage (%)
1	65
2	55
3	68
4	72
5	63
6	69
7	67

RAM Usage (%)



Day	Usage (%)
1	80
2	80
3	80
4	80
5	80
6	80
7	80

Disk Throughput (MBps)



Day	Throughput (MBps)
1	86
2	95
3	74
4	79
5	91
6	95
7	87

- 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 65**

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 67**

Which of the following can reduce the risk of CI/CD pipelines leaking secrets?

- A. Protected Git branches
- B. Use of a VM instead of containers
- C. Private image repositories
- D. Canary tests

**Answer:** A

**Explanation:**

Protected Git branches help reduce the risk of CI/CD pipelines leaking secrets by imposing restrictions on who can commit to the branches, enforce status checks before merging, and prevent unauthorized access or changes to sensitive information, such as API keys, passwords, and secret tokens. This ensures that only approved changes can be made to the codebase, and sensitive information is safeguarded.

**NEW QUESTION 69**

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 73**

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

An organization needs to retain its data for compliance reasons but only when required. Which of the following would be the most cost-effective type of tiered storage?

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

**Answer: C**

#### Explanation:

Archive storage is the most cost-effective type of tiered storage for retaining data that is infrequently accessed and only when required for compliance reasons. It is designed for long-term storage and offers lower storage costs compared to hot, cold, or warm storage tiers. References: Understanding data storage and the various tiers, including archival storage, is part of cloud storage strategies covered in the CompTIA Cloud+ certification.

#### NEW QUESTION 83

Which of the following provides secure, private communication between cloud environments without provisioning additional hardware or appliances?

- A. VPN
- B. VPC peering
- C. BGP
- D. Transit gateway

**Answer: B**

#### Explanation:

VPC peering provides secure, private communication between cloud environments without the need for provisioning additional hardware or appliances. It allows direct network connectivity between two Virtual Private Clouds (VPCs), enabling resources in either VPC to communicate with each other using private IP addresses. References: Cloud networking options such as VPC peering and its benefits are included in the networking concepts of cloud environments in the CompTIA Cloud+ certification.

#### NEW QUESTION 87

A cloud solutions architect is designing a VM-based solution that requires reducing the cost as much as possible. Which of the following solutions will best satisfy this requirement?

- A. Using ephemeral storage on replicated VMs
- B. Creating Spot VMs in one availability zone
- C. Spreading the VMs across different regions
- D. Using provisioned IOPS storage

**Answer: B**

#### Explanation:

Using Spot VMs is a cost-effective solution as these are available at significantly reduced prices compared to standard instances. Spot VMs are ideal for workloads that can tolerate interruptions and are a way to take advantage of unused cloud capacity. References: The concept of Spot VMs and their cost benefits are included in the financial aspects of managing cloud resources, as per the CompTIA Cloud+ certification guidelines.

#### NEW QUESTION 90

An organization's web application experiences periodic bursts of traffic when a new video is launched. Users are reporting poor performance in the middle of the month. Which of the following scaling approaches should the organization use to scale based on forecasted traffic?

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

**Answer: A**

#### Explanation:

For periodic bursts of traffic that are predictable, such as when a new video is launched, a scheduled scaling approach is suitable. This strategy involves scaling resources based on forecasted or known traffic patterns, ensuring that the infrastructure can handle the load during expected peak times. References: The use of scheduled scaling to manage predictable traffic increases is discussed within the Management and Technical Operations section of the CompTIA Cloud+ exam objectives.

#### NEW QUESTION 93

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 95**

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 98**

A security team recently hired multiple interns who all need the same level of access. Which of the following controls should the security team implement to provide access to the cloud environment with the least amount of overhead?

- A. MFA
- B. Discretionary access
- C. Local user access
- D. Group-based access control

**Answer: D**

**Explanation:**

Implementing group-based access control is the most efficient way to provide access to multiple interns who require the same level of access. This method allows the security team to assign permissions to a group rather than to individual user accounts, thereby reducing the administrative overhead involved in managing access rights for each intern individually. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

**NEW QUESTION 103**

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 104**

A healthcare organization must follow strict compliance requirements to ensure that PII is not leaked. The cloud administrator needs to ensure the cloud email system can support this requirement Which of the following should the organization enable?

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

**Answer: B**

**Explanation:**

To ensure that Personally Identifiable Information (PII) is not leaked and to comply with strict healthcare regulations, the organization should enable Data Loss Prevention (DLP). DLP systems are designed to detect and prevent unauthorized access or sharing of sensitive data, making them ideal for securing PII in cloud email systems and ensuring compliance with healthcare industry standards. References: CompTIA Cloud+ content covers governance, risk, compliance, and security aspects of cloud computing, highlighting the role of DLP in safeguarding sensitive information and maintaining compliance in regulated industries like healthcare.

**NEW QUESTION 106**

**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.

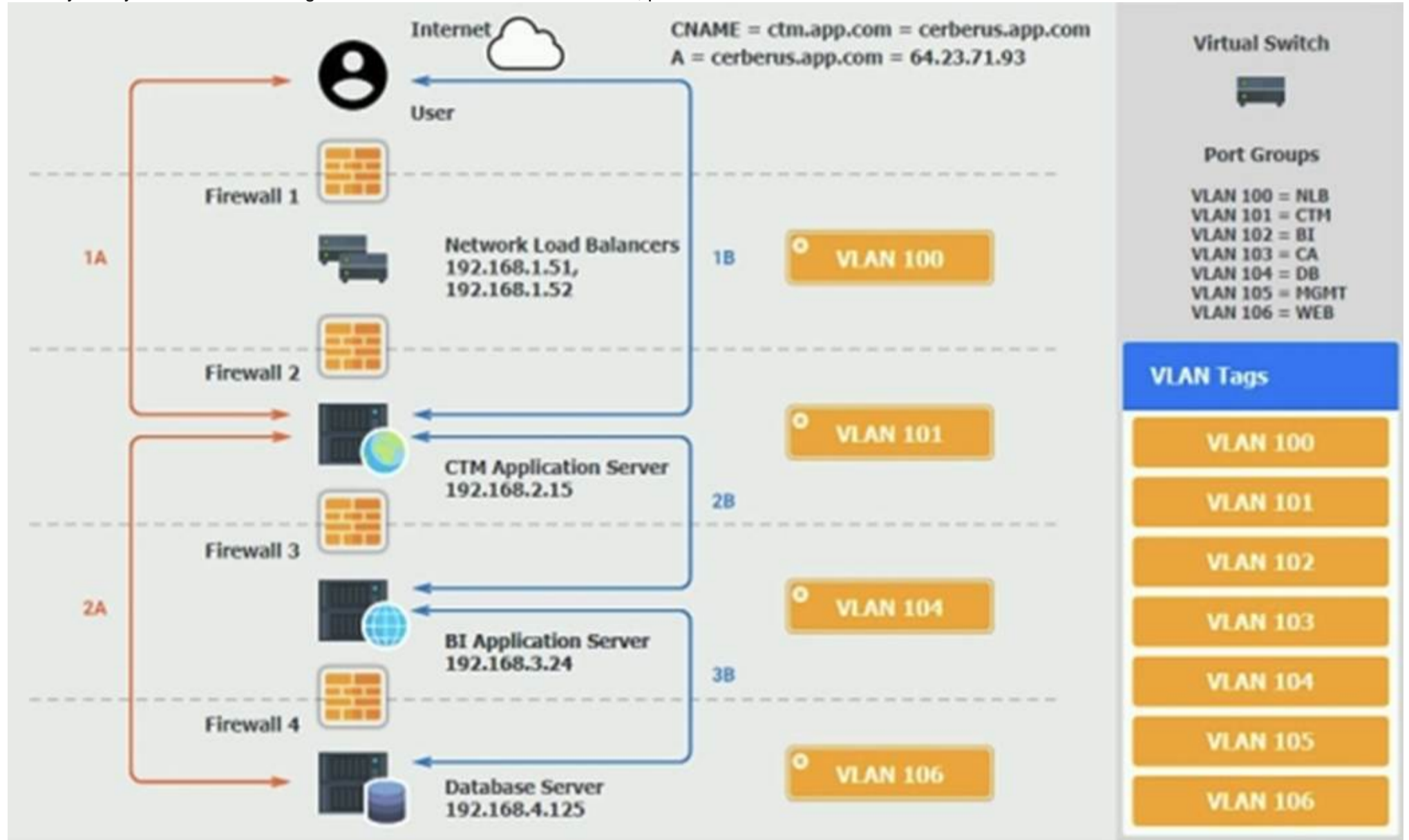
**INSTRUCTIONS**

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

User

Virtual Switch

Port Groups

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

**Firewall 1**

Action	Source	Destination	Protocol	Port
ALLOW	0.0.0.0	192.168.1.51	TCP	443
ALLOW	0.0.0.0	192.168.1.52	TCP	443
ALLOW	0.0.0.0	192.168.1.51	TCP	80
ALLOW	0.0.0.0	192.168.1.52	TCP	80
DENY	0.0.0.0	0.0.0.0	ANY	ANY

Application Server 192.168.3.24

Database Server 192.168.4.125

VLAN 105

**VLAN Tags**

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

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 = HGHT
- VLAN 106 = WEB

**Firewall 2**

Action	Source	Destination	Protocol	Port
ALLOW	192.168.1.51	192.168.2.15	TCP	88
DENY	192.168.1.52	192.168.2.15	TCP	88
ALLOW	0.0.0.0	192.168.2.15	UDP	1533
DENY	192.168.1.52	192.168.2.15	UDP	9400
DENY	192.168.1.52	192.168.2.15	ANY	ANY
DENY	192.168.2.15	192.168.4.125	TCP	443
DENY	0.0.0.0	192.168.4.125	ANY	ANY

Application Server 192.168.3.24

Database Server 192.168.4.125

VLAN 105

**VLAN Tags**

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



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 107**

Five thousand employees always access the company's public cloud-hosted web application on a daily basis during the same time frame. Some users have been

reporting performance issues while attempting to connect to the web application Which of the following is the best configuration approach to resolve this issue?

- A. Scale vertically based on a trend.
- B. Scale horizontally based on a schedule
- C. Scale vertically based on a load.
- D. Scale horizontally based on an event

**Answer: B**

**Explanation:**

For a web application accessed by a large number of employees daily during the same time frame, the best configuration approach to resolve performance issues is to scale horizontally based on a schedule. This means adding more server instances to handle the load during known peak times. References: Cloud resource scaling strategies, including scheduled horizontal scaling, are discussed in the CompTIA Cloud+ curriculum under cloud management and optimization.

**NEW QUESTION 110**

Which of the following communication methods between on-premises and cloud environments would ensure minimal-to-low latency and overhead?

- A. Site-to-site VPN
- B. Peer-to-peer VPN
- C. Direct connection
- D. peering

**Answer: C**

**Explanation:**

A direct connection between on-premises and cloud environments involves a dedicated, private connection that does not traverse the public internet. This setup ensures minimal-to-low latency and overhead, providing more consistent network performance and reliability compared to other methods like VPNs or public internet connections, making it suitable for high-volume or latency-sensitive applications.

**NEW QUESTION 113**

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 114**

A company serves customers globally from its website hosted in North America. A cloud engineer recently deployed new instances of the website in the Europe region. Which of the following is the most likely reason?

- A. To simplify workflow
- B. To enhance security
- C. To reduce latency
- D. To decrease cost

**Answer: C**

**Explanation:**

The most likely reason for deploying new instances of a website in the Europe region, in addition to the ones hosted in North America, is to reduce latency for users located in Europe. By having the website's resources closer to the end-users, the data has a shorter distance to travel, resulting in faster load times and better performance. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

**NEW QUESTION 115**

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 116**

Which of the following refers to the idea that data should stay within certain borders or territories?

- A. Data classification
- B. Data retention
- C. Data sovereignty
- D. Data ownership

**Answer: C**

**Explanation:**

Data sovereignty refers to the concept that data is subject to the laws and governance structures within the nation it is collected or stored. It implies that regardless of where a company's data is stored, the data must comply with the laws of the country where it is physically located. References: The principle of data sovereignty is a critical consideration in international cloud services and is included in the governance, risk, and compliance domain of CompTIA Cloud+.

**NEW QUESTION 118**

A cloud engineer needs to migrate an application from on premises to a public cloud. Due to timing constraints, the application cannot be changed prior to migration. Which of the following migration strategies is best approach for this use case?

- A. Retire
- B. Rearchitect
- C. Refactor
- D. Rehost

**Answer: D**

**Explanation:**

Rehosting, often referred to as "lift-and-shift," is the process of migrating an application or workload to the cloud without modifying it. This approach is suitable when there are timing constraints that prevent making changes to the application prior to migration. Rehosting can be the quickest migration strategy since it involves moving the existing applications to the cloud with minimal changes.

References: CompTIA Cloud+ resources and cloud migration strategies

**NEW QUESTION 121**

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