

CompTIA

Exam Questions CV0-004

CompTIA Cloud+



NEW QUESTION 1

A newly configured VM fails to run application updates despite having internet access. The updates download automatically from a third-party network. Given the following output:

```
$dig +short apac.update-server.net
38.102.218.7
$dig +short na.update-server.net
request timeout
```

Which of the following troubleshooting steps would be best to take?

- A. Checking DNS configurations
- B. Reconfiguring routing protocols
- C. Testing the IP address configuration
- D. Running a trace to the router

Answer: A

Explanation:

The best troubleshooting step to take given the output is to check DNS configurations. The failure to resolve the "na.update-server.net" domain suggests a DNS resolution issue, which could be due to incorrect DNS settings, a failure in the DNS service, or an issue with the DNS server itself. References: Troubleshooting DNS issues is a crucial skill in cloud management, as DNS plays a fundamental role in network connectivity and access to resources. It is covered under Cloud Concepts in the CompTIA Cloud+ curriculum.

NEW QUESTION 2

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

- A. A SAN works only with fiber-based networks.
- B. A SAN works with any Ethernet-based network.
- C. A NAS uses a faster protocol than a SAN
- D. A NAS uses a slower protocol than a SAN.

Answer: D

Explanation:

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

NEW QUESTION 3

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 4

A security engineer identifies a vulnerability in a containerized application. The vulnerability can be exploited by a privileged process to read the content of the host's memory. The security engineer reviews the following Dockerfile to determine a solution to mitigate similar exploits:

```
FROM alpine:3.17
RUN apk update && apk upgrade
COPY . /myapp
ENTRYPOINT ["/myapp/app"]
```

Which of the following is the best solution to prevent similar exploits by privileged processes?

- A. Adding the USER myappuserinstruction
- B. Patching the host running the Docker daemon
- C. Changing FROM alpine:latest to FROM alpine:latest
- D. Running the container with the ready-only filesystem configuration

Answer: A

Explanation:

Adding the "USER myappuser" instruction to the Dockerfile is the best solution to prevent similar exploits by privileged processes. This instruction ensures that the container runs as a non-privileged user instead of the root user, significantly reducing the risk of privileged exploits. Running containers with least privilege principles minimizes the potential impact of vulnerabilities, enhancing the overall security posture of the containerized environment. References: The CompTIA Cloud+ framework includes security concerns, measures, and concepts for cloud operations, highlighting the importance of container security practices, such as running containers as non-root users to prevent unauthorized access and exploitation.

NEW QUESTION 5

The change control board received a request to approve a configuration change to deploy in the cloud production environment. Which of the following should have already been completed?

- A. Penetration test
- B. End-to-end security testing
- C. Cost benefit analysis
- D. User acceptance testing

Answer: D

Explanation:

Before a configuration change is deployed in the cloud production environment, it is crucial to conduct User Acceptance Testing (UAT). UAT involves testing the system by the end-users or clients to ensure it can handle required tasks in real-world scenarios, according to specifications. This testing is the final stage before the change is approved for production, ensuring that all functionalities meet user requirements and the system is ready for deployment. References: The CompTIA Cloud+ certification highlights the significance of various testing phases, including UAT, as part of the cloud deployment process to validate the system's readiness and functionality for end-users.

NEW QUESTION 6

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 7

An organization wants to ensure its data is protected in the event of a natural disaster. To support this effort, the company has rented a colocation space in another part of the country. Which of the following disaster recovery practices can be used to best protect the data?

- A. On-site
- B. Replication
- C. Retention
- D. Off-site

Answer: D

Explanation:

For an organization looking to protect its data in the event of a natural disaster, the best disaster recovery practice would be off-site replication. By renting a colocation space in another part of the country, the company can maintain copies of their data and critical systems in a geographically separate location, ensuring they are not affected by the same disaster. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Disaster Recovery

NEW QUESTION 8

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

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

Answer: C

Explanation:

When servers in a hot site are clustered with the main site, it indicates that all servers are replicated from the main site in an online status. This means that the hot site maintains a live, real-time copy of data and applications, ensuring immediate availability in the event of a failure at the main site. Unlike options A and B, which describe load balancing and backup strategies respectively, clustering with a hot site as described in option C ensures that the hot site can take over with minimal downtime, maintaining business continuity.

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

NEW QUESTION 9

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

An DevOps engineer is receiving reports that users can no longer access the company's web application after hardening of a web server. The users are receiving the following error:

ERR_SSLJ/ERSION_OR_CIPHER_MISMATCH.

Which of the following actions should the engineer take to resolve the issue?

- A. Restart the web server.
- B. Configure TLS 1.2 or newer.
- C. Update the web server.
- D. Review logs on the WAF

Answer: B

Explanation:

To resolve the ERR_SSL_VERSION_OR_CIPHER_MISMATCH error after hardening a web server, the engineer should configure the server to use TLS 1.2 or newer. This error often occurs when the server or client supports an outdated version of SSL/TLS or incompatible cipher suites. Updating to a modern, secure version of TLS ensures compatibility and enhances security. References: The CompTIA Cloud+ certification includes governance, risk, compliance, and security for the cloud, emphasizing the importance of implementing up-to-date security protocols like TLS to protect data in transit and ensure secure communications in cloud environments.

NEW QUESTION 10

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 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 0.0.0.0/0 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 19

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 22

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

Web server access log:

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

Web application firewall log:

```
"2022/10/21 11:17:33" "10.25.2.35" "104.210.233.225" "user1" "File transfer completed successfully."
"2022/10/21 11:21:05" "10.25.2.35" "104.210.233.225" "user1" "Accessed application page."
"2022/10/21 11:22:13" "10.25.2.35" "45.32.10.66" "user2" "Accessing admin page." Which of the following has occurred?
```

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

Answer: D

Explanation:

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

NEW QUESTION 24

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 26

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 28

A network administrator is budding a site-to-site VPN tunnel from the company's headquarters office to the company's public cloud development network. The network administrator confirms the following:

The VPN tunnel is established on the headquarter office firewall.

While inside the office, developers report that they cannot connect to the development network resources.

While outside the office on a client VPN, developers report that they can connect to the development network resources.

The office and the client VPN have different IP subnet ranges.

The firewall flow logs show VPN traffic is reaching the development network from the office. Which of the following is the next step the next network administrator should take to troubleshoot the VPN tunnel?

- A. Review the development network routing table.
- B. Change the ciphers on the site-to-site VPN.
- C. Restart the site-to-site VPN tunnel.
- D. Check the ACLS on the development workloads

Answer: A

Explanation:

The next step in troubleshooting the VPN tunnel issue is to review the development network routing table. This action will help determine if the routing configurations are correctly directing traffic from the headquarters office through the VPN tunnel to the development network resources. Proper routing ensures that data packets find their way to the correct destination within the cloud environment, which is critical for establishing successful communication between different network segments. References: CompTIA Cloud+ materials stress the importance of networking fundamentals in cloud environments, including VPN configurations and routing, to ensure secure and efficient connectivity between on-premises infrastructure and cloud resources.

NEW QUESTION 31

SIMULATION

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

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



Web app 1			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp1	FIN	10.22.10.11	443

Web app 2			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp2	VIDEO	10.22.10.21	443

Web app 3			
SVC_Host	SVC_Name	SVC IP	SVC_Port
webapp3	API	10.22.10.31	443

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

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

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

From the image, it's noticeable that some finance application rules are set to "Block" traffic. If the client's issue is with a finance-related application not loading the login prompt, these rules could be the cause.

The rule with ID 1005, labeled "Finance application 1", is configured to allow access to "webapp1" for finance-related paths. However, rule 1006, labeled "Finance application 2", is set to block access to "webapp1" for login-related paths.

To remediate the issue based on the WAF configuration you have provided, you would want to:

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

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

NEW QUESTION 32

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 36

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 39

Which of the following best describes a system that keeps all different versions of a software separate from each other while giving access to all of the versions?

- A. Code documentation
- B. Code control
- C. Code repository
- D. Code versioning

Answer: D

Explanation:

A system that keeps all different versions of software separate from each other while providing access to all of the versions is best described by Code versioning. Code versioning systems, such as Git, allow developers to keep track of changes, revert to previous states, and manage multiple versions of codebases. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 42

A cloud engineer is extending on-premises services to a public cloud. The following design requirements must be considered in the overall solution:

" The ability to remotely connect systems from both environments

- No IP address conflicts or overlap
- Cost-effectiveness

Which of the following cloud network concepts best meets these requirements?

- A. Dedicated connection
- B. VPN
- C. VLAN
- D. ACL

Answer: B

Explanation:

A Virtual Private Network (VPN) is the most cost-effective solution for extending on-premises services to a public cloud while ensuring secure remote connectivity. VPNs can be configured to avoid IP address conflicts and overlap by using IP address translation and tunneling techniques, making them suitable for connecting disparate environments without significant changes to the existing network infrastructure.

NEW QUESTION 45

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 authorisation 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 47

A cloud engineer is exploring options to reduce the management overhead of the servers and network. Which of the following cloud service models should the engineer implement?

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

Answer: C

Explanation:

Platform as a Service (PaaS) provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an app. Adopting PaaS can significantly reduce the management overhead of servers and networks. References: CompTIA Cloud Essentials+ Certification Study Guide (Exam CLO-002) by Scott Wilson.

NEW QUESTION 52

SIMULATION

You are a cloud engineer working for a cloud service provider that is responsible for an IaaS offering. Your customer, who creates VMs and manages virtual storage, has noticed I/O bandwidth issues and low IOPS (under 9000). Your manager wants you to verify the proper storage configuration as dictated by your service level agreement (SLA). The SLA specifies:

- . Each SFP on the hypervisor host must be set to the maximum link speed allowed by the SAN array.
- . All SAN array disk groups must be configured in a RAID 5.
- . The SAN array must be fully configured for redundant fabric paths.
- . IOPS should not fall below 14000

INSTRUCTIONS

Click on each service processor to review the displayed information. Then click on the drop-down menus to change the settings of each device as necessary to conform to the SLA requirements.

The simulation interface displays a network topology and configuration panels. The topology includes a Hypervisor with Slot A and Slot B fiber channel cards, Fabric switch A and Fabric switch B, and a SAN array with service processors SPA and SPB. The configuration panels on the right show link speeds and initiator tables for each component.

Slot A fiber channel card

Port 1 link speed: 16 Gbps
 Port 2 link speed: 16 Gbps

Slot B fiber channel card

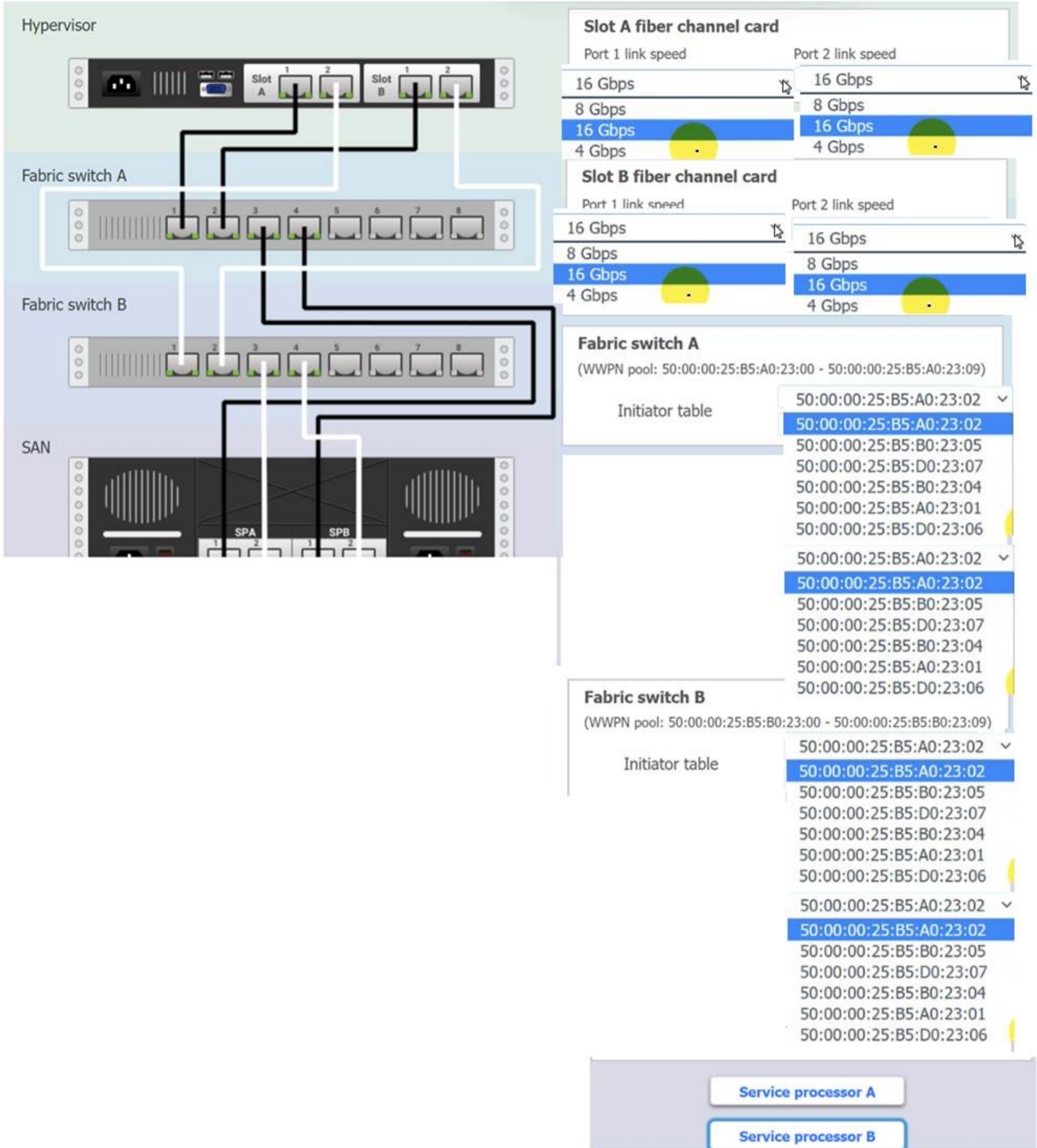
Port 1 link speed: 4 Gbps
 Port 2 link speed: 8 Gbps

Fabric switch A
 (WWPN pool: 50:00:00:25:B5:A0:23:00 - 50:00:00:25:B5:A0:23:09)
 Initiator table: 50:00:00:25:B5:A0:23:02
 50:00:00:25:B5:B0:23:05

Fabric switch B
 (WWPN pool: 50:00:00:25:B5:B0:23:00 - 50:00:00:25:B5:B0:23:09)
 Initiator table: 50:00:00:25:B5:B0:23:04
 50:00:00:25:B5:A0:23:01

Service processor A

Service processor B



Service processor A details 

"no initiators currently logged in"

SP-A module 0 Port 0	8 Gbps
SP-A module 0 Port 1	8 Gbps

Disk groups	1
RAID level	5

Service processor B details 

"50:00:00:25:B5:A0:23:02 - logged in"

"50:00:00:25:B5:B0:23:04 - logged in"

SP-B module 0 Port 0	8 Gbps
SP-B module 0 Port 1	8 Gbps

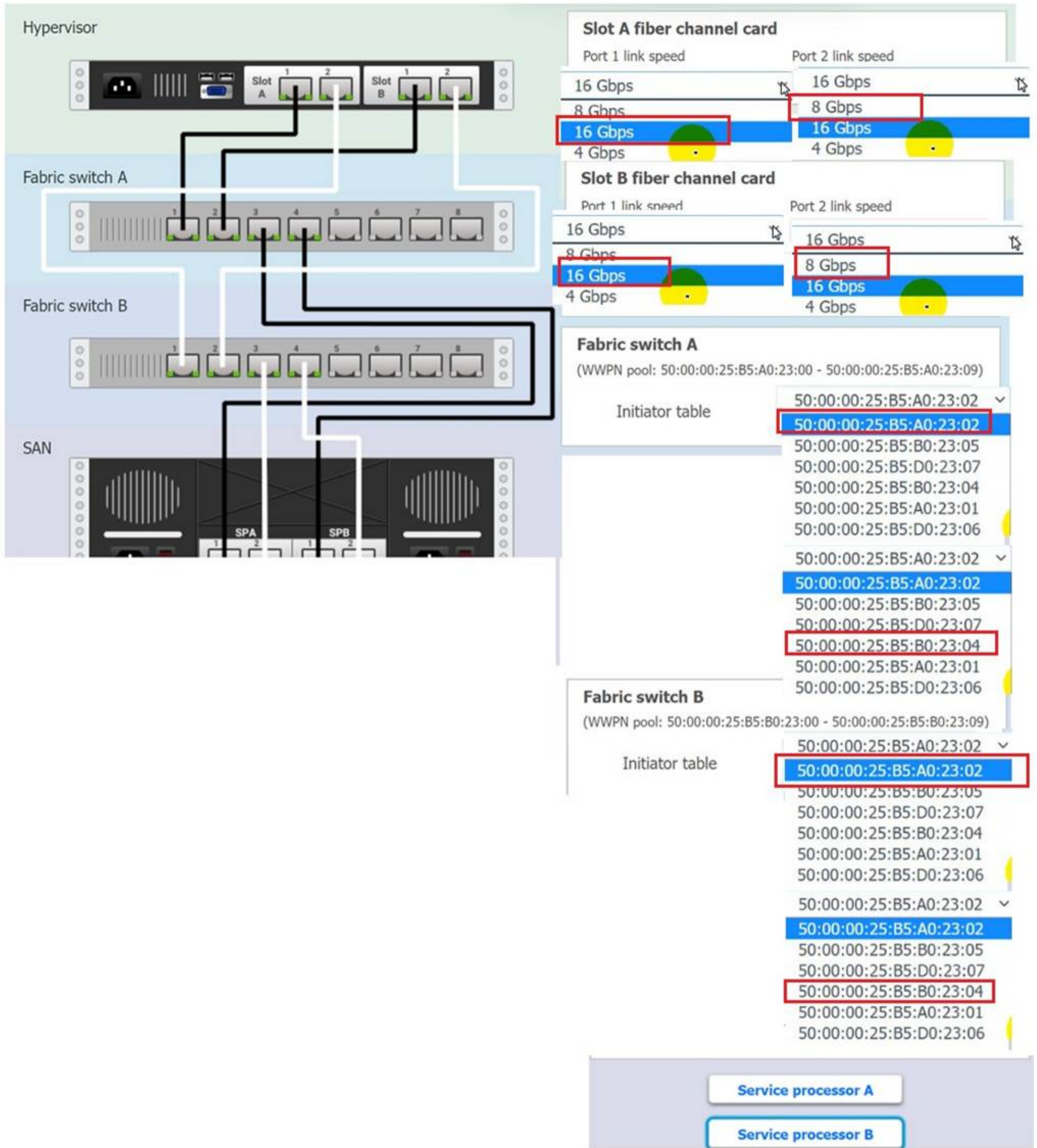
Disk groups	1
RAID level	5

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Based on the SLA requirements and the information provided in the diagram: For the Hypervisor:
 Slot A fiber channel card:
 ? Port 1 link speed should be set to 16 Gbps since it's connected to Fabric switch A which supports 16 Gbps.
 ? Port 2 link speed should be set to 8 Gbps because it's connected to Fabric switch B which supports up to 8 Gbps.
 Slot B fiber channel card:
 ? Port 1 link speed should be set to 16 Gbps since it's connected to Fabric switch A which supports 16 Gbps.
 ? Port 2 link speed should be set to 8 Gbps because it's connected to Fabric switch B which supports up to 8 Gbps.



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 55

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

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

Answer: D

Explanation:

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

NEW QUESTION 56

Given the following command:

```
Sdocker pull images.comptia.org/user1/myimage:latest
```

Which of the following correctly identifies images.comptia.org?

- A. Image registry
- B. Image creator
- C. Image version
- D. Image name

Answer: A

Explanation:

In the Docker pull command given, images.comptia.org represents the image registry. A Docker image registry is a collection of repositories that host Docker images. It is where images are stored and organized, and from where they can be pulled for deployment. References: Docker and container management concepts, including image registries, are part of the cloud services understanding in the CompTIA Cloud+ curriculum.

NEW QUESTION 58

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 61

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 63

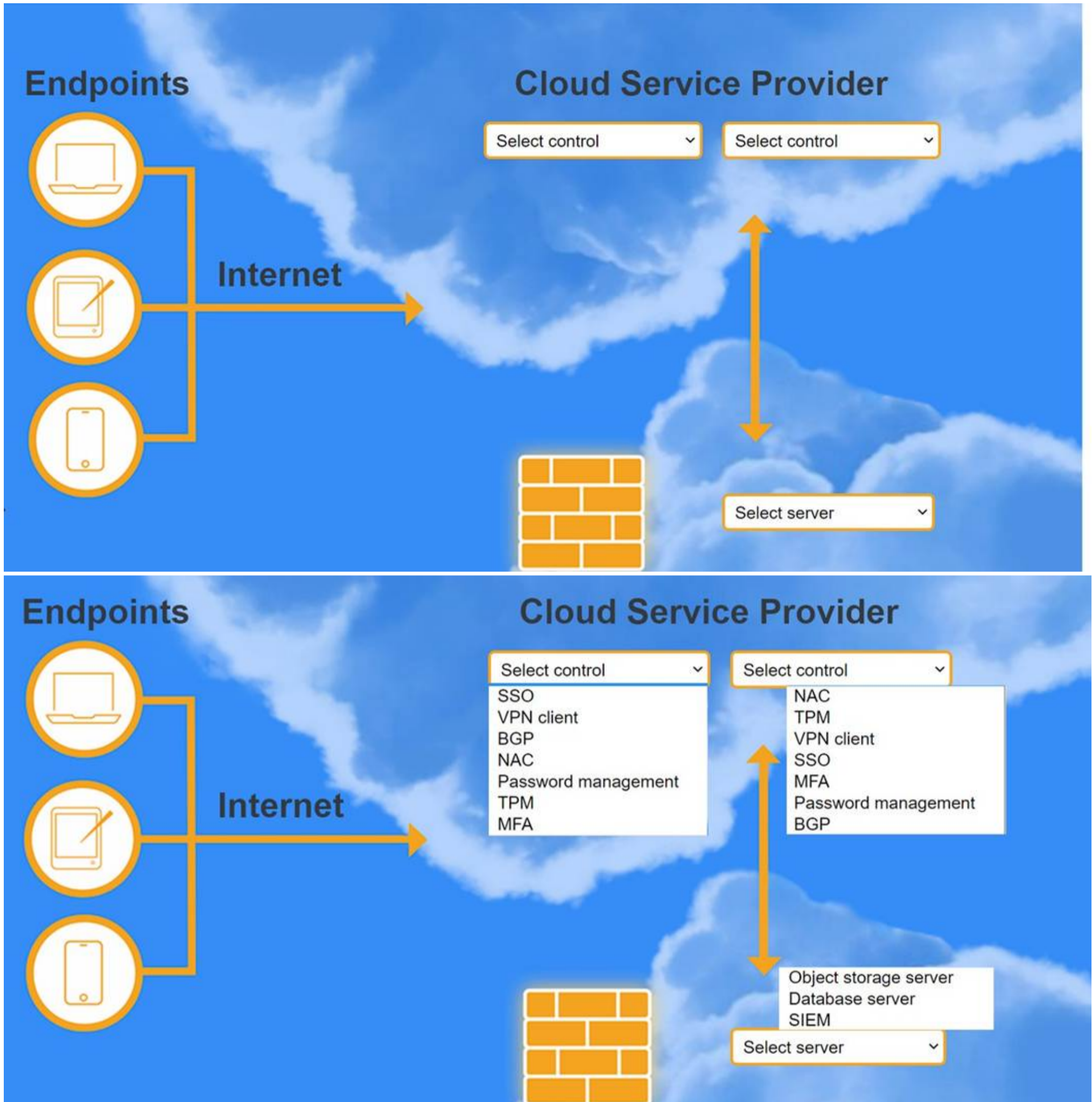
HOTSPOT

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

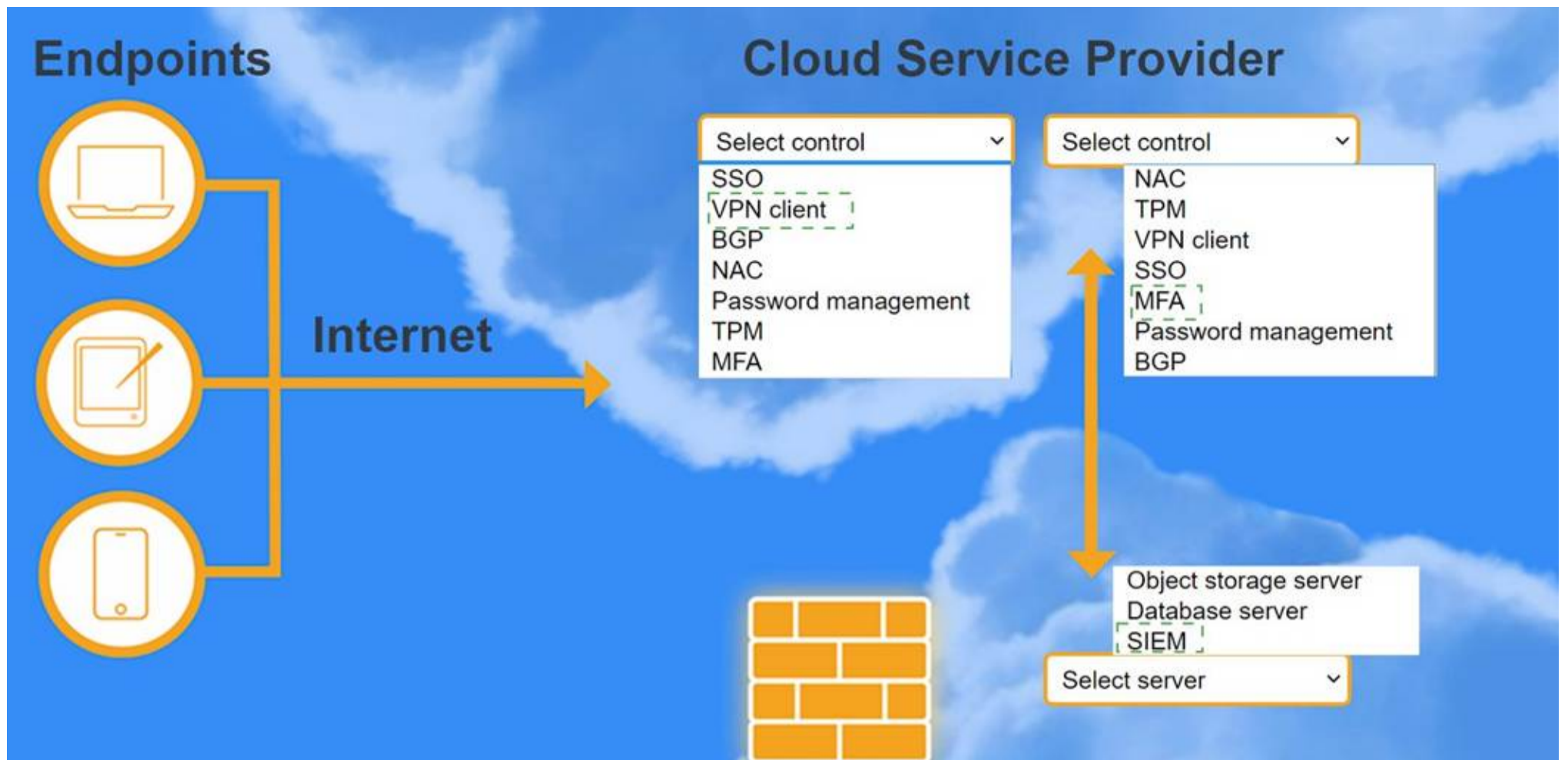
Select controls and servers for the proper control points.



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:



NEW QUESTION 68

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 71

A software engineer is integrating an application to the cloud that is web socket based. Which of the following applications is the engineer most likely deploying?

- A. Image-sharing
- B. Data visualization
- C. Chat
- D. File transfer

Answer: C

Explanation:

A chat application is most likely to be deployed when integrating a web socket-based application to the cloud. Web sockets provide full-duplex communication channels over a single, long-lived connection, which is ideal for real-time applications like chat services that require persistent connections between the client and server for instant data exchange. References: CompTIA Cloud+ materials cover cloud networking concepts, emphasizing the importance of choosing the right technologies, like web sockets, for specific application requirements to ensure efficient and responsive cloud-based services.

NEW QUESTION 73

Following a ransomware attack, the legal department at a company instructs the IT administrator to store the data from the affected virtual machines for a minimum of one year. Which of the following is this an example of?

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

Answer: B

Explanation:

The instruction by the legal department to store data from the affected virtual machines for a minimum of one year is an example of data Retention. Retention policies are often driven by regulatory compliance requirements and dictate how long certain types of data must be kept before they can be securely disposed of.

References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 74

A cloud engineer was deploying the company's payment processing application, but it failed with the following error log:

ERFOR:root: Transaction failed http 429 response, please try again Which of the following are the most likely causes for this error? (Select two).

- A. API throttling
- B. API gateway outage
- C. Web server outage
- D. Oversubscription
- E. Unauthorized access
- F. Insufficient quota

Answer: AF

Explanation:

The error "http 429 response, please try again" typically indicates API throttling, where the number of requests exceeds the rate limit set by the API provider, and insufficient quota, where the allowed number of API calls within a given timeframe has been exceeded. References: API throttling and quota management are key concepts in the management of cloud resources, as highlighted in the CompTIA Cloud+ curriculum.

NEW QUESTION 77

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 81

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

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

Answer: A

Explanation:

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

NEW QUESTION 86

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

RAM Usage (%)

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

Disk Throughput (MBps)

Day	1	2	3	4	5	6	7
Throughput (MBps)	2	8	5	11	4	6	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	1	2	3	4	5	6	7
Usage (%)	65	55	68	72	63	69	67

RAM Usage (%)

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

Disk Throughput (MBps)

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

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- 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 88

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

- Cost effective
- Granular recovery
- Multilocation

Which of the following backup types best meets these requirements?

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

Answer: A

Explanation:

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

NEW QUESTION 91

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 93

A video surveillance system records road incidents and stores the videos locally before uploading them to the cloud and deleting them from local storage. Which of the following best describes the nature of the local storage?

- A. Persistent
- B. Ephemeral
- C. Differential
- D. Incremental

Answer: B

Explanation:

The nature of the local storage in a video surveillance system that records road incidents and stores the videos locally before uploading them to the cloud and deleting them from local storage is ephemeral. Ephemeral storage is temporary and is designed to provide short-term storage for information that changes frequently or is not meant to be persistent. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Storage Options

NEW QUESTION 96

A bank informs an administrator that changes must be made to backups for long-term reporting purposes. Which of the following is the most important change the administrator should make to satisfy these requirements?

- A. Location of the backups
- B. Type of the backups
- C. Retention of the backups

D. Schedule of the backups

Answer: C

Explanation:

For long-term reporting purposes, the most critical aspect to consider is the retention period of the backups. This is because the bank will likely require access to historical data for audit, compliance, and reporting purposes. The retention policy will need to ensure that backups are kept for the required duration, which may be several years depending on regulatory and business needs. Adjusting the retention policy will help ensure that the necessary data is preserved for as long as it is needed, without unnecessary data accumulation that could lead to higher costs and management complexity. References: CompTIA Cloud+ Certification Study Guide (Exam CV0-004) by Scott Wilson and Eric Vanderburg

NEW QUESTION 97

A cloud deployment uses three different VPCs. The subnets on each VPC need to communicate with the others over private channels. Which of the following will achieve this objective?

- A. Deploying a load balancer to send traffic to the private IP addresses
- B. Creating peering connections between all VPCs
- C. Adding BGP routes using the VPCs' private IP addresses
- D. Establishing identical routing tables on all VPCs

Answer: B

Explanation:

To allow subnets on different VPCs to communicate with each other over private channels, the cloud engineer should create peering connections between all the VPCs. VPC Peering allows networks to connect and route traffic using private IP addresses without the need for gateways, VPN connections, or separate physical hardware. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 101

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 106

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 109

A cloud developer is creating a static website that customers will be accessing globally.

Which of the following services will help reduce latency?

- A. VPC
- B. Application load balancer
- C. CDN
- D. API gateway

Answer: C

Explanation:

A Content Delivery Network (CDN) is the service that will help reduce latency for a static website accessed globally. CDNs distribute content across multiple geographically dispersed servers, allowing users to connect to a server that is closer to them, thereby reducing the time it takes to load the website. References: The use of CDNs is a common practice to enhance global access and improve user experience, as covered under Cloud Concepts in the CompTIA Cloud+ certification.

NEW QUESTION 114

A software engineer needs to transfer data over the internet using programmatic access while also being able to query the data. Which of the following will best help the engineer to complete this task?

- A. SQL
- B. Web sockets
- C. RPC
- D. GraphQL

Answer: D

Explanation:

GraphQL is the best option for transferring data over the internet with programmatic access and querying capabilities. It is a query language for APIs and a runtime for executing those queries with existing data, providing a more efficient, powerful, and flexible alternative to the REST API. References: Data transfer and querying methods are part of the technical knowledge associated with cloud computing, as included in CompTIA Cloud+.

NEW QUESTION 116

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 120

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 123

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 126

Which of the following cloud-native architecture designs is the most easily maintained, decentralized, and decoupled?

- A. Monolithic
- B. Hybrid cloud
- C. Mainframe
- D. Microservices

Answer: D

Explanation:

Microservices architecture is a design approach to build a single application as a suite of small services, each running in its own process and communicating with lightweight mechanisms, often an HTTP resource API. This design is decentralized and each service is fully decoupled, allowing for easier maintenance and scaling. Each microservice is built around a specific business capability and can be deployed independently, unlike monolithic architectures that are typically centralized and less flexible. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Designing a Cloud Environment

NEW QUESTION 127

A cloud security analyst is looking for existing security vulnerabilities on software applications. Which of the following describes this vulnerability management phase?

- A. Analyze
- B. Report
- C. Remediation
- D. identification

Answer: D

Explanation:

The phase of vulnerability management that involves looking for existing security vulnerabilities on software applications is known as 'Identification'. This step precedes analysis, reporting, and remediation, focusing on discovering known and unknown vulnerabilities within the system or software to assess the security posture effectively.

NEW QUESTION 128

Which of the following container storage types loses data after a restart?

- A. Object
- B. Persistent volume
- C. Ephemeral
- D. Block

Answer: C

Explanation:

In the context of container storage, ephemeral storage types are designed to be temporary, losing their data when the container is restarted or deleted. This is in contrast to persistent volumes, which retain data across container restarts and lifecycle, and object and block storage, which are used for specific types of data storage but not inherently temporary. Ephemeral storage is often used for temporary computation data, caching, or any data that doesn't need to persist beyond the lifecycle of the container instance.

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

NEW QUESTION 132

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 135

A company uses containers stored in Docker Hub to deploy workloads (or its IaaS infrastructure). The development team releases changes to the containers several times per hour. Which of the following should a cloud engineer do to prevent the proprietary code from being exposed to third parties?

- A. Use IaC to deploy the IaaS infrastructure.
- B. Convert the containers to VMs.
- C. Deploy the containers over SSH.
- D. Use private repositories for the containers.

Answer: D

Explanation:

To prevent proprietary code from being exposed to third parties, a cloud engineer should use private repositories for the containers. Private repositories ensure that access to container images is restricted and controlled, unlike public repositories where images are accessible to anyone. References: The concept of using private repositories for protecting proprietary code is part of cloud security best practices, which is covered under the Governance, Risk, Compliance, and Security domain of the CompTIA Cloud+ certification.

NEW QUESTION 136

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 139

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 142

Which of the following is a field of computer science that enables computers to identify and understand objects and people in images and videos?

- A. Image reconstruction
- B. Facial recognition
- C. Natural language processing
- D. Computer vision

Answer: D

Explanation:

Computer vision is a field of computer science that enables computers to identify and understand objects and people in images and videos. It involves the development of systems that can capture and interpret visual information from the world, similar to the way humans do. References: The application of computer vision and its role in cloud services, particularly in relation to AI and machine learning capabilities, is discussed in CompTIA Cloud+.

NEW QUESTION 146

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 147

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 152

A company's website suddenly crashed. A cloud engineer investigates the following logs:

```
webbapp_access.log
...
2023-04-03 16:45:00 GET /home?x=213
2023-04-03 16:45:01 GET /home?x=6544
2023-04-03 16:45:02 GET /home?x=52455
2023-04-03 16:45:03 GET /home?x=56
2023-04-03 16:45:04 GET /home?x=7895
...
2023-04-03 16:47:00 GET /home?x=3986 502
2023-04-03 16:47:01 GET /home?x=2461 502
```

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

- A. SQL injection
- B. Cross-site scripting
- C. Leaked credentials
- D. DDoS

Answer: D

Explanation:

The logs indicate a sudden surge in access requests to the website's homepage, followed by 502 errors, which are indicative of server overload or failure to handle incoming requests. This pattern is typical of a Distributed Denial of Service (DDoS) attack, where multiple compromised systems flood the target with traffic, exceeding its capacity to handle requests, leading to service disruption.

NEW QUESTION 156

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

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 158

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 163

Which of the following technologies should be used by a person who is visually impaired to access data from the cloud?

- A. Object character recognition
- B. Text-to-voice
- C. Sentiment analysis
- D. Visual recognition

Answer: B

Explanation:

Text-to-voice (or text-to-speech) technology should be used by a person who is visually impaired to access data from the cloud. It converts text data into audible speech, allowing visually impaired individuals to receive the information audibly. References: CompTIA Accessibility in IT Study Guide.

NEW QUESTION 168

A cloud administrator is building a company-standard VM image, which will be based on a public image. Which of the following should the administrator implement to secure the image?

- A. ACLs
- B. Least privilege
- C. Hardening
- D. Vulnerability scanning

Answer: C

Explanation:

Hardening a VM image involves implementing security measures to reduce vulnerabilities and protect against threats. This process includes removing unnecessary software, services, and permissions, ensuring that the remaining software is updated with the latest security patches, and configuring settings to enhance security. Starting with a public image, the administrator should apply hardening techniques to ensure the custom company-standard VM image is secure and resilient against attacks.

NEW QUESTION 170

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 175

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 176

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 179

A cloud engineer is developing an operating expense report that will be used to purchase various cloud billing models for virtual machine instances. The cloud billing model must meet the following requirements:

- The instance cannot be ephemeral.
- The minimum life cycle of the instance is expected to be five years.
- The software license is charged per physical CPU count.

Which of the following models would best meet these requirements?

- A. Dedicated host
- B. Spot instance
- C. Pay-as-you-go
- D. Reserved resources

Answer: D

Explanation:

Reserved resources, or Reserved Instances, are ideal for workloads with predictable usage and a long-term commitment, such as a minimum lifecycle of five years. This model allows for significant cost savings compared to on-demand pricing, and the instance is not ephemeral, meaning it persists and is dedicated to the user for the duration of the reservation. The licensing charged per physical CPU count aligns with dedicated host or reserved instance models, but the long-term commitment points more towards reserved resources.

NEW QUESTION 182

A company's content management system (CMS) service runs on an IaaS cluster on a public cloud. The CMS service is frequently targeted by a malicious threat actor using DDoS.

Which of the following should a cloud engineer monitor to identify attacks?

- A. Network flow logs
- B. Endpoint detection and response logs
- C. Cloud provider event logs
- D. Instance syslog

Answer: A

Explanation:

To identify DDoS attacks against a CMS service, a cloud engineer should monitor network flow logs. These logs provide data about the IP traffic going to and from network interfaces in a public cloud, which is essential for detecting the increased traffic volumes typically associated with DDoS attacks. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Security in the Cloud

NEW QUESTION 183

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