

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

An on-premises data center is located in an earthquake-prone location. The workload consists of real-time, online transaction processing. Which of the following data protection strategies should be used to back up on-premises data to the cloud while also being cost effective?

- A. Remote replication for failover
- B. A copy that is RAID 1 protected on spinning drives in an on-premises private cloud
- C. A full backup to on-site tape libraries in a private cloud
- D. Air-gapped protection to provide cyber resiliency

Answer: A

Explanation:

Remote replication for failover is the data protection strategy that should be used to back up on-premises data to the cloud for an earthquake-prone location. It provides real-time or near-real-time copying of data to a remote location, which can be quickly activated in case the primary site fails. References: Disaster recovery strategies, including remote replication for failover, are part of the cloud-based data protection methods covered in the CompTIA Cloud+ certification.

NEW QUESTION 3

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

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

Answer: A

Explanation:

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

NEW QUESTION 4

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

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

Answer: C

Explanation:

After a WAF deployment fails to prevent an exploit, adding an Access Control List (ACL) to the Virtual Machine (VM) subnet can be an effective control. ACLs

provide an additional layer of security by explicitly defining which traffic can or cannot enter a network segment. By setting granular rules based on IP addresses, protocols, and ports, ACLs help to restrict access to resources, thereby mitigating potential exploits and enhancing the security of the IaaS network. References: CompTIA Cloud+ materials cover governance, risk, compliance, and security for the cloud, including the implementation of network security controls like ACLs, to protect cloud environments from unauthorized access and potential security threats.

NEW QUESTION 5

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

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

Answer: A

Explanation:

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

NEW QUESTION 6

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

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

Answer: D

Explanation:

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

NEW QUESTION 7

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

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

Answer: B

Explanation:

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

NEW QUESTION 8

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 myappuser instruction
- B. Patching the host running the Docker daemon
- C. Changing FROM alpine:3.17 to FROM alpine:latest
- D. Running the container with the read-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 9

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 10

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 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 15

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

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

Answer: AD

Explanation:

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

NEW QUESTION 16

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 21

An IT manager is migrating the production environment to the cloud but needs to keep control of the operating systems, patches, and settings of all resources. Which of the following deployment models will best meet the requirements?

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

Answer: C

Explanation:

Infrastructure as a Service (IaaS) is the deployment model that will best meet the requirements of retaining control over the operating systems, patches, and settings of all resources. IaaS provides the cloud infrastructure but leaves the management of the operating system and applications to the user. References: The cloud service models and the level of control they offer are fundamental topics in the CompTIA Cloud+ certification material.

NEW QUESTION 24

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 25

SIMULATION

A company has decided to scale its e-commerce application from its corporate datacenter to a commercial cloud provider to meet an anticipated increase in demand during an upcoming holiday.

The majority of the application load takes place on the application server under normal conditions. For this reason, the company decides to deploy additional application servers into a commercial cloud provider using the on-premises orchestration engine that installs and configures common software and network configurations.

The remote computing environment is connected to the on-premises datacenter via a site-to-site IPsec tunnel. The external DNS provider has been configured to use weighted round-robin routing to load balance connections from the Internet.

During testing, the company discovers that only 20% of connections completed successfully.

INSTRUCTIONS

Review the network architecture and supporting documents and fulfill these requirements: Part 1:

- _ Analyze the configuration of the following components: DNS, Firewall 1, Firewall 2, Router 1, Router 2, VPN and Orchestrator Server.
- _ Identify the problematic device(s).

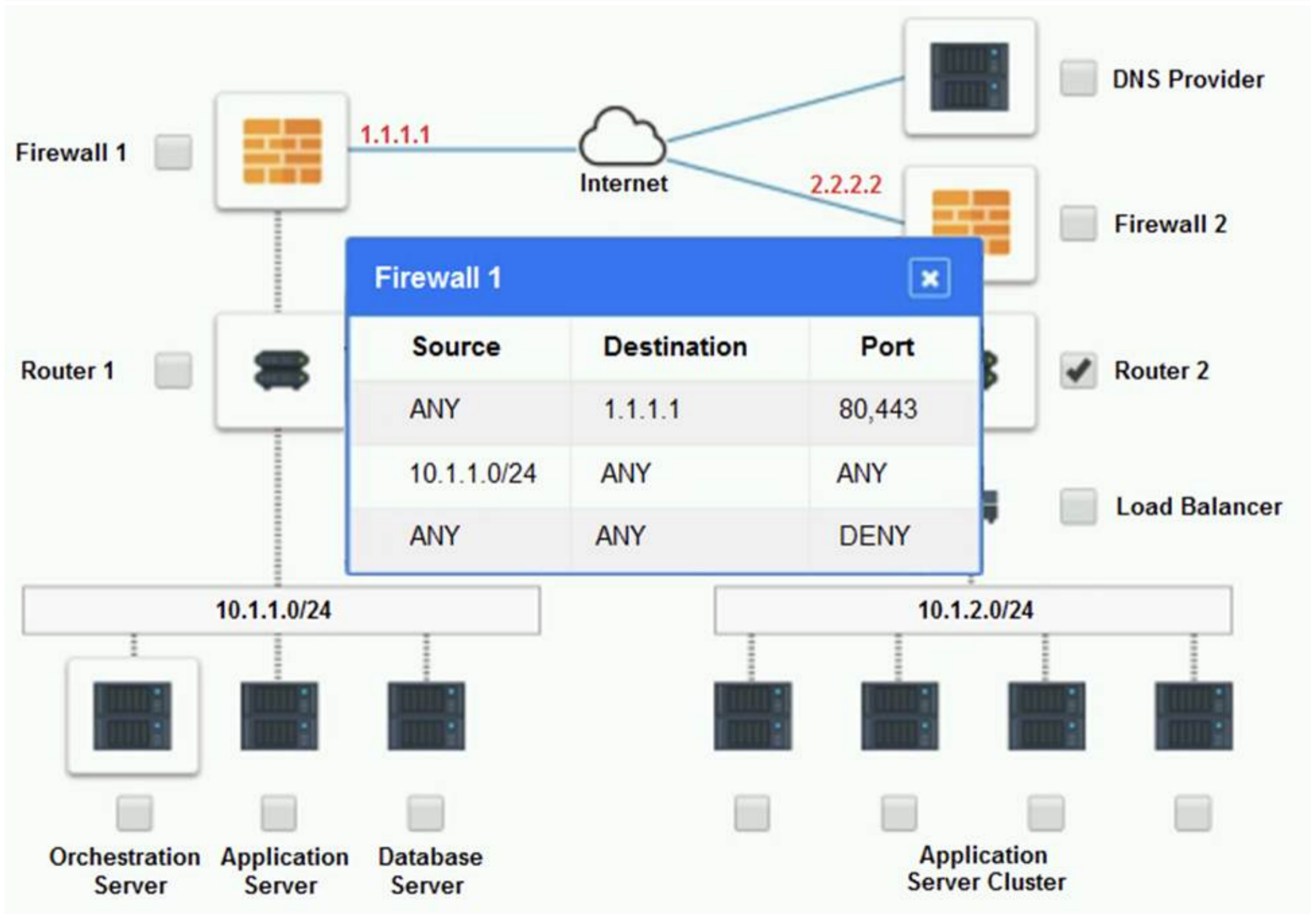
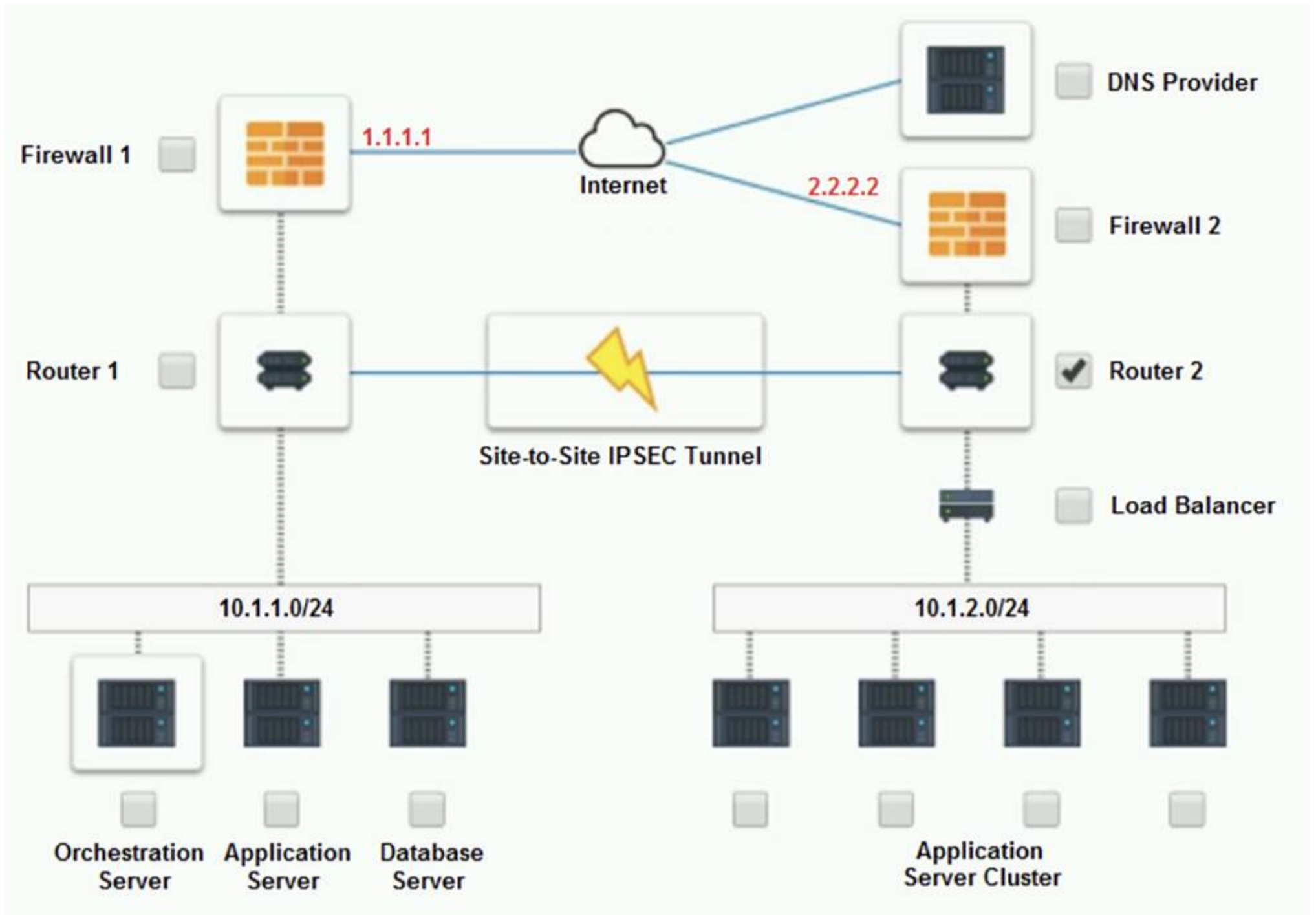
Part 2:

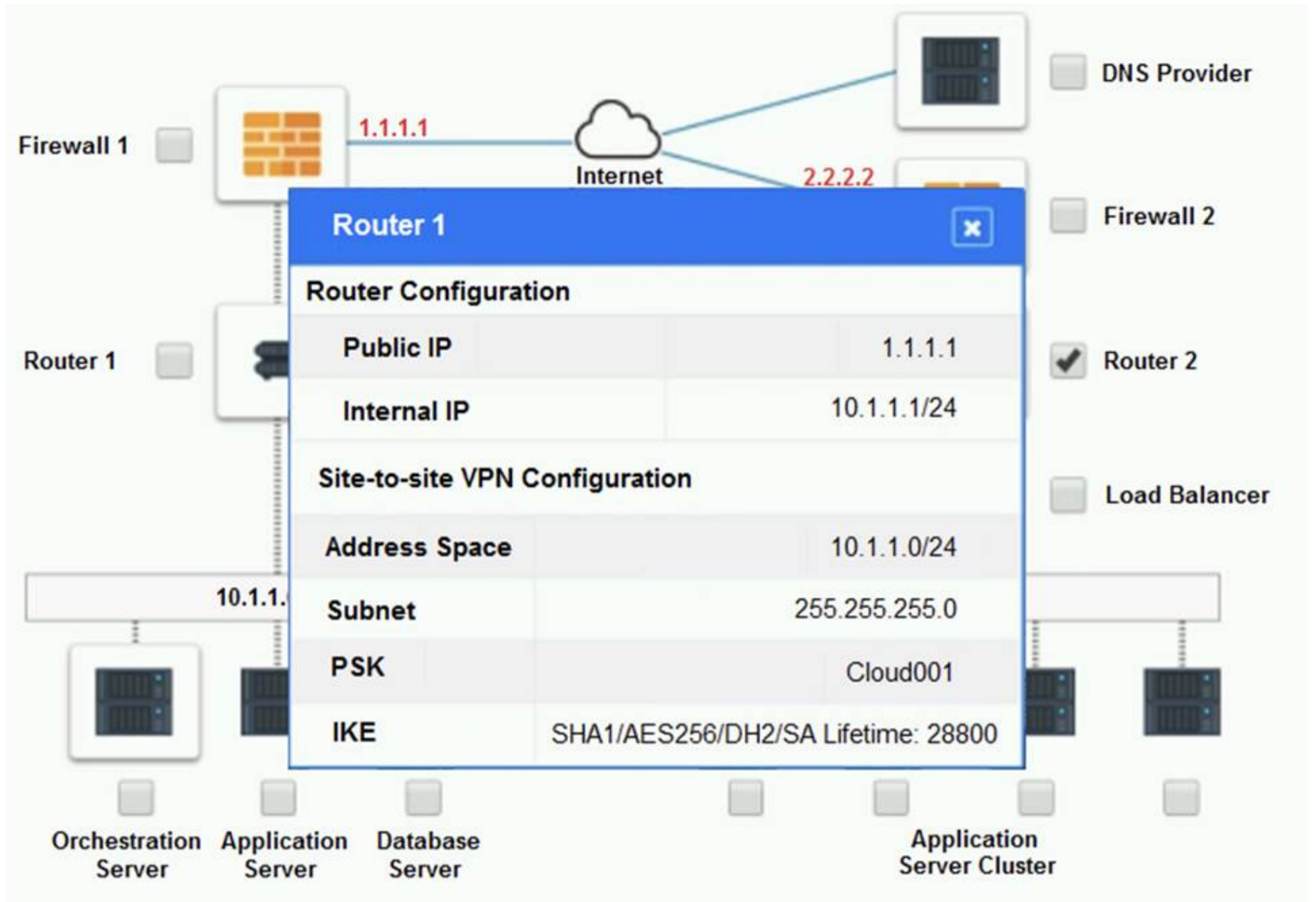
- _ Identify the correct options to provide adequate configuration for hybrid cloud architecture.

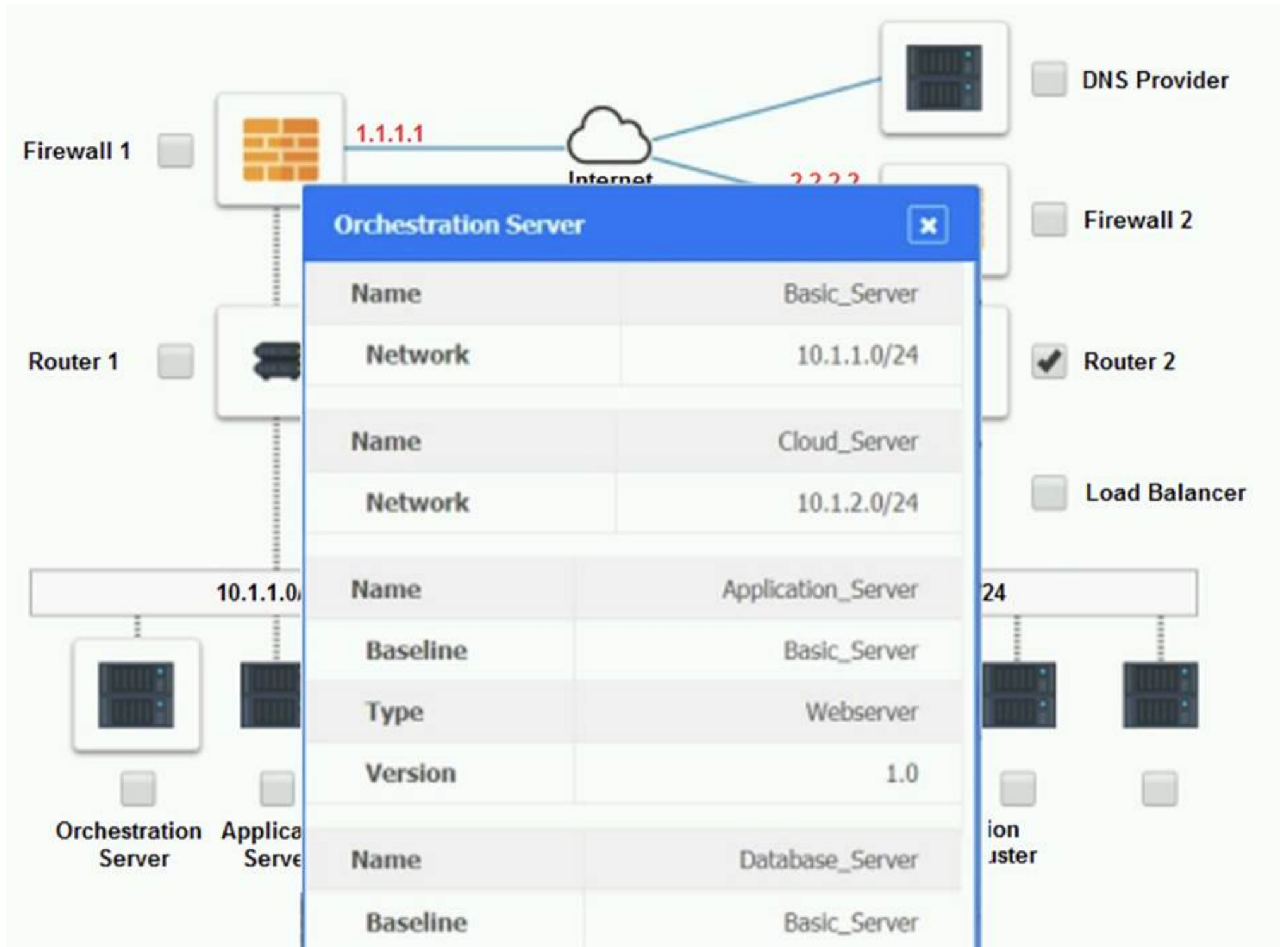
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.

Part 1:

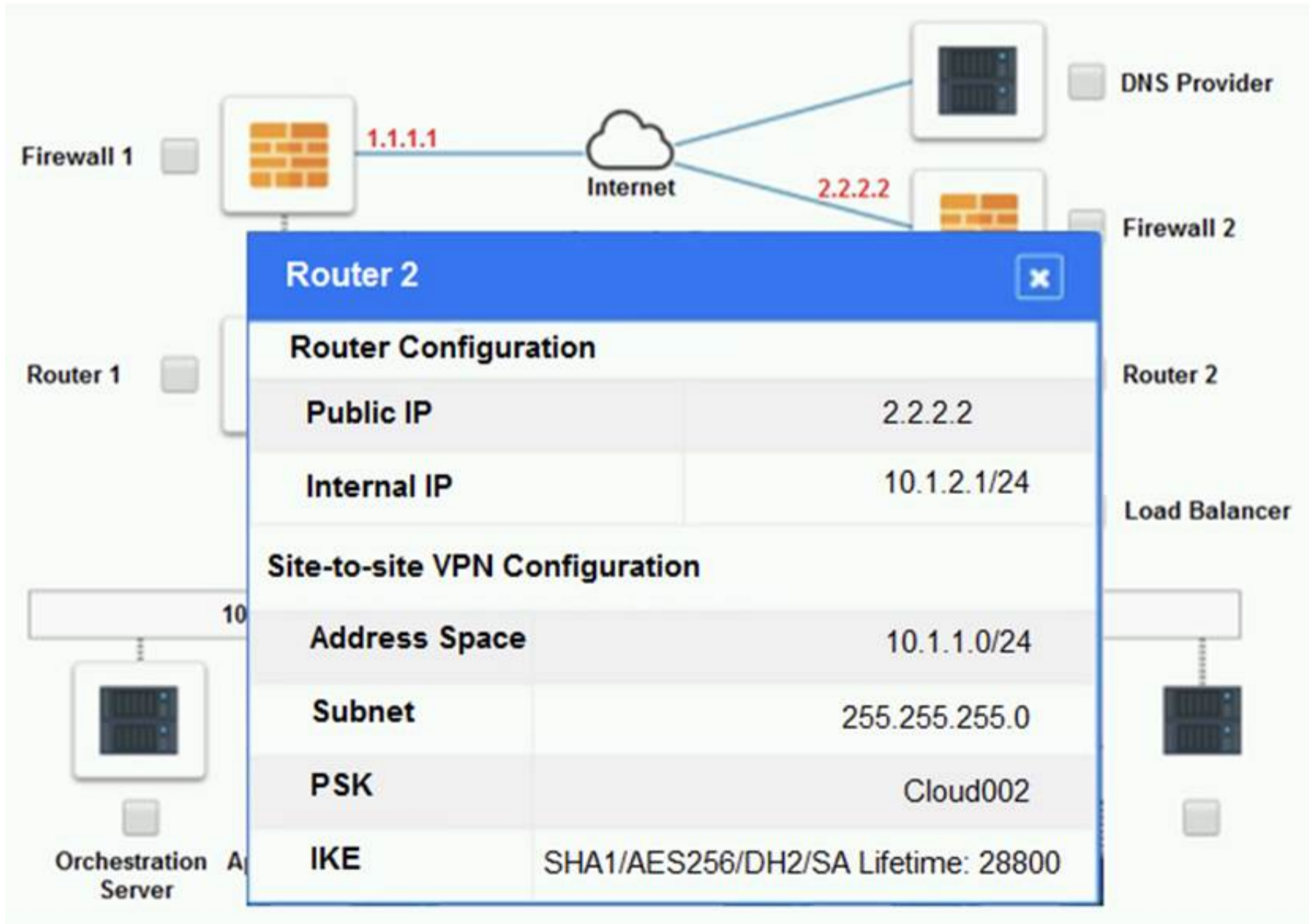
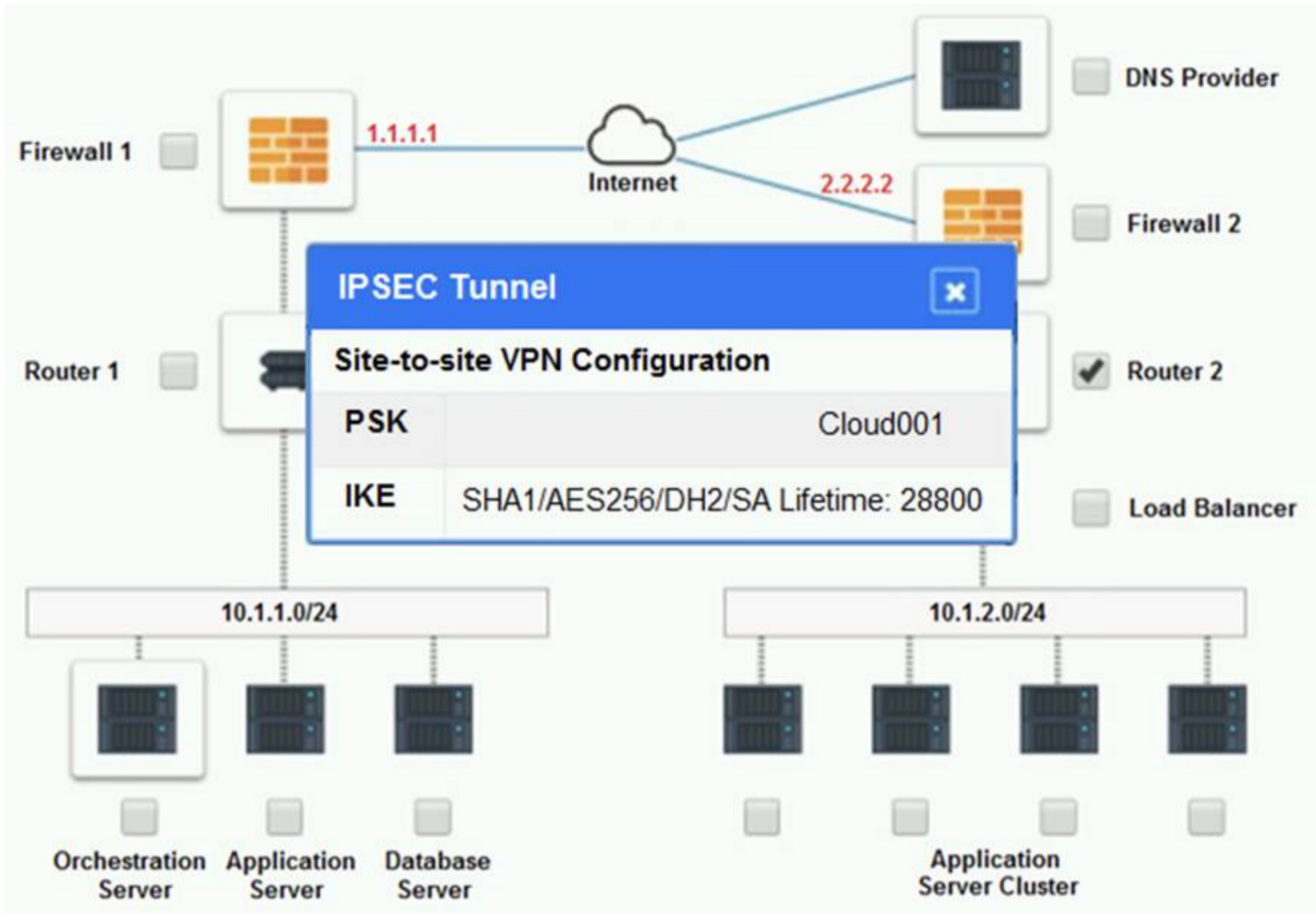
Cloud Hybrid Network Diagram

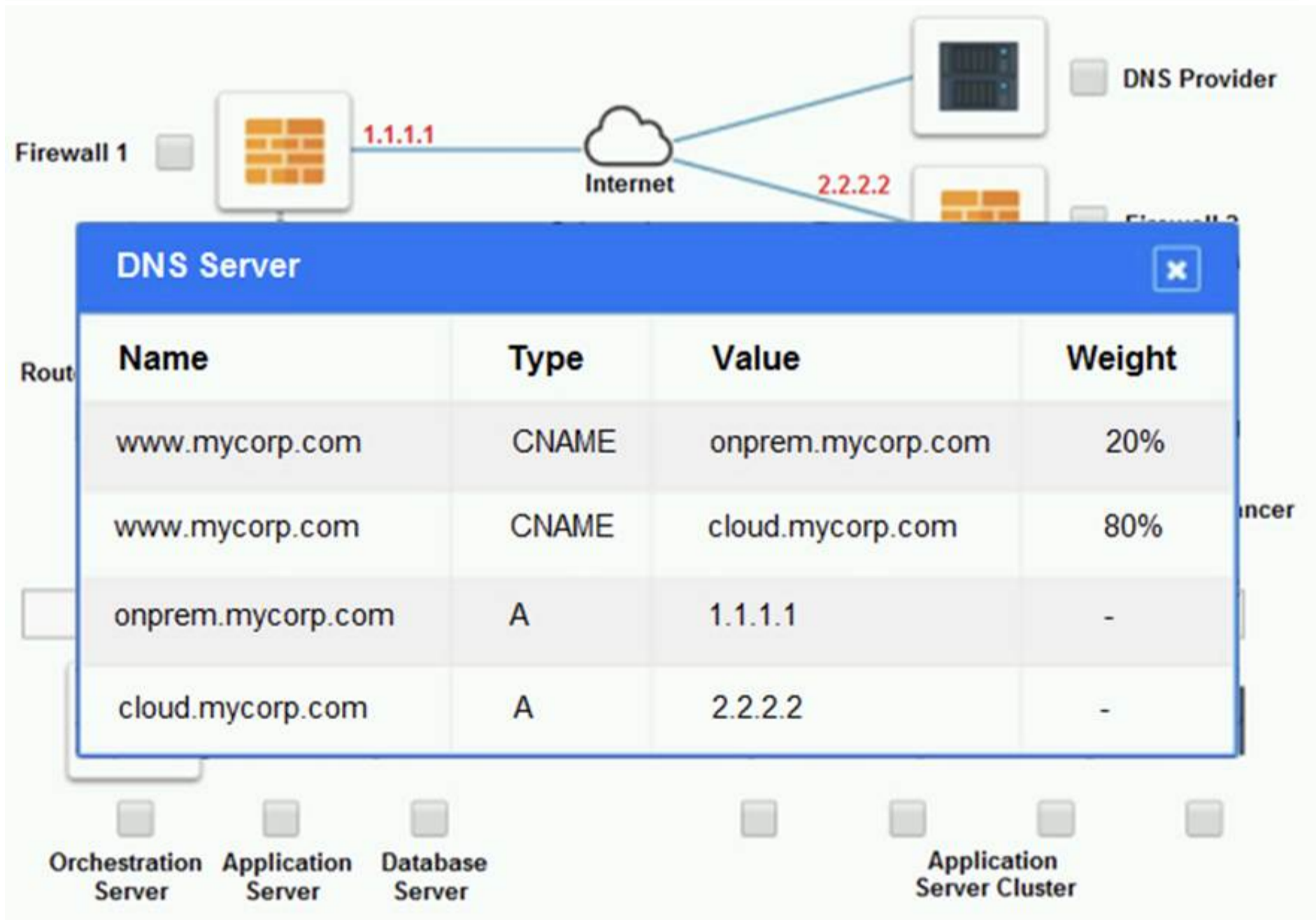
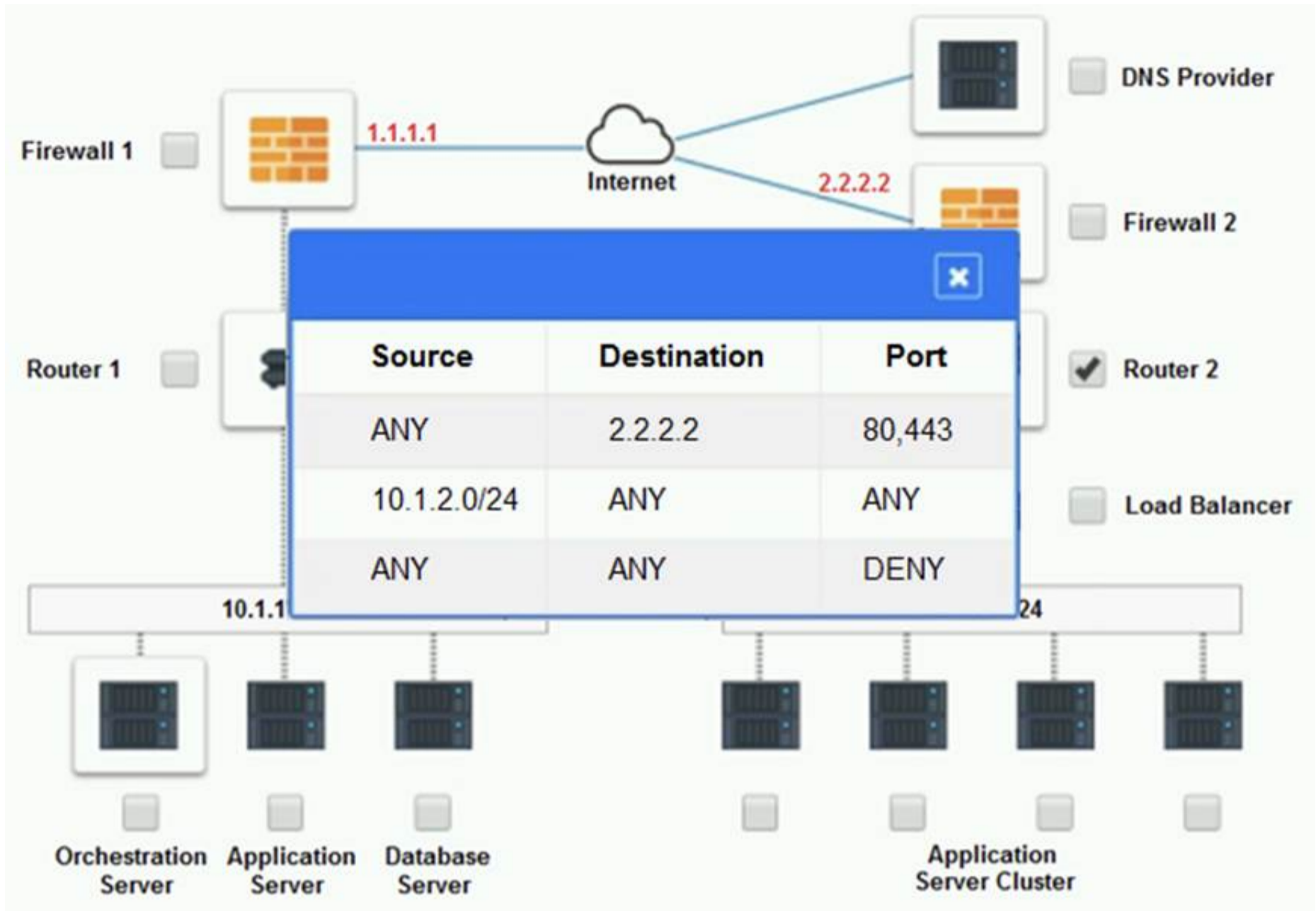






Orchestration Server	
Name	Basic_Server
Network	10.1.1.0/24
Name	Cloud_Server
Network	10.1.2.0/24
Name	Application_Server
Baseline	Basic_Server
Type	Webserver
Version	1.0
Name	Database_Server
Baseline	Basic_Server
Type	Database Server
Version	1.0
Name	Corporate_Datacenter
Baseline	Application_Server
Count	1
Name	Cloud_Service_Provider
Baseline	Cloud_Server
Count	4





Part 2:
 Only select a maximum of TWO options from the multiple choice question

- Deploy a Replica of the Database Server in the Cloud Provider.
- Update the PSK (Pre-shared key) in Router 2.
- Update the A record on the DNS from 2.2.2.2 to 1.1.1.1.
- Promote deny All to allow All in Firewall 1 and Firewall 2.
- Change the Address Space on Router 2.
- Change internal IP Address of Router 1.
- Reverse the Weight property in the two CNAME records on the DNS.
- Add the Application Server at on-premises to the Load Balancer.

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Part 1: Router 2

The problematic device is Router 2, which has an incorrect configuration for the IPsec tunnel. The IPsec tunnel is a secure connection between the on-premises datacenter and the cloud provider, which allows the traffic to flow between the two networks. The IPsec tunnel requires both endpoints to have matching parameters, such as the IP addresses, the pre-shared key (PSK), the encryption and authentication algorithms, and the security associations (SAs).

According to the network diagram and the configuration files, Router 2 has a different PSK and a different address space than Router 1. Router 2 has a PSK of ??1234567890??, while Router 1 has a PSK of ??0987654321??. Router 2 has an address space of 10.0.0.0/8, while Router 1 has an address space of 192.168.0.0/16. These mismatches prevent the IPsec tunnel from establishing and encrypting the traffic between the two networks.

The other devices do not have any obvious errors in their configuration. The DNS provider has two CNAME records that point to the application servers in the cloud provider, with different weights to balance the load. The firewall rules allow the traffic from and to the application servers on port 80 and port 443, as well as the traffic from and to the VPN server on port 500 and port 4500. The orchestration server has a script that installs and configures the application servers in the cloud provider, using the DHCP server to assign IP addresses.

Part 2:

The correct options to provide adequate configuration for hybrid cloud architecture are:

- ? Update the PSK in Router 2.
- ? Change the address space on Router 2.

These options will fix the IPsec tunnel configuration and allow the traffic to flow between the on-premises datacenter and the cloud provider. The PSK should match the one on Router 1, which is ??0987654321??. The address space should also match the one on Router 1, which is 192.168.0.0/16.

- * B. Update the PSK (Pre-shared key in Router2)
- * E. Change the Address Space on Router2

NEW QUESTION 29

A company needs to deploy its own code directly in the cloud without provisioning additional infrastructure. Which of the following is the best cloud service model for the company to use?

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

Answer: A

Explanation:

Platform as a Service (PaaS) is the best cloud service model for deploying code directly in the cloud without provisioning additional infrastructure. PaaS provides a platform allowing customers to develop, run, and manage applications without the complexity of building and maintaining the infrastructure. References: The PaaS model and its benefits for application deployment are covered under the Cloud Concepts domain in the CompTIA Cloud+ certification.

NEW QUESTION 31

A cloud solution needs to be replaced without interruptions. The replacement process can be completed in phases, but the cost should be kept as low as possible. Which of the following is the best strategy to implement?

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

Answer: B

Explanation:

A rolling strategy is the best to implement when needing to replace a cloud solution without interruptions and keeping costs low. This approach updates or replaces parts of the system gradually with minimal downtime and allows for a phased implementation. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Deployment and Provisioning

NEW QUESTION 33

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

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

Answer: D

Explanation:

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

NEW QUESTION 36

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 40

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

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

Answer: A

Explanation:

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

NEW QUESTION 45

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/s"/>	Block	A
1002	Botnet	<input type="text" value="^https://webapp[.]compha[.]org/s"/>	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 46

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 50

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

- A. Operating system patches
- B. Table-level permissions

- C. Minor database engine updates
- D. Cluster configuration
- E. Row-level encryption
- F. Availability of hardware for scaling

Answer: BE

Explanation:

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

NEW QUESTION 52

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 55

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 58

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 63

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 68

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.

Hypervisor

Slot A fiber channel card

Slot B fiber channel card

Fabric switch A

Fabric switch B

SAN

SPA

SPB

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

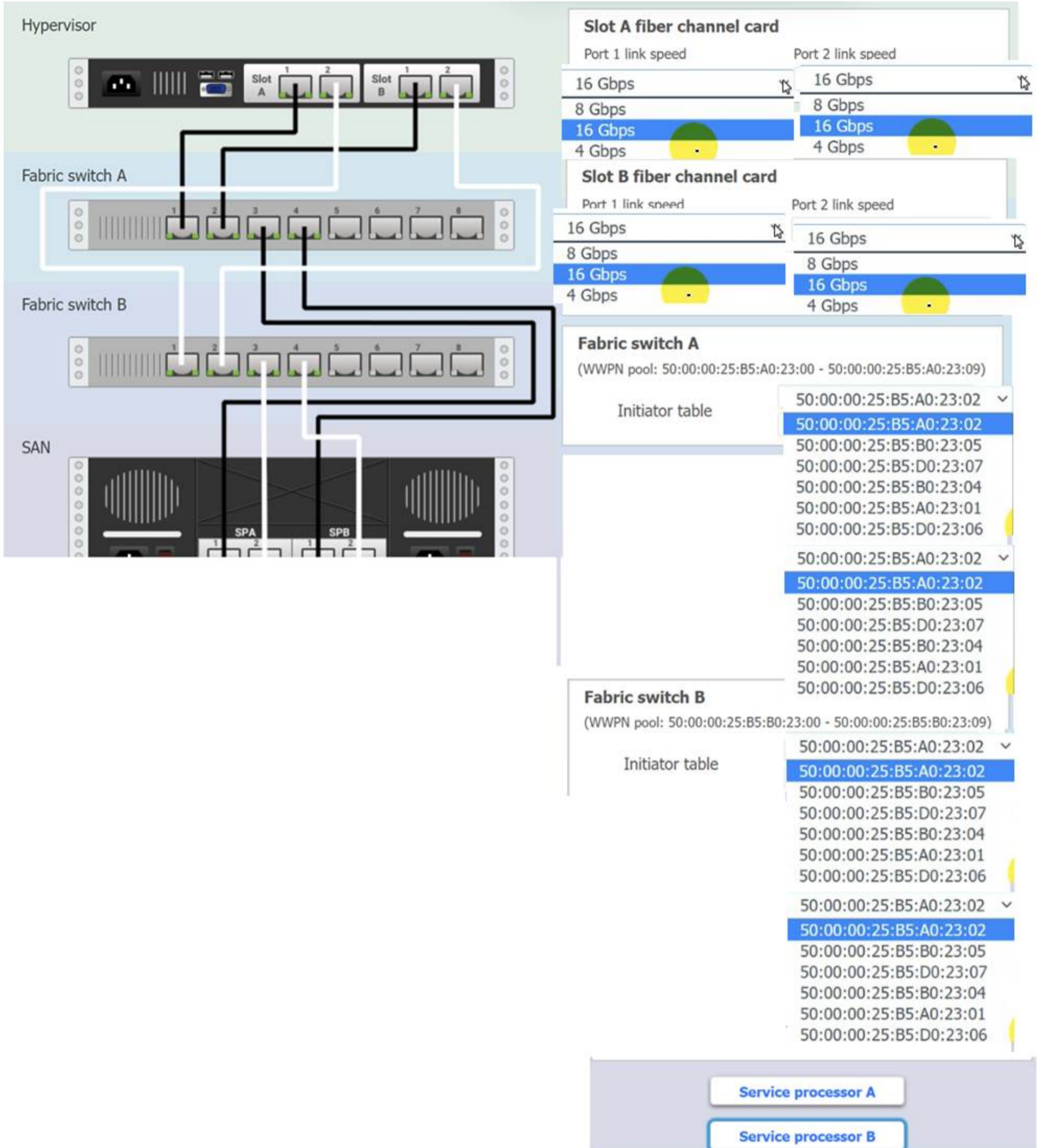
(WWPN pool: 50:00:00:25:B5:B0:23:00 - 50:00:00:25:B5:B0:23:09)

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.

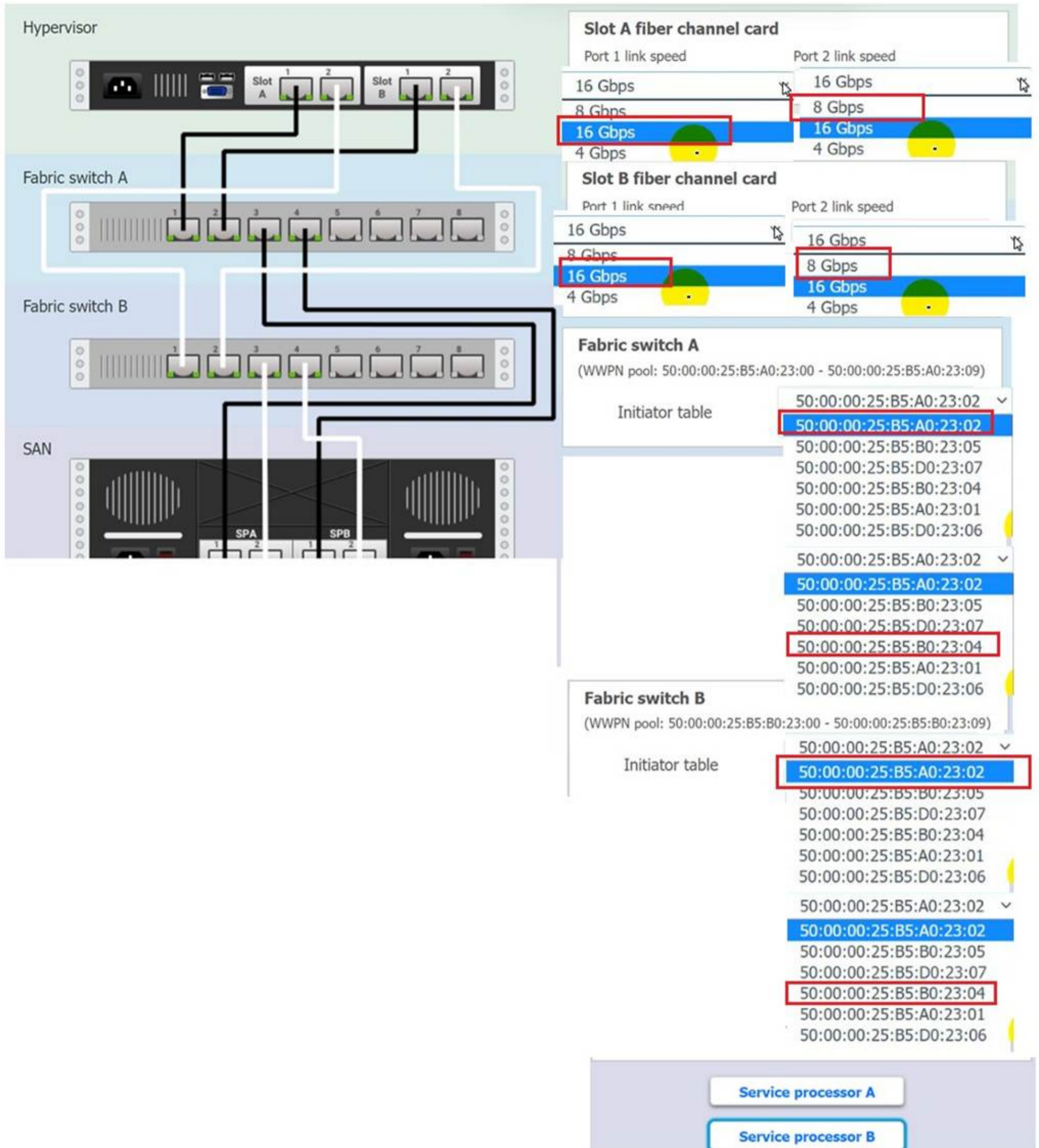
? Port 2 link speed should be set to 8 Gbps because it's connected to Fabric switch B which supports up to 8 Gbps.

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 71

An engineer wants to scale several cloud workloads on demand. Which of the following approaches is the most suitable?

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

Answer: A

Explanation:

Load scaling is the most suitable approach for scaling several cloud workloads on demand. It automatically adjusts the number of active servers in a cloud environment based on the current load or traffic, ensuring that resources are efficiently utilized to meet demand without manual intervention. This approach helps maintain optimal performance and availability, particularly during unexpected surges in workload or traffic. References: Understanding cloud management and technical operations, including scaling strategies, is crucial for optimizing resource utilization and performance in cloud environments, as outlined in the CompTIA Cloud+ objectives.

NEW QUESTION 74

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 76

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 77

Which of the following types of storage provides the greatest performance advantage for a traditional relational database?

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

Answer: C

Explanation:

Block storage provides the greatest performance advantage for traditional relational databases due to its high performance and low-latency characteristics. Block storage allows databases to rapidly manage data in fixed-sized blocks, which is ideal for databases that require frequent read/write operations. References: Understanding different storage types and their use cases, including block storage for databases, is part of the cloud computing knowledge base covered in CompTIA Cloud+.

NEW QUESTION 81

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

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

Answer: D

Explanation:

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

NEW QUESTION 82

An administrator received a report that company data has been compromised. The compromise occurred on a holiday, and no one in the organization was working. While reviewing the logs from the holiday, the administrator noted the following details:

Account	Access	Details
Cloud administrator	Granted	Log-in granted
Software developer	Granted	Log-in granted
Software developer	Denied	Denied access to human resources folder
Security engineer	Granted	Log-in granted
Security engineer	Denied	Denied access to personnel files
Human resources manager	Granted	Log-in granted
Human resources manager	Granted	Access granted to human resources folder

The most appropriate action for the cloud security analyst to recommend is using CIS- hardened images. These images are pre-configured by the Center for Internet Security to provide security benchmark standards that help in mitigating vulnerabilities in publicly available container images. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security Posture

Which of the following accounts should the administrator disable to prevent a further breach?

- A. Cloud administrator
- B. Human resources manager
- C. Security engineer
- D. Software developer

Answer: D

Explanation:

Based on the provided log details, the account of the Software Developer was used to gain unauthorized access. This account should be disabled to prevent further breaches, especially considering no one from the organization was working during the holiday, suggesting a compromised account. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Security

NEW QUESTION 83

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 84


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

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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 85

A company has ten cloud engineers working on different manual following is the best method to address this issue?

- A. Deployment documentation
- B. Service logging
- C. Configuration as code
- D. Change ticketing

Answer: C

Explanation:

Configuration as code is the best method to address the issue of cloud engineers working on different manual configurations. This practice allows configurations to be scripted and automated, which reduces human error, enhances consistency, and makes the deployment process more efficient and reproducible. References: Configuration as code is part of cloud deployment best practices, ensuring standardized environments, which is a key topic within the CompTIA Cloud+ curriculum.

NEW QUESTION 88

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 93

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 98

A cloud architect attempts to modify a protected branch but is unable to do so. The architect receives an error indicating the action cannot be completed. Which of the following should the architect try instead?"

- A. Adding a new remote
- B. Creating a pull request
- C. Merging the branch
- D. Rebasing the branch

Answer: B

Explanation:

When unable to modify a protected branch directly, the recommended approach is to create a pull request. This allows changes to be reviewed and approved by authorized personnel before being merged into the protected branch, maintaining code integrity and compliance with the project's workflow and policies.

NEW QUESTION 102

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

```
"2021/12/18 09:33:12" "10. 34. 32.18" "104. 224. 123. 119" "POST /  
login.php?u=administrator&p=or%201%20=1"  
"2021/12/18 09:33:13" "10.34. 32.18" "104. 224. 123.119" "POST /login.  
php?u=administrator&p=%27%0A"  
"2021/12/18 09:33:14" "10. 34. 32.18" "104. 224. 123. 119" "POST /login.  
php?u=administrator&p=%26"  
"2021/12/18 09:33:17" "10.34. 32.18" "104. 224. 123.119" "POST /  
login.php?u=administrator&p=%3B"  
"2021/12/18 09:33:12" "10.34. 32. 18" "104. 224. 123. 119" "POST / login.  
php?u=admin&p=or%201%20=1"  
"2021/12/18 09:33:19" "10.34.32.18" "104. 224. 123.119" "POST / login.  
php?u=admin&p=%27%0A"  
"2021/12/18 09:33:21" "10. 34. 32.18" "104.224. 123.119" "POST / login.  
php?u=admin&p=%26"  
"2021/12/18 09:33:23" "10. 34. 32.18" "104. 224. 123.119" "POST / login.  
php?u=admin&p=%3B"
```

Which of the following types of attacks occurred?

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

Answer: A

Explanation:

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

NEW QUESTION 105

Which of the following is an auditing procedure that ensures service providers securely manage the data to protect the interests of the organization and the privacy of its clients?

- A. CIS
- B. ITIL
- C. SOC2
- D. ISO 27001

Answer: C

Explanation:

SOC2 (Service Organization Control 2) is an auditing procedure that ensures service providers securely manage data to protect the interests of an organization and the privacy of its clients. SOC2 is specifically designed for service providers storing customer data in the cloud, making it pertinent for data management and privacy. References: SOC2 and its role in auditing and ensuring secure data management by cloud service providers are part of the compliance standards and regulations included in the CompTIA Cloud+ certification material.

NEW QUESTION 109

The performance of an e-commerce website decreases dramatically during random periods. The IT team is evaluating available resources to mitigate the situation. Which of the following is the best approach to effectively manage this scenario'?

- A. Migrating to a dedicated host
- B. Purchasing additional servers
- C. Scheduling resource allocation
- D. Configuring automatic elasticity

Answer: D

Explanation:

Configuring automatic elasticity is the best approach to manage an e-commerce website that experiences random performance drops due to variable traffic. Automatic elasticity enables the cloud resources to scale up or down automatically based on the current load, ensuring consistent performance even during unexpected traffic surges. References: The concept of automatic elasticity is part of the cloud management and technical operations content in the CompTIA Cloud+ curriculum.

NEW QUESTION 112

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

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

Answer: B

Explanation:

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

NEW QUESTION 114

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 117

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

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

Answer: B

Explanation:

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

References: CompTIA Cloud+ resources and CDN functionality

NEW QUESTION 122

An engineer made a change to an application and needs to select a deployment strategy that meets the following requirements:

- Is simple and fast
- Can be performed on two identical platforms

Which of the following strategies should the engineer use?

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

Answer: A

Explanation:

The blue-green deployment strategy is ideal for scenarios where simplicity and speed are crucial. It involves two identical production environments: one (blue) hosts the current application version, while the other (green) is used to deploy the new version. Once testing is completed on the green environment and it's ready to go live, traffic is switched from blue to green, ensuring a quick and efficient rollout with minimal downtime. This method allows for immediate rollback if issues arise, by simply redirecting the traffic back to the blue environment. References: CompTIA Cloud+ material emphasizes the importance of understanding various cloud deployment strategies, including blue-green, and their application in real-world scenarios to ensure efficient and reliable software deployment in cloud environments.

NEW QUESTION 124

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

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

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

- A. Modifying the subnet mask to 255.255.254.0 for IT and operations departments
- B. Configuring static routing to allow access from each subnet to 10.1.40.1
- C. Modifying the BYOD policy to reduce the volume of devices that are allowed to connect to the corporate network
- D. Configuring static routing to allow access from 10.1.30.1 to each subnet
- E. Combining the subnets and increasing the allocation of IP addresses available to support three hosts for each employee
- F. Modifying the subnet mask to 255.255.255.128 for the IT and operations departments

Answer: DF

Explanation:

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

NEW QUESTION 129

A security analyst reviews the daily logs and notices the following suspicious activity:

Host	NA/US/John Smith
IP	10.150.71.151
Activity	A powershell process executed compressed, encoded command line content.

The analyst investigates the firewall logs and identifies the following:

Operating system	Kali Linux
CPU	x64
Filesystem	ext4
User	John Smith
Category	Compromised - Unauthorized Access
Domain	NA/US
IP	201.101.25.121 (External)
Port	4444
Connection type	Inbound Connection

Which of the following steps should the security analyst take next to resolve this issue? (Select two).

- A. Submit an IT support ticket and request Kali Linux be uninstalled from John Smith's computer
- B. Block all inbound connections on port 4444 and block the IP address 201.101.25.121.
- C. Contact John Smith and request the Ethernet cable attached to the desktop be unplugged
- D. Check the running processes to confirm if a backdoor connection has been established.
- E. Upgrade the Windows x64 operating system on John Smith's computer to the latest version.
- F. Block all outbound connections from the IP address 10.150.71.151.

Answer: BD

Explanation:

Given the suspicious activity and Kali Linux's association with penetration testing and hacking tools, the security analyst should block all inbound connections on port 4444, as it is commonly used for malicious purposes, and block the IP address that's potentially the source of the intrusion. Additionally, checking the running processes on John Smith's computer is crucial to determine if a backdoor or unauthorized connection has been established. References: Incident response and threat mitigation steps such as these are part of the security protocols discussed in the CompTIA Cloud+ certification.

NEW QUESTION 134

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

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

Answer: C

Explanation:

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

NEW QUESTION 139

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 140

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

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

Answer: D

Explanation:

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

NEW QUESTION 144

A cloud administrator needs to distribute workloads across remote data centers for redundancy reasons. Which of the following deployment strategies would eliminate downtime, accelerate deployment, and remain cost efficient?

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

Answer: C

Explanation:

Blue-green deployment is the strategy that can eliminate downtime, accelerate deployment, and remain cost-efficient. It involves running two identical production environments, only one of which is live at any given time (blue or green). When it's time to deploy, the new version is released to the inactive environment (green), which is then thoroughly tested. Once ready, the traffic is switched over, making the green environment live. References: Deployment strategies and their impact on operations are a significant topic within the CompTIA Cloud+ examination objectives.

NEW QUESTION 147

Users have been reporting that a remotely hosted application is not accessible following a recent migration. However, the cloud administrator is able to access the application from the same site as the users. Which of the following should the administrator update?

- A. Cipher suite
- B. Network ACL
- C. Routing table
- D. Permissions

Answer: C

Explanation:

Since the cloud administrator can access the application from the same site but users cannot, it suggests a possible issue with the network routing. The routing table may need to be updated to ensure that traffic from the users' location is correctly directed to the new location of the remotely hosted application after the migration. References: CompTIA Network+ Certification Study Guide by Glen E. Clarke.

NEW QUESTION 148

Which of the following describes the main difference between public and private container repositories?

- A. Private container repository access requires authorization, while public repository access does not require authorization.
- B. Private container repositories are hidden by default and containers must be directly referenced, while public container repositories allow browsing of container images.
- C. Private container repositories must use proprietary licenses, while public container repositories must have open-source licenses.
- D. Private container repositories are used to obfuscate the content of the Dockerfile, while public container repositories allow for Dockerfile inspection.

Answer: A

Explanation:

The main difference between public and private container repositories lies in access control. Public repositories allow users to download and use container images without requiring any authorization, making them accessible to anyone. On the other hand, private repositories require users to have proper authorization, usually through credentials, to access the container images, thus providing a level of privacy and security control. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 149

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 154

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 157

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

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 158

Which of the following vulnerability management concepts is best defined as the process of discovering vulnerabilities?

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

Answer: D

Explanation:

In vulnerability management, 'Identification' is the concept best defined as the process of discovering vulnerabilities. This step is crucial as it involves detecting vulnerabilities in systems, software, and networks, which is the first step in the vulnerability management process before moving on to assessment, remediation, and reporting.

NEW QUESTION 162

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

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

Answer: C

Explanation:

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

NEW QUESTION 163

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 167

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 168

Which of the following application migration strategies will best suit a customer who wants to move a simple web application from an on-premises server to the cloud?

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

Answer: A

Explanation:

Rehosting, often referred to as a "lift and shift" strategy, is the best suit for a customer who wants to move a simple web application from an on-premises server to the cloud. It involves moving the application to the cloud without making significant changes, which can be a quick and cost-effective migration approach for

straightforward applications. References: The various cloud migration strategies, including rehosting, are part of the knowledge base for cloud migration in the CompTIA Cloud+ certification.

NEW QUESTION 173

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 174

A social networking company operates globally. Some users from Brazil and Argentina are reporting the following error: website address was not found. Which of the following is the most likely cause of this outage?

- A. Client DNS misconfiguration
- B. Regional DNS provider outage
- C. DNS server misconfiguration
- D. DNS propagation issues

Answer: B

Explanation:

The most likely cause of the outage, with users from specific regions like Brazil and Argentina reporting an error that the website address was not found, is a regional DNS provider outage. This type of outage would affect users in particular areas, preventing domain name resolution and leading to the reported error. References: Regional outages and their impact on service availability are discussed within the Cloud Concepts domain, which includes understanding the importance of DNS in cloud services, as per the CompTIA Cloud+ objectives.

NEW QUESTION 177

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