

Exam Questions CV0-004

CompTIA Cloud+

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NEW QUESTION 1

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 2

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 3

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

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

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

Answer: D

Explanation:

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

NEW QUESTION 4

Which of the following will best reduce the cost of running workloads while maintaining the same performance? (Select two).

- A. Instance size
- B. Tagging
- C. Reserved resources model
- D. Spot instance model
- E. Pay-as-you-go model
- F. Dedicated host model

Answer: CD

Explanation:

The Reserved resources model offers cost savings for committed use over a long term, which can reduce costs while maintaining performance for predictable workloads. The Spot instance model allows users to take advantage of unused capacity at lower prices, offering significant cost savings, though with the possibility of instances being terminated when demand rises. Both models can be strategically used to optimize costs without compromising performance.

NEW QUESTION 5

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 6

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

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

Answer: A

Explanation:

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

NEW QUESTION 7

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 8

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 9

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

A company runs a discussion forum that caters to global users. The company's monitoring system reports that the home page suddenly is seeing elevated response times, even though internal monitoring has reported no issues or changes. Which of the following is the most likely cause of this issue?

- A. Cryptojacking
- B. Human error
- C. DDoS
- D. Phishing

Answer: C

Explanation:

Elevated response times without reported issues or changes internally could indicate a Distributed Denial of Service (DDoS) attack, where multiple systems flood the bandwidth or resources of a targeted system, usually one or more web servers. References: CompTIA Security+ Guide to Network Security Fundamentals by Mark Ciampa.

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 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 16

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 20

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

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

Answer: D

Explanation:

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

NEW QUESTION 23

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

A)

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

B)

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

C)

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

D)

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

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

Answer: C

Explanation:

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

NEW QUESTION 25

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

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

Answer: C

Explanation:

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

NEW QUESTION 30

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

Which of the following scaling approaches should the administrator use?

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

Answer: B

Explanation:

To seamlessly scale the web server for an e-commerce store during an annual sale, it's best to allow the load to trigger adjustments to the resources. This approach uses autoscaling to automatically adjust the number of active servers based on the current load, ensuring an automated change that is cost-effective. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Scalability

NEW QUESTION 33

A company wants to optimize cloud resources and lower the overhead caused by managing multiple operating systems. Which of the following compute resources would be best to help to achieve this goal?

- A. VM
- B. Containers
- C. Remote desktops
- D. Bare-metal servers

Answer: B

Explanation:

Containers are the best compute resources to optimize cloud resources and lower the overhead caused by managing multiple operating systems. Containers encapsulate applications and their dependencies into a single executable package, running on a shared OS kernel, which reduces the need for separate operating systems for each application and simplifies resource management. References: CompTIA Cloud+ materials discuss management and technical operations in cloud environments, including the use of containers to improve resource utilization and operational efficiency by minimizing the overhead associated with traditional VMs.

NEW QUESTION 36

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 37

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

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

Answer: C

Explanation:

Non-relational (NoSQL) databases are best for storing different types of unstructured data that may change frequently. They are designed to handle a wide variety of data types and are not constrained by the fixed schema of relational databases, making them more flexible and scalable for unstructured data. References: The distinction between relational and non-relational databases and their use cases is part of the foundational knowledge for cloud databases discussed in the CompTIA Cloud+ certification.

NEW QUESTION 38

A cloud engineer wants to deploy a new application to the cloud and is writing the following script:

```
terraform {
  required_providers {
    cloud_provider1 = {
      source = "hashicorp/cloud_provider1"
      version = "~> 4.16"
    }
  }
  required_version = ">= 1.2.0"
}
provider "cloud_provider1" {
  region = "us-west-2"
}
resource "server_instance" "app_server" {
  ami = "ami-830c94e3"
  instance_type = "t2.micro"
  tags = {
    Name = "AppServerInstance"
  }
}
```

Which of the following actions will this script perform?

- A. Upload a new VM image.
- B. Create a new cloud resource.
- C. Build a local server.
- D. Import a cloud module.

Answer: B

Explanation:

The script shown is written in Terraform, which is an infrastructure as code (IaC) tool used for building, changing, and versioning infrastructure safely and efficiently. This particular Terraform script specifies a required provider and its version, the Terraform version, sets the cloud provider's region, and then defines a resource for a server instance with a specific AMI ID and instance type. It also includes tags for the instance. The action this script will perform is to create a new cloud resource, specifically a server instance on the cloud provider's platform. References: CompTIA Cloud+ Study Guide (Exam CV0-004) by Todd Montgomery and Stephen Olson

NEW QUESTION 40

A high-usage cloud resource needs to be monitored in real time on specific events to guarantee its availability. Which of the following actions should be used to meet this requirement?

- A. Configure a ping command to identify when the cloud instance is out of service.
- B. Create a dashboard with visualizations to filter the status of critical activities.
- C. Collect all the daily activity from the cloud instance and create a dump file for analysis.
- D. Schedule an hourly scan of the network to check for the availability of the resource.

Answer: B

Explanation:

To guarantee real-time monitoring of a high-usage cloud resource, creating a dashboard with visualizations to filter the status of critical activities is effective. This allows for a quick visual assessment of the system's health and performance, enabling immediate action if specific events indicate potential issues with availability. References: Real-time monitoring and the use of dashboards for tracking critical cloud resources are part of the cloud management best practices covered under the CompTIA Cloud+ objectives.

NEW QUESTION 41

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 42

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

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 47

Which of the following do developers use to keep track of changes made during software development projects?

- A. Code drifting
- B. Code control
- C. Code testing
- D. Code versioning

Answer: D

Explanation:

Developers use code versioning to keep track of changes made during software development projects. It is a system that records changes to a file or set of files over time so that specific versions can be recalled later. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Software Development in Cloud Environments

NEW QUESTION 50

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

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

Answer: D

Explanation:

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

NEW QUESTION 54

A cloud engineer needs to integrate a new payment processor with an existing e-commerce website. Which of the following technologies is the best fit for this integration?

- A. RPC over SSL
- B. Transactional SQL
- C. REST API over HTTPS
- D. Secure web socket

Answer: C

Explanation:

The best technology for integrating a new payment processor with an existing e-commerce website is a REST API over HTTPS. This method is widely used for web services, allowing secure communication over the internet and a standardized way for applications to communicate with each other. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Cloud Integration

NEW QUESTION 59

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

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

Answer: D

Explanation:

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

NEW QUESTION 62

A security engineer recently discovered a vulnerability in the operating system of the company VMs. The operations team reviews the issue and decides all VMs need to be updated from version 3.4.0 to 3.4.1. Which of the following best describes the type of update that will be applied?

- A. Consistent
- B. Major
- C. Minor
- D. Ephemeral

Answer: C

Explanation:

The update from version 3.4.0 to 3.4.1 is considered a minor update, typically involving small bug fixes or security patches that do not include major feature changes or improvements. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Systems Management

NEW QUESTION 64

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

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

Answer: A

Explanation:

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

NEW QUESTION 67

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 an 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 69

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 74

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 77

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 78

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 80

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

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

Answer: A

Explanation:

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

NEW QUESTION 84

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 89

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

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

Answer: C

Explanation:

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

NEW QUESTION 90

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 92

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

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

Application Server Subnet Routing Table

Destination	Gateway
default	192.168.1.1
192.168.1.0/24	local

MySQL Server Stateful Firewall

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

MySQL Server Subnet Routing Table

Destination	Gateway
192.168.2.0/24	192.168.1.1
192.168.1.0/24	local

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

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

Answer: C

Explanation:

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

NEW QUESTION 94

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

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

Answer: D

Explanation:

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

NEW QUESTION 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 100

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

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

Answer: B

Explanation:

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

NEW QUESTION 102

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 107

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 112

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 113

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 115

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 120

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 124

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 127

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 129

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

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

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

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

Answer: C

Explanation:

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

NEW QUESTION 134

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

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

Answer: D

Explanation:

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

NEW QUESTION 138

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 142

A systems administrator is provisioning VMs according to the following requirements:

- A VM instance needs to be present in at least two data centers.
- During replication, the application hosted on the VM tolerates a maximum latency of one second.
- When a VM is unavailable, failover must be immediate.

Which of the following replication methods will best meet these requirements?

- A. Snapshot
- B. Transactional
- C. Live
- D. Point-in-time

Answer: C

Explanation:

Live replication is the process of continuously copying data in real-time to ensure that an exact copy is available in another location. Given the requirement for immediate failover and the presence of the VM instance in at least two data centers, live replication is the best method to meet the one-second maximum latency tolerance and ensure immediate availability in the event of a VM becoming unavailable. References: CompTIA Cloud+ Study Guide (Exam CV0-004) - Chapter on Disaster Recovery and Replication Methods

NEW QUESTION 144

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 148

A company's main web application is no longer accessible via the internet. The cloud administrator investigates and discovers the application is accessible locally

and only via an IP access. Which of the following was misconfigured?

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

Answer: D

Explanation:

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

NEW QUESTION 152

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 153

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 156

A group of cloud administrators frequently uses the same deployment template to recreate a cloud-based development environment. The administrators are unable to go back and review the history of changes they have made to the template. Which of the following cloud resource deployment concepts should the administrator start using?

- A. Drift detection
- B. Repeatability
- C. Documentation
- D. Versioning

Answer: D

Explanation:

Versioning is a concept that allows cloud administrators to keep track of the history of changes made to deployment templates or any other configuration file. By using version control systems, they can review previous versions, roll back to earlier configurations if necessary, and understand the evolution of the deployment template over time. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 160

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 161

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 165

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 168

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

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

Answer: D

Explanation:

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

NEW QUESTION 171

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

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

Answer: D

Explanation:

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

NEW QUESTION 176**SIMULATION**

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

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

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

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

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

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

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

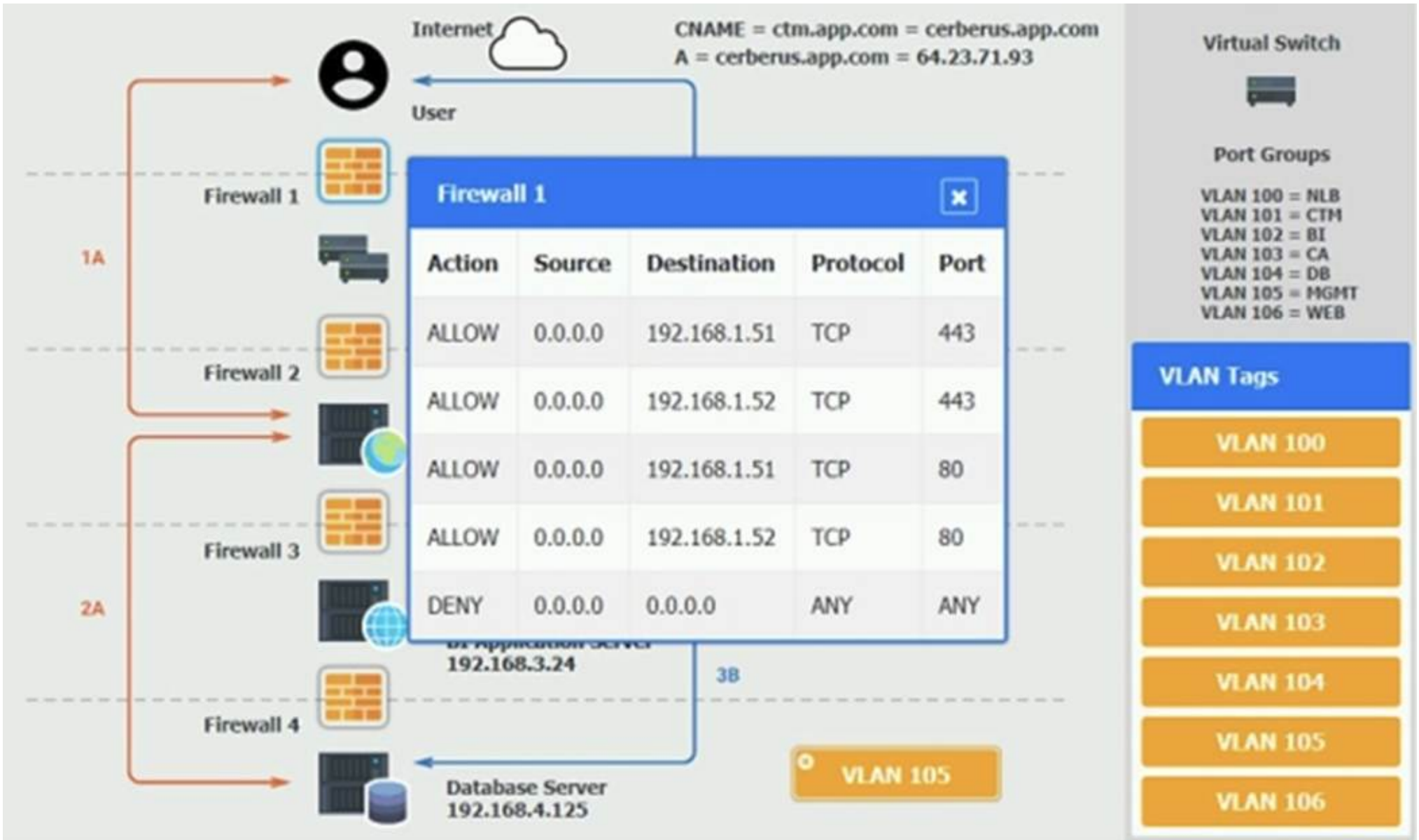
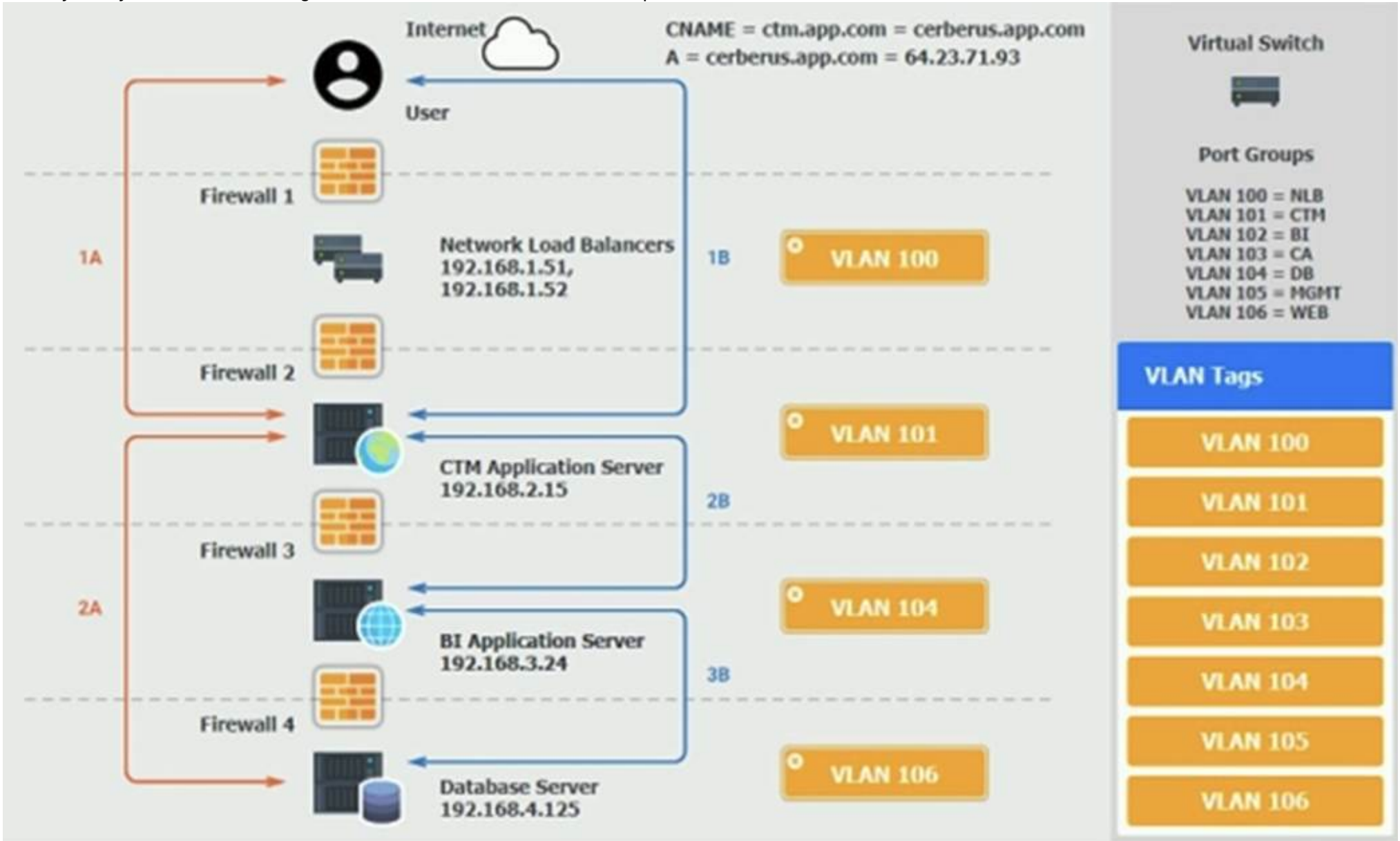
When UAT users try to access the application using <https://ctm.app.com> or <http://ctm.app.com>, they get a message stating: ??Browser cannot display the webpage.?? The QA team has raised a ticket to troubleshoot the issue.

INSTRUCTIONS

You are a cloud engineer who is tasked with reviewing the firewall rules as well as virtual network settings.

You should ensure the firewall rules are allowing only the traffic based on the dataflow. You have already verified the external DNS resolution and NAT are working.

Verify and appropriately configure the VLAN assignments and ACLs. Drag and drop the appropriate VLANs to each tier from the VLAN Tags table. Click on each Firewall to change ACLs as needed.
If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



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

Virtual Switch

Port Groups

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

VLAN Tags

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

Firewall 2

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

Reset Answer Save Close

Database Server 192.168.4.125

VLAN 105

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

Virtual Switch

Port Groups

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

VLAN Tags

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

Firewall 3

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

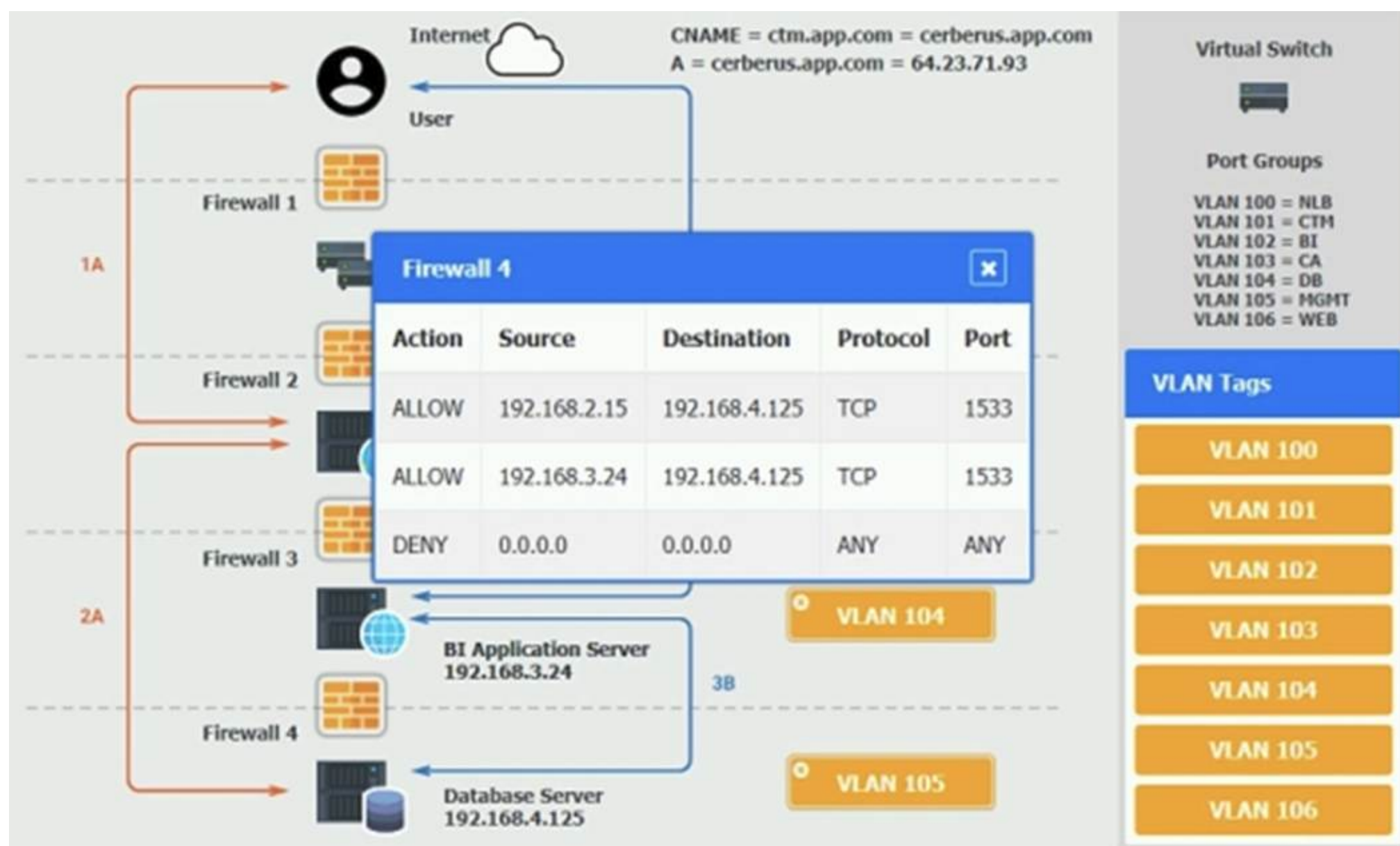
Reset Answer Save Close

Application Server 192.168.3.24

Firewall 4

Database Server 192.168.4.125

VLAN 105



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

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

NEW QUESTION 179

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 184

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 186

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 190

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 195

Which of the following is true of SSDs?

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

Answer: C

Explanation:

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

NEW QUESTION 196

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 198

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 201

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

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

Answer: D

Explanation:

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

NEW QUESTION 202

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

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

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

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

Answer: A

Explanation:

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

NEW QUESTION 203

Two CVEs are discovered on servers in the company's public cloud virtual network. The CVEs are listed as having an attack vector value of network and CVSS score of 9.0. Which of the following actions would be the best way to mitigate the vulnerabilities?

- A. Patching the operating systems
- B. Upgrading the operating systems to the latest beta
- C. Encrypting the operating system disks
- D. Disabling unnecessary open ports

Answer: A

Explanation:

For vulnerabilities with a high CVSS score and a network attack vector, the most effective and direct mitigation action is to patch the operating systems. Patching addresses the specific vulnerabilities that have been identified and helps to secure the servers against the known exploits that could take advantage of these CVEs. References: CompTIA Cloud+ Guide to Cloud Computing (ISBN: 978-1-64274-282-2)

NEW QUESTION 204

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 207

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

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

Answer: C

Explanation:

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

NEW QUESTION 208

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

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

Answer: A

Explanation:

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

NEW QUESTION 209

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

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

Answer: D

Explanation:

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

NEW QUESTION 213

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