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Exam Name: VMware vSphere 8.x Advanced Design

Exam A

QUESTION 1
An architect is designing the datastore configuration of a new vSphere-based solution.
The following information was obtained during the initial meeting with the customer:
There is currently 500 production and DMZ virtual machine workloads spread evenly across the primary and secondary site.
The profile of the workloads (per site) is as follows:
- DMZ:
-- 75 x Small: 1 vCPU, 2GB RAM, 200GB disk
- Production:
-- 50 x Small: 1 vCPU, 2 GB RAM, 200GB disk
-- 100 x Medium: 2 vCPU, 4 GB RAM, 200GB disk
-- 25 x Large: 4 vCPU, 8 GB RAM, 500GB disk
The average IO Profile per workload is 70/30 read/write.
The solution should cater to 10% storage growth in the first year.
The solution should cater to 15% virtual machine snapshot overhead.
The storage team has confirmed:
- A scalable external storage array has been deployed per site to support the storage requirements.
- The storage array will connect to all hosts using a dedicated Fibre Channel storage area network fabric.
- Usable storage capacity is available in 10TB LUNs.
- As many LUNs as required can be provided.
- Every effort should be made to ensure the number of required LUNs is minimized.
The security team has stated that all DMZ and production workloads must remain logically isolated from each other.
Given the information provided, which three design decisions should the architect make to meet the requirements? (Choose three.)

A. Six 10TB VMFS datastores will be configured on each site for all production workloads.
B. Four 10TB VMFS datastores will be configured on each site for all production workloads.
C. Each 10TB LUN will be configured as a VMFS datastore.
D. Two 10TB VMFS datastores will be configured on each site for all DMZ workloads.
E. Each 10TB LUN will be configured as an NFS datastore.
F. Seven 10TB VMFS datastores will be configured on each site for all workloads.

Correct Answer: A, C, D
Section:
Explanation:
Six 10TB VMFS datastores will be configured on each site for all production workloads.
This choice is based on the need to distribute production workloads across multiple datastores while ensuring that each datastore is large enough to accommodate the space required by the workloads. Given the average sizes of the virtual machines and the growth and snapshot overhead, six 10TB VMFS datastores would be appropriate for production workloads, ensuring scalability while minimizing the number of LUNs.
Each 10TB LUN will be configured as a VMFS datastore.
VMFS (Virtual Machine File System) is the standard choice for vSphere environments when using Fibre Channel LUNs. It provides the necessary features, such as concurrency and high-performance access, for production workloads. This option is appropriate given that the storage array uses Fibre Channel for connection and VMFS is the standard file system for such configurations.
Two 10TB VMFS datastores will be configured on each site for all DMZ workloads.
The DMZ workloads are smaller in number and storage requirements compared to the production workloads, so configuring two 10TB VMFS datastores for DMZ workloads will provide enough capacity while maintaining logical isolation. This approach also minimizes the number of LUNs required to meet the storage growth needs.

QUESTION 2

An architect is reviewing the security and compliance requirements for a new application that will be hosted on a vSphere 8 environment.
The following information has been noted about the new application:
The application stores and processes confidential data
The supporting virtual infrastructure is shared with other departments
No other application stores or processes confidential data
The application virtual machines must be able to run on any ESXi host in the cluster
The storage layer is a iSCSI attached SAN
Data at Rest Encryption is in place for each presented LUN validated to FIPS 140-2
No budget is available for additional infrastructure components or software
Application data must not be accessible outside of the application's virtual machines
The architect has been tasked with providing a secure virtual machine design to host the application.
Which three design elements must the architect include to meet the requirements? (Choose three.)

A. Virtual Machine Encryption
B. The vSphere Native Key Provider
C. A new encrypted iSCSI LUN
D. External Key Management Service (KMS) provider
E. A new local VMFS volume
F. VMware vSAN

Correct Answer: A, B, D
Section:
Explanation:
Virtual Machine Encryption
To ensure that the application's confidential data is protected, Virtual Machine Encryption should be applied. This will ensure that even if someone gains access to the storage layer or the underlying infrastructure, the data in the virtual machine is encrypted and cannot be accessed outside of the VM, as required by the security and compliance requirements.
The vSphere Native Key Provider
The vSphere Native Key Provider can be used to manage encryption keys within the vSphere environment. Since no budget is available for additional infrastructure components or software, leveraging vSphere's native capabilities for key management ensures that encryption is securely handled without introducing external dependencies. This also aligns with the requirement to not introduce additional infrastructure.
External Key Management Service (KMS) provider
While the vSphere Native Key Provider can manage keys within the environment, if there is a requirement for a more secure or compliant key management solution, an External Key Management Service (KMS) may be used. The KMS provider allows for centralized management of encryption keys, ensuring that the keys are securely stored and controlled according to compliance standards (e.g., FIPS 140-2). Although the Native Key Provider may suffice, this option ensures that key management adheres to stricter compliance needs, especially for confidential data.

QUESTION 3
An architect is creating a design for a new vSphere solution to meet the following business requirement:
REQ001 - Reduce operational expenditure
Which design decision could the architect include in the logical design to satisfy this requirement?

A. Use vSphere Standard licenses on all clusters.
B. Use heterogeneous hardware for the hosts in all clusters.
C. Use vSphere Lifecycle Manager on all clusters.
D. Use an N + 1 design to define the required capacity on all clusters.

Correct Answer: C
Section:
Explanation:
vSphere Lifecycle Manager helps reduce operational expenditure (OPEX) by automating the patching and management of the vSphere environment. It provides centralized management for host updates, ensuring consistency

across the environment and reducing the manual effort required for ongoing operations. This leads to reduced operational overhead, which directly addresses the requirement to reduce OPEX.

QUESTION 4
As part of designing a greenfield vSphere-based hosting solution, an architect is responsible for defining a patch management solution for the virtual infrastructure.
During initial meetings with the customer, the following information is provided:
There are two geographically dispersed physical sites (primary and secondary) in scope for the solution.
The inter-site connectivity has been classified as low bandwidth and high latency.
The customer has the following requirements:
REQ001 - Only IT Security Team-approved versions of VMware Tools should be installed across all workloads within the infrastructure.
REQ002 - The solution should minimize traffic across the inter-site link.
REQ003 - Upgrades to the virtual infrastructure should continue in the event of a failure with either site.
A combination of which three design decisions could the architect make to ensure the requirements are met? (Choose three.)

A. The solution will set the UserVars.ToolsRamdisk advanced system setting on each VMware ESXi host to '1' (enabled).
B. The solution will ensure that all VMware ESXi hosts within a site have access to the local VMFS datastore containing the shared VMware Tools repository.
C. The solution will use VMware Autodeploy to ensure the latest version of VMware Tools is deployed to each workload.
D. The solution will set the UserVars.ProductLockerLocation advanced system setting on each VMware ESXi host to point to the local site shared Repository
E. The solution will create a shared repository on a VMFS datastore within each site that contains all approved versions of VMware Tools.
F. The solution will create a shared repository on a VMFS datastore within the primary site that contains all approved versions of VMwareTools.

Correct Answer: B, D, E
Section:
Explanation:
The solution will ensure that all VMware ESXi hosts within a site have access to the local VMFS datastore containing the shared VMware Tools repository.
This decision ensures that each site has local access to the VMware Tools repository, which minimizes traffic across the low-bandwidth, high-latency inter-site link. By keeping the repository within each site, the local ESXi hosts can access the repository without needing to traverse the inter-site link frequently.
The solution will set the UserVars.ProductLockerLocation advanced system setting on each VMware ESXi host to point to the local site shared repository.
This ensures that each ESXi host points to the local site repository for VMware Tools. This approach minimizes inter-site traffic by ensuring that all updates and patches are performed using local resources, avoiding the need to transfer VMware Tools files over the low-bandwidth, high-latency connection.
The solution will create a shared repository on a VMFS datastore within each site that contains all approved versions of VMware Tools.
This decision ensures that both sites have a local copy of the approved VMware Tools versions, in line with REQ001, which mandates that only IT Security Team-approved versions of VMware Tools should be installed.
Additionally, it minimizes inter-site traffic, as both sites will use their local repositories.

QUESTION 5
An architect is tasked with devising a vSphere design strategy that will allow the company to quickly scale global data center functionality when a new location is identified.
The following requirements must be met:
The solution must include VMware licensing costs.
The design must keep data locally to each specific location.
The design must utilize current company processes around vSphere.
Any new global location must be functional within one month of identification.
Which design strategy will meet these requirements?

A. Plan specific locations throughout the world and build data centers in anticipation of the scale events.
B. Purchase new hardware and deploy VMware Cloud Foundation when a new location is identified.
C. Select partners in each identified location in anticipation of the scale events.
D. Locate a partner that has a data center presence in major global locations that can deploy compatible company architecture.

Correct Answer: D

Section:
Explanation:
This strategy meets the requirements because:
Keeps data locally: By selecting a partner with a global data center presence, data can remain local to each specific location, meeting the geographical data residency requirement.
Quick scalability: The partner already has data centers in place, enabling the company to scale quickly and be functional within one month, which meets the timeline requirement.
Utilizes current processes: The existing processes around vSphere can still be leveraged since the partner can deploy compatible company architecture that aligns with the company's current infrastructure and processes.
VMware licensing costs: VMware licenses would be managed as part of the partnership arrangement, ensuring costs are aligned with the company's existing VMware infrastructure.

QUESTION 6
An architect is designing a new vSphere-based solution for a customer.
During a requirement gathering workshop, the following information is provided:
The solution must have a primary and secondary site.
The solution must support a maximum of 1,000 concurrent workloads.
The profile of the workloads are as follows:
- Production Workloads
-- 300 x Small: 1 vCPU, 2GB RAM
-- 400 x Medium: 2 vCPU, 6GB RAM
-- 100 x Large: 4 vCPU, 8GB RAM
- Development Workloads
-- 200 x Small: 1 vCPU, 2GB RAM
The corporate security policy states that, during normal operations, production workloads must be physically segregated from development workloads.
All production workloads are split evenly across the primary and secondary site.
All development workloads run only within the secondary site.
In the event of a disaster affecting workloads in the primary site, the secondary site must be capable of running all production and development workloads.
The vCPU to physical core ratio should be a maximum of 10:1 for production workloads and 20:1 for development workloads.
The solution should provide a minimum of N + 1 resiliency at each component level.
The target physical host hardware platform has already been defined by the company's hardware standards and therefore each host has the following configuration:
-- 2 x 24 physical cores
-- 768GB RAM
-- 2 x 100GB SSD drives
-- 6 x 10GbE network cards
What is the minimum number of hosts required to meet the requirements?

A. 12
B. 14
C. 8
D. 10

Correct Answer: A
Section:
Explanation:
1. Production Workloads:
Total vCPUs required for production:
Total production vCPUs = 300 + 800 + 400 = 1,500 vCPUs
2. Development Workloads:
Total vCPUs required for development:
3. Workload Distribution:
4. vCPU to Physical Core Ratio:
5. Hosts Configuration:

6. Host Calculation:
Production Workloads (750 vCPUs per site):
Development Workloads (200 vCPUs):
7. Resiliency:
8. Total Hosts:
Total hosts required = 4 (primary production) + 4 (secondary production) + 1 (secondary development) + 2 (N + 1) = 12 hosts.

QUESTION 7
An architect is designing a backup solution.
Which two statements should be included in the logical design for this solution? (Choose two.)

A. The database must be backed up even/ day during the maintenance window of 1:00AM and 3:00AM.
B. The network that will be used for backups will be configured to use VLAN ID 1511.
C. The bkp-nfs-01 datastore will be used for backups.
D. The company's existing backup solution will be unsupported by the third-party vendor in six months.
E. The database will be backed up using an API-based backup solution.

Correct Answer: A, E
Section:
Explanation:
The database must be backed up every day during the maintenance window of 1:00AM and 3:00AM.
This is a logical design requirement because it specifies the timing for the backup operations. It's important to define backup schedules to align with the maintenance window, ensuring minimal disruption to production workloads.
The database will be backed up using an API-based backup solution.
This is a logical design decision that specifies the method of backup. Using an API-based backup solution is a modern, efficient way to ensure consistent and application-aware backups of databases.

QUESTION 8
Which four factors should an architect consider when calculating the number of hosts required for a new multi-site vSphere-based solution that utilizes external storage? (Choose four.)

A. The workload profile (CPU and memory) of each workload
B. The amount of resources required for virtual machine (VM) swap and VM snapshots
C. The number of existinq workloads that will be decommissioned prior to the completion of project
D. The number of existinq workloads that will be miqrated onto the new solution
E. The number of network connections per physical host server
F. The future physical location of any workloads
G. The hardware specification of the underlying infrastructure

Correct Answer: A, B, D, G
Section:
Explanation:
The workload profile (CPU and memory) of each workload
Understanding the CPU and memory requirements for each workload is crucial for determining the capacity needed on each host. This helps ensure that each host has sufficient resources to run the virtual machines (VMs) efficiently.
The amount of resources required for virtual machine (VM) swap and VM snapshots
VM swap files and snapshots require additional storage and compute resources. It's important to account for these resource requirements to avoid overloading the hosts or running into resource bottlenecks.
The number of existing workloads that will be migrated onto the new solution
Knowing how many workloads will be migrated allows the architect to estimate the total resource demand and determine the number of hosts required to support the migrated workloads effectively.
The hardware specification of the underlying infrastructure

The hardware specifications of the hosts, including the CPU, memory, storage, and network interfaces, play a significant role in determining how many hosts are needed to support the workloads. More powerful hardware may reduce the number of hosts required, while less capable hardware might increase the number needed.

QUESTION 9
An architect is tasked with helping a customer develop a design that meets the following requirements:
Must have no single point of failure
Must include thorough standard operating procedure documentation
Must use VMXNET3 virtual network interface card
Must have 99.9% uptime Service Level Agreement
Must use the latest version of VMware vSphere
Which two are considered constraints? (Choose two.)

A. Must use the latest version of VMware
B. Must have no single point of failure
C. Must use VMXNET3 virtual network interface card
D. Must include thorough standard operating procedure documentation
E. Must have 99.9% uptime Service Level Aqreement

Correct Answer: A, C
Section:
Explanation:
Must use the latest version of VMware vSphere
This is a constraint because the design must adhere to the specific requirement of using the latest version of VMware vSphere. This limits the possible versions or features that can be incorporated into the solution.
Must use VMXNET3 virtual network interface card
This is also a constraint because it mandates the use of a specific virtual network interface card (VMXNET3), restricting the design to that particular choice for network connectivity.

QUESTION 10
A company has the requirement to ensure that business-critical applications have the necessary network bandwidth to function optimally and maintain a consistent quality of service (QoS).
Which statement would be included in the conceptual design to support this requirement?

A. A distributed switch will be created and Network I/O Control will be enabled.
B. The network infrastructure must ensure secure communications and efficiently use available bandwidth.
C. Network resource pool named 'bca-pool-02' is given a reservation quota of 5Gbit/sec.
D. The distributed switch will use a minimum of 25Gbps Ethernet.

Correct Answer: A
Section:
Explanation:
This statement supports the requirement for ensuring that business-critical applications have the necessary network bandwidth and maintain consistent quality of service (QoS). By creating a distributed switch and enabling Network I/O Control, you can prioritize network traffic and ensure that the necessary bandwidth is allocated to critical applications, improving their performance and quality of service.

QUESTION 11
An architect is designing the virtual networking components of a vSphere-based solution that will provide an environment for the development of a new latency sensitive stock trading application.
The following information was identified within the initial meeting with the customer:
The customer has vCenter Standard and vSphere Standard licenses left over from a previous project.
The customer's CFO has approved budget for additional purchases, if required.
The following requirements were also identified during the meeting:
The solution must support 500 development workloads concurrently running in the secondary site.

The solution must support the ability to complete all vSphere Operational Management centrally.
The solution must ensure business-critical applications are not impacted by vSphere system-level operations.
Given the requirements, the architect has decided on a single 20-node cluster for development.
Which three additional design decisions should the architect make to meet these requirements? (Choose three.)

A. The solution will configure Traffic Shaping policies to restrict network bandwidth on ingress and egress.
B. The solution will deploy VMware vSphere Enterprise Plus on all hosts within the cluster.
C. The solution will deploy VMware vSphere Standard on all hosts within the cluster.
D. The solution will deploy a single VMware Standard Switch that will be configured identically on each host.
E. The solution will deploy a single vSphere Distributed Switch with each host connected to it.
F. The solution will configure Network I/O control to ensure that system-level bandwidth does not impact workload network traffic.

Correct Answer: B, E, F
Section:
Explanation:
The solution will deploy VMware vSphere Enterprise Plus on all hosts within the cluster.
VMware vSphere Enterprise Plus offers advanced networking and storage features that will support the required high availability, performance, and management capabilities. Features such as Distributed Switches and Network I/O Control (NIOC) are critical to meeting the business-critical application and performance requirements for the latency-sensitive stock trading application.
The solution will deploy a single vSphere Distributed Switch with each host connected to it.
A vSphere Distributed Switch (VDS) is ideal for managing network configurations centrally across multiple hosts, which meets the requirement for centralized vSphere operational management. It also ensures consistent network configurations and simplifies network management at scale.
The solution will configure Network I/O control to ensure that system-level bandwidth does not impact workload network traffic.
Network I/O Control (NIOC) is essential for prioritizing network traffic, ensuring that latency-sensitive workloads are not impacted by other system-level or less critical traffic. This is crucial for the performance requirements of the stock trading application.

QUESTION 12
An architect is designing a new vSphere-based solution for a customer.
During a requirements gathering workshop, the following information is provided:
0The solution must have a primary and secondary (isolated) environment
The solution must support orchestration to address application dependencies
The isolated environment must be able to scale on demand in case of a DR scenario
The solution is managed through a single interface
Which solution should the architect include in this design?

A. Site Recovery Manager with dedicated hardware
B. Disaster Recovery with VMware Cloud on AWS
C. vSAN stretched cluster
D. A dedicated fault domain

Correct Answer: B
Section:
Explanation:
This solution aligns with the requirements of having a primary and secondary isolated environment, orchestration of application dependencies, the ability to scale on demand in a disaster recovery (DR) scenario, and a single interface for management. VMware Cloud on AWS integrates with VMware's vSphere environment and offers orchestration for DR, as well as the flexibility to scale resources on demand in the event of a DR scenario. It also provides a unified management interface through vCenter.

QUESTION 13
An architect is holding a requirements workshop with a customer for a new vSphere solution design. The customer states that the solution should make it easy to identify and apply patches or updates to ESXi hosts, including

the ability to pre-stage the files on the ESXi hosts.
Which design quality is being referenced by the customer?

A. Recoverability
B. Manageability
C. Performance
D. Availability

Correct Answer: B
Section:
Explanation:
The customer's requirement for making it easy to identify and apply patches or updates to ESXi hosts, including pre-staging the files, is focused on simplifying the management of the vSphere environment. This is a key aspect of manageability, which refers to the ease with which IT administrators can handle tasks like patching, updates, and configuration management in a consistent and efficient manner.

QUESTION 14
An architect is designing a new vSphere-based solution for a customer.
During a requirements gathering workshop, the following information is provided:
The solutions must provide a recovery point objective (RPO) of 15minutes.
The solution must have a primary and secondary site.
The solution must support orchestration to address application dependencies.
Which two solutions should the architect include in the design to meet these requirements? (Choose two.)

A. vSAN stretched cluster
B. vSphere HA
C. Site Recovery Manager
D. vSphere Fault Tolerance
E. vSphere Replication

Correct Answer: A, C
Section:
Explanation:
vSAN stretched cluster
A vSAN stretched cluster provides high availability and disaster recovery capabilities across two sites. It supports RPOs of 15 minutes or less and ensures data is replicated synchronously between the primary and secondary site, meeting the recovery point objective (RPO) requirement. It also allows orchestration and application dependencies to be managed effectively between sites.
Site Recovery Manager
Site Recovery Manager (SRM) provides automation and orchestration of disaster recovery processes, ensuring that workloads can be recovered in a secondary site while maintaining the RPO and recovery time objective (RTO). It can integrate with various replication technologies, including vSphere Replication, and ensures that application dependencies are addressed in the recovery process.

QUESTION 15
An architect is designing a vSphere-based private cloud solution to support the following customer requirements:
The solution should support running 5,000 concurrent production compute workloads across the primary and secondary sites.
The solution should support running 1,000 development compute workloads within the secondary site.
The solution should support up to 50 management workloads across the primary and secondary site.
The solution must ensure the isolation of virtual infrastructure management operations between management and compute workloads.
The solution must ensure that the hosting of any virtual infrastructure management workloads does not impact the amount of capacity available for compute workloads.
The solution must ensure that all production compute workloads are physically isolated from development compute workloads.
The solution must ensure that the operational management of compute workloads in the secondary site is possible in the event of a disaster affecting the primary site.
How many VMware vCenter instances will the architect need to include in the design to meet these requirements?

A. 5
B. 3
C. 2
D. 4

Correct Answer: B
Section:
Explanation:
To meet the requirements outlined, the architect will need to design a solution with three VMware vCenter instances. Here's why:
Isolation of Virtual Infrastructure Management Operations: The management workloads (such as vCenter itself, along with other virtual infrastructure management tools) should be isolated from compute workloads. This suggests the need for a separate vCenter instance to manage the infrastructure without impacting compute workloads.
Physical Isolation of Production and Development Workloads: Production workloads and development workloads need to be physically isolated, which suggests the need for different vCenter instances to maintain separation.
Support for Operational Management in the Event of a Disaster: In the event of a disaster affecting the primary site, the secondary site should still be able to manage compute workloads. This could be achieved by having a vCenter instance in each site (primary and secondary) to ensure continued management in the event of a failure.
Breakdown of the three vCenter instances:
vCenter 1: Manages production workloads across both primary and secondary sites.
vCenter 2: Manages development workloads in the secondary site, ensuring isolation from production.
vCenter 3: Manages the virtual infrastructure management workloads, ensuring isolation from compute workloads.

QUESTION 16
An architect is creating the design for a vSphere platform that will be used as the target for a migration from multiple legacy vSphere platforms that are being decommissioned. The customer has provided the following information:
Each legacy platform has its own set of virtual machine templates stored in OVF format.
All of the templates need to be migrated to the new platform.
After migration, the templates should be centralized into a single location.
The templates must be accessible to all clusters in the new platform vCenter instance.
Any new templates added to the central location must be automatically available to all clusters.
Administrators must be able to deploy new virtual machines directly from the template instances.
The customer also confirmed that after the migrations are complete, the new platform will be the only vSphere solution available.
Which design choice should the architect evaluate in the logical design for the storage and management of virtual machine templates?

A. Use a dedicated datastore on each vSphere cluster
B. Use a shared datastore on each vSphere cluster
C. Use a subscribed content library
D. Use a local content library

Correct Answer: C
Section:
Explanation:
A subscribed content library is the best design choice for managing and centralizing virtual machine templates in this scenario. Here's why:
Centralized Management: A subscribed content library allows templates to be stored in a central location and made available to all clusters within the vCenter instance. Any new templates added to the central content library are automatically made available to all subscribed clusters, meeting the requirement for templates to be centrally stored and easily accessible by all clusters.
Automatic Updates: When a new template is added to the central content library, it becomes automatically available to all clusters that subscribe to it, fulfilling the requirement for automatically available new templates.
VM Template Deployment: Administrators can deploy new virtual machines directly from the template instances stored in the content library, which ensures that the deployment process is streamlined and consistent.

QUESTION 17
A company is expanding an existing vSphere deployment to meet new demands from the business. The following requirements have been identified for the expanded infrastructure:
REQ001- It must support enhanced vMotion compatibility (EVC) mode for Intel 'Nehalem' Generation (Intel Xeon Core i7) processors.

REQ002- It must be accessible via an API.
REQ003- It must support a variety of operating systems.
REQ004- It must notify administrators whenever a virtual machine is connected to more than one network.
Which requirement would be classified as a technical (formerly non-functional) requirement?

A. It must be accessible via an API.
B. It must notify administrators whenever a virtual machine is connected to more than one network.
C. It must support enhanced vMotion compatibility (EVC) mode for Intel 'Nehalem' Generation (Intel Xeon Core i7) processors.
D. It must support a variety of operating systems.

Correct Answer: C
Section:
Explanation:
This is a technical (formerly non-functional) requirement because it specifies a particular feature (EVC mode for specific processor generations) that the infrastructure must support to ensure compatibility across the vSphere environment. This requirement addresses a technical aspect of how the environment will function but does not directly relate to business functionality.

QUESTION 18
What are two benefits of the VMware Validated Solutions? (Choose two.)

A. Provide prescriptive runbooks to deploy VMware solutions
B. Provide comprehensive manual deployment guidance and day 2 operational practices
C. Provide best practice design guidance
D. Provide faster time to value for VMware Cloud Foundation
E. Deploy technical validated implementations on VMware Cloud Foundation

Correct Answer: A, C
Section:
Explanation:
VMware Validated Solutions offer prescriptive, step-by-step runbooks that help guide users through the deployment process. These runbooks ensure that the implementation follows VMware's recommended practices, reducing complexity and ensuring consistency across deployments.
VMware Validated Solutions are designed based on VMware's best practices, ensuring that the deployed solution is optimized for performance, security, and scalability. This helps organizations achieve a reliable and efficient infrastructure aligned with VMware's recommended guidelines.

QUESTION 19
An architect is conducting interviews to gather requirements for a new vSphere-based private cloud solution.
The following information has been provided by the customer:
The customer, after 10years within an outsourced managed service contract, has decided to bring application hosting back in-house but lacks the VMware skills to support this.
The customer currently has 5,000 workloads under contract and managed by their partner.
The customer would like to keep IT infrastructure costs at a minimum.
The customer would like to ensure that the solution supports the company's green IT agenda by reducing their carbon footprint.
Which statement is classified as a business factor that would impact the design?

A. The customer would like to keep IT infrastructure costs at a minimum.
B. The customer, after 10 years within an outsourced managed service contract, has decided to bring application hosting back in-house but lacks the VMware skills to support this.
C. The customer would like to ensure that the solution supports the company's green IT agenda by reducing their carbon footprint.
D. The customer currently has 5,000 workloads under contract and managed by their partner.

Correct Answer: A

Section:
Explanation:
This is a business factor because it directly relates to the financial goals and constraints of the customer. Keeping IT infrastructure costs at a minimum will impact the design by influencing decisions regarding hardware selection, deployment scale, and resource allocation, among other factors.

QUESTION 20
An architect is documenting the design for a new multi-site vSphere solution. The customer has informed the architect that the workloads hosted on the solution are managed by application teams who must perform a number of steps to return the application to service following a failover of the workloads to the secondary site. These steps are defined as the Work Recovery Time (WRT). The customer has provided the architect with the following information about the workloads, including the recovery time objective (RTO) and recovery point objective (RPO):
Critical workloads have a WRT of 12hours
Production workloads have a WRT of 24hours
Development workloads have a WRT of 24hours
All workloads have an RPO of 4hours
Critical workloads have an RTO of 1hour
Production workloads have an RTO of 12hours
Development workloads have an RTO of 24hours
The customer has also confirmed that production and development workloads are managed by the same team and the disaster recovery solution will not begin the recovery of the development workloads until all critical and production workloads have been recovered at the secondary site.
Which three statements would the architect document as the maximum tolerable downtime (MTD) for workloads within the design? (Choose three.)

A. Critical Workloads: 12 hours
B. Development Workloads: 24 hours
C. Production Workloads: 36 hours
D. Critical Workloads: 13 hours
E. Development Workloads: 60 hours
F. Production Workloads: 24 hours

Correct Answer: A, B, F
Section:
Explanation:
Critical Workloads: 12 hours
For critical workloads, the recovery time objective (RTO) is 1 hour, and the work recovery time (WRT) is 12 hours. Since the customer can tolerate a maximum of 12 hours to restore these workloads after a disaster, the MTD for critical workloads is 12 hours.
Development Workloads: 24 hours
For development workloads, the RTO is 24 hours and the WRT is also 24 hours. Therefore, the MTD for development workloads is 24 hours because it is the maximum time that the customer can tolerate for these workloads to be unavailable.
Production Workloads: 24 hours
Production workloads have an RTO of 12 hours and a WRT of 24 hours. Since the disaster recovery solution waits for the recovery of critical and production workloads before recovering development workloads, the MTD for production workloads can be up to 24 hours, including the time to fully recover both critical and production workloads.

QUESTION 21
An architect is tasked with designing a solution to monitor the operational state of a VMware Cloud Foundation environment through ad-hoc reporting and custom dashboards, alerts, and notifications.
Using VMware Validated Solutions, which validated solution can the architect leverage to meet this requirement?

A. Private Cloud Automation for VMware Cloud Foundation
B. Intelligent Operations Management for VMware Cloud Foundation
C. VMware Validated Design for VMware Cloud Foundation Heath Reporting and Monitoring for VMware Cloud Foundation

Correct Answer: B
Section:
Explanation:
Intelligent Operations Management for VMware Cloud Foundation is designed to help monitor the operational state of a VMware Cloud Foundation environment. It provides capabilities for ad-hoc reporting, custom dashboards, alerts, and notifications. This validated solution ensures comprehensive monitoring and management of the environment, addressing the requirements for reporting and monitoring the operational state of the infrastructure.

QUESTION 22
An architect is designing a new vSphere solution. The customer has provided the following information to describe how the solution will be used:
The solution will host development workloads
Administrators will utilize snapshots frequently, with snapshots sometimes retained for extended periods of time
Some of the workloads are sensitive to latency on the I/O of the storage
Storage for the workloads will be provided by a physical array
The physical array does not include a storage provider
All workloads must be hosted on the solution, there are no other vSphere environments available for use
Which design decision should the architect make to meet the needs of the customer?

A. Use a storage array which supports VMware vSphere APIs: Array Integration (VAAI) to configure VMFS datastores for the workloads
B. On workloads which will use snapshots, set the latency-sensitivity=high advanced setting
C. Use a storage array which supports vSphere Storage APIs - Storage Awareness (VASA) to configure Virtual Volumes (vVols) datastores for the workloads
D. On workloads which are sensitive to latency, set the latency-sensitivity=high advanced setting

Correct Answer: A
Section:
Explanation:
VAAI (vSphere APIs for Array Integration) improves storage performance and offloads certain tasks (such as cloning, snapshots, and more) directly to the storage array. This is important because the customer will be utilizing snapshots frequently, and VAAI can help accelerate snapshot operations, reducing the impact on the ESXi host and improving overall performance.
Since the physical array does not include a storage provider and does not support vSphere Storage APIs - Storage Awareness (VASA) or Virtual Volumes (vVols), the solution should focus on using VMFS datastores with a VAAI-capable storage array. This setup allows better performance for snapshot operations and other storage tasks.

QUESTION 23
An architect has been tasked with designing a greenfield hosting platform.
As part of a workshop, it is identified that the new solution must support the following:
Provide a centralized way to enforce virtual network security policy
Provide network security for both virtual machines and containerized applications
Deny network access between all workloads by default
Linked services should be connected to the same virtual port groups by default
Support for the security teams network monitoring solution
Which elements should the architect include in the design to meet the identified requirements?

A. VMware Standard Switches, Access Lists and Promiscuous mode
B. Distributed Virtual Switches, Access Lists and Promiscuous mode
C. VMware Carbon Black, Distributed Virtual Switches and Traffic Filtering
D. VMware NSX, Distributed Firewalls and Port Mirroring

Correct Answer: D
Section:
Explanation:
VMware NSX: NSX provides a centralized platform for network virtualization and security, which aligns with the requirement for enforcing virtual network security policies. It can manage network segmentation, security

policies, and micro-segmentation across the entire environment, including both virtual machines and containerized applications.
Distributed Firewalls: NSX's distributed firewall allows for micro-segmentation, meaning that network access is denied between workloads by default, and access controls can be applied based on security policies. This meets the requirement of denying network access by default.
Port Mirroring: Port mirroring in NSX can integrate with the security team's network monitoring solutions. It enables the security team to capture traffic for monitoring and analysis, addressing the requirement for network monitoring support.

QUESTION 24
An architect has made the following assumptions:
The customer will provide licensing for the vSphere platform.
The storage hardware has sufficient capacity for future workload scale.
The data center offers sufficient power, cooling and rack space for workload scale.
Which two risks must be documented in the design document in response to these assumptions? (Choose two.)

A. The assumptions must be approved by the customer, architect and the architect's company.
B. The storage may not have capacity to accommodate 20% year over year virtual machine growth.
C. The licenses provided by the customer only have support entitlement for one year.
D. The customer may not have an existing licensing subscription that covers features the architect intends to use.
E. The customer may not have sufficient data center cooling, power, and physical rack space available.

Correct Answer: B, D
Section:
Explanation:
The storage may not have capacity to accommodate 20% year-over-year virtual machine growth.
This is a risk because, while the assumption is that the storage hardware has sufficient capacity, there is a possibility that the hardware may not be able to support future growth, especially if the customer's workload grows faster than expected. Documenting this risk ensures that the design considers potential capacity constraints.
The customer may not have an existing licensing subscription that covers features the architect intends to use.
This is a risk because although the assumption is that the customer will provide licensing, there may be discrepancies between the features required for the design and the customer's existing licensing. This risk ensures that the architect verifies that the customer's licensing aligns with the solution requirements.