QUESTION NO: 1

An architect is designing a greenfield VMware vRealize Cloud Management solution. During the requirements gathering workshop with the customer, the future Service Owner made the following comment:

The Maximum Tolerable Downtime (MTD) for the Cloud Management solution is 1 hour.

When creating the design documentation, which design quality should be used to classify the requirements?

A. Manageability

B. Availability

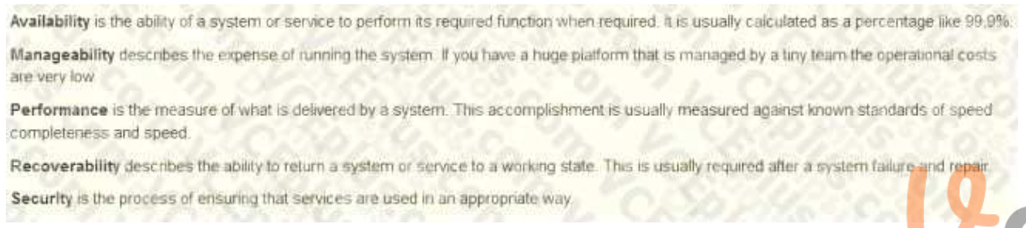
C. Recoverability

D. Performance

ANSWER: C

Explanation:

Reference: https://elatov.github.io/2012/08/vcap5-dcd-objective-2-3-build-availability-requirements-into-the-logical-design/



QUESTION NO: 2

An architect has designed a vRealize Log Insight (vRLI) cluster for an organization. Details of the cluster are provided below:

3-node vRealize Log Insight cluster to collect logs for an organization NFS storage is enabled for archival data Once the NFS storage is full, which will be the resulting scenario?

A. vRLI will stop ingesting new data and unless free space is available, loss of data will occur.

B. vRLI will automatically delete the oldest archived logs, resulting in archived data loss.

C. vRLI will further compress the active logs to make more space available in NFS storage.

D. vRLI will send a notification and automatically disable log archiving.

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Log-Insight/8.1/com.vmware.log-insight.administration.doc/GUIDC1E3BC21-4156-46B6-B4BB-0D396BC934C6.html

QUESTION NO: 3

An architect is designing a greenfield Cloud Management solution. During the requirements gathering workshop with the customer, the following information was captured:

The log monitoring solution must be capable of collecting a minimum of 10,000 evets per second. The automation solution must be capable of deploying at least 20 concurrent workloads.

When creating the design documentation, which design quality should be used to classify the requirements?

A. Availability

B. Manageability

C. Performance

D. Recoverability

ANSWER: C

QUESTION NO: 4

As a Service Broker administrator, you have been asked to meet these requirements:

All released cloud templates must be imported to Service Broker.

Newly released cloud templates must be automatically synchronized with Service Broker. All cloud templates must be automatically published to the service catalog.

Which two options must be configured to meet the requirements? (Choose two.)

A. Configure content sharing using Content Sources option

B. Create content source using VMware Cloud Templates option but do not configure content sharing

C. Create content source using CloudFormation Template option

D. Configure content sharing using All Content option

E. Create content source using VMware Cloud Templates option

ANSWER: A E

Explanation:

Reference: http://vconceptions.com/index.php/2021/10/23/vrealize-automation-service-broker-and-catalog-managementpart-1/

QUESTION NO: 5

A company has recently completed an audit and has found that there are many virtual machines in their production environment which no longer appear to be in use. To prevent this from happening in future, the company is deploying vRealize Automation and would like all provisioned VMs to meet following requirements:

VMs to have a default lease of 90 days and no more than 365 days

Lease policy can be overridden on case by case basis

Upon initial lease expiry, the VM should be kept for 10 days after which they will be destroyed Which policy design will meet the technical requirements?

A. Create a lease policy with the organization scope, setting 90 days lease, 365 total lease and grace period to 10 and a hard enforcement

B. Create a lease policy with the organization scope, setting 90 days lease, 365 total lease and grace period to 10 and a soft enforcement

C. Create a lease policy with the project scope, setting 90 days lease, 365 total lease and grace period to 10 and a soft enforcement

D. Create a lease policy with the project scope, setting 90 days lease, 365 total lease and grace period to 10 and a hard enforcement

ANSWER: C

QUESTION NO: 6

A cloud architect is writing an implementation plan for deployment of a clustered vRealize Automation deployment that will use a third-party load balancer.

Which two steps should the architect include within the implementation plan to ensure a successful deployment of vRealize Automation? (Choose two.)

A. Disable all secondary nodes from the load balancer pools

B. Create and configure the monitoring of vRealize Automation and vRealize Orchestrator

C. Ensure all the SAN certificates for vRealize Suite are available

D. Enable all non-primary nodes on the load balancer

E. Turn off the health monitors or change them temporarily to default to ICMP and ensure traffic is still forwarding to the primary node

ANSWER: B C

Explanation:

Reference: https://docs.vmware.com/en/VMware-Validated-Design/6.1/sddc-deployment-of-cloud-operations-andautomation-in-the-first-region/GUID-18A6AEF4-2EF7-47B2-B421-D34156344652.html

QUESTION NO: 7

An architect is designing the deployment of vRealize Log Insight (vRLI) in their data center. The customer has the following requirements: vRLI cluster responds to multiple Virtual IP Addresses (VIPs) Each event message received from a VIP is associated with a tag Which two design decisions would the architect make to achieve the requirements? (Choose two.)

A. Configure a CSV file to use with VIP tags.

B. Configure a list of static tags (key=value) for an integrated load balancer VIP, so that each event message received from a VIP is annotated with a tag.

C. Each node should have at least one network interface on the same subnet as that of a VIP.

D. Configure a list of dynamic tags (key=value) for an integrated load balancer VIP, so that each event message received from a VIP is annotated with a tag.

E. Each node should have at least one network interface on a different subnet as that of a VIP.

ANSWER: B C

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Log-Insight/4.8/com.vmware.log-insight.administration.doc/GUID-7B981536-F80C-458F-A196-2AFD4B1D33C2.html

QUESTION NO: 8

An architect is designing a new VMware vRealize Cloud Management solution. During the requirements gathering workshop, the customer made the following comments:

The monthly uptime target of the cloud management solution must be 99.9%.

All components of the cloud management solution must be deployed with a N + 1 redundancy.

When creating the design documentation, how should these requirements be classified?

A. Recoverability

B. Manageability

C. Availability

D. Performance

ANSWER: C

QUESTION NO: 9

A customer has asked to have a vSphere cluster and Cloud Zone dedicated for Cloud Template development. The customer is going use the Cloud.vSphere.Machine compute resource type and they have been unable to quantify values for Favor Mappings during a requirements gathering exercise.

Which Flavor Mapping decision should be made for the Cloud Zone?

A. Create multiple Flavor Mappings with incremental sizes

B. Flavor Mappings are not needed for the vSphere Cloud Zone

C. Create a single Flavor Mapping with a modest size

D. Create a single Flavor Mapping with the maximum size supported by vSphere

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/services/Using-and-Managing-Cloud-Assembly/GUIDB3DC68C3-D1AF-4208-9C0B-C3B222B234D5.html

QUESTION NO: 10

What level of design will contain an automation platform, an operational monitoring platform, and a desktop platform?

A. Physical Design

B. Conceptual Design

C. Detailed Design

D. Logical Design

ANSWER: D

QUESTION NO: 11

An organization’s cloud team would like to reduce template sprawl. Below are the applications they want to deploy using cloud templates:

MS SQL and Web IIS applications on OS types Windows 2016 and Windows 2019 Oracle WebLogic and Oracle DB applications on OS types RHEL7 and RHEL 8 Which two options would meet these requirements? (Choose two.)

A. Create an image mapping for Windows and RHEL OS types

B. Create a Cloud Template for each application type with a combination of OS types

C. Create a Cloud Template or upgrade an existing one with user input to select the OS type

D. Create a Cloud Template for each OS type and have a user input option to pick the application type.

E. Create image mappings for OS types Windows 2016, Windows 2019, RHEL7 and RHEL8

ANSWER: A C

Explanation:

Reference: https://docs.vmware.com/en/VMware-vRealize-Operations-Cloud/services/config-guide.pdf

QUESTION NO: 12

A customer will use the vRealize Automation platform for production and development deployments to the same vSphere cluster. One of their vSphere templates will only be licensed for use in development and must not be used for production.

The customer has defined a tag category called “environment” with three possible values “development”, “test” and “production” to differentiate the environments.

Which two design decisions will ensure that the requirements are met? (Choose two.)

A. Define a tag of “environment:development” on the Cloud Zone

B. Define a tag of “!environment:production” on the licensed image mapping

C. Define a tag of “environment:development” on the licensed image mapping

D. Define a tag of “environment:development” in all development Cloud Templates

E. Define a tag of “environment:production” on the Cloud Zone

ANSWER: D E

QUESTION NO: 13

What are two requirements for deploying a small deployment of vRealize Automation? (Choose two.)

A. Certificate Authority (CA)-signed certificate for all the components of deployment

B. Upgrading the existing vRealize Suite Lifecycle Manager

C. Valid, fully-qualified domain name that can be resolved with both forward and reverse lookup

D. Configured load balancers

E. Single, static IPv4 and network address

ANSWER: C E

Explanation:

Reference: https://vmvtips.com/2020/11/08/vra-8-1-deploy-guide/

QUESTION NO: 14

An architect has been asked about migrating a client’s vRealize Automation solution from version 7.x to version 8.x. One of the requirements is to continue to support custom XaaS (Anything as a Service) blueprints that the client has developed.

Which component of a vRealize Automation logical design will fulfill this requirement?

A. Cloud Assembly

B. Cloud Zones

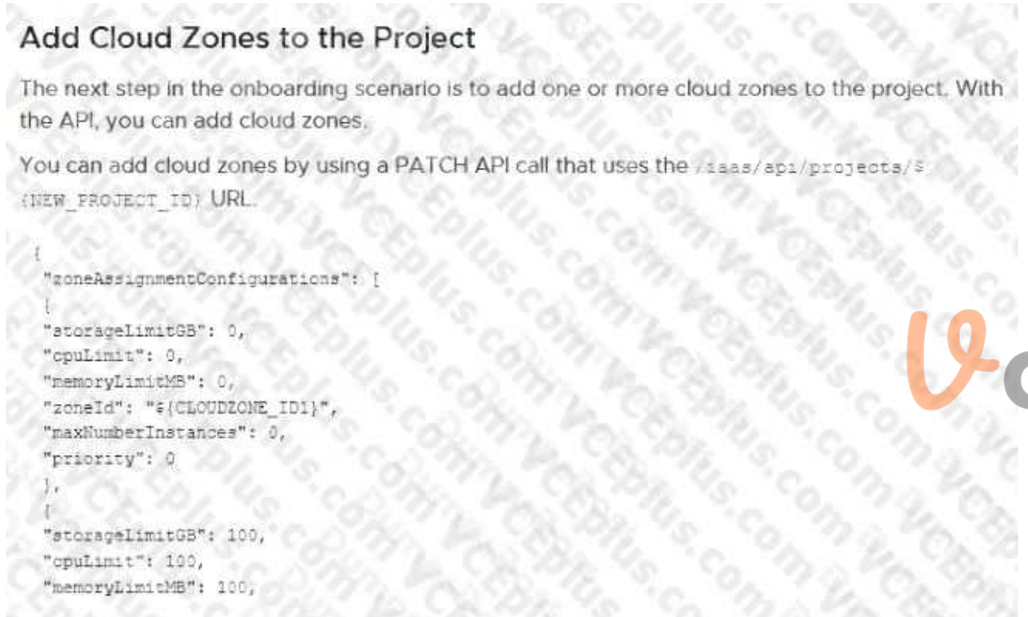
C. Service Broker

D. Cloud-Init

ANSWER: B

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.4/extensibility-migration.pdf



QUESTION NO: 15

An organization wants to implement a network topology to provide users with a one-way upstream access to the external network.

Which two statements are true for implementing such a network profile type using NSX-T Data Center? (Choose two.)

A. The external network specified in the “Network Policies” tab will be used to assign an external IP to the VM

B. A DNAT rule is created o the Tier-1 router to allow the VM to communicate externally

C. The cloud template must use the “private” network profile type

D. The external network should be left blank in the “Network Policies” tab

E. An SNAT rule is created on the Tier-1 router to allow the VM to communicate externally

ANSWER: A E

Explanation:

Reference: https://docs.vmware.com/en/VMware-NSX-T-Data-Center/3.0/nsxt_30_admin.pdf

QUESTION NO: 16

An architect is designing a private cloud solution for an organization and has been given the following information:

The organization already has a VMware Workspace ONE Access 3.3.2 cluster with external MSSQL server for their existing virtualized desktop environment. Due to budget constraints, wherever possible, the architect needs to reuse the existing environment.

What should the architect recommend as an authentication solution for the private cloud?

Note: VMware Identity Manager has been renamed as VMware Workspace ONE Access.

A. The existing instance can be reused as authentication provider for the private cloud but maintained outside of vRealize Lifecycle Manager.

B. Import the existing Workspace ONE Access cluster in vRealize Suite Lifecycle Manager but do not reuse it for the authentication purposes.

C. Deploy a new instance of Workspace ONE Access cluster using vRealize Suite Lifecycle Manager and use it for authentication.

D. Import the existing Workspace ONE Access cluster in vRealize Suite Lifecycle Manager and reuse it for the authentication purposes.

ANSWER: B

Explanation:

Reference: https://docs.vmware.com/en/VMware-Cloud-Foundation/4.3/com.vmware.vcf.vxrail.doc/GUID-6904A34A-1F67-4BBA-ACE8-12F039EC97E9.html

QUESTION NO: 17

A customer requests a conceptual design for the Cloud Management solution.

What three selections represent a conceptual design? (Choose three.)

A. Cloud Automation

B. Identity Management

C. vRealize Automation

D. Workspace One Access

E. Monitoring and Logging

F. vRealize Log Insight

ANSWER: A B E

QUESTION NO: 18

A healthcare company has mandated that all IP and DNS entries be allocated from an existing third-party IPAM solution.

Also, for auditing purposes, all systems must handle user authentication via the existing open source LDAP directory.

When considering a logical design for this scenario, which is true about the dependency relationships of these systems?

A. The IPAM system is an upstream dependency and the LDAP system is a downstream dependency of vRealize Automation.

B. Both the IPAM and LDAP systems are external, upstream dependencies of vRealize Automation.

C. Both the IPAM and LDAP systems are external, downstream dependencies of vRealize Automation.

D. The LDAP system is an upstream dependency and the IPAM system is a downstream dependency of vRealize Automation.

ANSWER: C

QUESTION NO: 19

A customer wants to collect data from 120,000 objects and given the vRealize Operations sizing guide: (See exhibit.)

	vRealize Operations Node				
	Extra Small	Small	Medium	Large	Extra Large
Configuration					
vCPU	2	4	8	16	24
Default Memory (GB)	8	16	32	48	128
Maximum Memory Configuration (GB)	N/A	32	64	96	N/A
Objects and Metrics					
Single-Node Maximum Objects	350	5,000	15,000	20,000	45,000
Single-Node Maximum Collected Metrics	70,000	800,000	2,500,000	4,000,000	10,000,000
Maximum number of nodes in a cluster	1	2	8	16	8

Assuming the customer has no requirements for continuous availability or high availability, what recommendation for the quantity and type of nodes should the architect provide?

A. 3 Extra Large Nodes

B. 6 Large Nodes

C. 12 Large Nodes

D. 8 Medium Nodes

ANSWER: D

QUESTION NO: 20

A client wants to integrate a source control system to manage and maintain the cloud templates for their new installation of vRealize Automation.

Which solution should be included as part of the vRealize Automation logical design?

A. Git

B. Subversion

C. vRealize SaltStack Config

D. Gerrit

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.3/Using-and-Managing-Cloud-Assembly/GUID-1847AC57-157A-4319-B425-A1A4731C9DDA.html

vRealize Automation Cloud Assembly supports integration with various flavors of Git repositories so that you can manage VMware cloud templates and action scripts under source control. This functionality facilitates auditing and accountability of processes around deployment.

vRealize Automation Cloud Assembly supports different flavors of Git integration as described in the following list. Each of these options is a separate integration.

- GitHub cloud, GitHub Enterprise on-premises
- GitLab cloud GitLab Enterprise on-premises
- BitBucket on-premises

You must have an appropriate local Git repository configured with access for all designated users in order to set up Git integration with vRealize Automation Cloud Assembly. Also, you must save your cloud templates in a specific structure in order for them to be detected by Git. To create an integration with GitLab or GitHub, select **Infrastructure > Connections > Integrations** in vRealize Automation Cloud Assembly and then make the appropriate selection. You will need the url and token for the target repository.

QUESTION NO: 21

A customer is deploying vRealize Log Insight (vRLI) in their data centers. The customer has the following:

Three data centers in three geographical locations.

Each site has 1000 logging sources that send events to vRLI.

The customer has the following requirements:

Minimize the resources footprint in the management cluster where vRLI will be deployed. vRLI must be highly available with no single points of failure.

Logs collected from any data center must be protected against site failure.

Which three design decisions would the architect choose to achieve the requirements? (Choose three.)

A. Configure logs forwarding from all data centers to a specific data center.

B. Configure filters to eliminate forwarding loops between vRLI clusters.

C. Configure logs forwarding from each data center to another one.

D. Deploy nine vRLI “Medium” nodes in a single cluster in each data center.

E. Configure filters to forward critical logs to central vRLI cluster.

F. Deploy four vRLI “Large” nodes in a single cluster in each data center.

ANSWER: A D E

QUESTION NO: 22

An architect is designing a vRealize Log Insight cluster for an organization. The organization has the following requirements:

No requirement for archival data

Support a log data retention period of 14 days

How will the log data be handled in this vRealize Log Insight cluster after the 14-day retention period?

A. The user needs to manually select and delete specific old log messages to free up space.

B. Old log messages are automatically and periodically retired on least accessed basis.

C. Old log messages are automatically and periodically retired on a first-come-first-retired basis.

D. A variable sized chunk of old log messages is deleted to free up space based on the data age basis.

ANSWER: D

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Log-Insight/8.6/log-insight-administration-guide.pdf

QUESTION NO: 23

A design for a Cloud Management solution includes a section that describes the association of vRealize Operations solution with a remote collector for the purpose of gathering performance and usage metrics.

Which area of the design would contain that section?

A. Logical

B. Conceptual

C. Requirements

D. Physical

ANSWER: A

Explanation:

Reference: https://i.dell.com/sites/doccontent/shared-content/datasheets/en/Documents/XC_Series_vCloud_vRealize_090115.pdf

QUESTION NO: 24

Which recommendation should an architect make when designing a highly available vRealize Operation (vROps) cluster?

A. Deploy analytics nodes with the same disk size on storage of the same type.

B. Depending on the size and performance requirements for analytics nodes, apply Storage DRS Affinity rules to ensure that nodes are on same datastores.

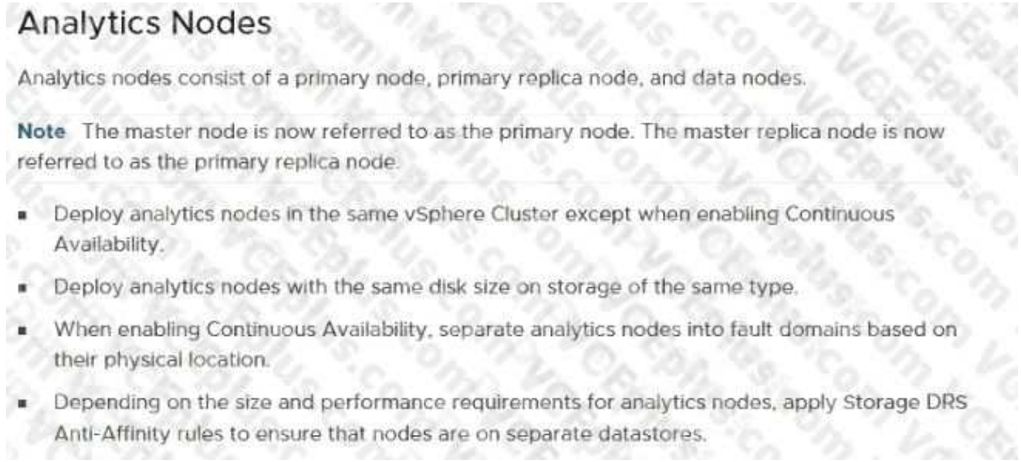
C. If the sizing guideline provides several configurations for the same number of objects, use the configuration which has the greatest number of nodes.

D. Set Storage DRS to Fully Automated for all vRealize Operations Manager analytics nodes.

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Operations-Manager/8.1/vrealize-operations-manager-81-referencearchitecture-guide.pdf (5)



Analytics Nodes

Analytics nodes consist of a primary node, primary replica node, and data nodes.

Note The master node is now referred to as the primary node. The master replica node is now referred to as the primary replica node.

- Deploy analytics nodes in the same vSphere Cluster except when enabling Continuous Availability.
- Deploy analytics nodes with the same disk size on storage of the same type.
- When enabling Continuous Availability, separate analytics nodes into fault domains based on their physical location.
- Depending on the size and performance requirements for analytics nodes, apply Storage DRS Anti-Affinity rules to ensure that nodes are on separate datastores.

QUESTION NO: 25

An online retail company needs its shopping cart application to be highly available.

What three cloud management design decisions would give an optimal shopping experience? (Choose three.)

A. Create a vRealize Operations metric chart for the application's CPU usage

B. Create a vRealize Orchestrator workflow that remediates the issue by updating the CPU

C. Configure the vRealize Operations alert to run a vRealize Orchestrator workflow when triggered

D. Create a vRealize Operations alert that is triggered when the application's CPU usage exceeds a threshold

E. Create a vRealize Orchestrator workflow that emails an administrator to remediate the issue

F. Configure the vRealize Operations alert to email an administrator to remediate the issue

ANSWER: B D F

QUESTION NO: 26

What are the two valid characteristics of vRealize Automation Cloud? (Choose two.)

A. Supports on-premises vSphere and vRealize Orchestrator

B. Requires a standard license

C. Requires a load balancer

D. Supports on-premises vRealize Operations Manager

E. Has a frequent release cycle

ANSWER: C D

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.2/using-and-managing-vrealize-automation-cloudassembly.pdf

QUESTION NO: 27

An architect has been engaged to update an operations management solution design to include VMware vRealize Suite Lifecycle Manager (vRSLCM) so that the support team can reduce the complexity of environment and content management activities. The customer has provided the following information with regards to the existing environment:

There are four environments for business applications:

Development

Staging

Production DR

-The solution consists of two well-connected data centers (with low latency, high bandwidth links).

-All Production workloads and management tooling are deployed to Data Center 1 (DC1).

-All Staging, Development and DR workloads run in Data Center 2 (DC2).

-Each physical data center has one vCenter Server and a sufficient number of hosts for workload and management.

-There are two separate VMware vRealize Operations (vROps) clusters, one in each data center location.

-Currently all content is developed in the DC2 vROps cluster before being manually imported into the DC1 vROps cluster.

Which two design decisions should the architect include in the solution? (Choose two.)

A. An environment will be created within vRSLCM across both physical data centers to logically group management components.

B. An environment will be created within vRSLCM for each physical environment to logically separate management components.

C. A single vRSLCM appliance will be deployed into each physical datacenter.

D. An environment will be created within vRSLCM for each physical data center to logically separate management components.

E. A single vRSLCM appliance will be deployed into DC1.

ANSWER: A C

QUESTION NO: 28

A customer will use their vRealize Automation solution to provision and manage both production and development workloads.

During workshops, the customer has communicated the following information about the environment:

The production and development workloads are deployed to separate vCenter Servers.

Three different user groups have been identified for access to the solution: Application Developers, Application Owners, and Infrastructure Operators The customer has communicated the following requirements:

Only Application Owners and Infrastructure Operators may be permitted to deploy production workloads.

A limit should be applied to the number of development workloads concurrently deployed by each user type. Application Owners must not be able to view or modify another user's deployment(s).

In addition to the creation of separate Production and Development Cloud Zones, which three design decisions meet the requirements? (Choose three.)

A. Add the Application Owners and Infrastructure Operators groups to the production project.

B. Define a Cloud Assembly project for each user group.

C. Define a Cloud Assembly project for production and another for development.

D. Define an instance limit for projects using the development Cloud Zone.

E. Define a priority of 0 for the production Cloud Zone in the project used by Application Developers.

F. The deployment sharing option should be turned off for the Application Owners project.

ANSWER: B D E

QUESTION NO: 29

An architect designed a vRealize Log Insight (vRLI) cluster for an organization with the following details:

The cluster has 3-nodes with 2 event forwarders sending logs to this cluster. The vRLI cluster is part of the disaster recovery protection process.

What should be the proper sequence of steps in the Disaster Recovery (DR) protection runbook for recovering vRLI cluster?

A. 1. Restore the forwarders

2. Restore worker nodes in any order

3. Restore the master node

4. Restore any recovered agents

B. 1. Restore the master node

2. Restore worker nodes in any order

3. Restore the forwarders

4. Restore any recovered agents

C. 1. Restore the worker nodes

2. Restore master node

3. Restore the forwarders

4. Restore any recovered agents

D. 1. Restore the master node

2. Restore worker nodes in a specific defined order

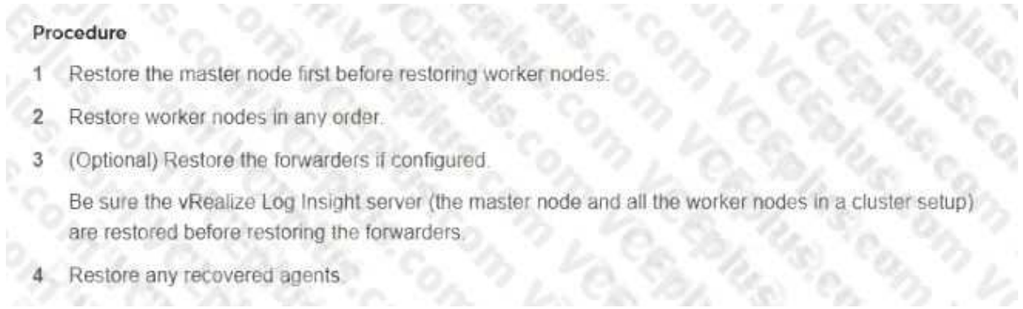
3. The forwarders

4. Restore any recovered agents

ANSWER: B

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Log-Insight/4.8/log-insight-administration-guide.pdf (119)



Procedure

1. Restore the master node first before restoring worker nodes.
2. Restore worker nodes in any order.
3. (Optional) Restore the forwarders if configured.

   Be sure the vRealize Log Insight server (the master node and all the worker nodes in a cluster setup) are restored before restoring the forwarders.
4. Restore any recovered agents.

QUESTION NO: 30

An architect is designing a Cloud Management solution for a customer to create a private cloud. The customer wants to enable self-service provisioning for their business users to their existing VMware virtual environment. After initial discovery workshops, the following information have been gathered:

The customer, in the future, may need to start supporting the deployment of services to public cloud.

The customer has existing vCloud Suite Advanced license entitlement covering all of their virtual environment. There is no budget for additional licensing at this time.

What should the architect document as a risk in the design?

A. The solution will not support the provisioning to public cloud without additional licensing.

B. The solution cannot be upgraded to support the provisioning of public cloud services.

C. The solution will not support provisioning to VMware Cloud on AWS without additional licensing.

D. The solution will not support the monitoring of workloads on the private cloud.

ANSWER: D

QUESTION NO: 31

An organization has a set of requirements for its private cloud:

Provide the ability to reclaim idle VMs deployed in vRealize Automation (vRA) Report on the health of resources provisioned in vRA Calculate the cost of VMs provisioned in vRA Optimally place vRA deployment workloads to vSAN and avoid contention Which cloud management product should be integrated with vRA to meet these requirements?

A. vRealize Operations

B. vRealize Orchestrator

C. vRealize Suite Lifecycle Manager

D. vRealize Log Insight

ANSWER: B

QUESTION NO: 32

The operations team is onboarding new interns in Active Directory. The interns need to work in the company's vRealize Operations environment while maintaining corporate security compliance. The intern Active Directory group should only have PowerUser role to a specific vCenter cluster and ReadOnly for all other objects.

Which option would meet the requirements?

A. Create new Active Directory accounts and import the intern user accounts. Create a new role for the interns and assign appropriate permissions on objects.

B. Add the interns to a new vRealize Operations Active Directory Group. Import the Active Directory group and grant access to relevant objects and all actions for the specific vCenter cluster.

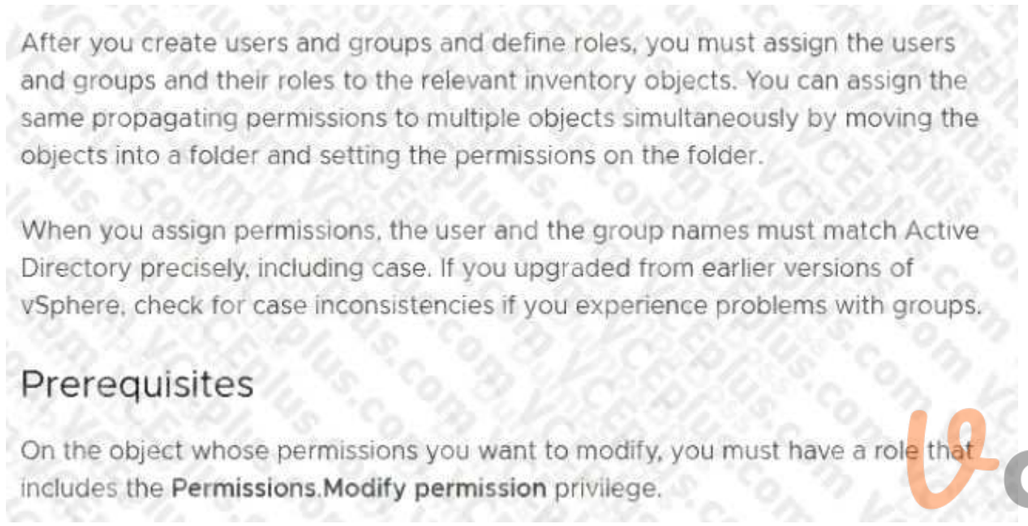
C. Add the interns to the existing vRealize Operations administrators Active Directory group and grant access to relevant objects and all actions for the specific vCenter cluster.

D. Create a new Active Directory group for interns. Synchronize intern Group, create a new role for the interns and assign appropriate permissions on objects.

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-A0F6D9C2-CE72-4FE5-BAFC-309CFC519EC8.html



QUESTION NO: 33

A customer wants to deploy Workspace ONE Access for vRealize Suite users.

The customer wants to achieve the following requirements:

Availability SLA 95% uptime per month, calculated Monday-Friday, 24 hours per day. The deployment footprint must be minimal.

Which design decision should the architect choose?

A. Deploy a Workspace ONE Access cluster and protect it with vSphere HA.

B. Deploy a Workspace ONE Access node and protect it with vSphere HA.

C. Deploy a Workspace ONE Access cluster and protect it with Fault Tolerance.

D. Deploy a Workspace ONE Access node and protect it with Fault Tolerance.

ANSWER: C

QUESTION NO: 34

A customer wants to implement vRealize Suite Lifecycle Manager (vRSLCM) as a part of a new SDDC deployment.

The customer has two physical data centers and number of branch offices.

The customer has recently purchased Hyper-converged Infrastructure (HCI) hardware that has to be implemented and configured.

The customer has a target availability Service Level Agreement (SLA) of 99.99%, measured quarterly, for the management components.

Which recommendation should the architect make to achieve the requirements?

A. Deploy a 3-node vRSLCM cluster on a vSAN stretched cluster

B. Deploy a vRSLCM appliance in one DC and replicate it to the second DC

C. Deploy a vRSLCM appliance on a vSAN stretched cluster

D. Deploy a vRSLCM appliance on a vSAN cluster

ANSWER: D

QUESTION NO: 35

An architect is designing a vRealize Log Insight cluster for an organization with the following requirements:

The organization has an external load balancer available to provide load balancing for various requirements. Due to budget constraints the organization need to reuse existing environment as much as possible.

What should the architect choose as the load balancing solution for the vRealize Log Insight cluster?

A. Use the integrated load balancer

B. Deploy a new external load balancer

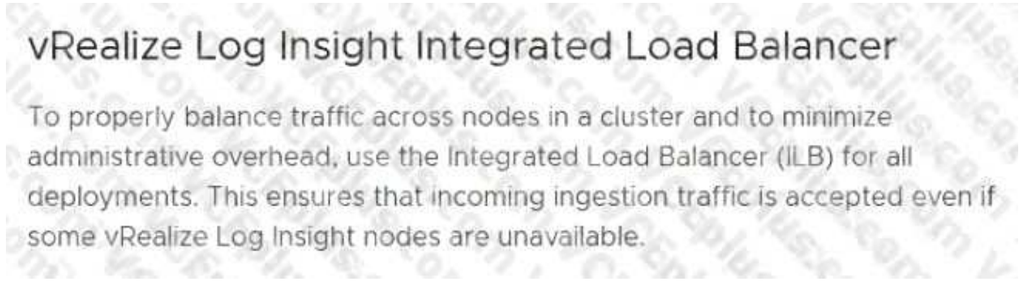
C. Use the existing external load balancer

D. Use both integrated and external load balancers

ANSWER: A

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Log-Insight/8.0/com.vmware.log-insight.getting-started.doc/GUIDB4E1F61D-0D88-4344-97E8-15777DC1F8BB.html



QUESTION NO: 36

Which two statements are correct for VMware Cloud Services cloud proxy? (Choose two.)

A. It helps connect to public cloud entities.

B. It connects cloud services to on-premises networks.

C. An OVA deployment to an ESXi server is supported.

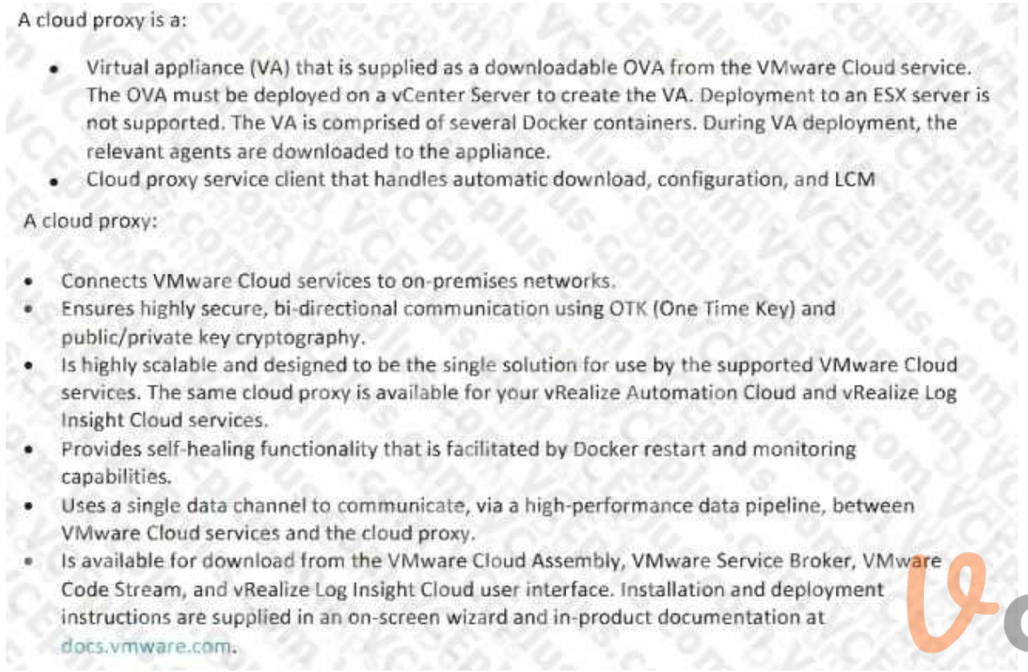
D. It requires a load balancer.

E. An OVA must be deployed on a vCenter Server.

ANSWER: B E

Explanation:

Reference: https://docs.vmware.com/en/VMware-Cloud-services/1.0/Cloud_proxy_VMware_Cloud_services.pdf


A cloud proxy is a:

- Virtual appliance (VA) that is supplied as a downloadable OVA from the VMware Cloud service. The OVA must be deployed on a vCenter Server to create the VA. Deployment to an ESX server is not supported. The VA is comprised of several Docker containers. During VA deployment, the relevant agents are downloaded to the appliance.
- Cloud proxy service client that handles automatic download, configuration, and LCM

A cloud proxy:

- Connects VMware Cloud services to on-premises networks.
- Ensures highly secure, bi-directional communication using OTK (One Time Key) and public/private key cryptography.
- Is highly scalable and designed to be the single solution for use by the supported VMware Cloud services. The same cloud proxy is available for your vRealize Automation Cloud and vRealize Log Insight Cloud services.
- Provides self-healing functionality that is facilitated by Docker restart and monitoring capabilities.
- Uses a single data channel to communicate, via a high-performance data pipeline, between VMware Cloud services and the cloud proxy.
- Is available for download from the VMware Cloud Assembly, VMware Service Broker, VMware Code Stream, and vRealize Log Insight Cloud user interface. Installation and deployment instructions are supplied in an on-screen wizard and in-product documentation at docs.vmware.com.

QUESTION NO: 37

An architect is responsible for creating the design for a Cloud Monitoring solution that will be used to monitor a greenfield VMware Software-Defined Data Center (SDDC). During a requirements gathering workshop, the Service Owner provided a list of solution requirements:

The solution must support a monthly availability target of 99.9%.

The solution must support the monitoring of 1000 virtual machines across two data center locations.

The solution must support the retention of live data for at least 12 months.

The solution must be redundant to a minimum of N + 1 including during planned maintenance. The Recovery Time Objective (RTO) of solution is 4 hours.

Given the information from the Service Owner, which two statements would be considered functional requirements? (Choose two.)

A. The solution must support the monitoring of 1000 virtual machines across two data center locations.

B. The Recovery Time Objective (RTO) of solution is 4 hours.

C. The solution must support a monthly availability target of 99.9%.

D. The solution must be redundant to a minimum of N + 1 including during planned maintenance.

E. The solution must support the retention of live data for at least 12 months.

ANSWER: A E

QUESTION NO: 38

An architect is responsible for creating a new design to centralize the logging infrastructure for an existing vSphere environment. The key stakeholder in the project has provided the following list of requirements:

The management solution must forward all logs to the existing centralized Security Incident and Event Management (SIEM) solution.

The management solution must be a minimum of N + 1 resilient.

The management solution must provide the ability to view at least 2 months of live data.

The management solution must meet a monthly uptime SLA of 99.9%.

The management solution must support the collection of logs from ten geographically separated data center locations.

The management solution must support the collection of a minimum of 10,000 events per second.

Given the information from the stakeholder, which two statements would be considered functional requirements? (Choose two.)

A. The management solution must be a minimum of N + 1 resilient.

B. The management solution must meet a monthly uptime SLA of 99.9%.

C. The management solution must provide the ability to view at least 2 months of live data.

D. The management solution must forward all logs to the existing centralized Security Incident and Event Management (SIEM) solution.

E. The management solution must support the collection of a minimum of 10,000 events per second.

ANSWER: A C

QUESTION NO: 39

Which design decision should an architect make to support continuous availability in vRealize Operations?

A. Each Fault Domain should contain only remote collector nodes.

B. The vROps cluster should be separated into three Fault Domains.

C. Each Fault Domain should consist of primary, witness and remote collector nodes.

D. The vROps cluster should be separated into two Fault Domains.

ANSWER: D

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Operations-Manager/8.1/vrealize-operations-manager-81-referencearchitecture-guide.pdf

QUESTION NO: 40

Which two statements are true when considering the vRealize Automation logical design for workload storage placement based on service levels, cost, and performance? (Choose two.)

A. Secondary disk attached to the virtual machine resource use the same storage constraint tag as the virtual machine

B. Storage constraint tag is applied to virtual machine resource and all the disks associated with the template

C. vSphere tags can only be used in storage profiles

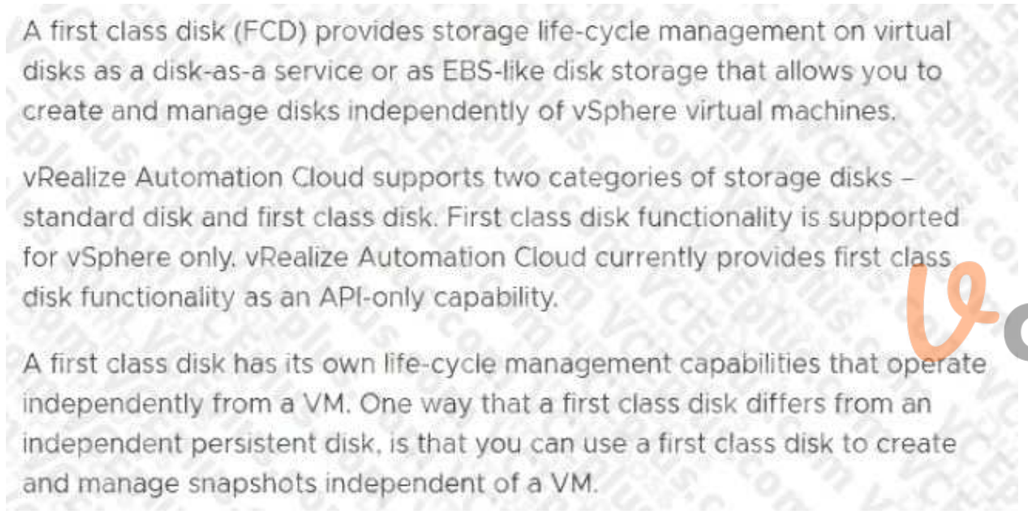
D. Storage placement is independent of vendor when using hard constraint tags

E. First class disks are only supported in vRealize Automation Cloud

ANSWER: B E

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/services/Using-and-Managing-Cloud-Assembly/GUID-64FB525D-CDE5-48BC-8B87-8DAAA6369776.html



QUESTION NO: 41

A company is planning to deploy a new cloud management solution that will allow business users to deploy servers via a self-service portal. After the initial discovery workshop with the new service owner, the architect has gained the following key information about the project:

In an effort to increase user experience, the IT Manager has requested that all deployments do not rely on manual approvals.

The current IT team is made up of five engineers but only one engineer has any experience writing scripts or automating server deployments.

The current version of the CMDB solution has no API available to create or destroy configuration items (CI) and there is no budget for upgrades.

Currently all CMDB activities are completed manually via service request with an SLA of 4 hours.

The customer has one data center with a requirement of protection against data center failure.

The expected availability SLA (measured monthly) will be 99.5%.

The deployment of a server is expected to take no longer than 2 hours.

Given the information provided, which two risks should the architect document within the design? (Choose two.)

A. Allowing self-service deployments of servers by business users.

B. The lack of REST-API for IP address management solution.

C. The end to end server deployment cannot be achieved in the time window.

D. There is insufficient resources available to complete the project.

E. The customer only has a single data center location.

ANSWER: B C

QUESTION NO: 42

An architect is designing a certificate strategy for vRealize Operations (vROps) to satisfy the following requirements:

Enhance security

Avoid browser warnings

The certificate must be applicable for all vROps servers

Which three design decisions would fulfill the requirements? (Choose three.)

A. Certificates will use the PEM format.

B. Certificates will be created using the Diffie-Hellman security-key algorithm.

C. Certificates will use the PFX and/or PKCS12 format.

D. The solution will use CA-signed certificates.

E. Certificates will use multiple Subject Alternative Name (SAN) entries.

F. The solution will use self-signed certificates.

ANSWER: A D E

QUESTION NO: 43

A cloud architect is planning to scale out the small deployment of vRealize Automation to address high availability requirements.

When creating an implementation plan, which prerequisite should be documented?

Note:

FQDN: Fully qualified domain name

VIP: Virtual IP address

A. Request certificate containing VIP FQDN for each Organization for VMware Identity Manager VIP

B. Request Certificate Authority (CA)-signed certificate containing the VIP FQDN and the FQDN of the VMware Identity Manager nodes

C. Request Certificate Authority (CA)-signed certificate containing the VIP FQDN and the FQDN of all the cluster nodes

D. Request certificate containing VIP FQDN for each Organization for vRealize Automation VIP

ANSWER: C

QUESTION NO: 44

An organization has onboarded a new business unit whose role is to test the applications 5 days prior to the release date.

The Service Broker administrator should allow a 2-day extension for these deployments before they are deleted permanently.

Which two options must be configured in the lease policy to meet the requirements? (Choose two.)

A. A maximum lease of 5 days

B. A maximum lease of 7 days

C. A total maximum lease of 7 days

D. A total maximum lease of 5 days

E. A grace period of 5 days

ANSWER: B C

QUESTION NO: 45

An architect is responsible for reviewing the requirements for an existing Cloud Management solution design.

Which requirement would be considered as a functional requirement?

A. The solution must meet a monthly uptime SLA of 99.5%.

B. The solution must meet a Recovery Point Objective (RPO) of 1 day.

C. The solution must support the management of workloads within a public cloud.

D. The solution must meet a Recovery Time Objective (RTO) of 4 hours.

ANSWER: C

Explanation:

Functional requirements describe what a system or solution must do. The requirements include the following categories:

Business rules: For example, the architecture must support both the primary and secondary data centers.

Administrative functions: For example, network and security administrators must monitor the network traffic of the desired systems.

QUESTION NO: 46

Consider the following requirements to be used in determining a vRealize Operations licensing model:

Authentication provided by Single Sign On

Performance monitoring and analytics for 12 Hosts and 1 vCenter vSphere security and compliance monitoring for PCI and HIPAA Guided remediation for discovered issues Customizable dashboards, reports and views Using the requirements, what is the minimum license that can be used for this deployment of vRealize Operations?

A. vRealize Cloud Universal Enterprise

B. Advanced

C. Standard

D. Enterprise

ANSWER: B

Explanation:

Reference: https://media.bitpipe.com/io_15x/io_154453/item_2289799/vRealize-Operations-Cloud-Solution-Brief.pdf

vREALIZE OPERATIONS PACKAGING

	STANDARD	ADVANCED[1]	ENTERPRISE[1]	vROPS cloud on Cloud Partner Navigator
Scale-Out Operations Platform	•	•	•	•
Single Sign-On	•	•	•	•
Remote Collectors	•	•	•	•
Visualization: Out-of-the-Box Dashboards, Views, Reports, Heat Map, Performance Charts	•	•	•	•
Performance Monitoring and Analytics	•	•	•	•
vSphere Security and Compliance, including DISA, FISMA, ISO, CIS, PCI and HIPAA	•	•	•	•
Real-Time Predictive Capacity Management, including Trending, Metering, Right-Sizing, Optimization	•	•	•	•
Overall Data Center Costs	•	•	•	•
What-If Scenarios for Adding/Removing VMs	•	•	•	•
Manual Workload Optimization	•	•	•	•
Predictive DRS and DRS Management	•	•	•	•
Guided Remediation	•	•	•	•
vRealize Log Insight Integration	•	•	•	Integrates with vRealize Log Insight Cloud™
vRealize Network Insight™ Integration			•	Integrates with vRealize Network Insight Cloud™
vRealize Automation™ Integration		•	•	Integrates with vRealize Automation Cloud™
vSAN Overview and Migration Dashboards	•	•	•	•
vSphere 7 with Kubernetes Integration			•	•
Built-In High Availability (Automated Failover of Platform Nodes)		•	•	•
Customizable Dashboards, Reports and Views		•	•	•
Super Metrics, Metric Correlation, Relationship Mapping		•	•	•

QUESTION NO: 47

An architect is responsible for designing a new multi-cloud management solution for a customer. The customer has a cloud first strategy ad has provided the following high-level information about their current usage of the cloud:

The customer has public cloud presence in AWS, Azure and GCP and uses a number of native cloud services. The customer runs all vSphere-based workloads within VMware Cloud on AWS.

The customer would like to ensure they have the ability to deploy and monitor supported workloads and native services in any of their clouds.

In addition to the deployment of vRealize Automate Cloud, which two recommendations should the architect make to meet the requirement? (Choose two.)

A. vRealize Operations Cloud and vRealize Log Insight Cloud must be deployed into the same organization as vRealize Automation Cloud.

B. Create Cloud accounts in vRealize Operations Cloud with each of the cloud services to enable monitoring.

C. vRealize Operations Cloud and vRealize Log Insight Cloud must be deployed into the same organizations as VMware Cloud on AWS.

D. Create Cloud accounts in vRealize Operations Cloud for AWS, Azure and VMware Cloud on AWS. GCP must be configured through the management pack.

E. Deploy a vRealize Operations Cluster in VMware Cloud on AWS and configure integration to vRealize Automation Cloud.

ANSWER: C E

QUESTION NO: 48

An architect is responsible for creating the design for vRealize Operations. The following requirements, constraints, and recommendations were gathered:

Enable Continuous Availability

Monitor two physical locations

The sizing guide recommends deploying 5 analytics nodes

What are two design considerations for the analytics node deployment? (Choose two.)

A. High Availability will need to be enabled

B. Extra Large Nodes must be used

C. Two fault domains need to be created

D. A sixth analytics node is needed

E. Anti-affinity rules will need to be created

ANSWER: B C

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Operations/8.4/com.vmware.vcom.refarch.doc/GUID-4A491423-5DEB-46D3-B37C-7AE6E701C075.html

QUESTION NO: 49

A financial business wants to reduce the time-to-market by automating the end-to-end testing of a prime service application and releasing it with minimal user intervention.

Which service in vRealize Automation will allow the business to achieve the requirement?

A. Cloud Assembly

B. Code Stream

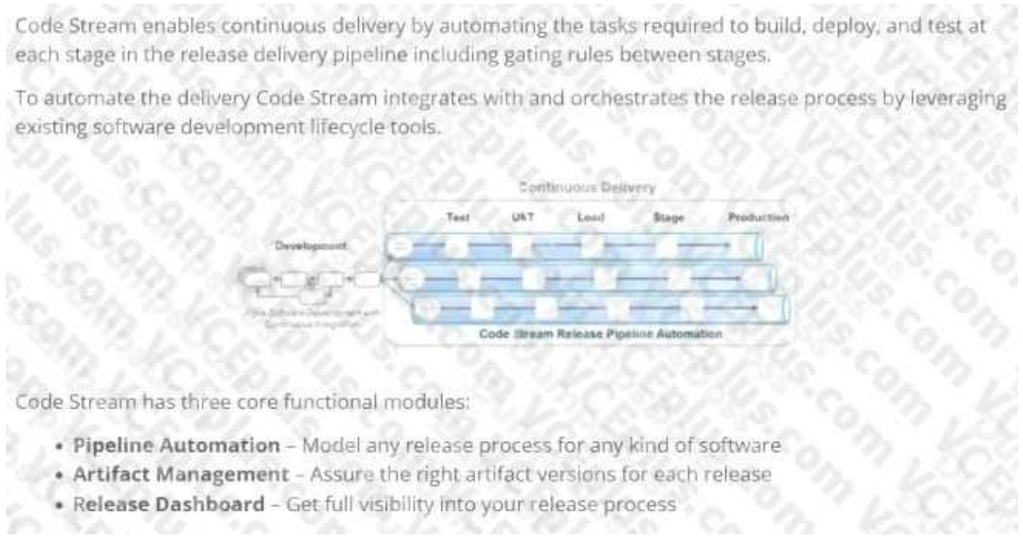
C. Service Broker

D. Orchestrator

ANSWER: B

Explanation:

Reference: https://www.virtualizationworks.com/vRealize-Code-Stream.asp



QUESTION NO: 50

A customer wants to design and deploy Workspace ONE Access to provide multi-tenancy for vRA 8.x deployment.

Which two designs decisions would achieve the customer's requirement? (Choose two.)

Note: SAN stands for Subject Alternative Name.

A. Configure a certificate with multiple SAN entries for Workspace ONE Access.

B. Configure SSL termination on the load balancer for Workspace ONE Access.

C. Configure SSL bridging on the load balancer for Workspace ONE Access.

D. Configure SSL passthrough on the load balancer for Workspace ONE Access.

E. Configure a certificate with a single SAN entry for Workspace ONE Access.

ANSWER: B E

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.6/Administering/GUID-1D0D01DB-F19C-4328-B24C-9CA4C58CDCE4.html

- For clustered deployments, both the Workspace ONE Access and vRealize Automation tenant-based FQDNs must point to their respective load balancers. Workspace ONE Access is configured with SSL Termination, so the certificate is applied on both the Workspace ONE Access cluster and load balancer. The vRealize Automation load balancer uses SSL passthrough, so the certificate is applied only on the vRealize Automation cluster.

See Managing certificates and DNS configuration under single-node multi-organization deployments and Managing certificate and DNS configuration under clustered vRealize Automation deployments for more details.

2. Create or import the required multi-domain (SAN) certificates for both Workspace ONE Access and vRealize Automation.

   You can create certificates in Lifecycle Manager using the Locker service that enables you to create certificates licenses, and passwords. Alternatively, you can use a CA server or some other mechanism to generate certificates.

QUESTION NO: 51

When designing a load-balanced vRealize Operations cluster, which three aspects should an architect consider? (Choose three.)

A. Maximizing node participation in the handling of UI sessions and traffic

B. Providing high availability if any admin or data node fails

C. Reducing the number of certificates that must be managed for the nodes

D. Minimizing node latency in the handling of UI sessions and traffic

E. Simplifying the configuration of End Point Operations (EPOps) agents

F. Providing fault tolerance if any admin or data node fails

ANSWER: B D E

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Operations-Manager/8.1/vRealize-Operations-Manager-Load-Balancing.pdf (5)

Following are the advantages of using a load balancer in front of the vRealize Operations Manager cluster:

- Utilizing a load balancer ensures that the deployed cluster is properly balanced for performance of UI traffic.
- Allows all nodes in the cluster to equally participate in the handling of UI sessions and traffic.
- Provides high availability if any admin or data node fails, by directing UI traffic only to serving nodes in the cluster.
- Provides simpler access for the users. Instead of accessing each node individually the user only needs one URL to access the entire cluster and not be concerned with which node is available.
- Provides load balancing, high availability and ease of configuration for the End Point Operations (EPOps) agents.

QUESTION NO: 52

What two statements are true about vRealize Operations Manager high availability (HA)? (Choose two.)

A. With HA, data stored in the primary node is partially backed up on the replica node.

B. Upon failure of the primary node, failover to the replica is automatic.

C. If the primary node fails, the replica node can take over all functions of the primary node.

D. To enable HA, you must deploy at least 3 data nodes, plus the primary node.

E. Data collection must be restarted from the administrative interface when the primary node fails.

ANSWER: B E

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Operations/8.4/com.vmware.vcom.vapp.doc/GUID-071E3259-625A-437BAB34-E6A58B87C65B.html

- HA is not a disaster recovery mechanism. HA protects the analytics cluster against the loss of only one node, and because only one loss is supported, you cannot stretch nodes across vSphere clusters in an attempt to isolate nodes or build failure zones.
- When HA is enabled, the replica can take over all functions that the primary provides, were the primary to fail for any reason. If the primary fails, failover to the replica is automatic and requires only two to three minutes of vRealize Operations Manager downtime to resume operations and restart data collection.

QUESTION NO: 53

A customer has a requirement that an external auditing system must be updated when specific Cloud Templates are released.

Which combination of event topic and subscription filter would meet the customer's requirement? (Choose two.)

A. "Cloud template version configuration" event topic

B. "Cloud template configuration" event topic

C. No filter

D. Filter on "blueprintId"

E. Filter on “eventTopicId”

ANSWER: B D

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.5/using-and-managing-vrealize-automation-cloudassembly.pdf

Event Topics

Event topics are the categories that group similar events together. When assigned to a subscription, event topics define which event triggers the subscription. The following event topics are provided by default with vRealize Automation Cloud Assembly. All topics can be used to add or update custom properties or tags of the resource. If a vRealize Orchestrator workflow or extensibility action fails, the corresponding task fails as well.

Table 6-7. Cloud Assembly Event Topics

Event Topic	Blockable	Description
Cloud template configuration	No	Issued when a cloud template configuration event, such as the creation or deletion of a cloud template, occurs. This event topic can be useful for notifying external systems of such events.

QUESTION NO: 54

An organization that extensively uses vRealize Orchestrator workflows for vRealize Automation integrations has the following challenges:

Each VM provisioning request executes 50 workflows for integration with various third-party tools.

Many developers from different teams, unaware of each other’s work, create and maintain the workflows.

Whenever vRealize Automation VM deployments fail, a lot of time and resources are spent debugging failures.

Which cloud management product will help speed up the organization’s troubleshooting effects?

A. vRealize Operations Manager

B. vRealize Suite Lifecycle Manager

C. vRealize Log Insight

D. vRealize Network Insight

ANSWER: C

QUESTION NO: 55

An architect is responsible for designing a new Operations Management solution for a customer. The customer has provided the following high-level information about their existing VMware Software Defined Data Center (SDDC) environment:

The existing environment is located within a single geographical region.

The customer already has deployed a vSphere-based virtualization solution that spans two well-connected physical locations.

The customer has recently upgraded all of their licenses to VMware vCloud Suite Advanced subscription.

The customer has already successfully deployed and configured vRealize Operations 8.x within the VMware SDDC.

The customer would like to ensure that both specific event monitoring data and operations monitoring for all of the VMware SDDC can be consolidated into a single user interface.

Which three recommendations should the architect make to meet the requirements? (Choose three.)

A. Configure vSphere integration in vRealize Log Insight 8.x

B. Configure vRealize Operations 8.x and vRealize Log Insight 8.x integration

C. Deploy vRealize Log Insight 8.x

D. Configure vRealize Operations 8.x and vRealize Log Insight Cloud integration

E. Deploy vRealize Log Insight Cloud

F. Configure vRealize Operations 8.x and vRealize Operations Cloud Federation

ANSWER: B D F

QUESTION NO: 56

The Service Owner of a vRealize Automation solution has requested that public cloud use is restricted to hosting workloads only. The configured cloud zones for all projects will be stated as follows: vSphere AWS Azure Which FaaS provider should the architect recommend for generic extensibility actions to meet the Service Owner's requirement?

A. Auto Select

B. On-Prem

C. Microsoft Azure

D. Amazon Web Services

ANSWER: B

Explanation:

Reference: https://docs.vmware.com/en/vRealize-Automation/8.3/using-and-managing-vrealize-automation-cloudassembly.pdf (447)

QUESTION NO: 57

An architect is tasked with the following:

Build a private cloud solution for an organization using VMware vRealize Automation.

This private cloud needs to manage two different datacenters separated geographically. The private cloud solution needs to be highly available.

Which of the following approaches can the architect take to achieve this?

Note: VMware Identity Manager has been renamed as VMware Workspace ONE Access.

A. Deploy a Workspace ONE Access cluster in a multi-site design architecture with 3-nodes spanning both the datacenters.

B. Deploy a 3-node Workspace ONE Access cluster in a single-site design architecture in one of the datacenters.

C. Deploy a single-node Workspace ONE Access instance in a single-site design architecture in one of the datacenters.

D. Deploy a Workspace ONE Access cluster in a multi-site design architecture with 3-nodes in each of the datacenters.

ANSWER: D

QUESTION NO: 58

An architect is responsible for designing a new Operations Management solution for a customer. The customer has provided the following information about their existing VMware Software Defined Data Center (SDDC) environment:

The customer uses a SaaS-Based Service Desk solution.

The existing environment is located across two geographical regions.

In each region, the customer already has deployed a vSphere-based virtual environment that spans two well connected physical locations.

The customer has recently upgraded all of their licenses to VMware vCloud Suite Advanced subscription.

The customer has already successfully deployed and configured a vRealize Operations 8 solution in each region.

The customer would like to ensure that:

All vSphere log events must be captured, stored locally and forwarded to a third-party log management solution to ensure regulatory compliance.

Specific vSphere log event's can be captured within a region, monitored and then trigger alerts direct to the Service Desk which can then be assigned to regional support teams. Operations monitoring for all of the VMware SDDC solution can be consolidated into a single user interface. Which three recommendations should the architect make to meet the requirements? (Choose three.)

A. Configure vRealize Operations 8.x and vRealize Log Insight 8.x integration.

B. Configure vRealize Operations 8.x and vRealize Log Insight Cloud integration.

C. Deploy vRealize Operations Cloud and configure Federated Analytics.

D. Deploy vRealize Log Insight 8.x and configure the vSphere integration.

E. Deploy vRealize Log Insight Cloud and configure the vSphere integration.

F. Deploy vRealize Operations Cloud and vRealize Log Insight 8.x integration.

ANSWER: B D E

QUESTION NO: 59

An organization wants to provide automated self-service IaaS catalog to all departments within the organization. The key stakeholders have asked for the platform to be resilient to component failures and each department consume the same onpremises infrastructure but can only see and manage machines which belong to their department.

Choose one design decision that will meet the business requirements.

A. Deploy single node deployment and use tenants to separate the departments.

B. Deploy single node deployment and use projects to separate the departments.

C. Deploy multi-node deployment and use projects to separate the departments.

D. Deploy multi-node deployment and use tenants to separate the departments.

ANSWER: D

QUESTION NO: 60

An architect is completing the physical design for a vRealize Operation (vROps) solution for a customer. The customer has only provided the following information for their existing environment:

500 Virtual Machines

2 VMware vCenter Servers

10 VMware vSphere Horsts

20 Datastores

Live data should be stored within the vROps solution for 6 months

The RTO for all existing management components is 4 hours

The RTO for all existing management components is 1 hour

Which two assumptions could the architect make when sizing the vROps cluster? (Choose two.)

A. The vROps cluster will be configured as High Availability.

B. The RTO of the vROps solution will be 4 hours.

C. The resource profile of a virtual machine will be, on average, 1 vCPU and 2 GB RAM.

D. The minimum data retention within vRealize Operations Cluster will be 12 months.

E. The RPO of the vROps solution will be 1 hour.

ANSWER: A B