



Microsoft

Exam Questions AZ-305

Designing Microsoft Azure Infrastructure Solutions

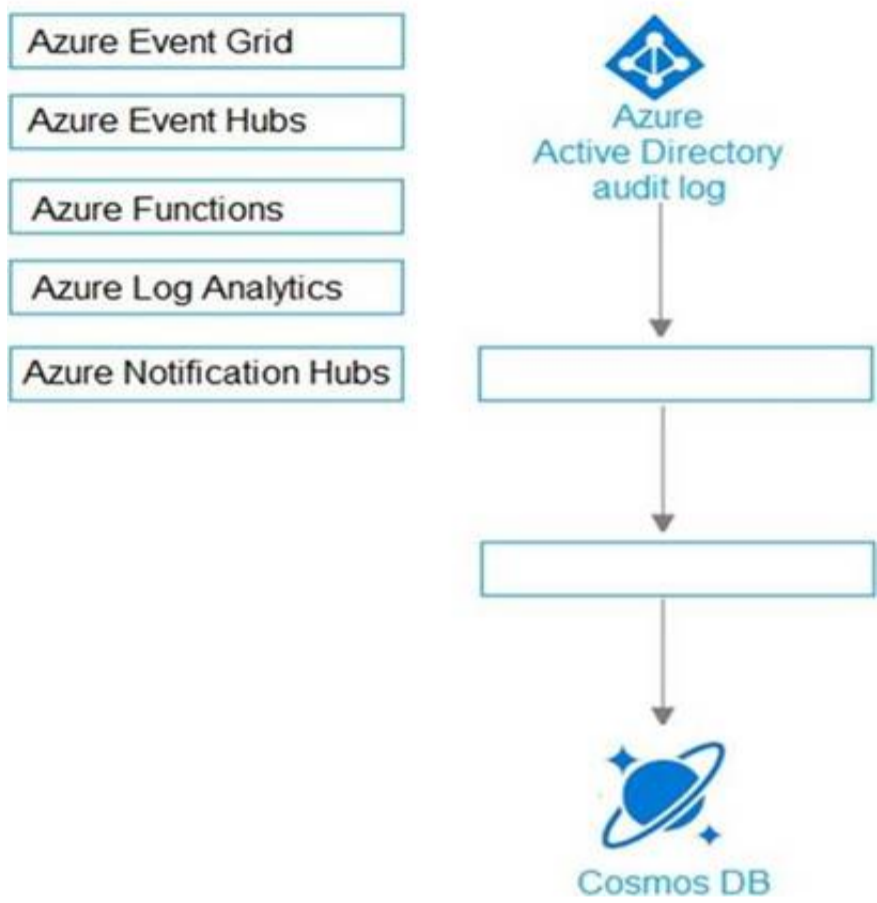
NEW QUESTION 1

- (Exam Topic 4)

You need to design an architecture to capture the creation of users and the assignment of roles. The captured data must be stored in Azure Cosmos DB. Which Azure services should you include in the design? To answer, drag the appropriate services to the correct targets. Each service may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content.
 NOTE: Each correct selection is worth one point.

Azure Services

Answer Area



- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Diagram Description automatically generated

* 1. AAD audit log -> Event Hub (other two choices, LAW, storage, but not available in this question) <https://docs.microsoft.com/en-us/azure/active-directory/reports-monitoring/tutorial-azure-monitor-stream-logs-t>

* 2. Azure function has the Event hub trigger and Cosmos output binding

* a. Event Hub trigger for function

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-bindings-event-hubs-trigger?tabs=csharp>

NEW QUESTION 2

- (Exam Topic 4)

You have an Azure subscription that contains a virtual network named VNET1 and 10 virtual machines. The virtual machines are connected to VNET1.

You need to design a solution to manage the virtual machines from the internet. The solution must meet the following requirements:

- Incoming connections to the virtual machines must be authenticated by using Azure Multi-Factor Authentication (MFA) before network connectivity is allowed.
- Incoming connections must use TLS and connect to TCP port 443.
- The solution must support RDP and SSH.

What should you include in the solution? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

To provide access to virtual machines on VNET1, use:

Azure Bastion
 Just-in-time (JIT) VM access
 Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:

An Azure Identity Governance access package
 A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-In
 A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

To provide access to virtual machines on VNET1, use:

Azure Bastion
 Just-in-time (JIT) VM access
 Azure Web Application Firewall (WAF) in Azure Front Door

To enforce Azure MFA, use:

An Azure Identity Governance access package
 A Conditional Access policy that has the Cloud apps assignment set to Azure Windows VM Sign-in
 A Conditional Access policy that has the Cloud apps assignment set to Microsoft Azure Management

NEW QUESTION 3

- (Exam Topic 4)

You need to design an Azure policy that will implement the following functionality:

- For new resources, assign tags and values that match the tags and values of the resource group to which the resources are deployed.
- For existing resources, identify whether the tags and values match the tags and values of the resource group that contains the resources.
- For any non-compliant resources, trigger auto-generated remediation tasks to create missing tags and values. The solution must use the principle of least privilege.

What should you include in the design? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Azure Policy effect to use:

Append
 EnforceOPAConstraint
 EnforceRegoPolicy
 Modify

Azure Active Directory (Azure AD) object and RBAC role to use for the remediation tasks:

A managed identity with the Contributor role
 A managed identity with the User Access Administrator role
 A service principal with the Contributor role
 A service principal with the User Access Administrator role

- A. Mastered
 B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Box 1: Modify

Modify is used to add, update, or remove properties or tags on a resource during creation or update. A common example is updating tags on resources such as costCenter. Existing non-compliant resources can be remediated with a remediation task. A single Modify rule can have any number of operations.

Box 2: A managed identity with the Contributor role

> Managed identity

How remediation security works: When Azure Policy runs the template in the deployIfNotExists policy definition, it does so using a managed identity. Azure Policy creates a managed identity for each assignment, but must have details about what roles to grant the managed identity.

> Contributor role

The Contributor role grants the required access to apply tags to any entity. Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects> <https://docs.microsoft.com/en-us/azure/governance/policy/how-to/remediate-resources>
<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/tag-resources> <https://docs.microsoft.com/en-us/azure/governance/policy/concepts/effects#modify>

NEW QUESTION 4

- (Exam Topic 4)

You plan to deploy an app that will use an Azure Storage account.

You need to deploy the storage account. The solution must meet the following requirements:

- Store the data of multiple users.
- Encrypt each user's data by using a separate key.
- Encrypt all the data in the storage account by using Microsoft keys or customer-managed keys. What should you deploy?

- A. files in a general purpose v2 storage account.
 B. blobs in an Azure Data Lake Storage Gen2 account.
 C. files in a premium file share storage account.
 D. blobs in a general purpose v2 storage account

Answer: B

NEW QUESTION 5

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has deployed several virtual machines (VMs) on-premises and to Azure. Azure ExpressRoute has been deployed and configured for on-premises to Azure connectivity.

Several VMs are exhibiting network connectivity issues.

You need to analyze the network traffic to determine whether packets are being allowed or denied to the VMs. Solution: Use Azure Network Watcher to run IP flow verify to analyze the network traffic

Does the solution meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

The Network Watcher Network performance monitor is a cloud-based hybrid network monitoring solution that helps you monitor network performance between various points in your network infrastructure. It also helps you monitor network connectivity to service and application endpoints and monitor the performance of Azure ExpressRoute.

Note:

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

IP flow verify looks at the rules for all Network Security Groups (NSGs) applied to the network interface, such as a subnet or virtual machine NIC. Traffic flow is then verified based on the configured settings to or from that network interface. IP flow verify is useful in confirming if a rule in a Network Security Group is blocking ingress or egress traffic to or from a virtual machine.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview> <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

NEW QUESTION 6

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company deploys several virtual machines on-premises and to Azure. ExpressRoute is being deployed and configured for on-premises to Azure connectivity.

Several virtual machines exhibit network connectivity issues.

You need to analyze the network traffic to identify whether packets are being allowed or denied to the virtual machines.

Solution: Use Azure Traffic Analytics in Azure Network Watcher to analyze the network traffic. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead use Azure Network Watcher IP Flow Verify, which allows you to detect traffic filtering issues at a VM level.

Note: IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information consists of direction, protocol, local IP, remote IP, local port, and remote port. If the packet is denied by a security group, the name of the rule that denied the packet is returned. While any source or destination IP can be chosen, IP flow verify helps administrators quickly diagnose connectivity issues from or to the internet and from or to the on-premises environment.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview> <https://docs.microsoft.com/en-us/azure/network-watcher/traffic-analytics>

NEW QUESTION 7

- (Exam Topic 4)

You plan provision a High Performance Computing (HPC) cluster in Azure that will use a third-party scheduler.

You need to recommend a solution to provision and manage the HPC cluster node. What should you include in the recommendation?

- A. Azure Lighthouse
- B. Azure CycleCloud
- C. Azure Purview
- D. Azure Automation

Answer: B

Explanation:

You can dynamically provision Azure HPC clusters with Azure CycleCloud. Azure CycleCloud is the simplest way to manage HPC workloads.

Note: Azure CycleCloud is an enterprise-friendly tool for orchestrating and managing High Performance Computing (HPC) environments on Azure. With CycleCloud, users can provision infrastructure for HPC systems, deploy familiar HPC schedulers, and automatically scale the infrastructure to run jobs efficiently at any scale. Through CycleCloud, users can create different types of file systems and mount them to the compute cluster nodes to support HPC workloads.

Reference:

<https://docs.microsoft.com/en-us/azure/cyclecloud/overview>

NEW QUESTION 8

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using an Azure policy to enforce the resource group location. Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

NEW QUESTION 9

- (Exam Topic 4)

You plan to deploy Azure Databricks to support a machine learning application. Data engineers will mount an Azure Data Lake Storage account to the Databricks file system. Permissions to folders are granted directly to the data engineers.

You need to recommend a design for the planned Databrick deployment. The solution must meet the following requirements:

- Ensure that the data engineers can only access folders to which they have permissions.
- Minimize development effort.
- Minimize costs.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Databricks SKU:

	▼
Premium	
Standard	

Cluster configuration:

	▼
Credential passthrough	
Managed identities	
MLflow	
A runtime that contains Photon	
Secret scope	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Box 1: Standard

Choose Standard to minimize costs. Box 2: Credential passthrough

Athenticate automatically to Azure Data Lake Storage Gen1 (ADLS Gen1) and Azure Data Lake Storage Gen2 (ADLS Gen2) from Azure Databricks clusters using the same Azure Active Directory (Azure AD) identity that you use to log into Azure Databricks. When you enable Azure Data Lake Storage credential passthrough for your cluster, commands that you run on that cluster can read and write data in Azure Data Lake Storage without requiring you to configure service principal credentials for access to storage.

Reference:

<https://docs.microsoft.com/en-us/azure/databricks/security/credential-passthrough/adls-passthrough>

NEW QUESTION 10

- (Exam Topic 4)

You have an Azure Active Directory (Azure AD) tenant named contoso.com that has a security group named Group1. Group1 is configured for assigned membership. Group1 has 50 members, including 20 guest users.

You need to recommend a solution for evaluating the membership of Group1. The solution must meet the following requirements:

- The evaluation must be repeated automatically every three months
- Every member must be able to report whether they need to be in Group1
- Users who report that they do not need to be in Group1 must be removed from Group1 automatically
- Users who do not report whether they need to be in Group1 must be removed from Group1 automatically. What should you include in the recommendation?

- A. Implement Azure AD Identity Protection.
- B. Change the Membership type of Group1 to Dynamic User.
- C. Implement Azure AD Privileged Identity Management.
- D. Create an access review.

Answer: D

Explanation:

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview#learn-about-access-reviews> Have reviews recur periodically: You can set up recurring access reviews of users at set frequencies such as weekly, monthly, quarterly or annually, and the reviewers will be notified at the start of each review. Reviewers can approve or deny access with a friendly interface and with the help of smart recommendations.

An administrator creates an access review of Group C with 50 member users and 25 guest users. Makes it a self-review. 50 licenses for each user as self-reviewers.*

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview#example-licenses>

There are 4 requirements and every single one is only met by access reviews.

<https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview#when-should-you>
Dynamic User is needed if a user must be automatically granted access on base of its attributes (department, jobtitle, location, etc.)
<https://techcommunity.microsoft.com/t5/itops-talk-blog/dynamic-groups-in-azure-ad-and-microsoft-365/ba-p/22>
Implementing Azure AD PIM is no solution and absolutely not necessary for access reviews. <https://docs.microsoft.com/en-us/azure/active-directory/governance/access-reviews-overview#where-do-you-cre>

NEW QUESTION 10

- (Exam Topic 4)

You have SQL Server on an Azure virtual machine. The databases are written to nightly as part of a batch process.

You need to recommend a disaster recovery solution for the data. The solution must meet the following requirements:

- Provide the ability to recover in the event of a regional outage.
- Support a recovery time objective (RTO) of 15 minutes.
- Support a recovery point objective (RPO) of 24 hours.
- Support automated recovery.
- Minimize costs.

What should you include in the recommendation?

- A. Azure virtual machine availability sets
- B. Azure Disk Backup
- C. an Always On availability group
- D. Azure Site Recovery

Answer: D

Explanation:

Replication with Azure Site Recover:

- RTO is typically less than 15 minutes.
- RPO: One hour for application consistency and five minutes for crash consistency. Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/site-recovery-sql>

NEW QUESTION 13

- (Exam Topic 4)

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Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using an Azure policy initiative to enforce the location. Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

NEW QUESTION 17

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

You need to deploy resources to host a stateless web app in an Azure subscription. The solution must meet the following requirements:

- Provide access to the full .NET framework.
- Provide redundancy if an Azure region fails.
- Grant administrators access to the operating system to install custom application dependencies.

Solution: You deploy two Azure virtual machines to two Azure regions, and you create a Traffic Manager profile.

Does this meet the goal?

- A. Yes
- B. No

Answer: A

Explanation:

Azure Traffic Manager is a DNS-based traffic load balancer that enables you to distribute traffic optimally to services across global Azure regions, while providing high availability and responsiveness.

<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-overview>

NEW QUESTION 20

- (Exam Topic 4)

You have an Azure subscription that contains two applications named App1 and App2. App1 is a sales processing application. When a transaction in App1 requires shipping, a message is added to an Azure Storage account queue, and then App2 listens to the queue for relevant transactions. In the future, additional applications will be added that will process some of the shipping requests based on the specific details of the transactions. You need to recommend a replacement for the storage account queue to ensure that each additional application will be able to read the relevant transactions. What should you recommend?

- A. one Azure Service Bus queue
- B. one Azure Service Bus topic
- C. one Azure Data Factory pipeline
- D. multiple storage account queues

Answer: B

Explanation:

A queue allows processing of a message by a single consumer. In contrast to queues, topics and subscriptions provide a one-to-many form of communication in a publish and subscribe pattern. It's useful for scaling to large numbers of recipients. Each published message is made available to each subscription registered with the topic. Publisher sends a message to a topic and one or more subscribers receive a copy of the message, depending on filter rules set on these subscriptions.

Reference:

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-queues-topics-subscriptions>

NEW QUESTION 22

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company plans to deploy various Azure App Service instances that will use Azure SQL databases. The App Service instances will be deployed at the same time as the Azure SQL databases.

The company has a regulatory requirement to deploy the App Service instances only to specific Azure regions. The resources for the App Service instances must reside in the same region.

You need to recommend a solution to meet the regulatory requirement.

Solution: You recommend using the Regulatory compliance dashboard in Azure Security Center. Does this meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

The Regulatory compliance dashboard in Azure Security Center is not used for regional compliance. Note: Instead Azure Resource Policy Definitions can be used which can be applied to a specific Resource Group with the App Service instances.

Note 2: In the Azure Security Center regulatory compliance blade, you can get an overview of key portions of your compliance posture with respect to a set of supported standards. Currently supported standards are Azure CIS, PCI DSS 3.2, ISO 27001, and SOC TSP.

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

<https://azure.microsoft.com/en-us/blog/regulatory-compliance-dashboard-in-azure-security-center-now-available>

NEW QUESTION 26

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has deployed several virtual machines (VMs) on-premises and to Azure. Azure ExpressRoute has been deployed and configured for on-premises to Azure connectivity.

Several VMs are exhibiting network connectivity issues.

You need to analyze the network traffic to determine whether packets are being allowed or denied to the VMs. Solution: Use the Azure Traffic Analytics solution in Azure Log Analytics to analyze the network traffic.

Does the solution meet the goal?

- A. Yes
- B. No

Answer: B

Explanation:

Instead use Azure Network Watcher to run IP flow verify to analyze the network traffic. Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview> <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

NEW QUESTION 27

- (Exam Topic 4)

You plan to deploy 10 applications to Azure. The applications will be deployed to two Azure Kubernetes Service (AKS) clusters. Each cluster will be deployed to a separate Azure region.

The application deployment must meet the following requirements:

- Ensure that the applications remain available if a single AKS cluster fails.
- Ensure that the connection traffic over the internet is encrypted by using SSL without having to configure SSL on each container.

Which service should you include in the recommendation?

- A. AKS ingress controller

- B. Azure Traffic Manager
- C. Azure Front Door
- D. Azure Load Balancer

Answer: C

Explanation:

"Azure Front Door, which focuses on global load-balancing and site acceleration, and Azure CDN Standard, which offers static content caching and acceleration. The new Azure Front Door brings together security with CDN technology for a cloud-based CDN with threat protection and additional capabilities. "

NEW QUESTION 28

- (Exam Topic 4)

Your company has 300 virtual machines hosted in a VMware environment. The virtual machines vary in size and have various utilization levels.

You plan to move all the virtual machines to Azure.

You need to recommend how many and what size Azure virtual machines will be required to move the current workloads to Azure. The solution must minimize administrative effort.

What should you use to make the recommendation?

- A. Azure Cost Management
- B. Azure Pricing calculator
- C. Azure Migrate
- D. Azure Advisor

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/azure/migrate/migrate-appliance#collected-data---vmware>

"Metadata discovered by the Azure Migrate appliance helps you to figure out whether servers are ready for migration to Azure, right-size servers, plans costs, and analyze application dependencies".

<https://docs.microsoft.com/en-us/learn/modules/design-your-migration-to-azure/2-plan-your-azure-migration>

NEW QUESTION 32

- (Exam Topic 4)

You have an Azure subscription named Subscription1 that is linked to a hybrid Azure Active Directory (Azure AD) tenant.

You have an on-premises datacenter that does NOT have a VPN connection to Subscription1. The datacenter contains a computer named Server1 that has Microsoft SQL Server 2016 installed. Server1 is prevented from accessing the internet.

An Azure logic app named LogicApp1 requires write access to a database on Server1.

You need to recommend a solution to provide LogicApp1 with the ability to access Server1.

What should you recommend deploying on-premises and in Azure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

On-premises:

	▼
A Web Application Proxy for Windows Server	
An Azure AD Application Proxy connector	
An On-premises data gateway	
Hybrid Connection Manager	

Azure:

	▼
A connection gateway resource	
An Azure Application Gateway	
An Azure Event Grid domain	
An enterprise application	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated

Box 1: An on-premises data gateway

For logic apps in global, multi-tenant Azure that connect to on-premises SQL Server, you need to have the on-premises data gateway installed on a local computer and a data gateway resource that's already created in Azure.

Box 2: A connection gateway resource Reference:

<https://docs.microsoft.com/en-us/azure/connectors/connectors-create-api-sqlazure>

NEW QUESTION 34

- (Exam Topic 4)
You have an Azure subscription that contains an Azure Blob storage account named store1.
You have an on-premises file server named Setver1 that runs Windows Server 2016. Server1 stores 500 GB of company files.
You need to store a copy of the company files from Server 1 in store1.
Which two possible Azure services achieve this goal? Each correct answer presents a complete solution. NOTE: Each correct selection is worth one point

- A. an Azure Batch account
- B. an integration account
- C. an On-premises data gateway
- D. an Azure Import/Export job
- E. Azure Data factory

Answer: DE

Explanation:
<https://docs.microsoft.com/en-us/azure/storage/common/storage-import-export-data-from-blobs> <https://docs.microsoft.com/en-us/answers/questions/311113/fastest-method-to-copy-500gb-table-from-on-premise>

NEW QUESTION 36

- (Exam Topic 4)
Your company has two on-premises sites in New York and Los Angeles and Azure virtual networks in the East US Azure region and the West US Azure region.
Each on-premises site has Azure ExpressRoute circuits to both regions.
You need to recommend a solution that meets the following requirements:
> Outbound traffic to the Internet from workloads hosted on the virtual networks must be routed through the closest available on-premises site.
> If an on-premises site fails, traffic from the workloads on the virtual networks to the Internet must reroute automatically to the other site.
What should you include in the recommendation? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

Answer Area

Routing from the virtual networks to the on-premises locations must be configured by using:

Azure default routes

Border Gateway Protocol (BGP)

User-defined routes

The automatic routing configuration following a failover must be handled by using:

Border Gateway Protocol (BGP)

Hot Standby Routing Protocol (HSRP)

Virtual Router Redundancy Protocol (VRRP)

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:
Graphical user interface, text, application, email Description automatically generated
An on-premises network gateway can exchange routes with an Azure virtual network gateway using the border gateway protocol (BGP). Using BGP with an Azure virtual network gateway is dependent on the type you selected when you created the gateway. If the type you selected were: ExpressRoute: You must use BGP to advertise on-premises routes to the Microsoft Edge router. You cannot create user-defined routes to force traffic to the ExpressRoute virtual network gateway if you deploy a virtual network gateway deployed as type: ExpressRoute. You can use user-defined routes for forcing traffic from the Express Route to, for example, a Network Virtual Appliance.
<https://docs.microsoft.com/ja-jp/azure/expressroute/designing-for-disaster-recovery-with-expressroute-privatepe> <https://docs.microsoft.com/en-us/azure/expressroute/expressroute-optimize-routing#suboptimal-routing-from-cu>

NEW QUESTION 37

- (Exam Topic 4)
You are developing a sales application that will contain several Azure cloud services and will handle different components of a transaction. Different cloud services will process customer orders, billing, payment, inventory, and shipping.
You need to recommend a solution to enable the cloud services to asynchronously communicate transaction information by using REST messages.
What should you include in the recommendation?

- A. Azure Service Bus
- B. Azure Blob storage
- C. Azure Notification Hubs
- D. Azure Application Gateway

Answer: A

Explanation:
Service Bus is a transactional message broker and ensures transactional integrity for all internal operations against its message stores. All transfers of messages

inside of Service Bus, such as moving messages to a dead-letter queue or automatic forwarding of messages between entities, are transactional.

Reference:

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-transactions>

"Service Bus offers a reliable and secure platform for asynchronous transfer of data and state." ... "Service Bus supports standard AMQP 1.0 and HTTP/REST protocols."

<https://docs.microsoft.com/en-us/azure/service-bus-messaging/service-bus-messaging-overview>

NEW QUESTION 42

- (Exam Topic 4)

Your on-premises network contains a file server named Server1 that stores 500 GB of data. You need to use Azure Data Factory to copy the data from Server1 to Azure Storage.

You add a new data factory.

What should you do next? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

From Server1:

- Install an Azure File Sync agent
- Install a self-hosted integration runtime
- Install the File Server Resource Manager role service

From the data factory:

- Create a pipeline
- Create an import/export job
- Provision an Azure-SQL Server Integration Services (SSIS) integration runtime

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, email Description automatically generated

Box 1: Install a self-hosted integration runtime

The Integration Runtime is a customer-managed data integration infrastructure used by Azure Data Factory to provide data integration capabilities across different network environments.

Box 2: Create a pipeline

With ADF, existing data processing services can be composed into data pipelines that are highly available and managed in the cloud. These data pipelines can be scheduled to ingest, prepare, transform, analyze, and publish data, and ADF manages and orchestrates the complex data and processing dependencies

References:

<https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-sql-azure-adf> <https://docs.microsoft.com/pl-pl/azure/data-factory/tutorial-hybrid-copy-data-tool>

syu31svc 3 months, 4 weeks ago

<https://docs.microsoft.com/en-us/azure/data-factory/create-self-hosted-integration-runtime?tabs=data-factory> "A self-hosted integration runtime can run copy activities between a cloud data store and a data store in a private network"

<https://docs.microsoft.com/en-us/azure/data-factory/introduction>

"With Data Factory, you can use the Copy Activity in a data pipeline to move data from both on-premises and cloud source data stores to a centralization data store in the cloud for further analysis"

NEW QUESTION 46

- (Exam Topic 4)

You have .NET web service named service1 that has the following requirements.

- > Must read and write to the local file system.
- > Must write to the Windows Application event log.

You need to recommend a solution to host Service1 in Azure .

The solution must meet the following requirements:

- > Minimize maintenance overhead.
- > Minimize costs.

What should you include in the recommendation?

- A. an Azure App Service web app
- B. an Azure virtual machine scale set
- C. an App Service Environment (ASE)
- D. an Azure Functions app

Answer: A

Explanation:

<https://social.msdn.microsoft.com/Forums/vstudio/en-US/294b9e3e-e89c-4095-b8d0-ee1646e77268/writing-to-l>

NEW QUESTION 47

- (Exam Topic 4)

You have an on-premises network that uses an IP address space of 172.16.0.0/16. You plan to deploy 25 virtual machines to a new Azure subscription. You

identify the following technical requirements:

- All Azure virtual machines must be placed on the same subnet named Subnet1.
- All the Azure virtual machines must be able to communicate with all on-premises servers.
- The servers must be able to communicate between the on-premises network and Azure by using a site-to-site VPN.

You need to recommend a subnet design that meets the technical requirements.

What should you include in the recommendation? To answer, drag the appropriate network addresses to the correct subnets. Each network address may be used once, more than once, or not at all. You may need to drag the split bar between panes or scroll to view content

NOTE: Each correct selection is worth one point.

Network Addresses

172.16.0.0/16

172.16.1.0/27

192.168.0.0/24

192.168.1.0/27

Answer Area

Subnet1:

Network address

Gateway subnet:

Network address

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Network Addresses

172.16.0.0/16

172.16.1.0/27

192.168.0.0/24

192.168.1.0/27

Answer Area

Subnet1:

192.168.0.0/24

Gateway subnet:

192.168.1.0/27

NEW QUESTION 49

- (Exam Topic 4)

You need to design a storage solution for an app that will store large amounts of frequently used data. The solution must meet the following requirements:

- > Maximize data throughput.
- > Prevent the modification of data for one year.
- > Minimize latency for read and write operations.

Which Azure Storage account type and storage service should you recommend? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Storage account type:

BlobStorage

BlockBlobStorage

FileStorage

StorageV2 with Premium performance

StorageV2 with Standard performance

Storage service:

Blob

File

Table

- A. Mastered
B. Not Mastered

Answer: A

Explanation:

Box 1: BlockBlobStorage

Block Blob is a premium storage account type for block blobs and append blobs. Recommended for scenarios with high transactions rates, or scenarios that use

smaller objects or require consistently low storage latency.

Box 2: Blob

The Archive tier is an offline tier for storing blob data that is rarely accessed. The Archive tier offers the lowest storage costs, but higher data retrieval costs and latency compared to the online tiers (Hot and Cool). Data must remain in the Archive tier for at least 180 days or be subject to an early deletion charge.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/archive-blob>

NEW QUESTION 54

- (Exam Topic 4)

Note: This question is part of a series of questions that present the same scenario. Each question in the series contains a unique solution that might meet the stated goals. Some question sets might have more than one correct solution, while others might not have a correct solution.

After you answer a question in this section, you will NOT be able to return to it. As a result, these questions will not appear in the review screen.

Your company has deployed several virtual machines (VMs) on-premises and to Azure. Azure ExpressRoute has been deployed and configured for on-premises to Azure connectivity.

Several VMs are exhibiting network connectivity issues.

You need to analyze the network traffic to determine whether packets are being allowed or denied to the VMs. Solution: Install and configure the Microsoft Monitoring Agent and the Dependency Agent on all VMs. Use the Wire Data solution in Azure Monitor to analyze the network traffic.

Does the solution meet the goal?

A. Yes

B. No

Answer: B

Explanation:

Instead use Azure Network Watcher to run IP flow verify to analyze the network traffic.

Note: Wire Data looks at network data at the application level, not down at the TCP transport layer. The solution doesn't look at individual ACKs and SYNs.

Reference:

<https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-monitoring-overview> <https://docs.microsoft.com/en-us/azure/network-watcher/network-watcher-ip-flow-verify-overview>

NEW QUESTION 57

- (Exam Topic 4)

You have an Azure subscription.

You need to recommend an Azure Kubernetes service (AKS) solution that will use Linux nodes. The solution must meet the following requirements:

- Minimize the time it takes to provision compute resources during scale-out operations.
- Support autoscaling of Linux containers.
- Minimize administrative effort.

Which scaling option should you recommend?

A. Virtual Kubetet

B. cluster autoscaler

C. virtual nodes

D. horizontal pod autoscaler

Answer: C

Explanation:

<https://docs.microsoft.com/en-us/azure/aks/virtual-nodes>

NEW QUESTION 61

- (Exam Topic 4)

You are designing a SQL database solution. The solution will include 20 databases that will be 20 GB each and have varying usage patterns. You need to recommend a database platform to host the databases. The solution must meet the following requirements:

- The compute resources allocated to the databases must scale dynamically.
- The solution must meet an SLA of 99.99% uptime.
- The solution must have reserved capacity.
- Compute charges must be minimized.

What should you include in the recommendation?

A. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine

B. 20 instances of Azure SQL Database serverless

C. 20 databases on a Microsoft SQL server that runs on an Azure virtual machine in an availability set

D. an elastic pool that contains 20 Azure SQL databases

Answer: D

Explanation:

Azure SQL Database elastic pools are a simple, cost-effective solution for managing and scaling multiple databases that have varying and unpredictable usage demands. The databases in an elastic pool are on a single server and share a set number of resources at a set price. Elastic pools in Azure SQL Database enable SaaS developers to optimize the price performance for a group of databases within a prescribed budget while delivering performance elasticity for each database. Guaranteed 99.995 percent uptime for SQL Database Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/elastic-pool-overview> <https://azure.microsoft.com/en-us/pricing/details/sql-database/elastic/>

<https://www.azure.cn/en-us/support/sla/virtual-machines/>

<https://techcommunity.microsoft.com/t5/azure-sql/optimize-price-performance-with-compute-auto-scaling-in-az>

NEW QUESTION 65

- (Exam Topic 4)

You have 100 servers that run Windows Server 2012 R2 and host Microsoft SQL Server 2012 R2 instances. The instances host databases that have the following

characteristics:

- The largest database is currently 3 TB. None of the databases will ever exceed 4 TB.
- Stored procedures are implemented by using CLR.

You plan to move all the data from SQL Server to Azure.

You need to recommend an Azure service to host the databases. The solution must meet the following requirements:

- Whenever possible, minimize management overhead for the migrated databases.
- Minimize the number of database changes required to facilitate the migration.
- Ensure that users can authenticate by using their Active Directory credentials.

What should you include in the recommendation?

- A. Azure SQL Database single databases
- B. Azure SQL Database Managed Instance
- C. Azure SQL Database elastic pools
- D. SQL Server 2016 on Azure virtual machines

Answer: B

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-managed-instance>

SQL Managed Instance allows existing SQL Server customers to lift and shift their on-premises applications to the cloud with minimal application and database changes. At the same time, SQL Managed Instance preserves all PaaS capabilities (automatic patching and version updates, automated backups, high availability) that drastically reduce management overhead and TCO.

<https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/transact-sql-tsql-differences-sql-server#clr> <https://docs.microsoft.com/en-gb/azure/azure-sql/database/transact-sql-tsql-differences-sql-server#transact-sql-s>

NEW QUESTION 69

- (Exam Topic 4)

You have an Azure App Service web app that uses a system-assigned managed identity.

You need to recommend a solution to store their settings of the web app as secrets in an Azure key vault. The solution must meet the following requirements:

- Minimize changes to the app code,
- Use the principle of least privilege.

What should you include in the recommendation? To answer, select the appropriate options in the answer area.

Answer Area

Key Vault integration method:

Key Vault references in Application settings
 Key Vault references in Appsettings.json
 Key Vault references in Web.config
 Key Vault SDK

Key Vault permissions for the managed identity:

Keys: Get
 Keys: List and Get
 Secrets: Get
 Secrets: List and Get

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

Key Vault integration method:

Key Vault references in Application settings
 Key Vault references in Appsettings.json
 Key Vault references in Web.config
 Key Vault SDK

Key Vault permissions for the managed identity:

Keys: Get
 Keys: List and Get
 Secrets: Get
 Secrets: List and Get

NEW QUESTION 70

- (Exam Topic 4)

You have an Azure subscription.

You need to recommend a solution to provide developers with the ability to provision Azure virtual machines. The solution must meet the following requirements:

- Only allow the creation of the virtual machines in specific regions.
- Only allow the creation of specific sizes of virtual machines. What should you include in the recommendation?

- A. Conditional Access policies
- B. role-based access control (RBAC)

- C. Azure Resource Manager (ARM) templates
- D. Azure Policy

Answer: D

Explanation:

<https://docs.microsoft.com/en-us/azure/governance/policy/tutorials/create-and-manage> <https://docs.microsoft.com/en-us/azure/cloud-adoption-framework/manage/azure-server-management/common>

NEW QUESTION 74

- (Exam Topic 4)

A company plans to implement an HTTP-based API to support a web app. The web app allows customers to check the status of their orders. The API must meet the following requirements:

- Implement Azure Functions
- Provide public read-only operations
- Do not allow write operations

You need to recommend configuration options.

What should you recommend? To answer, configure the appropriate options in the dialog box in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Topic	Value
Allowed authentication methods	<div><div></div><div>All methods GET only GET and POST only GET, POST, and OPTIONS only</div></div>
Authorization level	<div><div></div><div>Function Anonymous Admin</div></div>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, table Description automatically generated

Allowed authentication methods: GET only Authorization level: Anonymous

The option is Allow Anonymous requests. This option turns on authentication and authorization in App Service, but defers authorization decisions to your application code. For authenticated requests, App Service also passes along authentication information in the HTTP headers.

This option provides more flexibility in handling anonymous requests. References:

<https://docs.microsoft.com/en-us/azure/app-service/overview-authentication-authorization>

NEW QUESTION 79

- (Exam Topic 3)

You need to recommend an App Service architecture that meets the requirements for Appl. The solution must minimize costs. What should few recommend?

- A. one App Service Environment (ASE) per availability zone
- B. one App Service plan per availability zone
- C. one App Service plan per region
- D. one App Service Environment (ASE) per region

Answer: A

NEW QUESTION 81

- (Exam Topic 4)

You have an Azure subscription that contains a storage account.

An application sometimes writes duplicate files to the storage account.

You have a PowerShell script that identifies and deletes duplicate files in the storage account. Currently, the script is run manually after approval from the operations manager.

You need to recommend a serverless solution that performs the following actions:

- Runs the script once an hour to identify whether duplicate files exist
- Processes an email response from the operations manager specifying whether the deletion was approved
- Runs the script if the deletion was approved

What should you include in the recommendation?

- A. Azure Logic Apps and Azure Functions

- B. Azure Pipelines and Azure Service Fabric
- C. Azure Logic Apps and Azure Event Grid
- D. Azure Functions and Azure Batch

Answer: A

Explanation:

You can schedule a powershell script with Azure Logic Apps.

When you want to run code that performs a specific job in your logic apps, you can create your own function by using Azure Functions. This service helps you create Node.js, C#, and F# functions so you don't have to build a complete app or infrastructure to run code. You can also call logic apps from inside Azure functions. Azure Functions provides serverless computing in the cloud and is useful for performing tasks such as these examples:

Reference:

<https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-azure-functions>

NEW QUESTION 83

- (Exam Topic 3)

You need to recommend a solution that meets the data requirements for App1.

What should you recommend deploying to each availability zone that contains an instance of App1?

- A. an Azure Cosmos DB that uses multi-region writes
- B. an Azure Data Lake store that uses geo-zone-redundant storage (GZRS)
- C. an Azure SQL database that uses active geo-replication
- D. an Azure Storage account that uses geo-zone-redundant storage (GZRS)

Answer: A

Explanation:

Scenario: App1 has the following data requirements:

- Each instance will write data to a data store in the same availability zone as the instance.
- Data written by any App1 instance must be visible to all App1 instances.

Azure Cosmos DB: Each partition across all the regions is replicated. Each region contains all the data partitions of an Azure Cosmos container and can serve reads as well as serve writes when multi-region writes is enabled.

Reference:

<https://docs.microsoft.com/en-us/azure/cosmos-db/high-availability>

NEW QUESTION 84

- (Exam Topic 2)

You need to recommend a notification solution for the IT Support distribution group. What should you include in the recommendation?

- A. Azure Network Watcher
- B. an action group
- C. a SendGrid account with advanced reporting
- D. Azure AD Connect Health

Answer: D

Explanation:

References:

<https://docs.microsoft.com/en-us/azure/active-directory/hybrid/how-to-connect-health-operations>

NEW QUESTION 89

- (Exam Topic 1)

You plan to migrate DB1 and DB2 to Azure.

You need to ensure that the Azure database and the service tier meet the resiliency and business requirements. What should you configure? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Answer Area

Database:	<div><div>A single Azure SQL database</div><div>Azure SQL Managed Instance</div><div>An Azure SQL Database elastic pool</div></div>
Service tier:	<div><div>Hyperscale</div><div>Business Critical</div><div>General Purpose</div></div>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Answer Area

Database:

- A single Azure SQL database
- Azure SQL Managed Instance
- An Azure SQL Database elastic pool

Service tier:

- Hyperscale
- Business Critical
- General Purpose

NEW QUESTION 94

- (Exam Topic 1)

You plan to migrate App1 to Azure.

You need to estimate the compute costs for App1 in Azure. The solution must meet the security and compliance requirements.

What should you use to estimate the costs, and what should you implement to minimize the costs? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

To estimate the costs, use:

- Azure Advisor
- The Azure Cost Management Power BI app
- The Azure Total Cost of Ownership (TCO) calculator

Implement:

- Azure Reservations
- Azure Hybrid Benefit
- Azure Spot Virtual Machine pricing

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Text Description automatically generated

Box 1: The Azure Total Cost of Ownership (TCO) Calculator

The Total Cost of Ownership (TCO) Calculator estimates the cost savings you can realize by migrating your workloads to Azure.

Note: The TCO Calculator recommends a set of equivalent services in Azure that will support your applications. Our analysis will show each cost area with an estimate of your on-premises spend versus your spend in Azure. There are several cost categories that either decrease or go away completely when you move workloads to the cloud.

Box 2: Azure Hybrid Benefit

Azure Hybrid Benefit is a licensing benefit that helps you to significantly reduce the costs of running your workloads in the cloud. It works by letting you use your on-premises Software Assurance-enabled Windows Server and SQL Server licenses on Azure. And now, this benefit applies to RedHat and SUSE Linux subscriptions, too.

Scenario:

Litware identifies the following security and compliance requirements:

- Once App1 is migrated to Azure, you must ensure that new data can be written to the app, and the modification of new and existing data is prevented for a period of three years.
- On-premises users and services must be able to access the Azure Storage account that will host the data in App1.
- Access to the public endpoint of the Azure Storage account that will host the App1 data must be prevented.
- All Azure SQL databases in the production environment must have Transparent Data Encryption (TDE) enabled.
- App1 must not share physical hardware with other workloads.

Reference:

<https://azure.microsoft.com/en-us/pricing/tco/> <https://azure.microsoft.com/en-us/pricing/hybrid-benefit/>

NEW QUESTION 99

- (Exam Topic 1)

How should the migrated databases DB1 and DB2 be implemented in Azure?

Database:

	▼
A single Azure SQL database	
Azure SQL Managed Instance	
An Azure SQL Database elastic pool	

Service tier:

	▼
Hyperscale	
Business Critical	
General Purpose	

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Table Description automatically generated

Box 1: SQL Managed Instance

Scenario: Once migrated to Azure, DB1 and DB2 must meet the following requirements:

- Maintain availability if two availability zones in the local Azure region fail.
- Fail over automatically.
- Minimize I/O latency.

The auto-failover groups feature allows you to manage the replication and failover of a group of databases on a server or all databases in a managed instance to another region. It is a declarative abstraction on top of the existing active geo-replication feature, designed to simplify deployment and management of geo-replicated databases at scale. You can initiate a geo-failover manually or you can delegate it to the Azure service based on a user-defined policy. The latter option allows you to automatically recover multiple related databases in a secondary region after a catastrophic failure or other unplanned event that results in full or partial loss of the SQL Database or SQL Managed Instance availability in the primary region.

Box 2: Business critical

SQL Managed Instance is available in two service tiers:

General purpose: Designed for applications with typical performance and I/O latency requirements. Business critical: Designed for applications with low I/O latency requirements and minimal impact of underlying maintenance operations on the workload.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/auto-failover-group-overview> <https://docs.microsoft.com/en-us/azure/azure-sql/managed-instance/sql-managed-instance-paas-overview>

NEW QUESTION 102

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