



**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 Event Grid

Azure Event Hubs


Azure Functions

Azure Log Analytics

Azure Notification Hubs



Azure Active Directory audit log



Cosmos DB

- 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 are designing an Azure web app. You plan to deploy the web app to the North Europe Azure region and the West Europe Azure region. You need to recommend a solution for the web app. The solution must meet the following requirements:

- > Users must always access the web app from the North Europe region, unless the region fails.
- > The web app must be available to users if an Azure region is unavailable.
- > Deployment costs must be minimized.

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

Request routing method:

A Traffic Manager profile

Azure Application Gateway

Azure Load Balancer

Request routing configuration:

Cookie-based session affinity

Performance traffic routing

Priority traffic routing

Weighted traffic routing

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Graphical user interface, text, application, chat or text message Description automatically generated  
<https://docs.microsoft.com/en-us/azure/traffic-manager/traffic-manager-routing-methods#priority-traffic-routing>

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 have an on-premises file server that stores 2 TB of data files.

You plan to move the data files to Azure Blob Storage In the West Europe Azure region,

You need to recommend a storage account type to store the data files and a replication solution for the storage account. The solution must meet the following requirements:

- Be available if a single Azure datacenter fails.
- Support storage tiers.
- Minimize cost.

What 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:

Premium block blobs

Standard general-purpose v1

Standard general-purpose v2

Redundancy:

Geo-redundant storage (GRS)

Zone-redundant storage (ZRS)

Locally-redundant storage (LRS)

Read-access geo-redundant storage (RA-GRS)

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Account Type: StorageV2

Replication solution: Zone-redundant storage (ZRS) <https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy#supported-azure-storage-services> <https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview#types-of-storage-accounts>

Data must be available if a single Azure datacenter fails. It means the storage account must support ZRS replication. Also, solution should support storage tiers.

Only General-purpose V2 supports ZRS and storage tiers.

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

**NEW QUESTION 5**

- (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 6**

- (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 7**

- (Exam Topic 4)

You are designing an order processing system in Azure that will contain the Azure resources shown in the following table.

Name	Type	Purpose
App1	Web app	Processes customer orders
Function1	Function	Check product availability at vendor 1
Function2	Function	Check product availability at vendor 2
storage1	Storage account	Stores order processing logs

The order processing system will have the following transaction flow:

- A customer will place an order by using App1.
- When the order is received, App1 will generate a message to check for product availability at vendor 1 and vendor 2.
- An integration component will process the message, and then trigger either Function1 or Function2 depending on the type of order.
- Once a vendor confirms the product availability, a status message for App1 will be generated by Function1 or Function2.
- All the steps of the transaction will be logged to storage1.

Which type of resource should you recommend for the integration component? D18912E1457D5D1DDCBD40AB3BF70D5D

Which type of resource should you recommend for the integration component?

- A. an Azure Data Factory pipeline
- B. an Azure Service Bus queue
- C. an Azure Event Grid domain
- D. an Azure Event Hubs capture

**Answer:** A

**Explanation:**

A data factory can have one or more pipelines. A pipeline is a logical grouping of activities that together perform a task.

The activities in a pipeline define actions to perform on your data.

Data Factory has three groupings of activities: data movement activities, data transformation activities, and control activities.

Azure Functions is now integrated with Azure Data Factory, allowing you to run an Azure function as a step in your data factory pipelines.

Reference:

<https://docs.microsoft.com/en-us/azure/data-factory/concepts-pipelines-activities>

**NEW QUESTION 8**

- (Exam Topic 4)

You have an Azure Active Directory (Azure AD) tenant that syncs with an on-premises Active Directory domain.

You have an internal web app named WebApp1 that is hosted on-premises. WebApp1 uses Integrated Windows authentication.

Some users work remotely and do NOT have VPN access to the on-premises network.

You need to provide the remote users with single sign-on (SSO) access to WebApp1.

Which two features should you include in the solution? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. Azure AD Application Proxy
- B. Azure AD Privileged Identity Management (PIM)
- C. Conditional Access policies
- D. Azure Arc
- E. Azure AD enterprise applications
- F. Azure Application Gateway

**Answer:** AC

**Explanation:**

A: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client. Application Proxy includes both the Application Proxy service which runs in the cloud, and the Application Proxy connector which runs on an on-premises server.

You can configure single sign-on to an Application Proxy application.

C: Microsoft recommends using Application Proxy with pre-authentication and Conditional Access policies for remote access from the internet. An approach to provide Conditional Access for intranet use is to modernize applications so they can directly authenticate with AAD.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-config-sso-how-to> <https://docs.microsoft.com/en-us/azure/active-directory/app-proxy/application-proxy-deployment-plan>

**NEW QUESTION 9**

- (Exam Topic 4)

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 an Azure virtual machine to two Azure regions, and you deploy an Azure Application Gateway.

Does this meet the goal?

- A. Yes
- B. No

**Answer:** B

**Explanation:**

You need to deploy two Azure virtual machines to two Azure regions, but also create a Traffic Manager profile.



**NEW QUESTION 10**

- (Exam Topic 4)

You plan to deploy the backup policy shown in the following exhibit.

## Policy 1

 Associated items  Delete  Save  Discard

### Backup schedule

\*Frequency      \*Time      \*Timezone

Daily      6:00 PM      (UTC) Coordinated Univer...      

### Instant Restore

Retain instant recovery snapshot(s) for

3  Day(s) 

### Retention range

☒ Retention of daily backup point.

\*At      For

6:00 PM      90  Day(s)

☒ Retention of weekly backup point.

\*On      \*At      For

Sunday      6:00 PM      26  Week(s)

☒ Retention of monthly backup point.**Week Based**

Day Based

\*On      \*Day      \*At      For

First      Sunday      6:00 PM      36      Month(s)

☐ Retention of yearly backup point.**Not Configured**

Use the drop-down menus to select the answer choice that completes each statement based on the information presented in the graphic.

NOTE: Each correct selection is worth one point.

## Answer Area

Virtual machines that are backed up by using the policy can be recovered for up to a maximum of **[answer choice]**:

	▼
90 days	
26 weeks	
36 months	
45 months	

The minimum recovery point objective (RPO) for virtual machines that are backed up by using the policy is **[answer choice]**:

	▼
1 hour	
1 day	
1 week	
1 month	
1 year	

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vm-backup-faq#what-s-the-minimum-rpo-and-rto>

### NEW QUESTION 10

- (Exam Topic 4)

You plan to deploy an application named App1 that will run on five Azure virtual machines. Additional virtual machines will be deployed later to run App1. You need to recommend a solution to meet the following requirements for the virtual machines that will run App1:

- Ensure that the virtual machines can authenticate to Azure Active Directory (Azure AD) to gain access to
- an Azure key vault, Azure Logic Apps instances, and an Azure SQL database.
- Avoid assigning new roles and permissions for Azure services when you deploy additional virtual machines.
- Avoid storing secrets and certificates on the virtual machines. Which type of identity should you include in the recommendation?

- A. a service principal that is configured to use a certificate
- B. a system-assigned managed identity
- C. a service principal that is configured to use a client secret
- D. a user-assigned managed identity

**Answer:** D

**Explanation:**

Managed identities for Azure resources is a feature of Azure Active Directory.

User-assigned managed identity can be shared. The same user-assigned managed identity can be associated with more than one Azure resource.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

### NEW QUESTION 15

- (Exam Topic 4)

You have an Azure subscription that contains the SQL servers shown in the following table.

Name	Resource group	Location
SQLsvr1	RG1	East US
SQLsvr2	RG2	West US

The subscription contains the storage accounts shown in the following table.

Name	Resource group	Location	Account kind
storage1	RG1	East US	StorageV2 (general purposev2)
storage2	RG2	Central US	BlobStorage

You create the Azure SQL databases shown in the following table.

Name	Resource group	Server	Pricing tier
SQLdb1	RG1	SQLsvr1	Standard
SQLdb2	RG1	SQLsvr1	Standard
SQLdb3	RG2	SQLsvr2	Premium

### Answer Area

Statements	Yes	No
When you enable auditing for SQLdb1, you can store the audit information to storage1.	<input type="checkbox"/>	<input type="checkbox"/>
When you enable auditing for SQLdb2, you can store the audit information to storage2.	<input type="checkbox"/>	<input type="checkbox"/>
When you enable auditing for SQLdb3, you can store the audit information to storage2.	<input type="checkbox"/>	<input type="checkbox"/>

- A. Mastered  
 B. Not Mastered

**Answer:** A

#### Explanation:

Box 1: Yes

Be sure that the destination is in the same region as your database and server. Box 2: No

Box 3: Yes

<https://docs.microsoft.com/en-us/azure/sql-database/sql-database-auditing> erence:

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

[https://docs.microsoft.com/en-us/previous-versions/azure/dn741340\(v=azure.100\)?redirectedfrom=MSDN](https://docs.microsoft.com/en-us/previous-versions/azure/dn741340(v=azure.100)?redirectedfrom=MSDN)

### NEW QUESTION 19

- (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 23

- (Exam Topic 4)

HOTSPOT

Your organization has developed and deployed several Azure App Service Web and API applications. The applications use Azure Key Vault to store several authentication, storage account, and data encryption keys. Several departments have the following requests to support the applications:

Department	Request
Security	<ul style="list-style-type: none"> <li>Review membership of administrative roles and require to provide a justification for continued membership</li> <li>Get alerts about changes in administrator assignments.</li> <li>See a history of administrator activation, including which changes administrators made to Azure resources.</li> </ul>
Development	<ul style="list-style-type: none"> <li>Enable the applications to access Azure Key Vault and retrieve keys for use in code.</li> </ul>
Quality Assurance	<ul style="list-style-type: none"> <li>Receive temporary administrator access to create and configure additional Web and API applications in the test environment.</li> </ul>

You need to recommend the appropriate Azure service for each department request.

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.



Department	Azure Service
Security	<div><div></div><div><div>Azure AD Privileged Identity Management</div><div>Azure AD Managed Service Identity</div><div>Azure AD Connect</div><div>Azure AD Identity Protection</div></div></div>
Development	<div><div></div><div><div>Azure AD Privileged Identity Management</div><div>Azure AD Managed Service Identity</div><div>Azure AD Connect</div><div>Azure AD Identity Protection</div></div></div>
Quality Assurance	<div><div></div><div><div>Azure AD Privileged Identity Management</div><div>Azure AD Managed Service Identity</div><div>Azure AD Connect</div><div>Azure AD Identity Protection</div></div></div>

- A. Mastered
- B. Not Mastered

Answer: A

Explanation:

Text Description automatically generated with medium confidence  
<https://docs.microsoft.com/en-us/azure/active-directory/managed-identities-azure-resources/overview>

NEW QUESTION 26

- (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 27

- (Exam Topic 4)  
You plan to create an Azure Storage account that will host file shares. The shares will be accessed from on-premises applications that are transaction-intensive. You need to recommend a solution to minimize latency when accessing the file shares. The solution must provide the highest-level of resiliency for the selected storage tier.  
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

Storage tier:

	▼
Hot	
Premium	
Transaction optimized	

Redundancy:

	▼
Geo-redundant storage (GRS)	
Zone-redundant storage (ZRS)	
Locally-redundant storage (LRS)	

- A. Mastered
- B. Not Mastered

**Answer:** A

### Explanation:

Box 1: Premium

Premium: Premium file shares are backed by solid-state drives (SSDs) and provide consistent high performance and low latency, within single-digit milliseconds for most IO operations, for IO-intensive workloads.

Box 2: Zone-redundant storage (ZRS):

Premium Azure file shares only support LRS and ZRS.

Zone-redundant storage (ZRS): With ZRS, three copies of each file stored, however these copies are physically isolated in three distinct storage clusters in different Azure availability zones.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/files/storage-files-planning>

## 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 33

- (Exam Topic 4)

You have an Azure subscription that contains the storage accounts shown in the following table.

Name	Type	Performance
storage1	StorageV2	Standard
storage2	StorageV2	Premium
storage3	BlobStorage	Standard
storage4	FileStorage	Premium

You plan to implement two new apps that have the requirements shown in the following table.

Name	Requirement
App1	Use lifecycle management to migrate app data between storage tiers
App2	Store app data in an Azure file share

Which storage accounts should you recommend using for each app? To answer, select the appropriate options in the answer area.  
 NOTE: Each correct selection is worth one point.

### Answer Area

App1:

	▼
Storage1 and storage2 only	
Storage1 and storage3 only	
Storage1, storage2, and storage3 only	
Storage1, storage2, storage3, and storage4	

App2:

	▼
Storage4 only	
Storage1 and storage4 only	
Storage1, storage2, and storage4 only	
Storage1, storage2, storage3, and storage4	

- A. Mastered
- B. Not Mastered

Answer: A

#### Explanation:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview> <https://www.edureka.co/community/40011/different-storage-accounts-there-major-difference-between> <https://insidemstech.com/tag/general-purpose-v2/>  
 In conclusion the correct answers are: Box1 --> Storage1 and Storage3 only Box2 --> Storage1 and Storage4 only  
<https://docs.microsoft.com/en-us/azure/storage/files/storage-how-to-create-file-share?tabs=azure-portal#basics>

### NEW QUESTION 35

- (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 40

- (Exam Topic 4)

You need to design a solution that will execute custom C# code in response to an event routed to Azure Event Grid. The solution must meet the following requirements:

- The executed code must be able to access the private IP address of a Microsoft SQL Server instance that runs on an Azure virtual machine.
- Costs must be minimized.  
 What should you include in the solution?

- A. Azure Logic Apps in the integrated service environment
- B. Azure Functions in the Dedicated plan and the Basic Azure App Service plan
- C. Azure Logic Apps in the Consumption plan
- D. Azure Functions in the Consumption plan

**Answer:** D

### Explanation:

When you create a function app in Azure, you must choose a hosting plan for your app. There are three basic hosting plans available for Azure Functions: Consumption plan, Premium plan, and Dedicated (App Service) plan.

For the Consumption plan, you don't have to pay for idle VMs or reserve capacity in advance. Connect to private endpoints with Azure Functions

As enterprises continue to adopt serverless (and Platform-as-a-Service, or PaaS) solutions, they often need a way to integrate with existing resources on a virtual network. These existing resources could be databases, file storage, message queues or event streams, or REST APIs.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale> <https://techcommunity.microsoft.com/t5/azure-functions/connect-to-private-endpoints-with-azure-functions/ba-p> Reference:

<https://docs.microsoft.com/en-us/azure/azure-functions/functions-scale#hosting-plans-comparison>

### NEW QUESTION 42

- (Exam Topic 4)

You have the resources shown in the following table.

Name	Type
AS1	Azure Synapse Analytics instance
CDB1	Azure Cosmos DB SQL API account

CDB1 hosts a container that stores continuously updated operational data.

You are designing a solution that will use AS1 to analyze the operational data daily.

You need to recommend a solution to analyze the data without affecting the performance of the operational data store.

What should you include in the recommendation?

- A. Azure Cosmos DB change feed
- B. Azure Data Factory with Azure Cosmos DB and Azure Synapse Analytics connectors
- C. Azure Synapse Analytics with PolyBase data loading
- D. Azure Synapse Link for Azure Cosmos DB



Answer: C

#### NEW QUESTION 47

- (Exam Topic 4)

You have the Azure resources shown in the following table.

Name	Type	Location
US-Central-Firewall-policy	Azure Firewall policy	Central US
US-East-Firewall-policy	Azure Firewall policy	East US
EU-Firewall-policy	Azure Firewall policy	West Europe
USEastfirewall	Azure Firewall	Central US
USWestfirewall	Azure Firewall	East US
EUFirewall	Azure Firewall	West Europe

You need to deploy a new Azure Firewall policy that will contain mandatory rules for all Azure Firewall deployments. The new policy will be configured as a parent policy for the existing policies.

What is the minimum number of additional Azure Firewall policies you should create?

- A. 1
- B. 2
- C. 3

Answer: B

#### Explanation:

Firewall policies work across regions and subscriptions. Place all your global configurations in the parent policy.

Note: Policies can be created in a hierarchy. You can create a parent/global policy that will contain configurations and rules that will apply to all/a number of firewall instances. Then you create a child policy that inherits from the parent; note that rules changes in the parent instantly appear in the child. The child is associated with a firewall and applies configurations/rules from the parent policy and the child policy instantly to the firewall.

Reference: <https://aidanfinn.com/?p=22006>

#### NEW QUESTION 48

- (Exam Topic 4)

You plan to import data from your on-premises environment to Azure. The data is shown in the following table.

On-premises source	Azure target
A Microsoft SQL Server 2012 database	An Azure SQL database
A table in a Microsoft SQL Server 2014 database	An Azure Cosmos DB account that uses the SQL API

What should you recommend using to migrate the data? To answer, drag the appropriate tools to the correct data sources-Each tool 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.

#### Tools

AzCopy

Azure Cosmos DB Data Migration Tool

Data Management Gateway

Data Migration Assistant

#### Answer Area

From the SQL Server 2012 database: 

Tool

From the table in the SQL Server 2014 database: 

Tool

- A. Mastered
- B. Not Mastered

Answer: A

#### Explanation:

References:

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-to-azure-sql> <https://docs.microsoft.com/en-us/azure/cosmos-db/import-data>

#### 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)

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 55

- (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 56**

- (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 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:

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 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:

Key Vault permissions for the managed identity:
Keys: Get
Keys: List and Get
Secrets: Get
Secrets: List and Get

**NEW QUESTION 60**

- (Exam Topic 4)

You need to recommend an Azure Storage Account configuration for two applications named Application1 and Applications. The configuration must meet the following requirements:

- Storage for Application1 must provide the highest possible transaction rates and the lowest possible latency.
- Storage for Application2 must provide the lowest possible storage costs per GB.
- Storage for both applications must be optimized for uploads and downloads.
- Storage for both applications must be available in an event of datacenter failure.

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



## Answer Area

Application1:

BlobStorage with Standard performance, Hot access tier, and Read-access geo-redundant storage (RA-GRS) replication

BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication

General purpose v1 with Premium performance and Locally-redundant storage (LRS) replication

General purpose v2 with Standard performance, Hot access tier, and Locally-redundant storage (LRS) replication

Application2:

BlobStorage with Standard performance, Cool access tier, and Geo-redundant storage (GRS) replication

BlockBlobStorage with Premium performance and Zone-redundant storage (ZRS) replication

General purpose v1 with Standard performance and Read-access geo-redundant storage (RA-GRS) replication

General purpose v2 with Standard performance, Cool access tier, and Read-access geo-redundant storage (RA-GRS) replication

- A. Mastered
- B. Not Mastered

**Answer:** A

### Explanation:

Graphical user interface, text, application Description automatically generated

Box 1: BlobStorage with Premium performance and Zone-redundant storage (ZRS) replication.

BlockBlobStorage accounts: Storage accounts with premium performance characteristics 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.

Premium: optimized for high transaction rates and single-digit consistent storage latency. Box 2: General purpose v2 with Standard performance..

General-purpose v2 accounts: Basic storage account type for blobs, files, queues, and tables. Recommended for most scenarios using Azure Storage.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/common/storage-account-overview>

<https://docs.microsoft.com/en-us/azure/storage/common/storage-redundancy>

### NEW QUESTION 63

- (Exam Topic 3)

You need to recommend a solution that meets the file storage requirements for App2.

What should you deploy to the Azure subscription and the on-premises network? To answer, drag the appropriate services to the correct locations. 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.



Services	Answer Area
<div>Azure Blob Storage</div>	Azure subscription: <div>Service</div>
<div>Azure Data Box</div>	On-premises network: <div>Service</div>
<div>Azure Data Box Gateway</div>	
<div>Azure Data Lake Storage</div>	
<div>Azure File Sync</div>	
<div>Azure Files</div>	

- A. Mastered  
B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, application Description automatically generated

Box 1: Azure Files

Scenario: App2 has the following file storage requirements:

- Save files to an Azure Storage account.
- Replicate files to an on-premises location.
- Ensure that on-premises clients can read the files over the LAN by using the SMB protocol.

Box 2: Azure File Sync

Use Azure File Sync to centralize your organization's file shares in Azure Files, while keeping the flexibility, performance, and compatibility of an on-premises file server. Azure File Sync transforms Windows Server into a quick cache of your Azure file share. You can use any protocol that's available on Windows Server to access your data locally, including SMB, NFS, and FTPS. You can have as many caches as you need across the world.

Reference:

<https://docs.microsoft.com/en-us/azure/storage/file-sync/file-sync-deployment-guide>

**NEW QUESTION 64**

- (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 69**

- (Exam Topic 2)

You are evaluating the components of the migration to Azure that require you to provision an Azure Storage account.

For each of the following statements, select Yes if the statement is true. Otherwise, select No. NOTE: Each correct selection is worth one point.

Statements	Yes	No
You must provision an Azure Storage account for the SQL Server database migration.	<input type="radio"/>	<input type="radio"/>
You must provision an Azure Storage account for the Web site content storage.	<input type="radio"/>	<input type="radio"/>
You must provision an Azure Storage account for the Database metric monitoring.	<input type="radio"/>	<input type="radio"/>

- A. Mastered  
 B. Not Mastered

**Answer:** A

**Explanation:**

Statements	Yes	No
You must provision an Azure Storage account for the SQL Server database migration.	<input checked="" type="radio"/>	<input type="radio"/>
You must provision an Azure Storage account for the Web site content storage.	<input type="radio"/>	<input checked="" type="radio"/>
You must provision an Azure Storage account for the Database metric monitoring.	<input checked="" type="radio"/>	<input type="radio"/>

#### NEW QUESTION 74

- (Exam Topic 1)

You migrate App1 to Azure. You need to ensure that the data storage for App1 meets the security and compliance requirement  
 What should you do?

- A. Create an access policy for the blob  
 B. Modify the access level of the blob service.  
 C. Implement Azure resource locks.  
 D. Create Azure RBAC assignments.

**Answer:** A

**Explanation:**

Scenario: 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.

As an administrator, you can lock a subscription, resource group, or resource to prevent other users in your organization from accidentally deleting or modifying critical resources. The lock overrides any permissions the user might have.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-resource-manager/management/lock-resources>

#### NEW QUESTION 77

- (Exam Topic 1)

You plan to migrate App1 to Azure.

You need to recommend a network connectivity solution for the Azure Storage account that will host the App1 data. The solution must meet the security and compliance requirements.

What should you include in the recommendation?

- A. a private endpoint  
 B. a service endpoint that has a service endpoint policy  
 C. Azure public peering for an ExpressRoute circuit  
 D. Microsoft peering for an ExpressRoute circuit

**Answer:** A

**Explanation:**

Private Endpoint securely connect to storage accounts from on-premises networks that connect to the VNet using VPN or ExpressRoutes with private-peering.

Private Endpoint also secure your storage account by configuring the storage firewall to block all connections on the public endpoint for the storage service.

<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-faqs#microsoft-peering>

#### NEW QUESTION 82

- (Exam Topic 1)

You plan to migrate App1 to Azure.

You need to recommend a high-availability solution for App1. The solution must meet the resiliency requirements.

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.

Number of host groups:

1
2
3
6

Number of virtual machine scale sets:

0
1
3

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

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

Box 1: 3

Scenario: App1 must meet the following requirements:

- > Be hosted in an Azure region that supports availability zones.
- > Maintain availability if two availability zones in the local Azure region fail.

A host group is a resource that represents a collection of dedicated hosts. You create a host group in a region and an availability zone, and add hosts to it.

Use Availability Zones for fault isolation

Availability zones are unique physical locations within an Azure region. Each zone is made up of one or more datacenters equipped with independent power, cooling, and networking. A host group is created in a single availability zone. Once created, all hosts will be placed within that zone. To achieve high availability across zones, you need to create multiple host groups (one per zone) and spread your hosts accordingly.

Box 2: 1

Scenario: App1 must meet the following requirements:

- > Be hosted on Azure virtual machines that support automatic scaling.

An Azure virtual machine scale set can automatically increase or decrease the number of VM instances that run your application. This automated and elastic behavior reduces the management overhead to monitor and optimize the performance of your application.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-machines/dedicated-hosts>

<https://docs.microsoft.com/en-us/azure/virtual-machine-scale-sets/virtual-machine-scale-sets-autoscale-overview>

**NEW QUESTION 86**

- (Exam Topic 1)

You need to ensure that users managing the production environment are registered for Azure MFA and must authenticate by using Azure MFA when they sign in to the Azure portal. The solution must meet the authentication and authorization requirements.

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

NOTE: Each correct selection is worth one point.

To register the users for Azure MFA, use:

Azure AD Identity Protection
Security defaults in Azure AD
Per-user MFA in the MFA management UI

To enforce Azure MFA authentication, configure:

Grant control in capolicy1
Session control in capolicy1
Sign-in risk policy in Azure AD Identity Protection for the Litware.com tenant

- A. Mastered
- B. Not Mastered

**Answer:** A

**Explanation:**

Graphical user interface, text, application Description automatically generated

Box 1: Azure AD Identity Protection

Azure AD Identity Protection helps you manage the roll-out of Azure AD Multi-Factor Authentication (MFA) registration by configuring a Conditional Access policy to require MFA registration no matter what modern authentication app you are signing in to.

Scenario: Users that manage the production environment by using the Azure portal must connect from a hybrid Azure AD-joined device and authenticate by using Azure Multi-Factor Authentication (MFA).

Box 2: Sign-in risk policy...

Scenario: The Litware.com tenant has a conditional access policy named capolicy1. Capolicy1 requires that when users manage the Azure subscription for a production environment by using the Azure portal, they must connect from a hybrid Azure AD-joined device.

Identity Protection policies we have two risk policies that we can enable in our directory.

- > Sign-in risk policy

> User risk policy

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure>- <https://docs.microsoft.com/en-us/azure/active-directory/identity-protection/howto-identity-protection-configure>

NEW QUESTION 89

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