



**Vendor: Microsoft**

**Exam Code: 70-534**

**Exam Name: Architecting Microsoft Azure Solutions**

**Version: Demo**

### QUESTION 1

Contoso, Ltd., uses Azure websites for public-facing customer websites. The company has a mobile app that requires customers sign in by using a Contoso customer account.

Customers must be able to sign on to the websites and mobile app by using a Microsoft, Facebook, or Google account. All transactions must be secured in-transit regardless of device.

You need to configure the websites and mobile app to work with external identity providers.

Which three actions should you perform? Each correct answer presents part of the solution.

- A. Request a certificate from a domain registrar for the website URL, and enable TLS/SSL.
- B. Configure IPsec for the websites and the mobile app.
- C. Configure the KerberosTokenProfile 1.1 protocol.
- D. Configure OAuth2 to connect to an external authentication provider.
- E. Build an app by using MVC 5 that is hosted in Azure to provide a framework for the underlying authentication.

**Correct Answer:** ADE

#### **Explanation:**

DE: This tutorial shows you how to build an ASP.NET MVC 5 web application that enables users to log in using OAuth 2.0 with credentials from an external authentication provider, such as Facebook, Twitter, LinkedIn, Microsoft, or Google.

A:

\* You will now be redirected back to the Register page of the MvcAuth application where you can register your Google account. You have the option of changing the local email registration name used for your Gmail account, but you generally want to keep the default email alias (that is, the one you used for authentication). Click Register.

\* To connect to authentication providers like Google and Facebook, you will need to set up IIS-Express to use SSL.

Reference:

Code! MVC 5 App with Facebook, Twitter, LinkedIn and Google OAuth2 Sign-on (C#)  
<http://www.asp.net/mvc/overview/security/create-an-aspnet-mvc-5-app-with-facebook-and-google-oauth2-and-openid-sign-on>

### QUESTION 2

A company hosts a website and exposes web services on the company intranet.

The intranet is secured by using a firewall. Company policies prohibit changes to firewall rules.

Devices outside the firewall must be able to access the web services.

You need to recommend an approach to enable inbound communication.

What should you recommend?

- A. The Azure Access Control Service
- B. Windows Azure Pack
- C. The Azure Service Bus
- D. A web service in an Azure role that relays data to the internal web services

**Correct Answer: C**

**Explanation:**

The Service Bus Relay is designed for the use-case of taking existing Windows Communication Foundation (WCF) web services and making those services securely accessible to solutions that reside outside the corporate perimeter without requiring intrusive changes to the corporate network infrastructure. Such Service Bus relay services are still hosted inside their existing environment, but they delegate listening for incoming sessions and requests to the cloud-hosted Service Bus.

Reference:

.NET On-Premises/Cloud Hybrid Application Using Service Bus Relay

<http://azure.microsoft.com/en-gb/documentation/articles/cloud-services-dotnet-hybrid-app-using-service-bus-relay/>

### QUESTION 3

You are designing an Azure application that provides online backup storage for hundreds of media files. Each file is larger than 1GB.

The data storage solution has the following requirements:

- It must be capable of storing an average of 1TB of data for each user.
- It must support sharing of data between all Windows Azure instances.
- It must provide random read/write access.

You need to recommend a durable data storage solution.

What should you recommend?

- A. Azure Drive
- B. Azure Page Blob service
- C. Azure Block Blob service
- D. Local storage on an Azure instance

**Correct Answer: B**

**Explanation:**

Reference: Understanding Block Blobs and Page Blobs

<https://msdn.microsoft.com/en-us/library/azure/ee691964.aspx>

### QUESTION 4

You are designing an Azure web application that includes many static content files.

The application is accessed from locations all over the world by using a custom domain name.

You need to recommend an approach for providing access to the static content with the least amount of latency.

Which two actions should you recommend? Each correct answer presents part of the solution.

- A. Place the static content in Azure Table storage.
- B. Configure a CNAME DNS record for the Azure Content Delivery Network (CDN) domain.
- C. Place the static content in Azure Blob storage.

D. Configure a custom domain name that is an alias for the Azure Storage domain.

**Correct Answer:** BC

**Explanation:**

B: There are two ways to map your custom domain to a CDN endpoint.

1. Create a CNAME record with your domain registrar and map your custom domain and subdomain to the CDN endpoint
2. Add an intermediate registration step with Azure cdnverify

C: The Azure Content Delivery Network (CDN) offers developers a global solution for delivering high-bandwidth content by caching blobs and static content of compute instances at physical nodes in the United States, Europe, Asia, Australia and South America.

The benefits of using CDN to cache Azure data include:

- / Better performance and user experience for end users who are far from a content source, and are using applications where many 'internet trips' are required to load content
- / Large distributed scale to better handle instantaneous high load, say, at the start of an event such as a product launch

Reference:

Using CDN for Azure

<https://azure.microsoft.com/en-gb/documentation/articles/cdn-how-to-use/>

Reference:

How to map Custom Domain to Content Delivery Network (CDN) endpoint

<https://github.com/Azure/azure-content/blob/master/articles/cdn-map-content-to-custom-domain.md>

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## QUESTION 5

You are designing an Azure web application. The application uses one worker role. It does not use SQL Database. You have the following requirements:

- Maximize throughput and system resource availability
- Minimize downtime during scaling

You need to recommend an approach for scaling the application.

Which approach should you recommend?

- A. Increase the role instance size.
- B. Set up horizontal partitioning.
- C. Increase the number of role instances.
- D. Set up vertical partitioning.

**Correct Answer:** C

**Explanation:**

On the Scale page of the Azure Management Portal, you can manually scale your application or you can set parameters to automatically scale it. You can scale applications that are running Web Roles, Worker Roles, or Virtual Machines. To scale an application that is running instances of Web Roles or Worker Roles, you add or remove role instances to accommodate the work load.

Reference:

How to Scale an Application

<http://azure.microsoft.com/en-gb/documentation/articles/cloud-services-how-to-scale/>

**QUESTION 6**

**HOTSPOT**

You have an Azure website that runs on several instances. You have a WebJob that provides additional functionality to the website.

The WebJob must run on all instances of the website.

You need to ensure that the WebJob runs even when the website is idle for long periods of time.

How should you create and configure the WebJob object?

To answer, select the appropriate options in the answer area.

**Answer Area**

Requirement	Action
Create the WebJob object	<div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">▼</div> <ul style="list-style-type: none"> <li>Create the WebJob as a scheduled task.</li> <li>Create the WebJob as an on-demand task.</li> <li>Create the WebJob as a continuously running task.</li> </ul> </div>
Configure the WebJob object	<div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">▼</div> <ul style="list-style-type: none"> <li>Enable AlwaysOn for the website.</li> <li>Enable AlwaysOn for the database.</li> <li>Configure the WebJob to run continuously.</li> </ul> </div>

**Correct Answer:**

**Answer Area**

Requirement	Action
Create the WebJob object	<div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">▼</div> <ul style="list-style-type: none"> <li>Create the WebJob as a scheduled task.</li> <li>Create the WebJob as an on-demand task.</li> <li style="border: 2px solid green;">Create the WebJob as a continuously running task.</li> </ul> </div>
Configure the WebJob object	<div style="border: 1px solid black; padding: 5px;"> <div style="border-bottom: 1px solid black; margin-bottom: 5px;">▼</div> <ul style="list-style-type: none"> <li style="border: 2px solid green;">Enable AlwaysOn for the website.</li> <li>Enable AlwaysOn for the database.</li> <li>Configure the WebJob to run continuously.</li> </ul> </div>

### QUESTION 7

You have business services that run on an on-premises mainframe server.

You must provide an intermediary configuration to support existing business services and Azure. The business services cannot be rewritten. The business services are not exposed externally.

You need to recommend an approach for accessing the business services.

What should you recommend?

- A. Connect to the on-premises server by using a custom service in Azure.
- B. Expose the business services to the Azure Service Bus by using a custom service that uses relay binding.
- C. Expose the business services externally.
- D. Move all business service functionality to Azure.

**Correct Answer: B**

#### **Explanation:**

The Service Bus relay service enables you to build hybrid applications that run in both an Azure datacenter and your own on-premises enterprise environment. The Service Bus relay facilitates this by enabling you to securely expose Windows Communication Foundation (WCF) services that reside within a corporate enterprise network to the public cloud, without having to open a firewall connection, or require intrusive changes to a corporate network infrastructure.

Reference:

How to Use the Service Bus Relay Service

<http://azure.microsoft.com/en-gb/documentation/articles/service-bus-dotnet-how-to-use-relay/>

### QUESTION 8

You are designing an Azure application that stores data.

You have the following requirements:

- The data storage system must support storing more than 500 GB of data.
- Data retrieval must be possible from a large number of parallel threads.
- Threads must not block each other.

You need to recommend an approach for storing data.

What should you recommend?

- A. Azure Notification Hubs
- B. A single SQL database in Azure
- C. Azure Queue storage
- D. Azure Table storage

**Correct Answer: D**

#### **Explanation:**

\* Azure Table Storage can be useful for applications that must store large amounts of nonrelational data, and need additional structure for that data. Tables offer key- based access to unschematized data at a low cost for applications with simplified data- access patterns. While Azure Table Storage stores structured data without schemas, it does not provide any way to represent relationships between the data.

\* As a solution architect/developer, consider using Azure Table Storage when:  
/ Your application stores and retrieves large data sets and does not have complex relationships that require server-side joins, secondary indexes, or complex server-side logic.  
/ You need to achieve a high level of scaling without having to manually shard your dataset.

Reference:

Azure Table Storage and Windows Azure SQL Database - Compared and Contrasted  
<https://msdn.microsoft.com/en-us/library/azure/jj553018.aspx>

### QUESTION 9

An application currently resides on an on-premises virtual machine that has 2 CPU cores, 4 GB of RAM, 20 GB of hard disk space, and a 10 megabit/second network connection.

You plan to migrate the application to Azure. You have the following requirements:

- You must not make changes to the application.
- You must minimize the costs for hosting the application.

You need to recommend the appropriate virtual machine instance type.

Which virtual machine tier should you recommend?

- A. Network Optimized (A Series)
- B. General Purpose Compute, Basic Tier (A Series)
- C. General Purpose Compute, Standard Tier (A Series)
- D. Optimized Compute (D Series)

**Correct Answer: B**

**Explanation:**

General purpose compute: Basic tier An economical option for development workloads, test servers, and other applications that don't require load balancing, auto-scaling, or memory-intensive virtual machines.

CPU core range: 1-8  
RAM range: 0.75 ?14 GB  
Disk size: 20-240 GB

Reference:

Virtual Machines Pricing. Launch Windows Server and Linux in minutes  
<http://azure.microsoft.com/en-us/pricing/details/virtual-machines/>

### QUESTION 10

You are the administrator for a company named Contoso, Ltd.

Contoso also has an Azure subscription and uses many on-premises Active Directory products as roles in Windows Server including the following:

- Active Directory Domain Services (AD DS)
- Active Directory Certificate Services (AD CS)
- Active Directory Rights Management Services (AD RMS)
- Active Directory Lightweight Directory Services (AD LDS)
- Active Directory Federation Services (AD FS)

Contoso must use the directory management services available in Azure Active Directory.

You need to provide information to Contoso on the similarities and differences between Azure Active Directory and the Windows Server Active Directory family of services.

Which feature does Azure Active Directory and on-premises Active Directory both support?

- A. Using the GraphAPI to query the directory
- B. Issuing user certificates
- C. Supporting single sign-on (SSO)
- D. Querying the directory with LDAP

**Correct Answer: C**

**Explanation:**

AD FS supports Web single-sign-on (SSO) technologies, and so does Azure Active Directory. If you want single sign on we usually suggest using ADFS if you're a Windows shop. Going forward though, Azure Active Directory is another alternative you can use.

Reference:

Using Azure Active Directory for Single Sign On with Yammer

<https://samlman.wordpress.com/2015/03/02/using-azure-active-directory-for-single-sign-on-with-yammer/>

**QUESTION 11**

DRAG DROP

You are migrating Active Directory Domain Services (AD DS) domains to Azure.

You need to recommend the least complex directory synchronization solution.

What should you recommend?

To answer, drag the appropriate solution to the correct client requirement. Each solution 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.

Solutions	Answer Area	
Directory Sync (DirSync) with Password Sync	<b>Client requirements</b>	<b>Solution</b>
Directory Sync (DirSync) with single sign-on (SSO)	Customize the user sign-in page.	Solution
Azure Access Control Service	Enable users to sign in and access cloud services using their on-premises password.	Solution
	Ensure user authentications occur in the on-premises Active Directory.	Solution
	Control password policies from the on-premises Active Directory.	Solution

**Correct Answer:**



**Solutions**

- Directory Sync (DirSync) with Password Sync
- Directory Sync (DirSync) with single sign-on (SSO)
- Azure Access Control Service

**Answer Area**

Client requirements	Solution
Customize the user sign-in page.	Azure Access Control Service
Enable users to sign in and access cloud services using their on-premises password.	Directory Sync (DirSync) with Password Sync
Ensure user authentications occur in the on-premises Active Directory.	Directory Sync (DirSync) with single sign-on (SSO)
Control password policies from the on-premises Active Directory.	Directory Sync (DirSync) with Password Sync

**QUESTION 12**

You are planning an upgrade strategy for an existing Azure application. Multiple instances of the application run in Azure. The management team is concerned about application downtime, due to a business service level agreement (SLA).

You are evaluating which change in your environment will require downtime.

You need to identify the changes to the environment that will force downtime.

Which change always requires downtime?

- A. Adding an HTTPS endpoint to a web role
- B. Upgrading the hosted service by deploying a new package
- C. Changing the value of a configuration setting
- D. Changing the virtual machine size

**Correct Answer: A**

**Explanation:**

If you change the number of endpoints for your service, for example by adding a HTTPS endpoint for your existing Web Role, it will require downtime.

Reference:

Re-Deploying your Windows Azure Service without Incurring Downtime

<http://blog.toddysm.com/2010/06/re-deploying-your-windows-azure-service-without-incurring-downtime.html>

**QUESTION 13**

You are running a Linux guest in Azure Infrastructure-as-a-Service (IaaS).

You must run a daily maintenance task. The maintenance task requires native BASH commands.

You need to configure Azure Automation to perform this task.

Which three actions should you perform? Each correct answer presents part of the solution.

- A. Create an automation account.
- B. Create an Orchestrator runbook.
- C. Create an asset credential.
- D. Run the Invoke-Workflow Azure PowerShell cmdlet.

E. Import the SSH PowerShell Module.

**Correct Answer:** ACE

**Explanation:**

A: An Automation Account is a container for your Azure Automation resources: it provides a way to separate your environments or further organize your workflows.

To create An Automation Account

1. Log in to the Azure Management Portal.
2. In the Management Portal, click Create an Automation Account.
3. On the Add a New Automation Account page, enter a name and pick a region for the account.

Reference:

Get started with Azure Automation

<http://azure.microsoft.com/en-gb/documentation/articles/automation-create-runbook-from-samples/>

C:

\* Asset credentials are either a username and password combination that can be used with Windows PowerShell commands or a certificate that is uploaded to Azure Automation.

\* The Assets page in Automation displays the various resources (also called "settings") that are globally available to be used in or associated with a runbook, plus commands to import an integration module, add a new asset, or delete an asset. Assets include variables, schedules, credentials, and connections.

Reference:

Getting Started with Azure Automation: Automation Assets

<http://azure.microsoft.com/blog/2014/07/29/getting-started-with-azure-automation-automation-assets-2/>

E:

Reference:

Managing SSH enabled Linux hosts using Service Management Automation

<http://blogs.technet.com/b/orchestrator/archive/2014/05/01/managing-ssh-enabled-linux-hosts-using-service-management-automation.aspx>

#### QUESTION 14

You are designing an Azure web application.

All users must authenticate by using Active Directory Domain Services (AD DS) credentials.

You need to recommend an approach to enable single sign-on to the application for domain-authenticated users.

Which two actions should you recommend? Each correct answer presents part of the solution.

- A. Use Forms authentication to generate claims.
- B. Use the SQL membership provider in the web application.
- C. Use Windows Identity Foundation in the web application.
- D. Use Active Directory Federation Services (AD FS) to generate claims.

**Correct Answer:** CD

**Explanation:**

Reference: What is Windows Identity Foundation?

<https://msdn.microsoft.com/en-us/library/ee748475.aspx>

Reference: DirSync with Single Sign-On  
<https://msdn.microsoft.com/en-us/library/azure/dn441213.aspx>

**QUESTION 15**

**DRAG DROP**

You need to automate tasks with Azure by using Azure PowerShell workflows.

How should you complete the Azure PowerShell script?

To answer, drag the appropriate cmdlet to the correct location. Each cmdlet 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.

**Azure PowerShell cmdlets**

- Checkpoint-Workflow
- New-AzureAutomationRunbook
- Get-AutomationVariable
- Get-AzureAutomationRunbook
- Write-Output "Runbook Complete"

**Answer Area**

```

workflow Use-WorkflowCheckpointSample
{
  Set-AutomationVariable -Name 'HasBeenSuspended' -Value $False
  Write-Output "Before Checkpoint"
  Azure PowerShell cmdlet
  Write-Output "After Checkpoint"
  $HasBeenSuspended = `
  Azure PowerShell cmdlet -Name 'HasBeenSuspended'
  if (!$HasBeenSuspended) {
    Set-AutomationVariable -Name 'HasBeenSuspended' -Value $True
    1 + "abc"
  }
  Azure PowerShell cmdlet
}
                    
```

**Correct Answer:**

**Azure PowerShell cmdlets**

- Checkpoint-Workflow
- New-AzureAutomationRunbook
- Get-AutomationVariable
- Get-AzureAutomationRunbook
- Write-Output "Runbook Complete"

**Answer Area**

```

workflow Use-WorkflowCheckpointSample
{
  Set-AutomationVariable -Name 'HasBeenSuspended' -Value $False
  Write-Output "Before Checkpoint"
  Checkpoint-Workflow
  Write-Output "After Checkpoint"
  $HasBeenSuspended = `
  Get-AutomationVariable -Name 'HasBeenSuspended'
  if (!$HasBeenSuspended) {
    Set-AutomationVariable -Name 'HasBeenSuspended' -Value $True
    1 + "abc"
  }
  Write-Output "Runbook Complete"
}
                    
```