# KillTest

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# 學習資料

**Exam** : **AZ-204**

**Title** : Developing Solutions for Microsoft Azure

**Version** : DEMO

1. Topic 1, Windows Server 2016 virtual machine

**Case study**

This is a case study. Case studies are not timed separately. You can use as much exam time as you would like to complete each case. However, there may be additional case studies and sections on this exam. You must manage your time to ensure that you are able to complete all questions included on this exam in the time provided.

To answer the questions included in a case study, you will need to reference information that is provided in the case study. Case studies might contain exhibits and other resources that provide more information about the scenario that is described in the case study. Each question is independent of the other questions in this case study.

At the end of this case study, a review screen will appear. This screen allows you to review your answers and to make changes before you move to the next section of the exam. After you begin a new section, you cannot return to this section.

**To start the case study**

To display the first question in this case study, click the Next button. Use the buttons in the left pane to explore the content of the case study before you answer the questions. Clicking these buttons displays information such as business requirements, existing environment, and problem statements. If the case study has an All Information tab, note that the information displayed is identical to the information displayed on the subsequent tabs. When you are ready to answer a question, click the Question button to return to the question.

**Current environment**
**Windows Server 2016 virtual machine**
This virtual machine (VM) runs BizTalk Server 2016. The VM runs the following workflows:
- Ocean Transport – This workflow gathers and validates container information including container contents and arrival notices at various shipping ports.
- Inland Transport – This workflow gathers and validates trucking information including fuel usage, number of stops, and routes.

The VM supports the following REST API calls:
- Container API – This API provides container information including weight, contents, and other attributes.
- Location API – This API provides location information regarding shipping ports of call and trucking stops.
- Shipping REST API – This API provides shipping information for use and display on the shipping website.

**Shipping Data**
The application uses MongoDB JSON document storage database for all container and transport information.

**Shipping Web Site**

The site displays shipping container tracking information and container contents. The site is located at http://shipping.wideworldimporters.com/

**Proposed solution**

The on-premises shipping application must be moved to Azure. The VM has been migrated to a new Standard_D16s_v3 Azure VM by using Azure Site Recovery and must remain running in Azure to complete the BizTalk component migrations. You create a Standard_D16s_v3 Azure VM to host BizTalk Server.

The Azure architecture diagram for the proposed solution is shown below:



**Requirements**

**Shipping Logic app**

The Shipping Logic app must meet the following requirements:

- Support the ocean transport and inland transport workflows by using a Logic App.
- Support industry-standard protocol X12 message format for various messages including vessel content details and arrival notices.
- Secure resources to the corporate VNet and use dedicated storage resources with a fixed costing model.
- Maintain on-premises connectivity to support legacy applications and final BizTalk migrations.

**Shipping Function app**

Implement secure function endpoints by using app-level security and include Azure Active Directory (Azure AD).

**REST APIs**

The REST API's that support the solution must meet the following requirements:

- Secure resources to the corporate VNet.
- Allow deployment to a testing location within Azure while not incurring additional costs.
- Automatically scale to double capacity during peak shipping times while not causing application downtime.
- Minimize costs when selecting an Azure payment model.

**Shipping data**

Data migration from on-premises to Azure must minimize costs and downtime.

**Shipping website**

Use Azure Content Delivery Network (CDN) and ensure maximum performance for dynamic content while minimizing latency and costs.

**Issues**

**Windows Server 2016 VM**

The VM shows high network latency, jitter, and high CPU utilization. The VM is critical and has not been backed up in the past. The VM must enable a quick restore from a 7-day snapshot to include in-place restore of disks in case of failure.

**Shipping website and REST APIs**

The following error message displays while you are testing the website:

```
Failed to load http://test-shippingapi.wideworldimporters.com/: No 'Access-
Control-Allow-Origin' header is present on the requested resource. Origin
'http://test.wideworldimporters.com/' is therefore not allowed access.
```

HOTSPOT

You need to configure Azure CDN for the Shipping web site.

Which configuration options should you use? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

## Answer Area

| Option | Value |
|---|---|
| Tier | ▼ |
| | Standard |
| | Premium |
| Profile | ▼ |
| | Akamai |
| | Microsoft |
| Optimization | ▼ |
| | general web delivery |
| | large file download |
| | dynamic site acceleration |
| | video-on-demand media streaming |

**Answer:**

# Answer Area

| Option | Value |
|---|---|

**Tier** ▼

| Standard |
|---|
| Premium |

**Profile** ▼

| Akamai |
|---|
| Microsoft |

**Optimization** ▼

| general web delivery |
|---|
| large file download |
| dynamic site acceleration |
| video-on-demand media streaming |

**Explanation:**

Scenario: Shipping website

Use Azure Content Delivery Network (CDN) and ensure maximum performance for dynamic content while minimizing latency and costs.

Tier: Standard

Profile: Akamai

Optimization: Dynamic site acceleration

Dynamic site acceleration (DSA) is available for Azure CDN Standard from Akamai, Azure CDN Standard from Verizon, and Azure CDN Premium from Verizon profiles.

DSA includes various techniques that benefit the latency and performance of dynamic content.

Techniques include route and network optimization, TCP optimization, and more.

You can use this optimization to accelerate a web app that includes numerous responses that aren't cacheable. Examples are search results, checkout transactions, or real-time data. You can continue to use core Azure CDN caching capabilities for static data.

Reference: https://docs.microsoft.com/en-us/azure/cdn/cdn-optimization-overview

2.HOTSPOT

You need to secure the Shipping Function app.

How should you configure the app? To answer, select the appropriate options in the answer area. NOTE: Each correct selection is worth one point.

## Answer Area

| Setting | Value |
|---------|-------|
| Authorization level | ▼ |
| | Function |
| | Anonymous |
| | Admin |
| User claims | ▼ |
| | JSON Web Token (JWT) |
| | Shared Access Signature (SAS) token |
| | API Key |
| Trigger type | ▼ |
| | blob |
| | HTTP |
| | queue |
| | timer |

**Answer:**

# Answer Area

| Setting | Value |
|---|---|

**Authorization level**

| Function |
|---|
| Anonymous |
| Admin |

**User claims**

| JSON Web Token (JWT) |
|---|
| Shared Access Signature (SAS) token |
| API Key |

**Trigger type**

| blob |
|---|
| HTTP |
| queue |
| timer |

**Explanation:**

Scenario: Shipping Function app: Implement secure function endpoints by using app-level security and include Azure Active Directory (Azure AD).

Box 1: Function

Box 2: JSON based Token (JWT)

Azure AD uses JSON based tokens (JWTs) that contain claims

Box 3: HTTP

How a web app delegates sign-in to Azure AD and obtains a token

User authentication happens via the browser. The OpenID protocol uses standard HTTP protocol messages.

Reference: https://docs.microsoft.com/en-us/azure/active-directory/develop/authentication-scenarios

3.You need to secure the Shipping Logic App.

What should you use?

A. Azure App Service Environment (ASE)

B. Azure AD B2B integration

C. Integration Service Environment (ISE)

D. VNet service endpoint

**Answer:** C

**Explanation:**

Scenario: The Shipping Logic App requires secure resources to the corporate VNet and use dedicated storage resources with a fixed costing model.

You can access to Azure Virtual Network resources from Azure Logic Apps by using integration service environments (ISEs).

Sometimes, your logic apps and integration accounts need access to secured resources, such as virtual machines (VMs) and other systems or services, that are inside an Azure virtual network. To set up this access, you can create an integration service environment (ISE) where you can run your logic apps and create your integration accounts.

Reference: https://docs.microsoft.com/en-us/azure/logic-apps/connect-virtual-network-vnet-isolated-environment-overview

4.DRAG DROP

You need to support the message processing for the ocean transport workflow.

Which four actions should you perform in sequence? To answer, move the appropriate actions from the list of actions to the answer area and arrange them in the correct order.

**Actions**                                    **Answer Area**

Link the Logic App to the integration account.

Add partners, schemas, certificates, maps, and agreements.

Update the Logic App to use the partners, schemas, certificates, maps, and agreements.

Create a custom connector for the Logic App.

Link the custom connector to the Logic App.

Create an integration account in the Azure portal.

**Answer:**

## Actions

| |
|---|
| Link the Logic App to the integration account. |
| Add partners, schemas, certificates, maps, and agreements. |
| Update the Logic App to use the partners, schemas, certificates, maps, and agreements. |
| Create a custom connector for the Logic App. |
| Link the custom connector to the Logic App. |
| Create an integration account in the Azure portal. |

## Answer Area

| |
|---|
| Create an integration account in the Azure portal. |
| Link the Logic App to the integration account. |
| Add partners, schemas, certificates, maps, and agreements. |
| Create a custom connector for the Logic App. |

**Explanation:**

Step 1: Create an integration account in the Azure portal

You can define custom metadata for artifacts in integration accounts and get that metadata during runtime for your logic app to use. For example, you can provide metadata for artifacts, such as partners, agreements, schemas, and maps - all store metadata using key-value pairs.

Step 2: Link the Logic App to the integration account

A logic app that's linked to the integration account and artifact metadata you want to use.

Step 3: Add partners, schemas, certificates, maps, and agreements

Step 4: Create a custom connector for the Logic App.

Reference: https://docs.microsoft.com/bs-latn-ba/azure/logic-apps/logic-apps-enterprise-integration-metadata

5.You need to support the requirements for the Shipping Logic App.

What should you use?

A. Azure Active Directory Application Proxy

B. Point-to-Site (P2S) VPN connection

C. Site-to-Site (S2S) VPN connection

D. On-premises Data Gateway

**Answer:** D

**Explanation:**

Before you can connect to on-premises data sources from Azure Logic Apps, download and install the on-premises data gateway on a local computer. The gateway works as a bridge that provides quick data transfer and encryption between data sources on premises (not in the cloud) and your logic apps.

The gateway supports BizTalk Server 2016.

Note: Microsoft have now fully incorporated the Azure BizTalk Services capabilities into Logic Apps and Azure App Service Hybrid Connections.

Logic Apps Enterprise Integration pack bring some of the enterprise B2B capabilities like AS2 and X12,

EDI standards support

Scenario: The Shipping Logic app must meet the following requirements:

Support the ocean transport and inland transport workflows by using a Logic App.

Support industry-standard protocol X12 message format for various messages including vessel content details and arrival notices.

Secure resources to the corporate VNet and use dedicated storage resources with a fixed costing model.

Maintain on-premises connectivity to support legacy applications and final BizTalk migrations.

Reference: https://docs.microsoft.com/en-us/azure/logic-apps/logic-apps-gateway-install