

# Latest Version: 9.0

## Question: 1

### HOTSPOT

You are planning the migration of the SERVER1 databases. The solution must meet the business requirements.

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

NOTE: Each correct selection is worth one point.

Azure Database Migration Service pricing tier:

	▼
Standard 2-vCore	
Standard 4-vCore	
Premium 4-vCore	

Required Azure resource:

	▼
A virtual network that has service endpoints	
A VPN gateway	
An Azure Logic app	

**Answer:**

Azure Database Migration Service pricing tier:

	▼
Standard 2-vCore	
Standard 4-vCore	
Premium 4-vCore	

Required Azure resource:

	▼
A virtual network that has service endpoints	
A VPN gateway	
An Azure Logic app	

### Explanation:

Azure Database Migration service

Box 1: Premium 4-VCORE

Scenario: Migrate the SERVER1 databases to the Azure SQL Database platform.

Minimize downtime during the migration of the SERVER1 databases.

Premium 4-vCore is for large or business critical workloads. It supports online migrations, offline migrations, and faster migration speeds.

Incorrect Answers:

The Standard pricing tier suits most small- to medium- business workloads, but it supports offline migration only.

Box 2: A VPN gateway

You need to create a Microsoft Azure Virtual Network for the Azure Database Migration Service by using the Azure Resource Manager deployment model, which provides site-to-site connectivity to your onpremises

source servers by using either ExpressRoute or VPN.

Reference:

<https://azure.microsoft.com/pricing/details/database-migration/>

<https://docs.microsoft.com/en-us/azure/dms/tutorial-sql-server-azure-sql-online>

## Question: 2

DRAG DROP

You need to configure user authentication for the SERVER1 databases. The solution must meet the security and compliance requirements.

Which three 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

Create a user in the master database

Modify the Azure SQL server administrator account

Create contained database users

Create an Azure AD administrator for the logical server

Connect to the databases by using an Azure AD account

Enable the contained database authentication option

### Answer Area



**Answer:**

Create an Azure AD administrator for the logical server

Create contained database users

Connect to the databases by using an Azure AD account

Explanation:

Scenario: Authenticate database users by using Active Directory credentials.

The configuration steps include the following procedures to configure and use Azure Active Directory authentication.

Create and populate Azure AD.

Optional: Associate or change the active directory that is currently associated with your Azure Subscription.

Create an Azure Active Directory administrator. (Step 1)

Configure your client computers.

Create contained database users in your database mapped to Azure AD identities. (Step 2)

Connect to your database by using Azure AD identities. (Step 3)

Reference:

<https://docs.microsoft.com/en-us/azure/azure-sql/database/authentication-aad-overview>

### Question: 3

HOTSPOT

You need to implement the monitoring of SalesSQLDb1. The solution must meet the technical requirements.

How should you collect and stream metrics? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Collect metrics from:

	▼
The database only	
The elastic pool and the database	
The elastic pool only	
The server, the elastic pool, and the database	

Stream metrics to:

	▼
Azure Event Hubs	
Azure Log Analytics	
Azure Storage	

**Answer:**

Collect metrics from:

	▼
The database only	
The elastic pool and the database	
The elastic pool only	
The server, the elastic pool, and the database	

Stream metrics to:

	▼
Azure Event Hubs	
Azure Log Analytics	
Azure Storage	

Explanation:

Box 1: The server, the elastic pool, and the database

Senario:

SalesSQLDb1 is in an elastic pool named SalesSQLDb1Pool.

Litware technical requirements include: all SQL Server and Azure SQL Database metrics related to CPU and storage usage and limits must be analyzed by using Azure built-in functionality.

Box 2: Azure Event hubs

Scenario: Migrate ManufacturingSQLDb1 to the Azure virtual machine platform.

Event hubs are able to handle custom metrics.

Incorrect Answers:

Azure Log Analytics

Azure metric and log data are sent to Azure Monitor Logs, previously known as Azure Log Analytics, directly by Azure. Azure SQL Analytics is a cloud only monitoring solution supporting streaming of diagnostics telemetry for all of your Azure SQL databases.

However, because Azure SQL Analytics does not use agents to connect to Azure Monitor, it does not support monitoring of SQL Server hosted on-premises or in virtual machines.

## Question: 4

You need to identify the cause of the performance issues on SalesSQLDb1.

Which two dynamic management views should you use? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. sys.dm\_pdw\_nodes\_tran\_locks
- B. sys.dm\_exec\_compute\_node\_errors
- C. sys.dm\_exec\_requests
- D. sys.dm\_cdc\_errors

- E. sys.dm\_pdw\_nodes\_os\_wait\_stats
- F. sys.dm\_tran\_locks

**Answer: AE**

Explanation:

SalesSQLDb1 experiences performance issues that are likely due to out-of-date statistics and frequent blocking queries.

A: Use sys.dm\_pdw\_nodes\_tran\_locks instead of sys.dm\_tran\_locks from Azure Synapse Analytics (SQL Data Warehouse) or Parallel Data Warehouse.

E: Example:

The following query will show blocking information.

```
SELECT
t1.resource_type,
t1.resource_database_id,
t1.resource_associated_entity_id,
t1.request_mode,
t1.request_session_id,
t2.blocking_session_id
FROM sys.dm_tran_locks as t1
INNER JOIN sys.dm_os_waiting_tasks as t2
ON t1.lock_owner_address = t2.resource_address;
```

Note: Depending on the system you're working with you can access these wait statistics from one of three locations:

- sys.dm\_os\_wait\_stats: for SQL Server
- sys.dm\_db\_wait\_stats: for Azure SQL Database
- sys.dm\_pdw\_nodes\_os\_wait\_stats: for Azure SQL Data Warehouse

Incorrect Answers:

F: sys.dm\_tran\_locks returns information about currently active lock manager resources in SQL Server 2019 (15.x). Each row represents a currently active request to the lock manager for a lock that has been granted or is waiting to be granted.

Instead use sys.dm\_pdw\_nodes\_tran\_locks.

Reference:

<https://docs.microsoft.com/en-us/sql/relational-databases/system-dynamic-management-views/sysdm-tran-locks-transact-sql>

## Question: 5

HOTSPOT

You need to recommend a configuration for ManufacturingSQLDb1 after the migration to Azure. The solution must meet the business 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.

Quorum model:

	▼
Cloud witness	
Disk witness	
File share witness	

Azure resource for the availability group listener:

	▼
Azure Application Gateway	
Azure Basic Load Balancer	

**Answer:**

Quorum model:

	▼
Cloud witness	
Disk witness	
File share witness	

Azure resource for the availability group listener:

	▼
Azure Application Gateway	
Azure Basic Load Balancer	

Scenario: Business Requirements

Litware identifies business requirements include: meet an SLA of 99.99% availability for all Azure deployments.

Box 1: Cloud witness

If you have a Failover Cluster deployment, where all nodes can reach the internet (by extension of Azure), it is recommended that you configure a Cloud Witness as your quorum witness resource.

Box 2: Azure Basic Load Balancer

Microsoft guarantees that a Load Balanced Endpoint using Azure Standard Load Balancer, serving two or more Healthy Virtual Machine Instances, will be available 99.99% of the time.

Note: There are two main options for setting up your listener: external (public) or internal. The external (public) listener uses an internet facing load balancer and is associated with a public Virtual IP (VIP) that is accessible over the internet. An internal listener uses an internal load balancer and only supports clients within the same Virtual Network.

Reference:

<https://technet.microsoft.com/windows-server-docs/failover-clustering/deploy-cloud-witness>

[https://azure.microsoft.com/en-us/support/legal/sla/load-balancer/v1\\_0/](https://azure.microsoft.com/en-us/support/legal/sla/load-balancer/v1_0/)