

# IT 认证电子书



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**Exam** : **AZ-104**

**Title** : Microsoft Azure  
Administrator

**Version** : DEMO

## 1. Topic 1, Litware, inc.

### Overview

Litware, Ltd. is a consulting company that has a main office in Montreal and two branch offices in Seattle and New York.

The Montreal office has 2,000 employees. The Seattle office has 1,000 employees. The New York office has 200 employees.

All the resources used by Litware are hosted on-premises.

Litware creates a new Azure subscription. The Azure Active Directory (Azure AD) tenant uses a domain named Litware.onmicrosoft.com. The tenant uses the P1 pricing tier.

### Existing Environment

The network contains an Active Directory forest named Litware.com. All domain controllers are configured as DNS servers and host the Litware.com DNS zone.

Litware has finance, human resources, sales, research, and information technology departments. Each department has an organizational unit (OU) that contains all the accounts of that respective department. All the user accounts have the department attribute set to their respective department. New users are added frequently.

Litware.com contains a user named User1.

All the offices connect by using private links.

Litware has data centers in the Montreal and Seattle offices. Each data center has a firewall that can be configured as a VPN device.

All infrastructure servers are virtualized.

The virtualization environment contains the servers in the following table.

Name	Role	Contains virtual machine
Server1	VMWare vCenter server	VM1
Server2	Hyper-V-host	VM2

Litware uses two web applications named App1 and App2. Each instance on each web application requires 1GB of memory.

The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
VM3	Virtual machine
VM4	Virtual machine

The network security team implements several network security groups (NSGs).

### Planned Changes

Litware plans to implement the following changes:

- Deploy Azure ExpressRoute to the Montreal office.
- Migrate the virtual machines hosted on Server1 and Server2 to Azure.
- Synchronize on-premises Active Directory to Azure Active Directory (Azure AD).
- Migrate App1 and App2 to two Azure web apps named webApp1 and WebApp2.

### Technical requirements

Litware must meet the following technical requirements:

- Ensure that WebApp1 can adjust the number of instances automatically based on the load and can scale up to five instance\*.
- Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.
- Ensure that routing information is exchanged automatically between Azure and the routers in the Montreal office.
- Enable Azure Multi-Factor Authentication (MFA) for the users in the finance department only.
- Ensure that webapp2.azurewebsites.net can be accessed by using the name app2.Litware.com.
- Connect the New Your office to VNet1 over the Internet by using an encrypted connection.
- Create a workflow to send an email message when the settings of VM4 are modified.
- Create a custom Azure role named Role1 that is based on the Reader role.
- Minimize costs whenever possible.

### HOTSPOT

You need to meet the connection requirements for the New York office.

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

From the Azure portal:

	▼
Create an ExpressRoute circuit only.	
Create a virtual network gateway only.	
Create a virtual network gateway and a local network gateway.	
Create an ExpressRoute circuit and an on-premises data gateway.	
Create a virtual network gateway and an on-premises data gateway.	

In the New York office:

	▼
Deploy ExpressRoute.	
Deploy a DirectAccess server.	
Implement a Web Application Proxy.	
Configure a site-to-site VPN connection.	

**Answer:**

From the Azure portal:

- Create an ExpressRoute circuit only.
- Create a virtual network gateway only.
- Create a virtual network gateway and a local network gateway.**
- Create an ExpressRoute circuit and an on-premises data gateway.
- Create a virtual network gateway and an on-premises data gateway.

In the New York office:

- Deploy ExpressRoute.
- Deploy a DirectAccess server.
- Implement a Web Application Proxy.
- Configure a site-to-site VPN connection.**

**Explanation:**

Box 1: Create a virtual network gateway and a local network gateway.

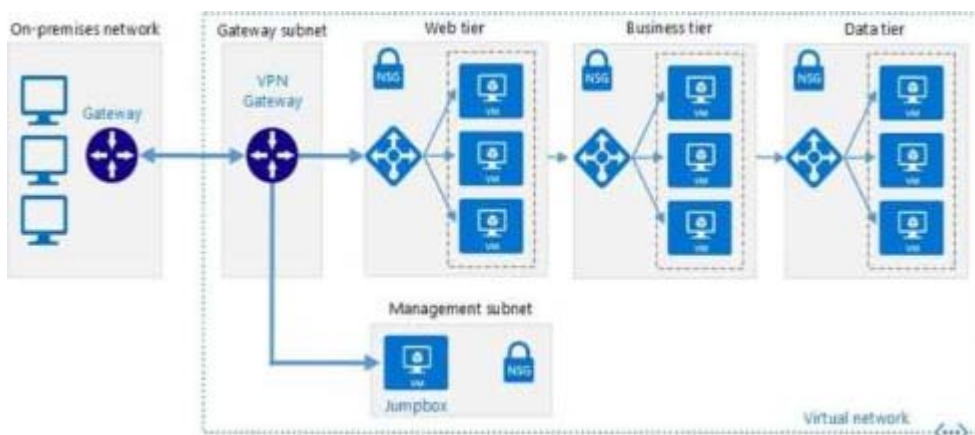
Azure VPN gateway. The VPN gateway service enables you to connect the VNet to the on-premises network through a VPN appliance. For more information, see [Connect an on-premises network to a Microsoft Azure virtual network](#).

The VPN gateway includes the following elements:

- ⇒ Virtual network gateway. A resource that provides a virtual VPN appliance for the VNet. It is responsible for routing traffic from the on-premises network to the VNet.
- ⇒ Local network gateway. An abstraction of the on-premises VPN appliance. Network traffic from the cloud application to the on-premises network is routed through this gateway.
- ⇒ Connection. The connection has properties that specify the connection type (IPSec) and the key shared with the on-premises VPN appliance to encrypt traffic.
- ⇒ Gateway subnet. The virtual network gateway is held in its own subnet, which is subject to various requirements, described in the Recommendations section below.

Box 2: Configure a site-to-site VPN connection

On premises create a site-to-site connection for the virtual network gateway and the local network gateway.



Scenario: Connect the New York office to VNet1 over the Internet by using an encrypted connection.

2.You need to recommend a solution to automate the configuration for the finance department users.

The solution must meet the technical requirements.

What should you include in the recommended?

- A. Azure AP B2C
- B. Azure AD Identity Protection
- C. an Azure logic app and the Microsoft Identity Management (MIM) client
- D. dynamic groups and conditional access policies

**Answer: D**

**Explanation:**

Technically, The finance department needs to migrate their users from AD to AAD using AADC based on the finance OU, and need to enforce MFA use. This is conditional access policy. Employees also often get promotions and/or join other departments and when that occurs, the user's OU attribute will change when the admin puts the user in a new OU, and the dynamic group conditional access exception (OU= [Department Name Value]) will move the user to the appropriate dynamic group on next AADC delta sync.

<https://docs.microsoft.com/en-us/azure/active-directory/enterprise-users/groups-dynamic-membership>

<https://docs.microsoft.com/en-us/azure/active-directory/conditional-access/overview>

<https://docs.microsoft.com/en-us/azure/active-directory/authentication/howto-mfa-userstates>

3.You need to ensure that VM1 can communicate with VM4. The solution must minimize administrative effort.

What should you do?

- A. Create 2 user-defined route from VNET1 to VNET3.
- B. Assign VM4 an IP address of 10.0.1.5/24.
- C. Establish peering between VNET1 and VNET3.
- D. Create an NSG and associate the NSG to VMI and VM4.

**Answer: B**

**Explanation:**

Reference: <https://docs.microsoft.com/en-us/azure/vpn-gateway/tutorial-site-to-site-portal>

4.You discover that VM3 does NOT meet the technical requirements.

You need to verify whether the issue relates to the NSGs.

What should you use?

- A. Diagram in VNet1
- B. the security recommendations in Azure Advisor
- C. Diagnostic settings in Azure Monitor
- D. Diagnose and solve problems in Traffic Manager Profiles
- E. IP flow verify in Azure Network Watcher

**Answer: E**

**Explanation:**

Scenario: Litware must meet technical requirements including:

Ensure that VM3 can establish outbound connections over TCP port 8080 to the applications servers in the Montreal office.

IP flow verify checks if a packet is allowed or denied to or from a virtual machine. The information

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

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

5. You discover that VM3 does NOT meet the technical requirements. You need to verify whether the issue relates to the NSGs.

What should you use?

- A. Diagnose and solve problems in Traffic Manager profiles
- B. Diagnostic settings in Azure Monitor
- C. the security recommendations in Azure Advisor
- D. Diagram in VNet1
- E. IP flow verify in Azure Network Watcher

**Answer: E**