

**Answer:**

## Actions

Remove nsg1.

Create an availability set.

## Answer Area

Remove the public IP addresses from vm1 and vm2.

Create a health probe and backend pool on lb1.

Create a load balancing rule on lb1.



**Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/tutorial-load-balancer-standard-public-zone-redundancy-portal>

## Question: 450

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

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.

You manage a virtual network named VNet1 that is hosted in the West US Azure region.

VNet1 hosts two virtual machines named VM1 and VM2 that run Windows Server.

You need to inspect all the network traffic from VM1 to VM2 for a period of three hours.

Solution: From Azure Monitor, you create a metric on Network In and Network Out.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

Reference:

<https://azure.microsoft.com/en-us/updates/general-availability-azure-network-watcher-connection-monitor-in-all-public-regions/>

## Question: 451

## AZ-104

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.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

VM2 - Networking

Network Interface: VM2-NIC1 Effective security rules Topology

Virtual network/subnet: Vnet1/Subnet11 NIC Public IP: - NIC Private IP: 10.240.11.5 Accelerated networking: Disabled

Inbound port rules Outbound port rules Application security groups Load balancing

Network security group NSG2 (attached to network interface: Subnet11) Impacts 1 subnets, 0 network interfaces Add inbound port rule

Priority	Name	Port	Protocol	Source	Destination	Action	...
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<span>Allow</span>	...
200	BlockAllOther441	443	Any	Any	Any	<span>Deny</span>	...
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span>Allow</span>	...
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span>Allow</span>	...
65500	DenyAllInBound	Any	Any	Any	Any	<span>Deny</span>	...

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port 443.

Solution: You create an inbound security rule that denies all traffic from the 131.107.100.50 source and has a priority of 64999.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

Reference:

<https://fastreroute.com/azure-network-security-groups-explained/>

## Question: 452

AZ-104

DRAG DROP -

You have an Azure subscription that contains two on-premises locations named site1 and site2.

You need to connect site1 and site2 by using an Azure Virtual WAN.

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.

Select and Place:

**Actions**

Create a virtual hub.

Create VPN sites.

Connect the virtual networks to the hub.

Create a Virtual WAN resource.

Connect the VPN sites to the hub.

**Answer Area****Answer:****Actions**

Connect the virtual networks to the hub.

**Answer Area**

Create a Virtual WAN resource.

Create a virtual hub.

Create VPN sites.

Connect the VPN sites to the hub.

**Explanation:**

1. Create A Virtual WAN
2. Create Virtual Hub
3. Create VPN sites
4. Connect VPN sites to virtual hub

**Reference:**

<https://docs.microsoft.com/en-us/azure/virtual-wan/virtual-wan-site-to-site-portal>

**Question: 453****AZ-104**

HOTSPOT -

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Peered with	DNS server
VNET1	VNET2	Default (Azure-provided)
VNET2	VNET1	10.10.0.4

You have the virtual machines shown in the following table.

Name	IP address	Network interface	Connects to
Server1	10.10.0.4	NIC1	VNET1/Subnet1
Server2	172.16.0.4	NIC2	VNET1/Subnet2
Server3	192.168.0.4	NIC3	VNET2/Subnet2

You have the virtual network interfaces shown in the following table.

Name	DNS server
NIC1	Inherit from virtual network
NIC2	10.10.0.4
NIC3	Inherit from virtual network

Server1 is a DNS server that contains the resources shown in the following table.

Name	Type	Value
contoso.com	Primary DNS zone	Not applicable
Host1.contoso.com	A record	131.107.10.15

You have an Azure private DNS zone named contoso.com that has a virtual network link to VNET2 and the records shown in the following table.

Name	Type	Value
Host1	A record	131.107.200.20
Host2	A record	131.107.50.50

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
Server2 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input type="radio"/>
Server2 resolves host1.contoso.com to 131.107.10.15.	<input type="radio"/>	<input type="radio"/>
Server3 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
Server2 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input checked="" type="radio"/>
Server2 resolves host1.contoso.com to 131.107.10.15.	<input checked="" type="radio"/>	<input type="radio"/>
Server3 resolves host2.contoso.com to 131.107.50.50.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

No: Server2 uses Server1 for DNS. Server1 has no host2.contoso.com record for 131.107.50.50. It would work if VNET1 had a virtual network link to the private zone contoso.com.

Yes: Server2 uses Server1 for DNS. Server1 has a host1.contoso.com record for 131.107.10.15

No: Server3 uses 10.10.0.4 as DNS (inherited from VNET2). 10.10.0.4 (Server1) has no record for host2.contoso.com. The virtual network link for the private zone contoso.com on VNET2 won't be used since the DNS from VNET1 is set on VNET2. VNET1 DNS is not aware of the private zone contoso.com. It would work

if VNET1 had a virtual network link to the private zone contoso.com.

### Question: 454

### AZ-104: Actual Exam Q&A | CLEARCATNET

You have a virtual network named VNet1 as shown in the exhibit. (Click the Exhibit tab.)

		Refresh	Move	Delete
Resource group (change)	Production			Address space 10.2.0.0/16
Location	West US			DNS servers Azure provided DNS service
Subscription (change)	Production subscription			
Subscription ID	14d26092-8e42-4ea7-b770-9dcef70fb1ea			
Tags (change)	Click here to add tags			
Connected devices				
<input type="text"/> Search connected devices				
DEVICE	TYPE	IP ADDRESS	SUBNET	
No results.				

No devices are connected to VNet1.

You plan to peer VNet1 to another virtual network named VNet2. VNet2 has an address space of 10.2.0.0/16.

You need to create the peering.

What should you do first?

- A. Modify the address space of VNet1.
- B. Add a gateway subnet to VNet1.
- C. Create a subnet on VNet1 and VNet2.
- D. Configure a service endpoint on VNet2.

### Answer: A

#### Explanation:

The virtual networks you peer must have non-overlapping IP address spaces. The exhibit indicates that VNet1 has an address space of 10.2.0.0/16, which is the same as VNet2, and thus overlaps. We need to change the address space for VNet1.

#### Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-manage-peering#requirements-and-constraints> <https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-faq>

### Question: 455

### AZ-104

You have the Azure virtual machines shown in the following table.

Name	IP address	Virtual network
VM1	10.0.0.4	VNET1
VM2	10.0.0.5	VNET1

VNET1 is linked to a private DNS zone named contoso.com that contains the records shown in the following table.

Name	Type	TTL	Value	Auto registered
comp1	TXT	3600	10.0.0.5	False
comp2	A	3600	10.0.0.5	False
comp3	CNAME	3600	comp1.contoso.com	False
comp4	PTR	3600	10.0.0.5	False

You need to ping VM2 from VM1.

Which DNS names can you use to ping VM2?

- A. comp2.contoso.com and comp4.contoso.com only
- B. comp1.contoso.com, comp2.contoso.com, comp3.contoso.com, and comp4.contoso.com
- C. comp2.contoso.com only
- D. comp1.contoso.com and comp2.contoso.com only
- E. comp1.contoso.com, comp2.contoso.com, and comp4.contoso.com only

**Answer: C**

**Explanation:**

comp2.contoso.com only

A record: Is used to map a DNS/domain name to an IP

TXT records in a lot of cases get used to prove ownership of a domain, it has other purposes too.

PTR: A Reverse DNS lookup is used by remote hosts to determine who 'owns' an IP address.

CNAME records get used to redirect a DNS name or subdomain name to another DNS name or domain name or subdomain name.

It would do good to read up on DNS record types and what they are used for, you will be lost if you don't have a basic understanding of it.

DNS is a key component in the IT field.

reference:

<https://support.dnsimple.com/articles/cname-record/>

<https://ns1.com/resources/dns-types-records-servers-and-queries>

<https://www.mailenable.com/kb/content/article.asp?ID=ME020206>

<https://support.google.com/a/answer/2716800?hl=en#:~:text=txt%20records%20are%20a%20type, and%20to%20ensure%20email%20security.>

<https://www.cloudflare.com/learning/dns/dns-records/dns-a-record/>

**Question: 456****AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You have a network security group (NSG) named NSG1 that has the rules defined in the exhibit. (Click the Exhibit tab.)

```
PS C:\> Get-AzNetworkSecurityGroup -Name "NSG1" -ResourceGroupName "RG1" | Select -ExpandProperty SecurityRules

Name          : ALLOW_HTTPS
Id            : /subscriptions/09d06b22-ff51-48b7-a8be-947f15cbd69d/resourceGroups/RG1/providers/Microsoft.Network/networkSecurityGroups/NSG1/securityRules/ALLOW_HTTPS
Etag          : W/"8e3e9995-aa78-41e2-bfea-44b50c389873"
ProvisioningState : Succeeded
Description    :
Protocol      : TCP
SourcePortRange : {*}
DestinationPortRange : {443}
SourceAddressPrefix : {*}
DestinationAddressPrefix : {*}
SourceApplicationSecurityGroups : []
DestinationApplicationSecurityGroups : []
Access         : Allow
Priority       : 100
Direction      : Inbound

Name          : DENY_PING
Id            : /subscriptions/09d06b22-ff51-48b7-a8be-947f15cbd69d/resourceGroups/RG1/providers/Microsoft.Network/networkSecurityGroups/NSG1/securityRules/DENY_PING
Etag          : W/"8e3e9995-aa78-41e2-bfea-44b50c389873"
ProvisioningState : Succeeded
Description    :
Protocol      : ICMP
SourcePortRange : {*}
DestinationPortRange : {*}
SourceAddressPrefix : {VirtualNetwork}
DestinationAddressPrefix : {*}
SourceApplicationSecurityGroups : []
DestinationApplicationSecurityGroups : []
Access         : Deny
Priority       : 111
Direction      : Outbound
```

NSG1 is associated to a subnet named Subnet1. Subnet1 contains the virtual machines shown in the following table.

Name	IP address
VM1	10.1.0.10
VM2	10.1.0.11

You need to add a rule to NSG1 to ensure that VM1 can ping VM2. The solution must use the principle of least privilege.

How should you configure the rule? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Direction:

Inbound

Outbound

Source:

Any

10.1.0.10

10.1.0.11

10.1.0.10; 10.1.0.11

10.1.0.0/28

Destination:

Any

10.1.0.10

10.1.0.11

10.1.0.10; 10.1.0.11

10.1.0.0/28

Priority:

110

111

112

Answer:

## Answer Area

Direction:

Inbound
Outbound

Source:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Destination:

Any
10.1.0.10
10.1.0.11
10.1.0.10; 10.1.0.11
10.1.0.0/28

Priority:

110
111
112

### Explanation:

Direction: Outbound

Source 10.1.0.10 (VM1)

Destination: 10.1.0.11 (VM2)

Priority: 110

### Question: 457

AZ-104

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.

You have a computer named Computer1 that has a point-to-site VPN connection to an Azure virtual network named VNet1. The point-to-site connection uses a self-signed certificate.

From Azure, you download and install the VPN client configuration package on a computer named Computer2.

You need to ensure that you can establish a point-to-site VPN connection to VNet1 from Computer2.

Solution: On Computer2, you set the Startup type for the IPSec Policy Agent service to Automatic.

Does this meet the goal?

- A. Yes
- B. No

**Answer: B**

**Explanation:**

Each client computer that connects to a VNet using Point-to-Site must have a client certificate installed. You generate a client certificate from the self-signed root certificate, and then export and install the client certificate. If the client certificate is not installed, authentication fails.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-certificates-point-to-site>

### Question: 458

### AZ-104: Actual Exam Q&A | CLEARCATNET

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to Client IP and protocol
- B. Protocol to UDP
- C. Session persistence to None
- D. Floating IP (direct server return) to Enabled

**Answer: A**

**Explanation:**

None (hash-based) - Specifies that successive requests from the same client may be handled by any virtual machine.

Client IP (source IP affinity two-tuple) - Specifies that successive requests from the same client IP address will be handled by the same virtual machine.

Client IP and protocol (source IP affinity three-tuple) - Specifies that successive requests from the same client IP address and protocol combination will be handled by the same virtual machine.

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-distribution-mode?tabs=azure-portal>

<https://docs.microsoft.com/en-us/azure/load-balancer/load-balancer-distribution-mode?tabs=azure-portal>

### Question: 459

### AZ-104

You have an Azure subscription that uses the public IP addresses shown in the following table.

Name	IP version	SKU	IP address assignment	Availability zone
IP1	IPv6	Basic	Static	Not applicable
IP2	IPv6	Basic	Dynamic	Not applicable
IP3	IPv6	Standard	Static	Zone-redundant

You need to create a public Azure Standard Load Balancer.

Which public IP addresses can you use?

- A. IP1, IP2, and IP3
- B. IP2 only
- C. IP3 only
- D. IP1 and IP3 only

**Answer: C**

**Explanation:**

Matching SKUs are required for load balancer and public IP resources. You can't have a mixture of Basic SKU resources and standard SKU resources.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/ip-services/public-ip-addresses>

### Question: 460

**AZ-104**

You have an Azure subscription.

You are deploying an Azure Kubernetes Service (AKS) cluster that will contain multiple pods. The pods will use kubernetes networking.

You need to restrict network traffic between the pods.

What should you configure on the AKS cluster?

- A. the Azure network policy
- B. the Calico network policy
- C. pod security policies
- D. an application security group

**Answer: B**

**Explanation:**

The question describes “the pods will use kubernetes networking.”

To provide network connectivity, AKS clusters can use kubernetes (basic networking) or Azure CNI (advanced networking).

Azure Network Policies supports Azure CNI only. Calico Network Policies supports both Azure CNI (Windows Server 2019 and Linux) and kubernetes (Linux).

Reference

<https://docs.microsoft.com/en-us/azure/aks/use-network-policies>

<https://docs.microsoft.com/en-us/azure/aks/configure-kubenet>

Reference:

<https://docs.microsoft.com/en-us/azure/aks/use-network-policies>

**Question: 461**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You have an Azure subscription that contains a virtual network named VNet1. VNet1 uses an IP address space of 10.0.0.0/16 and contains the VPN Gateway and subnets in the following table:

Name	IP address range
Subnet0	10.0.0.0/24
Subnet1	10.0.1.0/24
Subnet2	10.0.2.0/24
GatewaySubnet	10.0.254.0/24

Subnet1 contains a virtual appliance named VM1 that operates as a router.

You create a routing table named RT1.

You need to route all inbound traffic from the VPN gateway to VNet1 through VM1.

How should you configure RT1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Address prefix

- 10.0.0.0/16
- 10.0.1.0/24
- 10.0.254.0/24

Next hop type

- Virtual appliance
- Virtual network
- Virtual network gateway

Assigned to

- GatewaySubnet
- Subnet0
- Subnet1 and Subnet2

Answer:

## Answer Area

Address prefix

10.0.0.0/16
10.0.1.0/24
10.0.254.0/24

Next hop type

Virtual appliance
Virtual network
Virtual network gateway

Assigned to

GatewaySubnet
Subnet0
Subnet1 and Subnet2

Explanation:

Box 1: 10.0.0.0/16

Address prefix

destination-> Vnet 1 (Address space of Vnet1)

Box 2: Virtual appliance

Next hop type

VM1 ->Virtual Appliance. You can specify IP address of VM 1 when configuring next hop as Virtual appliance.

Box 3: Gateway Subnet

Assigned to

This route is to be followed by Gateway Subnet for the incoming traffic. You can associate routing table to the Subnet from Rout Table -> subnet ->Associate.

Question: 462

AZ-104

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines. You need to ensure that visitors are serviced by the same web server for each request. What should you configure?

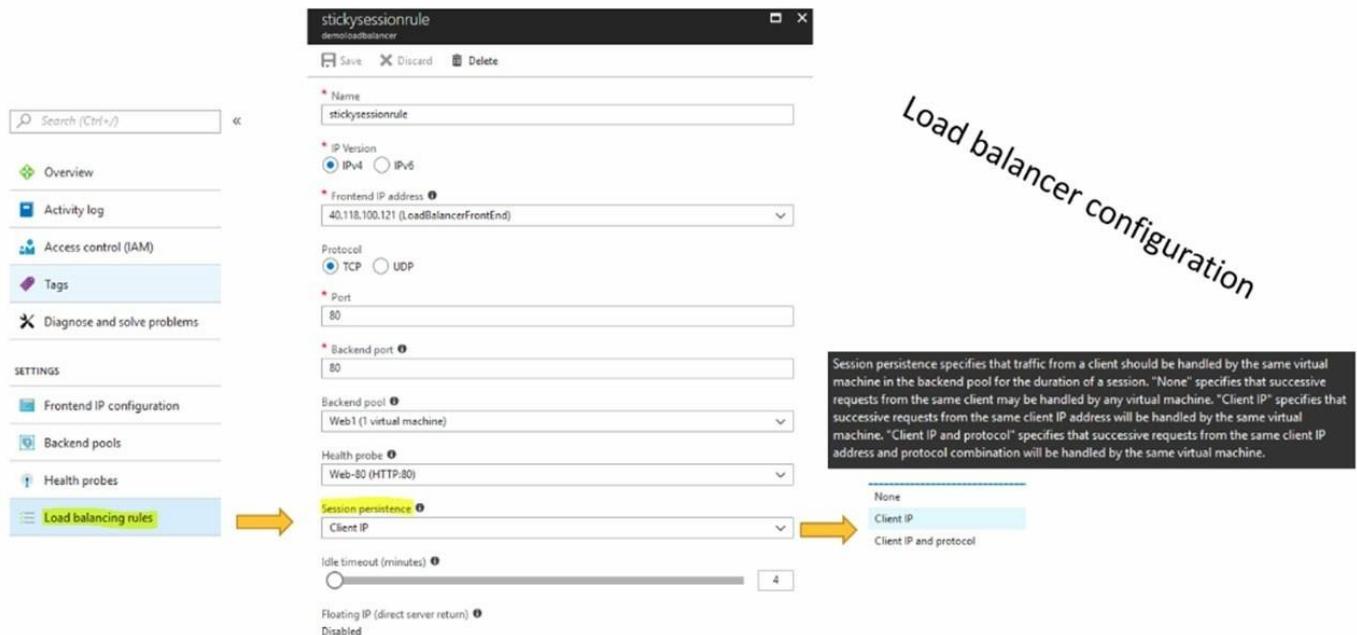
- A. Floating IP (direct server return) to Enabled
- B. Floating IP (direct server return) to Disabled
- C. a health probe
- D. Session persistence to Client IP and Protocol

### Answer: D

#### Explanation:

With Sticky Sessions when a client starts a session on one of your web servers, session stays on that specific server. To configure An Azure Load-Balancer For Sticky Sessions set Session persistence to Client IP.

On the following image you can see sticky session configuration:



#### Note:

There are several versions of this question in the exam. The question can have other incorrect answer options, including the following:

1. Idle Time-out (minutes) to 20
2. Protocol to UDP

#### Reference:

<https://cloudopszone.com/configure-azure-load-balancer-for-sticky-sessions/>

### Question: 463

AZ-104

#### HOTSPOT -

You have an Azure subscription that contains the virtual machines shown in the following table:

Name	Operating system	Connects to
VM1	Windows Server 2019	Subnet1
VM2	Windows Server 2019	Subnet2

VM1 and VM2 use public IP addresses. From Windows Server 2019 on VM1 and VM2, you allow inbound Remote Desktop connections.

Subnet1 and Subnet2 are in a virtual network named VNET1.

The subscription contains two network security groups (NSGs) named NSG1 and NSG2. NSG1 uses only the default rules.

NSG2 uses the default rules and the following custom incoming rule:

- ⇒ Priority: 100
- ⇒ Name: Rule1
- ⇒ Port: 3389
- ⇒ Protocol: TCP
- ⇒ Source: Any
- ⇒ Destination: Any
- ⇒ Action: Allow

NSG1 is associated to Subnet1. NSG2 is associated to the network interface of VM2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
From the Internet, you can connect to VM1 by using Remote Desktop.	<input type="radio"/>	<input checked="" type="radio"/>
From the Internet, you can connect to VM2 by using Remote Desktop.	<input checked="" type="radio"/>	<input type="radio"/>
From VM1, you can connect to VM2 by using Remote Desktop	<input checked="" type="radio"/>	<input type="radio"/>

## Question: 464

AZ-104

You have an Azure subscription that contains two virtual machines named VM1 and VM2.

You create an Azure load balancer.

You plan to create a load balancing rule that will load balance HTTPS traffic between VM1 and VM2.

Which two additional load balancer resources should you create before you can create the load balancing rule?

Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A. a frontend IP address
- B. an inbound NAT rule
- C. a virtual network
- D. a backend pool

E. a health probe

**Answer: DE**

**Explanation:**

You can't create a LB without FrontEnd IP, so if we have a LB we also have a FrontEnd IP already. You can however create a LB without a backend pool and without any rules. If you want to add a rule to your LB later you have to create a backend pool and health probe first. Those are mandatory properties for a rule. I also tested it in my lab to be sure.

Reference:

<https://docs.microsoft.com/en-us/azure/load-balancer/components>

**Question: 465**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an on-premises network that contains a database server named dbserver1.

You have an Azure subscription.

You plan to deploy three Azure virtual machines. Each virtual machine will be deployed to a separate availability zone.

You need to configure an Azure VPN gateway for a site-to-site VPN. The solution must ensure that the virtual machines can connect to dbserver1.

Which type of public IP address SKU and assignment should you use for the gateway?

- A. a basic SKU and a static IP address assignment
- B. a standard SKU and a static IP address assignment
- C. a basic SKU and a dynamic IP address assignment

**Answer: B**

**Explanation:**

since the VMs are in AZ then VPN gateway will have to be in AZ which will rely on Azure public IP resource Standard SKU. And must be Static as Dynamic is only for non-AZ. See links below.

<https://learn.microsoft.com/en-us/azure/virtual-network/ip-services/public-ip-addresses#at-a-glance>

<https://learn.microsoft.com/en-us/azure/vpn-gateway/about-zone-redundant-vnet-gateways>

**Question: 466**

**AZ-104**

HOTSPOT -

You have the Azure virtual machines shown in the following table.

Name	IP address	Virtual network
VM1	10.0.0.4	VNET1
VM2	172.16.0.4	VNET2
VM3	192.168.0.4	VNET3
VM4	192.168.0.5	VNET3

VNET1, VNET2, and VNET3 are peered.

Name	Type	Value
Server1	A	131.107.2.3
Server2	A	131.107.2.4

VNET1 and VNET2 are linked to an Azure private DNS zone named contoso.com that contains the records shown in the following table.

Name	Type	Value
Server1	A	131.107.3.3
Server2	A	131.107.3.4

The virtual networks are configured to use the DNS servers shown in the following table.

Virtual network	DNS server
VNET1	Default (Azure-provided)
VNET2	Custom: 192.168.0.5
VNET3	Custom: 192.168.0.5

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Statements	Yes	No
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input type="radio"/>	<input type="radio"/>

Answer:

Statements	Yes	No
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input checked="" type="radio"/>	<input type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input checked="" type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input checked="" type="radio"/>	<input type="radio"/>

**Explanation:**

Box 1: Yes -

VM1 is in VNET1. In VNET1 Server1 resolves to 131.107.3.3

Name	Type	Value
Server1	A	131.107.3.3
Server2	A	131.107.3.4

Box 2: No -

VM2 is in VNET2. VNET2 uses custom DNS server 192.168.05

Box 3: no

VM3 > VNET3 > Custom DNS > server2 is 131.107.3.4 for the same reason as above.

**Question: 467****AZ-104: Actual Exam Q&A | CLEARCATNET****HOTSPOT -**

You have two Azure virtual machines as shown in the following table.

Name	Operating system	Private IP address	Public IP address	DNS suffix configured in the operating system	Connected to
vm1	Windows Server 2019	10.0.1.4	131.107.50.20	Contoso.com	vnet1
vm2	SUSE Linux Enterprise Server 15 (SLES) SP2	10.0.1.5	131.107.90.80	<b>None</b>	vnet1

You create the Azure DNS zones shown in the following table.

Name	Type
Contoso.com	DNS zone
Fabrikam.com	Private DNS zone

You perform the following actions:

⇒ In fabrikam.com, you add a virtual network link to vnet1 and enable auto registration.

⇒ For contoso.com, you assign vm1 and vm2 the Owner role.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

Statements	Yes	No
The DNS A record for vm1 is added to contoso.com and has the IP address of 131.107.50.20.	<input type="radio"/>	<input type="radio"/>
The DNS A record for vm1 is added to fabrikam.com and has the IP address of 10.0.1.4.	<input type="radio"/>	<input type="radio"/>
The DNS A record for vm2 is added to fabrikam.com and has the IP address of 10.0.1.5.	<input type="radio"/>	<input type="radio"/>

**Answer:**

Statements	Yes	No
The DNS A record for vm1 is added to contoso.com and has the IP address of 131.107.50.20.	<input type="radio"/>	<input checked="" type="radio"/>
The DNS A record for vm1 is added to fabrikam.com and has the IP address of 10.0.1.4.	<input checked="" type="radio"/>	<input type="radio"/>
The DNS A record for vm2 is added to fabrikam.com and has the IP address of 10.0.1.5.	<input checked="" type="radio"/>	<input type="radio"/>

**Explanation:**

Box 1: NO

none of the actions in question added the VM1 record to contoso.com dns

Box 2: Yes -

Fabrikam.com is a Private DNS zone. The private IP address is used.

Note: The Azure DNS private zones auto registration feature manages DNS records for virtual machines deployed in a virtual network. When you link a virtual network with a private DNS zone with this setting enabled, a DNS record gets created for each virtual machine deployed in the virtual network.

For each virtual machine, an A record and a PTR record are created. DNS records for newly deployed virtual machines are also automatically created in the linked private DNS zone.

Note: If you use Azure Provided DNS then appropriate DNS suffix will be automatically applied to your virtual machines. For all other options you must either use

Fully Qualified Domain Names (FQDN) or manually apply appropriate DNS suffix to your virtual machines.

Box 3: Yes -

**Question: 468**

AZ-104

You have an on-premises datacenter and an Azure subscription.

You plan to connect the datacenter to Azure by using ExpressRoute.

You need to deploy an ExpressRoute gateway. The solution must meet the following requirements:

- ⇒ Support up to 10 Gbps of traffic.
- ⇒ Support availability zones.
- ⇒ Support FastPath.
- ⇒ Minimize costs.

Which SKU should you deploy?

- A. ERGw1AZ
- B. ERGw2
- C. ErGw3
- D. ErGw3AZ

**Answer: D**

**Explanation:**

ErGw3Az supports FastPath.

The following table shows the features supported across each gateway type.

Gateway SKU	VPN Gateway and ExpressRoute coexistence	FastPath	Max Number of Circuit Connections
Standard SKU/ERGw1Az	Yes	No	4
High Perf SKU/ERGw2Az	Yes	No	8
Ultra Performance SKU/ErGw3Az	Yes	Yes	16

Note: ExpressRoute virtual network gateways can use the following SKUs:

Standard -

HighPerformance -

UltraPerformance -

ErGw1Az -

ErGw2Az -

ErGw3Az -

**Reference:**

<https://docs.microsoft.com/en-us/azure/expressroute/expressroute-about-virtual-network-gateways>

**Question: 469**

**AZ-104**

**HOTSPOT -**

You have a virtual network named VNET1 that contains the subnets shown in the following table:

Name	Subnet	Network security group (NSG)
Subnet1	10.10.1.0/24	NSG1
Subnet2	10.10.2.0/24	None

You have Azure virtual machines that have the network configurations shown in the following table:

Name	Subnet	IP address	NSG
VM1	Subnet1	10.10.1.5	NSG2
VM2	Subnet2	10.10.2.5	None
VM3	Subnet2	10.10.2.6	None

For NSG1, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
101	10.10.2.0/24	10.10.1.0/24	TCP/1433	Allow

For NSG2, you create the inbound security rule shown in the following table:

Priority	Source	Destination	Destination port	Action
125	10.10.2.5	10.10.1.5	TCP/1433	Block

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input type="radio"/>	<input type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input type="radio"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
VM2 can connect to the TCP port 1433 services on VM1.	<input type="radio"/>	<input checked="" type="radio"/>
VM1 can connect to the TCP port 1433 services on VM2.	<input checked="" type="radio"/>	<input type="radio"/>
VM2 can connect to the TCP port 1433 services on VM3.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

Box 1: NO

VM1 has the NSG1 on Subnet1, which allows traffic over port 1433 between Subnet2 and Subnet1. BUT NSG2 also applied on NIC level for VM1 that blocks the traffic on port 1433. Hence No traffic allowed. Answer is NO.

Box 2: Yes -

No rule explicitly blocks communication from VM1. The default rules, which allow communication, are thus applied.

Box 3: Yes -

No rule explicitly blocks communication between VM2 and VM3 which are both on Subnet2. The default rules, which allow communication, are thus applied.

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/security-overview>

### Question: 470

### AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You have an Azure subscription named Subscription1.

Subscription1 contains the virtual machines in the following table:

Name	IP address
VM1	10.0.1.4
VM2	10.0.2.4
VM3	10.0.3.4

Subscription1 contains a virtual network named VNet1 that has the subnets in the following table:

Name	Address space	Connected virtual machine
Subnet1	10.0.1.0/24	VM1
Subnet2	10.0.2.0/24	VM2
Subnet3	10.0.3.0/24	VM3

VM3 has multiple network adapters, including a network adapter named NIC3. IP forwarding is enabled on NIC3. Routing is enabled on VM3.

You create a route table named RT1 that contains the routes in the following table:

Address prefix	Next hop type	Next hop address
10.0.1.0/24	Virtual appliance	10.0.3.4
10.0.2.0/24	Virtual appliance	10.0.3.4

You apply RT1 to Subnet1 and Subnet2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	<input type="radio"/>	<input type="radio"/>
If VM3 is turned off, VM2 can establish a network connection to VM1.	<input type="radio"/>	<input type="radio"/>
VM1 can establish a network connection to VM2.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
VM3 can establish a network connection to VM1.	<input checked="" type="radio"/>	<input type="radio"/>
If VM3 is turned off, VM2 can establish a network connection to VM1.	<input type="radio"/>	<input checked="" type="radio"/>
VM1 can establish a network connection to VM2.	<input checked="" type="radio"/>	<input type="radio"/>

### Explanation:

IP forwarding enables the virtual machine a network interface is attached to:

- ☞ Receive network traffic not destined for one of the IP addresses assigned to any of the IP configurations assigned to the network interface.
- Send network traffic with a different source IP address than the one assigned to one of a network interface's IP configurations.
- The setting must be enabled for every network interface that is attached to the virtual machine that receives traffic that the virtual machine needs to forward. A virtual machine can forward traffic whether it has multiple network interfaces or a single network interface attached to it.

Box 1: Yes -

The routing table allows connections from VM3 to VM1 and VM2. And as IP forwarding is enabled on VM3, VM3 can connect to VM1.

Box 2: No -

VM3, which has IP forwarding, must be turned on, in order for VM2 to connect to VM1.

Box 3: Yes -

The routing table allows connections from VM1 and VM2 to VM3. IP forwarding on VM3 allows VM1 to connect to VM2 via VM3.

### Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-networks-udr-overview> <https://www.quora.com/What-is-IP-forwarding>

## Question: 471

AZ-104

Your on-premises network contains an SMB share named Share1.

You have an Azure subscription that contains the following resources:

- ☞ A web app named webapp1
- ☞ A virtual network named VNET1

You need to ensure that webapp1 can connect to Share1.

What should you deploy?

- A. an Azure Application Gateway
- B. an Azure Active Directory (Azure AD) Application Proxy
- C. an Azure Virtual Network Gateway

### Answer: C

### Explanation:

A Site-to-Site VPN gateway connection can be used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.

This type of connection requires a VPN device, a VPN gateway, located on-premises that has an externally facing public IP address assigned to it.

Incorrect Answers:

B: Application Proxy is a feature of Azure AD that enables users to access on-premises web applications from a remote client.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-resource-manager-portal>

## Question: 472

## AZ-104: Actual Exam Q&A | CLEARCATNET

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. Azure Application Insights
- C. Azure Custom Script Extension
- D. the New-AzConfigurationAssignment cmdlet

Answer: C

Explanation:

Note:

There are several versions of this question in the exam. The question has two correct answers:

- 1. a Desired State Configuration (DSC) extension
- 2. Azure Custom Script Extension

The question can have other incorrect answer options, including the following:

- ☞ Deployment Center in Azure App Service
- ☞ a Microsoft Intune device configuration profile

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/framework/devops/automation-configuration>

## Question: 473

## AZ-104

Your on-premises network contains a VPN gateway.

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

Name	Type	Description
vgw1	Virtual network gateway	Gateway for Site-to-Site VPN to the on-premises network
storage1	Storage account	Standard performance tier
Vnet1	Virtual network	Enabled forced tunneling
VM1	Virtual machine	Connected to Vnet1

You need to ensure that all the traffic from VM1 to storage1 travels across the Microsoft backbone network. What should you configure?

- A. a network security group (NSG)
- B. service endpoints
- C. Azure Peering Service
- D. Azure Firewall

**Answer: B**

**Explanation:**

"Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network. "

Reference:

<https://docs.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview>

### Question: 474

**AZ-104**

You plan to deploy route-based Site-to-Site VPN connections between several on-premises locations and an Azure virtual network.

Which tunneling protocol should you use?

- A. IKEv1
- B. PPTP
- C. IKEv2
- D. L2TP

**Answer: C**

**Explanation:**

A Site-to-Site (S2S) VPN gateway connection is used to connect your on-premises network to an Azure virtual network over an IPsec/IKE (IKEv1 or IKEv2) VPN tunnel.

IKEv2 supports 10 S2S connections, while IKEv1 only supports 1.

Reference:

<https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-howto-site-to-site-classic-portal> <https://docs.microsoft.com/en-us/azure/vpn-gateway/vpn-gateway-connect-multiple-policybased-rm-ps>

### Question: 475

**AZ-104**

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

Name	Type	Description
VNET1	Virtual network	Azure region: US East Contains the following subnets: <ul style="list-style-type: none"> <li>• Subnet1: 172.16.1.0/24</li> <li>• Subnet2: 172.16.2.0/24</li> <li>• Subnet3: 172.16.3.0/24</li> </ul>
VNET2	Virtual network	Azure region: West US Contains the following subnets: <ul style="list-style-type: none"> <li>• DemoSubnet1: 172.16.1.0/24</li> <li>• RecoverySubnetA: 172.16.5.0/24</li> <li>• RecoverySubnetB: 172.16.3.0/24</li> <li>• TestSubnet1: 172.16.2.0/24</li> </ul>
VM1	Virtual machine	Connected to Subnet2

You configure Azure Site Recovery to replicate VM1 between the US East and West US regions.

You perform a test failover of VM1 and specify VNET2 as the target virtual network.

When the test version of VM1 is created, to which subnet will the virtual machine be connected?

- A. TestSubnet1
- B. DemoSubnet1
- C. RecoverySubnetA
- D. RecoverySubnetB

**Answer:** A

**Explanation:**

TestSubnet1

<https://learn.microsoft.com/en-us/azure/site-recovery/concepts-network-security-group-with-site-recovery>

### Question: 476

**AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Protocol to UDP
- B. Session persistence to None
- C. Floating IP (direct server return) to Disabled
- D. Session persistence to Client IP

**Answer: D**

**Explanation:**

To ensure that visitors are serviced by the same web server for each request, you should configure session persistence to "Client IP" on the Azure load balancer.

**Question: 477**

**AZ-104**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. a Microsoft Endpoint Manager device configuration profile
- C. Deployment Center in Azure App Service
- D. a Desired State Configuration (DSC) extension

**Answer: D**

**Explanation:**

a Desired State Configuration (DSC) extension

**Question: 478**

**AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Disabled
- B. Session persistence to Client IP
- C. Protocol to UDP
- D. Idle Time-out (minutes) to 20

**Answer: B**

**Explanation:**

Session persistence to Client IP

**Question: 479**

**AZ-104**

You have an Azure subscription that contains 20 virtual machines, a network security group (NSG) named NSG1,

and two virtual networks named VNET1 and VNET2 that are peered.

You plan to deploy an Azure Bastion Basic SKU host named Bastion1 to VNET1.

You need to configure NSG1 to allow inbound access to the virtual machines via Bastion1.

Which port should you configure for the inbound security rule?

- A. 22
- B. 443
- C. 389
- D. 8080

**Answer: B**

**Explanation:**

443

Using Bastion your RDP/SSH session is over TLS on port 443.

<https://learn.microsoft.com/en-us/azure/bastion/bastion-overview>

If you say port 22 then what about windows VM as it is not mentioned that the VM is windows or Linux? You will have to allow port 443 in NSG.

## Question: 480

AZ-104

HOTSPOT

-

Your network contains an on-premises Active Directory Domain Services (AD DS) domain named contoso.com. The domain contains the servers shown in the following table.

Name	IP address	Role
DC1	192.168.2.1/16	Domain controller DNS server
Server1	192.168.2.50/16	Member server

You plan to migrate contoso.com to Azure.

You create an Azure virtual network named VNET1 that has the following settings:

- Address space: 10.0.0.0/16
- Subnet:
  - Name: Subnet1
  - IPv4: 10.0.1.0/24

You need to move DC1 to VNET1. The solution must ensure that the member servers in contoso.com can resolve AD DS DNS names.

How should you configure DC1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

IP address

Obtain an IP address automatically
Use 10.0.1.3
Use 10.0.2.1
Use 192.168.2.1

Name resolution

Configure VNET1 to use a custom DNS server
Configure VNET1 to use the default Azure-provided DNS server
Create an Azure Private DNS zone named contoso.com
Create an Azure public DNS zone named contoso.com

Answer:

## Answer Area

IP address

Obtain an IP address automatically
Use 10.0.1.3
Use 10.0.2.1
Use 192.168.2.1

Name resolution

Configure VNET1 to use a custom DNS server
Configure VNET1 to use the default Azure-provided DNS server
Create an Azure Private DNS zone named contoso.com
Create an Azure public DNS zone named contoso.com

Explanation:

1) Obtain an IP address automatically

The first 4 IP addresses within a subnet space are getting reserved for Azure automatically. Thus, 10.0.1.3 can't be the right answer. 10.0.2.1 is in the VNET space but falls out of the subnet space. 192.168.2.1 is just out of the VNET.

2) Configure VNET1 to use a custom DNS server

This VNET1 should use our pre-created DNS server as its DNS server so that the member servers in contoso.com can resolve AD DS DNS names.

**Question: 481****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to None
- B. a health probe
- C. Session persistence to Client IP
- D. Idle Time-out (minutes) to 20

**Answer: C****Explanation:**

Session persistence to Client IP

**Question: 482****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Azure region	Resource group
VNET1	West US	RG1
VNET2	Central US	RG1
VNET3	Central US	RG2
VNET4	West US	RG2

You need to deploy an Azure firewall named AF1 to RG1 in the West US Azure region.

To which virtual networks can you deploy AF1?

- A. VNET1, VNET2, VNET3, and VNET4
- B. VNET1 and VNET2 only
- C. VNET1 only
- D. VNET1, VNET2, and VNET4 only
- E. VNET1 and VNET4 only

**Answer: C****Explanation:**

VNET1 only

No idea why people are saying option E as the question clearly states that "You need to deploy an Azure firewall named AF1 to RG1 in the West US", so RG1 in the West US region means the correct answer is C(VNET1).

**Question: 483****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an on-premises network.

You have an Azure subscription that contains three virtual networks named VNET1, VNET2, and VNET3. The virtual networks are peered and connected to the on-premises network. The subscription contains the virtual machines shown in the following table.

Name	Location	Connected to
VM1	West US	VNET1
VM2	West US	VNET1
VM3	West US	VNET2
VM4	Central US	VNET3

You need to monitor connectivity between the virtual machines and the on-premises network by using Connection Monitor.

What is the minimum number of connection monitors you should deploy?

- A. 1
- B. 2
- C. 3
- D. 4

**Answer: B**

**Explanation:**

Connection monitor resource: A region-specific Azure resource.

<https://learn.microsoft.com/en-us/azure/network-watcher/connection-monitor-create-using-portal#before-you-begin>

**Question: 484****AZ-104**

HOTSPOT

-

You plan to deploy the following Azure Resource Manager (ARM) template.

```
{
  "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {},
  "variables": {
    "vnetId": "[resourceId('Microsoft.Network/virtualNetworks', 'VNET1')]",
    "lbId": "[resourceId('Microsoft.Network/loadBalancers', 'LB1')]",
    "sku": "Standard",
    "netname": "APP1"
  },
  "resources": [
    {
      "apiVersion": "2017-08-01",
      "type": "Microsoft.Network/loadBalancers",
      "name": "LB1",
      "location": "EastUS",
      "sku": {
        "name": "[variables('sku')]"
      },
      "properties": {
        "frontendIPConfiguration": [
          {
            "name": "[variables('netname')]",
            "properties": {
              "subnet": {
                "id": "[concat(variables('vnetId'), '/subnets/', variables('netname'))]"
              },
              "privateIPAllocationMethod": "Dynamic"
            }
          }
        ],
        "backendAddressPools": [
          {
            "name": concat(variables('netname'), '-Servers')"
          }
        ],
        "loadBalancingRules": [
          {
            "name": "APP1",
            "properties": {
              "frontendIPConfiguration": {
                "id": "[concat(variables('lbId'), '/frontendIPConfigurations/', variables('netname'))]"
              },
              "backendAddressPool": {
                "id": "[concat(variables('lbId'), '/backendAddressPool/', variables('netname'))]"
              },
              "probe": {
                "id": "[concat(variables('lbId'), '/probes/probe')]"
              },
              "backendPort": 8080,
              "protocol": "Tcp",
              "frontendPort": 80,
              "enableFloatingIP": false,
              "idleTimeoutInMinutes": 4,
              "loadDistribution": "SourceIPProtocol"
            }
          }
        ],
        "probes": [
          {
            "name": "probe",
            "properties": {
              "protocol": "Tcp",
              "port": 8080,
              "intervalInSeconds": 15,
              "numberOfProbes": 2
            }
          }
        ]
      }
    }
  ]
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
LB1 will be connected to a subnet named VNET1/netname	<input type="radio"/>	<input type="radio"/>
LB1 can be deployed only to the resource group that contains VNET1	<input type="radio"/>	<input type="radio"/>
The value of the sku variable can be provided as a parameter when the template is deployed from a command prompt	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
LB1 will be connected to a subnet named VNET1/netname	<input type="radio"/>	<input checked="" type="radio"/>
LB1 can be deployed only to the resource group that contains VNET1	<input type="radio"/>	<input checked="" type="radio"/>
The value of the sku variable can be provided as a parameter when the template is deployed from a command prompt	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

Box 1: instead of "netname" there should be the value of netname variable

Box 2: I don't see Resource Group mentioned anywhere in the template

Box 3: I don't see parameters being referred anywhere in the template, only variables are referred, e.g. "sku" variable.

## Question: 485

AZ-104

You have an Azure subscription that contains a storage account. The account stores website data.

You need to ensure that inbound user traffic uses the Microsoft point-of-presence (POP) closest to the user's location.

What should you configure?

- A. private endpoints
- B. Azure Firewall rules
- C. Routing preference
- D. load balancing

**Answer: C**

**Explanation:**

<https://learn.microsoft.com/en-us/azure/storage/common/network-routing-preference#microsoft-global-network-versus-internet-routing>

**Question: 486**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

You have two Azure virtual machines named VM1 and VM2 that run Windows Server. The virtual machines are in a subnet named Subnet1. Subnet1 is in a virtual network named VNet1.

You need to prevent VM1 from accessing VM2 on port 3389.

What should you do?

- A. Create a network security group (NSG) that has an outbound security rule to deny destination port 3389 and apply the NSG to the network interface of VM1.
- B. Configure Azure Bastion in VNet1.
- C. Create a network security group (NSG) that has an outbound security rule to deny source port 3389 and apply the NSG to Subnet1.
- D. Create a network security group (NSG) that has an inbound security rule to deny source port 3389 and apply the NSG to Subnet1.

**Answer: A**

**Explanation:**

It will prevent connections from VM1 on port 3389 to any destination, including the other VM. Question does not say that VM1 should be able to access other VMs on this port so it's fine to block all outgoing connections.

**Question: 487**

**AZ-104**

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

Name	Type	Description
App1	App Service	Virtual network integration enabled for VNET1
ASP1	App Service plan	Standard SKU
VNET1	Virtual network	None
Firewall1	Azure Firewall	Connected to VNET1

You need to manage outbound traffic from VNET1 by using Firewall1.

What should you do first?

- A. Configure the Hybrid Connection Manager.
- B. Upgrade ASP1 to the Premium SKU.
- C. Create a route table.
- D. Create an Azure Network Watcher.

**Answer: C**

**Explanation:**

Route all traffic to the firewall

When you create a virtual network, Azure automatically creates a default route table for each of its subnets and adds system default routes to the table. In this step, you create a user-defined route table that routes all traffic to the firewall, and then associate it with the App Service subnet in the integrated virtual network.

Section3 in document.

<https://learn.microsoft.com/en-us/azure/app-service/network-secure-outbound-traffic-azure-firewall>

**Question: 488**

**AZ-104**

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

Name	Type
VM1	Virtual machine
App1	Web app
contoso.com	Azure Active Directory Domain Services (Azure AD DS) domain

All the resources connect to a virtual network named VNet1.

You plan to deploy an Azure Bastion host named Bastion1 to VNet1.

Which resources can be protected by using Bastion1?

- A. VM1 only
- B. contoso.com only
- C. App1 and contoso.com only
- D. VM1 and contoso.com only
- E. VM1, App1, and contoso.com

**Answer: A**

**Explanation:**

Bastion provides secure RDP and SSH connectivity to all of the VMs in the virtual network in which it is provisioned. Using Azure Bastion protects your virtual machines from exposing RDP/SSH ports to the outside world, while still providing secure access using RDP/SSH.

**Question: 489**

**AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to None
- B. a health probe
- C. Session persistence to Client IP and protocol
- D. Idle Time-out (minutes) to 20

**Answer: C**

**Explanation:**

For the hundredth time, it's ,C.

**Question: 490**

**AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. a health probe
- B. Floating IP (direct server return) to Enabled
- C. Session persistence to Client IP and protocol
- D. Protocol to UDP

**Answer: C**

**Explanation:**

Session persistence to Client IP and protocol

**Question: 491**

**AZ-104**

You have an Azure subscription that contains 10 virtual machines and the resources shown in the following table.

Name	Type	Description
VNET1	Virtual network	<i>none</i>
Bastion1	Basic SKU Azure Bastion host	Subnet size /26

You need to ensure that Bastion1 can support 100 concurrent SSH users. The solution must minimize administrative effort.

What should you do first?

- A.Resize the subnet of Bastion1
- B.Configure host scaling.
- C.Create a network security group (NSG)

D.Upgrade Bastion1 to the Standard SKU

**Answer: D**

**Explanation:**

D is the answer.

[https://learn.microsoft.com/en-us/azure/bastion/configuration-settings#instanceWhen you configure Azure Bastion using the Basic SKU, two instances are created. If you use the Standard SKU, you can specify the number of instances. This is called host scaling. Each instance can support 20 concurrent RDP connections and 40 concurrent SSH connections for medium workloads. Once the concurrent sessions are exceeded, an additional scale unit \(instance\) is required.](https://learn.microsoft.com/en-us/azure/bastion/configuration-settings#instanceWhen you configure Azure Bastion using the Basic SKU, two instances are created. If you use the Standard SKU, you can specify the number of instances. This is called host scaling. Each instance can support 20 concurrent RDP connections and 40 concurrent SSH connections for medium workloads. Once the concurrent sessions are exceeded, an additional scale unit (instance) is required.)

**Question: 492**

**AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to Client IP and protocol
- B. Protocol to UDP
- C. Session persistence to None
- D. Floating IP (direct server return) to Disabled

**Answer: A**

**Explanation:**

Session persistence to Client IP and protocol

**Question: 493**

**AZ-104**

DRAG DROP

-

You have a Windows 11 device named Device and an Azure subscription that contains the resources shown in the following table.

Name	Description
VNET1	Virtual network
VM1	Virtual machine that runs Windows Server 2022 and does <b>NOT</b> have a public IP address Connected to VNET1
Bastion1	Azure Bastion Basic SKU host connected to VNET1

Device1 has Azure PowerShell and Azure Command-Line Interface (CLI) installed.

From Device1, you need to establish a Remote Desktop connection to VM1.

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**

- From Azure CLI on Device1, run az network bastion rdp.
- From Bastion1, enable Kerberos authentication.
- From VM1, enable just-in-time (JIT) VM access.
- From Bastion1, select **Native Client Support**.
- On Device1, run mstsc.exe.
- Upgrade Bastion1 to the Standard SKU.

**Answer Area**



**Answer:**

**Answer Area**

- Upgrade Bastion1 to the Standard SKU.
- From Bastion1, select **Native Client Support**.
- From Azure CLI on Device1, run az network bastion rdp.

**Question: 494**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Enabled
- B. Session persistence to Client IP
- C. Protocol to UDP
- D. Idle Time-out (minutes) to 20

**Answer: B**

**Explanation:**

The correct option is B. Session persistence to Client IP. To ensure that visitors are serviced by the same web server for each request, we need to configure session persistence on the Azure load balancer. Session persistence is also known as affinity, and it ensures that all requests from a client are sent to the same backend server. This is important for applications that maintain session state, such as web applications that require authentication or shopping carts.

**Question: 495****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that has the public IP addresses shown in the following table.

Name	IP version	SKU	Tier	IP address assignment
IP1	IPv4	Standard	Regional	Static
IP2	IPv4	Standard	Global	Static
IP3	IPv4	Basic	Regional	Dynamic
IP4	IPv4	Basic	Regional	Static
IP5	IPv6	Basic	Regional	Dynamic

You plan to deploy an Azure Bastion Basic SKU host named Bastion1.

Which IP addresses can you use?

- A. IP1 only
- B. IP1 and IP2 only
- C. IP3, IP4, and IP5 only
- D. IP1, IP2, IP4, and IP5 only
- E. IP1, IP2, IP3, IP4, and IP5

**Answer: B****Explanation:**

BAzure Bastion supports standard SKU public IP addresses:

<https://learn.microsoft.com/en-us/azure/virtual-network/ip-services/configure-public-ip-bastion>

**Question: 496****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Disabled
- B. Floating IP (direct server return) to Enabled
- C. a health probe
- D. Session persistence to Client IP

**Answer: D****Explanation:**

Session persistence to Client IP

**Question: 497****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Enabled
- B. Idle Time-out (minutes) to 20
- C. a health probe
- D. Session persistence to Client IP

**Answer: D****Explanation:**

Session persistence to Client IP

**Question: 498****AZ-104**

You have two Azure subscriptions named Sub1 and Sub2.

Sub1 contains a virtual machine named VM1 and a storage account named storage1.

VM1 is associated to the resources shown in the following table.

Name	Type
Disk1	Operating system disk
NetInt1	Network interface
VNet1	Virtual network

You need to move VM1 to Sub2.

Which resources should you move to Sub2?

- A. VM1, Disk1, and NetInt1 only
- B. VM1, Disk1, and VNet1 only
- C. VM1, Disk1, and storage1 only
- D. VM1, Disk1, NetInt1, and VNet1

**Answer: D****Explanation:**

When you move a virtual machine from one subscription to another, you need to ensure that all the dependent resources are also moved along with it. In the given scenario, VM1 is associated with the resources Disk1 (OS Disk), NetInt1 (Network Interface), and VNet1 (Virtual Network), and the storage account named storage1 is

not associated with VM1. Therefore, to move VM1 to Sub2, you need to move the following resources: VM1: This is the virtual machine that you want to move to Sub2. Disk1: This is the OS disk for VM1, and it contains the operating system and boot files. NetInt1: This is the network interface that is attached to VM1 and provides connectivity to the virtual network. VNet1: This is the virtual network that is associated with VM1, and it provides the network connectivity to the virtual machine.

**Question: 499****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to Client IP and protocol
- B. Idle Time-out (minutes) to 20
- C. Session persistence to None
- D. Floating IP (direct server return) to Enabled

**Answer: A****Question: 500****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Floating IP (direct server return) to Disabled
- B. Idle Time-out (minutes) to 20
- C. a health probe
- D. Session persistence to Client IP

**Answer: D****Question: 501****AZ-104**

You have five Azure virtual machines that run Windows Server 2016. The virtual machines are configured as web servers.

You have an Azure load balancer named LB1 that provides load balancing services for the virtual machines.

You need to ensure that visitors are serviced by the same web server for each request.

What should you configure?

- A. Session persistence to Client IP
- B. Idle Time-out (minutes) to 20
- C. Session persistence to None
- D. Protocol to UDP

**Answer: A**

**Explanation:**

Session persistence to Client IP

### **Question: 502**

**AZ-104**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the Publish-AzVMDscConfiguration cmdlet
- B. a Microsoft Endpoint Manager device configuration profile
- C. Azure Application Insights
- D. a Desired State Configuration (DSC) extension

**Answer: D**

**Explanation:**

a Desired State Configuration (DSC) extension

### **Question: 503**

**AZ-104**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. Azure Custom Script Extension
- B. Deployment Center in Azure App Service
- C. the New-AzConfigurationAssignment cmdlet
- D. a Microsoft Endpoint Manager device configuration profile

**Answer: A**

**Explanation:**

Azure Custom Script Extension

## Question: 504

AZ-104

You have an Azure subscription that contains a Recovery Services vault named Vault1.

You need to enable multi-user authorization (MAU) for Vault1.

Which resource should you create first?

- A. an administrative unit
- B. a managed identity
- C. a resource guard
- D. a custom Azure role

### Answer: C

#### Explanation:

<https://learn.microsoft.com/en-us/azure/backup/multi-user-authorization?tabs=azure-portal&pivots=vaults-recovery-services-vault>  
Before you start  
Testing scenarios  
Create a Resource Guard  
Enable MUA on a Recovery Services vault  
Protected operations on a vault using MUAAuthorize critical operations on a vault  
Disable MUA on a Recovery Services vault

## Question: 505

## AZ-104: Actual Exam Q&A | CLEARCATNET

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.

You have an app named App1 that is installed on two Azure virtual machines named VM1 and VM2. Connections to App1 are managed by using an Azure Load Balancer.

The effective network security configurations for VM2 are shown in the following exhibit.

The screenshot shows the Azure portal interface for VM2 - Networking. The left sidebar shows 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', 'Settings' (selected), 'Networking' (selected), 'Disks', 'Size', 'Security', and 'Extensions'. The main pane shows 'Network Interface: VM2-NIC1' with 'Effective security rules' selected. It lists 'Inbound port rules', 'Outbound port rules', 'Application security groups', and 'Load balancing'. Under 'Inbound port rules', there is a table with the following data:

Priority	Name	Port	Protocol	Source	Destination	Action
100	Allow_131.107.100.50	443	TCP	131.107.100.50	VirtualNetwork	<span>Allow</span>
200	BlockAllOther443	443	Any	Any	Any	<span>Deny</span>
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span>Allow</span>
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span>Allow</span>
65500	DenyAllInBound	Any	Any	Any	Any	<span>Deny</span>

You discover that connections to App1 from 131.107.100.50 over TCP port 443 fail.

You verify that the Load Balancer rules are configured correctly.

You need to ensure that connections to App1 can be established successfully from 131.107.100.50 over TCP port

Solution: You create an inbound security rule that allows any traffic from the AzureLoadBalancer source and has a priority of 150.

Does this meet the goal?

- A.Yes
- B.No

**Answer: A**

**Explanation:**

Presuming it's the health probe on 443 which is at fault and is required to ensure LB is processing as intended, the given answer is correct.

<https://learn.microsoft.com/en-us/azure/load-balancer/load-balancer-custom-probe-overview>"Azure Load Balancer rules require a health probe to detect the endpoint status. The configuration of the health probe and probe responses determines which backend pool instances receive new connections. Use health probes to detect the failure of an application. Generate a custom response to a health probe. Use the health probe for flow control to manage load or planned downtime. When a health probe fails, the load balancer stops sending new connections to the respective unhealthy instance. Outbound connectivity isn't affected, only inbound."

**Question: 506**

**AZ-104**

Your on-premises network contains a VPN gateway.

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

Name	Type	Description
vgw1	Virtual network gateway	Gateway for Site-to-Site VPN to the on-premises network
storage1	Storage account	Standard performance tier
Vnet1	Virtual network	Enabled forced tunneling
VM1	Virtual machine	Connected to Vnet1

You need to ensure that all the traffic from VM1 to storage1 travels across the Microsoft backbone network.

What should you configure?

- A. Azure Application Gateway
- B. service endpoints
- C. Azure AD Application Proxy
- D. Azure Virtual WAN

**Answer: B**

**Explanation:**

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoints-overview>"Virtual Network (VNet) service endpoint provides secure and direct connectivity to Azure services over an optimized route over the Azure backbone network. Endpoints allow you to secure your critical Azure service resources to only your virtual networks. Service Endpoints enables private IP addresses in the VNet to reach the endpoint

of an Azure service without needing a public IP address on the VNet."

## Question: 507

## AZ-104: Actual Exam Q&A | CLEARCATNET

You create an Azure VM named VM1 that runs Windows Server 2019.

VM1 is configured as shown in the exhibit. (Click the Exhibit tab.)

VM1

Virtual machine

Search

Connect Start Restart Stop Capture Delete Refresh Open in mobile CLI / PS Feedback

Windows Admin Center

Disks

Size

Microsoft Defender for Cloud

Advisor recommendations

Extensions + applications

Continuous delivery

Availability + scaling

Configuration

Identity

Properties

Locks

Operations

Bastion

Auto-shutdown

Resource group (move) : RGS

Status : Stopped (deallocated)

Location : East US (Zone 1)

Subscription (move) : Visual Studio Enterprise Subscription

Subscription ID : 7fefd66e-8694-4b54-beae-17fd819d4873

Availability zone : 1

Tags (edit) : Click here to add tags

Operating system : Windows

Size : Standard DS1 v2 (1 vcpu, 3.5 GiB memory)

Public IP address : 20.115.52.215

Virtual network/subnet : VNET1/default

DNS name : Not configured

Computer name : VM1

Health state : -

Operating system : Windows

Publisher : MicrosoftWindowsServer

Public IP address : 20.115.52.215

Public IP address (IPv6) : -

Private IP address : 10.1.0.4

Private IP address (IPv6) : -

Properties Monitoring Capabilities (8) Recommendations (8) Tutorials

Virtual machine Networking

Networking

Public IP address : 20.115.52.215

Public IP address (IPv6) : -

Private IP address : 10.1.0.4

Private IP address (IPv6) : -

JSON View

You need to enable Desired State Configuration for VM1.

What should you do first?

- A. Connect to VM1.
- B. Start VM1.
- C. Capture a snapshot of VM1.
- D. Configure a DNS name for VM1.

## Answer: B

### Explanation:

Given answer is correct, see;<https://learn.microsoft.com/en-us/azure/virtual-machines/extensions/dsc-windows>"The DSC extension for Windows requires that the target virtual machine is able to communicate with Azure and the location of the configuration package (.zip file) if it is stored in a location outside of Azure."

## Question: 508

## AZ-104

HOTSPOT

-

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location	IP address space	Subnet
VNet1	East US	10.1.128.0/23	Subnet1
VNet2	East US	192.168.0.0/16	Subnet21, Subnet23
VNet3	East US	172.16.0.0/16	Subnet3

The subnets have the IP address spaces shown in the following table.

Name	IP address space
Subnet1	10.1.128.0/24
Subnet21	192.168.0.0/17
Subnet22	192.168.128.0/17
Subnet3	172.16.1.0/24

You plan to create a container app named contapp1 in the East US Azure region.

You need to create a container app environment named con-env1 that meets the following requirements:

- Uses its own virtual network.
- Uses its own subnet.
- Is connected to the smallest possible subnet.

To which virtual networks can you connect con-env1, and which subnet mask should you use? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

Virtual network:

- VNet1 only
- VNet2 only
- VNet3 only
- VNet1 or VNet2 only
- VNet2 or VNet3 only
- VNet1 or VNet3 only
- VNet1, VNet2, or VNet3

Subnet mask:

- /16
- /23
- /24
- /26
- /28

Answer:

## Answer Area

Virtual network:

- VNet1 only
- VNet2 only
- VNet3 only
- VNet1 or VNet2 only
- VNet2 or VNet3 only
- VNet1 or VNet3 only
- VNet1, VNet2, or VNet3**

Subnet mask:

- /16
- /23
- /24
- /26**
- /28

**Question: 509**

AZ-104

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location
Vnet1	US East
Vnet2	US East
Vnet3	US East
Vnet4	UK South
Vnet5	UK South
Vnet6	UK South
Vnet7	Asia East
Vnet8	Asia East
Vnet9	Asia East
Vnet10	Asia East

All the virtual networks are peered. Each virtual network contains nine virtual machines.

You need to configure secure RDP connections to the virtual machines by using Azure Bastion.

What is the minimum number of Bastion hosts required?

- A.1
- B.3
- C.9
- D.10

**Answer: A**

**Explanation:**

1. As per <https://learn.microsoft.com/en-us/azure/bastion/vnet-peering>, with global peering a single Bastion host will suffice.

**Question: 510**

**AZ-104**

HOTSPOT

-

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location	Peered with
VNet1	East US	VNet2
VNet2	East US	VNet1, VNet3
VNet3	West US	VNet2

The subscription contains the virtual machines shown in the following table.

Name	Operating system	Connected to
VM1	Windows	VNet1
VM2	Linux	VNet2
VM3	Windows	VNet3

Each virtual machine contains only a private IP address.

You create an Azure bastion for VNet1 as shown in the following exhibit.

# Create a Bastion

X

Basics Tags Advanced Review + create

Bastion allows web based RDP access to your vnet VM. [Learn more](#)

## Project details

Subscription \*

MSDN Platforms

Resource group \*

RG1

[Create new](#)

## Instance details

Name \*

Bastion1

Region \*

East US

Tier \* ⓘ

Basic

Instance count ⓘ



2

## Configure virtual networks

Virtual network \* ⓘ

VNet1



[Create new](#)

Subnet \*

AzureBastionSubnet (10.0.2.0/24)



[Manage subnet configuration](#)

## Public IP address

Public IP address \* ⓘ

Create new

Use existing

Public IP address name \*

VNet1-ip



Public IP address SKU

Standard

Assignment

Dynamic  Static

[Review + create](#)

[Previous](#)

[Next : Tags >](#)

[Download a template for automation](#)

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
The Remote Desktop Connection client (mstsc.exe) can be used to connect to VM1 through Bastion1.	<input type="radio"/>	<input type="radio"/>
The Azure portal can use SSH to connect to VM2 through Bastion1.	<input type="radio"/>	<input type="radio"/>
The Azure portal can be used to connect to VM3 through Bastion1.	<input type="radio"/>	<input type="radio"/>

## Answer:

### Answer Area

Statements	Yes	No
The Remote Desktop Connection client (mstsc.exe) can be used to connect to VM1 through Bastion1.	<input type="radio"/>	<input checked="" type="checkbox"/>
The Azure portal can use SSH to connect to VM2 through Bastion1.	<input checked="" type="checkbox"/>	<input type="radio"/>
The Azure portal can be used to connect to VM3 through Bastion1.	<input type="radio"/>	<input checked="" type="checkbox"/>

## Explanation:

NO

YES

NO

Basic SKU cannot connect to VM using a native client

<https://learn.microsoft.com/en-us/azure/bastion/bastion-overview>

## Question: 511

AZ-104

HOTSPOT

-

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location
VNet1	West Europe
VNet2	Southeast Asia
VNet3	South Central US

The subscription contains the subnets shown in the following table.

Name	Virtual network	Service endpoint
Subnet1	VNet1	<i>None</i>
Subnet2	VNet2	Microsoft.Storage
Subnet3	VNet3	Microsoft.Storage
Subnet4	VNet4	<i>None</i>

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

Name	Location	Kind
storage1	West Europe	StorageV2
storage2	South Central US	BlobStorage
storage3	Southeast Asia	StorageV2

You create a service endpoint policy named Policy1 in the South Central US Azure region to allow connectivity to all the storage accounts in the subscription.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

### Answer Area

Statements	Yes	No
Policy1 can be applied to Subnet3.	<input type="radio"/>	<input type="radio"/>
Only storage1 and storage2 can be accessed from VNet2.	<input type="radio"/>	<input type="radio"/>
Only storage2 can be accessed from VNet3.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
Policy1 can be applied to Subnet3.	<input checked="" type="checkbox"/>	<input type="radio"/>
Only storage1 and storage2 can be accessed from VNet2.	<input type="radio"/>	<input checked="" type="checkbox"/>
Only storage2 can be accessed from VNet3.	<input checked="" type="checkbox"/>	<input type="radio"/>

### Explanation:

Box 1: Yes

Virtual networks must be in the same region as the service endpoint policy <https://learn.microsoft.com/en-us/azure/virtual-network/virtual-network-service-endpoint-policies-overview#limitations>

Box 2: No

VNet2 is in SEA Region, so it can only connect to the storage in SEA Region through Service Endpoint, which is storage3

Box 3: Yes

VNet3 is in the South Central US region, and so is the storage2

## Question: 512

AZ-104

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. the New-AzConfigurationAssignment cmdlet
- B. Azure Application Insights
- C. the Publish-AzVMDscConfiguration cmdlet
- D. a Desired State Configuration (DSC) extension

### Answer: D

### Explanation:

Correct answer is D:a Desired State Configuration (DSC) extension.

## Question: 513

AZ-104

You have an Azure subscription that contains a resource group named RG1 and a virtual network named VNet1.

You plan to create an Azure container instance named container1.

You need to be able to configure DNS name label scope reuse for container1.

What should you configure for container1?

- A. the private networking type
- B. the public networking type
- C. a new subnet on VNet1
- D. a confidential SKU

**Answer: B**

**Explanation:**

For Azure portal users, you can set the DNS name reuse policy on the Networking tab during the container instance creation process using the DNS name label scope reuse field. Available after choosing public network type

<https://learn.microsoft.com/en-us/azure/container-instances/how-to-reuse-dns-names#create-a-container-instance>

#### Question: 514

#### AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT

-

You have the Azure virtual machines shown in the following table.

Name	IP address	Virtual network
VM1	10.0.0.4	VNET1
VM2	172.16.0.4	VNET2
VM3	192.168.0.4	VNET3
VM4	192.168.0.5	VNET3

VNET1, VNET2, and VNET3 are peered.

VM4 has a DNS server that is authoritative for a zone named contoso.com and contains the records shown in the following table.

Name	Type	Value
Server1	A	131.107.3.3
Server2	A	131.107.3.4

The virtual networks are configured to use the DNS servers shown in the following table.

Virtual network	DNS server
VNET1	Default (Azure-provided)
VNET2	Custom: 192.168.0.5
VNET3	Custom: 192.168.0.5

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

#### Answer Area

Statements	Yes	No
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input type="radio"/>	<input type="radio"/>

Answer:

#### Answer Area

Statements	Yes	No
From VM1, server1.contoso.com resolves to 131.107.3.3.	<input type="radio"/>	<input checked="" type="radio"/>
From VM2, server1.contoso.com resolves to 131.107.3.3.	<input checked="" type="radio"/>	<input type="radio"/>
From VM3, server2.contoso.com resolves to 131.107.2.4.	<input type="radio"/>	<input checked="" type="radio"/>

Explanation:

No

yes

no

DRAG DROP

-

You have an Azure subscription that contains a resource group named RG1.

You plan to create an Azure Resource Manager (ARM) template to deploy a new virtual machine named VM1. VM1 must support the capture of performance data.

You need to specify resource dependencies for the ARM template.

In which order should you deploy the resources? To answer, move all resources from the list of resources to the answer area and arrange them in the correct order.

**Resources**

virtual machine

Azure Monitor extension

network interface

virtual network

**Answer Area****Answer:****Answer Area**

virtual network

network interface

virtual machine

Azure Monitor extension

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A.a Desired State Configuration (DSC) extension
- B.a Microsoft Intune device configuration profile
- C.the Publish-AzVMDscConfiguration cmdlet
- D.the New-AzConfigurationAssignment cmdlet

**Answer:** A

**Explanation:**

**Correct Answer:** Desired State Configuration (DSC) extension

**Question: 517**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Region	Peers with
VNet1	West US	VNet2
VNet2	West US	VNet1, VNet3
VNet3	East US	VNet2

The subscription contains the virtual machines shown in the following table.

Name	Connected to
VM1	VNet1
VM2	VNet2
VM3	VNet3

All the virtual machines have only private IP addresses.

You deploy an Azure Bastion host named Bastion1 to VNet1.

To which virtual machines can you connect through Bastion1?

- A. VM1 only
- B. VM1 and VM2 only
- C. VM1 and VM3 only
- D. VM1, VM2, and VM3

**Answer: B**

**Explanation:**

VM1 and VM2 only

### Question: 518

**AZ-104**

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A.a Microsoft Intune device configuration profile
- B.a Desired State Configuration (DSC) extension
- C.Azure Application Insights
- D.Deployment Center in Azure App Service

**Answer: B**

**Explanation:**

a Desired State Configuration (DSC) extension

### Question: 519

**AZ-104**

You have an Azure subscription.

You plan to migrate 50 virtual machines from VMware vSphere to the subscription.

You create a Recovery Services vault.

What should you do next?

- A.Configure an extended network.
- B.Create a recovery plan.
- C.Deploy an Open Virtualization Application (OVA) template to vSphere.
- D.Configure a virtual network.

**Answer: D**

**Explanation:**

Correct answer is D:Configure a virtual network.

HOTSPOT

-

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location	Peered with
VNet1	East US	VNet2
VNet2	East US	VNet1

Each virtual network has 50 connected virtual machines.

You need to implement Azure Bastion. The solution must meet the following requirements:

- Support host scaling.
- Support uploading and downloading files.
- Support the virtual machines on both VNet1 and VNet2.
- Minimize the number of addresses on the Azure Bastion subnet.

How should you configure Azure Bastion? To answer, select the options in the answer area.

NOTE: Each correct answer is worth one point.

### Answer Area

Subnet size:

/24

/26

/28

/29

Public IP:

Basic SKU with a dynamic allocation

Basic SKU with a static allocation

Standard SKU with a static allocation

**Answer:**

## Answer Area

Subnet size:

/24

**/26**

/28

/29

Public IP:

Basic SKU with a dynamic allocation

Basic SKU with a static allocation

**Standard SKU with a static allocation**

### Explanation:

Subnet size: /26 The recommended subnet size for Azure Bastion is /26 "Subnet size must be /26 or larger (/25, /24 etc.)." "For host scaling, a /26 or larger subnet is recommended. Using a smaller subnet space limits the number of scale units" "For Azure Bastion resources deployed on or after November 2, 2021, the minimum AzureBastionSubnet size is /26 or larger (/25, /24, etc.)"

Public IP: Standard SKU with a static allocation Only Azure Bastion Standard SKU supports 'Host scaling' and 'Upload or download files'. Besides that, Public IP address recommended by Microsoft must be Standard and Static

### References:

<https://learn.microsoft.com/en-us/azure/bastion/configuration-settings> <https://learn.microsoft.com/en-us/azure/bastion/bastion-faq>

## Question: 521

AZ-104

You have an Azure subscription that contains the virtual networks shown in the following table.

Name	Location
VNet1	West US
VNet2	Central Europe

You need to ensure that all the traffic between VNet1 and VNet2 traverses the Microsoft backbone network.

What should you configure?

- A.a private endpoint
- B.peering
- C.Express Route
- D.a route table

**Answer: B**

**Explanation:**

The traffic between virtual machines in peered virtual networks uses the Microsoft backbone infrastructure. ExpressRoute private peering supports connectivity between multiple virtual networks. Although this behaviour happens by default when linking virtual networks to the same ExpressRoute circuit, Microsoft doesn't recommend this solution. To establish connectivity between virtual networks, VNet peering should be implemented instead for the best performance possible. **Virtual network peering enables you to seamlessly connect two or more Virtual Networks in Azure.** The virtual networks appear as one for connectivity purposes. The traffic between virtual machines in peered virtual networks uses the Microsoft backbone infrastructure. Like traffic between virtual machines in the same network, traffic is routed through Microsoft's private network only.

Reference:

<https://learn.microsoft.com/en-us/azure/virtual-network/virtual-network-peering-overview>

<https://learn.microsoft.com/en-us/azure/expressroute/virtual-network-connectivity-guidance>

**Question: 522**

**AZ-104**

You have the Azure virtual networks shown in the following table.

Name	Address space	Subnet	Resource group Azure region
VNet1	10.11.0.0/16	10.11.0.0/17	West US
VNet2	10.11.0.0/17	10.11.0.0/25	West US
VNet3	10.10.0.0/22	10.10.1.0/24	East US
VNet4	192.168.16.0/22	192.168.16.0/24	North Europe

Which virtual networks can you peer with VNet1?

- A. VNet2, VNet3, and VNet4
- B. VNet2 only
- C. VNet3 and VNet4 only
- D. VNet2 and VNet3 only

**Answer: C**

**Explanation:**

Correct answer is C:VNet3 and VNet4 only.

**Question: 523**

AZ-104

You have an Azure subscription.

You are creating a new Azure container instance that will have the following settings:

- Container name: cont1
- SKU: Standard
- OS type: Windows
- Networking type: Public
- Memory (GiB): 2.5
- Number of CPU cores: 2

You discover that the Private setting for Networking type is unavailable.

You need to ensure that cont1 can be configured to use private networking.

Which setting should you change?

- A. Memory (GiB)
- B. Networking type
- C. Number of CPU cores
- D. OS type
- E. SKU

**Answer: D****Explanation:**

Correct answer is D:OS type.

**Question: 524**

AZ-104

You have an Azure subscription that has a Recovery Services vault named Vault1. The subscription contains the virtual machines shown in the following table:

Name	Operating system	Auto-shutdown
VM1	Windows Server 2012 R2	Off
VM2	Windows Server 2016	19:00
VM3	Ubuntu Server 18.04 LTS	Off
VM4	Windows 10	19:00

You plan to schedule backups to occur every night at 23:00.

Which virtual machines can you back up by using Azure Backup?

- A. VM1 and VM3 only
- B. VM1, VM2, VM3 and VM4
- C. VM1 and VM2 only
- D. VM1 only

**Answer: B****Explanation:**

Azure Backup supports backup of 64-bit Windows server operating system from Windows Server 2008.

Azure Backup supports backup of 64-bit Windows 10 operating system.

Azure Backup supports backup of 64-bit Ubuntu Server operating system from Ubuntu 12.04.

Azure Backup supports backup of VM that are shutdown or offline.

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-support-matrix-iaas> <https://docs.microsoft.com/en-us/azure/virtual-machines/linux/endorsed-distros>

**Question: 525**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You create a Recovery Services vault backup policy named Policy1 as shown in the following exhibit:

## Policy1

Associated items Delete Save Discard

### Backup schedule

- Frequency
- Time
- Timezone

Daily 11:00 PM (UTC) Coordinated Universal Time

### Retention range

Retention of daily backup point

\* At For  
11:00 PM 30 Day(s)

Retention of weekly backup point

\* On \* At For  
Sunday 11:00 PM 10 Week(s)

Retention of monthly backup point

\* On \* At For  
1 11:00 PM 36 Month(s)

Retention of yearly backup point

\* In \* On \* At For  
March 1 11:00 PM 10 Year(s)

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.

Hot Area:

## Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

Answer:

## Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼
30 days
10 weeks
36 months
10 years

Explanation:

Box 1: 10 years -

The yearly backup point occurs on 1 March and its retention period is 10 years.

Box 2: 36 months -

The monthly backup point occurs on the 1 of every month and its retention period is 36 months.

st

Question: 526

AZ-104

You have the Azure virtual machines shown in the following table:

Name	Azure region
VM1	West Europe
VM2	West Europe
VM3	North Europe
VM4	North Europe

You have a Recovery Services vault that protects VM1 and VM2.

You need to protect VM3 and VM4 by using Recovery Services.

What should you do first?

- A. Create a new Recovery Services vault
- B. Create a storage account
- C. Configure the extensions for VM3 and VM4
- D. Create a new backup policy

**Answer: A**

**Explanation:**

A Recovery Services vault is a storage entity in Azure that houses data. The data is typically copies of data, or configuration information for virtual machines (VMs), workloads, servers, or workstations. You can use Recovery Services vaults to hold backup data for various Azure services

Reference:

<https://docs.microsoft.com/en-us/azure/site-recovery/azure-to-azure-tutorial-enable-replicatio>

**Question: 527**

**AZ-104**

HOTSPOT -

You have an Azure subscription that contains an Azure Storage account named storage1 and the users shown in the following table.

Name	Member of
User1	Group1
User2	Group2
User3	Group1

You plan to monitor storage1 and to configure email notifications for the signals shown in the following table.

Name	Type	Users to notify
Ingress	Metric	User1 and User3 only
Egress	Metric	User1 only
Delete storage account	Activity log	User1, User2, and User3
Restore blob ranges	Activity log	User1 and User3 only

You need to identify the minimum number of alert rules and action groups required for the planned monitoring. How many alert rules and action groups should you identify? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Alert rules:

1
2
3
4

Action groups:

1
2
3
4

Answer:

## Answer Area

**Alert rules:**

1
2
3
4

**Action groups:**

1
2
3
4

### Explanation:

You can define only one activity log signal per alert rule. To alert on more signals, create another alert rule.

Box 1: 4

You need 1 alert rule per 1 signal (1xIngress, 1xEgress, 1xDelete storage account, 1xRestore blob ranges).

Box 2: 3

You need 3 Action Groups (1xUser1 and User3, 1xUser1 only, 1xUser1 User2 and User3). Check 'Users to notify' column.

### Question: 528

AZ-104

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

Name	Type	Member of
User1	User	None
User2	User	Group1
Principal1	Managed identity	None
Principal2	Managed identity	Group1

User1, Principal1, and Group1 are assigned the Monitoring Reader role.

An action group named AG1 has the Email Azure Resource Manager Role notification type and is configured to email the Monitoring Reader role.

You create an alert rule named Alert1 that uses AG1.

You need to identify who will receive an email notification when Alert1 is triggered.

Who should you identify?

- A. User1 and Principal1 only
- B. User1, User2, Principal1, and Principal2
- C. User1 only
- D. User1 and User2 only

**Answer: D**

**Explanation:**

1. User2 Inherits the role, and receives the e-mail too.
2. i choose D

### Question: 529

### AZ-104: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

You have an Azure virtual machine named VM1 and a Recovery Services vault named Vault1.

You create a backup policy named Policy1 as shown in the exhibit. (Click the Exhibit tab.)

# Policy1

[Associated items](#)[Delete](#)[Save](#)[Discard](#)

## Backup schedule

**\* Frequency**

Daily

**\* Time**

2:00 AM

**\* Timezone**

(UTC) Coordinated Universal Time

## Retention range

 Retention of daily backup point.**\* At**

For

2:00 AM

5

Day(s)

 Retention of weekly backup point.**\* On****\* At**

For

Sunday

2:00 AM

20

Week(s)

 Retention of monthly backup point.[Week Based](#)[Day Based](#)**\* On****\* At**

For

2

2:00 AM

24

Month(s)

 Retention of yearly backup point.[Week Based](#)[Day Based](#)**\* In****\* On****\* At**

For

January

9

2:00 AM

5

Year(s)

You configure the backup of VM1 to use Policy1 on Thursday, January 1 at 1:00 AM.

You need to identify the number of available recovery points for VM1.

How many recovery points are available on January 8 and January 15? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

Answer:

## Answer Area

January 8 at 2:00 PM (14:00):

5
6
8
9

January 15 at 2:00 PM (14:00):

5
8
17
19

Explanation:

Box 1: 6 -

5 latest daily recovery points, which includes the weekly backup from the previous Sunday, plus the monthly recovery point.

Box 2: 8 -

5 latest daily recovery points, plus two weekly backups, plus the monthly recovery point.

Reference:

<https://social.technet.microsoft.com/Forums/en-US/854ab6ae-79aa-4bad-ac65-471c4d422e94/daily-monthly-yearly-recovery-points-and-storage-used?forum=windowsazureonlinebackup>

### Question: 530

### AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You have the web apps shown in the following table.

Name	Web framework	Hosting environment
App1	Microsoft ASP.NET	An on-premises physical server that runs Windows Server 2019 and has Internet Information Services (IIS) configured
App2	Microsoft ASP.NET Core	An Azure virtual machine that runs Windows Server 2019 and has Internet Information Services (IIS) configured

You need to monitor the performance and usage of the apps by using Azure Application Insights. The solution must minimize modifications to the application code.

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

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

App1:

- Install the Log Analytics agent
- Install the Azure Monitor agent
- Use the Application Insights SDK
- Install the Application Insights Agent

App2:

- Install the Log Analytics agent
- Install the Azure Monitor agent
- Use the Application Insights SDK
- Install the Application Insights Agent

Answer:

# Answer Area

App1:

- Install the Log Analytics agent
- Install the Azure Monitor agent
- Use the Application Insights SDK
- Install the Application Insights Agent

App2:

- Install the Log Analytics agent
- Install the Azure Monitor agent
- Use the Application Insights SDK
- Install the Application Insights Agent

Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/azure-web-apps>

Question: 531

AZ-104

You have an Azure virtual machine named VM1.  
You use Azure Backup to create a backup of VM1 named Backup1.  
After creating Backup1, you perform the following changes to VM1:  
☞ Modify the size of VM1.  
☞ Copy a file named Budget.xls to a folder named Data.  
☞ Reset the password for the built-in administrator account.  
☞ Add a data disk to VM1.  
An administrator uses the Replace existing option to restore VM1 from Backup1.  
You need to ensure that all the changes to VM1 are restored.  
Which change should you perform again?

- A. Modify the size of VM1.
- B. Reset the password for the built-in administrator account.
- C. Add a data disk.
- D. Copy Budget.xls to Data.

Answer: D

Explanation:

Reference:

**Question: 532**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You have an Azure Active Directory (Azure AD) tenant named contoso.onmicrosoft.com that contains the users shown in the following table.

Name	Member of	Role assigned
User1	Group1	<i>None</i>
User2	Group2	<i>None</i>
User3	Group1, Group2	User administrator

You enable password reset for contoso.onmicrosoft.com as shown in the Password Reset exhibit. (Click the Password Reset tab.)

Self service password reset enabled ⓘ

None   Selected   All

Select group >

Group2

- i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

You configure the authentication methods for password reset as shown in the Authentication Methods exhibit. (Click the Authentication Methods tab.)

Number of methods required to reset ⓘ

1	2
---	---

Methods available to users

- Mobile app notification
- Mobile app code
- Email
- Mobile phone
- Office phone
- Security questions

Number of questions required to register ⓘ

3	4	5
---	---	---

Number of questions required to reset ⓘ

3	4	5
---	---	---

Select security questions



10 security questions selected

**i** These settings only apply to end users in your organization. Admins are always enabled for self-service password reset and are required to use two authentication methods to reset their password. Click here to learn more about administrator password policies.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

#### Answer Area

##### Statements

Yes

No

After User2 answers three security questions correctly, he can reset his password immediately.

If User1 forgets her password, she can reset the password by using the mobile phone app.

User3 can add security questions to the password reset process

Answer:

## Answer Area

Statements	Yes	No
After User2 answers three security questions correctly, he can reset his password immediately.	<input type="radio"/>	<input checked="" type="radio"/>
If User1 forgets her password, she can reset the password by using the mobile phone app.	<input type="radio"/>	<input checked="" type="radio"/>
User3 can add security questions to the password reset process	<input type="radio"/>	<input checked="" type="radio"/>

### Explanation:

Box 1: No -

Two methods are required.

Box 2: No -

Self-service password reset is only enabled for Group2, and User1 is not a member of Group2.

Box 3: no

to be able to add security questions to the process. you need Global admin role

## Question: 533

## AZ-104: Actual Exam Q&A | CLEARCATNET

Your company has a main office in London that contains 100 client computers.

Three years ago, you migrated to Azure Active Directory (Azure AD).

The company's security policy states that all personal devices and corporate-owned devices must be registered or joined to Azure AD.

A remote user named User1 is unable to join a personal device to Azure AD from a home network.

You verify that User1 was able to join devices to Azure AD in the past.

You need to ensure that User1 can join the device to Azure AD.

What should you do?

- A. Assign the User administrator role to User1.
- B. From the Device settings blade, modify the Maximum number of devices per user setting.
- C. Create a point-to-site VPN from the home network of User1 to Azure.
- D. From the Device settings blade, modify the Users may join devices to Azure AD setting.

### Answer: B

### Explanation:

The Maximum number of devices setting enables you to select the maximum number of devices that a user can have in Azure AD. If a user reaches this quota, they will not be able to add additional devices until one or more of the existing devices are removed.

Incorrect Answers:

C: Azure AD Join enables users to join their devices to Active Directory from anywhere as long as they have connectivity with the Internet.

D: The Users may join devices to Azure AD setting enables you to select the users who can join devices to Azure AD. Options are All, Selected and None. The default is All.

Reference:

<https://docs.microsoft.com/en-us/azure/active-directory/devices/device-management-azure-portal> <http://techgenix.com/pros-and-cons-azure-ad-join/>

### Question: 534

### AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You have two Azure App Service app named App1 and App2. Each app has a production deployment slot and a test deployment slot.

The Backup Configuration settings for the production slots are shown in the following table.

App	Backup Every	Start backup schedule from	Retention (Days)	Keep at least one backup
App1	1 Days	January 6, 2021	0	Yes
App2	1 Days	January 6, 2021	30	Yes

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
On January 15, 2021, App1 will have only one backup in storage.	<input type="radio"/>	<input type="radio"/>
On February 6, 2021, you can access the backup of the App2 test slot from January 15, 2021.	<input type="radio"/>	<input type="radio"/>
On January 15, 2021, you can restore the App2 production slot backup from January 6 to the App2 test slot.	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
On January 15, 2021, App1 will have only one backup in storage.	<input type="radio"/>	<input checked="" type="radio"/>
On February 6, 2021, you can access the backup of the App2 test slot from January 15, 2021.	<input type="radio"/>	<input checked="" type="radio"/>
On January 15, 2021, you can restore the App2 production slot backup from January 6 to the App2 test slot.	<input checked="" type="radio"/>	<input type="radio"/>

Explanation:

On January 15th you will have 9 backups as 0 day retention is defined as indefinite.

[How many days to keep a backup before automatically deleting it. Set to 0 for indefinite retention.]

<https://docs.microsoft.com/en-us/cli/azure/webapp/config/backup?view=azure-cli-latest>

The DevOps / Web apps backup in the questions only includes the production slot. One cannot restore a test slot from a production slot backup.

[If a slot is not specified, the API will create a backup for the production slot.]

<https://docs.microsoft.com/en-us/rest/api/appservice/web-apps/backup-slot>

January 6th backup will still be within the 30 days retention as of January 15th.

### Question: 535

### AZ-104: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

You have an Azure subscription that contains an Azure Active Directory (Azure AD) tenant named contoso.com. The tenant is synced to the on-premises Active Directory domain. The domain contains the users shown in the following table.

Name	Role
SecAdmin1	Security administrator
BillAdmin1	Billing administrator
User1	Reports reader

You enable self-service password reset (SSPR) for all users and configure SSPR to have the following authentication methods:

- ⇒ Number of methods required to reset: 2
- ⇒ Methods available to users: Mobile phone, Security questions
- ⇒ Number of questions required to register: 3
- ⇒ Number of questions required to reset: 3

You select the following security questions:

- ⇒ What is your favorite food?
- ⇒ In what city was your first job?
- ⇒ What was the name of your first pet?

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
SecAdmin1 must answer the following question during the self-service password reset: In what city was your first job?	<input type="radio"/>	<input type="radio"/>
BillAdmin1 must answer the following question during the self-service password reset: What is your favorite food?	<input type="radio"/>	<input type="radio"/>
User1 must answer the following question during the self-service password reset: What was the name of your first pet?	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
SecAdmin1 must answer the following question during the self-service password reset: In what city was your first job?	<input type="radio"/>	<input checked="" type="radio"/>
BillAdmin1 must answer the following question during the self-service password reset: What is your favorite food?	<input type="radio"/>	<input checked="" type="radio"/>
User1 must answer the following question during the self-service password reset: What was the name of your first pet?	<input checked="" type="radio"/>	<input type="radio"/>

### Explanation:

Box 1: No -

Administrator accounts are special accounts with elevated permissions. To secure them, the following restrictions apply to changing passwords of administrators:

On-premises enterprise administrators or domain administrators cannot reset their password through Self-service password reset (SSPR). They can only change their password in their on-premises environment. Thus, we recommend not syncing on-prem AD admin accounts to Azure AD. An administrator cannot use secret

Questions & Answers as a method to reset password.

Box 2: NO

Box 3: Yes -

## Question: 536

## AZ-104: Actual Exam Q&A | CLEARCATNET

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.

You have an Azure subscription that contains the following users in an Azure Active Directory tenant named contoso.onmicrosoft.com:

Name	Role	Scope
User1	Global administrator	Azure Active Directory
User2	Global administrator	Azure Active Directory
User3	User administrator	Azure Active Directory
User4	Owner	Azure Subscription

User1 creates a new Azure Active Directory tenant named external.contoso.onmicrosoft.com.

You need to create new user accounts in external.contoso.onmicrosoft.com.

Solution: You instruct User1 to create the user accounts.

Does that meet the goal?

- A. Yes
- B. No

Answer: A

**Explanation:**

Only a global administrator can add users to this tenant.

**Reference:**

<https://docs.microsoft.com/en-us/azure/devops/organizations/accounts/add-users-to-azure-ad>

**Question: 537****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an existing Azure subscription that contains 10 virtual machines.

You need to monitor the latency between your on-premises network and the virtual machines.

What should you use?

- A. Service Map
- B. Connection troubleshoot
- C. Network Performance Monitor
- D. Effective routes

**Answer: C****Explanation:**

Network Performance Monitor is a cloud-based hybrid network monitoring solution that helps you monitor network performance between various points in your network infrastructure. It also helps you monitor network connectivity to service and application endpoints and monitor the performance of Azure ExpressRoute.

You can monitor network connectivity across cloud deployments and on-premises locations, multiple data centers, and branch offices and mission-critical multitier applications or microservices. With Performance Monitor, you can detect network issues before users complain.

**Reference:**

<https://docs.microsoft.com/en-us/azure/azure-monitor/insights/network-performance-monitor>

**Question: 538****AZ-104****HOTSPOT -**

You have an Azure App Service plan named ASP1.

CPU usage for ASP1 is shown in the following exhibit.

## CPU Percentage for ASP1



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.

Hot Area:

## Answer Area

The average CPU percentage is calculated [answer choice] per day

	▼
once	
four times	
six times	
24 times	

ASP1 must be [answer choice] to optimize CPU usage

	▼
scaled up	
scaled down	
scaled out	

Answer:

## Answer Area

The average CPU percentage is calculated [answer choice] per day

once
four times
six times
24 times

ASP1 must be [answer choice] to optimize CPU usage

scaled up
scaled down
scaled out

### Explanation:

Box 1: four times -

From the exhibit we see that the time granularity is 6 hours: Last 30 days (Automatic - 6 hours).

CPU Percentage Last days Automatic - hours

Box 2: scaled up -

Scale up when:

- \* You see that your workloads are hitting some performance limit such as CPU or I/O limits.
- \* You need to quickly react to fix performance issues that can't be solved with classic database optimization.
- \* You need a solution that allows you to change service tiers to adapt to changing latency requirements.

### Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/essentials/metrics-troubleshoot> <https://azure.microsoft.com/en-us/overview/scaling-out-vs-scaling-up>

## Question: 539

AZ-104

DRAG DROP -

You have an Azure Linux virtual machine that is protected by Azure Backup.

One week ago, two files were deleted from the virtual machine.

You need to restore the deleted files to an on-premises Windows Server 2016 computer as quickly as possible.

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.

Select and Place:

## Actions

Download and run the script to mount a drive on the local computer

Select a restore point that contains the deleted files

From the Azure portal, click **Restore VM from the vault**

From the Azure portal, click **File Recovery** from the vault

Mount a VHD

Copy the files by using AZCopy

Copy the files by using File Explorer

## Answer Area



Answer:

## Actions

From the Azure portal, click **Restore VM from the vault**

Mount a VHD

Copy the files by using AZCopy

## Answer Area

From the Azure portal, click **File Recovery** from the vault

Select a restore point that contains the deleted files

Download and run the script to mount a drive on the local computer

Copy the files by using AZCopy

Explanation:

Step 1: From the Azure portal, click File Recovery from the vault

Step 2. Select a restore point that contains the deleted files

Step 3: Download and run the script to mount a drive on the local computer (LINUX!!!)

Step 4. Copy the files by using AZCopy (yes, to blob storage and next to Windows 2016)

**Question: 540**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You purchase a new Azure subscription named Subscription1.

You create a virtual machine named VM1 in Subscription1. VM1 is not protected by Azure Backup.

You need to protect VM1 by using Azure Backup. Backups must be created at 01:00 and stored for 30 days.

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

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area**

Location in which to store the backups:

- A blob container
- A file share
- A Recovery Services vault
- A storage account

Object to use to configure the protection for VM1:

- A backup policy
- A batch job
- A batch schedule
- A recovery plan

**Answer:**

## Answer Area

Location in which to store the backups:

A blob container
A file share
A Recovery Services vault
A storage account

Object to use to configure the protection for VM1:

A backup policy
A batch job
A batch schedule
A recovery plan

### Explanation:

Box 1: A Recovery Services vault

You can set up a Recovery Services vault and configure backup for multiple Azure VMs.

Box 2: A backup policy -

In Choose backup policy, do one of the following:

- ☞ Leave the default policy. This backs up the VM once a day at the time specified, and retains backups in the vault for 30 days.
- ☞ Select an existing backup policy if you have one.
- ☞ Create a new policy, and define the policy settings.

### Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-azure-vms-first-look-arm>

## Question: 541

## AZ-104: Actual Exam Q&A | CLEARCATNET

You have an Azure virtual machine named VM1.

Azure collects events from VM1.

You are creating an alert rule in Azure Monitor to notify an administrator when an error is logged in the System event log of VM1.

Which target resource should you monitor in the alert rule?

- A. virtual machine extension
- B. virtual machine
- C. metric alert
- D. Azure Log Analytics workspace

### Answer: D

### Explanation:

For the first step to create the new alert rule, under the Create Alert section, you are going to select your Log Analytics workspace as the resource, since this is a log based alert signal.

### Reference:

<https://docs.microsoft.com/en-us/windows-server/storage/storage-spaces/configure-azure-monitor>

**Question: 542****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that contains 100 virtual machines.

You regularly create and delete virtual machines.

You need to identify unattached disks that can be deleted.

What should you do?

- A. From Azure Cost Management, view Cost Analysis
- B. From Azure Advisor, modify the Advisor configuration
- C. From Microsoft Azure Storage Explorer, view the Account Management properties
- D. From Azure Cost Management, view Advisor Recommendations

**Answer: D****Explanation:**

From Home "> Cost Management + Billing "> Cost Management, scroll down on the options and select View Recommendations:

The screenshot shows the Azure Cost Management + Billing interface. On the left, there's a navigation sidebar with sections like Overview, Access control, Diagnose and solve problems, Cost Management (which is expanded to show Cost analysis, Cost alerts, Budgets, Advisor recommendations, and Cloudyn), Products + services (with Azure subscriptions and Azure reservations), Settings (Configuration, Exports, Connectors for AWS (Preview)), and Support + troubleshooting. The main content area has three main sections: 'Analyze cloud costs' (with a 'Learn more' link and a 'Open cost analysis' button), 'Monitor with budgets' (with a 'Create budget' button and a 'Learn more' link), and 'Optimize with recommendations' (with a 'Learn more' link and a 'View recommendations' button). The 'View recommendations' button is circled with a red oval.

**Azure Cost Management / Advisor -**

From here you will see the recommendations for your subscription, if you have orphaned disks, they will be listed.

**Reference:**

<https://codeserendipity.com/2020/07/08/microsoft-azure-find-unattached-disks-that-can-be-deleted-and-other-recommendations/>

**Question: 543****AZ-104**

You have an Azure web app named webapp1.

Users report that they often experience HTTP 500 errors when they connect to webapp1.

You need to provide the developers of webapp1 with real-time access to the connection errors. The solution must provide all the connection error details.

What should you do first?

- A. From webapp1, enable Web server logging

- B. From Azure Monitor, create a workbook
- C. From Azure Monitor, create a Service Health alert
- D. From webapp1, turn on Application Logging

**Answer: A**

**Explanation:**

Raw HTTP request data is provided by Web server logging and the question mentions 500 error codes.

You need to catch connection error. When the connection fails it happens on web server, not within application. You can do it opening the web application -> Application Service logs -> Web server logging (there are multiple switches there).

You can also see the errors live going to "Log stream" pane.

Web server logging Windows App Service file system or Azure Storage blobs Raw HTTP request data in the W3C extended log file format. Each log message includes data such as the HTTP method, resource URI, client IP, client port, user agent, response code, and so on.

### Question: 544

AZ-104

You have an Azure web app named App1.

You need to monitor the availability of App1 by using a multi-step web test.

What should you use in Azure Monitor?

- A. Azure Service Health
- B. Azure Application Insights
- C. the Diagnostic settings
- D. metrics

**Answer: B**

**Explanation:**

Upload the web test -

1. In the Application Insights portal on the Availability pane select Add Classic test, then select Multi-step as the SKU.
2. Upload your multi-step web test.
3. Set the test locations, frequency, and alert parameters.
4. Select Create.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/app/availability-multistep>

### Question: 545

AZ-104

HOTSPOT -

You have an Azure subscription that has diagnostic logging enabled and is configured to send logs to a Log Analytics workspace.

You are investigating a service outage.

You need to view the event time, the event name, and the affected resources.

How should you complete the query? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

AzureActivity
Heartbeat
NetworkMonitoring
Perf

```
| Where Level == 'Critical'
```

TimeGenerated, OperationNameValue, _ResourceId
extend
join
print
project

Answer:

## Answer Area

AzureActivity
Heartbeat
NetworkMonitoring
Perf

```
| Where Level == 'Critical'
```

TimeGenerated, OperationNameValue, _ResourceId
extend
join
print
project

### Explanation:

Box 1: AzureActivity -

The AzureActivity table has entries from the Azure activity log, which provides insight into subscription-level or management group-level events occurring in Azure.

Let's see only Critical entries during a specific week.

The where operator is common in the Kusto Query Language. where filters a table to rows that match specific criteria. The following example uses multiple commands. First, the query retrieves all records for the table.

Then, it filters the data for only records that are in the time range. Finally, it filters those results for only records that have a Critical level.

AzureActivity -

```
| where TimeGenerated > datetime(10-01-2020) and TimeGenerated < datetime(10-07-2020)  
| where Level == 'Critical'
```

Incorrect:

not Perf: The Perf table has performance data that's collected from virtual machines that run the Log Analytics agent.

Box 2: | project -

Select a subset of columns: project.

Use project to include only the columns you want. Building on the preceding example, let's limit the output to certain columns:

AzureActivity -

| where TimeGenerated > datetime(10-01-2020) and TimeGenerated < datetime(10-07-2020)

| where Level == 'Critical'

| project TimeGenerated, Level, OperationNameValue, ResourceGroup, \_ResourceId

Reference:

<https://github.com/MicrosoftDocs/dataexplorer-docs/blob/main/data-explorer/kusto/query/tutorial.md>

### Question: 546

### AZ-104: Actual Exam Q&A | CLEARCATNET

You have a Recovery Services vault named RSV1. RSV1 has a backup policy that retains instant snapshots for five days and daily backup for 14 days.

RSV1 performs daily backups of VM1. VM1 hosts a static website that was updated eight days ago.

You need to recover VM1 to a point eight days ago. The solution must minimize downtime.

What should you do first?

- A. Deallocate VM1.
- B. Restore VM1 by using the Replace existing restore configuration option.
- C. Delete VM1.
- D. Restore VM1 by using the Create new restore configuration option.

Answer: D

Explanation:

1. D is the answer.<https://learn.microsoft.com/en-us/azure/backup/backup-azure-arm-restore-vms#restore-options> Create a new VM- Quickly creates and gets a basic VM up and running from a restore point.
2. B requires VM to be stopped during restore.

### Question: 547

### AZ-104

HOTSPOT -

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

Name	Type
VM1	Virtual machine
storage1	Storage account
Workspace1	Log Analytics workspace
DB1	Azure SQL database

You plan to create a data collection rule named DCR1 in Azure Monitor.

Which resources can you set as data sources in DCR1, and which resources can you set as destinations in DCR1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Data sources:

- VM1 only
- VM1 and storage1 only
- VM1, storage1, and DB1 only
- VM1, storage1, Workspace1, and DB1

Destinations:

- storage1 only
- Workspace1 only
- Workspace1 and storage1 only
- Workspace1, storage1, and DB1 only1

Answer:

## Answer Area

Data sources:

- VM1 only
- VM1 and storage1 only
- VM1, storage1, and DB1 only
- VM1, storage1, Workspace1, and DB1

Destinations:

- storage1 only
- Workspace1 only
- Workspace1 and storage1 only
- Workspace1, storage1, and DB1 only1

## Explanation:

Box 1: VM1 only -

A virtual machine may have an association to multiple DCRs, and a DCR may have multiple virtual machines associated to it.

In the Resources tab, add the resources (virtual machines, virtual machine scale sets, Arc for servers) that should have the Data Collection Rule applied.

Box 2: Workspace1 only -

On the Destination tab, add one or more destinations for the data source. You can select multiple destinations of same or different types, for instance multiple Log Analytics workspaces (i.e. "multi-homing").

Note: The Data Collection Rules (or DCR) improve on a few key areas of data collection from VMs including like better control and scoping of data collection (e.g. collect from a subset of VMs for a single workspace), collect once and send to both Log Analytics and Azure Monitor Metrics, send to multiple workspaces (multi-homing for Linux), improved Windows event filtering, and improved extension management.

Reference:

<https://docs.microsoft.com/en-us/azure/azure-monitor/agents/data-collection-rule-azure-monitor-agent>

## Question: 548

## AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You have the role assignment file shown in the following exhibit.

```
[  
  {  
    "RoleAssignmentId": "e3108585-0e5d-4572-91a3-aa5d2df73999",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff",  
    "DisplayName": "User1",  
    "SignInName": "User1@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "3bab4763-16a9-4d5d-9fcf-e0cc31a21e",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG2",  
    "DisplayName": "User2",  
    "SignInName": "User2@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "a071c023-40a3-4b7f-8680-1109b40270c5",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG1/providers/  
Microsoft.Compute/virtualMachines/VM1",  
    "DisplayName": "User3",  
    "SignInName": "User3@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Owner",  
    ...  
  },  
  {  
    "RoleAssignmentId": "c5b9e7da-76d4-4888-93b5-8afb2bb780b4",  
    "Scope": "/subscriptions/fb960108-fcdc-499b-886e-d9c31d3f26ff/resourceGroups/RG1",  
    "DisplayName": "User4",  
    "SignInName": "User4@contoso.onmicrosoft.com",  
    "RoleDefinitionName": "Contributor",  
    ...  
  }  
]
```

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.

Hot Area:

## Answer Area

[Answer choice] assigned the Owner role for VM1

▼
User3 is
User3 and User4 are
User1 and User3 are
User1, User3, and User4 are
User1, User2, User3, and User4

[Answer choice] can create a virtual machine in RG1

▼
User1 and User4
User1, User2, and User3
User1, User2, and User4
User1, User3, and User4
User1, User2, User3, and User4

Answer:

## Answer Area

[Answer choice] assigned the Owner role for VM1

▼
User3 is
User3 and User4 are
User1 and User3 are
User1, User3, and User4 are
User1, User2, User3, and User4

[Answer choice] can create a virtual machine in RG1

▼
User1 and User4
User1, User2, and User3
User1, User2, and User4
User1, User3, and User4
User1, User2, User3, and User4

Question: 549

AZ-104

HOTSPOT -

You have the following custom role-based access control (RBAC) role.

```
{
  "id": "b988327b-7dae-4d00-8925-1cc14fd68be4",
  "properties": {
    "roleName": "Role1",
    "description": "",
    "assignableScopes": [
      "/subscriptions/c691ad84-99f2-42fd-949b-58af7ef6ab3"
    ],
    "permissions": [
      {
        "actions": [
          "Microsoft.Resources/subscription/resourceGroups/resources/read",
          "Microsoft.Resources/subscription/resourceGroups/read",
          "Microsoft.Resourcehealth/*",
          "Microsoft.Authorization/*/read",
          "Microsoft.Compute/*/read",
          "Microsoft.Support/*",
          "Microsoft.Authorization/*/read",
          "Microsoft.Network/virtualNetworks/read",
          "Microsoft.Resources/deployments/*",
          "Microsoft.Resources/subscription/resourceGroups/read",
          "Microsoft.Storage/storageAccounts/read",
          "Microsoft.Compute/virtualMachines/start/action",
          "Microsoft.Compute/virtualMachines/powerOff/action",
          "Microsoft.Compute/virtualMachines/deallocate/action",
          "Microsoft.Compute/virtualMachines/restart/action",
          "Microsoft.Compute/virtualMachines/*",
          "Microsoft.Compute/disks/*",
          "Microsoft.Compute/availabilitySets/*",
          "Microsoft.Network/virtualNetworks/subnets/join/action",
          "Microsoft.Network/virtualNetworks/subnets/read",
          "Microsoft.Network/virtualNetworks/subnets/virtualMachines/read",
          "Microsoft.Network/networkInterfaces/*",
          "Microsoft.Compute/snapshots/*"
        ]
      },
      {
        "notAction": [
          "Microsoft.Authorization/*/Delete",
          "Microsoft.Authorization/*/Write",
          "Microsoft.Authorization/elevateAccess/Action"
        ]
      }
    ]
  }
}
```

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

#### Statements

Yes	No
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>

Users that are assigned Role1 can assign Role1 to users.

Users that are assigned Role1 can deploy new virtual machines.

Users that are assigned Role1 can set a static IP address on a virtual machine.

Answer:

## Answer Area

Statements	Yes	No
Users that are assigned Role1 can assign Role1 to users.	<input type="radio"/>	<input checked="" type="radio"/>
Users that are assigned Role1 can deploy new virtual machines.	<input checked="" type="radio"/>	<input type="radio"/>
Users that are assigned Role1 can set a static IP address on a virtual machine.	<input checked="" type="radio"/>	<input type="radio"/>

### Explanation:

NO,YES,YES

Microsoft.Compute/virtualMachines/\* Perform all virtual machine actions including create, update, delete, start, restart, and power off virtual machines. Execute scripts on virtual machines.

## Question: 550

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

### HOTSPOT -

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

Name	Type	Description
VNET1	Virtual network	Contains subnet1 and subnet2
subnet1	Subnet	IP address space 10.3.0.0/24
subnet2	Subnet	IP address space 10.4.0.0/24
NSG1	Network security group (NS)	None
vm1	Virtual machine	IP address 10.3.0.15
vm2	Virtual machine	IP address 10.4.0.16
storage1	Storage account	None

NSG1 is configured as shown in the following exhibit.

[^ Essentials](#)

JSON View

Resource group (change) : RG1

Custom security rules : 1 inbound, 2 outbound

Location : East US 2

Associated with : 1 subnets, 0 network interfaces

Subscription (change) : Microsoft Azure Sponsorship

Subscription ID :

Tags (change) : Click here to add tags

## ▼ Inbound security rules

Priority	Name	Port	Protocol	Source	Destination	Action
110	HTTPS_VM1_Deny	443	TCP	Internet	10.3.0.15	<span style="color:red;">✗ Deny</span>
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	<span style="color:green;">✓ Allow</span>
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	<span style="color:green;">✓ Allow</span>
65500	DenyAllInBound	Any	Any	Any	Any	<span style="color:red;">✗ Deny</span>

## ▼ Outbound security rules

145	Storage_Access	443	TCP	VirtualNetwork	Storage	<span style="color:green;">✓ Allow</span>
150	Block_Internet	Any	Any	VirtualNetwork	Internet	<span style="color:red;">✗ Deny</span>
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	<span style="color:green;">✓ Allow</span>
65001	AllowInternetOutBound	Any	Any	Any	Internet	<span style="color:green;">✓ Allow</span>
65500	DenyAllOutBound	Any	Any	Any	Any	<span style="color:red;">✗ Deny</span>

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area****Statements**

VM1 can access storage1.

**Yes****No**

VM2 can access VM1 by using the HTTPS protocol.

The security rules for NSG1 apply to any virtual machine on VNET1.

**Answer:****Answer Area****Statements**

VM1 can access storage1.

**Yes****No**

VM2 can access VM1 by using the HTTPS protocol.

The security rules for NSG1 apply to any virtual machine on VNET1.

**Explanation:**

YES

Outbound rules have 145 priority for allow storage1 access

YES

Inbound rules has default Vnet to Vnet allow so VM2 can access VM1. The deny rule 110 is for Internet traffic coming in.

NO

.We can see the NSG is associated to 1 subnet from the image.

### Question: 551

### AZ-104: Actual Exam Q&A | CLEARCATNET

You have an Azure subscription named Subscription1 that contains two Azure virtual networks named VNet1 and VNet2. VNet1 contains a VPN gateway named VPNGW1 that uses static routing. There is a site-to-site VPN connection between your on-premises network and VNet1.

On a computer named Client1 that runs Windows 10, you configure a point-to-site VPN connection to VNet1. You configure virtual network peering between VNet1 and VNet2. You verify that you can connect to VNet2 from the on-premises network. Client1 is unable to connect to VNet2.

You need to ensure that you can connect Client1 to VNet2.

What should you do?

- A. Select Use the remote virtual network's gateway or Route Server on VNet1 to VNet2 peering.
- B. Select Use the remote virtual network s gateway or Route Server on VNet2 to VNet1 peering.
- C. Download and re-install the VPN client configuration package on Client1.
- D. Enable BGP on VPNGW1.

### Answer: C

#### Explanation:

After changes in topology it is needed to re-install the VPN client

### Question: 552

### AZ-104

HOTSPOT -

You have two Azure subscriptions named Sub1 and Sub2. Sub1 is in a management group named MG1. Sub2 is in a management group named MG2.

You have the resource groups shown in the following table.

Name	Subscription
RG1	Sub1
RG2	Sub2

You have the virtual machines shown in the following table.

Name	Resource group
VM1	RG1
VM2	RG2
VM3	RG2

You assign roles to users as shown in the following table.

User	Role	Resource
User1	Virtual Machine Contributor	MG1
User1	Virtual Machine User Login	Sub2
User2	Virtual Machine Contributor	MG2
User2	Virtual Machine User Login	Sub1
User2	Virtual Machine User Login	VM3

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
User1 can sign in to VM1.	<input type="radio"/>	<input type="radio"/>
User2 can manage disks and disk snapshots of VM1.	<input type="radio"/>	<input type="radio"/>
User2 can manage disks and disk snapshots of VM3.	<input type="radio"/>	<input type="radio"/>

Answer:

### Answer Area

Statements	Yes	No
User1 can sign in to VM1.	<input type="radio"/>	<input checked="" type="radio"/>
User2 can manage disks and disk snapshots of VM1.	<input type="radio"/>	<input checked="" type="radio"/>
User2 can manage disks and disk snapshots of VM3.	<input type="radio"/>	<input checked="" type="radio"/>

**Explanation:**

1. User1 can sign in to VM1

No

User1 is assigned as Virtual Machine Contributor in MG1.

And Virtual Machine Contributor can't log in to VM as a regular user.

2. User2 can manage disks and disk snapshots of VM1

No

Since User2 only has Virtual Machine User in Sub1, so he can log in to VM1 but can't manage disks or snapshots

3. User2 can manage disks and disk snapshots of VM3

No

Virtual Machine Contributor only has permission to manage disks, but not disk snapshots (Disk Snapshot Contributor permission)

**Question: 553****AZ-104**

You have an Azure Active Directory (Azure AD) tenant that is linked to 10 Azure subscriptions.

You need to centrally monitor user activity across all the subscriptions.

What should you use?

- A. Azure Application Insights Profiler
- B. access reviews
- C. Activity log filters
- D. a Log Analytics workspace

**Answer: D****Explanation:**

Keywords are "centrally monitor" and "all subs"

**Question: 554****AZ-104**

DRAG DROP -

You have an Azure subscription that contains a virtual machine name VM1.

VM1 has an operating system disk named Disk1 and a data disk named Disk2.

You need to back up Disk2 by using Azure Backup.

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.

Select and Place:

**Actions****Answer Area**

Configure a managed identity

Create an Azure Backup vault

Create a Recovery Services vault

Delegate permissions for the vault

Create a backup policy and configure the backup

**Answer:****Actions****Answer Area**

Create a Recovery Services vault

Delegate permissions for the vault

Create an Azure Backup vault

Create a backup policy and configure the backup

Configure a managed identity

**Explanation:**

- 1- Create an Azure backup vault.
- 2- Create a backup policy and configure the backup
- 3- Configure a managed identity

<https://docs.microsoft.com/en-us/azure/backup/backup-managed-disks#:~:text=Review%20%2B%20create.--,Configure%20backup,-Azure%20Disk%20backup>

**Question: 555****AZ-104**

You have a subnet named Subnet1 that contains Azure virtual machines. A network security group (NSG) named NSG1 is associated to Subnet1. NSG1 only contains the default rules.

You need to create a rule in NSG1 to prevent the hosts on Subnet1 from connecting to the Azure portal. The hosts must be able to connect to other internet hosts.

To what should you set Destination in the rule?

- A. Application security group
- B. IP Addresses
- C. Service Tag
- D. Any

**Answer: C****Explanation:**

You can use service tags to achieve network isolation and protect your Azure resources from the general Internet while accessing Azure services that have public endpoints. Create inbound/outbound network security group rules to deny traffic to/from Internet and allow traffic to/from AzureCloud or other available service tags of specific Azure services.

<https://docs.microsoft.com/en-us/azure/virtual-network/service-tags-overview>

### Question: 556

AZ-104

You have an Azure subscription named Subscription1 that contains an Azure Log Analytics workspace named Workspace1.

You need to view the error events from a table named Event.

Which query should you run in Workspace1?

- A. search in (Event) "error"
- B. Event | where EventType is "error"
- C. select \* from Event where EventType == "error"
- D. Get-Event Event | where \$\_.EventType == "error"

### Answer: A

#### Explanation:

1. Event | search "error"
2. Event | where EventType == "error"
3. search in (Event) "error"

### Question: 557

AZ-104

You have an Azure App Service web app named App1.

You need to collect performance traces for App1.

What should you use?

- A. Azure Application Insights Profiler
- B. the Activity log
- C. the Deployment center
- D. the Diagnose and solve problems settings

### Answer: A

#### Explanation:

With Application Insights Profiler, you can capture and view performance traces for your application in all these dynamic situations, automatically at-scale, without negatively affecting your end users."

<https://docs.microsoft.com/en-us/azure/azure-monitor/profiler/profiler-overview>

### Question: 558

AZ-104

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

Name	Kind	Location
storage1	StorageV2	Central US
storage2	BlobStorage	West US
storage3	BlockBlobStorage	West US
storage4	FileStorage	East US

You deploy a web app named App1 to the West US Azure region.

You need to back up App1. The solution must minimize costs.

Which storage account should you use as the target for the backup?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

**Answer: B**

**Explanation:**

To minimize costs, you should use the storage account that is in the same region as the web app that you are backing up. In this case, the web app is in the West US region, so you should use storage2

### Question: 559

AZ-104

HOTSPOT

-

You have an Azure subscription that is linked to an Azure AD tenant. The tenant contains two users named User1 and User2.

The subscription contains the resources shown in the following table.

Name	Type	Description
RG1	Resource group	None
VM1	Virtual machine	Created in RG1

The subscription contains the alert rules shown in the following table.

Name	Scope	Condition
Alert1	RG1	All Administrative operations
Alert2	VM1	All Administrative operations

The users perform the following action:

- User1 creates a new virtual disk and attaches the disk to VM1
- User2 creates a new resource tag and assigns the tag to RG1 and VM1

Which alert rules are triggered by each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

## Answer Area

User1:

- No alert is triggered
- Only Alert1 is triggered
- Only Alert2 is triggered
- Alert1 and Alert2 are triggered

User2:

- No alert is triggered
- Only Alert1 is triggered
- Only Alert2 is triggered
- Alert1 and Alert2 are triggered

Answer:

# Answer Area

User1:

- No alert is triggered
- Only Alert1 is triggered
- Only Alert2 is triggered
- Alert1 and Alert2 are triggered**

User2:

- No alert is triggered
- Only Alert1 is triggered
- Only Alert2 is triggered
- Alert1 and Alert2 are triggered**

## Explanation:

User1: Alert1 and Alert2 are triggered.

User2: Alert1 and Alert2 are triggered.

## Question: 560

AZ-104

You plan to deploy several Azure virtual machines that will run Windows Server 2019 in a virtual machine scale set by using an Azure Resource Manager template.

You need to ensure that NGINX is available on all the virtual machines after they are deployed.

What should you use?

- A. a Desired State Configuration (DSC) extension
- B. the New-AzConfigurationAssignment cmdlet
- C. Azure Application Insights
- D. a Microsoft Endpoint Manager device configuration profile

## Answer: A

## Explanation:

answer is DSC. There is another version of this question where Custom Script Extension is the right answer and there is no DSC option to choose.

**Question: 561****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that contains eight virtual machines and the resources shown in the following table.

Name	Description
storage1	Storage account
storage2	Storage account
KeyVault1	Key vault
VNET1	Virtual network with a single subnet that has five virtual machines connected
VNET2	Virtual network with a single subnet that has three virtual machines connected

You need to configure access for VNET1. The solution must meet the following requirements:

- The virtual machines connected to VNET1 must be able to communicate with the virtual machines connected to VNET2 by using the Microsoft backbone.
- The virtual machines connected to VNET1 must be able to access storage1, storage2, and Azure AD by using the Microsoft backbone.

What is the minimum number of service endpoints you should add to VNET1?

- A. 1
- B. 2
- C. 3
- D. 5

**Answer: B****Explanation:**

2 service endpoints. VM is not a service endpoint type. So the first question is irrelevant.

Both storage accounts must have service endpoints in vnet 1. So the answer 2

**Question: 562****AZ-104**

You need to configure an Azure web app named contoso.azurewebsites.net to host www.contoso.com.

What should you do first?

- A. Create A records named www.contoso.com and asuid.contoso.com.
- B. Create a TXT record named asuid that contains the domain verification ID.
- C. Create a CNAME record named asuid that contains the domain verification ID.
- D. Create a TXT record named www.contoso.com that has a value of contoso.azurewebsites.net.

**Answer: B****Explanation:**

be a TXT record, B

<https://learn.microsoft.com/en-us/azure/app-service/app-service-web-tutorial-custom-domain?tabs=a%2Cazurecli>

### Question: 563

### AZ-104: Actual Exam Q&A | CLEARCATNET

You have an Azure subscription that contains 10 network security groups (NSGs), 10 virtual machines, and a Log Analytics workspace named Workspace1. Each NSG is connected to a virtual machine.

You need to configure an Azure Monitor Network Insights alert that will be triggered when suspicious network traffic is detected.

What should you do first?

- A. Deploy Connection Monitor.
- B. Configure data collection endpoints.
- C. Configure a private link.
- D. Configure NSG flow logs.

### Answer: D

#### Explanation:

To configure an Azure Monitor Network Insights alert that will be triggered when suspicious network traffic is detected, you should first configure NSG flow logs.

NSG flow logs provide information about traffic that is allowed or denied by an NSG. By configuring NSG flow logs, you will be able to monitor the traffic passing through your NSGs and detect any suspicious activity.

### Question: 564

### AZ-104

HOTSPOT

-

You have an Azure subscription named Sub1 that contains the resources shown in the following table.

Name	Description
RG1	Resource group
Action1	Action group that sends an email message to admin1@contoso.com

Sub1 contains the following alert rule:

- Name: Alert1
- Scope: All resource groups in Sub1
  - o Include all future resources
- Condition: All administrative operations
- Actions: Action1

Sub1 contains the following alert processing rule:

- Name: Rule1
- Scope: Sub1
- Rule type: Suppress notifications

- Apply the rule: On a specific time
  - Start: August 10, 2022
  - End: August 13, 2022

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
If you create a resource group in Sub1 on August 11, 2022, Alert1 is listed in the Azure portal.	<input type="radio"/>	<input type="radio"/>
If you create a resource group in Sub1 on August 12, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input type="radio"/>
If you add a tag to RG1 on August 15, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input type="radio"/>

#### Answer:

Statements	Yes	No
If you create a resource group in Sub1 on August 11, 2022, Alert1 is listed in the Azure portal.	<input checked="" type="checkbox"/>	<input type="radio"/>
If you create a resource group in Sub1 on August 12, 2022, an email message is sent to admin1@contoso.com.	<input type="radio"/>	<input checked="" type="checkbox"/>
If you add a tag to RG1 on August 15, 2022, an email message is sent to admin1@contoso.com.	<input checked="" type="checkbox"/>	<input type="radio"/>

#### Explanation:

YES - "alert is listed" does not mean a notification in my understanding therefore yes

NO- The date is within suppression rule boundaries therefore email will be suppressed

YES - The date is outside suppression rule boundaries

#### Question: 565

#### AZ-104: Actual Exam Q&A | CLEARCATNET

You have an Azure subscription that contains a storage account named storage1 in the North Europe Azure region.

You need to ensure that when blob data is added to storage1, a secondary copy is created in the East US region. The solution must minimize administrative effort.

What should you configure?

- operational backup
- object replication
- geo-redundant storage (GRS)
- a lifecycle management rule

#### Answer: B

#### Explanation:

Object replication is a feature that allows you to replicate data, such as blobs, across different storage accounts or containers within the same storage account. This can be configured to automatically copy data

from one storage location to another, either within the same region or across different regions. Object replication can be used to create disaster recovery solutions or to distribute data globally for better performance and availability.

It is similar to GRS but it is more flexible as you can choose the storage account and container to replicate the data.

The GRS of a North Europe region is a secondary copy of the data stored in a different region. The exact location of the secondary region will depend on the specific Azure region you have selected. For the North Europe region, the secondary copy is stored in the West Europe region. This means that if there is an outage or disaster in the North Europe region, your data will still be available in the West Europe region. This provides a high level of data durability and protection.

### Question: 566

AZ-104

You have an Azure subscription that contains two Log Analytics workspaces named Workspace1 and Workspace2 and 100 virtual machines that run Windows Server.

You need to collect performance data and events from the virtual machines. The solution must meet the following requirements:

- Logs must be sent to Workspace1 and Workspace 2.
- All Windows events must be captured.
- All security events must be captured.

What should you install and configure on each virtual machine?

- the Azure Monitor agent
- the Windows Azure diagnostics extension (WAD)
- the Windows VM agent

### Answer: A

#### Explanation:

<https://learn.microsoft.com/en-us/azure/azure-monitor/agents/agents-overview#install-the-agent-and-configure-data-collection>

### Question: 567

AZ-104

You have an Azure subscription that contains a virtual machine named VM1 and an Azure function named App1.

You need to create an alert rule that will run App1 if VM1 stops.

What should you create for the alert rule?

- an application security group
- a security group that has dynamic device membership
- an action group
- an application group

### Answer: C

#### Explanation:

An action group is a collection of actions that are triggered by an Azure alert. In this scenario, you need to create an alert rule that will run App1 if VM1 stops, and for this purpose, you need to create an action group. An action group defines the set of actions to be taken when an alert is triggered, such as running an Azure function, sending an email, or creating an Azure ticket.

By creating an action group and associating it with the alert rule, you can automate the process of running App1 if VM1 stops, without the need for manual intervention. This helps ensure that critical systems, such as App1, are automatically activated when necessary, improving the overall reliability and availability of your Azure services.

### Question: 568

AZ-104

You have an Azure subscription that contains a virtual network named VNet1.

VNet1 uses two ExpressRoute circuits that connect to two separate on-premises datacenters.

You need to create a dashboard to display detailed metrics and a visual representation of the network topology.

What should you use?

- A. Azure Monitor Network Insights
- B. a Data Collection Rule (DCR)
- C. Azure Virtual Network Watcher
- D. Log Analytics

### Answer: A

#### Explanation:

Azure Monitor Network Insights is correct.

Reference: <https://learn.microsoft.com/en-us/azure/network-watcher/network-insights-overview>

### Question: 569

AZ-104: Actual Exam Q&A | CLEARCATNET

You deploy Azure virtual machines to three Azure regions

Each region contains a virtual network. Each virtual network contains multiple subnets peered in a full mesh topology.

Each subnet contains a network security group (NSG) that has defined rules.

A user reports that he cannot use port 33000 to connect from a virtual machine in one region to a virtual machine in another region.

Which two options can you use to diagnose the issue? Each correct answer presents a complete solution.

NOTE: Each correct selection is worth one point.

- A. Azure Virtual Network Manager
- B. IP flow verify
- C. Azure Monitor Network Insights
- D. Connection troubleshoot
- E. elective security rules

**Answer: BD**

**Explanation:**

Azure Monitor Network Insights provides sth like dashboard and access to the diagnostics toolkit only, which cannot perform troubleshooting as IP flow verify and connection troubleshoot. Thus, I think the ans is B & D

**Question: 570**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription.

You need to receive an email alert when a resource lock is removed from any resource in the subscription.

What should you use to create an activity log alert in Azure Monitor?

- A. a resource, a condition, and an action group
- B. a resource, a condition, and a Microsoft 365 group
- C. a Log Analytics workspace, a resource, and an action group
- D. a data collection endpoint, an application security group, and a resource group

**Answer: A**

**Explanation:**

You create an alert rule by combining:

- The resources to be monitored.
- The signal or telemetry from the resource.
- Conditions.

Then you define these elements for the resulting alert actions by using:

- Alert processing rules
- Action groups

Reference:

<https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-create-new-alert-rule>

**Question: 571**

**AZ-104**

HOTSPOT

-

You have an Azure subscription that contains the alerts shown in the following exhibit.

Search

Add filter

More (4)

Total alerts

4

Critical

0

Error

0

Warning

0

Informational

0

Verbose

4

No grouping

Name ↑↓	Severity ↑↓	Alert condition ↑↓	User response ↑↓	Fired time ↑↓
<input type="checkbox"/> Alert2	4 - Verbose	⚠ Fired	New	4/29/2022, 2:09 PM
<input type="checkbox"/> Alert2	4 - Verbose	⚠ Fired	New	4/29/2022, 2:09 PM
<input type="checkbox"/> Alert1	4 - Verbose	⚠ Fired	Closed	4/29/2022, 2:04 PM
<input type="checkbox"/> Alert1	4 - Verbose	⚠ Fired	Closed	4/29/2022, 2:04 PM

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

For Alert1, User response [answer choice].

- cannot be changed
- can be changed to New only
- can be changed to Acknowledged only
- can be changed to New or Acknowledged

For Alert2, User response [answer choice].

- cannot be changed
- can be changed to Acknowledged only
- can be changed to closed only
- can be changed to Acknowledged or Closed

Answer:

## Answer Area

For Alert1, User response [answer choice].

- cannot be changed
- can be changed to New only
- can be changed to Acknowledged only
- can be changed to New or Acknowledged**

For Alert2, User response [answer choice].

- cannot be changed
- can be changed to Acknowledged only
- can be changed to closed only
- can be changed to Acknowledged or Closed**

### Explanation:

Box1: can be changed to New or Acknowledged "Changing the user response doesn't affect the alert condition" is what the portal says while changing the response of an alert whose user response is closed  
Box2: can be changed to Acknowledged or Closed

## Question: 572

## AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT

You create a Recovery Services vault backup policy named Policy1 as shown in the following exhibit:

Policy name \* (i)

Backup schedule

Frequency \* Time \* Timezone \*

Daily ▼ 11:00 PM ▼ (UTC) Coordinated Universal Time ▼

Instant Restore (i)

---

Retain instant recovery snapshot(s) for

2 ▼ Day(s) (i)

Retention range

Retention of daily backup point.

At	For
11:00 PM	<input type="text" value="30"/> Day(s)

Retention of weekly backup point.

On *	At	For
<input type="text" value="Sunday"/>	<input type="text" value="11:00 PM"/>	<input type="text" value="10"/> Week(s)

Retention of monthly backup point.

Week Based  Day Based

On *	At	For
<input type="text" value="1"/>	<input type="text" value="11:00 PM"/>	<input type="text" value="36"/> Month(s)

Retention of yearly backup point.

Week Based  Day Based

In *	On *	At	For
<input type="text" value="March"/>	<input type="text" value="1"/>	<input type="text" value="11:00 PM"/>	<input type="text" value="10"/> Year(s)

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

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼

30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼

30 days
10 weeks
36 months
10 years

## Answer:

### Answer Area

The backup that occurs on Sunday, March 1, will be retained for [answer choice].

▼

30 days
10 weeks
36 months
10 years

The backup that occurs on Sunday, November 1, will be retained for [answer choice].

▼

30 days
10 weeks
36 months
10 years

## Question: 573

AZ-104

HOTSPOT

-

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

Name	Type
Recovery1	Recovery Services vault
Backup1	Azure Backup vault

You deploy the virtual machines shown in the following table.

Name	Operating system	Security Configuration
VM1	Windows Server	Azure Disk Encryption
VM2	Linux	Trusted launch

You have the backup policies shown in the following table.

Name	Type	In vault
Policy1	Standard	Recovery1
Policy2	Enhanced	Recovery2
Policy3	<i>Not applicable</i>	Backup1

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

### Answer Area

Statements	Yes	No
VM1 can be backed up by using Policy1.	<input type="radio"/>	<input type="radio"/>
VM2 can be backed up by using Policy3.	<input type="radio"/>	<input type="radio"/>
VM2 can be backed up by using Policy2.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
VM1 can be backed up by using Policy1.	<input checked="" type="checkbox"/>	<input type="radio"/>
VM2 can be backed up by using Policy3.	<input type="radio"/>	<input checked="" type="checkbox"/>
VM2 can be backed up by using Policy2.	<input checked="" type="checkbox"/>	<input type="radio"/>

### Explanation:

A yes

B: No Azure Backup vaults do not support backup of Azure virtual machines. Azure Backup vaults can protect the following types of data sources:  
1- Azure Disks  
2- Azure Blobs (Azure Storage)  
3- Azure database for PostgreSQL server  
4- Kubernetes services

C: Yes, enhanced support for Trusted Launch. You must enable backup of Trusted Launch VM through enhanced policy only.

<https://learn.microsoft.com/en-us/azure/backup/backup-azure-vms-enhanced-policy?tabs=azure-portal>

## Question: 574

AZ-104

You have an Azure subscription. The subscription contains virtual machines that connect to a virtual network named VNet1.

You plan to configure Azure Monitor for VM Insights.

You need to ensure that all the virtual machines only communicate with Azure Monitor through VNet1.

What should you create first?

- A. a data collection rule (DCR)
- B. a Log Analytics workspace
- C. an Azure Monitor Private Link Scope (AMPLS)
- D. a private endpoint

**Answer: C**

**Explanation:**

an Azure Monitor Private Link Scope (AMPLS)

## Question: 575

AZ-104

## HOTSPOT

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

Name	Type
Backup1	Backup vault
Recovery1	Recovery Services vault

You create a storage account that contains the resources shown in the following table.

Name	Type
cont1	Blob container
share1	File share

To which vault can you back up cont1 and share1? To answer, select the appropriate options in the answer area.

NOTE: Each correct answer is worth one point.

### Answer Area

cont1:

- Backup1 only
- Recovery1 only
- Backup1 or Recovery1
- Cannot be backed up to Backup1 or Recovery1

share1:

- Backup1 only
- Recovery1 only
- Backup1 or Recovery1
- Cannot be backed up to Backup1 or Recovery1

Answer:

## Answer Area

cont1:

Backup1 only  
Recovery1 only  
Backup1 or Recovery1  
Cannot be backed up to Backup1 or Recovery1

share1:

Backup1 only  
Recovery1 only  
Backup1 or Recovery1  
Cannot be backed up to Backup1 or Recovery1

### Explanation:

<https://learn.microsoft.com/en-us/answers/questions/405915/what-is-difference-between-recovery-services-vault>

## Question: 576

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

You have an Azure subscription that contains an Azure Stream Analytics job named Job1.

You need to monitor input events for Job1 to identify the number of events that were NOT processed.

Which metric should you use?

- A. Out-of-Order Events
- B. Output Events
- C. Late Input Events
- D. Backlogged Input Events

### Answer: D

### Explanation:

Correct answer: D Out-of-Order Events Number of events received out of order that were either dropped or given an adjusted time stamp, based on the event ordering policy. This metric can be affected by the configuration of the Out-of-Order Tolerance Window setting. Output Events Amount of data that the Stream Analytics job sends to the output target, in number of events. Late Input Events Events that arrived later than the configured tolerance window for late arrivals. Learn more about Azure Stream Analytics event order considerations. Backlogged Input Events Number of input events that are backlogged. A nonzero value for this metric implies that your job can't keep up with the number of incoming events. If this value is slowly increasing or is consistently nonzero, you should scale out your job. To learn more, see Understand and adjust streaming units.

### Reference:

<https://learn.microsoft.com/en-us/azure/stream-analytics/stream-analytics-job-metrics>

**Question: 577****AZ-104: Actual Exam Q&A | CLEARCATNET**

You have an Azure subscription that contains an Azure SQL database named DB1.

You plan to use Azure Monitor to monitor the performance of DB1. You must be able to run queries to analyze log data.

Which destination should you configure in the Diagnostic settings of DB1?

- A. Send to a Log Analytics workspace.
- B. Archive to a storage account.
- C. Stream to an Azure event hub.

**Answer: A****Explanation:**

Data sent to a Log Analytics workspace can be consumed by SQL Analytics, which provides intelligent monitoring of your databases including performance reports, alerts, and mitigation recommendations.

Moreover, data in a Log Analytics workspace can be analysed alongside other monitoring data collected, and also allows you to leverage other Azure Monitor features such as alerts and visualizations.

<https://learn.microsoft.com/en-us/azure/azure-sql/database/metrics-diagnostic-telemetry-logging-streaming-export-configure?view=azuresql&tabs=azure-portal>  
<https://www.sqlservercentral.com/articles/monitoring-azure-sql-databases#:~:text=If%20not%2C%20just%20search%20for%20Log%20Analytics%20workspace,Set%20the%20database-support-blog/azure-sql-db-and-log-analytics-better-together-part-1/ba-p/794833>

**Question: 578****AZ-104**

You have an Azure subscription. The subscription contains virtual machines that run Windows Server.

You have a data collection rule (DCR) named Rule1.

You plan to use the Azure Monitor Agent to collect events from Windows System event logs.

You only need to collect system events that have an ID of 1001.

Which type of query should you use for the data source in Rule1?

- A. SQL
- B. XPath
- C.KQL

**Answer: B****Explanation:**

Custom data source in Azure Portal says: "Use XPath queries to filter event logs and limit data collection"

**Question: 579****AZ-104**

You have an Azure subscription that contains a virtual machine named VM1.

You have an on-premises datacenter that contains a domain controller named DC1. ExpressRoute is used to connect the on-premises datacenter to Azure.

You need to use Connection Monitor to identify network latency between VM1 and DC1.

What should you install on DC1?

- A. the Azure Connected Machine agent for Azure Arc-enabled servers
- B. the Azure Network Watcher Agent virtual machine extension
- C. the Log Analytics agent
- D. an Azure Monitor agent extension

**Answer: D**

**Explanation:**

Connection monitor supports the Azure Monitor agent extension, which eliminates any dependency on the legacy Log Analytics agent. <https://learn.microsoft.com/en-us/azure/network-watcher/azure-monitor-agent-with-connection-monitor> The following (older) link talks about setting up the Log Analytics agent.

<https://learn.microsoft.com/en-us/azure/network-watcher/connection-monitor-overview#agents-for-on-premises-machines>

### Question: 580

AZ-104

You have an Azure subscription that has Traffic Analytics configured.

You deploy a new virtual machine named VM1 that has the following settings:

- Region: East US
- Virtual network: VNet1
- NIC network security group: NSG1

You need to monitor VM1 traffic by using Traffic Analytics.

Which settings should you configure?

- A. Diagnostic settings for VM1
- B. NSG flow logs for NSG1
- C. Diagnostic settings for NSG1
- D. Insights for VM1

**Answer: B**

**Explanation:**

NSG Flow logs for NSG1

<https://learn.microsoft.com/en-us/azure/network-watcher/traffic-analytics>.

### Question: 581

AZ-104

You have an Azure subscription. The subscription contains 10 virtual machines that run Windows Server. Each virtual machine hosts a website in IIS and has the Azure Monitor Agent installed.

You need to collect the IIS logs from each virtual machine and store them in a Log Analytics workspace.

What should you configure first?

- A. a data collection endpoint
- B. an Azure Monitor Private Link Scope (AMPLS)
- C. Diagnostic settings
- D. VM insights
- E. a private endpoint

**Answer: A**

**Explanation:**

Data Collection End Point.

Reference:

<https://learn.microsoft.com/en-us/azure/azure-monitor/essentials/data-collection-endpoint-overview?tabs=portal>

**Question: 582**

**AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT

-

You have an Azure subscription that contains two storage accounts named contoso101 and contoso102.

The subscription contains the virtual machines shown in the following table.

Name	Connected to	Public IP address SKU
VM1	VNet1/Subnet1	Basic
VM2	VNet1/Subnet2	Standard

VNet1 has service endpoints configured as shown in the Service endpoints exhibit. (Click the Service endpoints tab.)



»

+ Add



Refresh

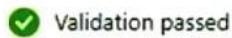
Filter service endpoints

Service	Subnet	Status	Locations
Microsoft.AzureActiveDirectory	1		...
	Subnet2	Succeeded	*
Microsoft.Storage	1		...
	Subnet1	Succeeded	*

The Microsoft.Storage service endpoint has the service endpoint policy shown in the Microsoft.Storage exhibit.  
(Click the Microsoft.Storage tab.)

## Create a service endpoint policy

...



Validation passed

Basics Policy definitions Tags Review + create

### Basics

Subscription Azure Pass - Sponsorship  
Resource group RG1  
Region East US  
Name Policy1

### Resources

Microsoft.Storage contoso101 (Storage account)

### Tags

None

**i** For this policy to take effect, you will need to associate it to one or more subnets that have virtual network service endpoints. Please visit a virtual network in East US region and then select the subnets to which you would like to associate this policy.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

## Answer Area

Statements	Yes	No
VM1 can access contoso102.	<input type="radio"/>	<input type="radio"/>
VM2 can access contoso101.	<input type="radio"/>	<input type="radio"/>
VM2 uses a private IP address to access Azure AD.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
VM1 can access contoso102.	<input type="radio"/>	<input checked="" type="checkbox"/>
VM2 can access contoso101.	<input type="radio"/>	<input checked="" type="checkbox"/>
VM2 uses a private IP address to access Azure AD.	<input checked="" type="checkbox"/>	<input type="radio"/>

Explanation:

No

No

Yes

## Question: 583

AZ-104

You have an Azure subscription that contains multiple virtual machines in the West US Azure region.

You need to use Traffic Analytics in Azure Network Watcher to monitor virtual machine traffic.

Which two resources should you create? Each correct answer presents part of the solution.

NOTE: Each correct selection is worth one point.

- A.a Log Analytics workspace
- B.an Azure Monitor workbook

- C.a storage account
- D.a Microsoft Sentinel workspace
- E.a Data Collection Rule (DCR) in Azure Monitor

**Answer: AE**

**Explanation:**

- A. A Log Analytics workspace - Traffic Analytics requires a Log Analytics workspace to store and analyze network traffic data.
- E. A Data Collection Rule (DCR) in Azure Monitor - You need to create a Data Collection Rule within Azure Monitor to specify what data should be collected and sent to the Log Analytics workspace, including the network traffic data for Traffic Analytics.

**Question: 584**

**AZ-104**

You have an Azure subscription that contains a virtual machine named VM1.

You plan to deploy an Azure Monitor alert rule that will trigger an alert when CPU usage on VM1 exceeds 80 percent.

You need to ensure that the alert rule sends an email message to two users named User1 and User2.

What should you create for Azure Monitor?

- A. an action group
- B. a mail-enabled security group
- C. a distribution group
- D. a Microsoft 365 group

**Answer: A**

**Explanation:**

Alerts consist of:- Action groups- Alert conditions- User response- Alert processing rules.

"<https://learn.microsoft.com/en-us/azure/azure-monitor/alerts/alerts-overview>

**Question: 585**

**AZ-104**

**HOTSPOT -**

You need to configure the Device settings to meet the technical requirements and the user requirements.

Which two settings should you modify? To answer, select the appropriate settings in the answer area.

Hot Area:

## Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

Answer:

## Answer Area



Save



Discard



Got feedback?

Users may join devices to Azure AD ⓘ

All

Selected

None

Selected

No member selected

Additional local administrators on Azure AD joined devices ⓘ

Selected

None

Selected

No member selected

Users may register their devices with Azure AD ⓘ

All

None

Require Multi-Factor Auth to join devices ⓘ

Yes

No

Maximum number of devices per user ⓘ

50

### Explanation:

Box 1: Selected -

Only selected users should be able to join devices

Box 2: Yes -

Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

---

# Case Study Description

## Contoso Ltd

### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- ☞ File servers
- ☞ Domain controllers
- ☞ Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1.

App1 is comprised of the following three tiers:

- ☞ A SQL database
- ☞ A web front end
- ☞ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

### Requirements

### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

### Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Move all the virtual machines for App1 to Azure.

- ☞ Minimize the number of open ports between the App1 tiers.
- ☞ Ensure that all the virtual machines for App1 are protected by backups.
- ☞ Copy the blueprint files to Azure over the Internet.
- ☞ Ensure that the blueprint files are stored in the archive storage tier.
- ☞ Ensure that partner access to the blueprint files is secured and temporary.
- ☞ Prevent user passwords or hashes of passwords from being stored in Azure.
- ☞ Use unmanaged standard storage for the hard disks of the virtual machines.
- ☞ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

### User Requirements

Contoso identifies the following requirements for users:

- ☞ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ☞ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ☞ Admin1 must receive email alerts regarding service outages.
- ☞ Ensure that a new user named User3 can create network objects for the Azure subscription.

### Question: 586

### AZ-104: Actual Exam Q&A | **CLEARCATNET**

You need to meet the user requirement for Admin1.

What should you do?

- A. From the Azure Active Directory blade, modify the Groups
- B. From the Azure Active Directory blade, modify the Properties
- C. From the Subscriptions blade, select the subscription, and then modify the Access control (IAM) settings
- D. From the Subscriptions blade, select the subscription, and then modify the Properties

### Answer: D

#### Explanation:

Scenario:

- ☞ Designate a new user named Admin1 as the service admin for the Azure subscription.
- ☞ Admin1 must receive email alerts regarding service outages.

Follow these steps to change the Service Administrator in the Azure portal.

1. Make sure your scenario is supported by checking the limitations for changing the Service Administrator.
2. Sign in to the Azure portal as the Account Administrator.
3. Open Cost Management + Billing and select a subscription.

4. In the left navigation, click Properties.

5. Click Service Admin.

Reference:

<https://docs.microsoft.com/en-us/azure/role-based-access-control/classic-administrators>

---

# Case Study Description

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- ☞ Use unmanaged standard storage for the hard disks of the virtual machines.
- ☞ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

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Contoso identifies the following requirements for users:

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- ☞ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ☞ Admin1 must receive email alerts regarding service outages.
- ☞ Ensure that a new user named User3 can create network objects for the Azure subscription.

### Question: 587

AZ-104

HOTSPOT -

You need to configure Azure Backup to back up the file shares and virtual machines.

What is the minimum number of Recovery Services vaults and backup policies you should create? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

Recovery Services vaults

	▼
1	
2	
3	
4	
7	

Backup policies

	▼
1	
2	
3	
4	
5	
6	

Answer:

# Answer Area

Recovery Services vaults

	▼
1	
2	
3	
4	
7	

Backup policies

	▼
1	
2	
3	
4	
5	
6	

## Explanation:

Box 1: 3 -

If you have data sources in multiple regions, create a Recovery Services vault for each region.

The File Shares and VMs are located in three Regions: West US, East US, Central US.

Box 2: 6 -

A backup policy is scoped to a vault. For each vault we need one backup policy for File Shares and one backup policy for VM.

## Note:

Back up the Azure file shares and virtual machines by using Azure Backup

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	<b>Not applicable</b>	<b>Not applicable</b>
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

Reference:

<https://docs.microsoft.com/en-us/azure/backup/backup-create-rs-vault> <https://docs.microsoft.com/en-us/azure/backup/guidance-best-practices>

#### Case Study Description:

##### Contoso Ltd (Consulting Company)

##### Case study

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## Overview

### General Overview

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

## Environment

### Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ⇒ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ⇒ Create a storage account named storage5 and configure storage replication for the Blob service.
- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ⇒ Associate NSG1 to the network interface of VM1.

- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

## Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Create container1 and share1.
- ☞ Use the principle of least privilege.
- ☞ Create an Azure AD security group named Group4.
- ☞ Back up the Azure file shares and virtual machines by using Azure Backup.
- ☞ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ☞ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

## Question: 588

AZ-104: Actual Exam Q&A | **CLEARCATNET**

DRAG DROP -

You need to configure the alerts for VM1 and VM2 to meet the technical requirements.

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

Select and Place:

Actions
Create a Log Analytics workspace.
Configure the Diagnostic settings.
Create an alert rule.
Collect Windows performance counters from the Log Analytics agents.
Create an Azure SQL database.

Answer Area



## Answer:

Actions
Create a Log Analytics workspace.
Configure the Diagnostic settings.
Create an alert rule.
Collect Windows performance counters from the Log Analytics agents.
Create an Azure SQL database.

Answer Area



## Explanation:

1. Create a log Analytics workspace.
2. Collect windows performance counters from the Log Analytics agents.
3. Create an alert rule.

---

## Case Study Description:

Contoso Ltd (Consulting Company)

## **Case study**

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### **General Overview**

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### **Existing Environment**

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VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
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VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
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## Requirements

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Contoso plans to implement the following changes:

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Priority	Port	Protocol	Source	Destination	Action
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1000	Any	ICMP	Any	VirtualNetwork	Allow

⇒ Associate NSG1 to the network interface of VM1.

⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

⇒ Associate NSG2 to VNET1/Subnet2.

### Technical Requirements

#### Contoso must meet the following technical requirements:

- ⇒ Create container1 and share1.
- ⇒ Use the principle of least privilege.
- ⇒ Create an Azure AD security group named Group4.
- ⇒ Back up the Azure file shares and virtual machines by using Azure Backup.
- ⇒ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ⇒ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ⇒ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ⇒ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ⇒ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 589

AZ-104

#### HOTSPOT -

You need to ensure that User1 can create initiative definitions, and User4 can assign initiatives to RG2. The solution must meet the technical requirements.

Which role should you assign to each user? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

User1:

Contributor for RG1	▼
Contributor for Sub1	
Security Admin for RG1	
Resource Policy Contributor for Sub1	

User4:

Contributor for RG2	▼
Contributor for Sub1	
Security Admin for Sub1	
Resource Policy Contributor for RG2	

Answer:

## Answer Area

User1:

Contributor for RG1	▼
Contributor for Sub1	
Security Admin for RG1	
Resource Policy Contributor for Sub1	

User4:

Contributor for RG2	▼
Contributor for Sub1	
Security Admin for Sub1	
Resource Policy Contributor for RG2	

## **Explanation:**

Reference:

<https://docs.microsoft.com/en-us/azure/governance/policy/overview>

---

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400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

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- ⇒ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

## Question: 590

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

You need to ensure that you can grant Group4 Azure RBAC read only permissions to all the Azure file shares. What should you do?

- A. On storage2, enable identity-based access for the file shares.
- B. Recreate storage2 and set Hierarchical namespace to Enabled.
- C. On storage1 and storage4, change the Account kind type to StorageV2 (general purpose v2).
- D. Create a shared access signature (SAS) for storage1, storage2, and storage4.

### Answer: A

#### Explanation:

Azure Files supports identity-based authentication over Server Message Block (SMB) through on-premises Active Directory Domain Services (AD DS) and Azure

Active Directory Domain Services (Azure AD DS).

#### Reference:

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

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## Case Study Description:

### Contoso Ltd (Consulting Company)

#### Case study

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## Overview

### General Overview

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

## Environment

### Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ⇒ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ⇒ Create a storage account named storage5 and configure storage replication for the Blob service.
- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ⇒ Associate NSG1 to the network interface of VM1.

- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

## Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Create container1 and share1.
- ☞ Use the principle of least privilege.
- ☞ Create an Azure AD security group named Group4.
- ☞ Back up the Azure file shares and virtual machines by using Azure Backup.
- ☞ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ☞ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 591

### AZ-104: Actual Exam Q&A | CLEARCATNET

You need to implement a backup solution for App1 after the application is moved.  
What should you create first?

- A. a recovery plan
- B. an Azure Backup Server
- C. a backup policy
- D. a Recovery Services vault

**Answer: D**

**Explanation:**

A Recovery Services vault is a logical container that stores the backup data for each protected resource, such as Azure VMs. When the backup job for a protected resource runs, it creates a recovery point inside the Recovery Services vault.

**Scenario:**

There are three application tiers, each with five virtual machines.

Move all the virtual machines for App1 to Azure.

Ensure that all the virtual machines for App1 are protected by backups.

**Reference:**

<https://docs.microsoft.com/en-us/azure/backup/quick-backup-vm-portal>

# Case Study Description

## Contoso Ltd

### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- ☞ File servers
- ☞ Domain controllers
- ☞ Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1.

App1 is comprised of the following three tiers:

- ☞ A SQL database
- ☞ A web front end
- ☞ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

### Requirements

#### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

#### Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Move all the virtual machines for App1 to Azure.
- ☞ Minimize the number of open ports between the App1 tiers.
- ☞ Ensure that all the virtual machines for App1 are protected by backups.
- ☞ Copy the blueprint files to Azure over the Internet.

- ☞ Ensure that the blueprint files are stored in the archive storage tier.
- ☞ Ensure that partner access to the blueprint files is secured and temporary.
- ☞ Prevent user passwords or hashes of passwords from being stored in Azure.
- ☞ Use unmanaged standard storage for the hard disks of the virtual machines.
- ☞ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

### User Requirements

Contoso identifies the following requirements for users:

- ☞ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ☞ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ☞ Admin1 must receive email alerts regarding service outages.
- ☞ Ensure that a new user named User3 can create network objects for the Azure subscription.

### Question: 592

### AZ-104: Actual Exam Q&A | CLEARCATNET

You need to move the blueprint files to Azure.

What should you do?

- A. Generate an access key. Map a drive, and then copy the files by using File Explorer.
- B. Use Azure Storage Explorer to copy the files.
- C. Use the Azure Import/Export service.
- D. Generate a shared access signature (SAS). Map a drive, and then copy the files by using File Explorer.

### Answer: B

#### Explanation:

Azure Storage Explorer is a free tool from Microsoft that allows you to work with Azure Storage data on Windows, macOS, and Linux. You can use it to upload and download data from Azure blob storage.

Scenario:

Planned Changes include: move the existing product blueprint files to Azure Blob storage.

Technical Requirements include: Copy the blueprint files to Azure over the Internet.

Reference:

<https://docs.microsoft.com/en-us/azure/machine-learning/team-data-science-process/move-data-to-azure-blob-using-azure-storage-explorer>

# Case Study Description

## Contoso Ltd

### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

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Currently, Contoso uses multiple types of servers for business operations, including the following:

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### Requirements

#### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

#### Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Move all the virtual machines for App1 to Azure.
- ☞ Minimize the number of open ports between the App1 tiers.
- ☞ Ensure that all the virtual machines for App1 are protected by backups.
- ☞ Copy the blueprint files to Azure over the Internet.

- ⇒ Ensure that the blueprint files are stored in the archive storage tier.
- ⇒ Ensure that partner access to the blueprint files is secured and temporary.
- ⇒ Prevent user passwords or hashes of passwords from being stored in Azure.
- ⇒ Use unmanaged standard storage for the hard disks of the virtual machines.
- ⇒ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

### User Requirements

Contoso identifies the following requirements for users:

- ⇒ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ⇒ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ⇒ Admin1 must receive email alerts regarding service outages.
- ⇒ Ensure that a new user named User3 can create network objects for the Azure subscription.

### Question: 593

### AZ-104: Actual Exam Q&A | CLEARCATNET

HOTSPOT -

You need to identify the storage requirements for Contoso.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input type="radio"/>

Answer:

## Answer Area

Statements	Yes	No
Contoso requires a storage account that supports Blob storage.	<input checked="" type="radio"/>	<input type="radio"/>
Contoso requires a storage account that supports Azure Table storage.	<input type="radio"/>	<input checked="" type="radio"/>
Contoso requires a storage account that supports Azure File Storage.	<input type="radio"/>	<input checked="" type="radio"/>

### Explanation:

Box 1: Yes -

Contoso is moving the existing product blueprint files to Azure Blob storage.

Use unmanaged standard storage for the hard disks of the virtual machines. We use Page Blobs for these.

Box 2: No -

Box 3: No

---

## Case Study Description

### Contoso Ltd

#### Overview

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#### Existing Environment

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## Requirements

### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
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- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

### Technical Requirements

Contoso must meet the following technical requirements:

- ⇒ Move all the virtual machines for App1 to Azure.
- ⇒ Minimize the number of open ports between the App1 tiers.
- ⇒ Ensure that all the virtual machines for App1 are protected by backups.
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- ⇒ Prevent user passwords or hashes of passwords from being stored in Azure.
- ⇒ Use unmanaged standard storage for the hard disks of the virtual machines.
- ⇒ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

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### User Requirements

Contoso identifies the following requirements for users:

- ⇒ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ⇒ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ⇒ Admin1 must receive email alerts regarding service outages.
- ⇒ Ensure that a new user named User3 can create network objects for the Azure subscription.

Which storage accounts should you use for each resource? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

container1:

- storage2 only
- storage2 and storage3 only
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

Answer:

## Answer Area

container1:

- storage2 only
- storage2 and storage3 only**
- storage1, storage2, and storage3 only
- storage2, storage3, and storage4 only
- storage1, storage2, storage3, and storage4

share1:

- storage2 only**
- storage4 only
- storage2 and storage4 only
- storage1, storage2, and storage4 only
- storage1, storage2, storage3, and storage4

**Explanation:**

Reference:

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

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**Case Study Description:**

**Contoso Ltd (Consulting Company)**

**Case study**

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## Overview

### General Overview

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

## Environment

### Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ⇒ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ⇒ Create a storage account named storage5 and configure storage replication for the Blob service.
- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ⇒ Associate NSG1 to the network interface of VM1.

- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

## Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Create container1 and share1.
- ☞ Use the principle of least privilege.
- ☞ Create an Azure AD security group named Group4.
- ☞ Back up the Azure file shares and virtual machines by using Azure Backup.
- ☞ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ☞ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 595

AZ-104: Actual Exam Q&A | **CLEARCATNET**

HOTSPOT -

You need to create storage5. The solution must support the planned changes.

Which type of storage account should you use, and which account should you configure as the destination storage account? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

### Answer Area

Account kind:

BlobStorage
BlockBlobStorage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Destination:

Storage1
Storage2
Storage3
Storage4

Answer:

## Answer Area

Account kind:

BlobStorage
BlockBlobStorage
Storage (general purpose v1)
StorageV2 (general purpose v2)

Destination:

Storage1
Storage2
Storage3
Storage4

### Explanation:

Reference:

<https://docs.microsoft.com/en-us/azure/storage/blobs/object-replication-configure?tabs=portal>

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#### Contoso Ltd (Consulting Company)

#### Case study

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VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

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## Requirements

### Planned Changes

Contoso plans to implement the following changes:

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- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
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- ⇒ Associate NSG1 to the network interface of VM1.
- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

### Technical Requirements

Contoso must meet the following technical requirements:

- ⇒ Create container1 and share1.
- ⇒ Use the principle of least privilege.
- ⇒ Create an Azure AD security group named Group4.
- ⇒ Back up the Azure file shares and virtual machines by using Azure Backup.
- ⇒ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ⇒ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

## Question: 596

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

You need to identify which storage account to use for the flow logging of IP traffic from VM5. The solution must meet the retention requirements.

Which storage account should you identify?

- A. storage1
- B. storage2
- C. storage3
- D. storage4

### Answer: B

#### Explanation:

For at least two reasons, storage2 is the only candidate:

- Location: The storage account used must be in the same region as the NSG.
- Retention is available only if you use General Purpose v2 Storage accounts (GPv2).

#### Reference:

<https://learn.microsoft.com/en-us/azure/network-watcher/network-watcher-nsg-flow-logging-overview>

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#### Case Study Description:

#### Contoso Ltd (Consulting Company)

#### 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.

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## Overview

### General Overview

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

## Environment

### Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ⇒ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ⇒ Create a storage account named storage5 and configure storage replication for the Blob service.
- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ⇒ Associate NSG1 to the network interface of VM1.

- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

## Technical Requirements

Contoso must meet the following technical requirements:

- ☞ Create container1 and share1.
- ☞ Use the principle of least privilege.
- ☞ Create an Azure AD security group named Group4.
- ☞ Back up the Azure file shares and virtual machines by using Azure Backup.
- ☞ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ☞ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 597

### AZ-104: Actual Exam Q&A | CLEARCATNET

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

### Answer: E

#### Explanation:

Scenario: Contoso 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.

#### Reference:

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

# Case Study Description

## 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.

### Question: 598

### AZ-104: Actual Exam Q&A | CLEARCATNET

You need to ensure that VM1 can communicate with VM4. The solution must minimize the administrative effort. What should you do?

- A. Create an NSG and associate the NSG to VM1 and VM4.
- B. Establish peering between VNET1 and VNET3.
- C. Assign VM4 an IP address of 10.0.1.5/24.
- D. Create a user-defined route from VNET1 to VNET3.

### Answer: B

#### Explanation:

Establishing peering between the virtual networks (VNETs) allows traffic to flow between them without the need for additional configuration or routing. This solution minimizes administrative effort, as it requires only a single step to set up the peering. Option A, creating an NSG, would require additional rules and configuration to allow communication between VM1 and VM4. Option C, assigning a specific IP address to VM4, does not address the issue of network communication. Option D, creating a user-defined route, would also require additional configuration and management.

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### 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.

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Name	Type
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### **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.

### **Question: 599**

**AZ-104**

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.

Hot Area:

## Answer Area

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:

## Answer Area

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

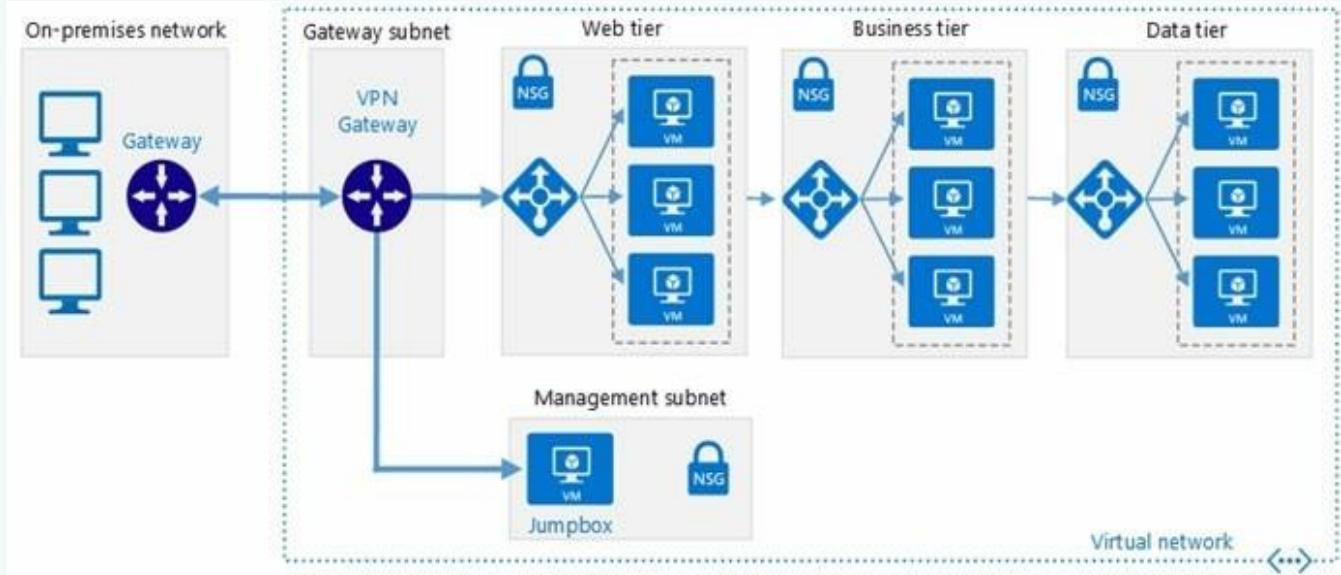
Connect an on-premises network to a Microsoft Azure virtual network. The VPN gateway includes the following elements:

- ☞ 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.

Incorrect Answers:

Azure ExpressRoute: Established between your network and Azure, through an ExpressRoute partner. This connection is private. Traffic does not go over the internet.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/hybrid-networking/vpn>

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The Azure subscription contains the resources in the following table.

Name	Type
VNet1	Virtual network
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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 instances\*.
- 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 York 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.

**Question: 600****AZ-104: Actual Exam Q&A | CLEARCATNET**

HOTSPOT -

You need to recommend a solution for App1. The solution must meet the technical 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.

Hot Area:

**Answer Area**

Number of virtual networks:

1
2
3

Number of subnets per virtual network:

1
2
3

Answer:

# Answer Area

Number of virtual networks:

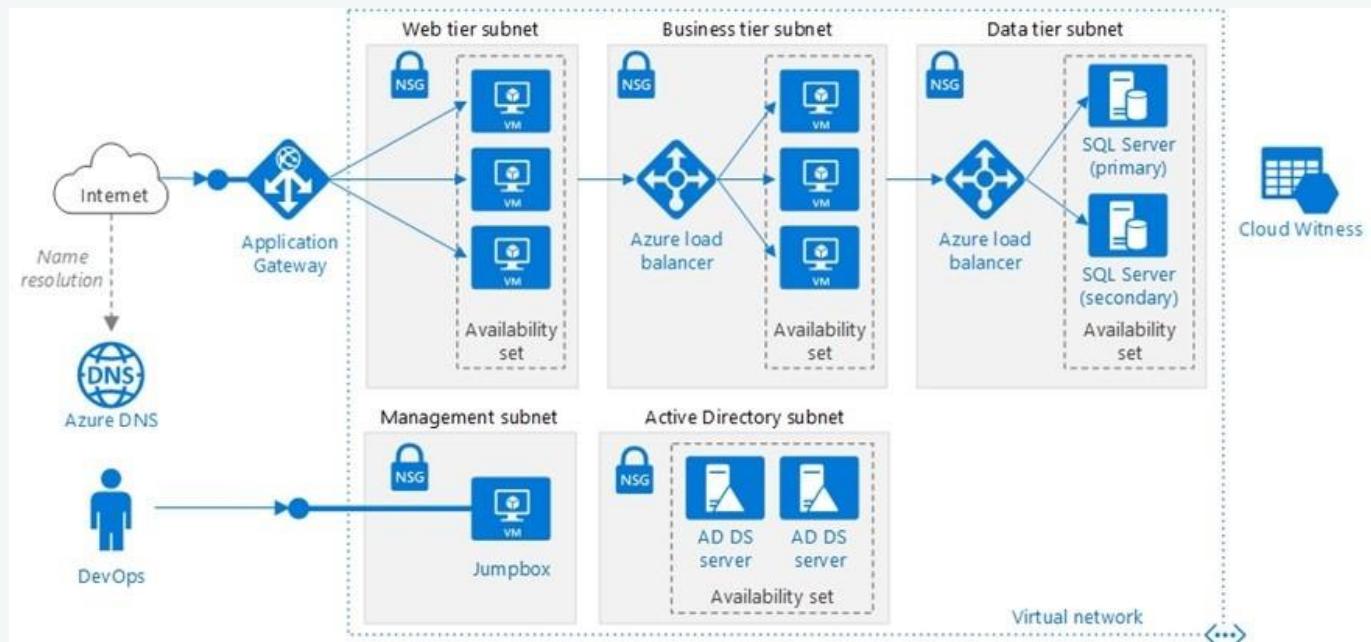
1
2
3

Number of subnets per virtual network:

1
2
3

## Explanation:

This reference architecture shows how to deploy VMs and a virtual network configured for an N-tier application, using SQL Server on Windows for the data tier.



Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- ⇒ A SQL database
- ⇒ A web front end
- ⇒ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

Technical requirements include:

- ⇒ Move all the virtual machines for App1 to Azure.

- ⇒ Minimize the number of open ports between the App1 tiers.

Reference:

<https://docs.microsoft.com/en-us/azure/architecture/reference-architectures/n-tier/n-tier-sql-server>

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# Case Study Description

## Contoso Ltd

### Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

### Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- ⇒ File servers
  - ⇒ Domain controllers
  - ⇒ Microsoft SQL Server
- servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory. You have a public-facing application named App1.

App1 is comprised of the following three tiers:

- ⇒ A SQL database
- ⇒ A web front end
- ⇒ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

## **Requirements**

### **Planned Changes**

**Contoso plans to implement the following changes to the infrastructure:**

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

### **Technical Requirements**

**Contoso must meet the following technical requirements:**

- ⇒ Move all the virtual machines for App1 to Azure.
- ⇒ Minimize the number of open ports between the App1 tiers.
- ⇒ Ensure that all the virtual machines for App1 are protected by backups.

- ⇒ Copy the blueprint files to Azure over the Internet.
- ⇒ Ensure that the blueprint files are stored in the archive storage tier.
- ⇒ Ensure that partner access to the blueprint files is secured and temporary.

- ☞ Prevent user passwords or hashes of passwords from being stored in Azure.
- ☞ Use unmanaged standard storage for the hard disks of the virtual machines.
- ☞ Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.

Minimize administrative effort whenever possible.

## User Requirements

**Contoso identifies the following requirements for users:**

- ☞ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ☞ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ☞ Admin1 must receive email alerts regarding service outages.
- ☞ Ensure that a new user named User3 can create network objects for the Azure subscription.

## Question: 601

AZ-104

You are planning the move of App1 to Azure.  
You create a network security group (NSG).  
You need to recommend a solution to provide users with access to App1.  
What should you recommend?

- A. Create an incoming security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- B. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to the subnet that contains the web servers.
- C. Create an incoming security rule for port 443 from the Internet. Associate the NSG to all the subnets.
- D. Create an outgoing security rule for port 443 from the Internet. Associate the NSG to all the subnets.

## Answer: A

## **Explanation:**

Incoming and the web server subnet only, as users access the web front end by using HTTPS only.

Note Scenario: You have a public-facing application named App1. App1 is comprised of the following three tiers:

- ☞ A SQL database
- ☞ A web front end
- ☞ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

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# **Case Study Description**

## **Contoso Ltd**

### **Overview**

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Contoso products are manufactured by using blueprint files that the company authors and maintains.

### **Existing Environment**

Currently, Contoso uses multiple types of servers for business operations, including the following:

- ☞ File servers
- ☞ Domain controllers
- ☞ Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1.

App1 is comprised of the following three tiers:

- ☞ A SQL database
- ☞ A web front end
- ☞ A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

### **Requirements**

### **Planned Changes**

**Contoso plans to implement the following changes to the infrastructure:**

- Move all the tiers of App1 to Azure.

- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

## Technical Requirements

### Contoso must meet the following technical requirements:

- ⇒ Move all the virtual machines for App1 to Azure.
- ⇒ Minimize the number of open ports between the App1 tiers.
- ⇒ Ensure that all the virtual machines for App1 are protected by backups.
- ⇒ Copy the blueprint files to Azure over the Internet.
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## User Requirements

### Contoso identifies the following requirements for users:

- ⇒ Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- ⇒ Designate a new user named Admin1 as the service administrator of the Azure subscription.
- ⇒ Admin1 must receive email alerts regarding service outages.
- ⇒ Ensure that a new user named User3 can create network objects for the Azure subscription.

## Question: 602

AZ-104

HOTSPOT -

You implement the planned changes for NSG1 and NSG2.

For each of the following statements, select Yes if the statement is true. Otherwise, select No.

NOTE: Each correct selection is worth one point.

Hot Area:

**Answer Area:**

Statements	Yes	No
From VM1, you can establish a Remote Desktop session to VM2.	<input type="radio"/>	<input type="radio"/>
From VM2, you can ping VM3.	<input type="radio"/>	<input type="radio"/>
From VM2, you can establish a Remote Desktop session to VM3.	<input type="radio"/>	<input type="radio"/>

**Answer:****Answer Area:**

Statements	Yes	No
From VM1, you can establish a Remote Desktop session to VM2.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
From VM2, you can ping VM3.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
From VM2, you can establish a Remote Desktop session to VM3.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Explanation:**

Box 1: YES

Box 2: Yes -

ICMP is not blocked -

Box 3: No -

NSG2 blocks RDP from VM2 -

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### Existing Environment

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ☞ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ☞ Create a storage account named storage5 and configure storage replication for the Blob service.
- ☞ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ☞ Associate NSG1 to the network interface of VM1.

- ☞ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ☞ Associate NSG2 to VNET1/Subnet2.

## Technical Requirements

**Contoso must meet the following technical requirements:**

- ☞ Create container1 and share1.
- ☞ Use the principle of least privilege.
- ☞ Create an Azure AD security group named Group4.
- ☞ Back up the Azure file shares and virtual machines by using Azure Backup.
- ☞ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ☞ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 603

### AZ-104: Actual Exam Q&A | CLEARCATNET

You need to ensure that you can add VM1 and VM2 to the backend pool of LB1.  
What should you do first?

- A. Redeploy VM1 and VM2 to the same availability zone.
- B. Connect VM2 to VNET1/Subnet1.
- C. Create a new NSG and associate the NSG to VNET1/Subnet1.
- D. Redeploy VM1 and VM2 to the same availability set.

### Answer: D

**Explanation:**

Redeploy VM1 and VM2 to the same availability set.

For a LB basic it is required that the virtual machines are in a single availability set or scale set of virtual machines

"An existing VM cannot be added to an availability set after it is created."

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-availability-sets> A

VM can only be added to an availability set when it is created.

"<https://learn.microsoft.com/en-us/azure/virtual-machines/windows/change-availability-set>"

If they are already in the same availability set , then you don't need to do B anyway, your a good little Azure admin, keep it up and create your backend pool with them in it. The fact that this question is being asked with no option of 'nothing' means they are not already in the same AS.

---

### Case Study Description:

## **Contoso Ltd (Consulting Company)**

### **Case study**

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Overview

#### **General Overview**

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

Environment

#### **Existing Environment**

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

<b>Name</b>	<b>Type</b>	<b>Role</b>
User1	Member	<b>None</b>
User2	Guest	<b>None</b>
User3	Member	<b>None</b>
User4	Member	<b>None</b>

Sub1 contains two resource groups named RG1 and RG2 and the virtual networks shown in the following table.

Name	Subnet	Peered with
VNET1	Subnet1, Subnet2	VNET2
VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

Name	IP address	Location	Connected to
VM1	10.0.1.4	West US	VNET1/Subnet1
VM2	10.0.2.4	West US	VNET1/Subnet2
VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
storage2	StorageV2 (general purpose v2)	East US	shareb, sharec	Disabled
storage3	BlobStorage	East US 2	Not applicable	Not applicable
storage4	FileStorage	Central US	shared	Azure Active Directory Domain Services (Azure AD DS)

## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ☞ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ☞ Create a storage account named storage5 and configure storage replication for the Blob service.
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⇒ Associate NSG1 to the network interface of VM1.

⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

⇒ Associate NSG2 to VNET1/Subnet2.

### Technical Requirements

#### Contoso must meet the following technical requirements:

- ⇒ Create container1 and share1.
- ⇒ Use the principle of least privilege.
- ⇒ Create an Azure AD security group named Group4.
- ⇒ Back up the Azure file shares and virtual machines by using Azure Backup.
- ⇒ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ⇒ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.
- ⇒ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ⇒ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ⇒ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

### Question: 604

AZ-104

You need to add VM1 and VM2 to the backend pool of LB1.  
What should you do first?

- Connect VM2 to VNET1/Subnet1.
- Redeploy VM1 and VM2 to the same availability zone.
- Redeploy VM1 and VM2 to the same availability set.
- Create a new NSG and associate the NSG to VNET1/Subnet1.

### Answer: C

#### Explanation:

No point in Connecting VM2 to VNET1/Subnet1 as you are going to have to redeploy it anyway.

"An existing VM cannot be added to an availability set after it is created."

<https://learn.microsoft.com/en-us/azure/virtual-machines/linux/tutorial-availability-sets>

A VM can only be added to an availability set when it is created.

"<https://learn.microsoft.com/en-us/azure/virtual-machines/windows/change-availability-set>"

If they are already in the same availability set , then you don't need to do B anyway, your a good little Azure admin, keep it up and create your backend pool with them in it. The fact that this question is being asked with no option of 'nothing' means they are not already in the same AS.

---

### **Case Study Description:**

#### **Contoso Ltd (Consulting Company)**

##### **Case study**

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##### **Overview**

##### **General Overview**

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##### **Existing Environment**

Contoso has an Azure subscription named Sub1 that is linked to an Azure Active Directory (Azure AD) tenant. The network contains an on-premises Active Directory domain that syncs to the Azure AD tenant.

The Azure AD tenant contains the users shown in the following table.

Name	Type	Role
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VNET2	Subnet1	VNET1, VNET3
VNET3	Subnet1	VNET2
VNET4	Subnet1	<b>None</b>

User1 manages the resources in RG1. User4 manages the resources in RG2.

Sub1 contains virtual machines that run Windows Server 2019 as shown in the following table

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VM3	172.16.1.4	Central US	VNET2/Subnet1
VM4	192.168.1.4	West US	VNET3/Subnet1
VM5	10.0.22.4	East US	VNET4/Subnet1

No network security groups (NSGs) are associated to the network interfaces or the subnets.

Sub1 contains the storage accounts shown in the following table.

Name	Kind	Location	File share	Identity-based access for file share
storage1	Storage (general purpose v1)	West US	sharea	Azure Active Directory Domain Services (Azure AD DS)
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storage3	BlobStorage	East US 2	Not applicable	Not applicable
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## Requirements

### Planned Changes

Contoso plans to implement the following changes:

- ⇒ Create a blob container named container1 and a file share named share1 that will use the Cool storage tier.
- ⇒ Create a storage account named storage5 and configure storage replication for the Blob service.
- ⇒ Create an NSG named NSG1 that will have the custom inbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
500	3389	TCP	10.0.2.0/24	Any	Deny
1000	Any	ICMP	Any	VirtualNetwork	Allow

- ⇒ Associate NSG1 to the network interface of VM1.
- ⇒ Create an NSG named NSG2 that will have the custom outbound security rules shown in the following table.

Priority	Port	Protocol	Source	Destination	Action
200	3389	TCP	10.0.0.0/16	VirtualNetwork	Deny
400	Any	ICMP	10.0.2.0/24	10.0.1.0/24	Allow

- ⇒ Associate NSG2 to VNET1/Subnet2.

### Technical Requirements

Contoso must meet the following technical requirements:

- ⇒ Create container1 and share1.
- ⇒ Use the principle of least privilege.
- ⇒ Create an Azure AD security group named Group4.
- ⇒ Back up the Azure file shares and virtual machines by using Azure Backup.
- ⇒ Trigger an alert if VM1 or VM2 has less than 20 GB of free space on volume C.
- ⇒ Enable User1 to create Azure policy definitions and User2 to assign Azure policies to RG1.

- ☞ Create an internal Basic Azure Load Balancer named LB1 and connect the load balancer to VNET1/Subnet1
- ☞ Enable flow logging for IP traffic from VM5 and retain the flow logs for a period of eight months.
- ☞ Whenever possible, grant Group4 Azure role-based access control (Azure RBAC) read-only permissions to the Azure file shares.

## Question: 605

## AZ-104: Actual Exam Q&A | **CLEARCATNET**

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

What should you do?

- A. Create a user-defined route from VNET1 to VNET3.
- B. Create an NSG and associate the NSG to VM1 and VM4.
- C. Assign VM4 an IP address of 10.0.1.5/24.
- D. Establish peering between VNET1 and VNET3.

### Answer: D

#### Explanation:

Correct Answer = D

Establish peering between VNET1 and VNET3.

---

### Case Study Description

#### Case study

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## explore

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## Overview

Contoso, Ltd. is a manufacturing company that has offices worldwide. Contoso works with partner organizations to bring products to market.

Contoso products are manufactured by using blueprint files that the company authors and maintains.

## Existing Environment

Currently, Contoso uses multiple types of servers for business operations, including the following:

- File servers
- Domain controllers
- Microsoft SQL Server servers

Your network contains an Active Directory forest named contoso.com. All servers and client computers are joined to Active Directory.

You have a public-facing application named App1. App1 is comprised of the following three tiers:

- A SQL database
- A web front end
- A processing middle tier

Each tier is comprised of five virtual machines. Users access the web front end by using HTTPS only.

## Requirements

### Planned Changes

Contoso plans to implement the following changes to the infrastructure:

- Move all the tiers of App1 to Azure.
- Move the existing product blueprint files to Azure Blob storage.
- Create a hybrid directory to support an upcoming Microsoft Office 365 migration project.

## Technical Requirements

Contoso must meet the following technical requirements:

- Move all the virtual machines for App1 to Azure.
- Minimize the number of open ports between the App1 tiers.
- Ensure that all the virtual machines for App1 are protected by backups.
- Copy the blueprint files to Azure over the Internet.
- Ensure that the blueprint files are stored in the archive storage tier.
- Ensure that partner access to the blueprint files is secured and temporary.
- Prevent user passwords or hashes of passwords from being stored in Azure.
- Use unmanaged standard storage for the hard disks of the virtual machines.
- Ensure that when users join devices to Azure Active Directory (Azure AD), the users use a mobile phone to verify their identity.
- Minimize administrative effort whenever possible.

## User Requirements

Contoso identifies the following requirements for users:

- Ensure that only users who are part of a group named Pilot can join devices to Azure AD.
- Designate a new user named Admin1 as the service admin for the Azure subscription.
- Admin1 must receive email alerts regarding service outages.
- Ensure that a new user named User3 can create network objects for the Azure subscription.

### Question: 606

AZ-104

HOTSPOT -

You need to implement Role1.

Which command should you run before you create Role1? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

Hot Area:

## Answer Area

-Name "Reader"	▼
Find-RoleCapability	
Get-AzureADDirectoryRole	
Get-AzRoleDefinition	
Get-AzResourceProvider	

-Name "Reader"	▼
ConvertFrom-Json	
ConvertFrom-String	
ConvertTo-Json	
ConvertTo-Xml	

Answer:

## Answer Area

-Name "Reader"	▼
Find-RoleCapability	
Get-AzureADDirectoryRole	
Get-AzRoleDefinition	
Get-AzResourceProvider	

-Name "Reader"	▼
ConvertFrom-Json	
ConvertFrom-String	
ConvertTo-Json	
ConvertTo-Xml	

Explanation:

Get-AzRoleDefinition -name "Reader" |ConvertTo-Json

<https://docs.microsoft.com/en-us/azure/role-based-access-control/role-definitions-list?tabs=roles>

## Case Study Description:

### Overview

Litware, Inc. 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 Premium 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 connections.

Litware has data centers in the Montreal and Seattle offices. Each office 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 1 GB 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)

#### Requirements

#### 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 instances.

- 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 York 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.

**Question: 607****AZ-104: Actual Exam Q&A | CLEARCATNET**

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 recommendation?

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

**Answer: B****Explanation:****Scenario:**

Ensure Azure Multi-Factor Authentication (MFA) for the users in the finance department only.

The recommendation is to use conditional access policies that can then be targeted to groups of users, specific applications, or other conditions.

**Reference:**

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

---

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Name	Type
VNet1	Virtual network
VM3	Virtual machine
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The network security team implements several network security groups (NSGs)

### Requirements

## **Planned Changes**

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# **Thank you**

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