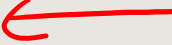


# AZ-104

## Administer Intersite Connectivity



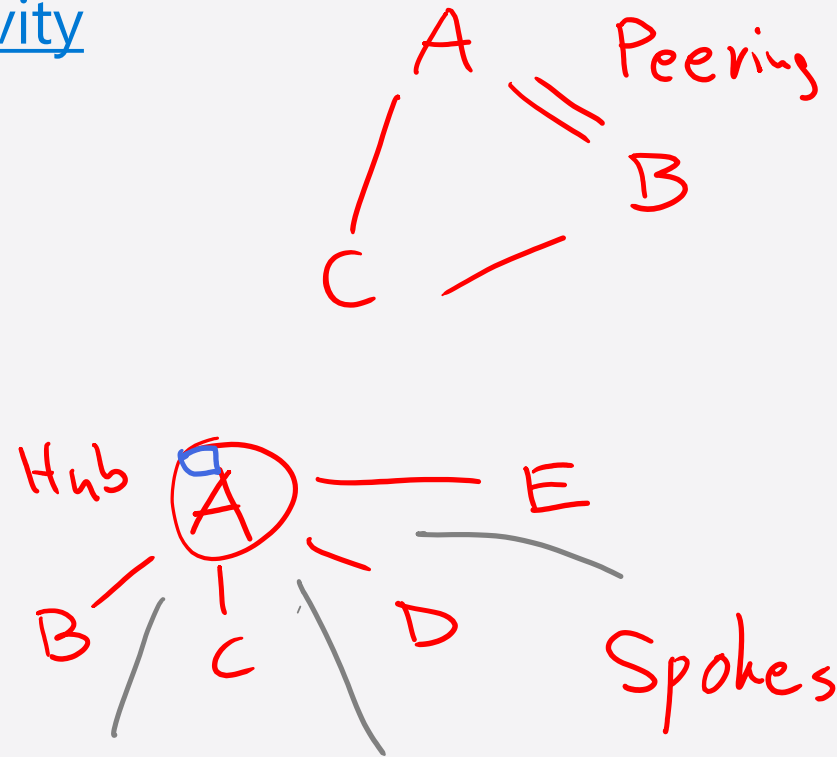
# AZ-104 Course Outline

- 01: Administer Identity
- 02: Administer Governance and Compliance
- 03: Administer Azure Resources
- 04: Administer Virtual Networking
- 05: Administer Intersite Connectivity 
- 06: Administer Network Traffic Management
- 07: Administer Azure Storage
- 08: Administer Azure Virtual Machines
- 09: Administer PaaS Compute Options
- 10: Administer Data Protection
- 11: Administer Monitoring

# Learning Objectives – Administer Intersite Connectivity

- [Configure VNet Peering](#)
- [Configure Network Routing and Endpoints](#)
- [Lab 05 - Implement ~~Inter~~site Connectivity](#)

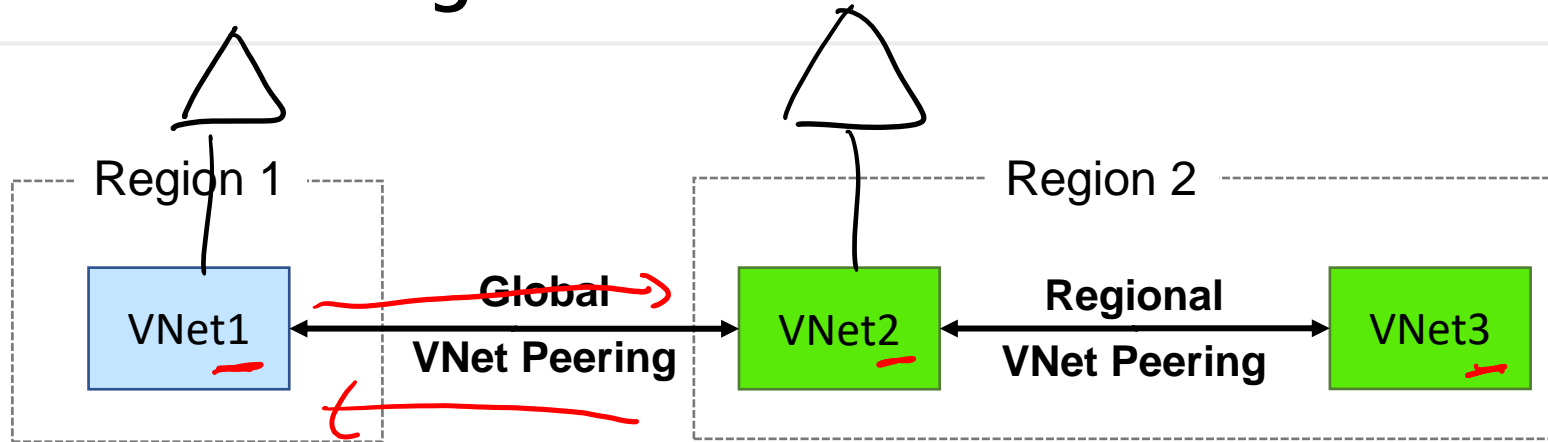
Lab 06 Hub - Spoke



# Configure VNet Peering



# Determine VNet Peering Uses



- Two types of peering: Global and Regional
- Connects two Azure virtual networks – you can peer across subscriptions and tenants
- Peered networks use the Azure backbone for privacy and isolation
- Easy to setup, seamless data transfer, and great performance

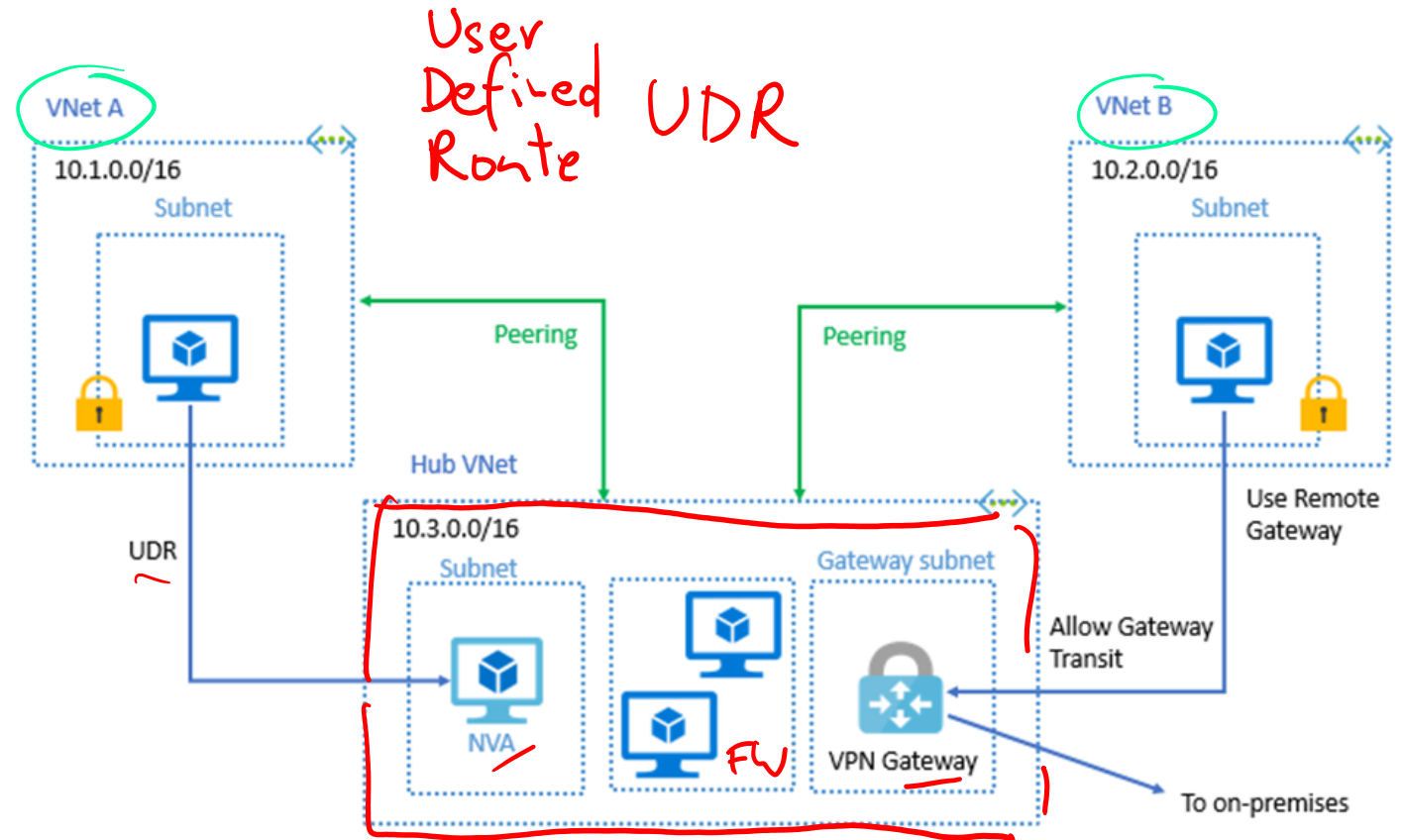
# Determine Gateway Transit and Connectivity Needs

Network  
Virtual  
Appliance  
NVA

Gateway transit allows peered virtual networks to share the gateway and get access to resources

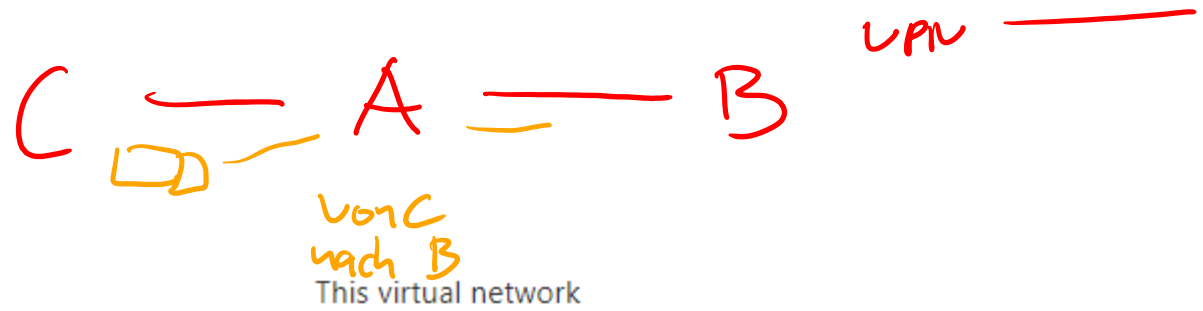
No VPN gateway is required in the peered spoke virtual network

Default VNet peering provides full connectivity



IP address spaces of connected networks can't overlap

# Create VNet Peering



Allow virtual network access settings

Configure forwarded traffic settings

To peering links must be created and shown in "connected" status

Peering link name \*

Vnet A - to - Vnet B

Traffic to remote virtual network ⓘ

☒ Allow (default)

☐ Block all traffic to the remote virtual network

Traffic forwarded from remote virtual network ⓘ

☒ Allow (default) ✓

☐ Block traffic that originates from outside this virtual network

Virtual network gateway ⓘ

☐ Use this virtual network's gateway ✓

☐ Use the remote virtual network's gateway

☒ None (default)

Remote virtual network

Peering link name \*

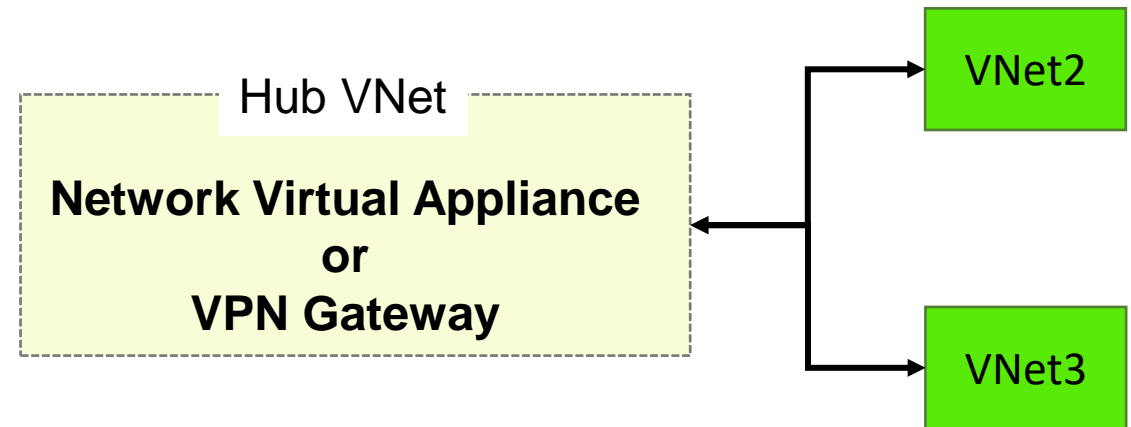
Vnet B - to - Vnet A

# Determine Service Chaining Uses

Leverage user-defined routes and service chaining to implement custom routing

Implement a VNet hub with a network virtual appliance or a VPN gateway

Service chaining enables you to direct traffic from one virtual network to a virtual appliance, or virtual network gateway, in a peered virtual network, through user-defined routes





route add 0.0.0.0 mask 0.0.0.0 10.0.0.42  
Next Hop

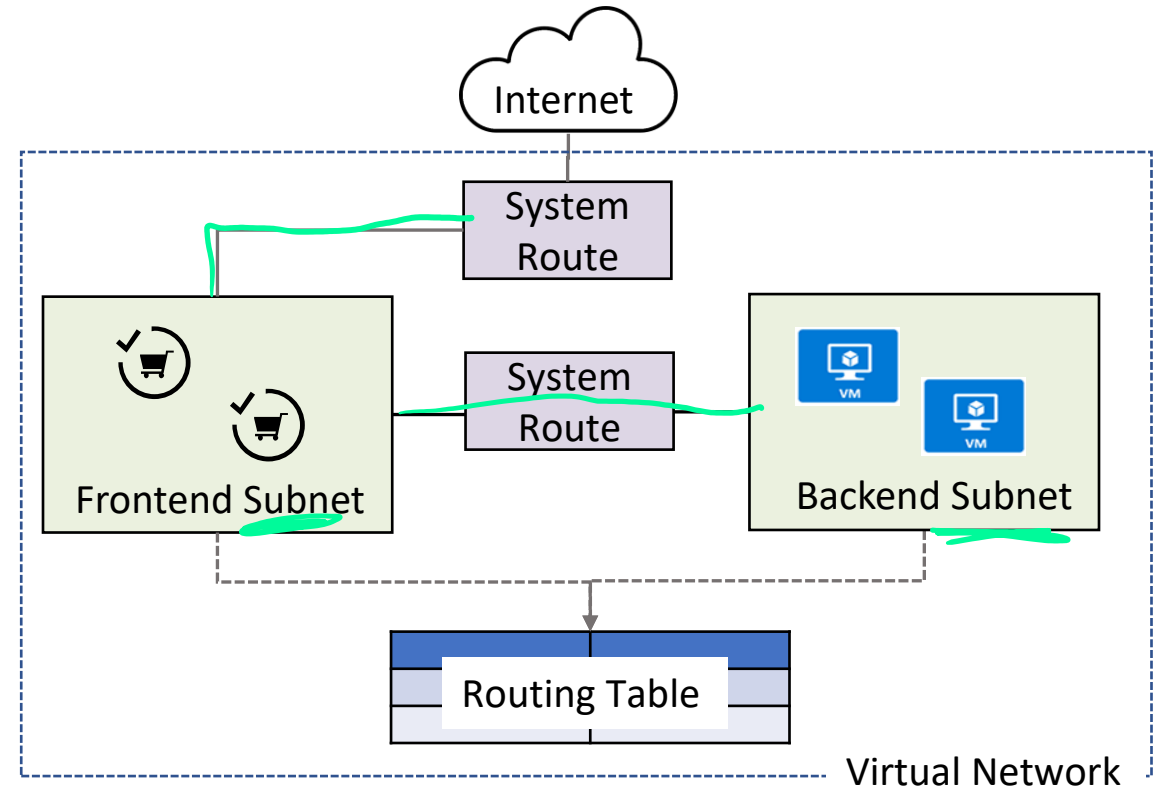
# Configure Network Routing and Endpoints



# Review System Routes ✓

Directs network traffic between virtual machines, on-premises networks, and the internet

- Traffic between VMs in the same subnet
- Between VMs in different subnets in the same virtual network
- Data flow from VMs to the internet
- Communication between VMs using a VNet-to-VNet VPN
- Site-to-Site and ExpressRoute communication through the VPN gateway

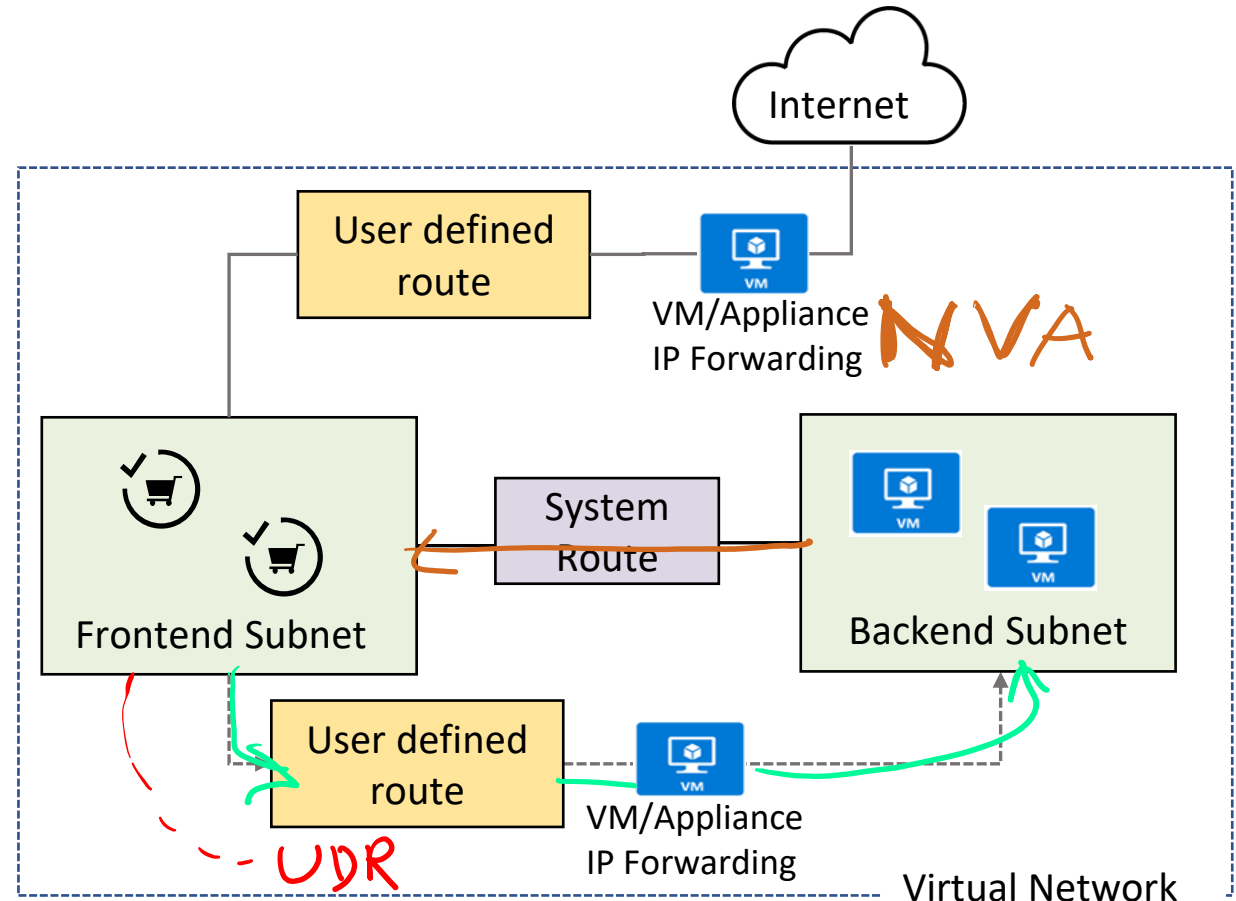


# Identify User-Defined Routes

A route table contains a set of rules, called routes, that specifies how packets should be routed in a virtual network

User-defined routes are custom routes that control network traffic by defining routes that specify the next hop of the traffic flow

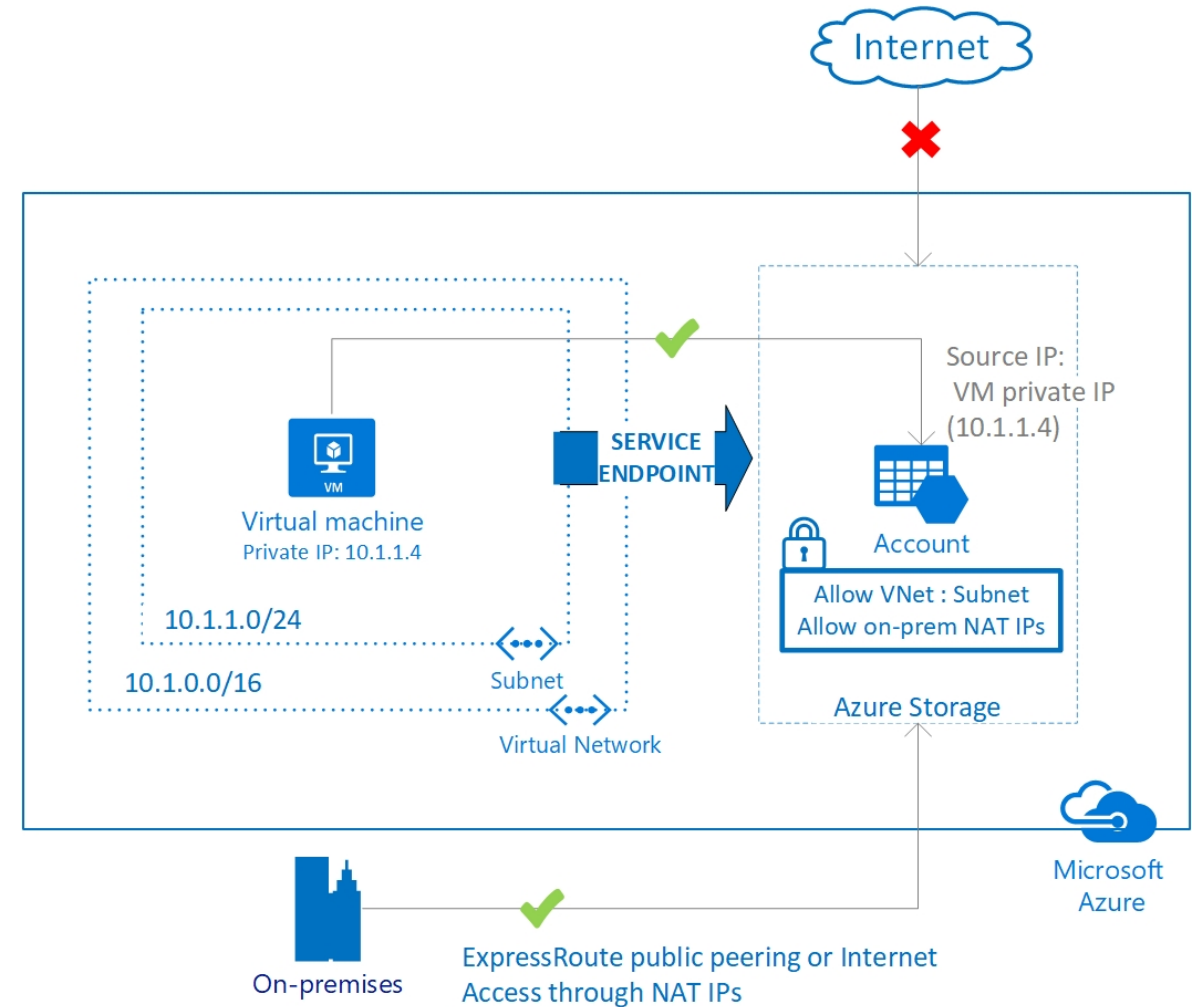
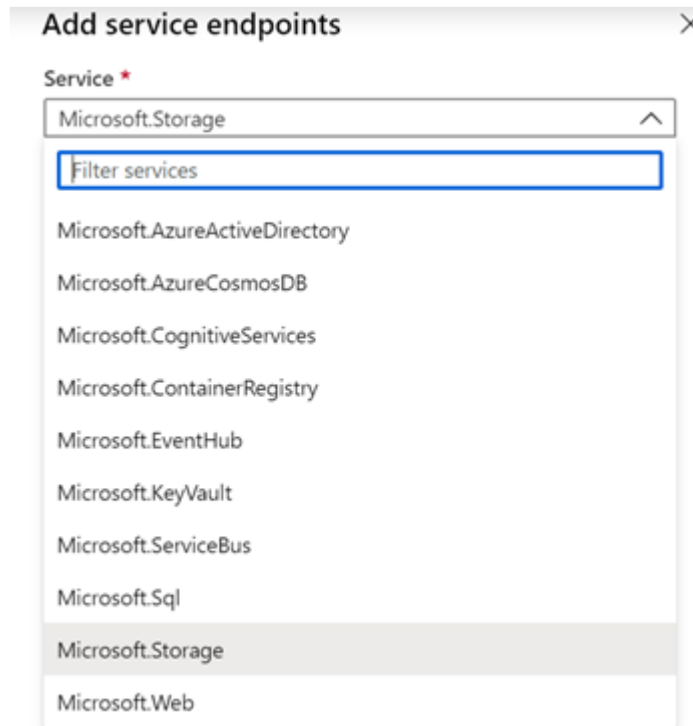
The next hop can be a virtual network gateway, virtual network, internet, or virtual appliance



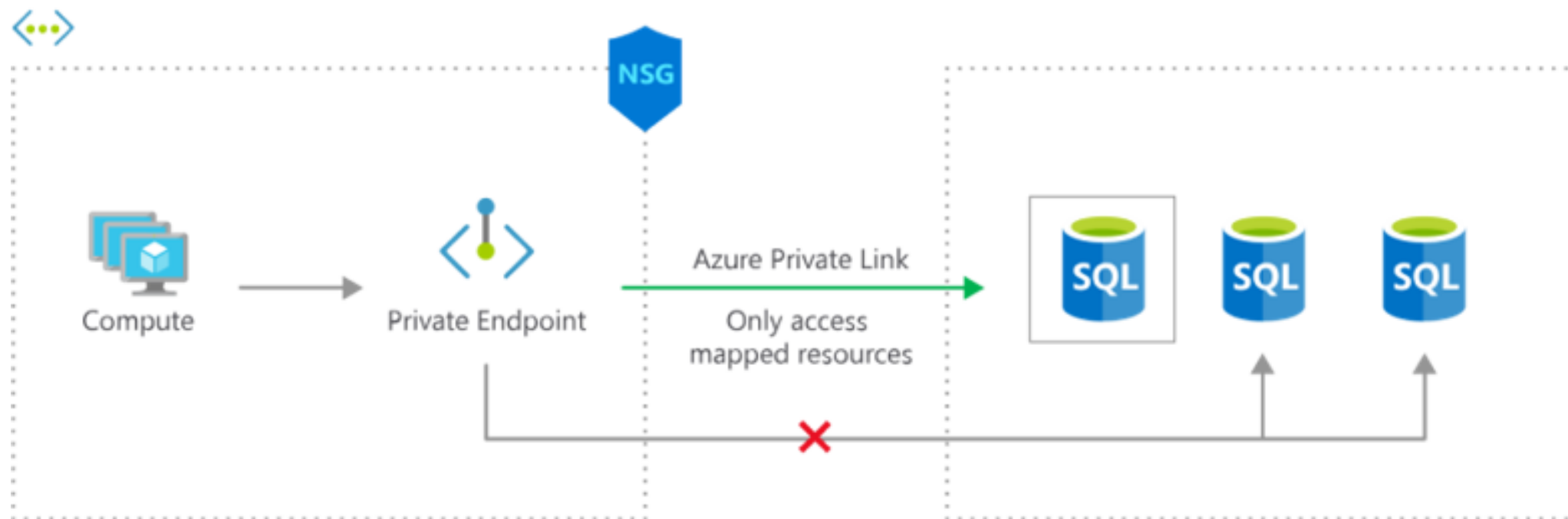
# Determine Service Endpoint Uses

## Endpoints limit network access to specific services

Adding service endpoints can take up to 15 minutes to complete



# Identify Private Link Uses



Private connectivity to services on Azure. Traffic remains on the Microsoft network, with no public internet access

Integration with on-premises and peered networks

In the event of a security incident within your network, only the mapped resource would be accessible

# Lab - Implement Intersite Connectivity



# Lab 05 – Implement intersite connectivity



Contoso has its datacenters in Boston, New York, and Seattle offices connected via a mesh wide-area network links, with full connectivity between them. You need to implement a lab environment that will reflect the topology of the Contoso's on-premises networks and verify its functionality.

## Objectives

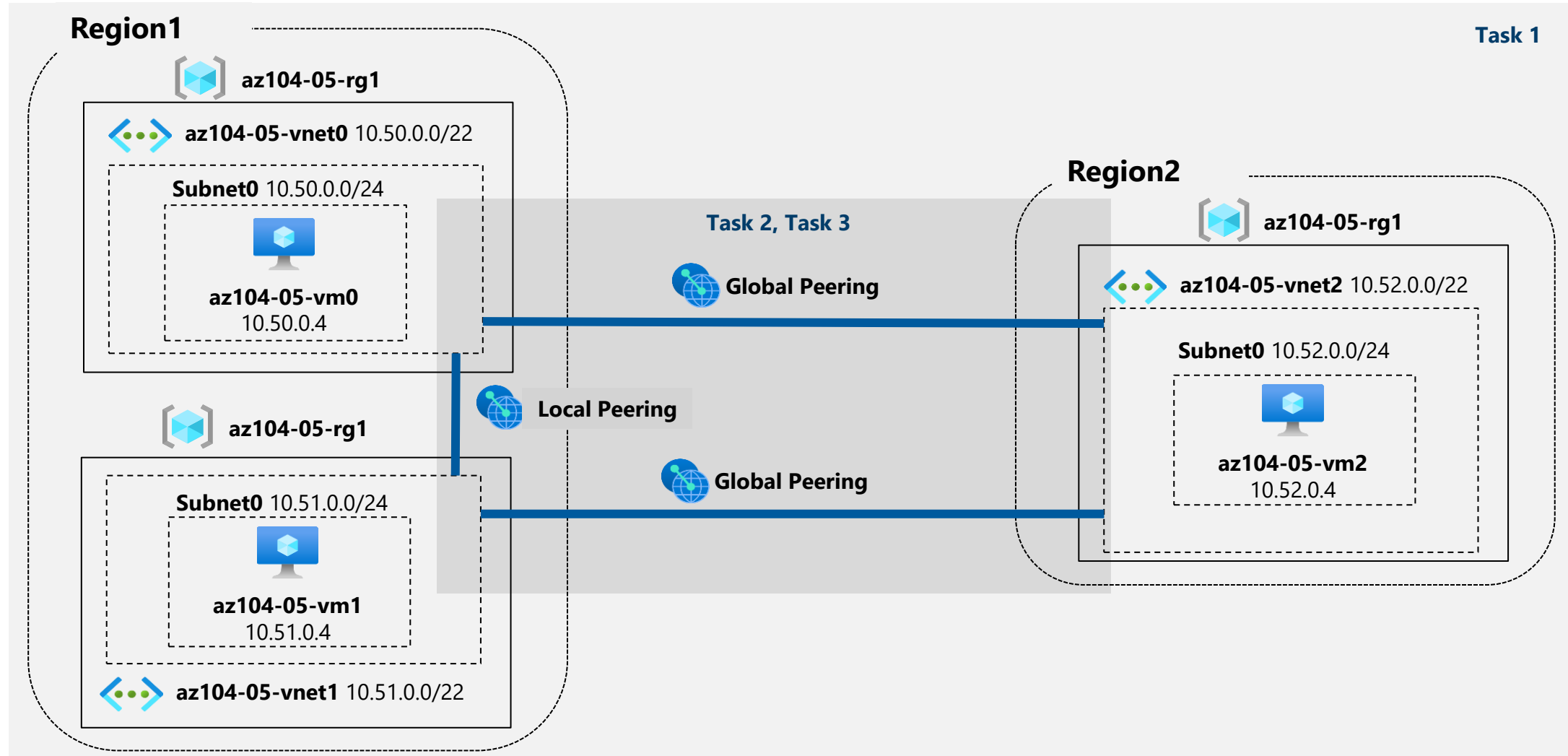
**Task 1:** Provision the lab environment

**Task 2:** Configure local and global virtual

**Task 3:** Test intersite connectivity network peering

Next slide for an architecture diagram 

# Lab 05 – Architecture diagram





# End of presentation

