

AZ-104

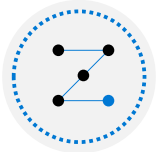
Administer Intersite Connectivity



About this course: Course Outline



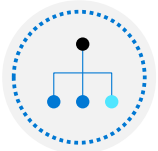
01: Administer Identity



02: Administer Governance and Compliance



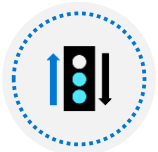
03: Administer Azure Resources



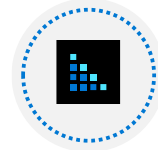
04: Administer Virtual Networking



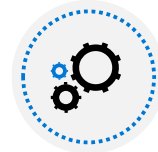
05: Administer Intersite Connectivity



06: Administer Network Traffic Management



07: Administer Azure Storage



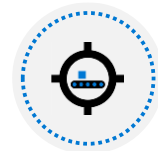
08: Administer Azure Virtual Machines



09: Administer PaaS Compute Options

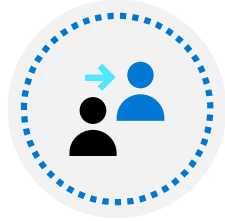


10: Administer Data Protection

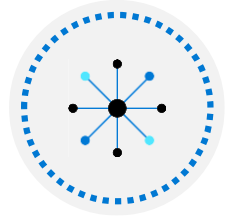


11: Administer Monitoring

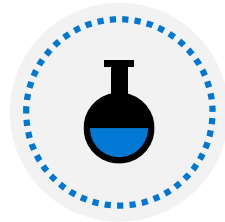
Administer Intersite Connectivity Introduction



[Configure VNet Peering](#)

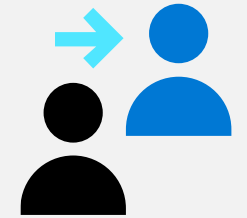


[Configure Network Routing and Endpoints](#)



[Lab 05 - Implement Intersite Connectivity](#)

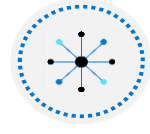
Configure VNet Peering



Configure VNet Peering Introduction



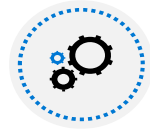
Determine VNet Peering Uses



Determine Gateway Transit and Connectivity Needs



Create VNet Peering



Determine Service Chaining Uses

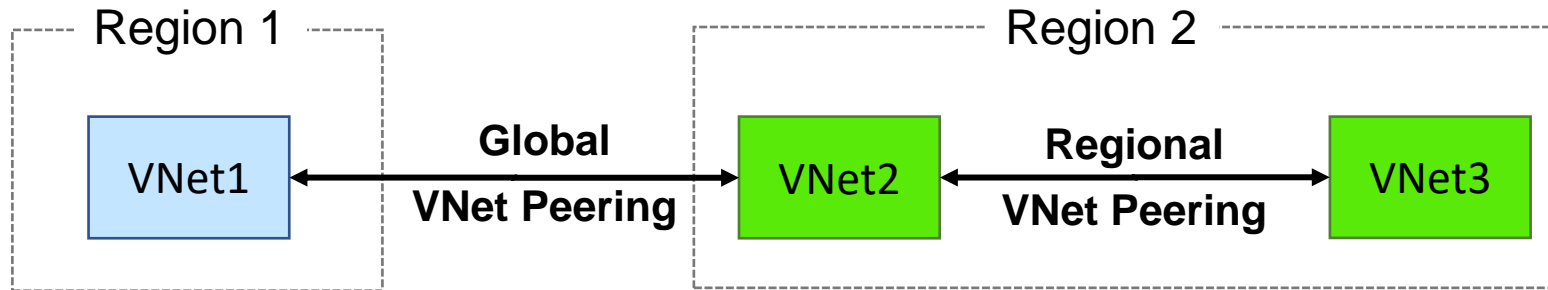


Demonstration – VNet Peering



Summary and Resources

Determine VNet Peering Uses



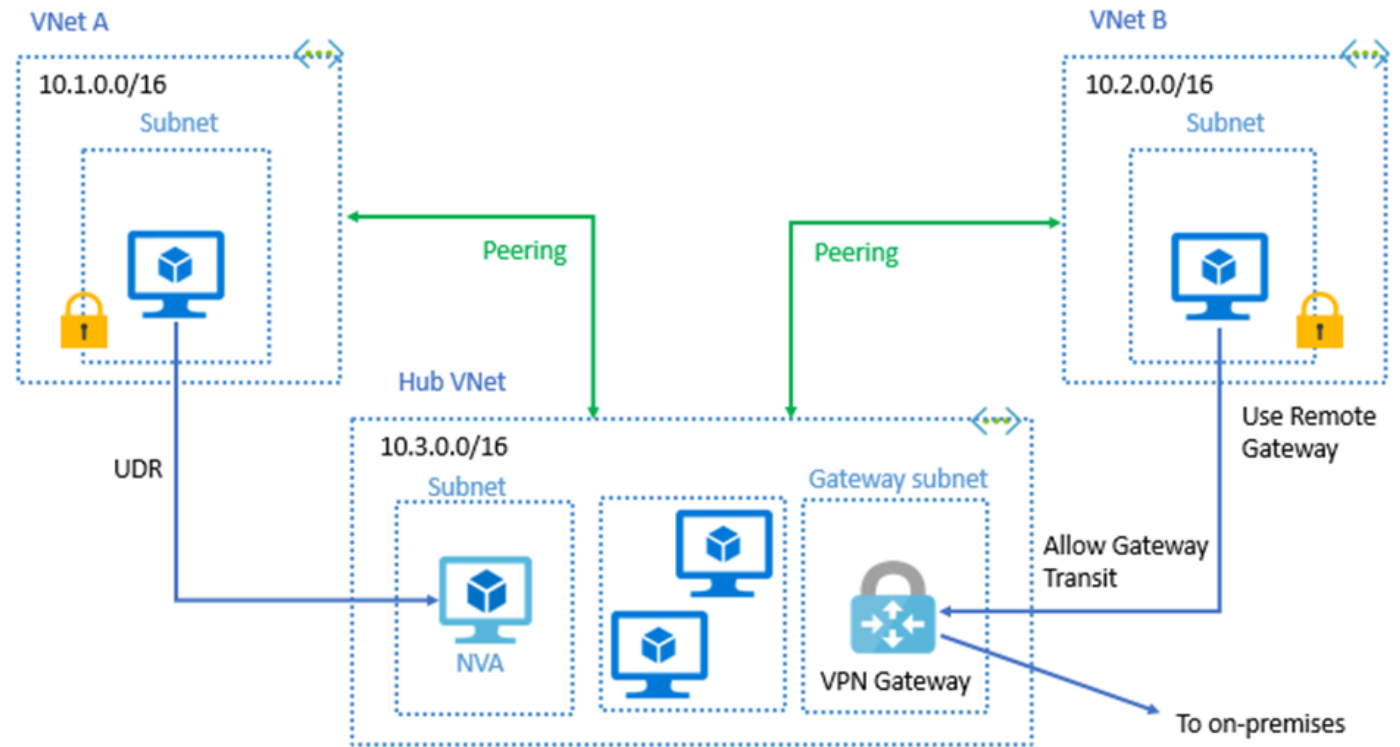
- Two types of peering: Global and Regional
- Connects two Azure virtual networks – you can peer across subscriptions and tenants
- Peered networks use the Azure backbone for privacy and isolation
- Easy to setup, seamless data transfer, and great performance

Determine Gateway Transit and Connectivity Needs

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

No VPN gateway is required in the peered 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

This virtual network

Peering link name *

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

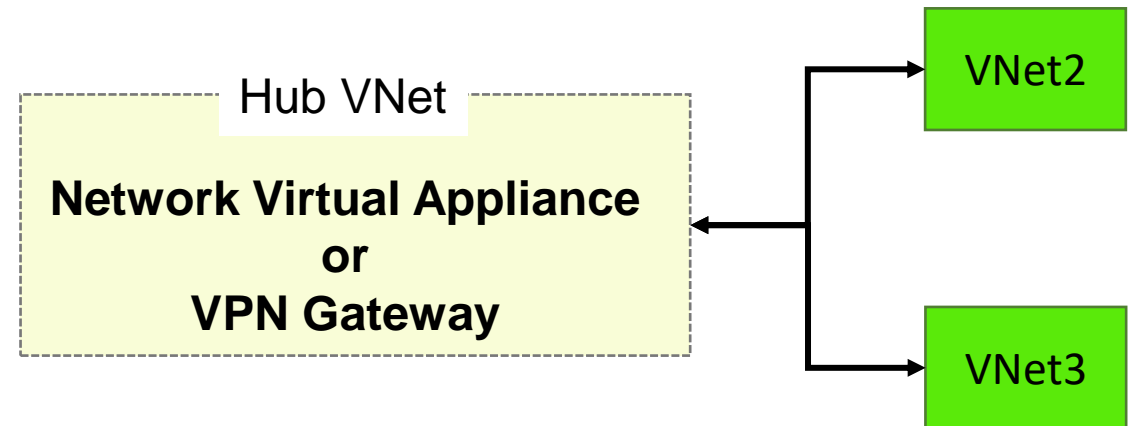
Peering link name *

Determine Service Chaining Uses

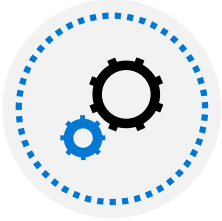
Leverage user-defined routes and service chaining to implement custom routing

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



Demonstration – VNet Peering



Configure VNet peering on the first virtual network



Configure a VPN gateway



Allow gateway transit



Confirm VNet peering on the second virtual network

Summary and Resources – Configure VNet Peering

Knowledge Check Questions

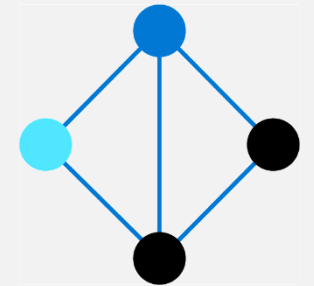
Microsoft Learn Modules (docs.microsoft.com/Learn)



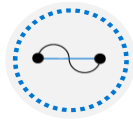
[Distribute your services across Azure virtual networks and integrate them by using virtual network peering \(Sandbox\)](#)

A sandbox indicates a hands-on exercise.

Configure Network Routing and Endpoints



Configure Network Routing and Endpoints Introduction



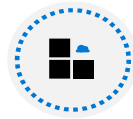
Review System Routes



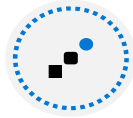
Identify User-Defined Routes



Demonstration – Custom Routing tables



Determine Service Endpoint Uses



Identify Private Link Uses

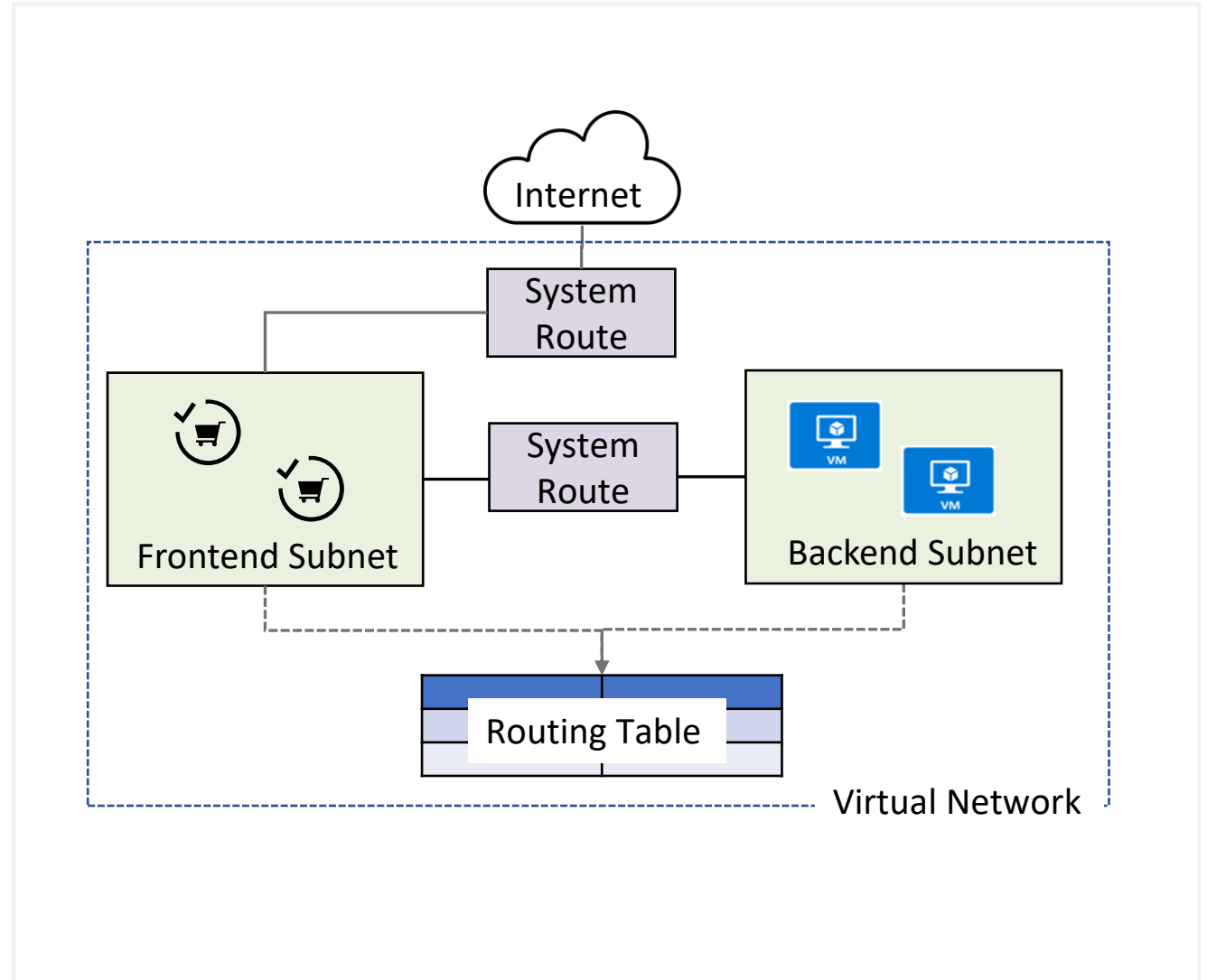


Summary and Resources

Review System Routes

System routes direct 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

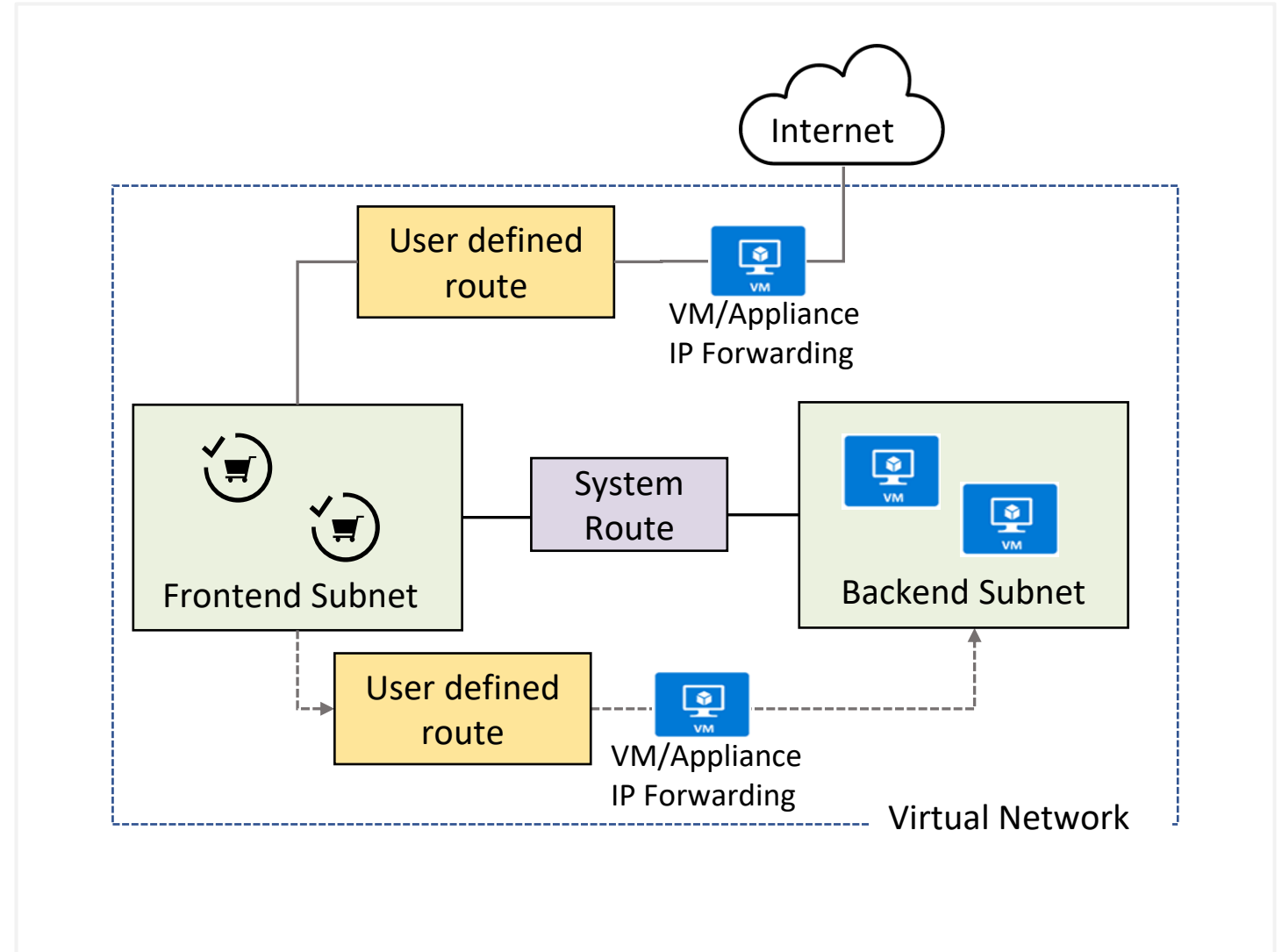


Identify User-Defined Routes

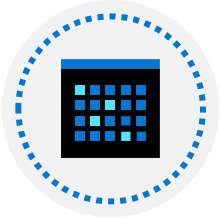
A route table contains a set of rules, called routes, that specifies how packets should be routed in a virtual network

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



Demonstration – Custom Routing Tables



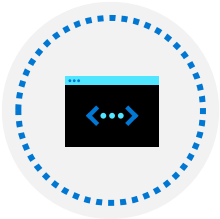
Create a route table



Add a route



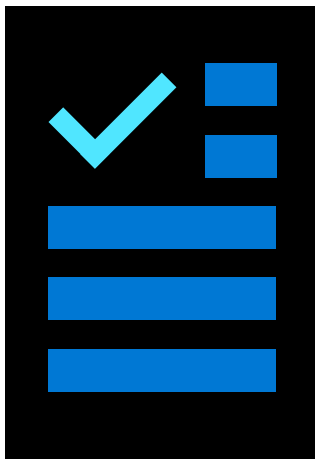
Associate a route table to a subnet



Use PowerShell to view your routing information (optional)

Summary and Resources – Configure Network Routing and Endpoints

Knowledge Check Questions



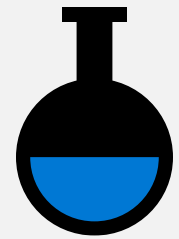
Microsoft Learn Modules (docs.microsoft.com/Learn)

[Manage and control traffic flow in your Azure deployment with routes \(Sandbox\)](#)

[Introduction to Azure Private Link](#)

A sandbox indicates a hands-on exercise.

Lab 05 - Implement Intersite Connectivity



Lab 05 – Implement intersite connectivity

Lab scenario

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:

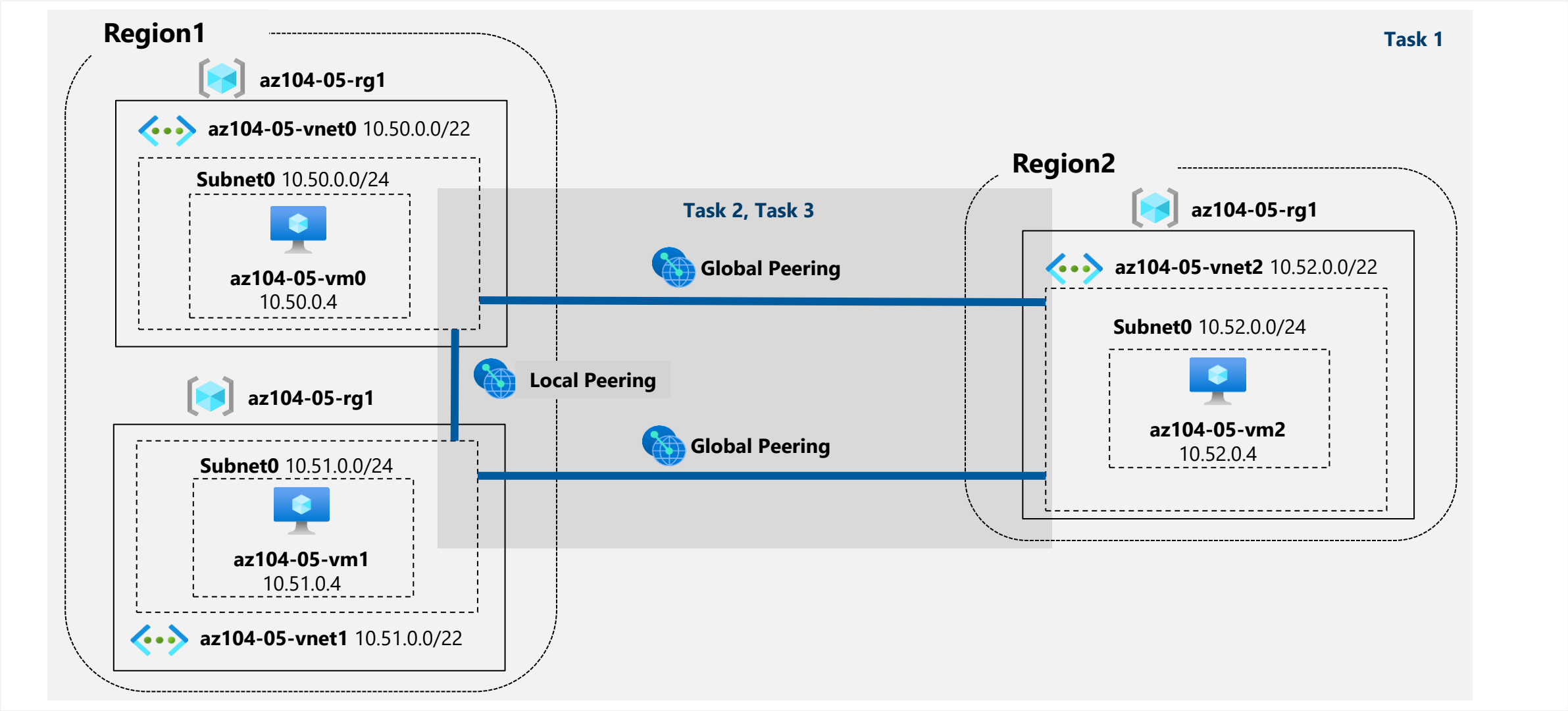
Configure local and global virtual network peering

Task 3:

Test intersite connectivity

Next slide for an architecture diagram 

Lab 05 – Architecture diagram



End of presentation

