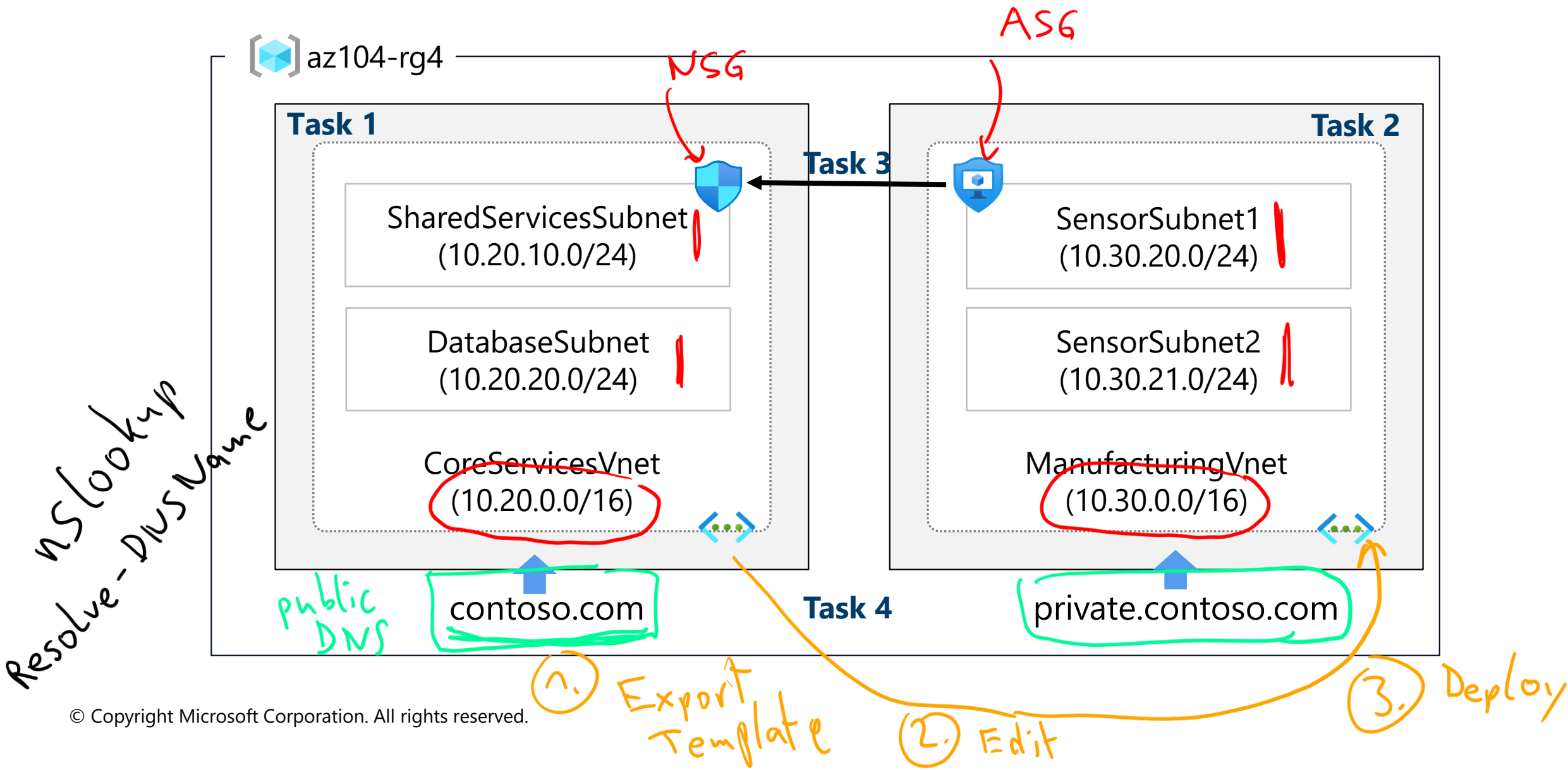


Lab 04 – Architecture diagram



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 Intersite Connectivity

Private

route add 10.20.0.0/24



Peering

$A \rightarrow B$

$A \leftarrow B$

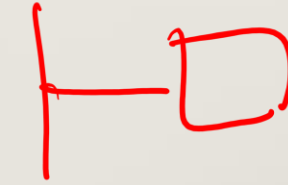
VN A



10.0.0.0/24

vNet
A

VN B

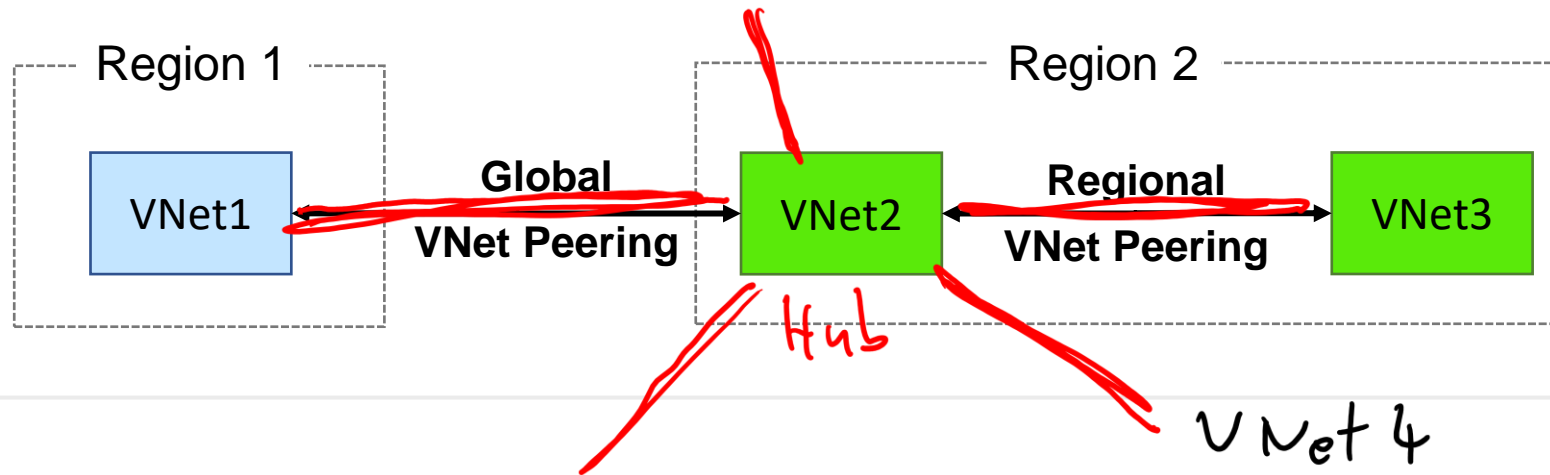


vNet
B

Configure VNet Peering

Determine VNet Peering Uses

Hub-Spoke



- 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

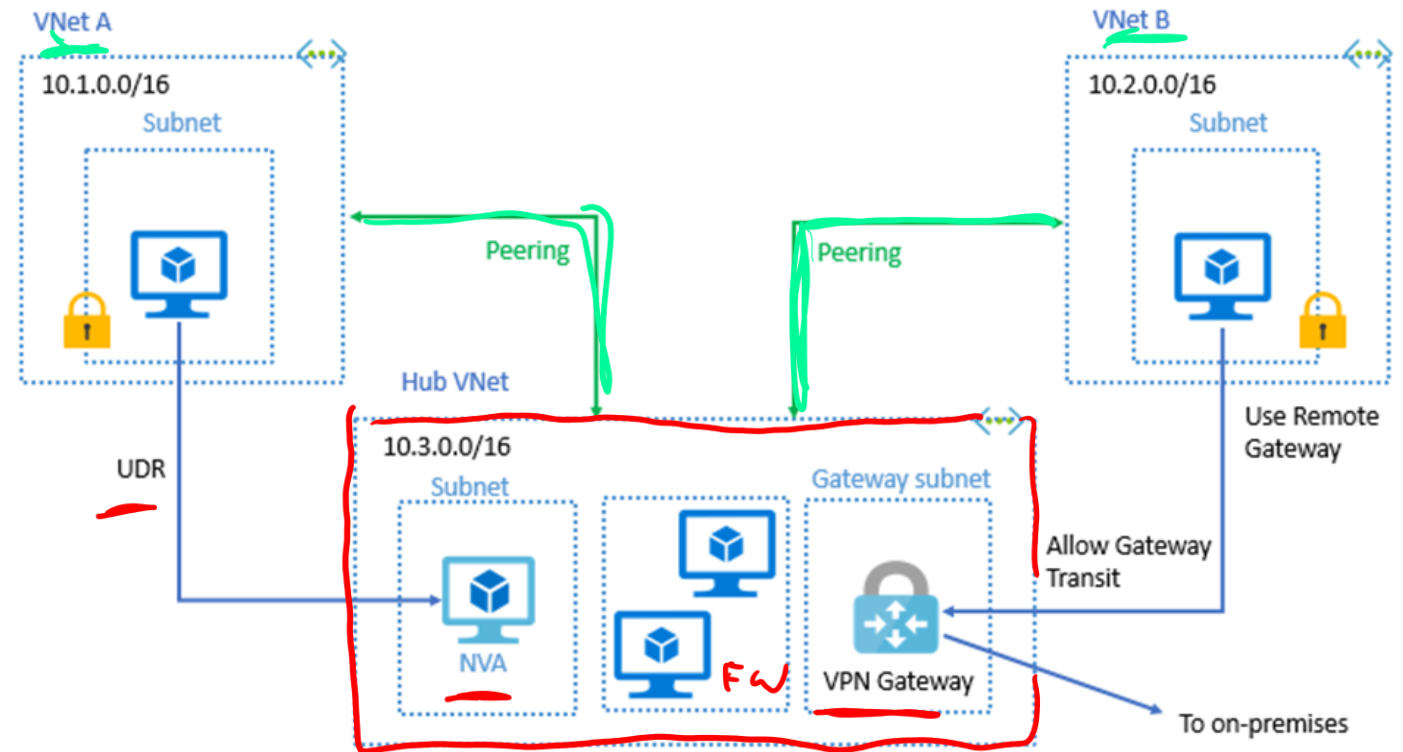
Determine Gateway Transit and Connectivity Needs

NVA
UDR
Appliance
User Defined
Route

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

Status should show “connected”

Add peering ...

VNet1
This virtual network

Peering link name *

☒ Allow 'VNet1' to access the peered virtual network ⓘ

☒ Allow 'VNet1' to receive forwarded traffic from the peered virtual network ⓘ

☒ Allow gateway in 'VNet1' to forward traffic to the peered virtual network ⓘ

☐ Enable 'VNet1' to use the peered virtual networks' remote gateway ⓘ

Remote virtual network

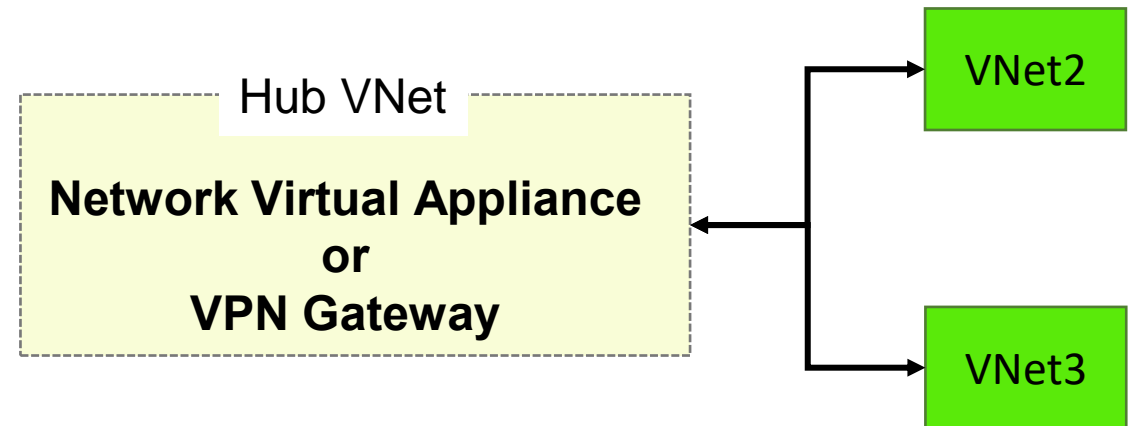
Peering link name *

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



Learning Recap – Configure VNet Peering



**Check your
knowledge
questions and
additional
study**

Distribute your services across Azure virtual networks and integrate them by using virtual network peering

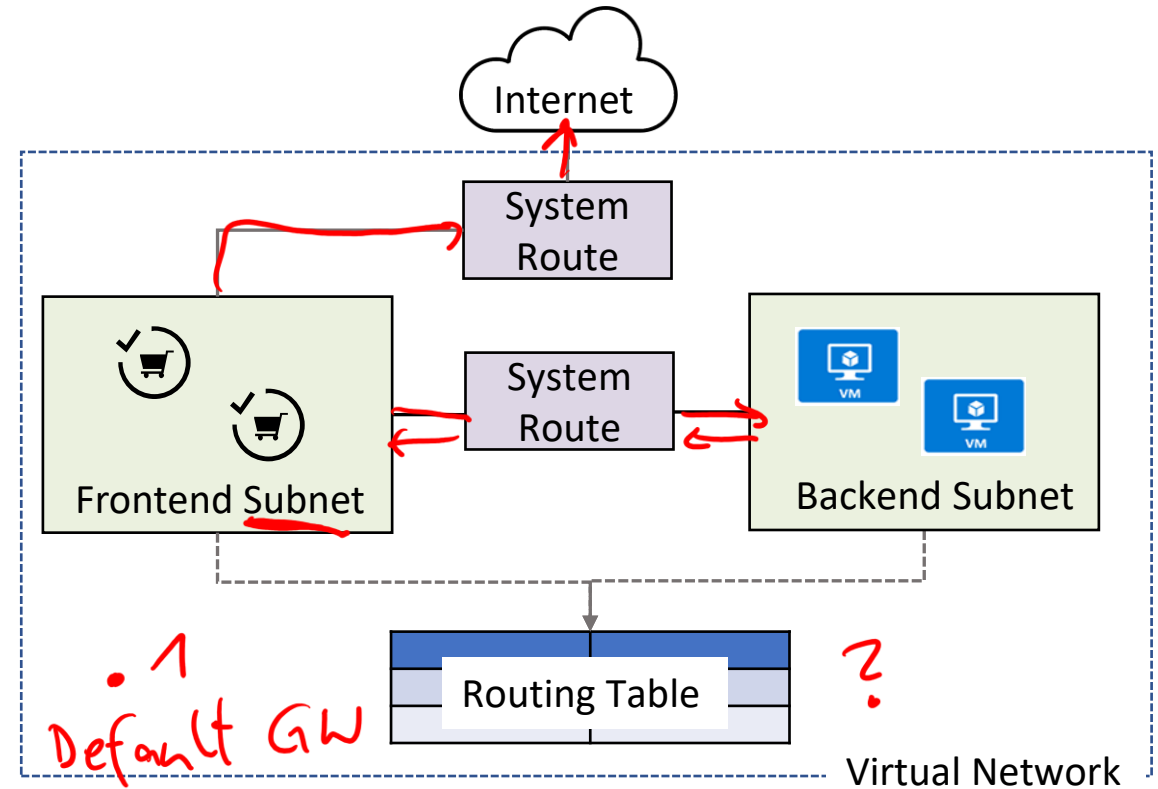
Configure Network Routing and Endpoints



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



Static

Identify User-Defined Routes

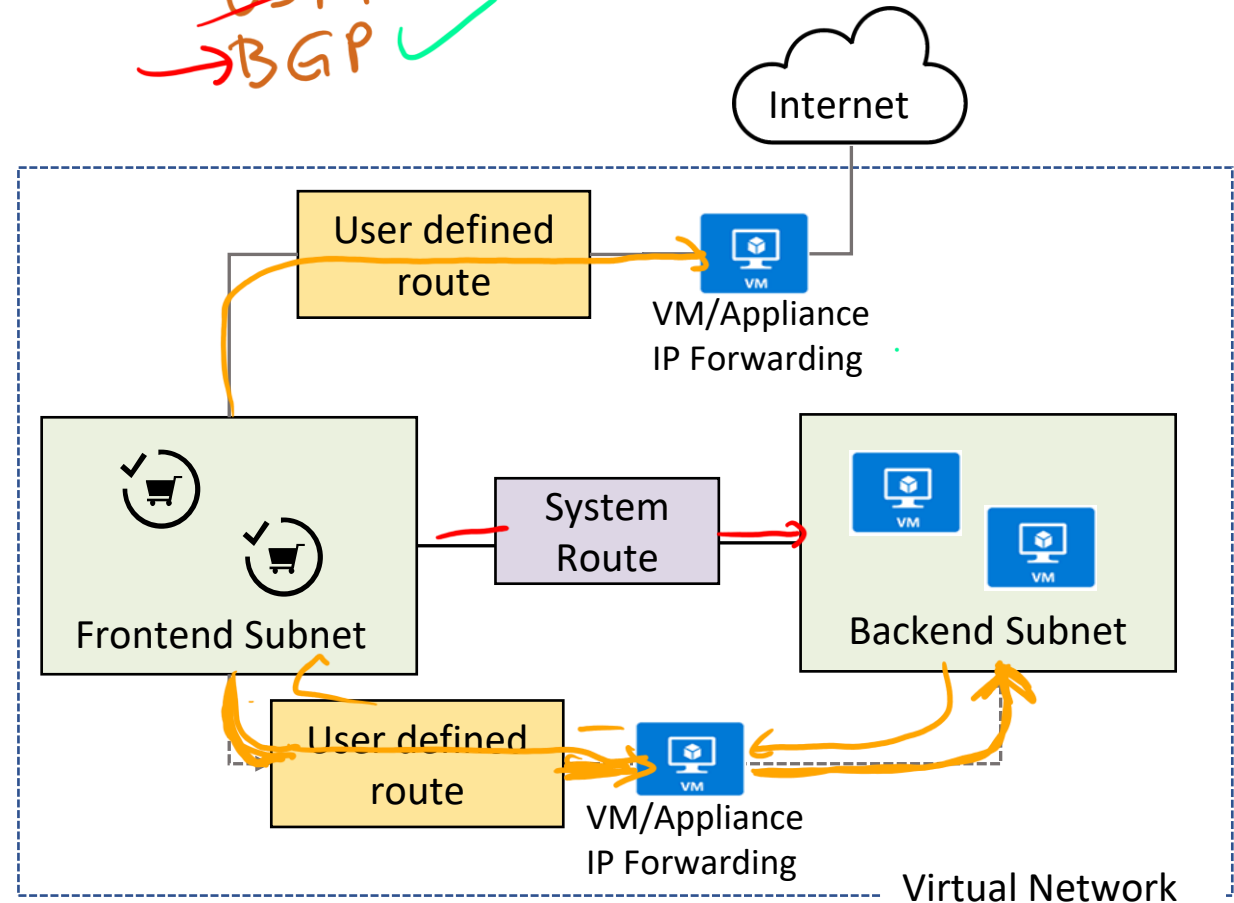
A route table contains a set of rules, called routes, that specifies how packets should be routed in a virtual network

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

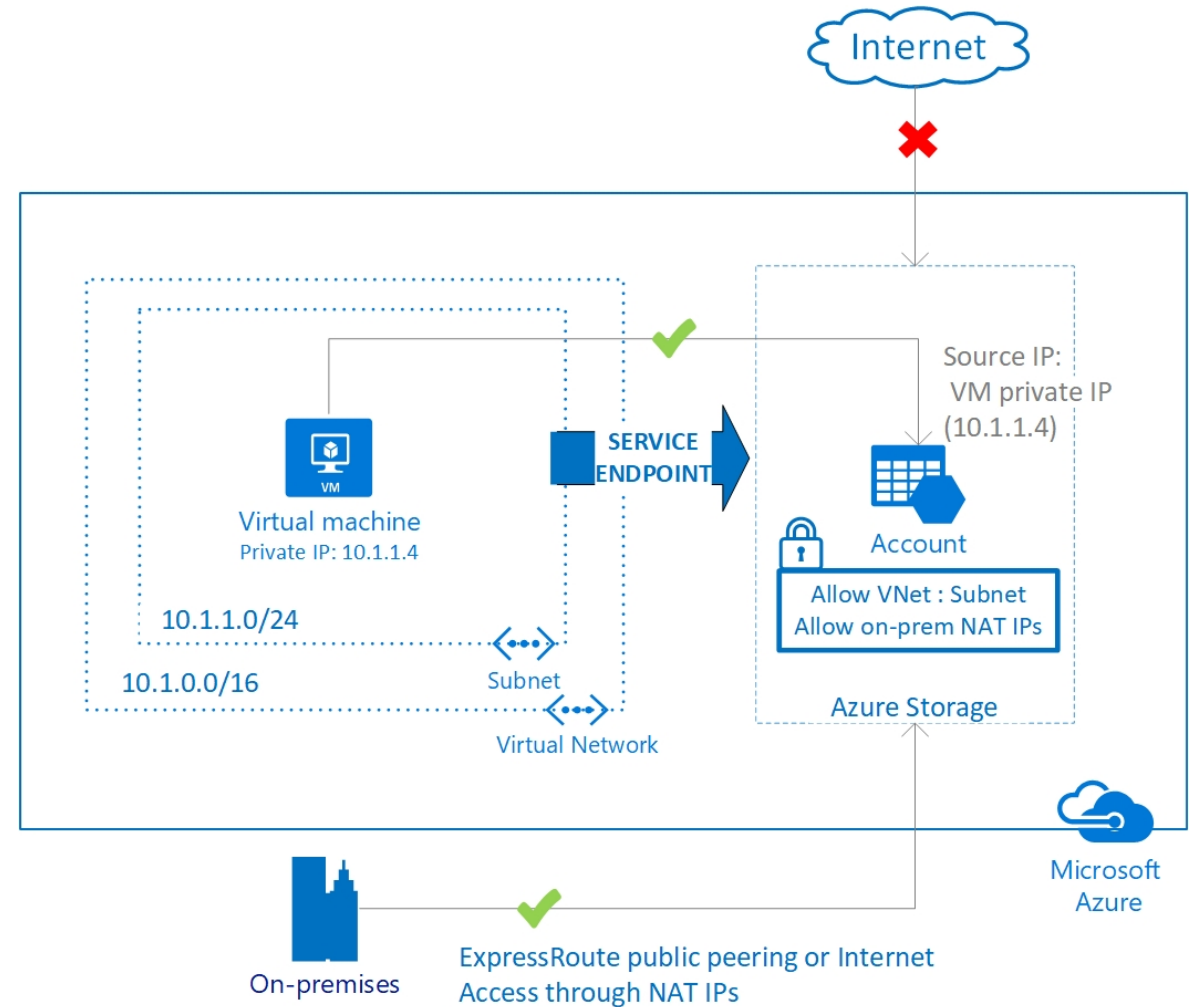
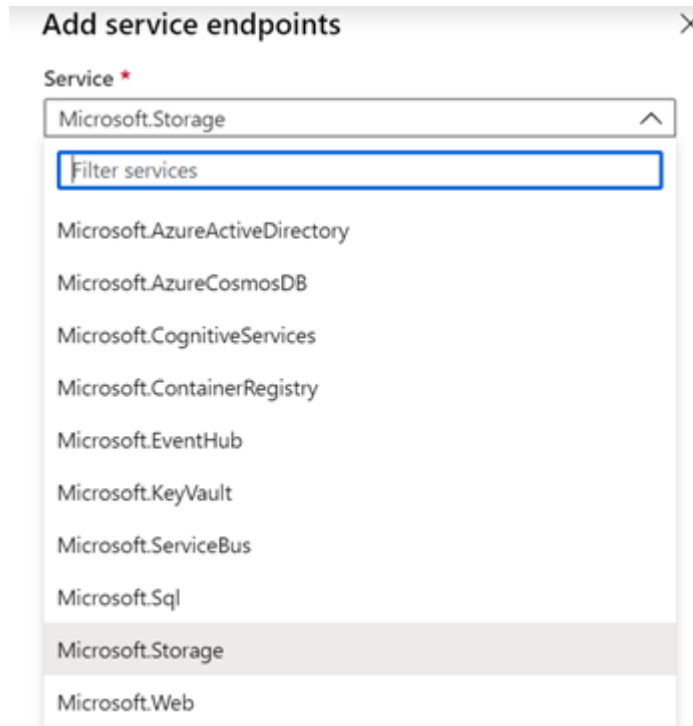
Routing Proto (dynamic)

~~RIP~~
~~OSPF~~
→ BGP ✓

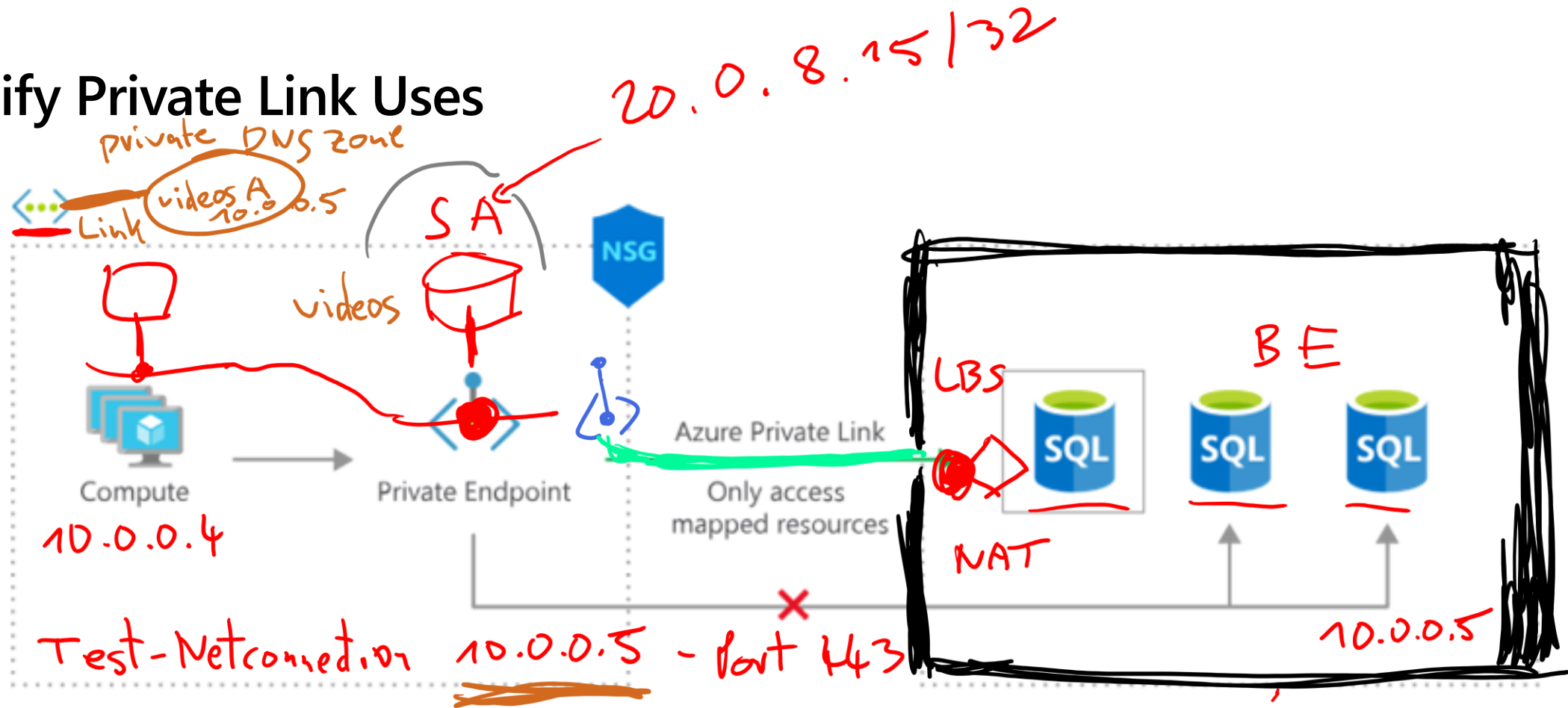


Endpoints limit network access to specific services

Adding service endpoints can take up to 15 minutes to complete



Identify Private Link Uses

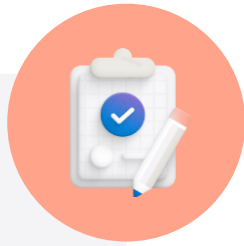


Private connectivity to services on Azure. Traffic remains on the Microsoft network, with no public internet access

Integration with on-premises and peered networks

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

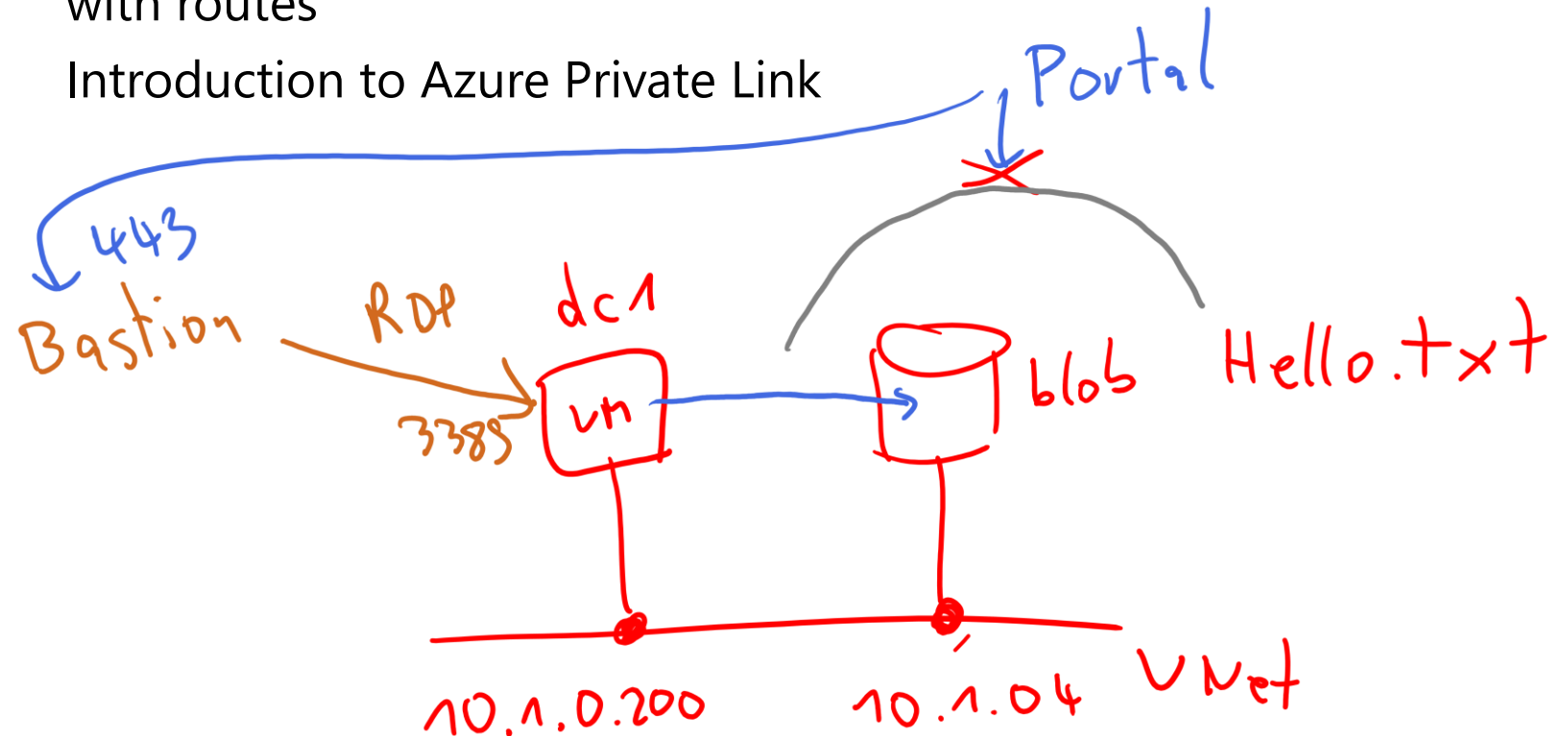
Learning Recap – Configure Network Routing and Endpoints



Check your
knowledge
questions and
additional
study

Manage and control traffic flow in your Azure deployment
with routes

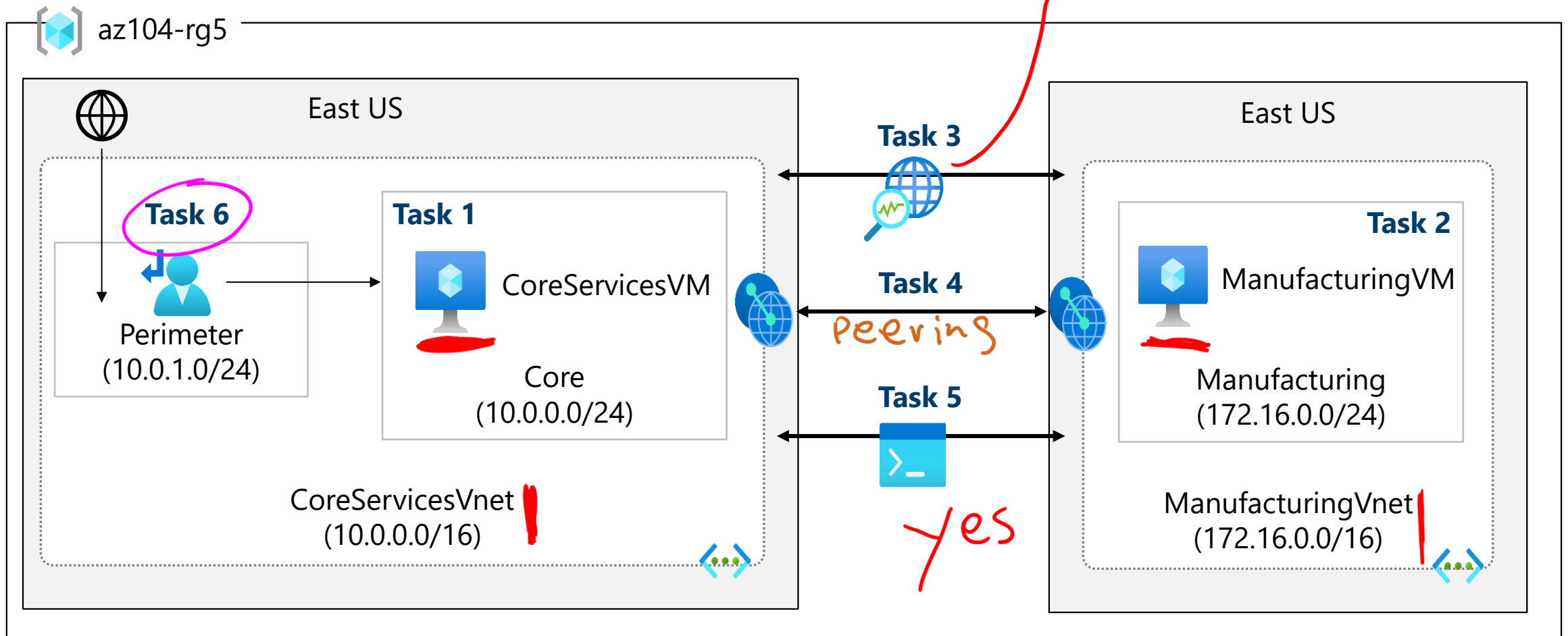
Introduction to Azure Private Link



Lab - Implement Intersite Connectivity



Lab 05 – Architecture diagram



End of presentation

