Microsoft

AZ-700

Design and implement private access to Azure Services

AZ-700 Agenda

Module 01: Introduction to Azure Virtual Networks

Module 02: Designing and Implementing Hybrid Networking

Module 03: Designing and Implementing Azure ExpressRoute

Module 04: Load balance non-HTTP(S) traffic in Azure

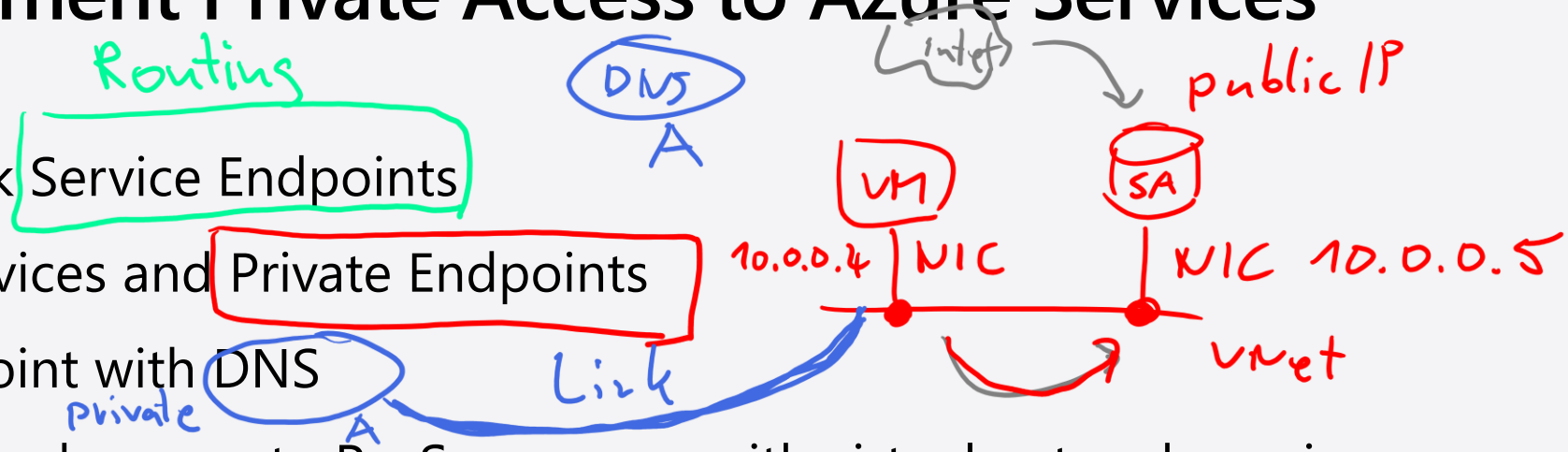
Module 05: Load balance HTTP(S) traffic in Azure

Module 06: Design and Implement Network Security

Module 07: Design and Implement private access to Azure Services 

Module 08: Design and Implement Network Monitoring

Design and Implement Private Access to Azure Services



- Explain Virtual Network Service Endpoints
- Define Private Link Services and Private Endpoints
- Integrate Private Endpoint with DNS
- Exercise – Restrict network access to PaaS resources with virtual network service endpoints
- Exercise – Create an Azure Private Endpoint using Azure PowerShell

Explain Virtual Network Service Endpoints

= Routing

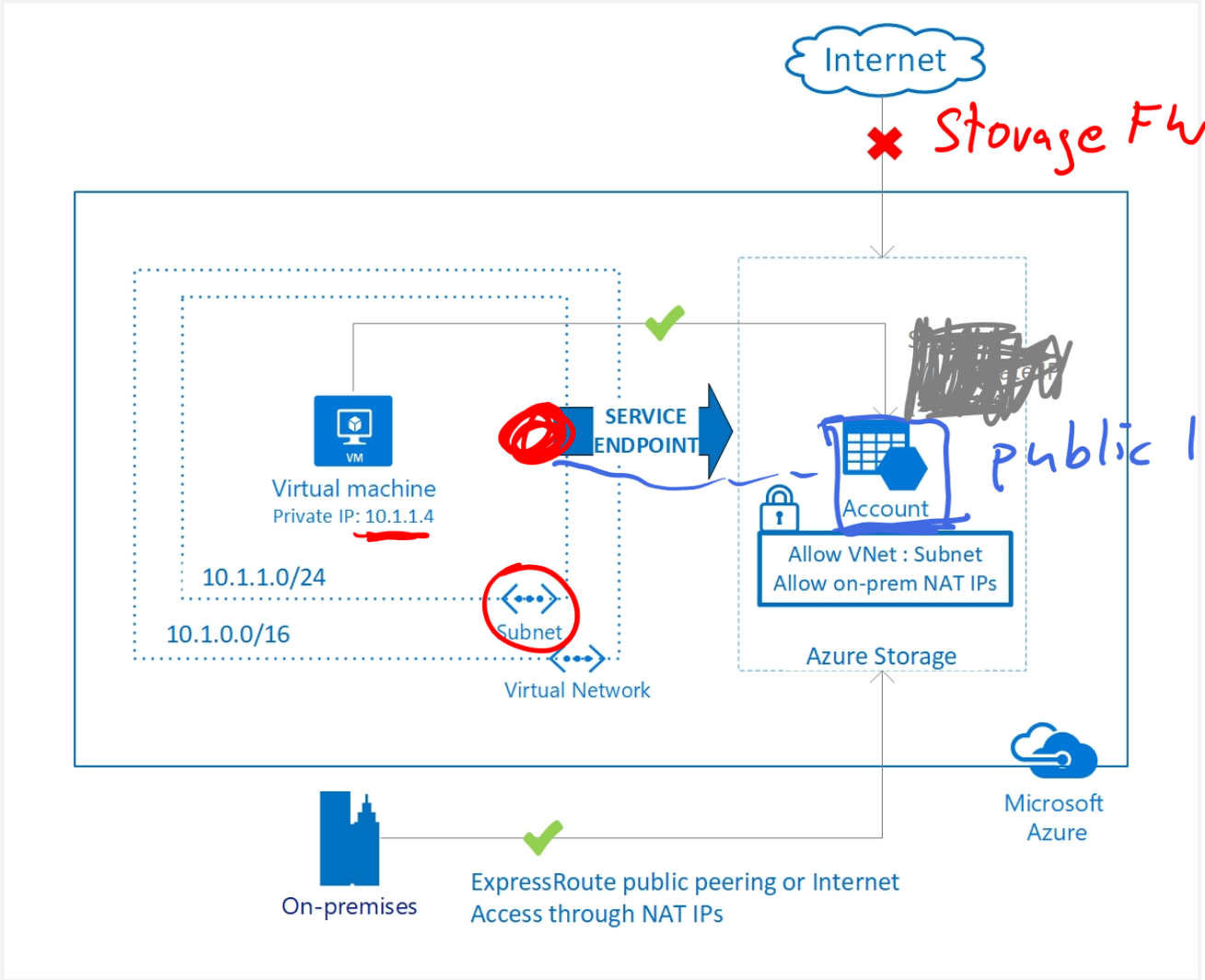
Learning Objectives – Virtual Network Service Endpoints

- What is a Service Endpoint?
- Add Service Endpoints to a subnet
- Demonstration
- Learning Recap

What is Service Endpoint?

Secure and direct connectivity to Azure services over an optimized route over the Azure backbone network

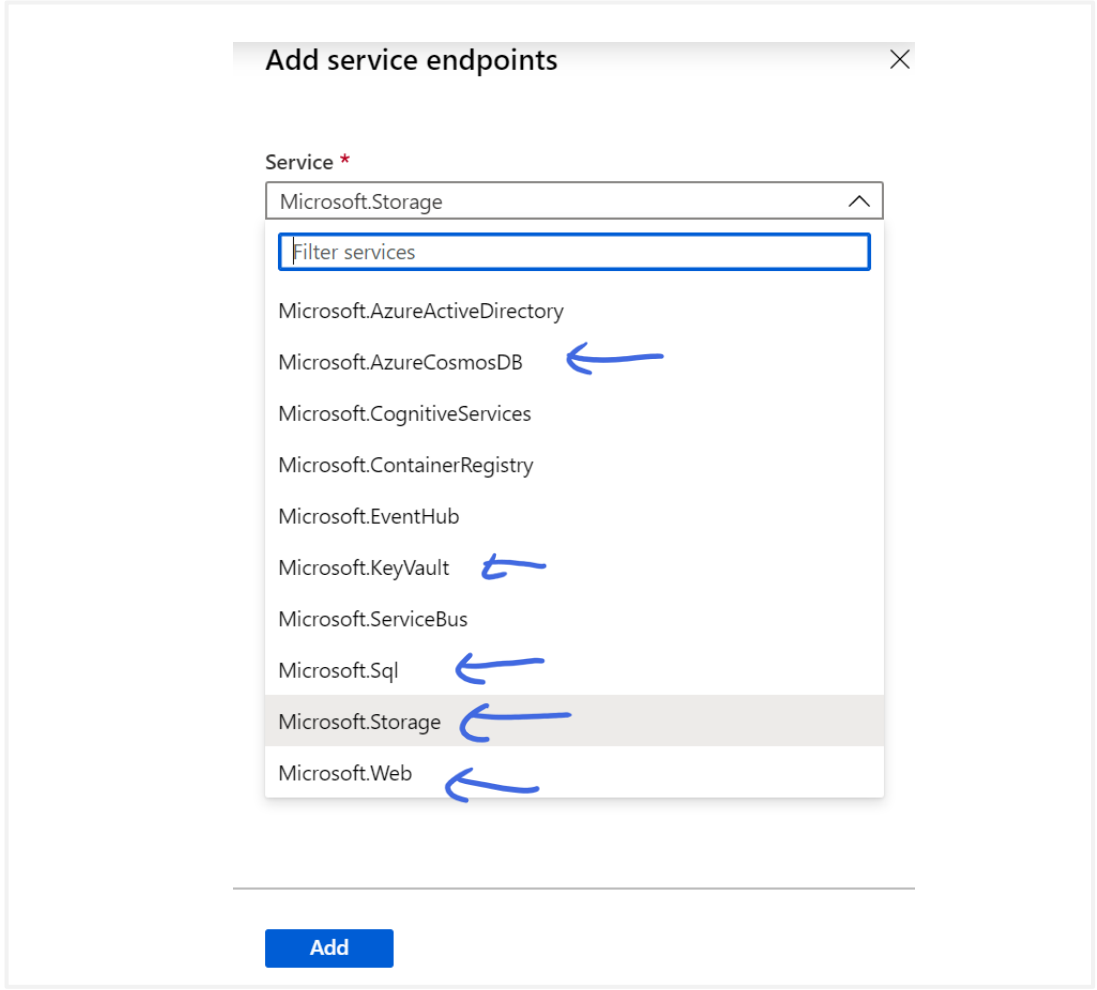
Optimal routing for Azure service traffic from your virtual network



Add Service Endpoints to a subnet

There are many services that support endpoints

Adding service endpoints can take up to 15 minutes to complete



Define Private Link Services and Private Endpoints

Learning Objectives – Private Link Services and Private Endpoints

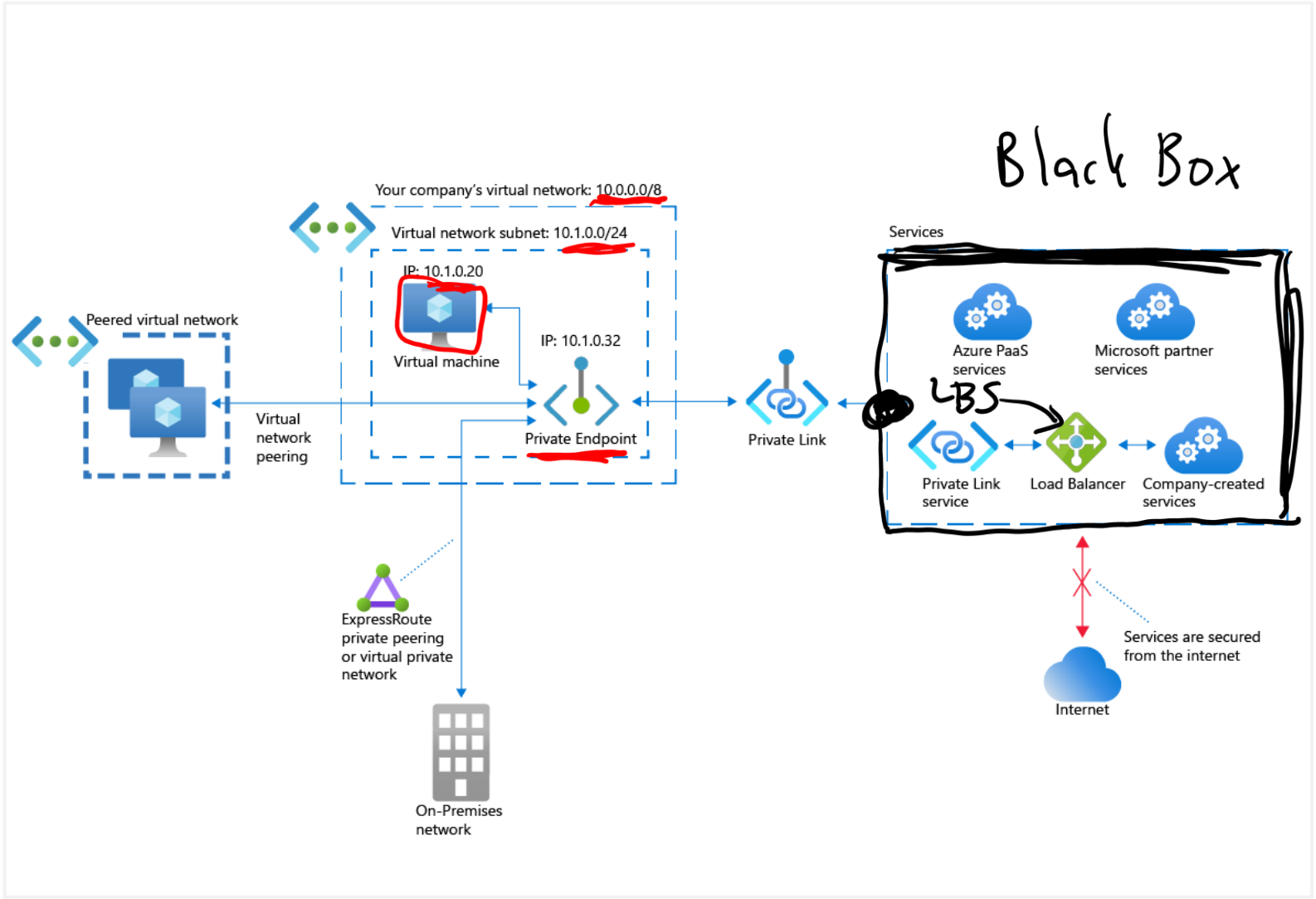
- What is Azure Private Link?
- What is Azure Private endpoint?
- What is Azure private Link service?
- Private Link service workflow
- Private endpoint properties
- Demonstration
- Learning Recap

What is Azure Private Link ?

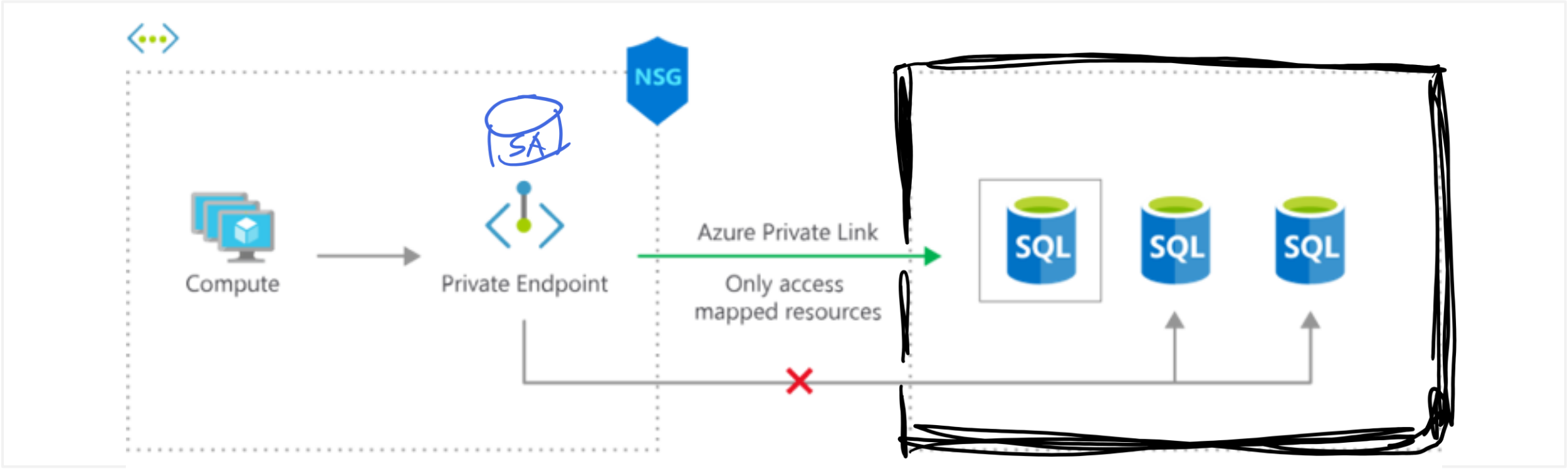
Integration with on-premises and peered networks

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

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



What is Azure Private Endpoint ?

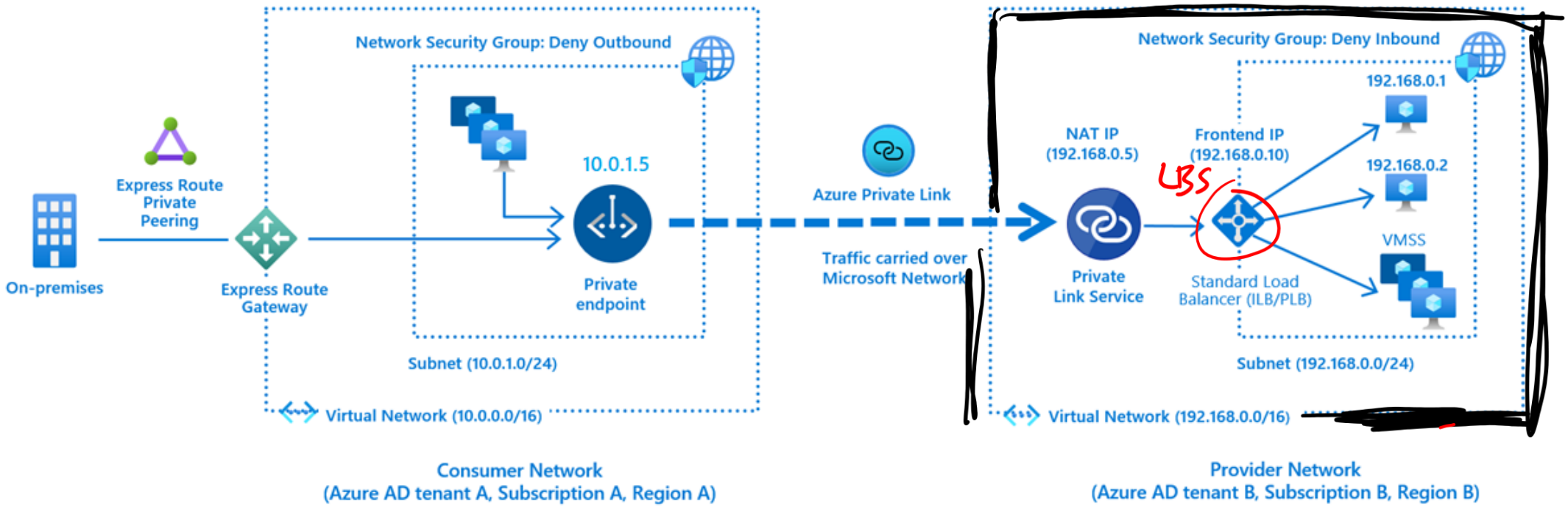


The Azure resource becomes, in a sense, a part of your virtual network.

The connection to the resource now uses the Microsoft Azure backbone network instead of the public internet

Configure the Azure resource to no longer expose its public IP address, which eliminates that potential security risk.

What is Azure Private Link service?



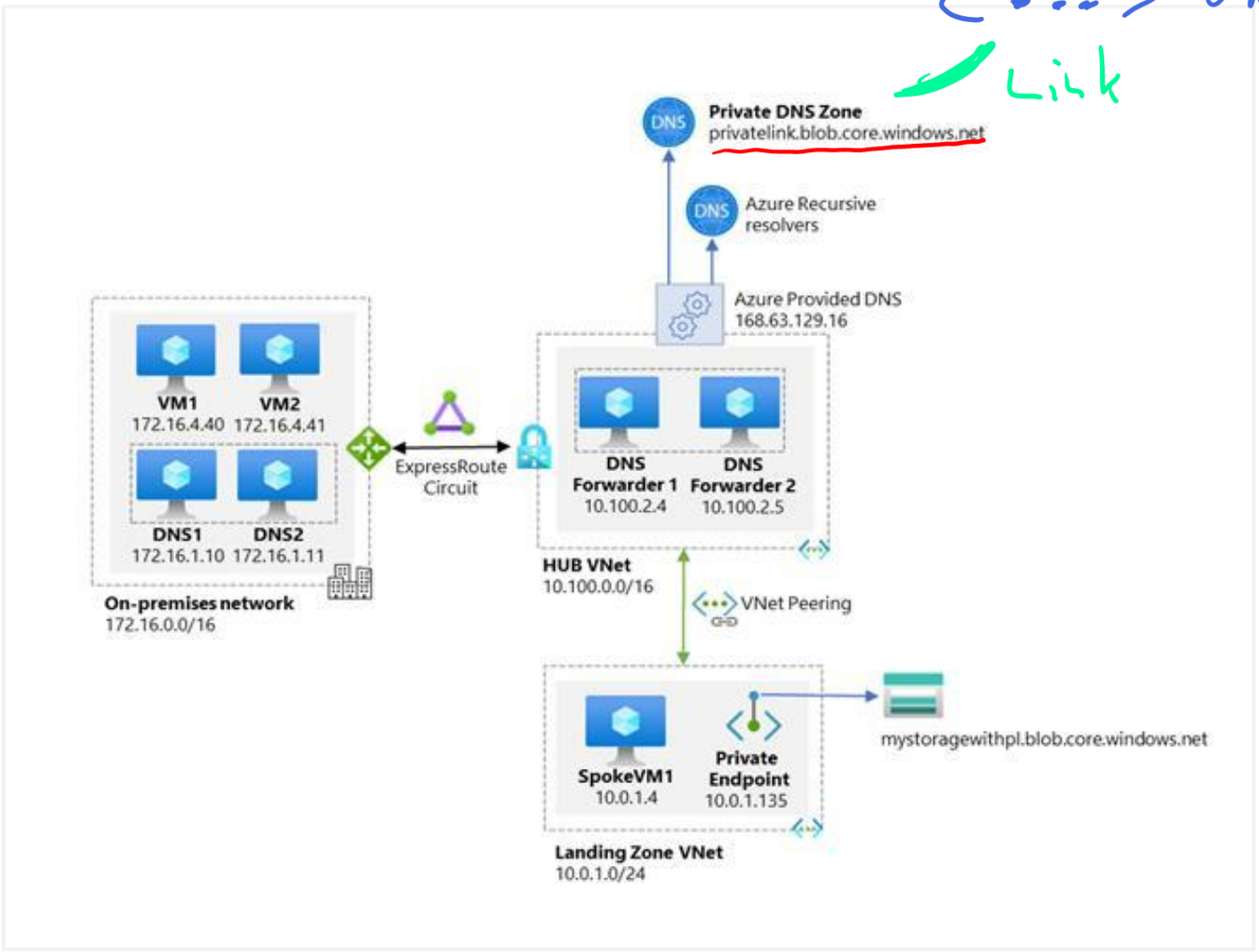
Integrate Private Endpoint with DNS

Learning Objectives – Integrate Private endpoint with DNS

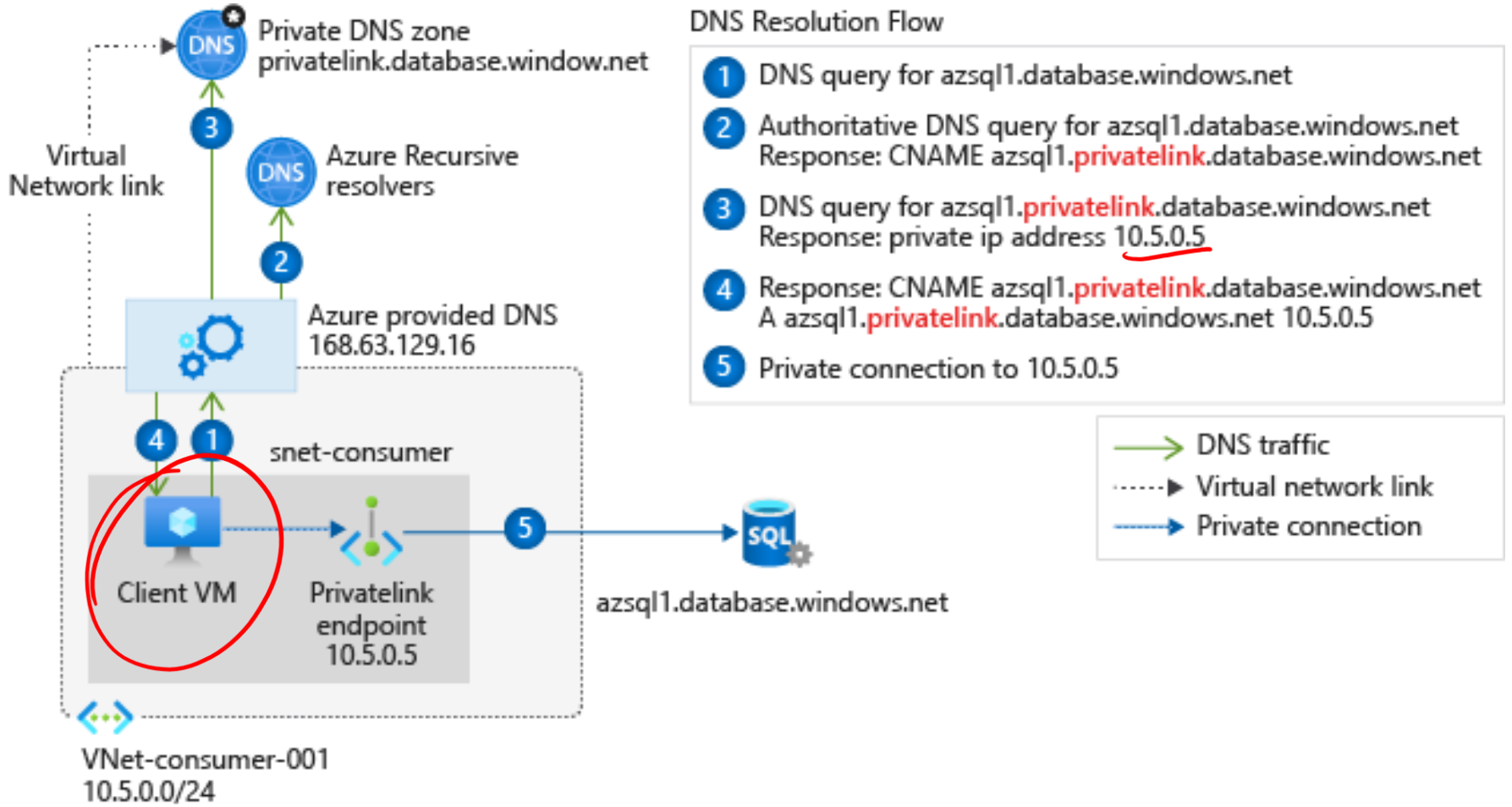
- Azure Private Endpoint DNS configuration
- Azure services Private DNS zone configuration examples
- Virtual network workloads without custom DNS server
- On-premises workloads using Azure DNS Private Resolver
- Virtual network and on-premises workloads using a DNS forwarder
- Learning Recap

Azure Private Endpoint DNS configuration

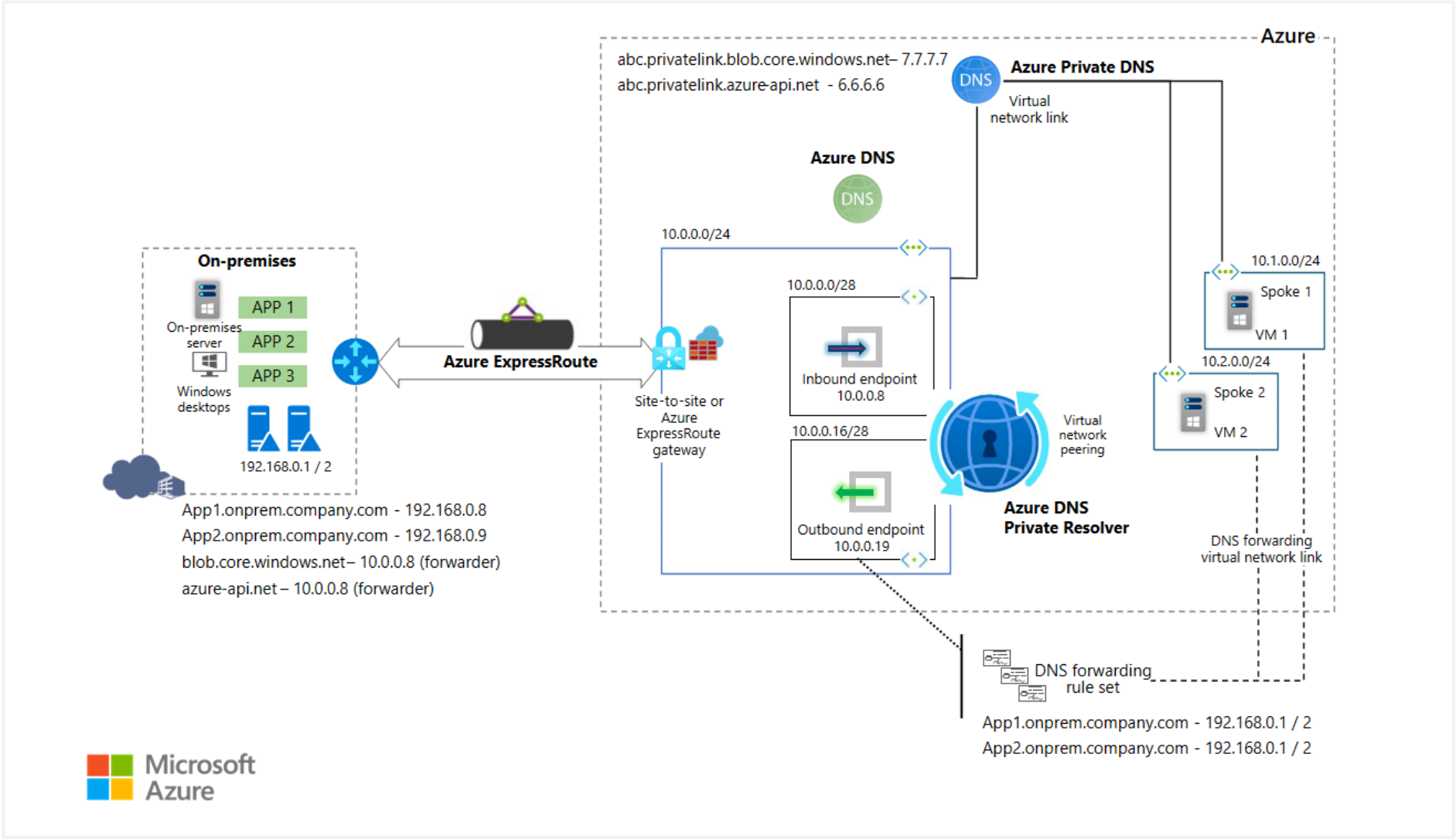
High-level architecture for enterprise environments with central DNS resolution and where name resolution for Private Endpoint resources is done via Azure Private DNS



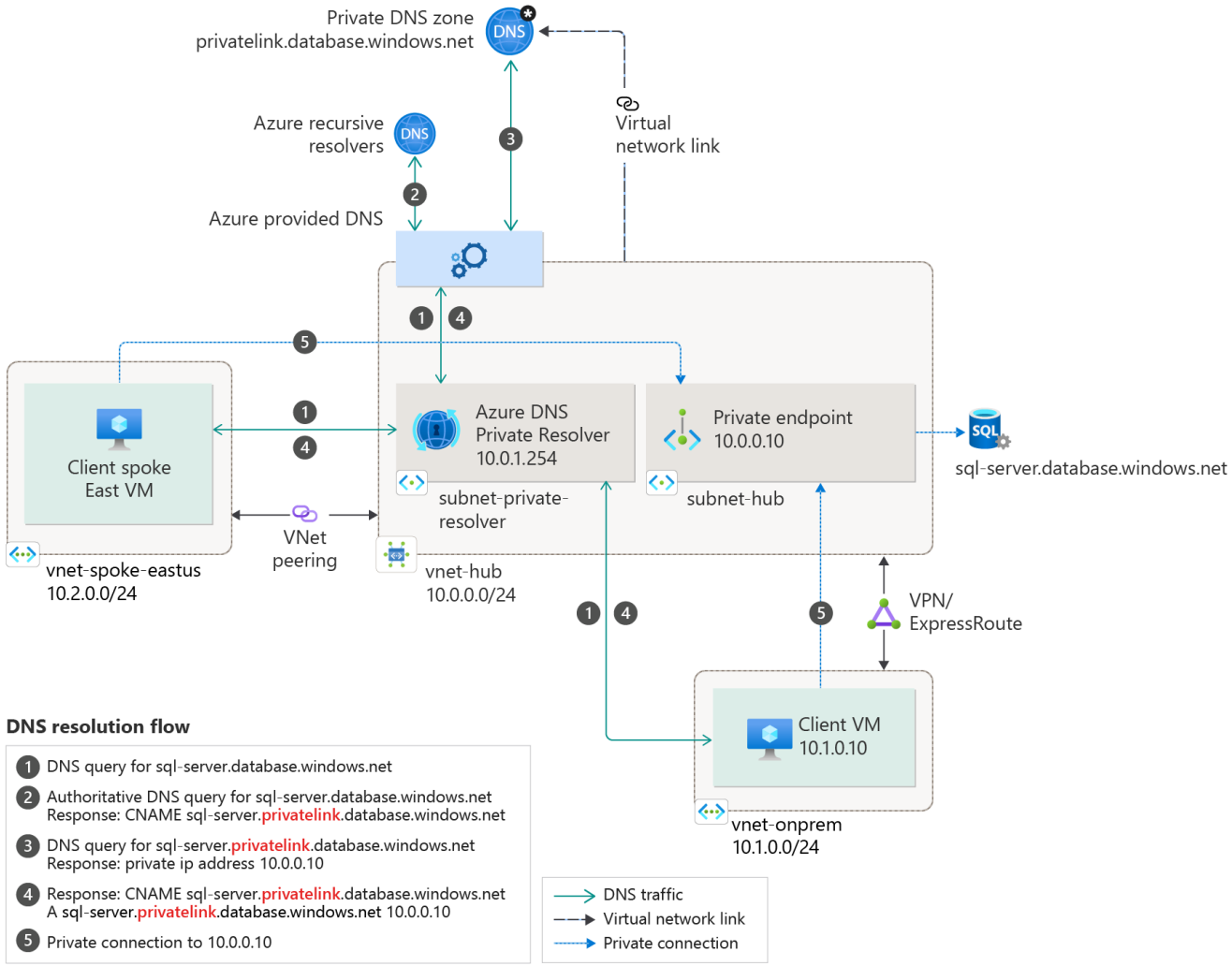
Virtual network workloads without custom DNS server



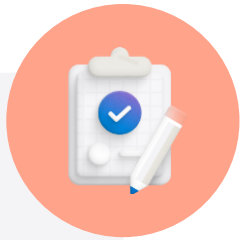
On-premises workloads using Azure DNS Private Resolver



Virtual network and on-premises workloads using a DNS forwarder



Learning Recap - Create an Azure Private Endpoint



Check your knowledge questions and additional study

[Quickstart - Create a Private Endpoint using the Azure portal | Microsoft Docs]

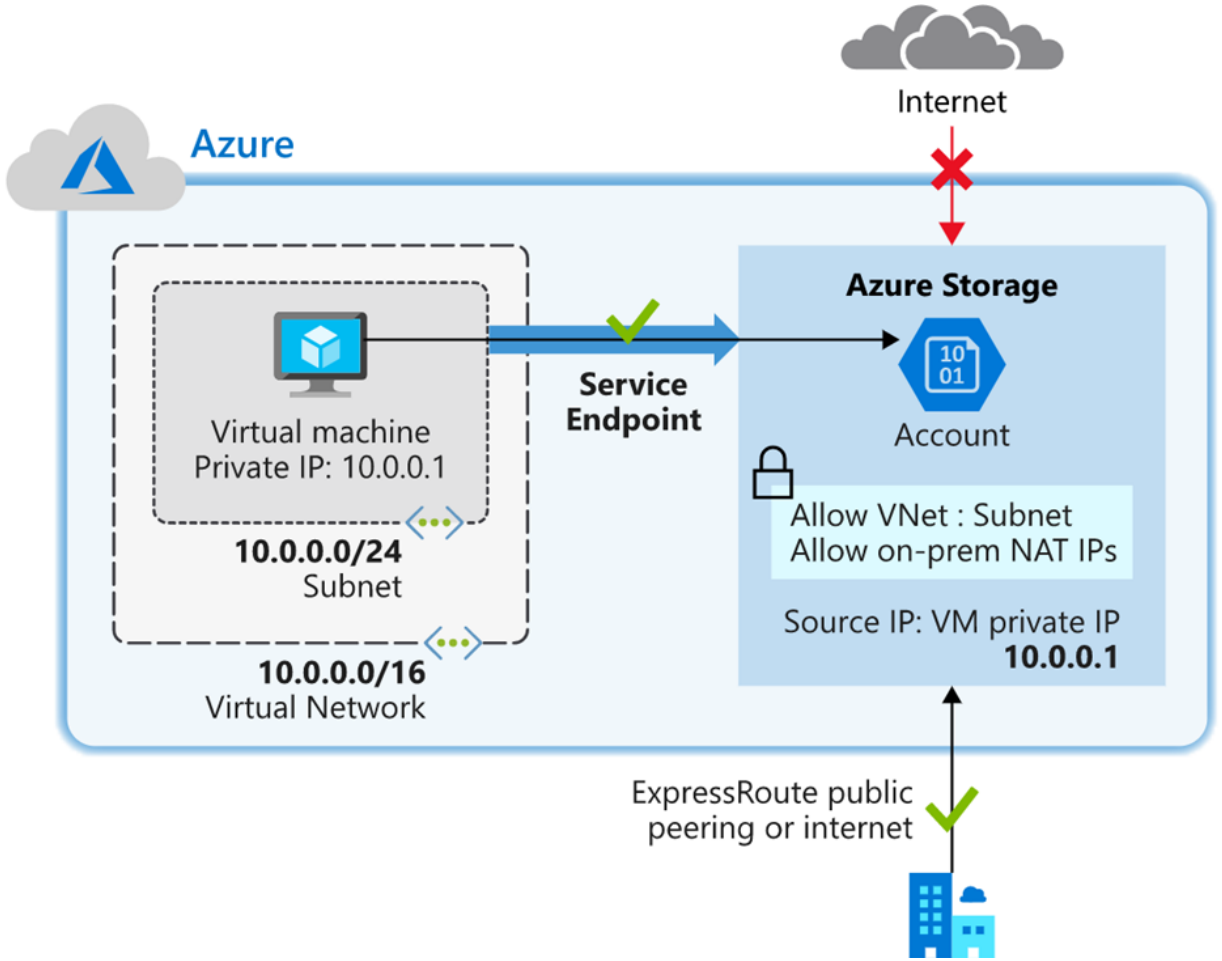
Lab 7:

Restrict network access to PaaS resources with virtual network service endpoints

Create an Azure Private Endpoint using Azure PowerShell

Exercise - Restrict network access to PaaS resources

- Create a virtual network
- Enable a service endpoint
- Restrict network access for a subnet
- Add additional outbound rules
- Allow access for RDP connections
- Restrict network access to a resource
- Create a file share in the storage account
- Restrict network access to a subnet
- Create virtual machines
- Confirm access to storage account
- Clean up resources



Create an Azure Private Endpoint using Azure PowerShell

Task 1: Create a resource group

Task 2: Create a virtual network and bastion host

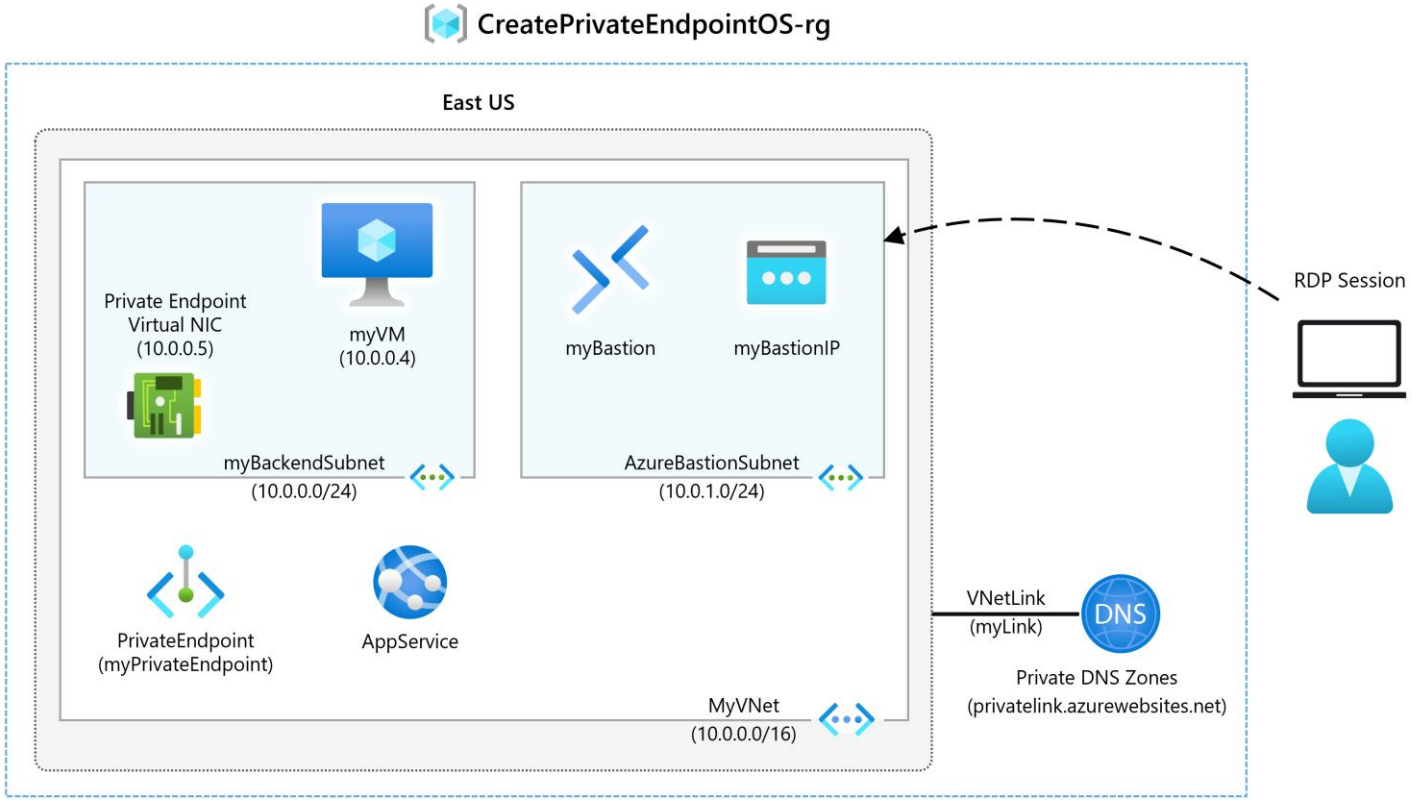
Task 3: Create a test virtual machine

Task 4: Create a Private Endpoint

Task 5: Configure the private DNS zone

Task 6: Test connectivity to the Private Endpoint

Task 7: Clean up resources



End of presentation