Virtual Network peering
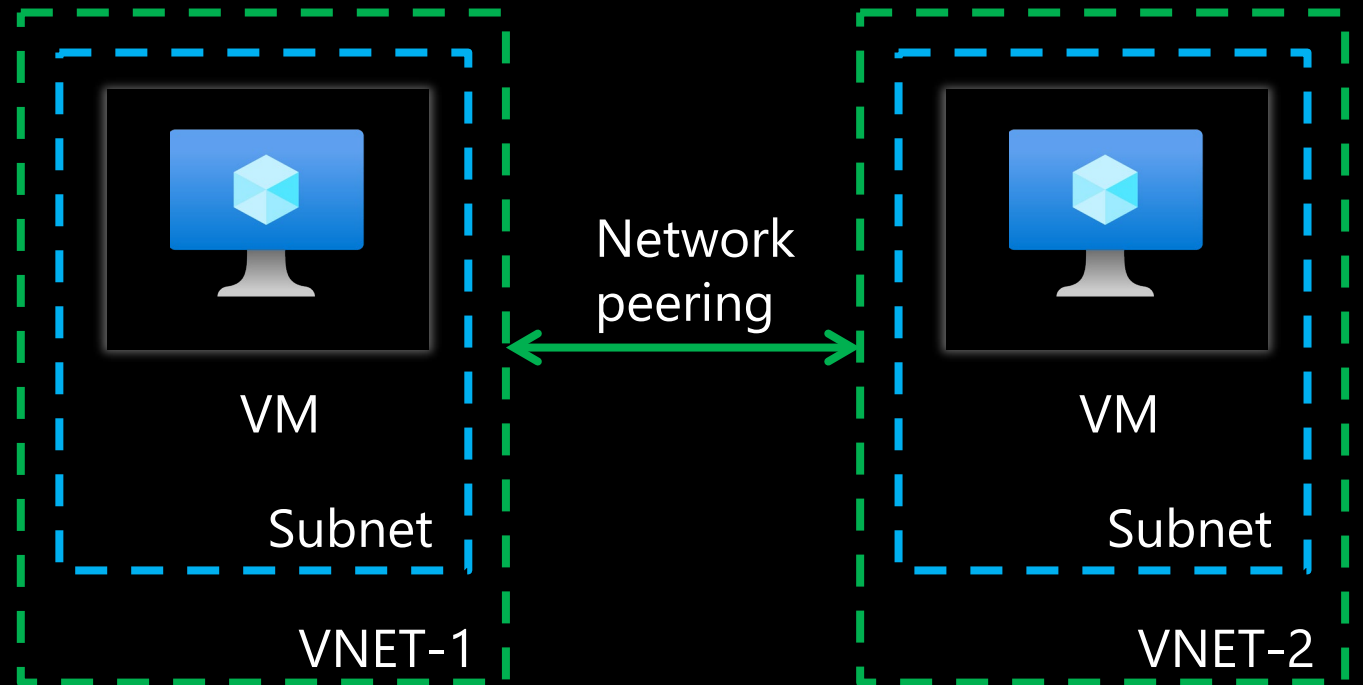
Connect two or more VNETs.

Enables resources within peered VNETs to communicate with each other privately.

Traffic between VMs in peered VNETs uses the Microsoft backbone infrastructure.

VM

Subnet

VNET-1

Network peering

VM

Subnet

VNET-2

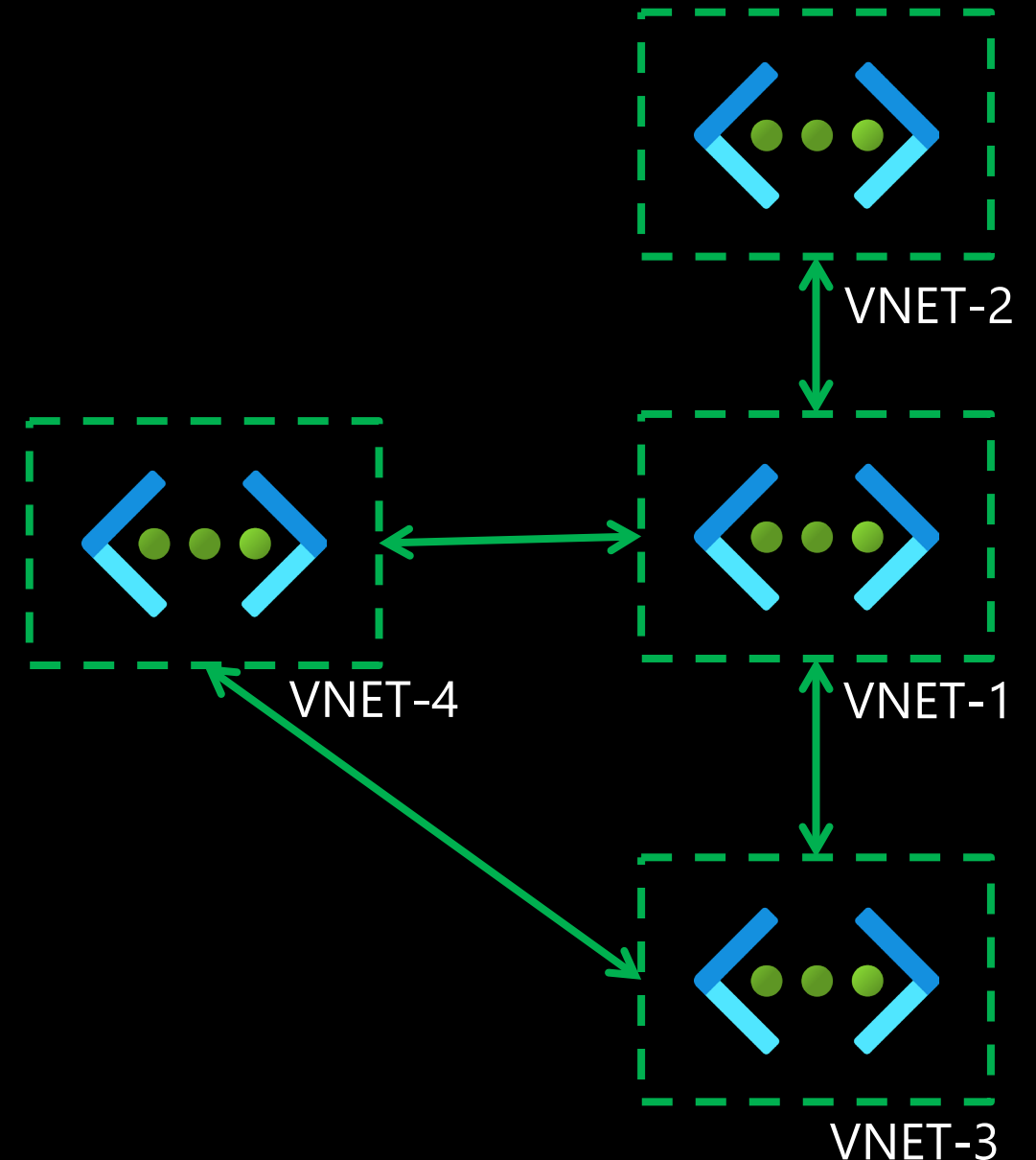# Virtual Network peering

A VNET could be peered to one or many VNETs.

Address ranges should not overlap.

Peering is not transitive.
VNET 2 and 4 cannot communicate directly.
Could be done with NVA & IP Forwarding.

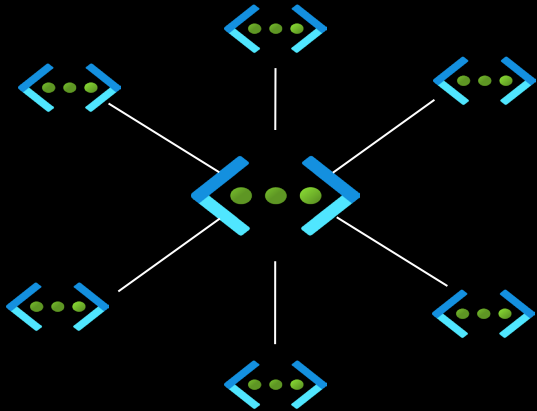Peered VNETs could be in different Azure regions.
This is Global peering.
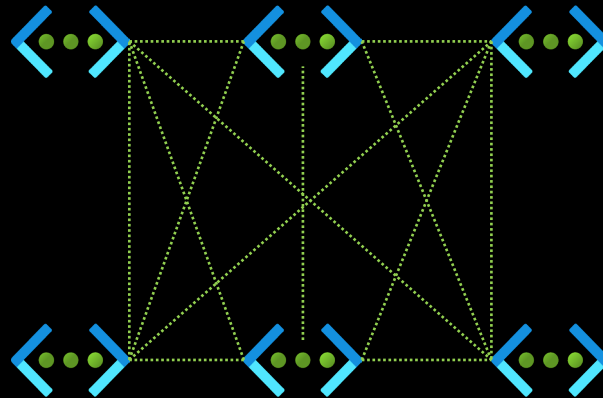
VNET-2

VNET-4

VNET-1

VNET-3

VNET peering and topologies
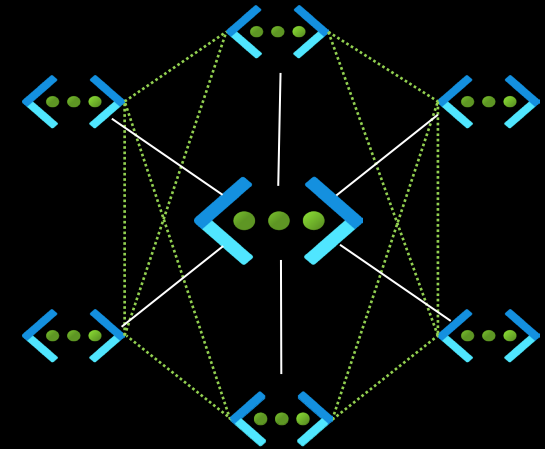
Hub and Spoke

Use case: Gateways (ExpressRoute, VPN Gateways), Firewall, **common infrastructure** shared by spoke virtual networks in the hub.

Mesh

Use case: All workloads in the virtual networks can **communicate to each other.**

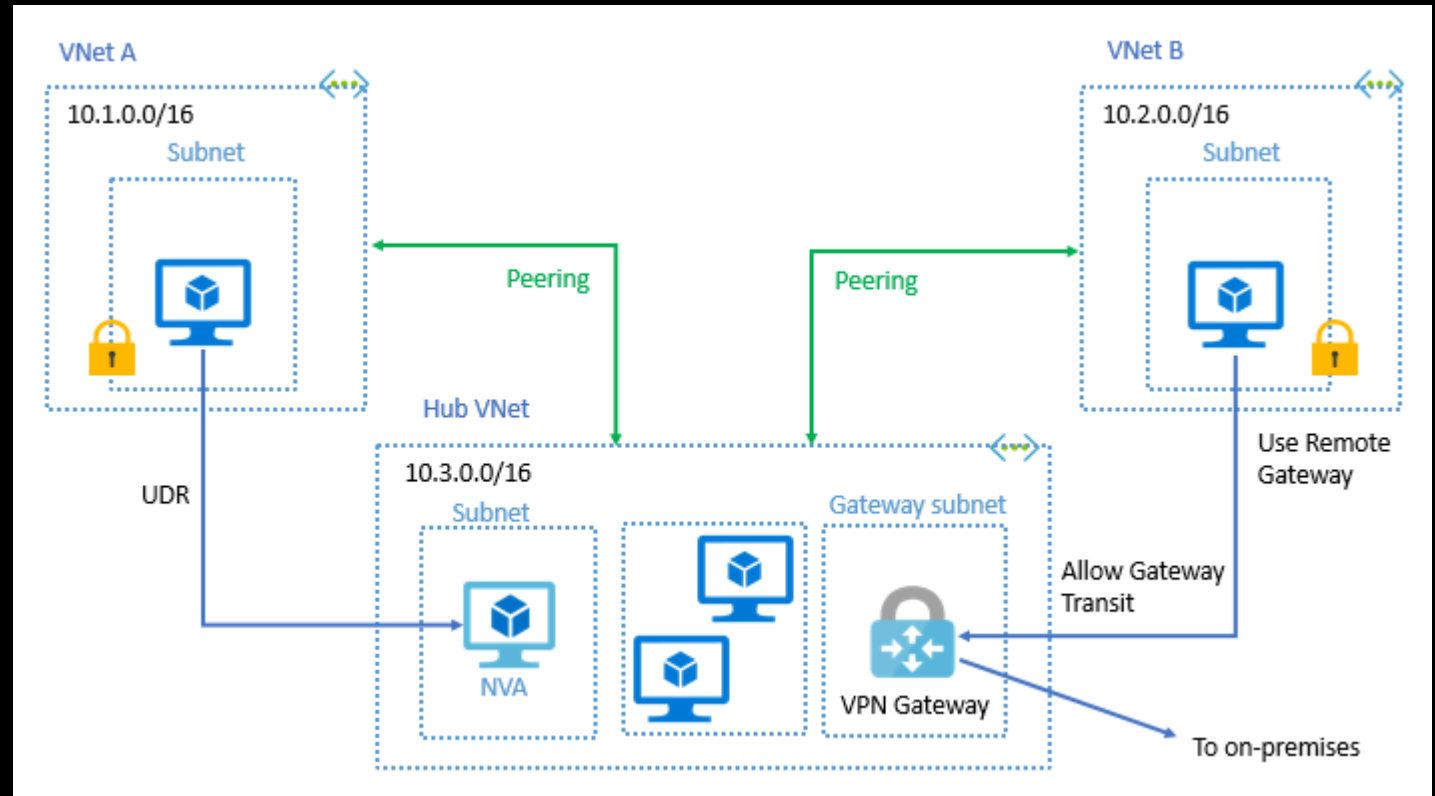## Hub & Spoke with direct connectivity between spokes

Use case: Spokes can utilize the common infrastructure in the hub, at the same time, and **talk to each other directly without a hop in the hub**.

Gateway and connectivity with on-premise networks

To connect o on-premises networks, you can use **Gateway**.

Gateway could be used also for network connectivity.

Creating VNET peering

Add peering ...
vnet-vm-win-11-gpu

This virtual network

Peering link name *

☑ Allow 'vnet-vm-win-11-gpu' to access the peered virtual network ⓘ

☐ Allow 'vnet-vm-win-11-gpu' to receive forwarded traffic from the peered virtual network ⓘ

☐ Allow gateway in 'vnet-vm-win-11-gpu' to forward traffic to the peered virtual network ⓘ

☐ Enable 'vnet-vm-win-11-gpu' to use the peered virtual networks' remote gateway ⓘ

Remote virtual network

Peering link name *

Virtual network deployment model ⓘ
- ⦿ Resource manager
- ○ Classic

☐ I know my resource ID ⓘ

Subscription * ⓘ

Microsoft-Azure-NonProd ⌄

Virtual network *

☑ Allow the peered virtual network to access 'vnet-vm-win-11-gpu' ⓘ

☑ Allow the peered virtual network to receive forwarded traffic from 'vnet-vm-win-11-gpu' ⓘ

☐ Allow gateway in the peered virtual network to forward traffic to 'vnet-vm-win-11-gpu' ⓘ

☐ Enable the peered virtual network to use 'vnet-vm-win-11-gpu's' remote gateway ⓘ

Add

Home > Virtual networks > vnet-vm-win-11-gpu

⟨∘⟩ vnet-vm-win-11-gpu | Peerings ☆ ...
Virtual network

🔍 Search «

+ Add   ↻ Refresh | ↻ Sync

🔍 Filter by name...   Peering status == all

Name ↑↓	Peering status ↑↓	Peer ↑↓
Add a peering to get started		

- ⟨∘⟩ Network manager
- 🌐 DNS servers
- ⟨∘⟩ Peerings
- ⟨∘⟩ Service endpoints
- ⟨∘⟩ Private endpoints