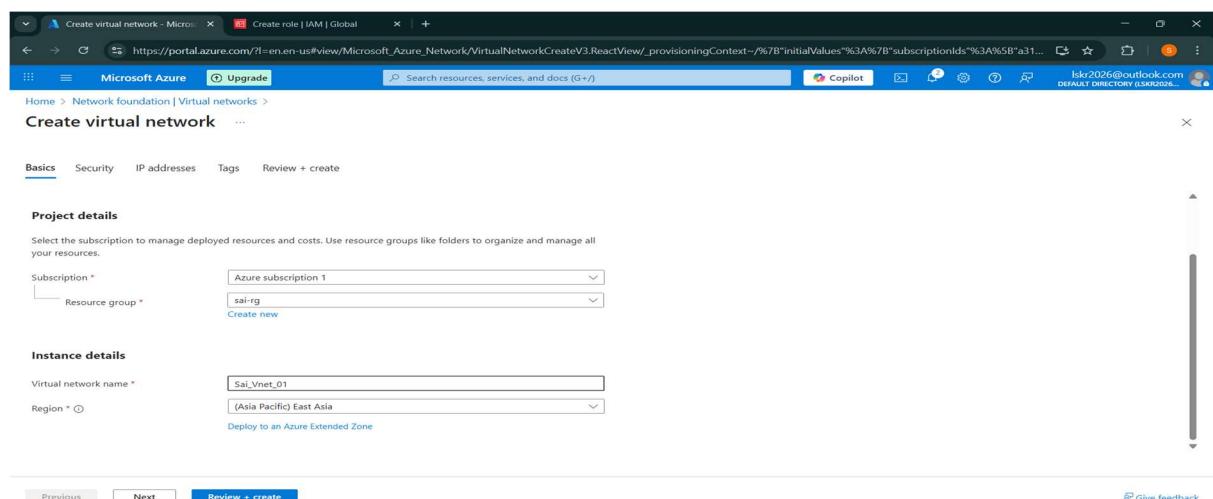


# VNET Peering

- To make communication between two resources.
- Vnet Peering is a point to point connection.
- Prerequisite is there is no ip overlap.
- But we create two or more vnet's with same ip but it's not work in peering

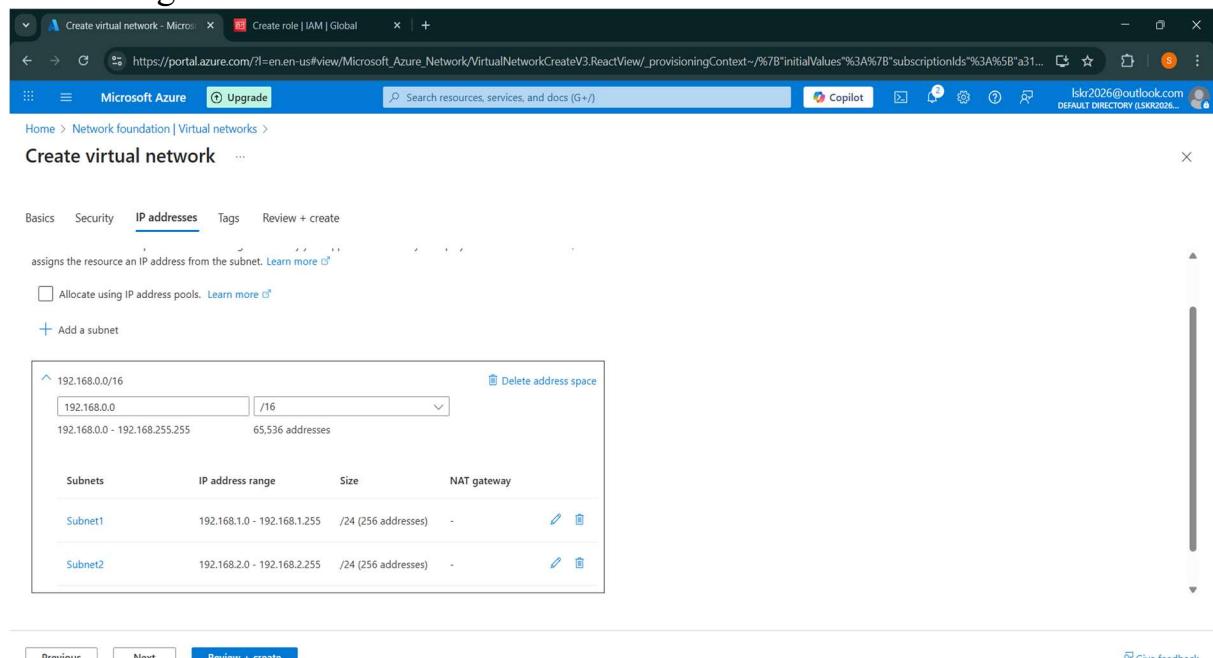
## Local Peering

- Creating a Vnet in one Resource Group.



The screenshot shows the 'Create virtual network' wizard in the Azure portal. On the 'Basics' tab, the 'Subscription' dropdown is set to 'Azure subscription 1' and the 'Resource group' dropdown is set to 'sai-rg'. The 'Virtual network name' field contains 'Sai\_Vnet\_01' and the 'Region' dropdown is set to '(Asia Pacific) East Asia'. At the bottom, there are 'Previous', 'Next', and 'Review + create' buttons.

- Creating two subnets in Vnet.



The screenshot shows the 'Create virtual network' wizard on the 'IP addresses' tab. The IP address space is assigned as '192.168.0.0/16', which provides '65,536 addresses'. There are two subnets listed: 'Subnet1' with the range '192.168.1.0 - 192.168.1.255' and 'Size /24 (256 addresses)', and 'Subnet2' with the range '192.168.2.0 - 192.168.2.255' and 'Size /24 (256 addresses)'. At the bottom, there are 'Previous', 'Next', and 'Review + create' buttons.

→Creating a Virtual machine with subnet1.

The screenshot shows the 'Create a virtual machine' wizard on the Microsoft Azure portal. The 'Subscription' dropdown is set to 'Azure subscription 1'. The 'Resource group' dropdown is set to 'sai-rg'. Under 'Instance details', the 'Virtual machine name' is 'saiVm01', 'Region' is '(Asia Pacific) East Asia', 'Availability options' is 'No infrastructure redundancy required', 'Security type' is 'Standard', and the 'Image' is 'Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)'. The 'VM architecture' is 'Arm64'. At the bottom, there are buttons for '< Previous', 'Next : Disks >', and 'Review + create'.

→We can check networking and make sure you use your vnet and subnet you have created.

→Finally check review and create.

The screenshot shows the 'Networking' tab of the 'Create a virtual machine' wizard. It includes sections for 'Virtual network', 'Subnet', 'Public IP', 'NIC network security group', and 'Public inbound ports'. The 'Virtual network' is 'Sai\_Vnet\_01 (sai-rg)', 'Subnet' is 'Subnet2', 'Public IP' is '(new) saiVm02-ip', 'NIC network security group' is 'Basic', and 'Public inbound ports' is 'Allow selected ports'. Navigation buttons at the bottom include '< Previous', 'Next : Management >', and 'Review + create'.

- Create another Vnet with different Ip.
- Creating Virtual machine in secount vnet.

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*  Azure subscription 1

Resource group \*  sai-rg

Create new

Virtual machine name \*  saiVm03

Region \*  (Asia Pacific) East Asia

Deploy to an Azure Extended Zone

Availability options  No infrastructure redundancy required

Security type  Trusted launch virtual machines

Image \*  Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)

VM architecture  x64

< Previous Next : Disks > Review + create Give feedback

- Selecting Virtual network and subnet to the second vnet.

Basics Disks Networking Management Monitoring Advanced Tags Review + create

Define network connectivity for your virtual machine by configuring network interface card (NIC) settings. You can control ports, inbound and outbound connectivity with security group rules, or place behind an existing load balancing solution.

Learn more

Network interface

When creating a virtual machine, a network interface will be created for you.

Virtual network  Sai\_Vnet-02 (sai-rg)

Edit virtual network

Subnet \*  Subnet

Edit subnet 192.169.1.0 - 192.169.1.255 (256 addresses)

Public IP  (new) saiVm03-ip

Create new

Public IP addresses have a nominal charge. [Estimate price](#)

NIC network security group  Basic

None

Advanced

Public inbound ports \*  Allow selected ports

< Previous Next : Management > Review + create Give feedback

- After creating two Vnet's and Each Vnet contains a virtual machine.
- Then go to the any Vnet and click on settings you can see peerings

→ Then select Peering

The screenshot shows the Azure portal interface for managing a virtual network named 'Sai\_Vnet\_01'. In the left sidebar, under 'Settings', the 'Peering' option is selected. The main content area displays the 'Capabilities' tab, which includes four cards: 'DDoS protection', 'Azure Firewall', 'Peering', and 'Private endpoints'. The 'Peering' card is currently selected and shows its status as 'Not configured'. Other tabs like 'Topology' and 'Properties' are also visible.

→ And click on add

→ Select virtual network which we want to connect.

→ Enter peer link any name

→ Finally click on add

The screenshot shows the 'Add peering' configuration page. At the top, it says 'Add peering ...'. Below that, there's a summary section for 'Remote virtual network' with fields for 'Peer link name' (set to 'vnet01-vnet03'), 'I know my resource ID' (unchecked), 'Subscription' (set to 'Azure subscription 1'), and 'Virtual network' (set to 'Sai\_Vnet-02 (sai-rg)'). Underneath, the 'Remote virtual network peering settings' section contains several checkboxes: 'Allow 'Sai\_Vnet-02' to access 'Sai\_Vnet\_01'' (checked), 'Allow 'Sai\_Vnet-02' to receive forwarded traffic from 'Sai\_Vnet\_01'' (unchecked), 'Allow gateway or route server in 'Sai\_Vnet-02' to forward traffic to 'Sai\_Vnet\_01'' (unchecked). At the bottom, there are 'Add' and 'Cancel' buttons.

→ Finally we see this

Screenshot of the Microsoft Azure portal showing the Virtual network peering section for 'Sai\_Vnet\_01'. The table lists one item:

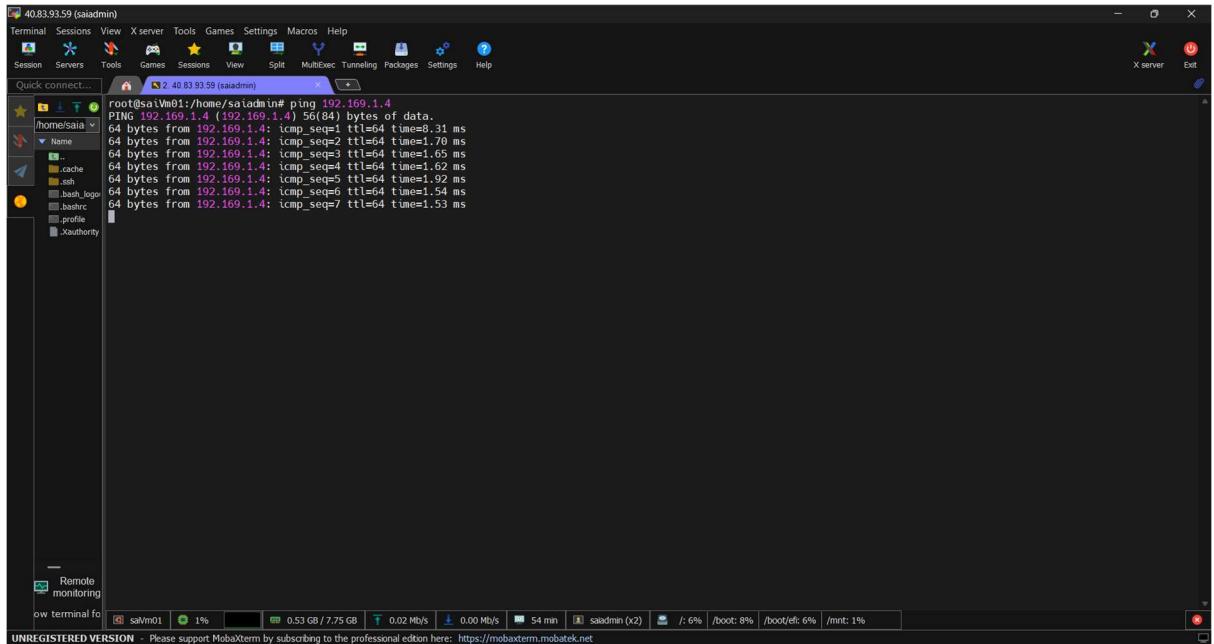
Name	Peering sync status	Peering state	Remote Vnet	Virt...	Cross-tenant
vnet03-vnet01	Fully Synchronized	Connected	Sai_Vnet...	Disabled	No

→ Check the connection using ping command.

→ Login into one mission

→ Then copy another mission privateIP

→ Write ping <pvtIP>



## Gloabal Peering

→Here we can create another vnet in another region

→Here I can create in Africa region

The screenshot shows the 'Create virtual network' wizard in the Azure portal. The 'Basics' tab is selected. In the 'Project details' section, 'Subscription' is set to 'Azure subscription 1' and 'Resource group' is set to 'sai-rg'. In the 'Instance details' section, 'Virtual network name' is 'saiVnet' and 'Region' is '(Africa) South Africa North'. At the bottom, there are 'Previous', 'Next', and 'Review + create' buttons.

→Ip address is 10 series

The screenshot shows the 'Create virtual network' wizard in the Azure portal. The 'IP addresses' tab is selected. It shows an 'Allocate using IP address pools' section with a warning about overlapping with 'vm01'. A '10.0.0.0/16' pool is listed, showing '10.0.0.0 - 10.0.255.255' and '65,536 addresses'. A 'Subnets' table shows one entry: 'default' with 'IP address range' '10.0.0.0 - 10.0.0.255', 'Size' '/24 (256 addresses)', and 'NAT gateway' '-'. At the bottom, there are 'Add IPv4 address space', 'Previous', 'Next', and 'Review + create' buttons.

## →Creating a virtual machines

The screenshot shows the Azure portal's 'Create a virtual machine' wizard. The first step, 'Project details', is displayed. Key settings include:

- Subscription: Azure subscription 1
- Resource group: sai-rg
- Virtual machine name: saiVm04
- Region: (Africa) South Africa North
- Availability options: No infrastructure redundancy required
- Security type: Standard
- Image: Ubuntu Server 24.04 LTS - x64 Gen2 (free services eligible)

At the bottom, there are buttons for '< Previous', 'Next : Disks >', and 'Review + create'.

## →Selecting virtual network and subnet

The screenshot shows the 'Networking' step of the 'Create a virtual machine' wizard. The selected configuration is:

- Virtual network: saiVnet (sai-rg)
- Subnet: default (10.0.0.0 - 10.0.0.255 (256 addresses))
- Public IP: (new) saiVm04-ip
- NIC network security group: Basic
- Public inbound ports: All selected ports

At the bottom, there are buttons for '< Previous', 'Next : Management >', and 'Review + create'.

→Then go to peering

→Select a Virtual network

→Go to settings

→Select Peering

→Click on add

→Write Peering link name

→Select Subscription and Virtual network you want to connect.

Peering link name \*

I know my resource ID

Subscription \*

Virtual network \*

Remote virtual network peering settings

Allow 'Sai\_Vnet-02' to access 'saiVnet'

Allow 'Sai\_Vnet-02' to receive forwarded traffic from 'saiVnet'

Allow gateway or route server in 'Sai\_Vnet-02' to forward traffic to 'saiVnet'

Add Cancel Give feedback

→Login to the machine and copy the pvtip of another machine

→ping <pvtip>

```
root@saivm04:/home/saadmin# ping 192.169.1.4
PING 192.169.1.4 (192.169.1.4) 56(84) bytes of data.
64 bytes from 192.169.1.4: icmp_seq=1 ttl=64 time=266 ms
64 bytes from 192.169.1.4: icmp_seq=2 ttl=64 time=265 ms
64 bytes from 192.169.1.4: icmp_seq=3 ttl=64 time=264 ms
64 bytes from 192.169.1.4: icmp_seq=4 ttl=64 time=267 ms
64 bytes from 192.169.1.4: icmp_seq=5 ttl=64 time=264 ms
64 bytes from 192.169.1.4: icmp_seq=6 ttl=64 time=264 ms
64 bytes from 192.169.1.4: icmp_seq=7 ttl=64 time=273 ms
```