Virtual network peering

Virtual network peering enables you to seamlessly connect two or more Virtual Networks in Azure. The virtual networks appear as one for connectivity purposes. The traffic between virtual machines in peered virtual networks uses the Microsoft backbone infrastructure. Like traffic between virtual machines in the same network, traffic is routed through Microsoft's private network only.

Azure supports the following types of peering:

- Virtual network peering: Connect virtual networks within the same Azure region.
- Global virtual network peering: Connecting virtual networks across Azure regions.

The benefits of using virtual network peering, whether local or global, include:

- A low-latency, high-bandwidth connection between resources in different virtual networks.
- The ability for resources in one virtual network to communicate with resources in a different virtual network.
- The ability to transfer data between virtual networks across Azure subscriptions, Azure Active Directory tenants, deployment models, and Azure regions.
- The ability to peer virtual networks created through the Azure Resource Manager.
- The ability to peer a virtual network created through Resource Manager to one created through the classic deployment model. To learn more about Azure deployment models.
- No downtime to resources in either virtual network when creating the peering, or after the peering is created.

VNet peering enables you to seamlessly connect Azure virtual networks. Once peered, the VNets appear as one, for connectivity purposes. The traffic between virtual machines in the peered virtual networks is routed through the Microsoft backbone infrastructure, much like traffic is routed between virtual

machines in the same VNet, through private IP addresses only. No public internet is involved. You can peer VNets across Azure regions, too – all with a single click in the Azure Portal.

1. VNet peering - connecting VNets within the same Azure region
2. Global VNet peering - connecting VNets across Azure regions

Create virtual networks

1. On the Azure portal, select **Create a resource**.
2. Select **Networking**, and then select **Virtual network**.
3. On the **Basics** tab, enter or select the following information and accept the defaults for the remaining settings:

Setting	**Value**
Subscription	Select your subscription.
Resource group	Select **Create new** and enter *myResourceGroup*.
Region	Select **East US**.
Name	myVirtualNetwork1

4. On the **IP Addresses** tab, enter 10.0.0.0/16 for the **Address Space** field. Click the **Add subnet** button below and enter *Subnet1* for **Subnet Name** and 10.0.0.0/24 for **Subnet Address range**.
5. Select **Review + Create** and then select **Create**.
6. Complete steps 1-5 again, with the following changes:

Setting	**Value**
Name	myVirtualNetwork2
Address space	10.1.0.0/16
Resource group	Select **Use existing** and then select **myResourceGroup**.
Subnet name	Subnet2
Subnet Address range	10.1.0.0/24

Home > All resources > New >

Virtual Network

Microsoft

Virtual Network

Save for later

Microsoft

Create

Overview | Plans | Usage Information + Support

Create a logically isolated section in Microsoft Azure with this networking service. You can securely connect it to your on-premises datacenter or a single client machine using an IPsec connection. Virtual Networks make it easy for you to take advantage of the scalable, on-demand infrastructure of Azure while providing connectivity to data and applications on-premises, including systems running on Windows Server, mainframes, and UNIX.

Use Virtual Network to:

- Extend your datacenter
- Build distributed applications
- Remotely debug your applications

Home > All resources > New > Virtual Network >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. VNet is similar to a traditional network that you'd operate in your own data center, but brings with it additional benefits of Azure's infrastructure such as scale, availability, and isolation. Learn more about virtual network

Project details

Subscription * [redacted]

Resource group * [redacted]

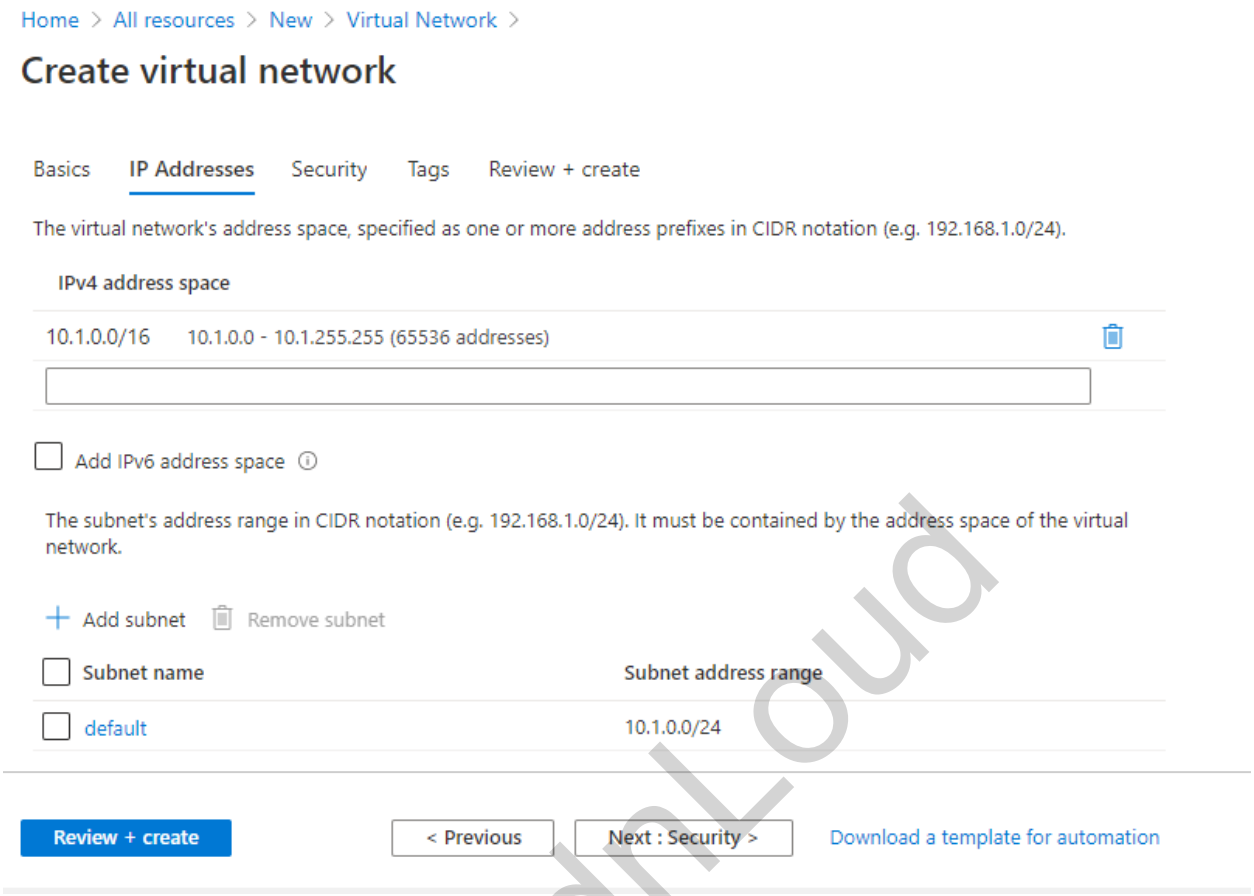
Create new

Instance details

Name * vnet1

Region * (Europe) West Europe

Review + create | < Previous | Next : IP Addresses > | Download a template for automation



Create virtual network now

Similarly create another virtual network

Home > Virtual networks >

Create virtual network

Basics | IP Addresses | Security | Tags | Review + create

Azure Virtual Network (VNet) is the fundamental building block for your private network in Azure. VNet enables many types of Azure resources, such as Azure Virtual Machines (VM), to securely communicate with each other, the internet, and on-premises networks. VNet is similar to a traditional network that you'd operate in your own data center, but brings with it additional benefits of Azure's infrastructure such as scale, availability, and isolation. Learn more about virtual network

Project details

Subscription * [redacted]

Resource group * [redacted]

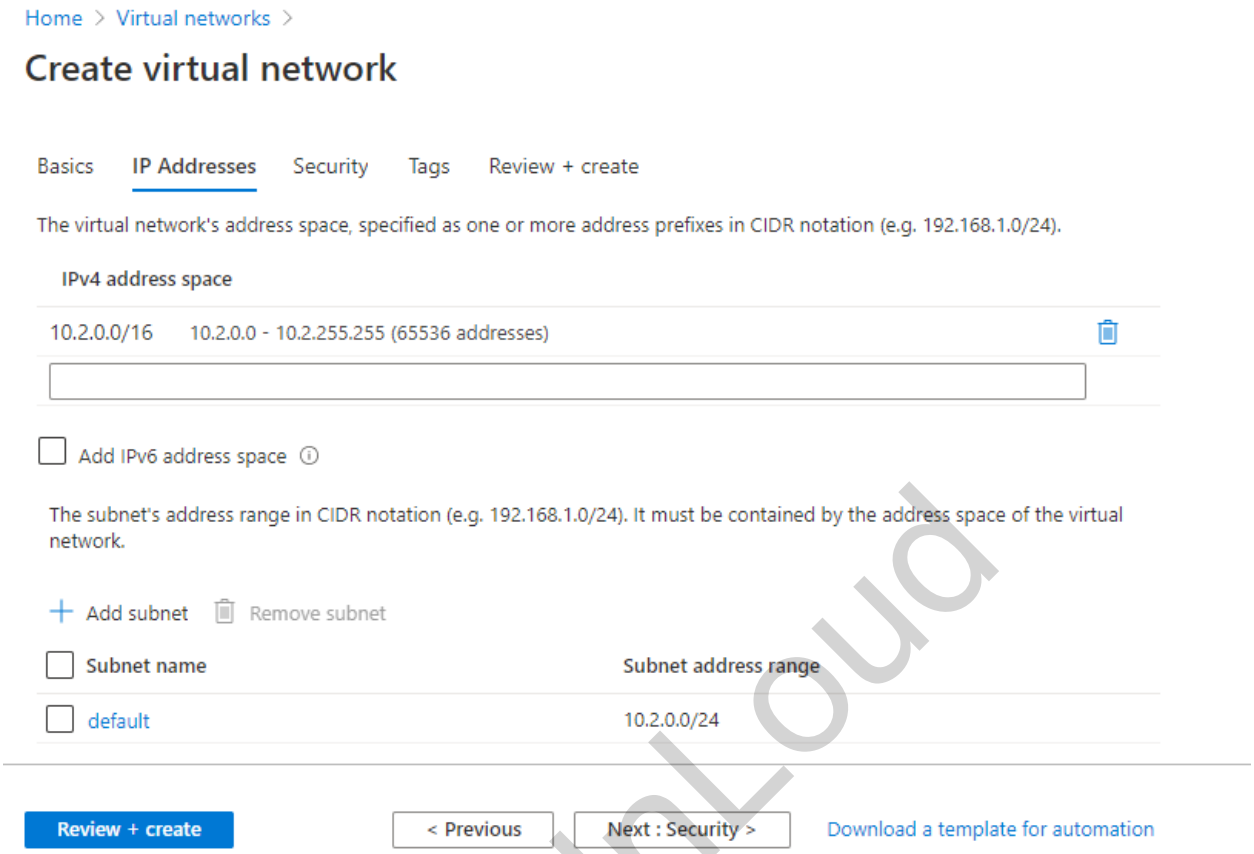
Create new

Instance details

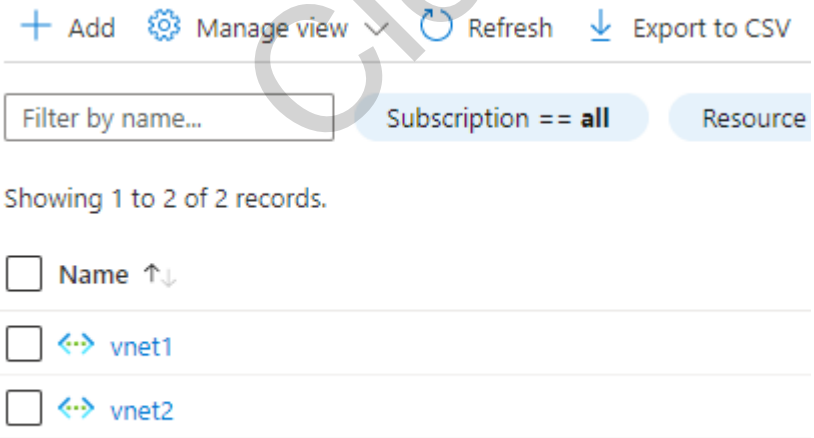
Name * vnet2

Region * (Europe) West Europe

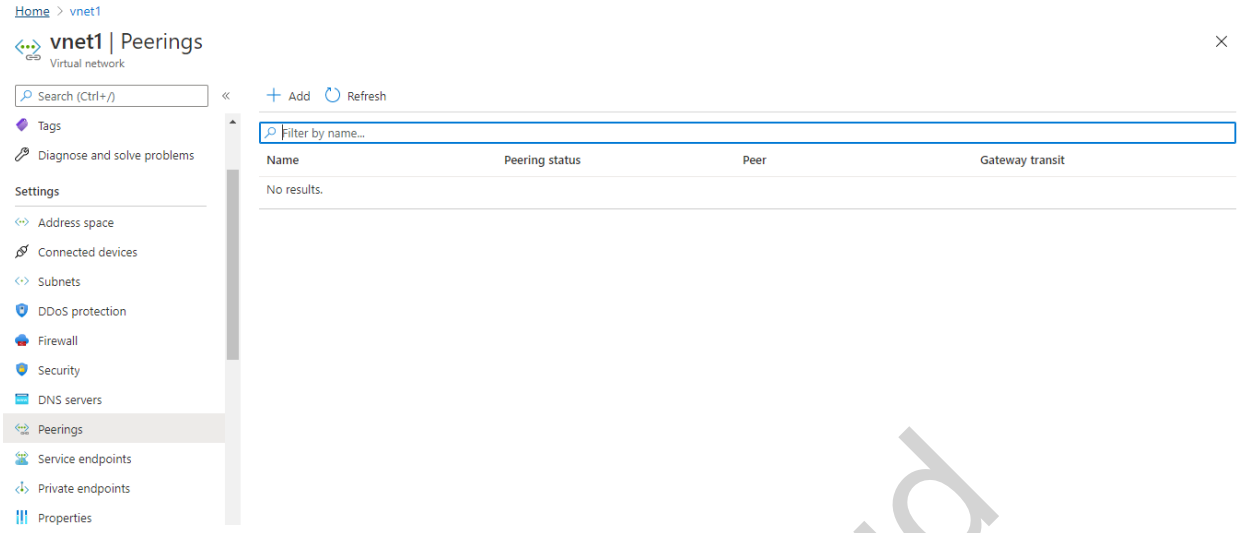
Review + create | < Previous | Next : IP Addresses > | Download a template for automation

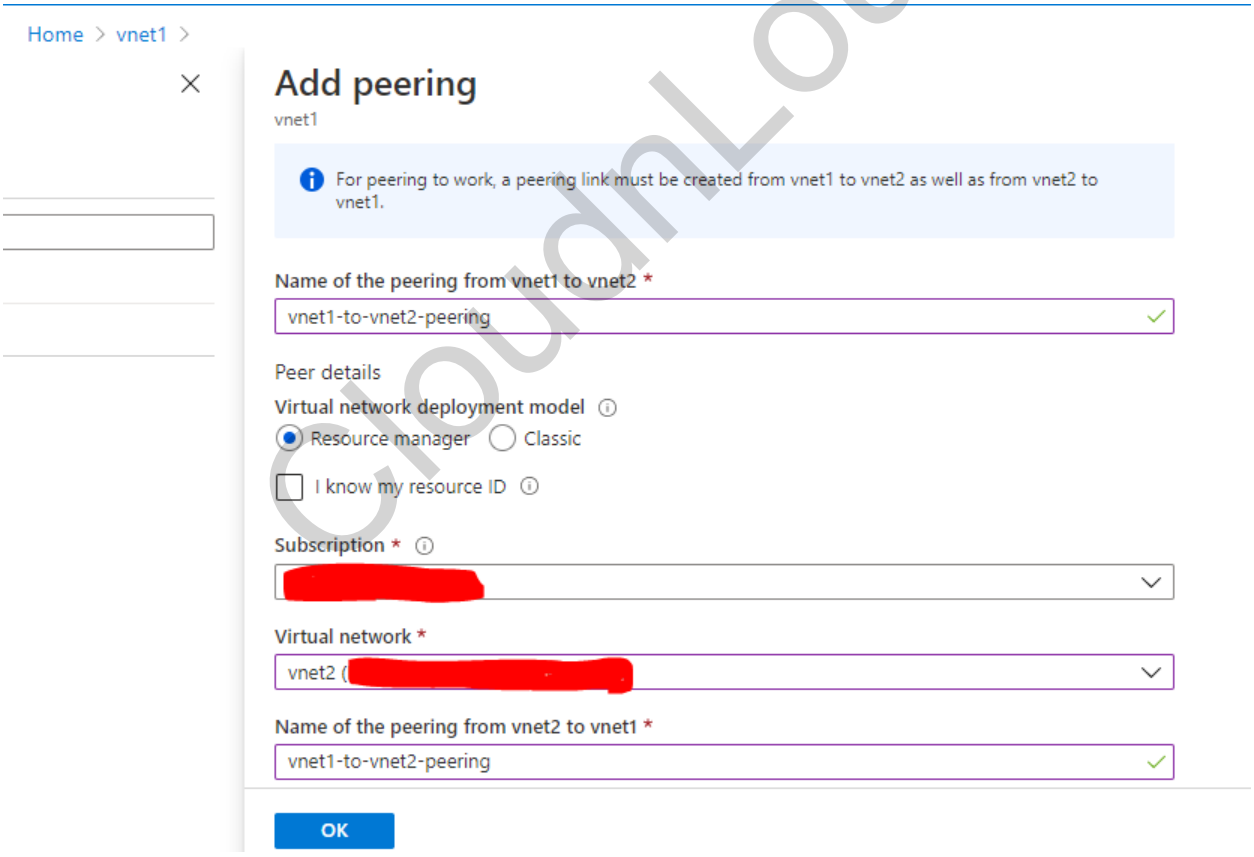


Now both virtual networks has been created

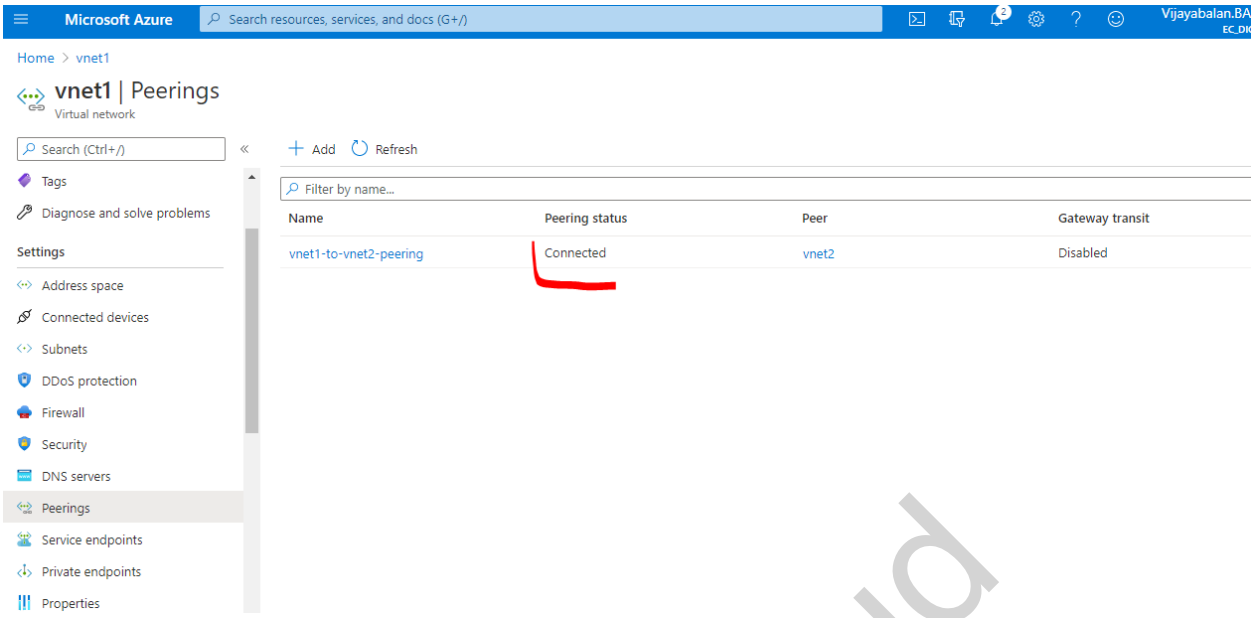


Now go to vnet1 → goto peering →



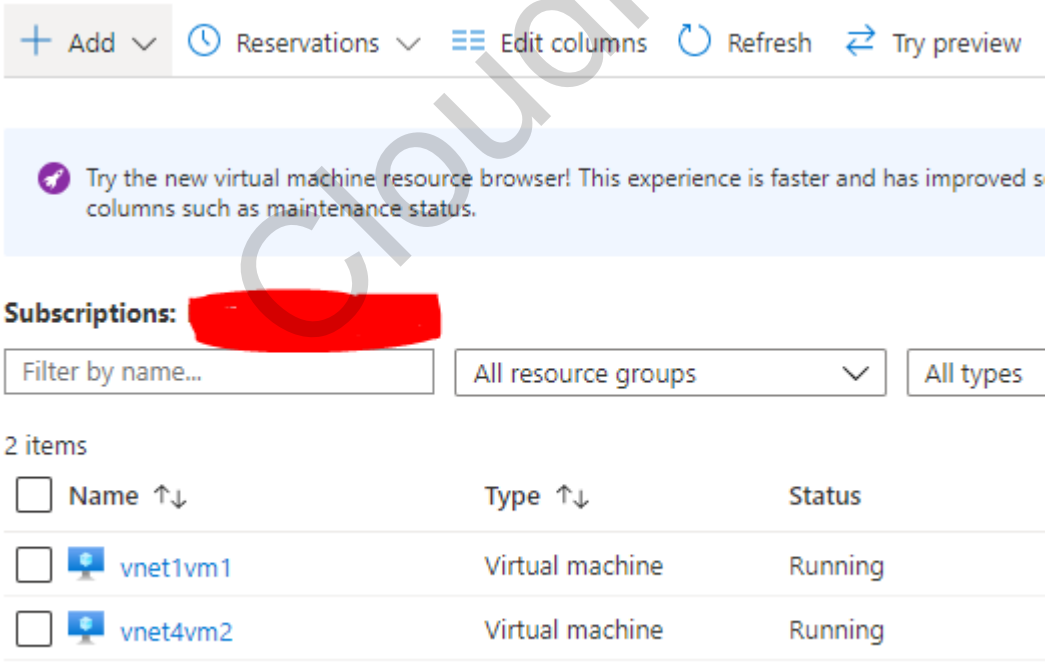


In vnet 1 you need to select vnet2 network (above screenshot)

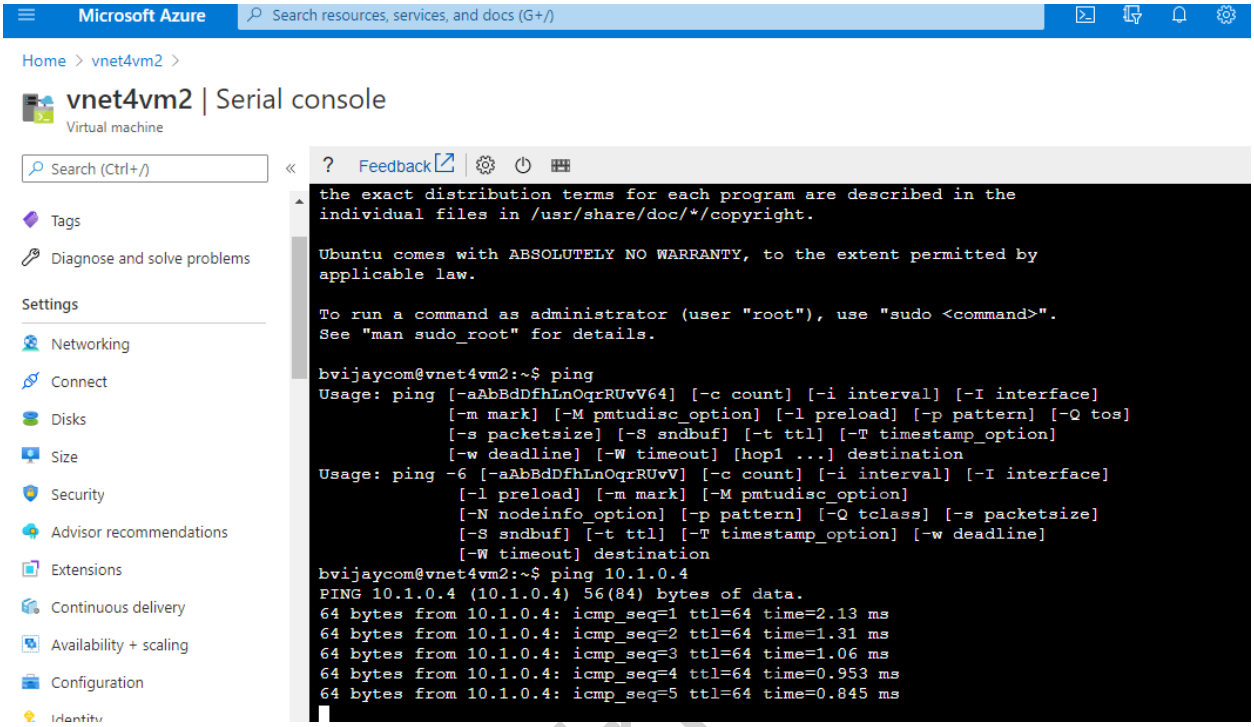


Create VM 1 in vnet1

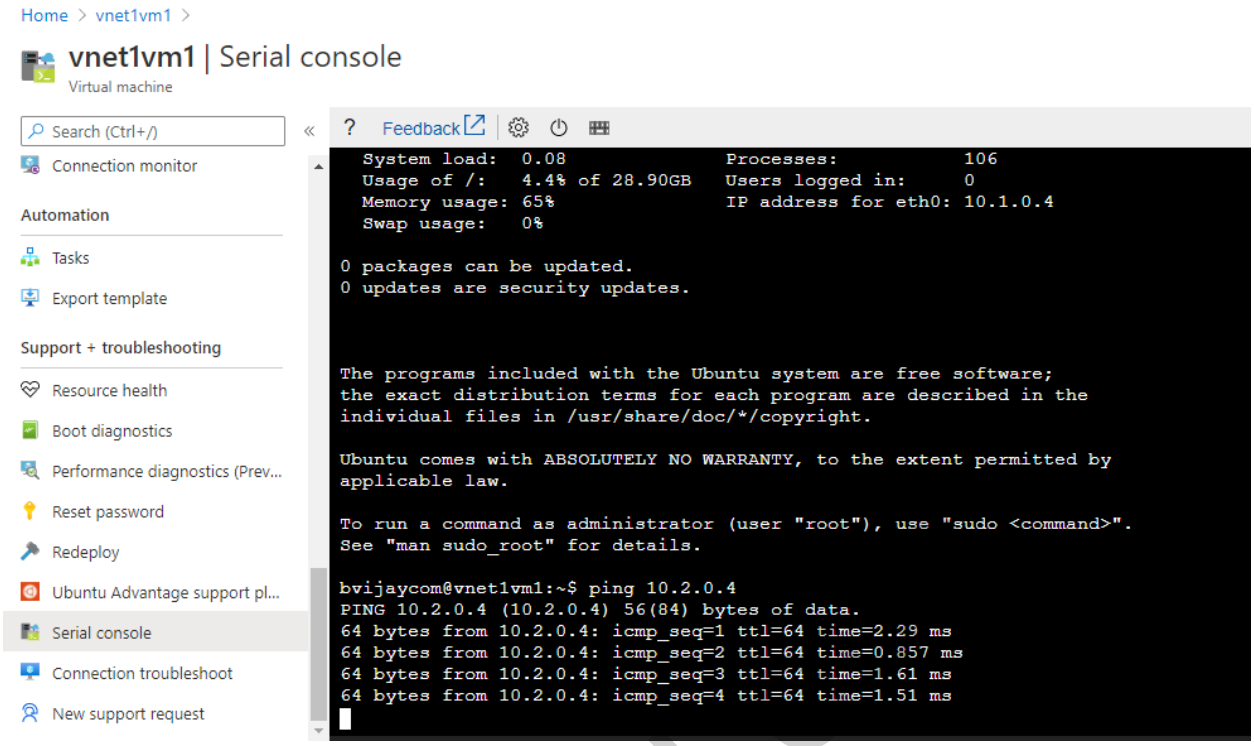
Create vm2 in vnet2



From vnet1 vm1 now am able to ping VNET2VM2 machine



From vnet2 vm2 now am able to ping VNET1VM1 machine


Home > vnet1vm1 >
vnet1vm1 | Serial console
Virtual machine
Search (Ctrl+/)
Connection monitor
Automation
Tasks
Export template
Support + troubleshooting
Resource health
Boot diagnostics
Performance diagnostics (Prev...
Reset password
Redeploy
Ubuntu Advantage support pl...
Serial console
Connection troubleshoot
New support request
Feedback
System load: 0.08 Processes: 106
Usage of /: 4.4% of 28.90GB Users logged in: 0
Memory usage: 65% IP address for eth0: 10.1.0.4
Swap usage: 0%
0 packages can be updated.
0 updates are security updates.
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
bvijaycom@vnet1vm1:~$ ping 10.2.0.4
PING 10.2.0.4 (10.2.0.4) 56(84) bytes of data.
64 bytes from 10.2.0.4: icmp_seq=1 ttl=64 time=2.29 ms
64 bytes from 10.2.0.4: icmp_seq=2 ttl=64 time=0.857 ms
64 bytes from 10.2.0.4: icmp_seq=3 ttl=64 time=1.61 ms
64 bytes from 10.2.0.4: icmp_seq=4 ttl=64 time=1.51 ms