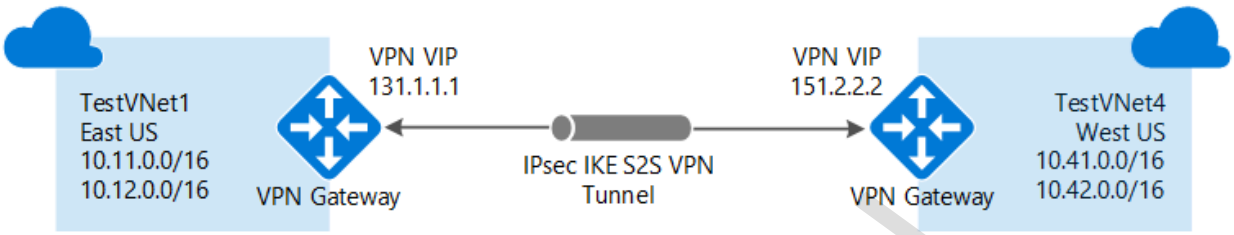
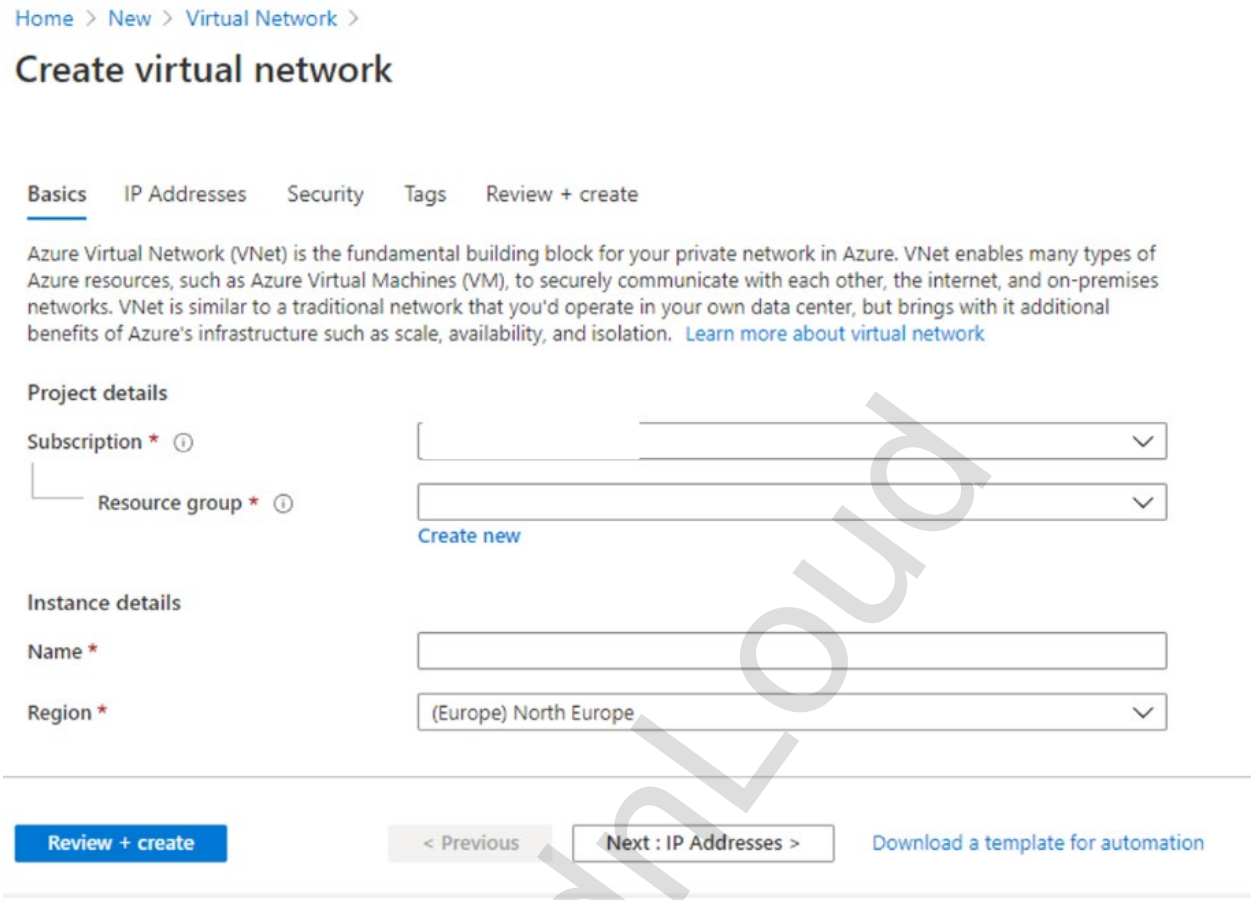
VNet-to-VNet VPN gateway



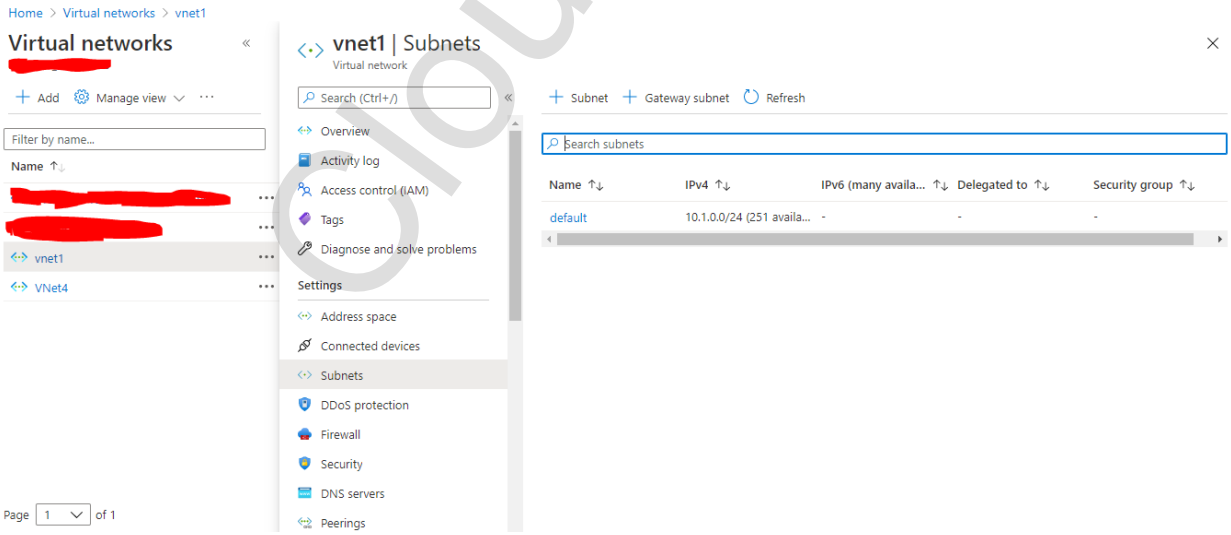
Example settings

Values for VNet1:

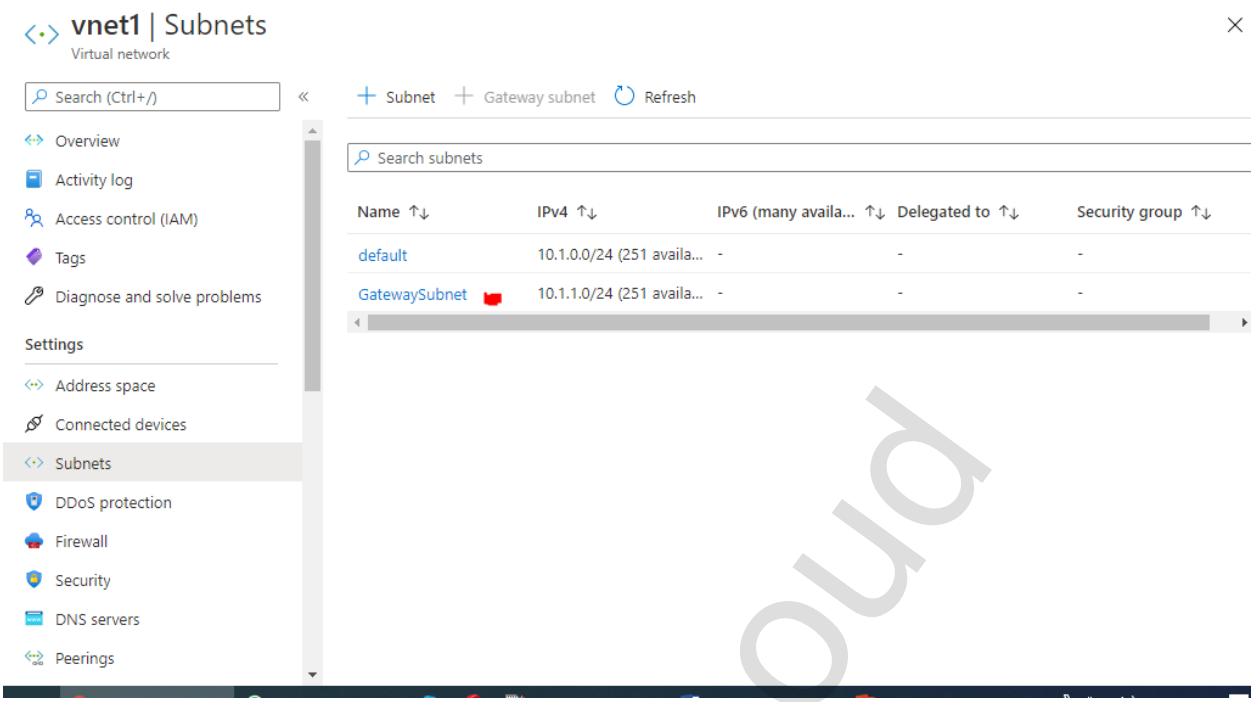
- **Virtual network settings**
  - **Name**: VNet1
  - **Address space**: 10.1.0.0/16
  - **Subscription**: Select the subscription you want to use.
  - **Resource group**: TestRG1
  - **Location**: East US
  - **Subnet**
    - **Name**: FrontEnd
    - **Address range**: 10.1.0.0/24
  - **Gateway subnet**:
    - **Name**: *GatewaySubnet* is autofilled
    - **Address range**: 10.1.255.0/27



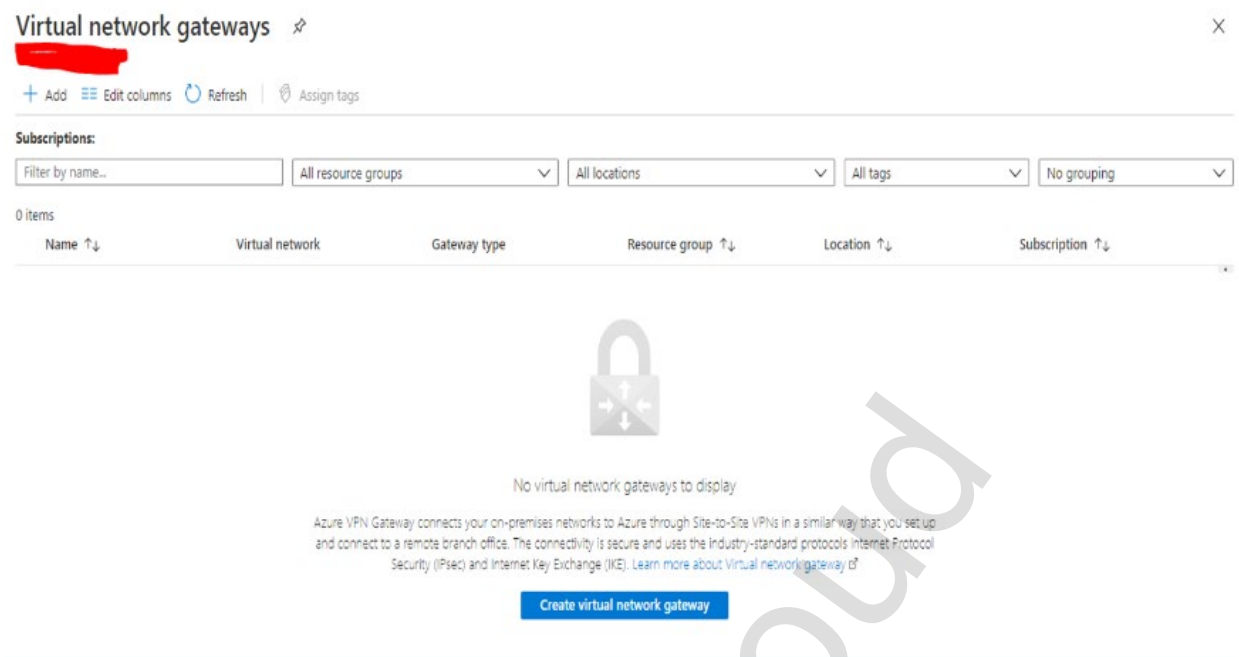
Create vnet1 with default settings

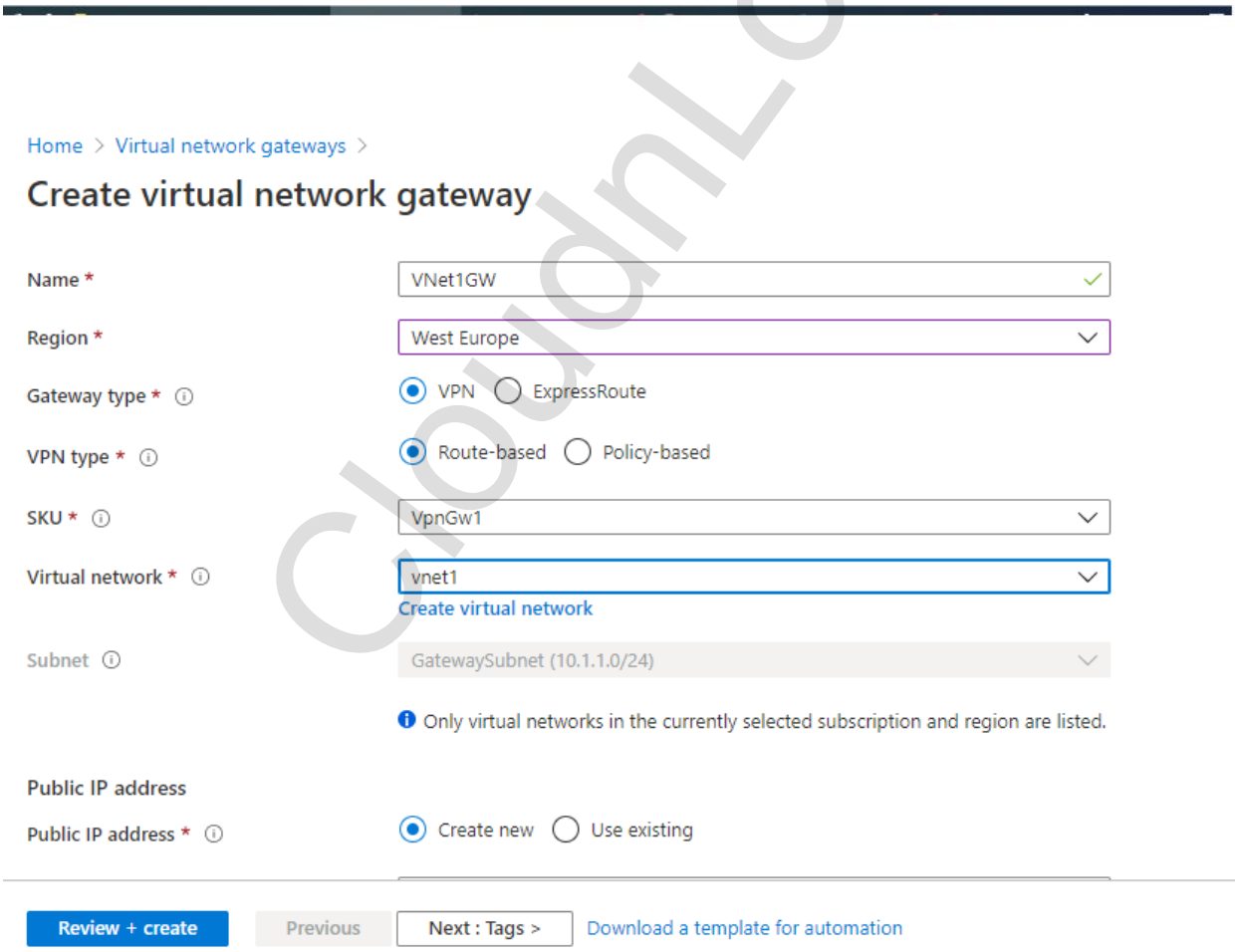


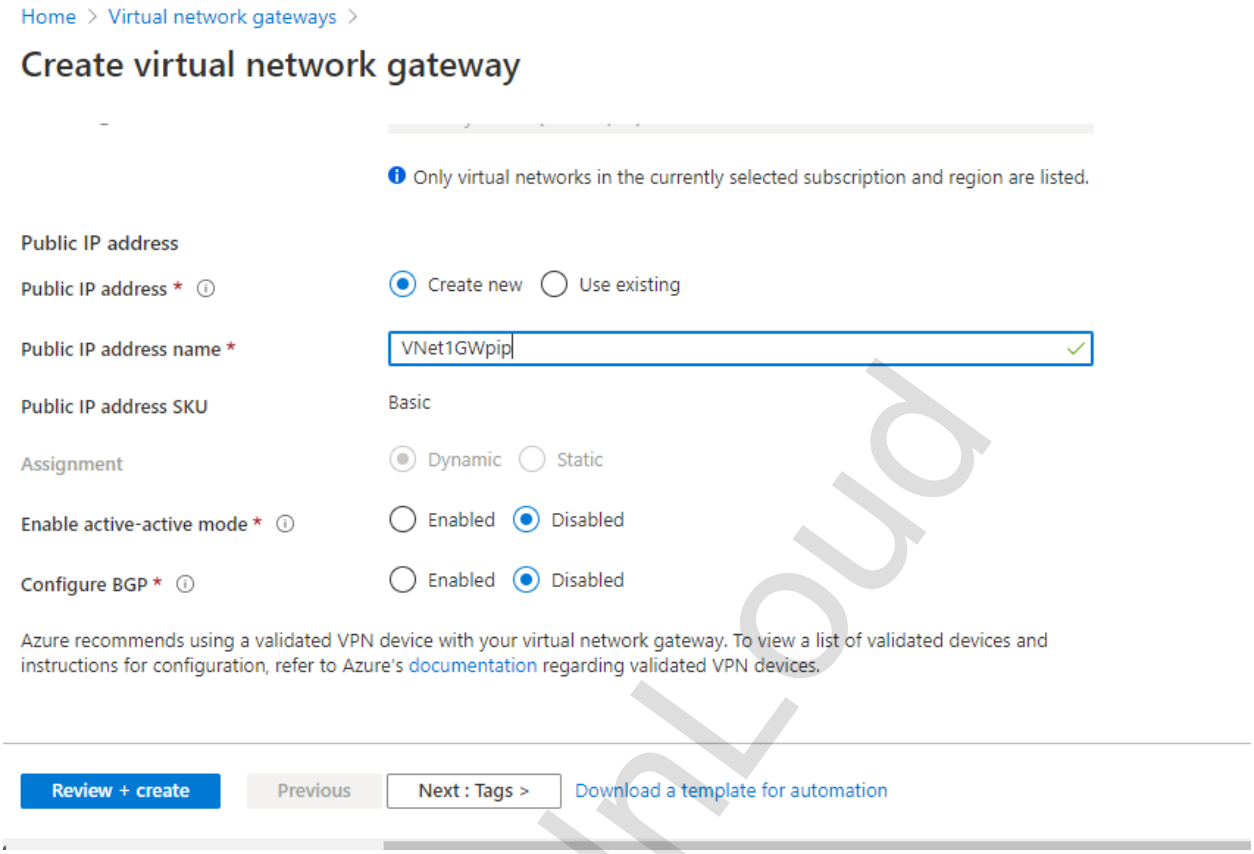
Create gateway subnet also and explain to student what is mean by gateway subnet.



- **Virtual network gateway settings**
  - **Name**: VNet1GW
  - **Gateway type**: Select **VPN**.
  - **VPN type**: Select **Route-based**.
  - **SKU**: Select the gateway SKU you want to use.
  - **Public IP address name**: VNet1GWpip
  - **Connection**
    - **Name**: VNet1toVNet4
    - **Shared key**: You can create the shared key yourself. When you create the connection between the VNets, the values must match. For this exercise, use abc123.


Virtual network gateways
Add
Edit columns
Refresh
Assign tags
Subscriptions:
Filter by name...
All resource groups
All locations
All tags
No grouping
0 items
Name
Virtual network
Gateway type
Resource group
Location
Subscription
No virtual network gateways to display
Azure VPN Gateway connects your on-premises networks to Azure through Site-to-Site VPNs in a similar way that you set up and connect to a remote branch office. The connectivity is secure and uses the industry-standard protocols Internet Protocol Security (IPsec) and Internet Key Exchange (IKE). Learn more about Virtual network gateway
Create virtual network gateway


Home > Virtual network gateways >
Create virtual network gateway
Name *
VNet1GW
Region *
West Europe
Gateway type *
VPN
ExpressRoute
VPN type *
Route-based
Policy-based
SKU *
VpnGw1
Virtual network *
vnet1
Create virtual network
Subnet
GatewaySubnet (10.1.1.0/24)
Only virtual networks in the currently selected subscription and region are listed.
Public IP address
Public IP address *
Create new
Use existing
Review + create
Previous
Next : Tags >
Download a template for automation

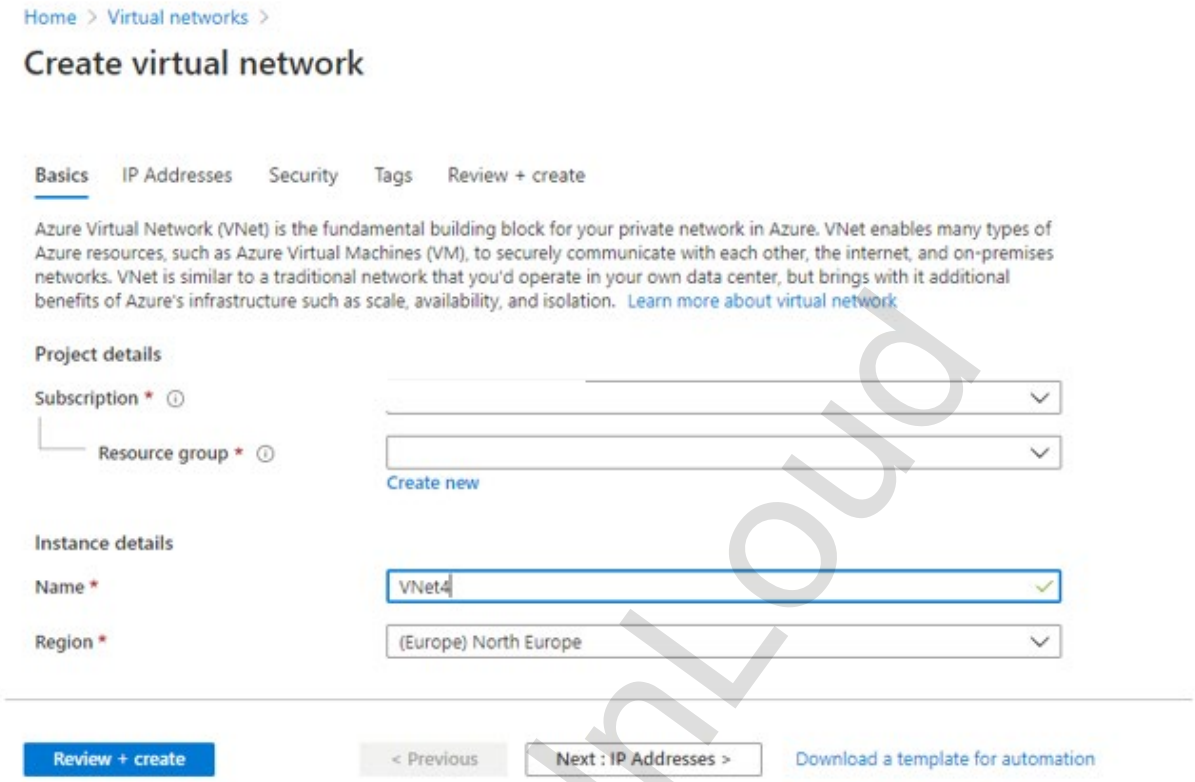


Create VNET Gateway 1

Values for VNet4:

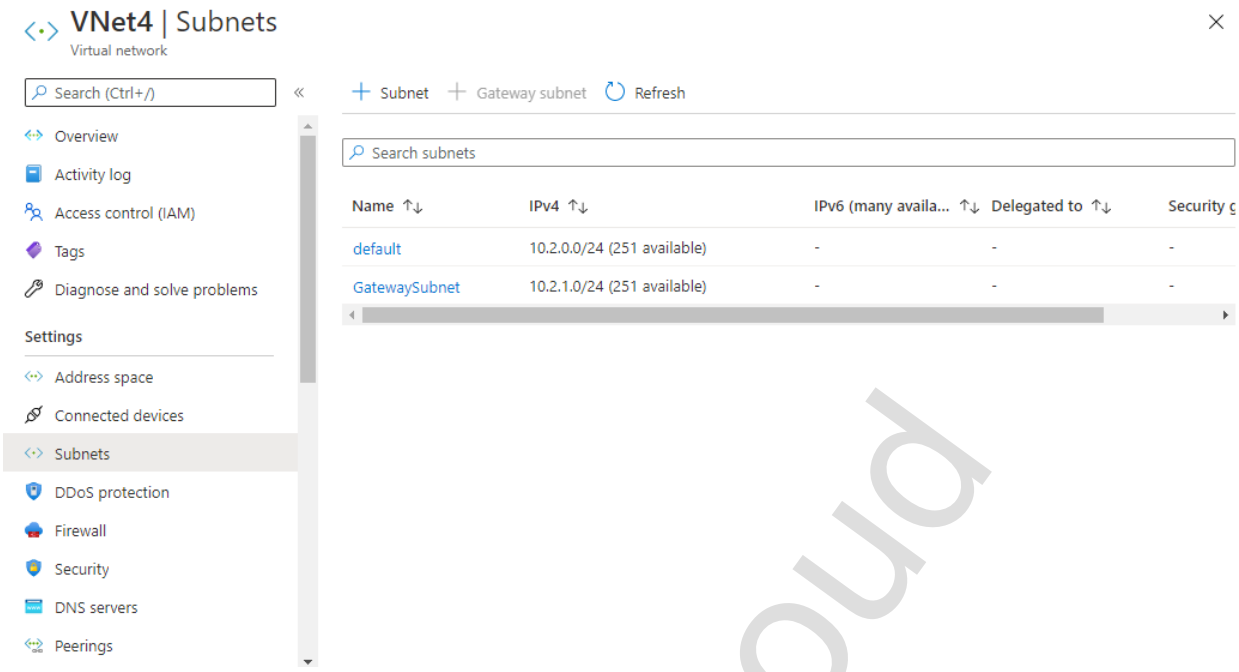
- **Virtual network settings**
  - **Name**: VNet4
  - **Address space**: 10.41.0.0/16
  - **Subscription**: Select the subscription you want to use.
  - **Resource group**: TestRG4
  - **Location**: West US
  - **Subnet**
    - **Name**: FrontEnd
    - **Address range**: 10.41.0.0/24
  - **GatewaySubnet**
    - **Name**: *GatewaySubnet* is autofilled

- **Address range**: 10.41.255.0/27

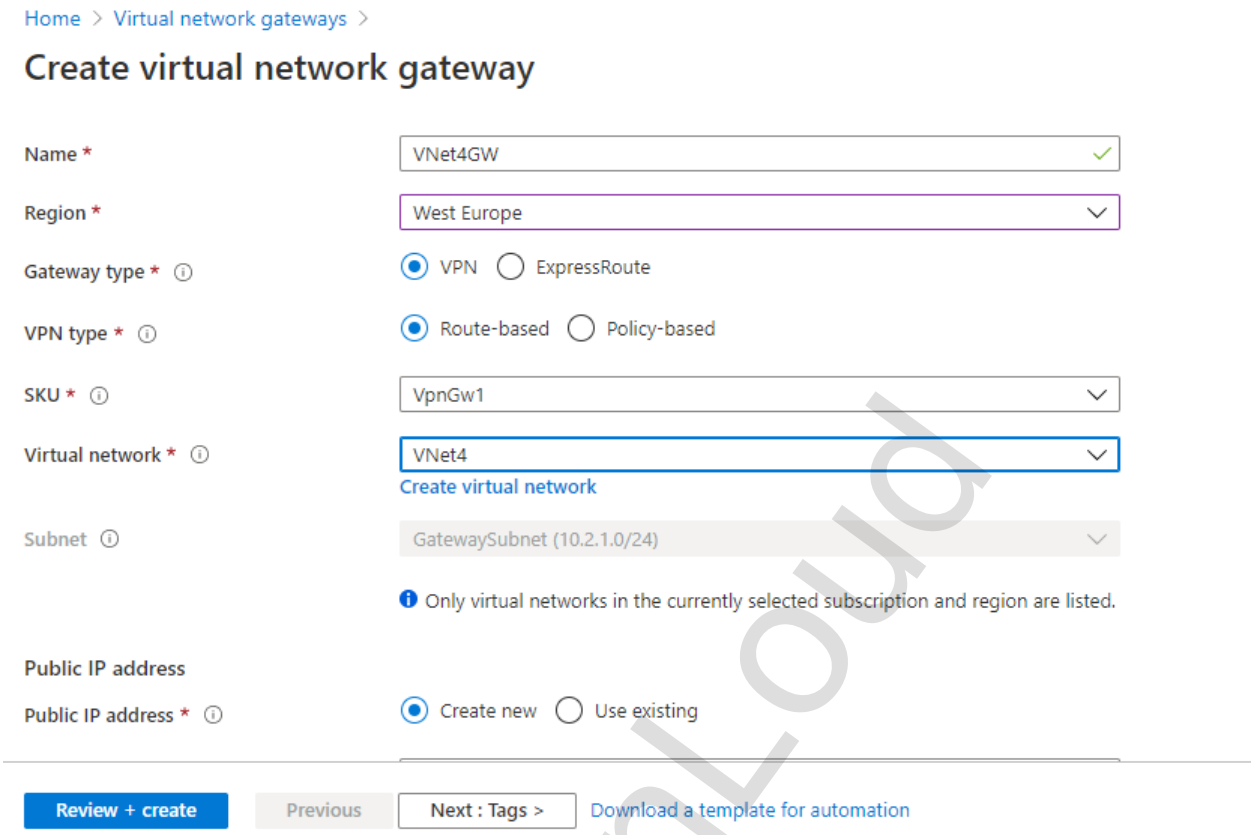


Create vnet4 with default settings.

Now create gateway subnet



- **Virtual network gateway settings**
  - **Name**: VNet4GW
  - **Gateway type**: Select **VPN**.
  - **VPN type**: Select **Route-based**.
  - **SKU**: Select the gateway SKU you want to use.
  - **Public IP address name**: VNet4GWpip
  - **Connection**
    - **Name**: VNet4toVNet1
    - **Shared key**: You can create the shared key yourself. When you create the connection between the VNets, the values must match. For this exercise, use abc123.



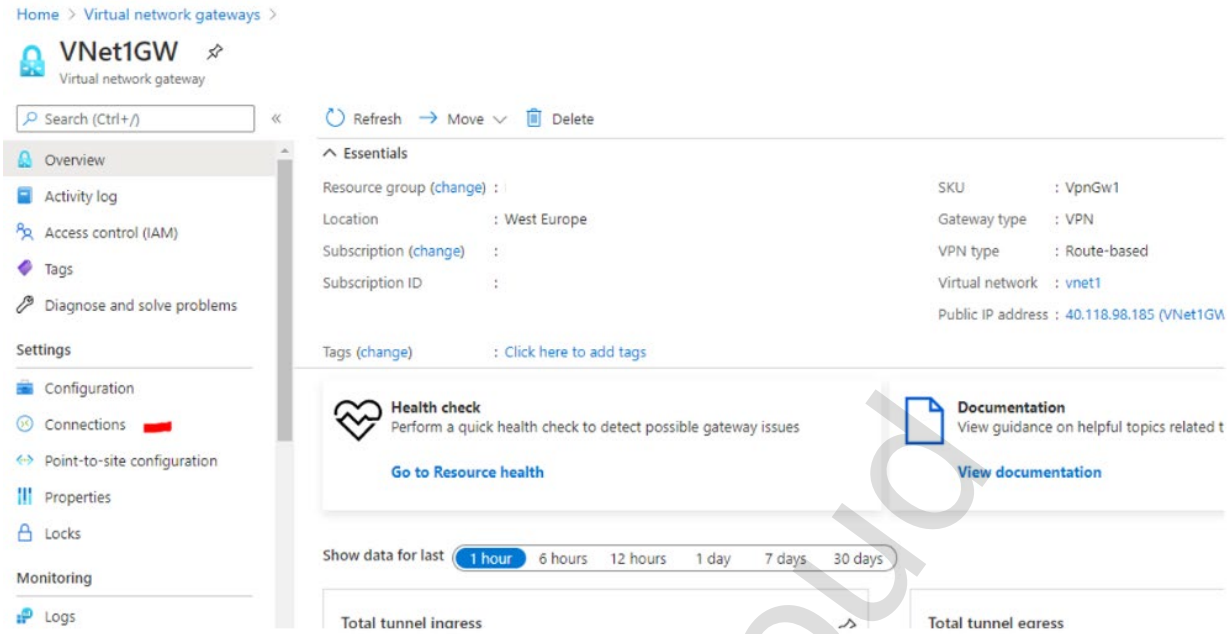
Now virtual network Vnet1 , Virtual Network Gateway 1 has been created.

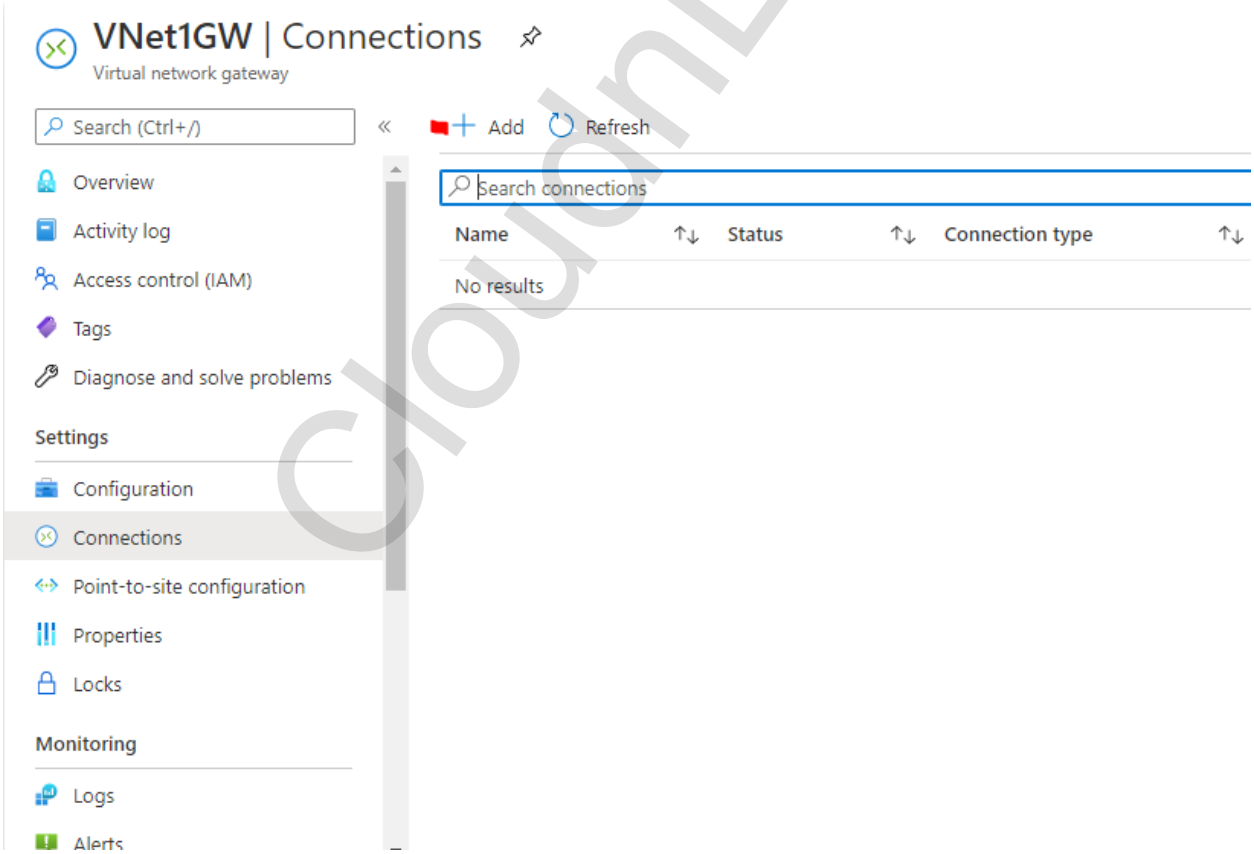
Now virtual network Vnet4 , Virtual Network Gateway 4 has been created.

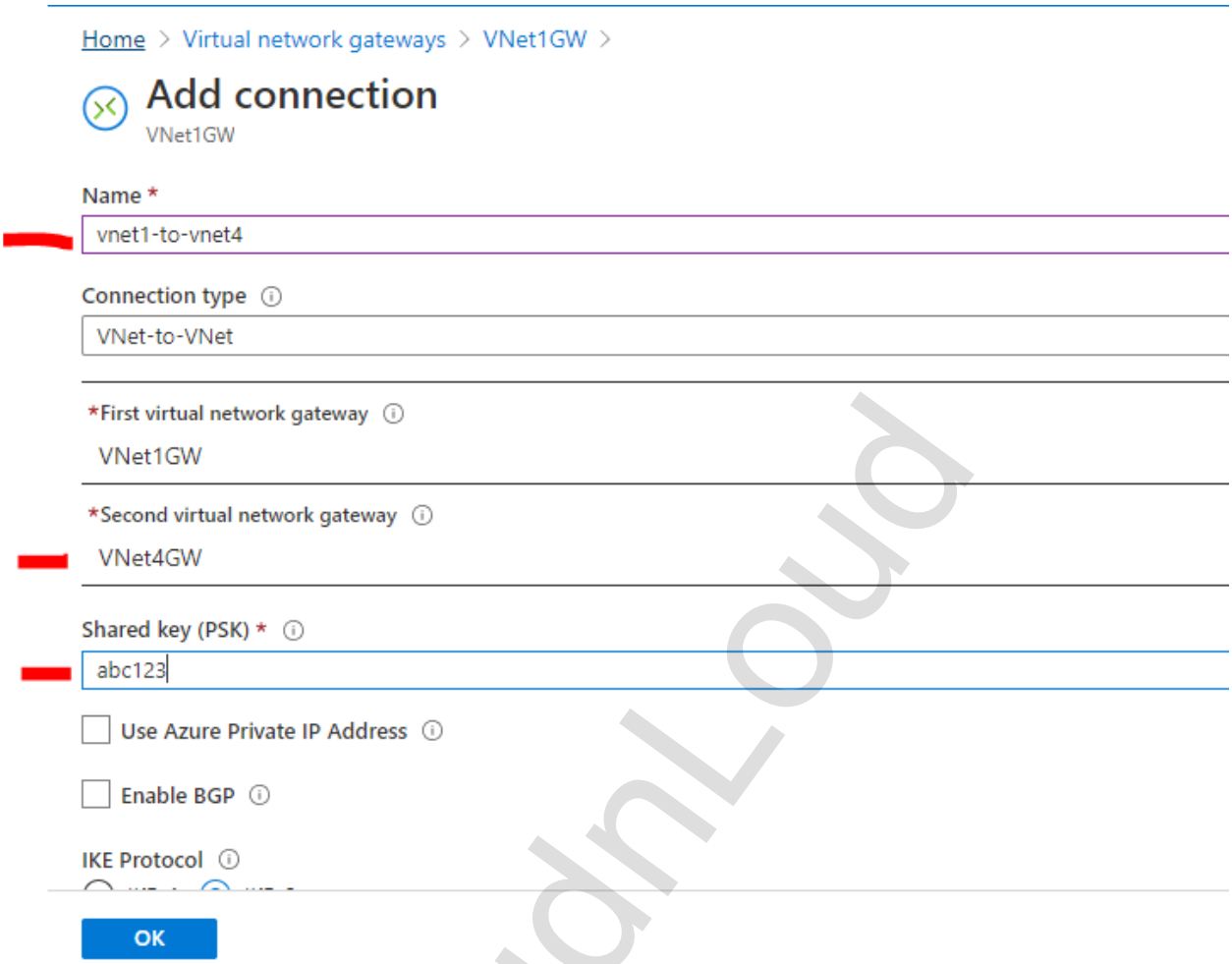
This will take 40 mins

Now first goto VNET Gateway 1

Go to connections

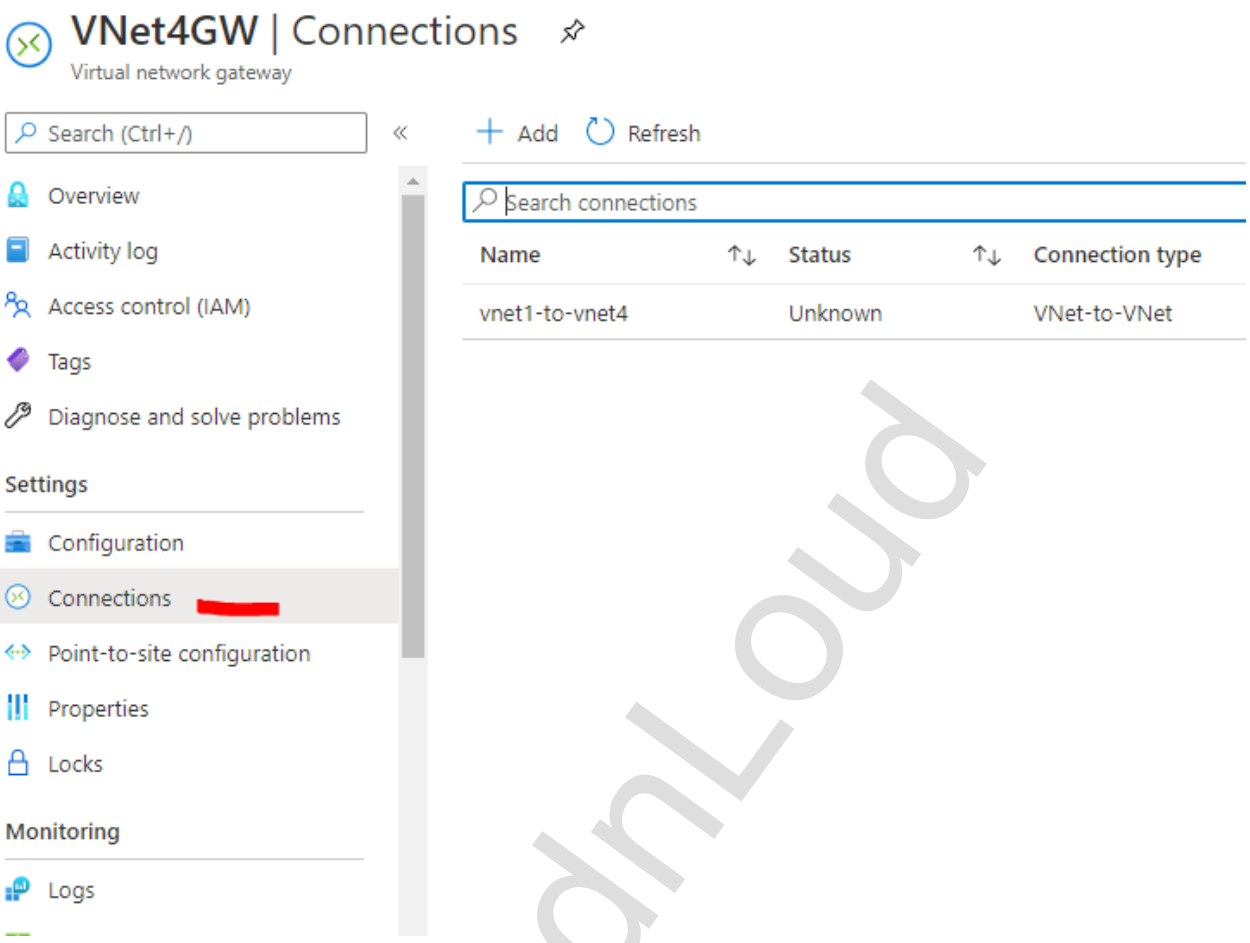

Home > Virtual network gateways >
VNet1GW
Virtual network gateway
Search (Ctrl+/)
Refresh
Move
Delete
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Configuration
Connections
Point-to-site configuration
Properties
Locks
Monitoring
Logs
Essentials
Resource group (change) :
Location : West Europe
Subscription (change) :
Subscription ID :
SKU : VpnGw1
Gateway type : VPN
VPN type : Route-based
Virtual network : vnet1
Public IP address : 40.118.98.185 (VNet1GW
Tags (change) : Click here to add tags
Health check
Perform a quick health check to detect possible gateway issues
Go to Resource health
Documentation
View guidance on helpful topics related t
View documentation
Show data for last
1 hour
6 hours
12 hours
1 day
7 days
30 days
Total tunnel ingress
Total tunnel egress


VNet1GW | Connections
Virtual network gateway
Search (Ctrl+/)
Add
Refresh
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Configuration
Connections
Point-to-site configuration
Properties
Locks
Monitoring
Logs
Alerts
Search connections
Name
Status
Connection type
No results



Now goto vnet gateway 4

Do the same vnet4 to vnet 1-→ secret name – abc123


VNet4GW | Connections
Virtual network gateway
Search (Ctrl+/)
Add
Refresh
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Configuration
Connections
Point-to-site configuration
Properties
Locks
Monitoring
Logs
Search connections
Name
Status
Connection type
vnet1-to-vnet4
Unknown
VNet-to-VNet

Home > Virtual network gateways > VNet4GW >

Add connection

VNet4GW

Name *

vnet4-to-vnet1

Connection type

VNet-to-VNet

*First virtual network gateway

VNet4GW

*Second virtual network gateway

VNet1GW

Shared key (PSK) *

abc123

Use Azure Private IP Address

Enable BGP

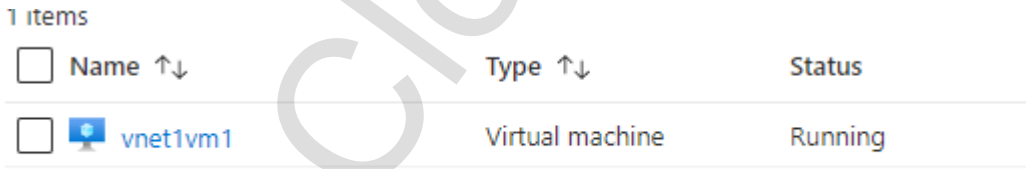
IKE Protocol

OK

Now create one VM in Vnet1 and another VM in VNET4

Login in each machine and try to ping other machine.

VM in VNET1

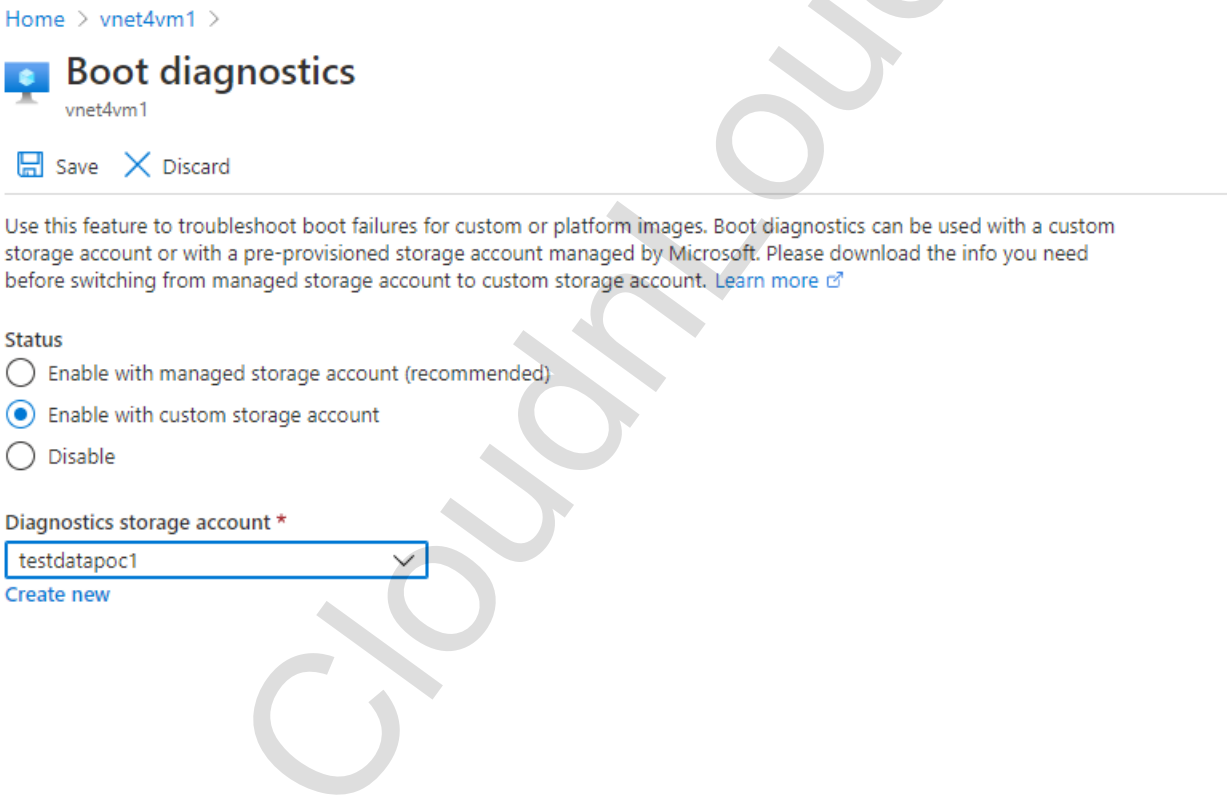


VM in VNET4

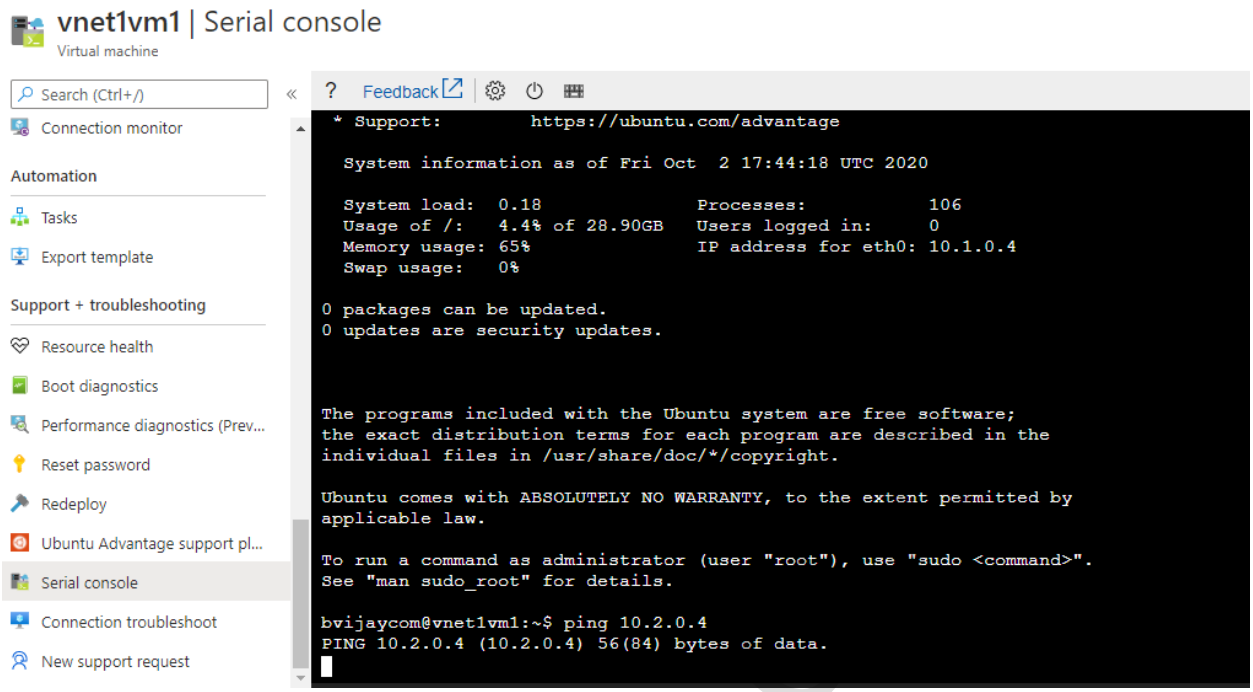
2 items

Name	Type	Status
vnet1vm1	Virtual machine	Running
vnet4vm1	Virtual machine	Running

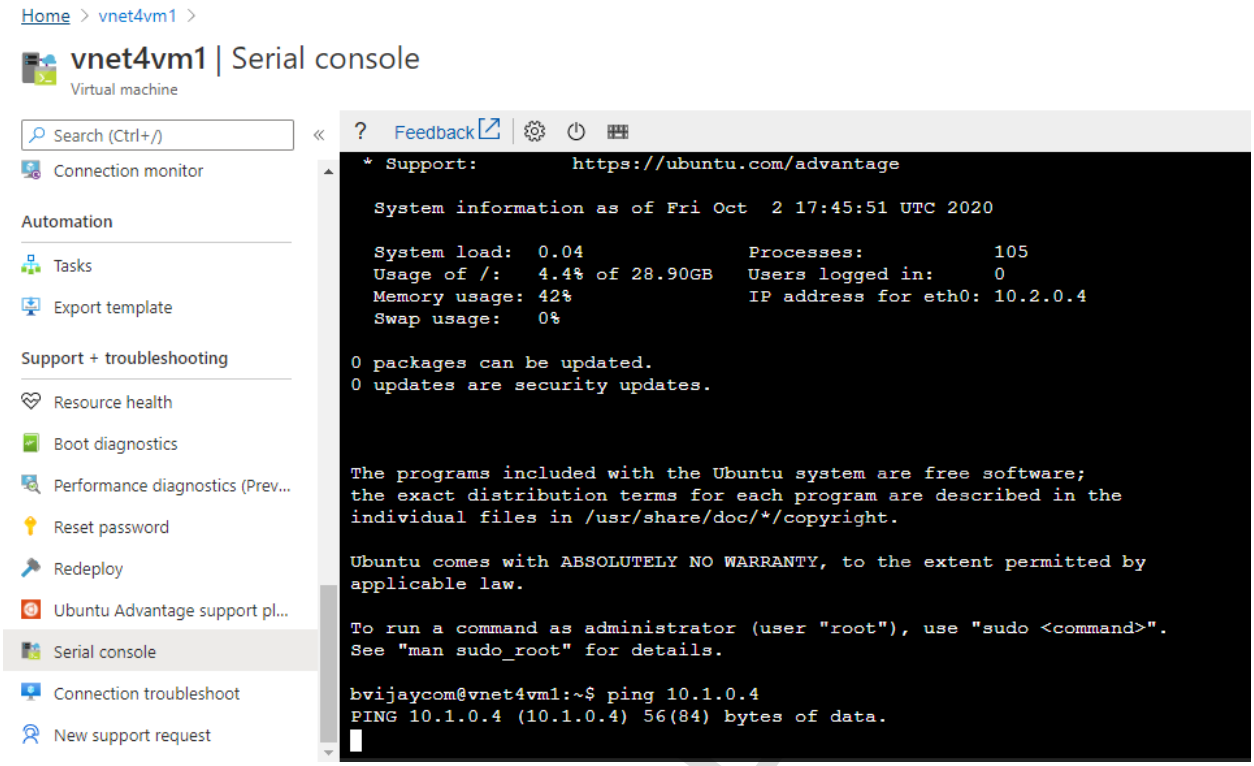
Go to each vm serial console option.if you get any warning then go to boot diagnostics…enable

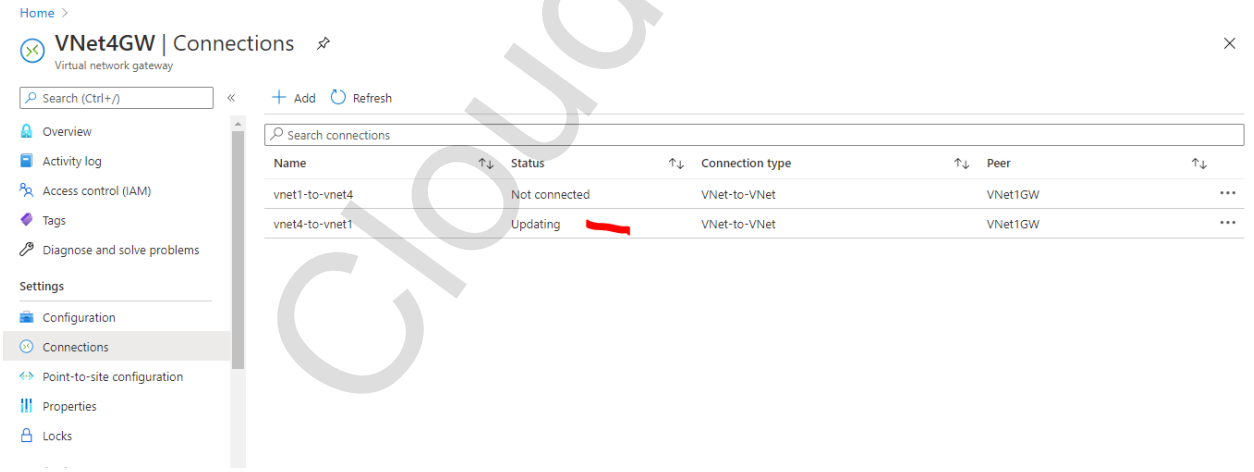


Now go to serial console and it will work.

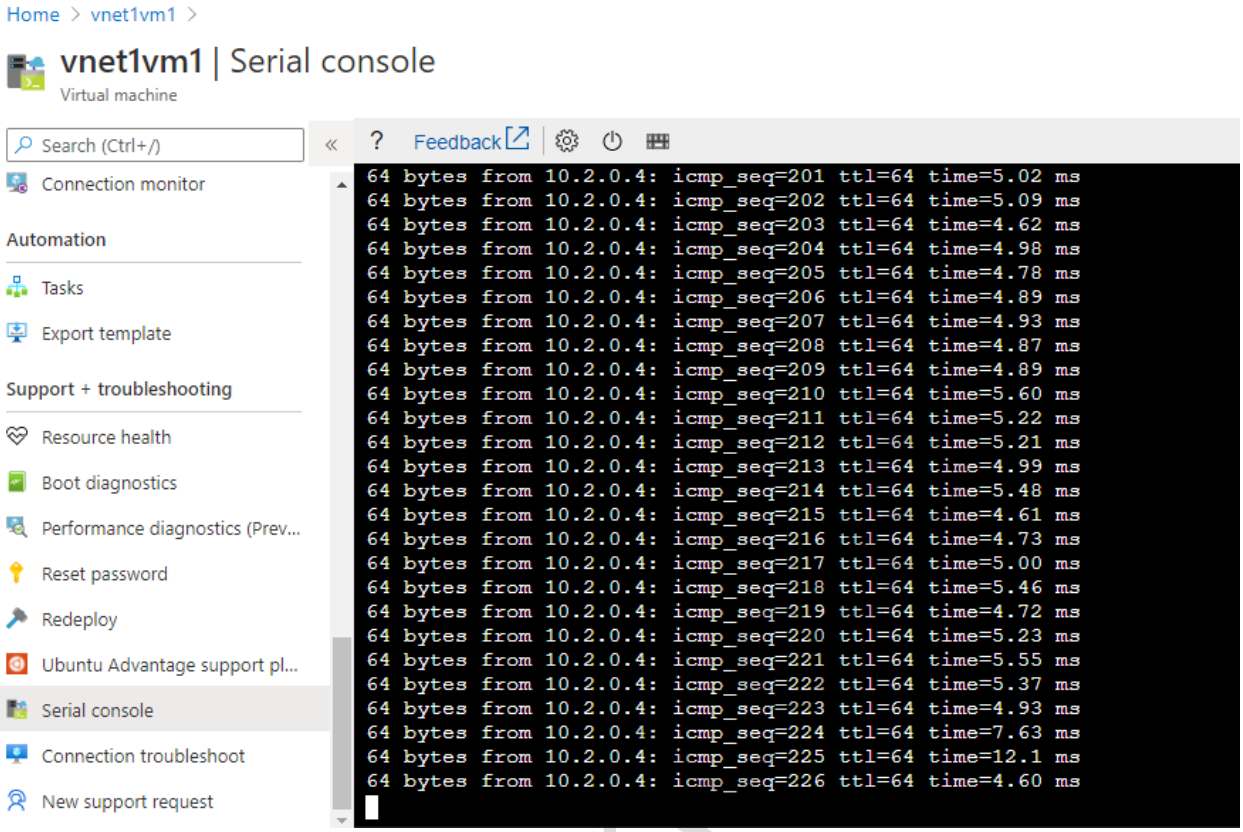


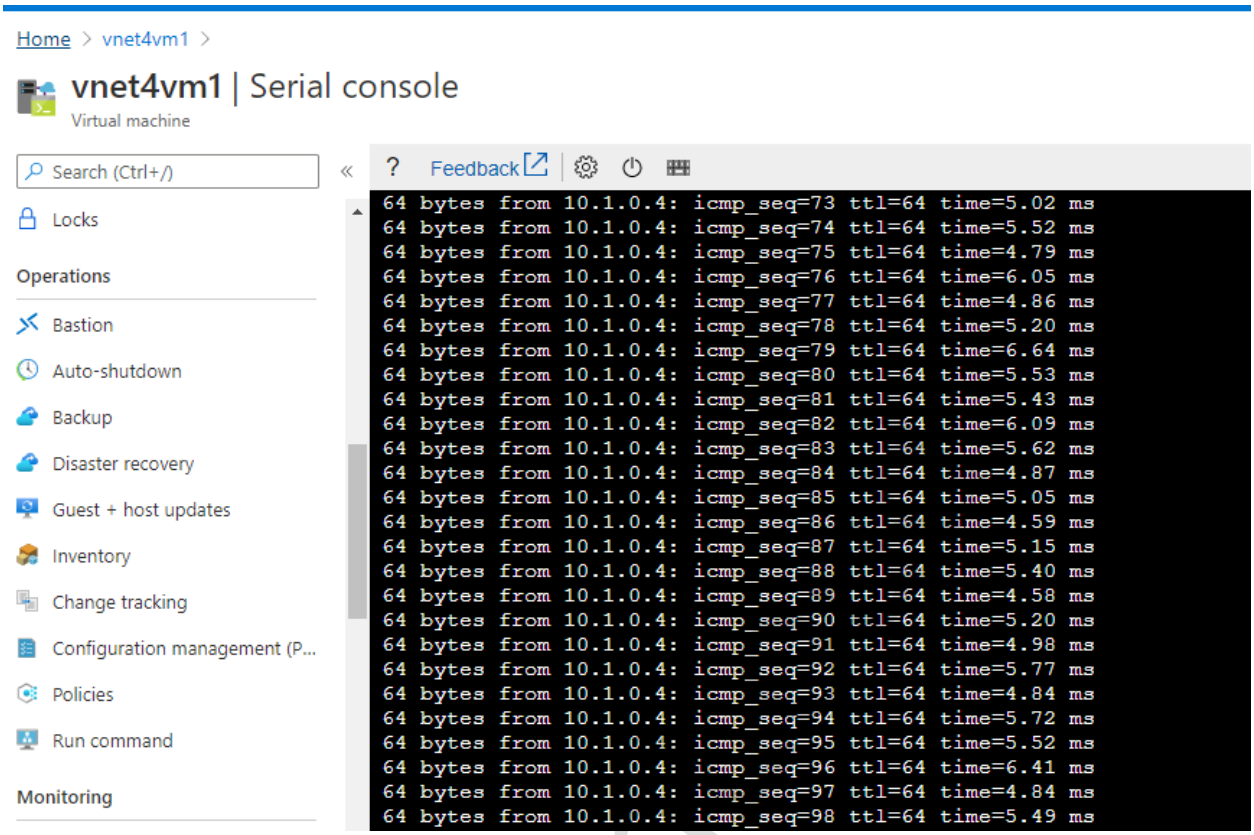
Now try from VNET4 VM 4 machine





Now see from both machines


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
64 bytes from 10.2.0.4: icmp_seq=201 ttl=64 time=5.02 ms
64 bytes from 10.2.0.4: icmp_seq=202 ttl=64 time=5.09 ms
64 bytes from 10.2.0.4: icmp_seq=203 ttl=64 time=4.62 ms
64 bytes from 10.2.0.4: icmp_seq=204 ttl=64 time=4.98 ms
64 bytes from 10.2.0.4: icmp_seq=205 ttl=64 time=4.78 ms
64 bytes from 10.2.0.4: icmp_seq=206 ttl=64 time=4.89 ms
64 bytes from 10.2.0.4: icmp_seq=207 ttl=64 time=4.93 ms
64 bytes from 10.2.0.4: icmp_seq=208 ttl=64 time=4.87 ms
64 bytes from 10.2.0.4: icmp_seq=209 ttl=64 time=4.89 ms
64 bytes from 10.2.0.4: icmp_seq=210 ttl=64 time=5.60 ms
64 bytes from 10.2.0.4: icmp_seq=211 ttl=64 time=5.22 ms
64 bytes from 10.2.0.4: icmp_seq=212 ttl=64 time=5.21 ms
64 bytes from 10.2.0.4: icmp_seq=213 ttl=64 time=4.99 ms
64 bytes from 10.2.0.4: icmp_seq=214 ttl=64 time=5.48 ms
64 bytes from 10.2.0.4: icmp_seq=215 ttl=64 time=4.61 ms
64 bytes from 10.2.0.4: icmp_seq=216 ttl=64 time=4.73 ms
64 bytes from 10.2.0.4: icmp_seq=217 ttl=64 time=5.00 ms
64 bytes from 10.2.0.4: icmp_seq=218 ttl=64 time=5.46 ms
64 bytes from 10.2.0.4: icmp_seq=219 ttl=64 time=4.72 ms
64 bytes from 10.2.0.4: icmp_seq=220 ttl=64 time=5.23 ms
64 bytes from 10.2.0.4: icmp_seq=221 ttl=64 time=5.55 ms
64 bytes from 10.2.0.4: icmp_seq=222 ttl=64 time=5.37 ms
64 bytes from 10.2.0.4: icmp_seq=223 ttl=64 time=4.93 ms
64 bytes from 10.2.0.4: icmp_seq=224 ttl=64 time=7.63 ms
64 bytes from 10.2.0.4: icmp_seq=225 ttl=64 time=12.1 ms
64 bytes from 10.2.0.4: icmp_seq=226 ttl=64 time=4.60 ms


Home > vnet4vm1 >
vnet4vm1 | Serial console
Virtual machine
Search (Ctrl+/)
Locks
Operations
Bastion
Auto-shutdown
Backup
Disaster recovery
Guest + host updates
Inventory
Change tracking
Configuration management (P...
Policies
Run command
Monitoring
Feedback
64 bytes from 10.1.0.4: icmp_seq=73 ttl=64 time=5.02 ms
64 bytes from 10.1.0.4: icmp_seq=74 ttl=64 time=5.52 ms
64 bytes from 10.1.0.4: icmp_seq=75 ttl=64 time=4.79 ms
64 bytes from 10.1.0.4: icmp_seq=76 ttl=64 time=6.05 ms
64 bytes from 10.1.0.4: icmp_seq=77 ttl=64 time=4.86 ms
64 bytes from 10.1.0.4: icmp_seq=78 ttl=64 time=5.20 ms
64 bytes from 10.1.0.4: icmp_seq=79 ttl=64 time=6.64 ms
64 bytes from 10.1.0.4: icmp_seq=80 ttl=64 time=5.53 ms
64 bytes from 10.1.0.4: icmp_seq=81 ttl=64 time=5.43 ms
64 bytes from 10.1.0.4: icmp_seq=82 ttl=64 time=6.09 ms
64 bytes from 10.1.0.4: icmp_seq=83 ttl=64 time=5.62 ms
64 bytes from 10.1.0.4: icmp_seq=84 ttl=64 time=4.87 ms
64 bytes from 10.1.0.4: icmp_seq=85 ttl=64 time=5.05 ms
64 bytes from 10.1.0.4: icmp_seq=86 ttl=64 time=4.59 ms
64 bytes from 10.1.0.4: icmp_seq=87 ttl=64 time=5.15 ms
64 bytes from 10.1.0.4: icmp_seq=88 ttl=64 time=5.40 ms
64 bytes from 10.1.0.4: icmp_seq=89 ttl=64 time=4.58 ms
64 bytes from 10.1.0.4: icmp_seq=90 ttl=64 time=5.20 ms
64 bytes from 10.1.0.4: icmp_seq=91 ttl=64 time=4.98 ms
64 bytes from 10.1.0.4: icmp_seq=92 ttl=64 time=5.77 ms
64 bytes from 10.1.0.4: icmp_seq=93 ttl=64 time=4.84 ms
64 bytes from 10.1.0.4: icmp_seq=94 ttl=64 time=5.72 ms
64 bytes from 10.1.0.4: icmp_seq=95 ttl=64 time=5.52 ms
64 bytes from 10.1.0.4: icmp_seq=96 ttl=64 time=6.41 ms
64 bytes from 10.1.0.4: icmp_seq=97 ttl=64 time=4.84 ms
64 bytes from 10.1.0.4: icmp_seq=98 ttl=64 time=5.49 ms