

New Assets in West Europe

1. Virtual Network

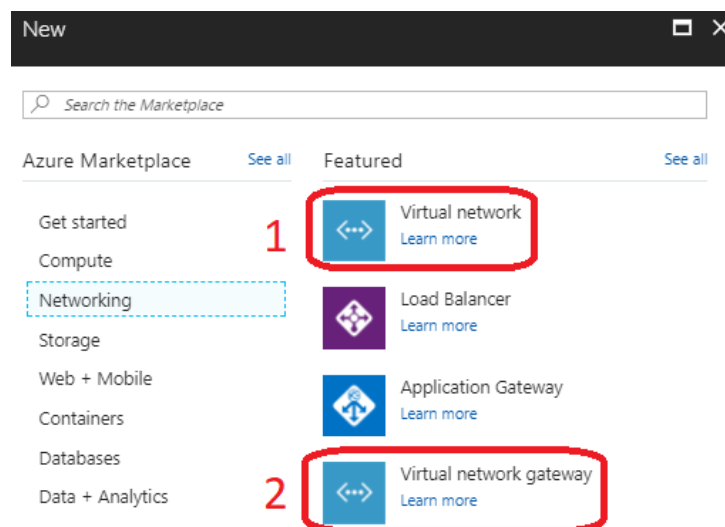
- a. Click New ---> Networking ---> Virtual Network.
 - This will open **Create Virtual Network Blade** Please fill in the form.
- b. Virtual Network Name **EUVNet**
- c. Address Space **192.168.10.0/24**
- d. Resource Group **EUVNets**
- e. Location **West Europe**
- f. Subnet **Production**
- g. Address Range **192.168.10.0/25**
- h. Check **Pin to Dashboard**
- i. Click **Create**
- j. **Q-A Why West Europe?**

2. Virtual Network Gateway

- a. Click New ---> Networking ---> Virtual Network Gateway
- b. Name **EUGateway**
- c. [Gateway Type](#) **VPN**
- d. [VPN Type](#) **Route-Based**
- e. [SKU Basic SKU \(Stock Keeping Unit\)](#)
- f. Choose EUVNet as Virtual Network
- g. Gateway Subnet Address Range will be created automatically
- h. Create a new Public Ip Address with the name **EUGW-Pip**
- i. Check **Pin to Dashboard**
- j. Click **Create** *(this may take time up to 40-45 Minutes)*

For Further Reading

<https://blogs.msdn.microsoft.com/azureedu/2017/06/23/new-azure-vpn-gateway-skus-provide-much-higher-bandwidth-for-hybrid-workloads/>
<https://docs.microsoft.com/en-us/azure/search/search-sku-tier>
<https://azure.microsoft.com/en-gb/blog/new-azure-vpn-gateways-now-6x-faster/>



The image shows two side-by-side screenshots of the Azure portal configuration blades. The left blade is titled 'Create virtual network' and the right blade is titled 'Create virtual network gateway'.

Create virtual network (Left):

- Name: EUVNet
- Address space: 192.168.10.0/24
- Subscription: Azure Pass
- Resource group: Create new, EUVNets
- Location: West Europe
- Subnet Name: Production
- Address range: 192.168.10.0/25
- Service endpoints (Preview): Disabled
- Pin to dashboard: ☒
- Create button and Automation options link.

Create virtual network gateway (Right):

- Name: EUGateway
- Gateway type: VPN
- VPN type: Route-based
- SKU: Basic
- Enable active-active mode: ☐
- Virtual network: EUVNet
- Gateway subnet address range: 192.168.10.128/28
- Public IP address: (new) EUGW-Pip
- Configure BGP ASN: ☐
- Subscription: Azure Pass
- Resource group: EUVNets
- Location: West Europe
- Pin to dashboard: ☒
- Create button and Automation options link.
- Note: Provisioning a virtual network gateway may take up to 45 minutes.

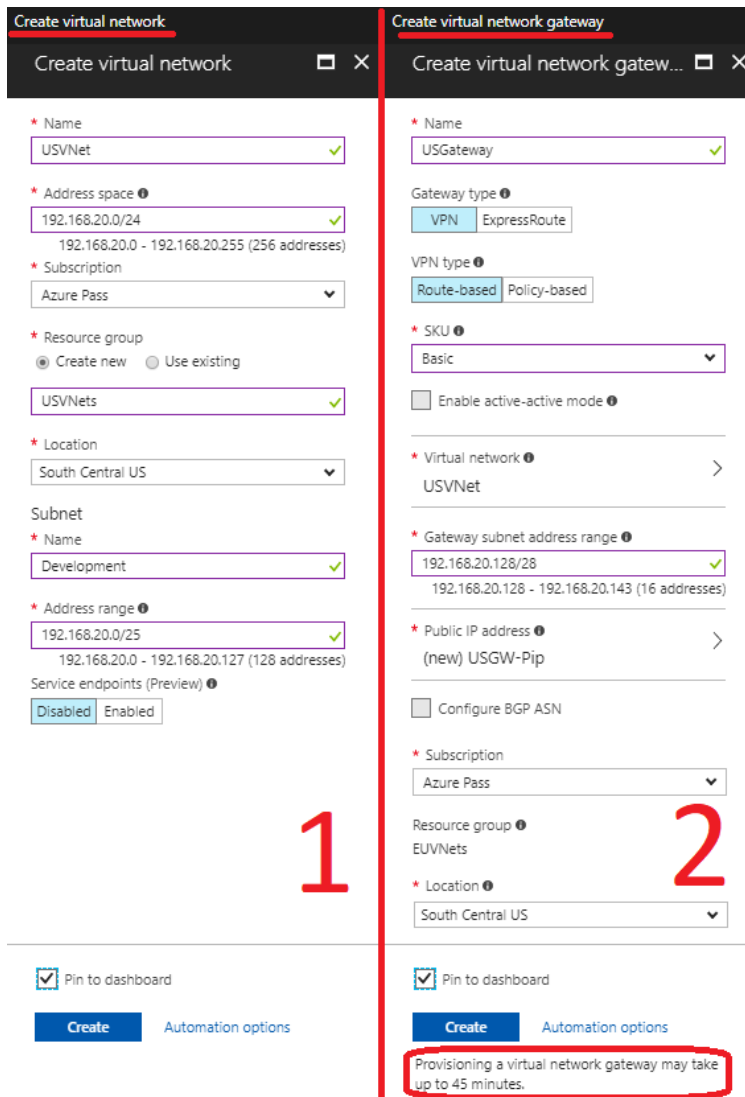
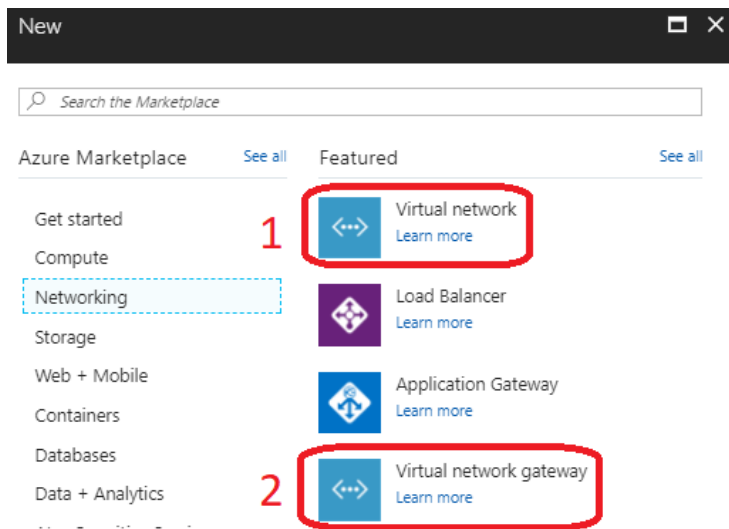
New Assets in South Central US

1. Virtual Network

- Click New ---> Networking ---> Virtual Network.
 - This will open **Create Virtual Network Blade** Please fill in the form.
- Virtual Network Name **USVNet**
- Address Space **192.168.20.0/24**
- Resource Group **USVNets**
- Location **South Central US**
- Subnet **Development**
- Address Range **192.168.20.0/25**
- Check **Pin to Dashboard**
- Click **Create**

2. Virtual Network Gateway

- Click New ---> Networking ---> Virtual Network Gateway
- Name **USGateway**
- Gateway Type **VPN**
- VPN Type **Route-Based**
- SKU **Basic SKU (Stock Keeping Unit)**
- Choose **USVNet** as Virtual Network
- Gateway Subnet Address Range will be created automatically
- Create a new Public Ip Address with the name **USGW-Pip**
- Check **Pin to Dashboard**
- Click **Create** *(this may take time up to 40-45 Minutes)*



Create VPN Connection ([QA](#) Point to West Europe Site)

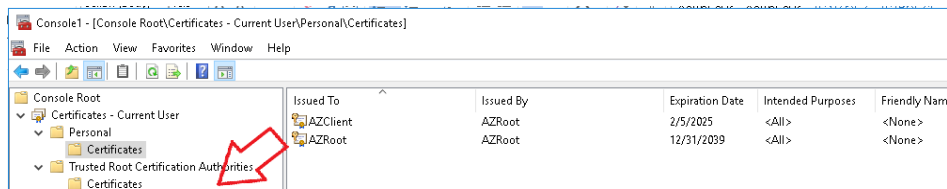
Step 1 Certificate Creation

We will create a connection to the azure site from client computer.

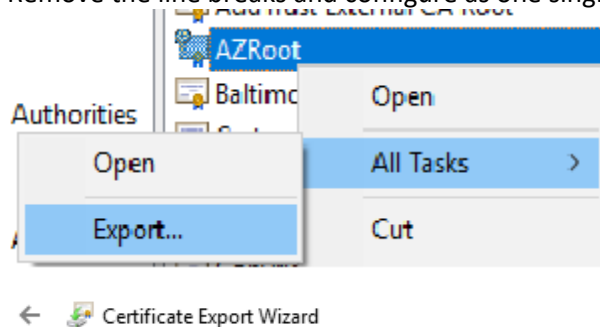
1. Copy the file makecert.exe file to system32 folder from C:\azure\makecert folder.
copy C:\CemVarol-Azure\makecert\makecert.exe C:\Windows\System32
2. run these commands or run the **AZCerts.bat** file
makecert.exe -sky exchange -r -n "CN=AZRoot" -pe -a sha1 -len 2048 -ss My "AZRoot.cer"
makecert.exe -n "CN=AZClient" -pe -sky exchange -m 96 -ss My -in "AZRoot" -is my -a sha1
3. Open an mmc console and access to certificates for the *My User Account*
4. Check that you have two certificates

Issued To	Issued By
AZClient	AZRoot
AZRoot	AZRoot

5. Drag the certificate AZRoot and drop into **Trusted Root Certification Authorities**. Then your certificate will be OK.



6. Export the AZRoot Certificate, *without* the private key, as **Base-64**
7. Open the exported certificate with notepad.
8. Copy the text within the ----- parts (without begin and end certificate)
9. Remove the line breaks and configure as one single line. (**Uncheck the "word wrap"**)



Export Private Key

You can choose to export the private key with the certificate.

Private keys are password protected. If you want to export the private key with the certificate, you must type a password on a later page.

Do you want to export the private key with the certificate?

- ☐ Yes, export the private key
☒ No, do not export the private key

Select the format you want to use:

- ☐ DER encoded binary X.509 (.CER)
- ☒ Base-64 encoded X.509 (.CER)
- ☐ Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)
- ☐ Include all certificates in the certification path if possible
- ☐ Personal Information Exchange - PKCS #12 (.PFX)
- ☐ Include all certificates in the certification path if possible
- ☐ Delete the private key if the export is successful
- ☐ Export all extended properties
- ☐ Enable certificate privacy
- ☐ Microsoft Serialized Certificate Store (.SST)

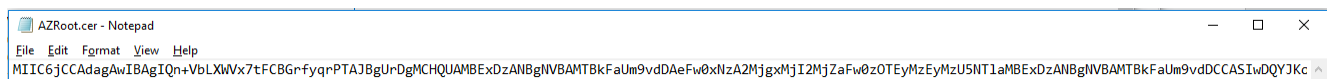
AZRoot.cer - Notepad

File Edit Format View Help

-----BEGIN CERTIFICATE-----

```
MIIC6jCCAdagAwIBAgIQn+VbLXWVx7tFCBGrfyqrPTAJBgUrDgMCHQUAMBExDzAN
BgNVBAMTBkFaUm9vdDAeFw0xNzA2MjgxmMjI2MjZaFw0zOTEyMzEyMzU5NT1aMBEx
DzANBgNVBAMTBkFaUm9vdDCCASIwDQYJKoZIhvcNAQEBBQADggEPADCCAQoCggEB
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DSRE8ZFOMPAJiNdbKB491YMGmldtdPnEbpmVvY8q4oovSGJPMwsYgJF1Njy7/IV
Ms1an01jt/CINspCa+Ld04kCAwEAAaNGMEQwQgYDVR0BBDSwOYAAQ4U30T8rUy+6m
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/dHYxXn1CwSkRPSa2UWjK5X7kWQjpcOCwo/USTKB6x/SFUrtv7pxyRss8Ddxiz/D
0A0FoyZTra3ZGptx7zB+0RuQI83FE2NnDeGa4woY9vIe916mjePIImzDFd82apEdA
q34f9zzyAo8s2ZHqxGzR9Qn+fadfyRu2ri3H4sC8a0FGP4sGTfTn/Qrq80WFy9b8
h7Bj1vDwJupI3MBVwemi7A8D8UIJr+Y0hBK0E2he
```

-----END CERTIFICATE-----



Step 2 Configuring Point to Site Connection

1. Under your Dashboard, click **EUGateway**
2. Under **EUGateway** provide the VPN Address pool information as **192.168.50.0/27**
3. Paste the certificate there, under the P2S Configuration
 - a. Certificate Name **AZRootCA**
4. Click **SAVE**
5. Once Created, **Download VPN Client** file, extract and install the 64 Bit Client to your Computer.
6. Connect to that EUVNet VPN Network.
7. Check ip addresses, you will see a new ip address with 192.168.50.X with 32-bit subnet mask

After this step, we completed creating a VPN service from QA Point to EUVNet Site

PPP adapter EUVNet:

```

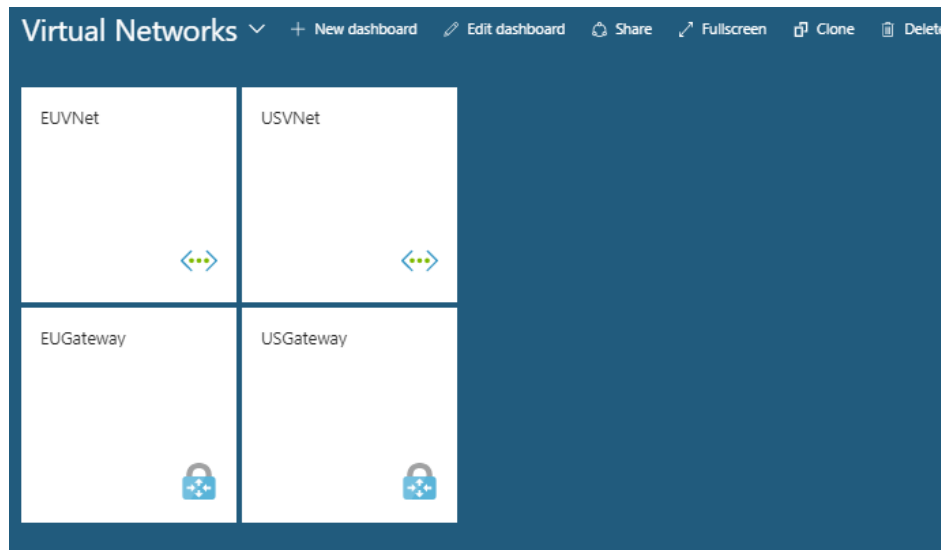
Connection-specific DNS Suffix . : 
IPv4 Address. . . . . : 192.168.50.2
Subnet Mask . . . . . : 255.255.255.255
Default Gateway . . . . . : 

```

From Europe to US, VNet to VNet

Your Dashboard now has 4 assets,

- 2 Virtual Networks and
 - EUVNet
 - USVNet
- 2 Virtual Network Gateways
 - EUGateway
 - USGateway



Create Connection between Europe and US.

1. From Europe to US
 - a. On your Dashboard Click EUGateway
 - b. Click **Connections**
 - Click **Add**, this will open a new *Blade*
 - c. Name **EU2US**
 - d. [Connection Type](#) VNet-to-VNet
 - e. First virtual network gateway will be selected as source **EUGateway**
 - f. Second virtual network gateway **USGateway**
 - g. Shared Key (PSK) Abcde12345
2. From US to Europe
 - a. On your Dashboard Click USGateway
 - b. Click **Connections**, you will see *EU2US* here.
 - Click **Add**, this will open a new *Blade*
 - c. Name **US2EU**
 - d. [Connection Type](#) VNet-to-VNet
 - e. First virtual network gateway will be selected as source **USGateway**
 - f. Second virtual network gateway **EUGateway**
 - g. Shared Key (PSK) Abcde12345
 - This key must be the same with the other network, to complete authentication.

EUGateway - Connections
Virtual network gateway

Search (Ctrl+/)

+ Add

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

SETTINGS

Configuration

Connections

NAME

No results

USGateway - Connections
Virtual network gateway

Search (Ctrl+/)

+ Add

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

SETTINGS

Configuration

Connections

NAME

EU2US

Add connection
EUGateway

* Name
EU2US ✓

Connection type
VNet-to-VNet

* First virtual network gateway
EUGateway

* Second virtual network gateway
USGateway

* Shared key (PSK)
Abcde12345 ✓

Subscription
Azure Pass

Resource group
EUVNets

Location
West Europe

OK

Add connection
USGateway

* Name
US2EU ✓

Connection type
VNet-to-VNet

* First virtual network gateway
USGateway

* Second virtual network gateway
EUGateway

* Shared key (PSK)
Abcde12345 ✓

Subscription
Azure Pass

Resource group
USVNets

Location
Central US

OK

+ Add

Search connections

NAME	STATUS	CONNECTION TYPE
EU2US	Connected	VNet-to-VNet
US2EU	Connected	VNet-to-VNet