

# Azure DB Migration – Creating the VPN

## STEP 2 – Configuring a Point-to-Site VPN

### SUB-STEP 1: Create a Virtual Network

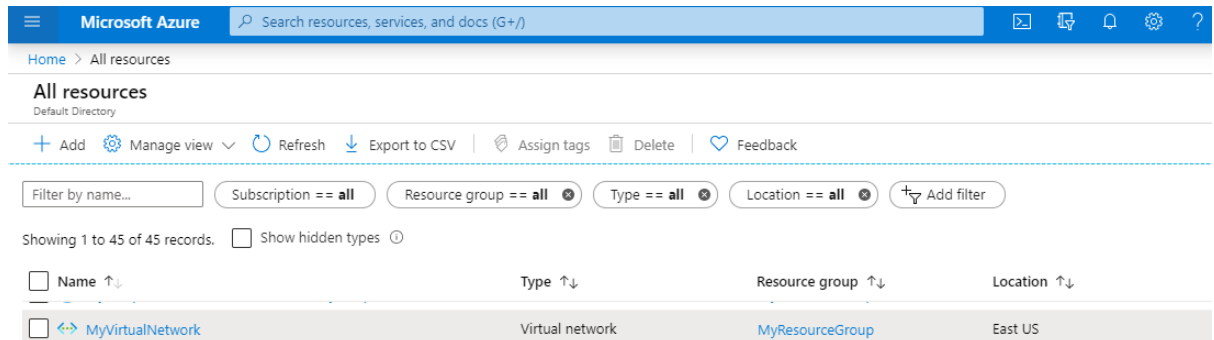
1. Login to your Azure Portal
2. In the search bar, type Virtual Networks
3. In **Create virtual network**, enter or select this information:

Setting	Value
Subscription	Select your subscription.
Resource group	Select <b>Create new</b> , enter <i>myResourceGroup</i> , then select <b>OK</b> .
Name	Enter <i>myVirtualNetwork</i> .
Location	Select <b>East US</b> .

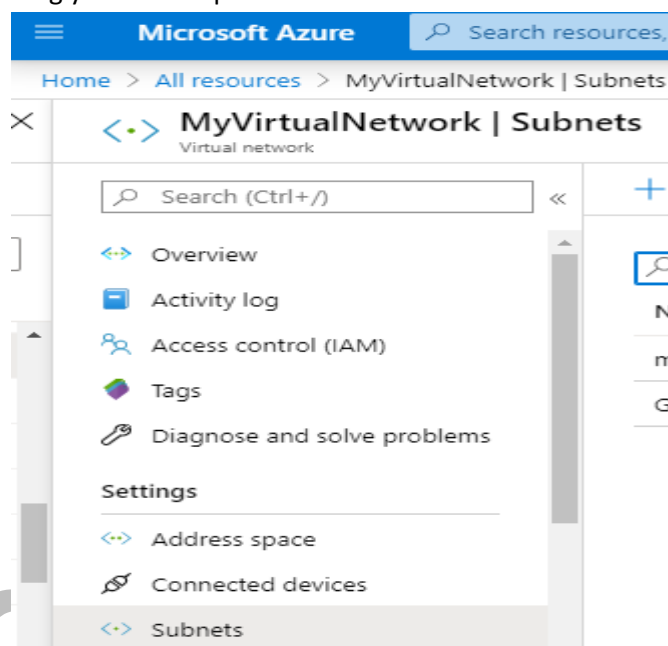
4. Select **Next: IP Addresses**, and for **IPv4 address space**, enter *10.1.0.0/16*.
5. Select **Add subnet**, then *default* for **Subnet name** and *10.1.0.0/24* for **Subnet address range**.
6. Select **Add**, then select **Review + create**. Leave the rest as default and select **Create**.
7. In **Create virtual network**, select **Create**.
8. This completes the creation of Virtual Private Network

## SUB-STEP 2: CREATE A VIRTUAL GATEWAY & GATEWAY SUBNET

1. Login to Azure Portal
2. In the search bar, type Virtual Private Networks. Choose your private network (viz. MyVirtualNetwork)



3. On choosing your virtual private network -> Choose Subnets in the pane



4. Click on Gateway Subnet, to create a new Gateway Subnet. Add the values as shown below.

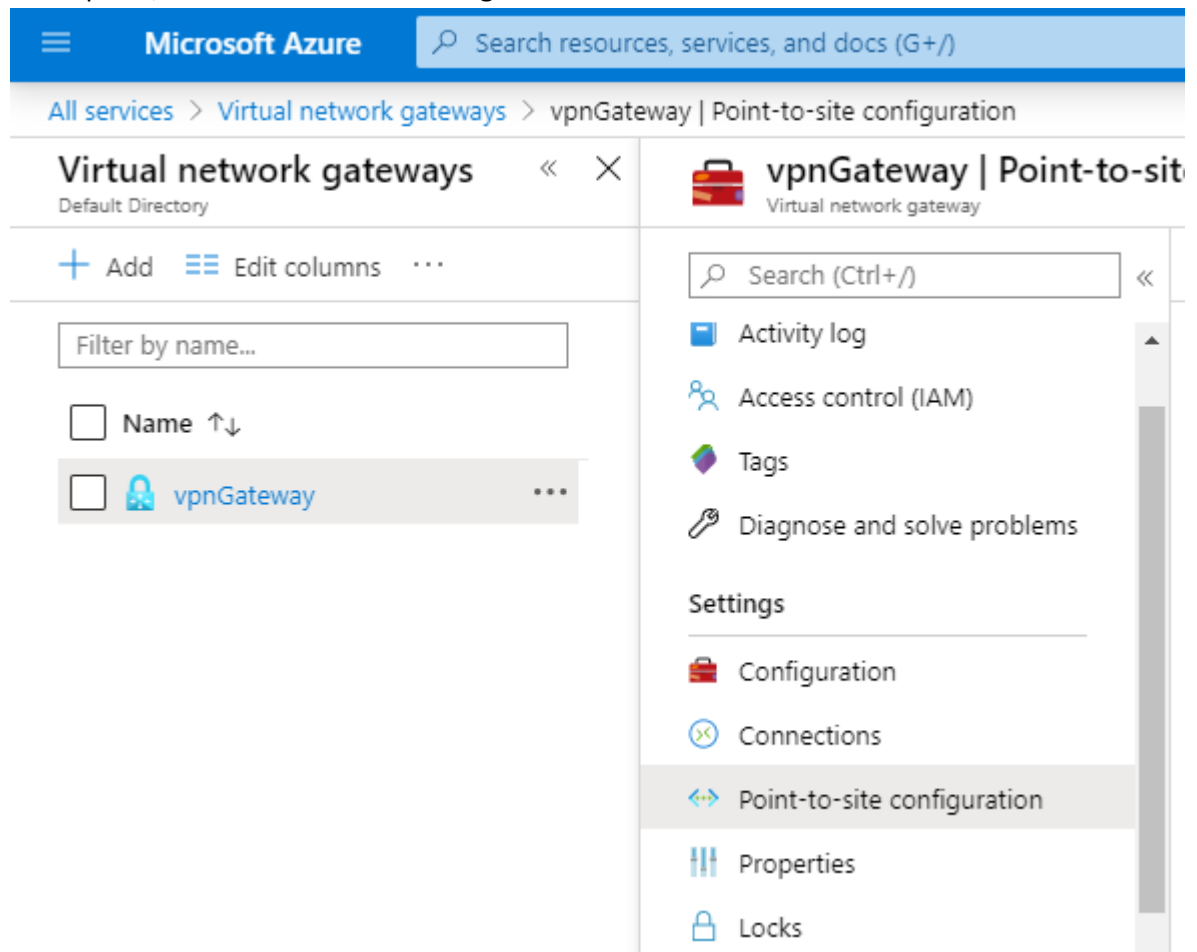
The screenshot shows the 'GatewaySubnet' configuration page in the Microsoft Azure portal. The breadcrumb navigation is 'Home > All resources > MyVirtualNetwork | Subnets > GatewaySubnet'. The page title is 'GatewaySubnet' with a sub-label 'MyVirtualNetwork'. Action buttons include 'Save', 'Discard', 'Delete', and 'Refresh'. The configuration fields are as follows:

- Address range (CIDR block):** 10.0.1.0/24 (10.0.1.0 - 10.0.1.255 (256 addresses))
- Available addresses:** 251
- NAT gateway:** None (dropdown menu)
- Add IPv6 address space:** ☐
- Network security group:** None (dropdown menu)
- Route table:** None (dropdown menu)
- Users:** Manage users (link)
- Service endpoints:** 0 selected (dropdown menu)
- Subnet delegation:** (Section header)

5. Click OK
6. Next, we need to **create the Virtual Gateway**
7. In the Azure portal, in the search bar, type "Virtual Network Gateways". Choose the Virtual Network Gateways in the search options.
8. Choose **Add or Create virtual Network Gateway**, with the following options
  - a. Name vpnGateway
  - b. Gateway Type VPN
  - c. VPN type Route Based
  - d. SKU VpnGw
  - e. Enable Active-Active mode False
  - f. Virtual Network myVirtualNetwork
  - g. PUBLIC IP Address Choose the option **Create New**, with Name **dbPublicIP**
  - h. Configure Public IP address
    - i. SKU Basic
    - ii. Assignment Dynamic
    - iii. Configure BGP ASN False
    - i. Location EAST US
9. Click **CREATE**
10. This completes the creation of the Virtual Network Gateway

### SUB-STEP 3: CREATING A POINT-TO-SITE CONNECTION

1. In continuation with the above step. You have selected the created virtual network gateway (viz. vpnGateway) in the Azure Portal.
2. In the panel, choose **Point-to-site Configuration**



3. Add the following in the configuration.

Save Discard Download VPN client

Address pool \*

172.16.23.0/24

Tunnel type

IKEv2 and SSTP (SSL)

Authentication type

☒ Azure certificate ☐ RADIUS authentication ☐ Azure Active Directory

4. Since the Authentication Type chosen here is Azure certificate, we need to create a certificate. We will use powershell scripts for this purpose.



5. certificateCreationScript.txt

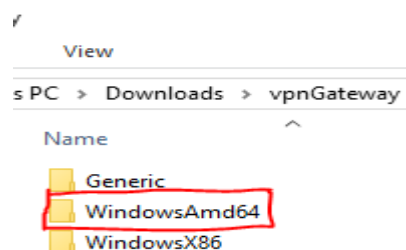
6. The above file contains the powershell scripts for creating a root and client certificate.

7. The created **Root Certificate** needs to be **pasted in the Azure portal**. To do that, please use the steps below

- a. Open certificates (type certificates in windows start menu)
- b. This will open up the certificates created on your machine
- c. You will find your created certificate in Personal folder here
- d. Right click on the root certificate => All Tasks => Export
  - i. Here choose "No, do not export the private key".
  - ii. Click Next. Choose Base64 encoded X.509. (Can choose any as long as compatibility is ensured)
  - iii. Click Next. Choose a folder to save the certificate
  - iv. Navigate to the folder, and open the certificate in notepad
  - v. This string should be pasted in azure portal's Root Certificate text field, as shown below

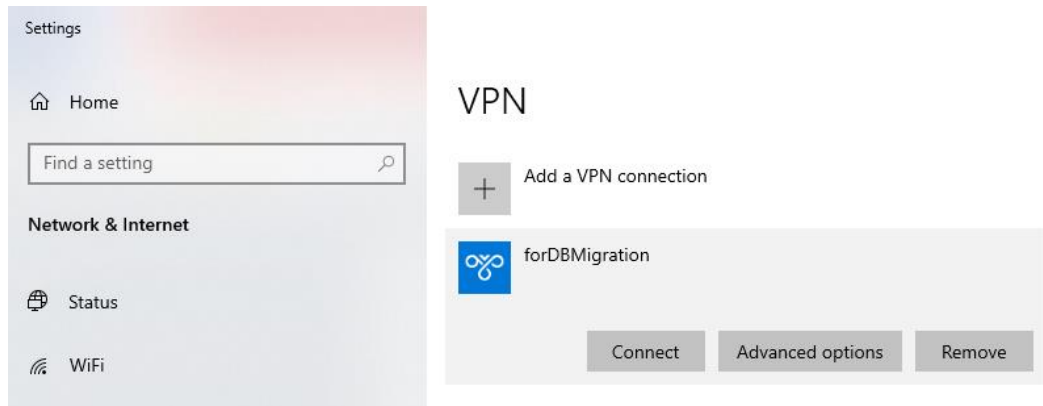
Name	Public certificate data
sampradaRoot	MIIC6TCCAdGgAwIBAgIQaZEYCrdoH6VMew5sqEn0LJANBgkqhkiG9w0BAQsFADAXMRUwEwY...

- vi. Click Save
- e. **Only after the Save operation** is completed (takes some time, check the notifications icon), you should click on **Download VPN Client** button. This will download a zip file. Unzip the file into a folder. It will contain 3 folders. Choose **WindowsAmd64**



- f. Run the VPNClient Setup

- g. Your VPN connection to your Azure Portal is now created. You can verify it by navigating to **Control Panel VPN settings**



- h. The name of the VPN will match your virtual Network name. In your case, it will be myVirtualNetwork
- i. Click connect. The VPN Client will open and connect to your Azure Virtual Network .