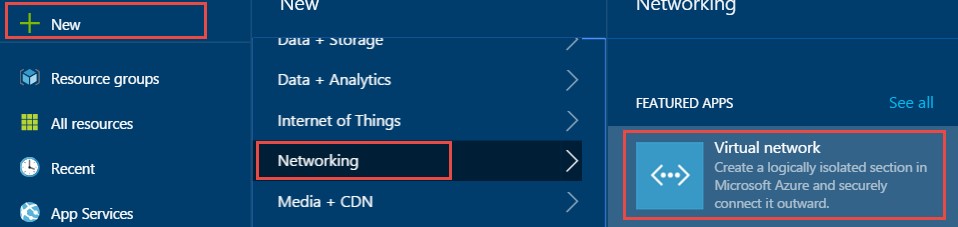
## Connecting Virtual Networks

### Lab Overview

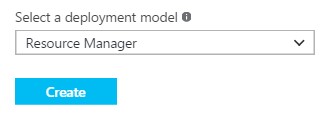
In this lab, you will create a new virtual network in a remote region and establish connectivity between the regions using a site-to-site virtual private network (VPN).

### Exercise 1: Create the Remote Virtual Network

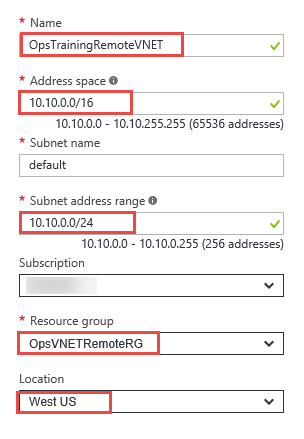
1. Using the Azure Management Portal, click **New**, **Networking**, and **Virtual network**.



1. Accept the default value of **Resource Manager**, and click **Create**.

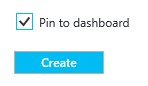


1. Specify the following configuration:



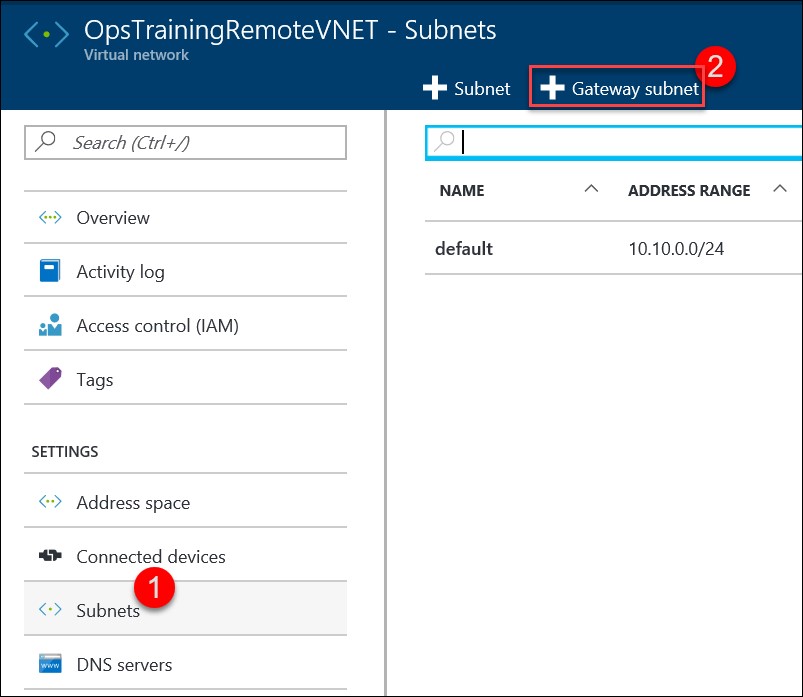
* + Name: **OpsTrainingRemoteVNET**
  + Address space: **10.10.0.0/16**
  + Subnet address range: **10.10.0.0/24**
  + Subscription: **Choose your Subscription**
  + Resource Group: **OpsVNETRemoteRG**
  + Location: **Specify a remote region from the region you are currently using.** **Make sure this is NOT the same location you have specified in the previous labs.**

6. Check **Pin to dashboard,** and then click **Create** to create the new virtual network.

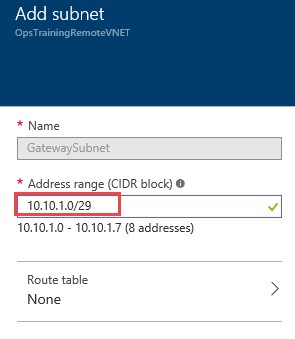


### Exercise 2: Configure Subnet Gateways for both virtual networks

1. On the **OpsTrainingRemoteVNET** virtual network configuration blade, click **Subnets** and then click **+Gateway subnet**.

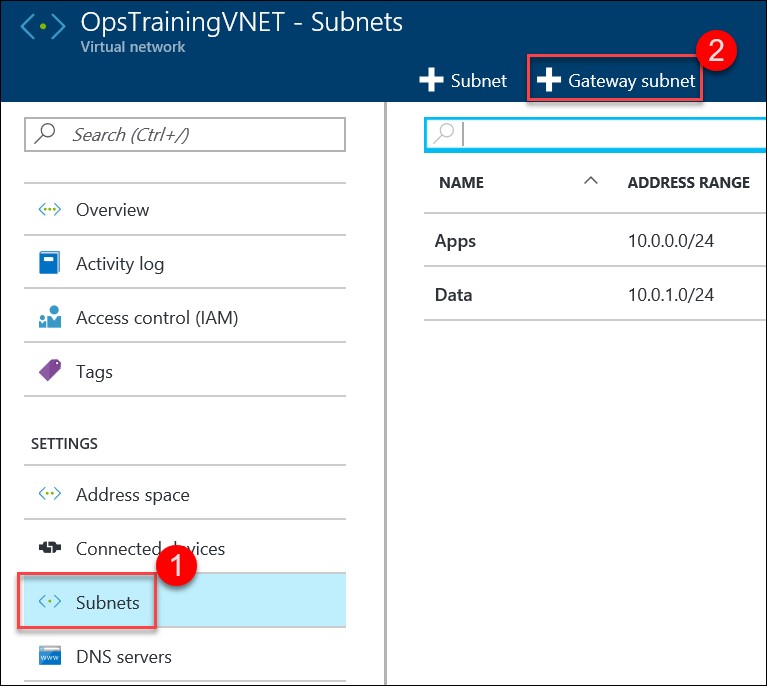


1. Specify the following configuration for the subnet and click **OK**.
   * + Name: **GatewaySubnet**
     + Address range: **10.10.1.0/29**

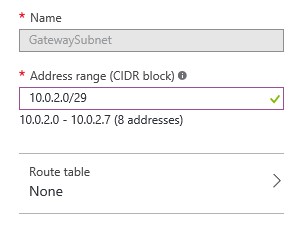


1. Open the **OpsTrainingVNET** configuration blade by clicking **More services**, **Virtual Networks**, and clicking on **OpsTrainingVNET**.

1. On the **OpsTrainingVNET** virtual network configuration blade, click **Subnets** and then click **+Gateway subnet**.



1. Specify the following configuration and click **OK.**
   * Name: **GatewaySubnet**
   * Address range: **10.0.2.0/29**



### Exercise 3: Create the First Gateway

1. Using the Azure Management Portal, click **More services**, **Virtual Network Gateways**.

1. Click the **Add** button on the toolbar.

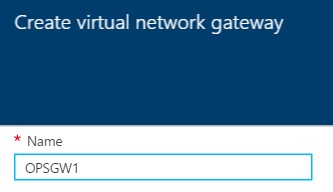


3.

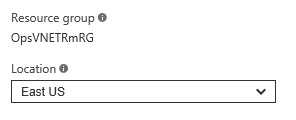
Name the gateway

**OPSGW1**

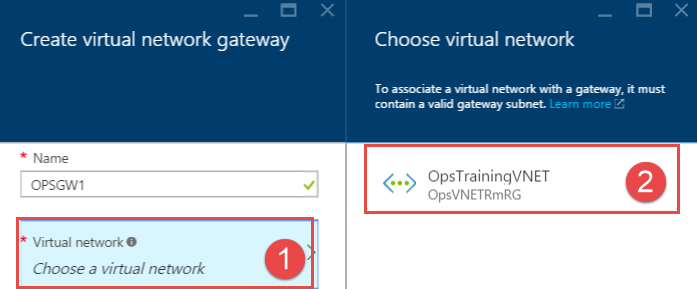
.



1. Select the region the **OpsTrainingVNET** is deployed to.



1. Click the **Choose a virtual network tile**, and select **OpsTrainingVNET**.



1. Click the **Public IP address** tile, and click **Create new**.

7.

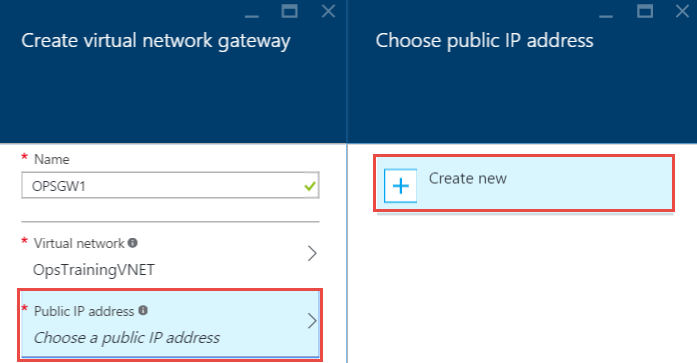
Name the IP

**OPSGW1IP**

and click

**OK**

.



8. Click the **Create** button at the bottom of the blade to start the provisioning of the gateway.

### Exercise 4: Create the Second Gateway

1. Using the Azure Management Portal, click **More services**, **Virtual Network Gateways**.

1. Click the **Add** button on the toolbar.

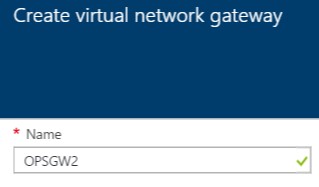


3.

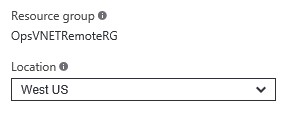
Name the gateway

**OPSGW2**

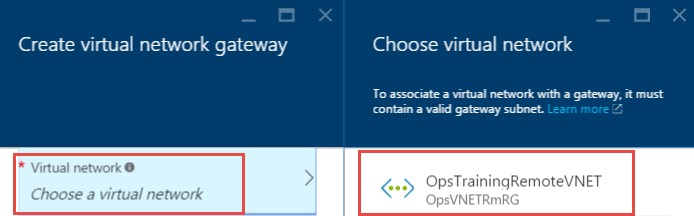
.



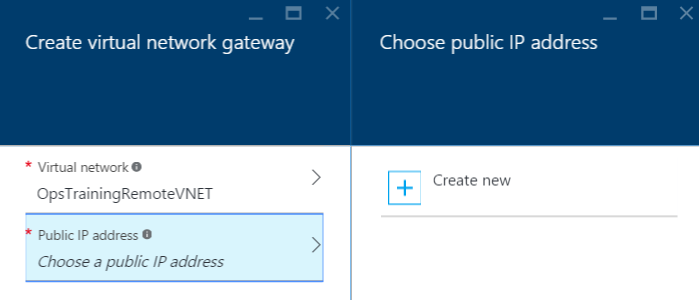
1. Select the region the **OpsTrainingRemoteVNET** is deployed to.



1. Click the **Choose a virtual network tile**, and select **OpsTrainingRemoteVNET**.



1. Click the **Public IP address** tile, and click **Create new**.



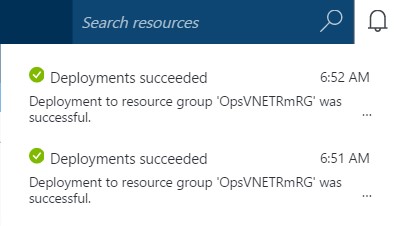
1. Name the IP **OPSGW2IP** and click **OK**.



1. Click the **Create** button at the bottom of the blade to start the provisioning of the gateway.

Note: It may take up to 60 minutes to provision both gateways. At this point you should come back and continue the lab after the gateways are provisioned.

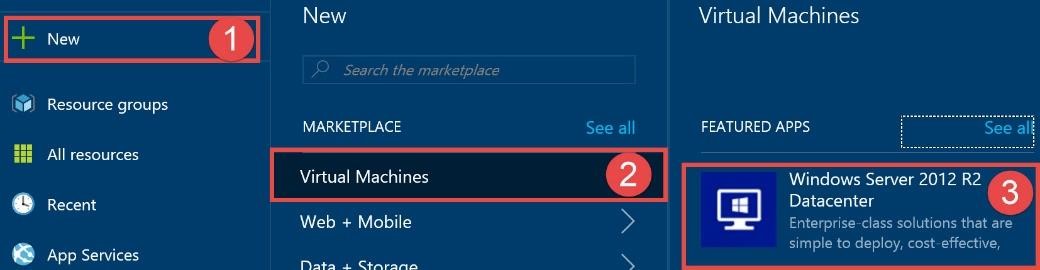
1. The Azure Portal will notify you when the deployments have completed.



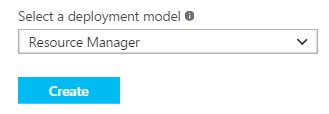
Proceed through Exercise 5 while waiting on the gateways to be provisioned.

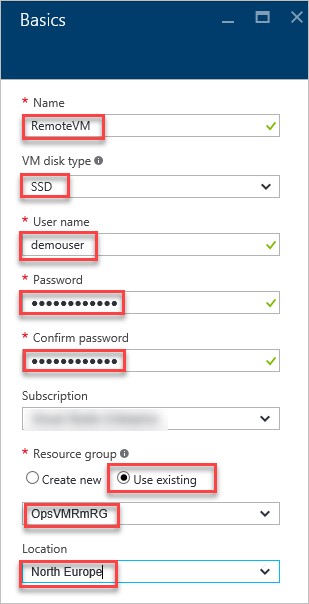
### Exercise 5: Create a VM to Validate Connectivity

1. Create a new Virtual Machine in the second virtual network by clicking **New**, **Virtual Machines**, and **Windows Server 2012 R2 Datacenter**.

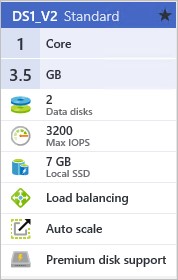


1. Accept the default setting of **Resource Manager** and then click **Create**.

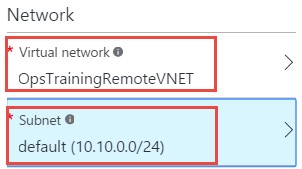


1. Specify the following configuration, and click **OK**.
   * Name: **RemoteVM**
   * VM disk type: **SSD**
   * User name: **demouser**
   * Password: **demo@pass123**
   * Resource Group: **OpsVMRmRG**
   * Location: **the region you created the OpsTrainingRemoteVNET virtual network in.**

1. Choose **DS1\_V2 Standard** and click **Select**.



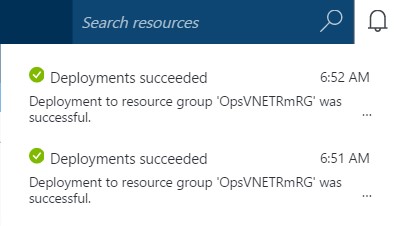
1. On the Settings blade, change the Virtual network to **OpsTrainingRemoteVNET**, and set the subnet to the default subnet named: **default**.



1. Click **OK**, and then click **OK** again to provision the virtual machine.

### Exercise 6: Connect the Gateways

This exercise depends on both gateways (from Exercise 4) being deployed and operational. Validate that you see this in the notifications area of the portal before proceeding.



1. Using the Azure Management Portal, click **New**, and type in **Connection**, and press **enter**.



2.

Click

**Connection**

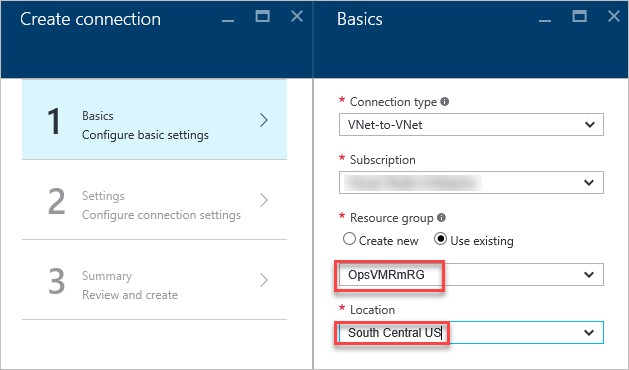
, and then click

**Create**

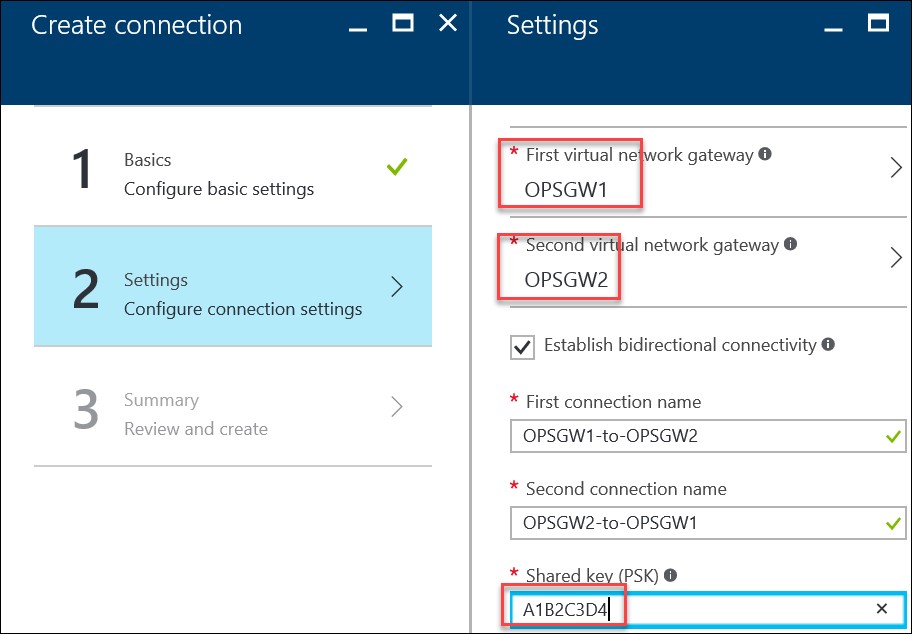
.



1. Select the existing **OpsVMRmRG** resource group. Then change the location of this connection to the Azure region the **OpsTrainingVNET** virtual network is deployed to. Click **OK**.

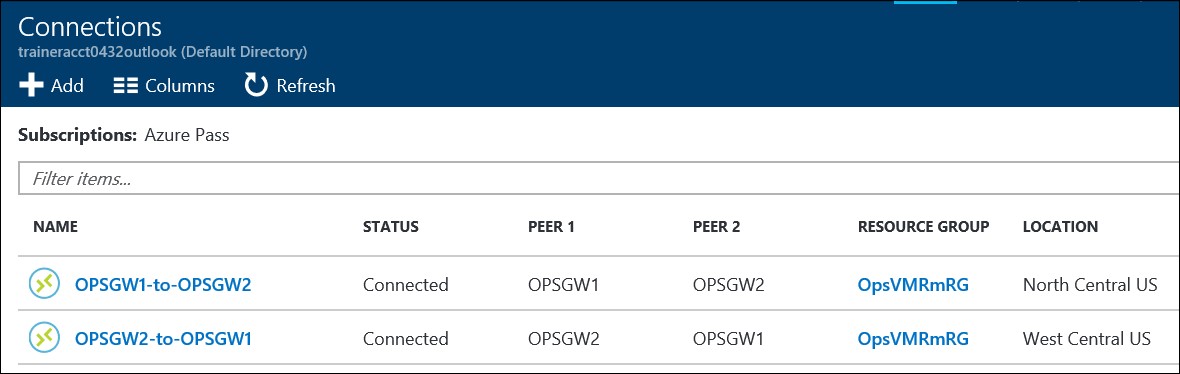


1. On the Settings tab, select **OPSGW1** for the first virtual network gateway, and **OPSGW2** for the second virtual network gateway. Enter the shared key: **A1B2C3D4**, and click **OK**.



1. Click **OK** on the Summary page to create the connection.

1. Using the Azure Management Portal, click **More services, Connections.** Watch the progress of the connection status and use the **Refresh** icon until the status changes for both connections from **Unknown** to **Connected**.



### Exercise 6: Validate Connectivity

1. After the virtual machine (Exercise 5) is provisioned you can validate connectivity over the VPN tunnel by connecting using remote desktop (launch MSTSC) from within the **WebVM-1** virtual machine and connect to the private IP of the **RemoteVM** virtual machine.

### Lab Summary

In this lab, you created a new virtual network in a remote region and established connectivity between the regions using a site-to-site virtual private network (VPN).