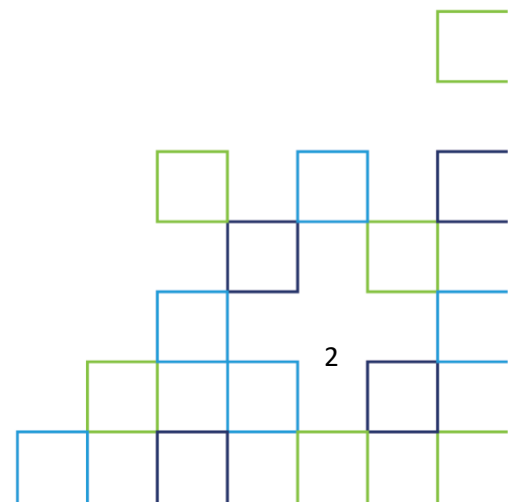


## Upgrading a basic public IP address to Standard SKU\_aacn.org

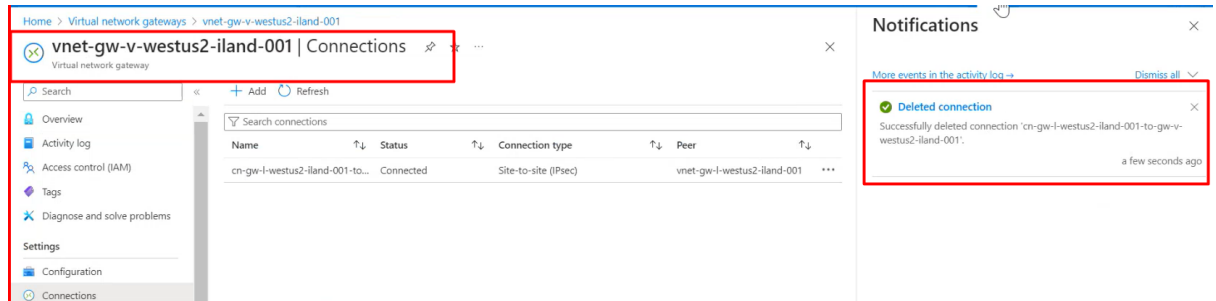
*Prepared By:*  
*--Vatsal Patel*  
*--Yash Shah*

- Need to upgrade Public IP address SKU from Basic to Standard as azure has retired basic SKU.
- As of now we have Dynamic IP address so we are not able to change in to static, so we have to delete the exiting IP address (We can upgrade the IP address SKU if we have a static IP address).
- For that we have to delete current public IP address, virtual network gateway and connection for site-to-site tunnel and create a new Virtual network gateway, IP address and Connection.



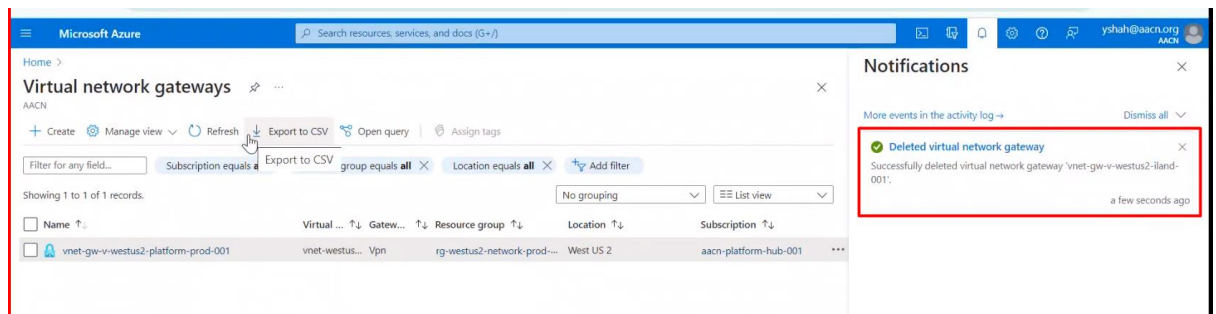
## 1. Deleted virtual network gateway for Iland:

### a. First, we have deleted connection:



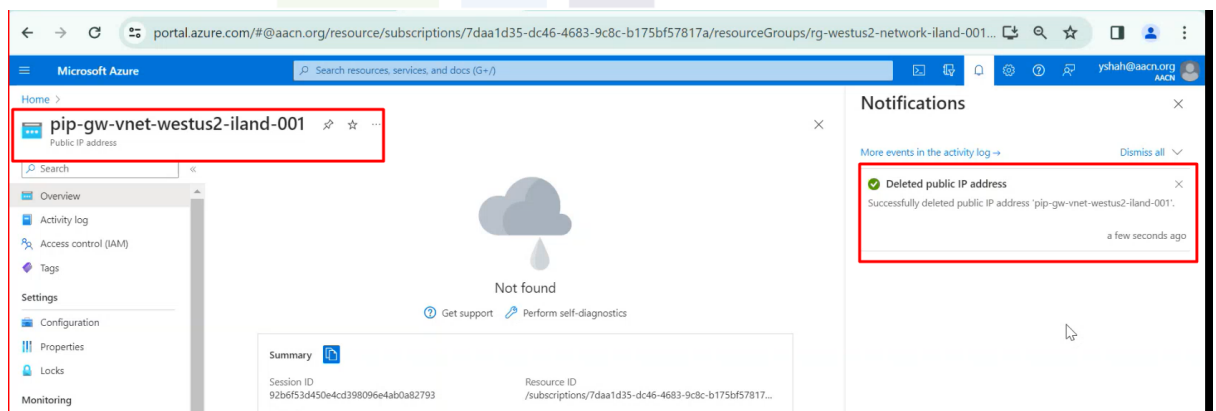
The screenshot shows the Azure portal interface for a virtual network gateway named 'vnet-gw-v-westus2-iland-001'. The 'Connections' tab is selected, showing a single connection with the name 'cn-gw-l-westus2-iland-001-to-...' and status 'Connected'. A notification on the right side of the screen indicates that the connection has been successfully deleted.

### b. Deleted virtual network gateway:



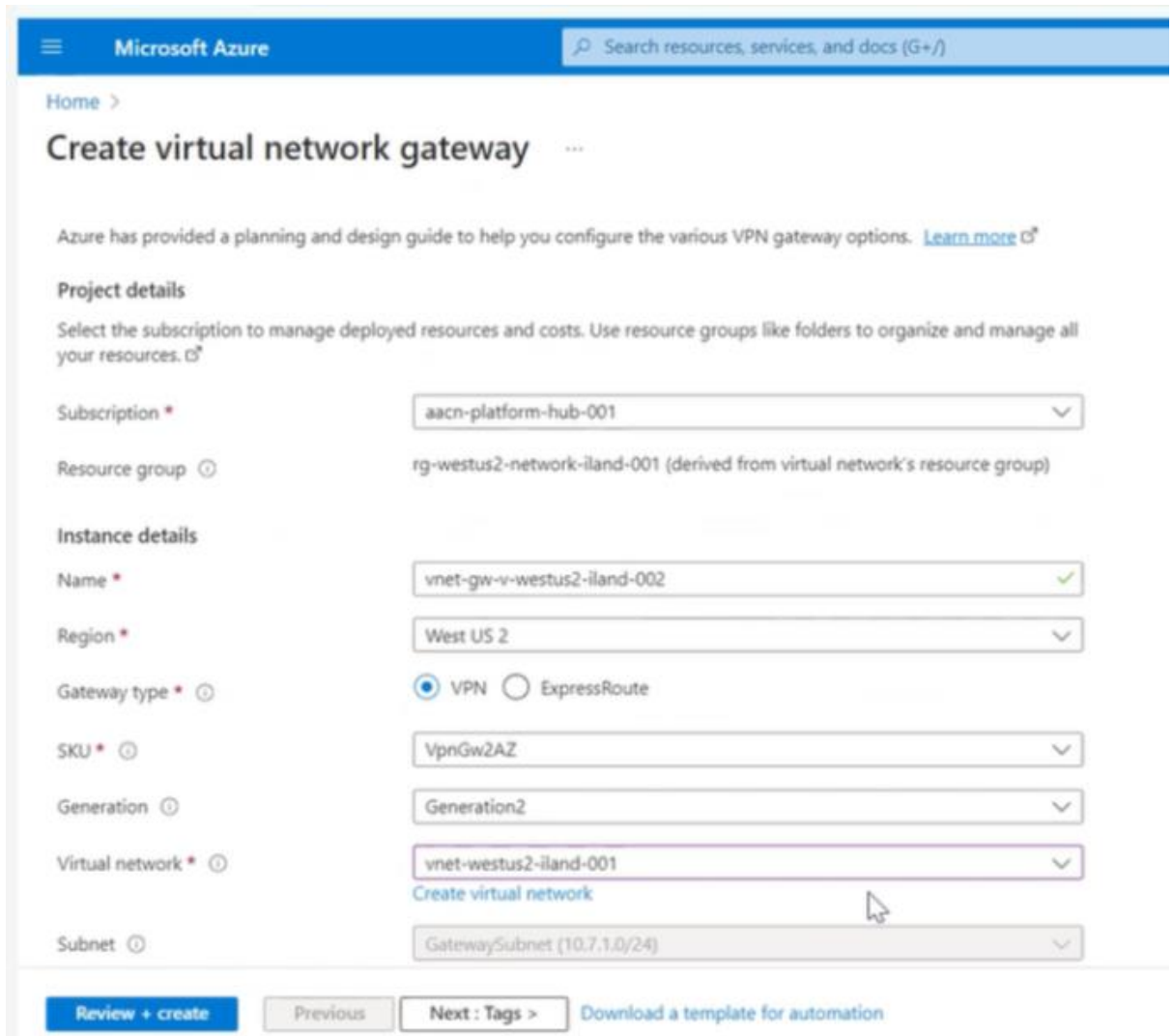
The screenshot shows the Azure portal interface for virtual network gateways. The 'Virtual network gateways' tab is selected, showing a list of gateways. One gateway, 'vnet-gw-v-westus2-platform-prod-001', is highlighted. A notification on the right side of the screen indicates that the virtual network gateway has been successfully deleted.

### c. Deleted Public IP address:



The screenshot shows the Azure portal interface for a public IP address named 'pip-gw-vnet-westus2-iland-001'. The 'Public IP address' tab is selected, showing a 'Not found' message. A notification on the right side of the screen indicates that the public IP address has been successfully deleted.

## 2. Created new Virtual network gateway:



Microsoft Azure

Search resources, services, and docs (G+)

Home >

### Create virtual network gateway

Azure has provided a planning and design guide to help you configure the various VPN gateway options. [Learn more](#)

**Project details**

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* aacn-platform-hub-001

Resource group ⓘ rg-westus2-network-iland-001 (derived from virtual network's resource group)

**Instance details**

Name \* vnet-gw-v-westus2-iland-002 ✓

Region \* West US 2

Gateway type \* ⓘ ☒ VPN ☐ ExpressRoute

SKU \* ⓘ VpnGw2AZ

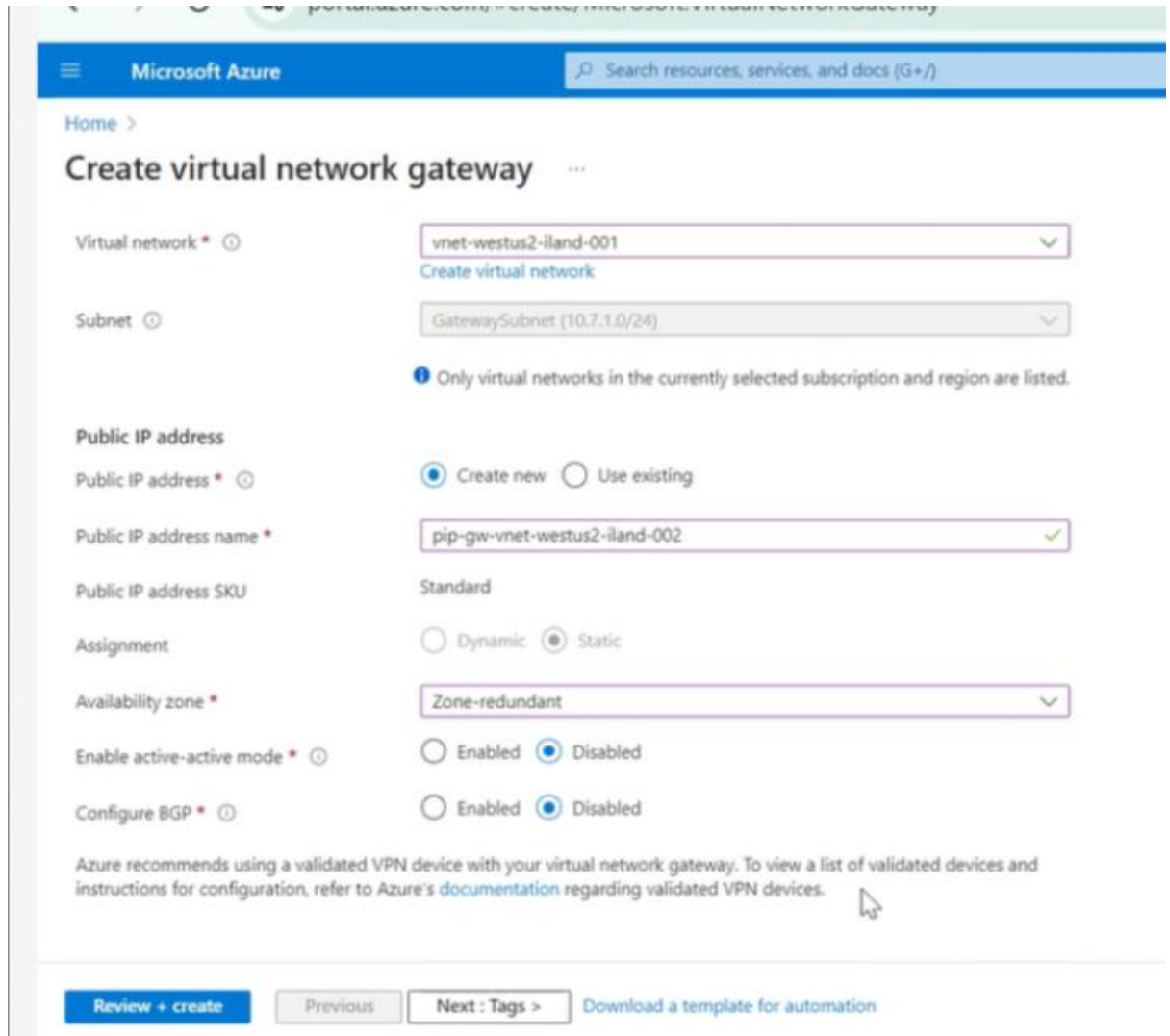
Generation ⓘ Generation2

Virtual network \* ⓘ vnet-westus2-iland-001

[Create virtual network](#)

Subnet ⓘ GatewaySubnet (10.7.1.0/24)

[Review + create](#) [Previous](#) [Next : Tags >](#) [Download a template for automation](#)



**Microsoft Azure** Search resources, services, and docs (G+ /)

Home > **Create virtual network gateway**

Virtual network \*    
 [Create virtual network](#)

Subnet

**Public IP address**

Public IP address \* ☒ Create new ☐ Use existing

Public IP address name \*  ✓

Public IP address SKU

Assignment ☐ Dynamic ☒ Static

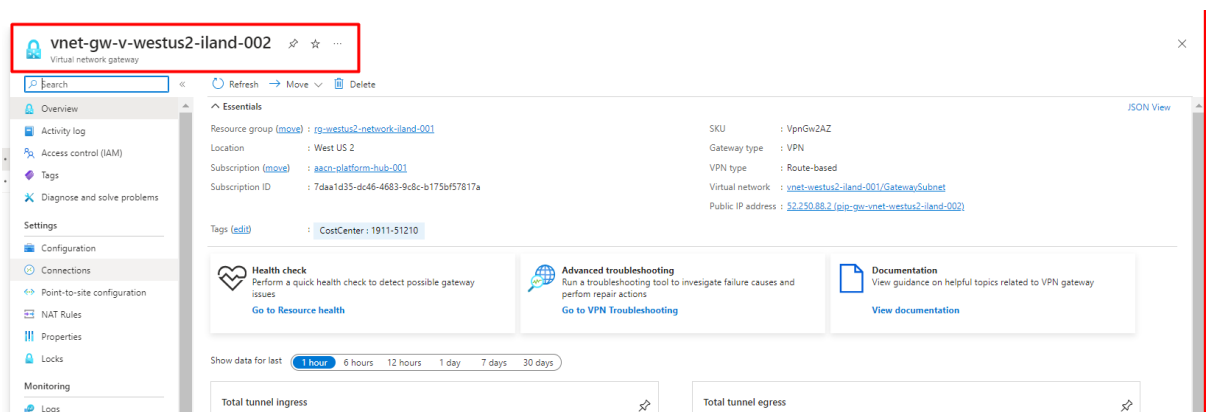
Availability zone \*

Enable active-active mode \* ☐ Enabled ☒ Disabled

Configure BGP \* ☐ Enabled ☒ Disabled

Azure recommends using a validated VPN device with your virtual network gateway. To view a list of validated devices and instructions for configuration, refer to Azure's [documentation](#) regarding validated VPN devices.

[Review + create](#) [Previous](#) [Next : Tags >](#) [Download a template for automation](#)



**vnet-gw-v-westus2-iland-002** Virtual network gateway

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Settings

Configuration

Connections

Point-to-site configuration

NAT Rules

Properties

Locks

Monitoring

Logs

Essentials

Resource group [\(move\)](#) : rg-westus2-network-iland-001

Location : West US 2

Subscription [\(move\)](#) : aascn-platform-hub-001

Subscription ID : 7daa1d35-dc46-4683-9c8c-b175b57817a

Tags [\(add\)](#) : CostCenter: 1911-51210

SKU : VpnGw2AZ

Gateway type : VPN

VPN type : Route-based

Virtual network : vnet-westus2-iland-001/GatewaySubnet

Public IP address : 52.250.88.2 (pip-gw-vnet-westus2-iland-002)

**Health check**  
Perform a quick health check to detect possible gateway issues  
[Go to Resource health](#)

**Advanced troubleshooting**  
Run a troubleshooting tool to investigate failure causes and perform repair actions  
[Go to VPN Troubleshooting](#)

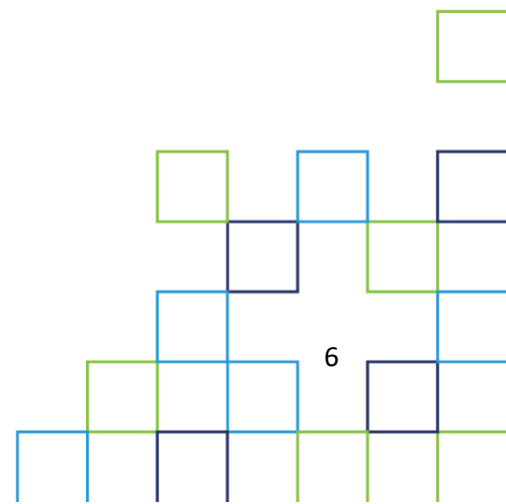
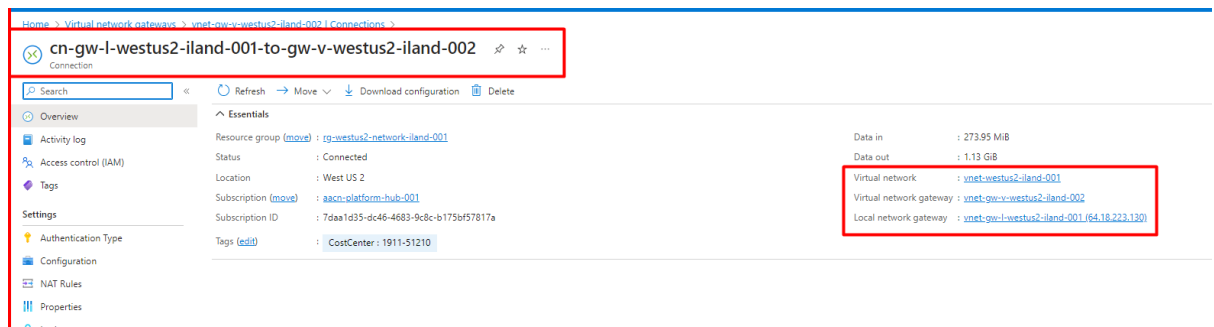
**Documentation**  
View guidance on helpful topics related to VPN gateway  
[View documentation](#)

Show data for last ☒ 1 hour ☐ 6 hours ☐ 12 hours ☐ 1 day ☐ 7 days ☐ 30 days

Total tunnel ingress

Total tunnel egress

a. Created new connection:



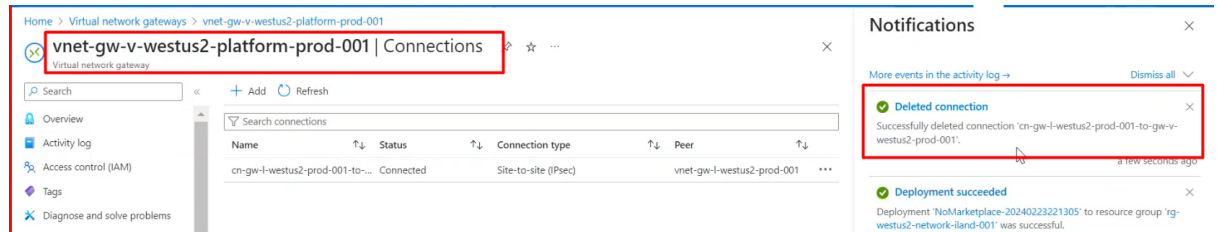
## b. Iland Firewall configuration for IPSec tunnel:

### Edit IPsec VPN

Enabled	<input checked="" type="checkbox"/>
Enable perfect forward secrecy (PFS)	<input checked="" type="checkbox"/>
Name	Azure IPSEC
Local Id *	64.18.223.130
Local Endpoint *	64.18.223.130
	<input type="button" value="SELECT"/>
Local Subnets *	192.168.128.0/24
Subnets should be entered in CIDR format with comma as separator.	
Peer Id *	52.250.88.2
Peer Endpoint *	52.250.88.2
Endpoint should be a valid IP, FQDN or any.	
Peer Subnets *	10.7.0.0/16
Subnets should be entered in CIDR format with comma as separator.	
Extension	<div></div>
Extension could be passthroughSubnets=192.168.1.0/24, 192.168.2.0	
Encryption Algorithm	AES256
Authentication	PSK
Change Shared Key	<input type="checkbox"/>
Pre-Shared Key	.....
Display Shared Key	<input type="checkbox"/>
The global pre-shared key (PSK) is shared by all the sites whose peer endpoint is set to 'any'. If a global PSK is already set, changing the PSK to an empty value and saving it has no effect on the existing setting.	
Diffie-Hellman Group	DH2
Digest Algorithm	SHA1
IKE Option	IKEv2
IKE Responder Only	<input checked="" type="checkbox"/>
Session Type	Policy Based Session

### 3. Deleted virtual network gateway for On-prem:

#### d. First, we have deleted connection:

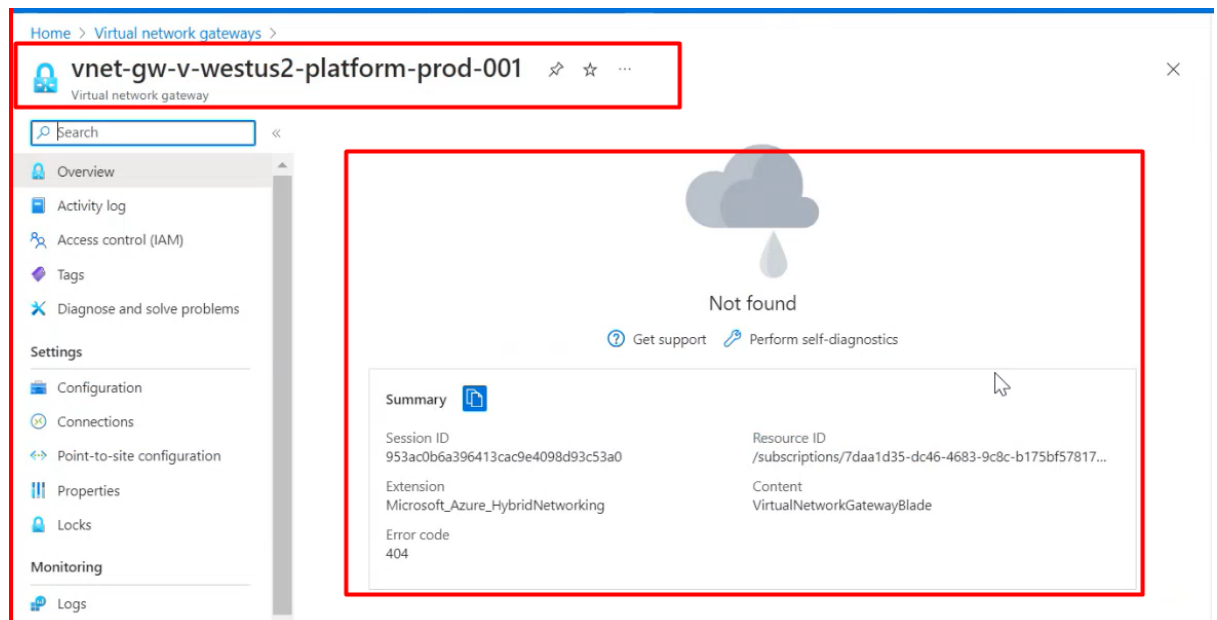


The screenshot shows the Azure portal interface. The breadcrumb path is 'Home > Virtual network gateways > vnet-gw-v-westus2-platform-prod-001'. The page title is 'vnet-gw-v-westus2-platform-prod-001 | Connections'. A table lists the connections:

Name	Status	Connection type	Peer
cn-gw-l-westus2-prod-001-to-...	Connected	Site-to-site (IPsec)	vnet-gw-l-westus2-prod-001

On the right, the 'Notifications' pane shows a message: 'Deleted connection' with the text 'Successfully deleted connection 'cn-gw-l-westus2-prod-001-to-gw-v-westus2-prod-001''. Below it, another notification says 'Deployment succeeded'.

#### e. Deleted virtual network gateway:



The screenshot shows the Azure portal interface for the virtual network gateway 'vnet-gw-v-westus2-platform-prod-001'. The page title is 'vnet-gw-v-westus2-platform-prod-001'. The main content area displays a 'Not found' message with a cloud icon and a rain drop. Below the message, there are links for 'Get support' and 'Perform self-diagnostics'. A 'Summary' section provides details:

Property	Value
Session ID	953ac0b6a396413cac9e4098d93c53a0
Resource ID	/subscriptions/7daa1d35-dc46-4683-9c8c-b175bf57817...
Extension	Microsoft_Azure_HybridNetworking
Content	VirtualNetworkGatewayBlade
Error code	404



f. Deleted Public IP address:

Notifications

[More events in the activity log →](#)
[Dismiss all](#)

✓ Deleted public IP address

Successfully deleted public IP address 'pip-gw-vnet-westus2-platform-hub-prod-001'.

a few seconds ago

\$0.00 credit remaining

Subscription 'aacn-sandbox-001' has a remaining credit of \$0.00.

3 minutes ago

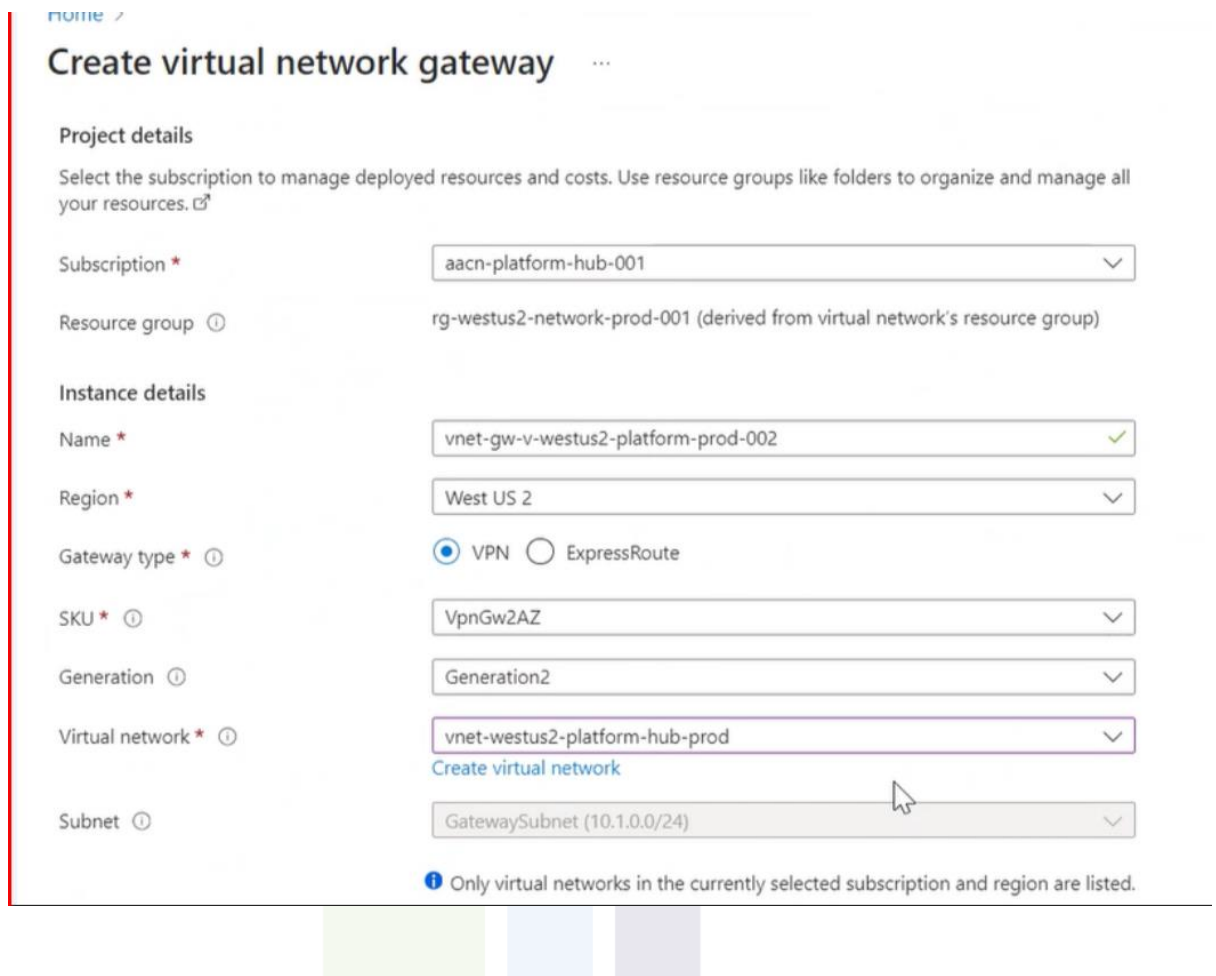
079 69 121 700

Vatsal.Patel@dynatechconsultancy.com

18, Times Corporate Park, Thaltej,  
Ahmedabad, India - 380059

9

#### 4. Created new Virtual network gateway:



**Create virtual network gateway**

**Project details**  
Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \*

Resource group ⓘ

**Instance details**

Name \*

Region \*

Gateway type \* ⓘ ☒ VPN ☐ ExpressRoute

SKU \* ⓘ

Generation ⓘ

Virtual network \* ⓘ   
[Create virtual network](#)

Subnet ⓘ

Only virtual networks in the currently selected subscription and region are listed.

## Create virtual network gateway

Virtual network \* ⓘ vnet-westus2-platform-hub-prod ▼  
[Create virtual network](#)

Subnet ⓘ GatewaySubnet (10.1.0.0/24) ▼

Only virtual networks in the currently selected subscription and region are listed.

**Public IP address**

Public IP address \* ⓘ ☒ Create new ☐ Use existing

Public IP address name \* pip-gw-vnet-westus2-platform-hub-prod-002 ✓

Public IP address SKU Standard


Assignment ☐ Dynamic ☒ Static

Availability zone \* Zone-redundant ▼

Enable active-active mode \* ⓘ ☐ Enabled ☒ Disabled

Configure BGP \* ⓘ ☐ Enabled ☒ Disabled

Azure recommends using a validated VPN device with your virtual network gateway. To view a list of validated devices and instructions for configuration, refer to Azure's [documentation](#) regarding validated VPN devices.


**vnet-gw-v-westus2-platform-prod-002**
✕ ☆ ⋮

Virtual network gateway

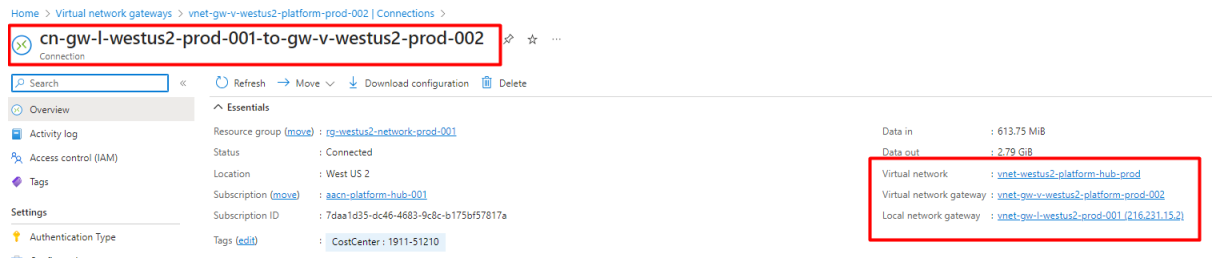
Refresh Move Delete

Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Settings
Configuration

**Essentials**
Resource group (move) : [rg-westus2-network-prod-001](#)  
Location : West US 2  
Subscription (move) : [aascn-platform-hub-001](#)  
Subscription ID : 7daa1d35-dc46-4683-9c8c-b175bf57817a  
Tags (edit) : CostCenter : 1911-51210

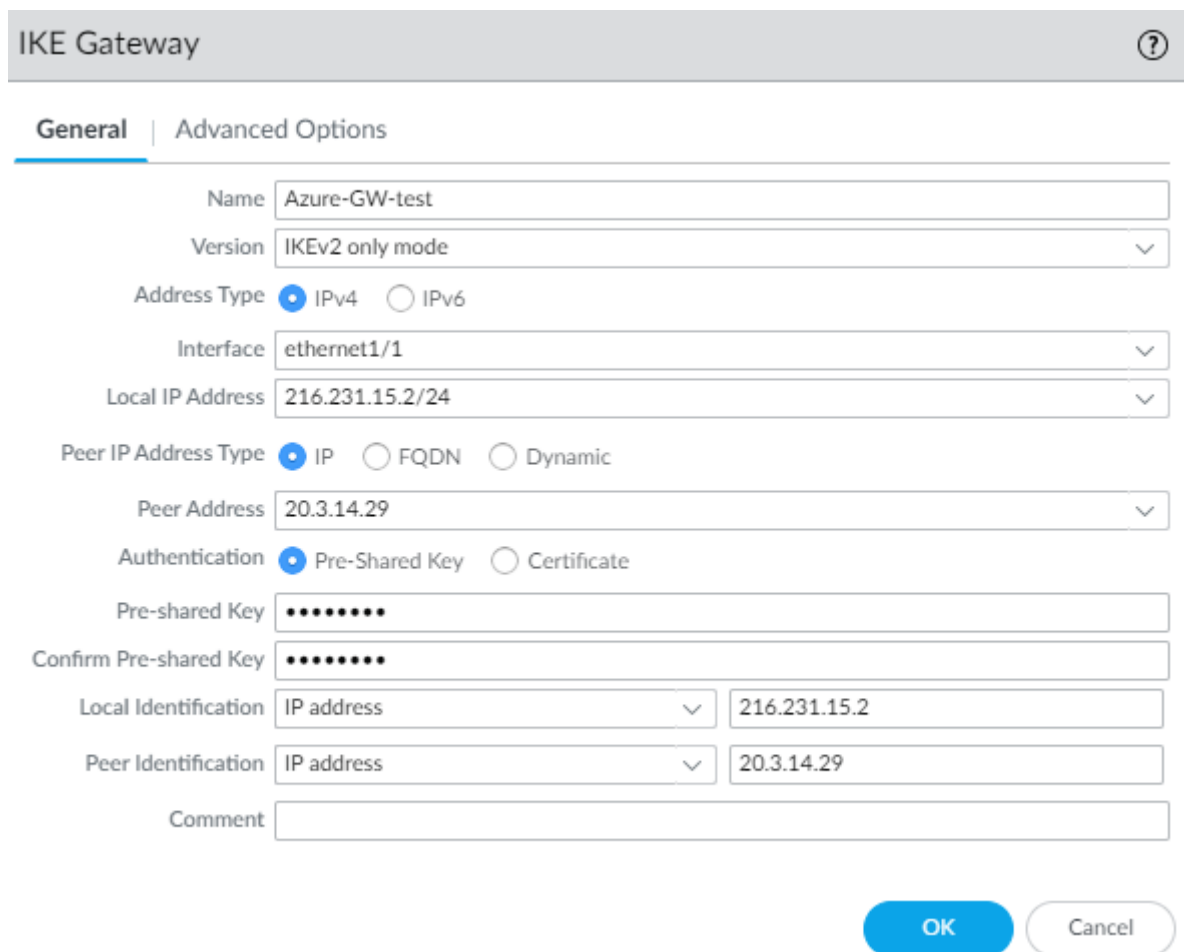
SKU : VpnGw2AZ  
Gateway type : VPN  
VPN type : Route-based  
Virtual network : [vnet-westus2-platform-hub-prod/GatewaySubnet](#)  
Public IP address : [20.3.14.29 \(pip-gw-vnet-westus2-platform-hub-prod-002\)](#)

g. Created new connection:



The screenshot shows the Azure portal interface for a new connection. The connection name 'cn-gw-l-westus2-prod-001-to-gw-v-westus2-prod-002' is highlighted with a red box. The connection is in the 'Essentials' tab, showing details like Resource group, Status, Location, Subscription, and Tags. The 'Data in' and 'Data out' metrics are also visible, with 'Data out' highlighted by a red box.

h. On-prem Firewall configuration for IPSec tunnel:



The screenshot shows the 'IKE Gateway' configuration page in the Azure portal. The 'General' tab is selected, and the configuration is as follows:

- Name: Azure-GW-test
- Version: IKEv2 only mode
- Address Type: ☒ IPv4 ☐ IPv6
- Interface: ethernet1/1
- Local IP Address: 216.231.15.2/24
- Peer IP Address Type: ☒ IP ☐ FQDN ☐ Dynamic
- Peer Address: 20.3.14.29
- Authentication: ☒ Pre-Shared Key ☐ Certificate
- Pre-shared Key: [Redacted]
- Confirm Pre-shared Key: [Redacted]
- Local Identification: IP address (216.231.15.2)
- Peer Identification: IP address (20.3.14.29)
- Comment: [Empty]

The 'OK' and 'Cancel' buttons are visible at the bottom right.