

Inter -Region VPC Peering on AWS

Created VPCs, Subnets, IGWs, EC2 Instances across two regions. Connected them.



Step 1: Create VPC in Region 1.

Name: VPC-Mumbai

CIDR: 10.0.0.0/16

CreateVpc | VPC | ap-south-1 | Console Home | Console Home

ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#CreateVpc:createMode=vpcOnly

aws Search [Alt+S] Asia Pacific (Mumbai) syhasir9147@gmail.com

VPC > Your VPCs > Create VPC

Create VPC [Info](#)

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create [Info](#)
Create only the VPC resource or the VPC and other networking resources.

☒ VPC only ☐ VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

VPC-Mumbai

IPv4 CIDR block [Info](#)
☒ IPv4 CIDR manual input
☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/16
CIDR block size must be between /16 and /28.

IPv6 CIDR block [Info](#)
☒ No IPv6 CIDR block

CloudShell Feedback

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Type here to search

Sensex To Touch 89,0... 7:11 AM 5/22/2025

Step 2: Create Subnet in Region 1.

Subnet: 10.0.1.0/24 in VPC-Mumbai (AZ: ap-south-1a)

The screenshot shows the AWS Management Console interface for creating a new subnet. The browser address bar indicates the URL is `ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#CreateSubnet:`. The console header shows the user is logged in as `syhasir9147@gmail.com` in the `Asia Pacific (Mumbai)` region. The breadcrumb navigation shows `VPC > Subnets > Create subnet`.

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block [Info](#)
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.

IPv4 subnet CIDR block
 256 IPs

The bottom of the console shows a footer with copyright information: `© 2025, Amazon Web Services, Inc. or its affiliates.` and links for [Privacy](#), [Terms](#), and [Cookie preferences](#). The Windows taskbar at the very bottom shows the time as 7:13 AM on 5/22/2025.

Step 3: Create IGW & Attach to VPC-Mumbai

Internet Gateway: IGW-Mumbai

Attached to VPC-Mumbai

The screenshot displays the AWS Management Console interface for the 'ap-south-1' region. The left-hand navigation pane shows the 'VPC' section expanded, with 'Internet gateways' selected. The main content area shows the details for the Internet Gateway 'igw-00faacf47a577c855 / IGW-Mumbai'. Two green notification banners at the top confirm the successful attachment to VPC 'vpc-0ec30b05fdcd854d'. The 'Details' section shows the Internet gateway ID as 'igw-00faacf47a577c855', the state as 'Attached', the VPC ID as 'vpc-0ec30b05fdcd854d | VPC-Mumbai', and the owner as '041683371280'. The 'Tags' section shows a single tag with the key 'Name' and value 'IGW-Mumbai'. The bottom of the console shows the Windows taskbar with various application icons and the system clock indicating 7:14 AM on 5/22/2025.

VPC dashboard

EC2 Global View

Filter by VPC

Virtual private cloud

- Your VPCs
- Subnets
- Route tables
- Internet gateways**
- Egress-only internet gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- NAT gateways
- Peering connections

Security

- Network ACLs

Internet gateway igw-00faacf47a577c855 successfully attached to vpc-0ec30b05fdcd854d

The following internet gateway was created: igw-00faacf47a577c855 - IGW-Mumbai. You can now attach to a VPC to enable the VPC to communicate with the internet. [Attach to a VPC](#)

igw-00faacf47a577c855 / IGW-Mumbai

Details

Internet gateway ID igw-00faacf47a577c855	State Attached	VPC ID vpc-0ec30b05fdcd854d VPC-Mumbai	Owner 041683371280
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Tags

Search tags

Key	Value
Name	IGW-Mumbai

CloudShell Feedback

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Very humid 7:14 AM 5/22/2025

Step 4: Create a Route Table

The screenshot shows the AWS Management Console interface for creating a new route table. The browser address bar indicates the URL is `ap-south-1.console.aws.amazon.com/vpcconsole/home?region=ap-south-1#CreateRouteTable:`. The console header shows the user is logged in as `syhasir9147@gmail.com` in the `Asia Pacific (Mumbai)` region.

The breadcrumb navigation shows the path: `VPC > Route tables > Create route table`. The main heading is **Create route table** with an [Info](#) link. Below the heading is a descriptive text: "A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection."

The form is divided into two main sections:

- Route table settings**
 - Name - optional**: A text input field containing "RT-Mumbai". Below it, a note says "Create a tag with a key of 'Name' and a value that you specify."
 - VPC**: A dropdown menu labeled "The VPC to use for this route table." with the selected value "vpc-0ec30b05fdcd854d (VPC-Mumbai)".
- Tags**
 - A descriptive text: "A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs."
 - Key**: A text input field containing "Name".
 - Value - optional**: A text input field containing "RT-Mumbai".
 - A [Remove](#) button is next to the value field.
 - An [Add new tag](#) button is at the bottom left of the tags section.
 - A note at the bottom says "You can add 49 more tags."

At the bottom right of the form, there are two buttons: [Cancel](#) and [Create route table](#) (highlighted in orange).

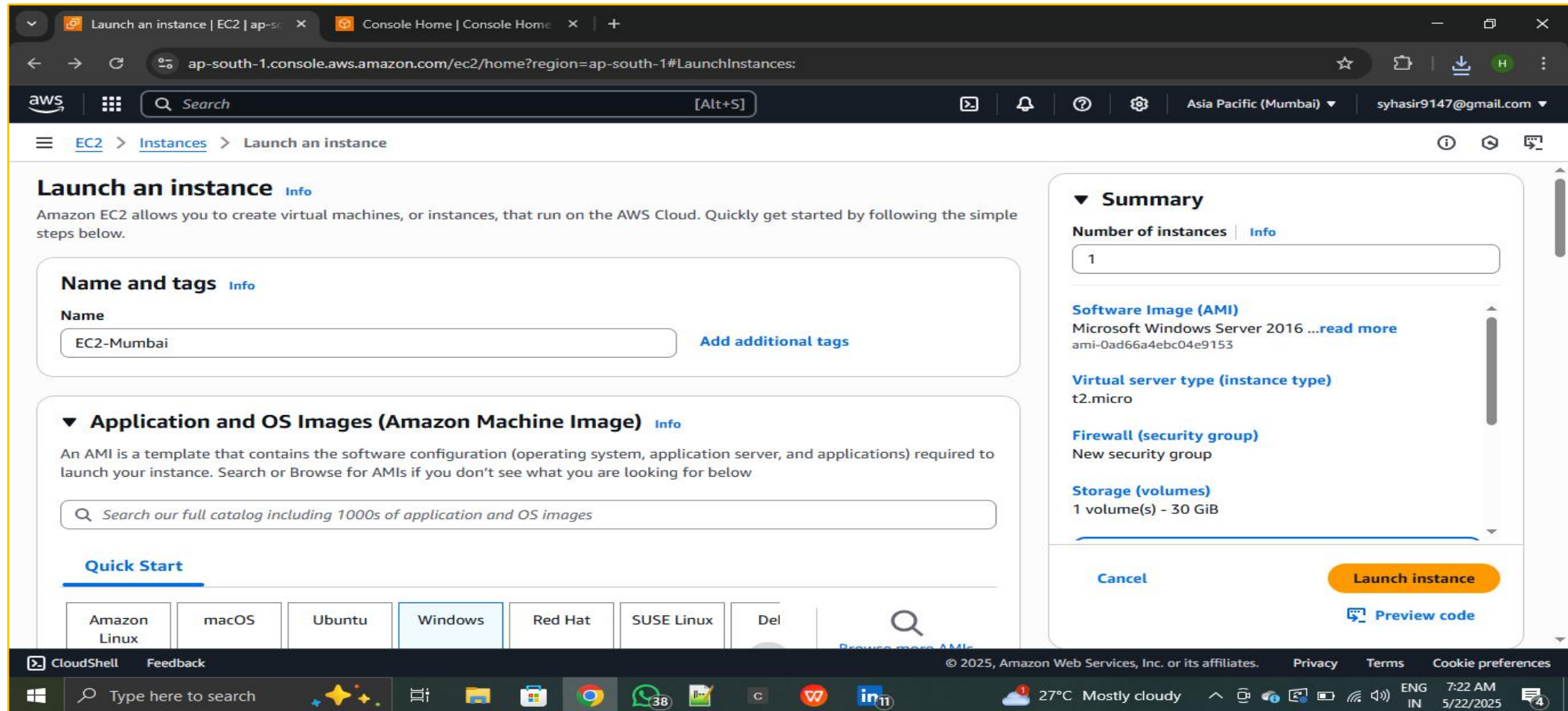
The footer of the console shows "CloudShell" and "Feedback" links, along with copyright information: "© 2025, Amazon Web Services, Inc. or its affiliates." and links for "Privacy", "Terms", and "Cookie preferences".

The Windows taskbar at the very bottom shows the search bar with "Type here to search", several application icons (including Chrome, WhatsApp, and Word), and system tray information: "Today's moment She...", "ENG IN", and "7:15 AM 5/22/2025".

Step 4: Launch EC2 in Region 1.

Windows EC2 Instance

Public IP enabled

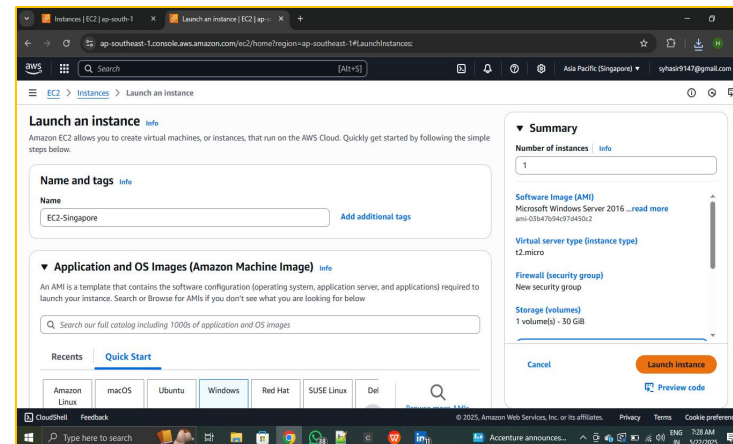
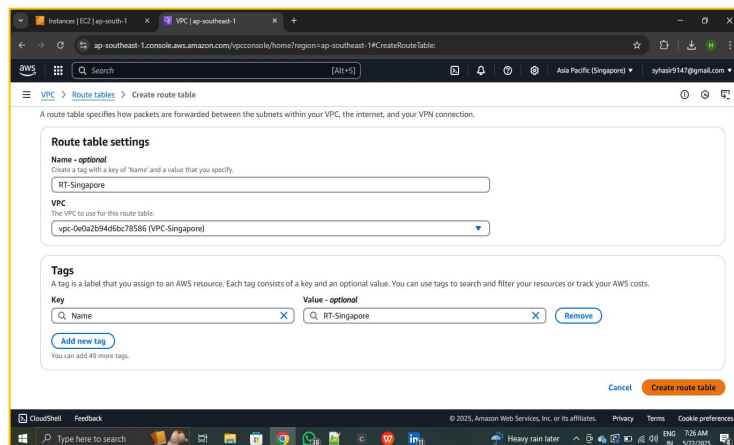
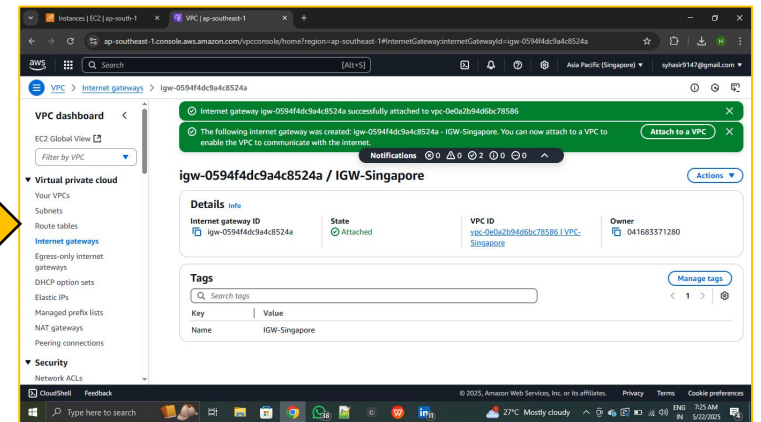
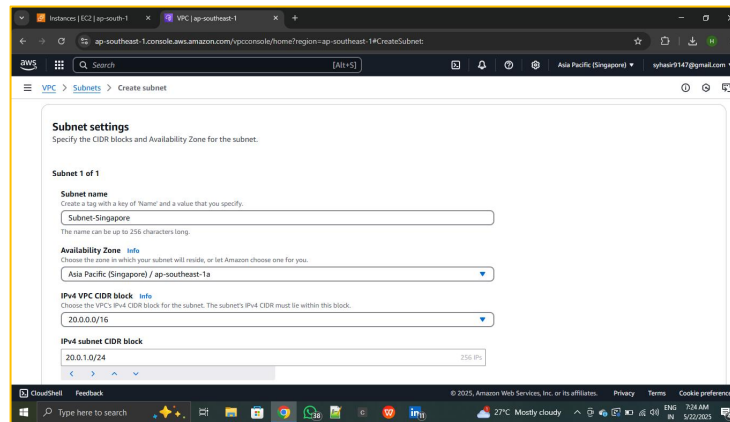
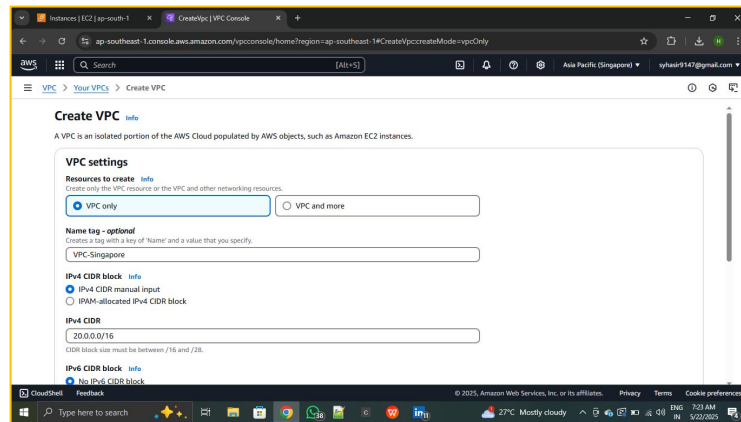


Step 6: Repeat Steps 1-5 in Region 2.

VPC: VPC-Singapore (CIDR: 20.0.0.0/16)

Subnet: 20.0.1.0/24

Windows EC2 with public IP



Step 7: Create Inter-Region VPC Peering.

Initiate VPC Peering from Mumbai to Singapore
Accept Request from Singapore

The screenshot shows the AWS VPC console for the 'ap-south-1' region (Mumbai). A green notification banner at the top states: 'A VPC peering connection pcx-0faf619bab99fa610 / VPCPeering has been requested. Remember to change your region to ap-southeast-1 to accept the peering connection.' The main content area displays details for the requested connection 'pcx-0faf619bab99fa610 / VPCPeering'. The details include:

- Requester owner ID:** 041683371280
- Requester VPC:** vpc-0ec30b05fdcd854d / VPC-Mumbai
- Requester CIDRs:** 10.0.0.0/16
- Requester Region:** Mumbai (ap-south-1)
- Accepter owner ID:** 041683371280
- Accepter VPC:** vpc-0e0a2b94d6bc78586
- Accepter Region:** Singapore (ap-southeast-1)
- Status:** Initiating Request to 041683371280
- Expiration time:** Thursday, May 29, 2025 at 07:32:20 GMT+5:30

The left sidebar shows the 'VPC dashboard' with options for 'Virtual private cloud' and 'Security'. The bottom status bar indicates the user is logged in as 'syhasir9147@gmail.com' in the 'Asia Pacific (Mumbai)' region.

The screenshot shows the AWS VPC console for the 'ap-southeast-1' region (Singapore). A green notification banner at the top states: 'Your VPC peering connection (pcx-0faf619bab99fa610) has been established. To send and receive traffic across this VPC peering connection, you must add a route to the peered VPC in one or more of your VPC route tables.' The main content area displays a table of 'Peering connections (1)'. The table has columns for Name, Peering connection ID, Status, Requester VPC, and Accepter VPC. The single entry is:

Name	Peering connection ID	Status	Requester VPC	Accepter VPC
-	pcx-0faf619bab99fa610	Provisioning	vpc-0ec30b05fdcd854d	vpc-0e0a2b94d6bc78586

The left sidebar shows the 'VPC dashboard' with options for 'Virtual private cloud' and 'Security'. The bottom status bar indicates the user is logged in as 'syhasir9147@gmail.com' in the 'Asia Pacific (Singapore)' region.

Step 8: Update Route Tables in Both VPCs

Add Route 20.0.1.0/24 in Mumbai RT

Add Route 10.0.1.0/24 in Singapore RT

Updated routes for rtb-0f2c516abc3108614 / RT-Mumbai successfully

Details

Route table ID: rtb-0f2c516abc3108614

VPC: vpc-0ec30b05fdcd854d | VPC-Mumbai

Owner ID: 041683371280

Routes (3)

Destination	Target	Status	Propagated
0.0.0.0/0	igw-00faacf47a577c855	Active	No
10.0.0.0/16	local	Active	No
20.0.1.0/24	pcx-0faf619bab99fa610	Active	No

Route tables (1/3)

Name	Route table ID	Explicit subnet associ...	Edge associations	Main	VPC
RT-Singapore	rtb-02ce5a4deea66ab34	subnet-0b4987b68cbd7d...	-	No	vpc-
-	rtb-02e07bf5ca1912cda	-	-	Yes	vpc-
-	rtb-0c5d2a278a95f7bac	-	-	Yes	vpc-

Routes (3)

Destination	Target	Status	Propagated
0.0.0.0/0	igw-0594f4dc9a4c8524a	Active	No
10.0.1.0/24	pcx-0faf619bab99fa610	Active	No
20.0.0.0/16	local	Active	No

Step 9: Test Connectivity from Both VMs.

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : ap-south-1.compute.internal
    Link-local IPv6 Address . . . . . : fe80::6840:f1f5:366f:3512%6
    IPv4 Address. . . . . : 10.0.1.172
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.0.1.1

Tunnel adapter Local Area Connection* 3:

    Connection-specific DNS Suffix  . : 
    IPv6 Address. . . . . : 2001:0:348b:fb58:2c19:3b35:fc92:27ca
    Link-local IPv6 Address . . . . . : fe80::2c19:3b35:fc92:27ca%8
    Default Gateway . . . . . : ::

Tunnel adapter isatap.ap-south-1.compute.internal:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : ap-south-1.compute.internal

C:\Users\Administrator>ping 20.0.1.126

Pinging 20.0.1.126 with 32 bytes of data:
Reply from 20.0.1.126: bytes=32 time=61ms TTL=128
Reply from 20.0.1.126: bytes=32 time=60ms TTL=128
Reply from 20.0.1.126: bytes=32 time=60ms TTL=128
Reply from 20.0.1.126: bytes=32 time=61ms TTL=128

Ping statistics for 20.0.1.126:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 60ms, Maximum = 61ms, Average = 60ms

C:\Users\Administrator>
```

Step 9: Test Connectivity from Both VMs.

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 10.0.14393]
(c) 2016 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

    Connection-specific DNS Suffix  . : ap-southeast-1.compute.internal
    Link-local IPv6 Address . . . . . : fe80::5c9d:9098:15d1:e798%6
    IPv4 Address. . . . . : 20.0.1.126
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 20.0.1.1

Tunnel adapter isatap.ap-southeast-1.compute.internal:

    Media State . . . . . : Media disconnected
    Connection-specific DNS Suffix  . : ap-southeast-1.compute.internal

Tunnel adapter Local Area Connection* 3:

    Connection-specific DNS Suffix  . :
    IPv6 Address. . . . . : 2001:0:2851:782c:4d9:6b5:f22a:dd90
    Link-local IPv6 Address . . . . . : fe80::4d9:6b5:f22a:dd90%8
    Default Gateway . . . . . : ::

C:\Users\Administrator>ping 10.0.1.172

Pinging 10.0.1.172 with 32 bytes of data:
Reply from 10.0.1.172: bytes=32 time=60ms TTL=128
Reply from 10.0.1.172: bytes=32 time=61ms TTL=128
Reply from 10.0.1.172: bytes=32 time=60ms TTL=128
Reply from 10.0.1.172: bytes=32 time=60ms TTL=128

Ping statistics for 10.0.1.172:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 60ms, Maximum = 61ms, Average = 60ms

C:\Users\Administrator>
```