

PROJECT 1:

VPC peering

Ss1: VPCs list (showing below screen demovpc1 and demovpc2 list)

The screenshot shows the AWS VPC console interface. On the left, there is a sidebar with navigation options: 'New VPC Experience', 'VPC Dashboard', 'Filter by VPC', 'VIRTUAL PRIVATE CLOUD', 'Your VPCs', 'Subnets', 'Route Tables', 'Internet Gateways', 'Egress Only Internet Gateways', 'DHCP Options Sets', 'Elastic IPs', 'Managed Prefix Lists', and 'Feedback'. The main content area is titled 'Your VPCs (1/3) info'. It contains a table with the following columns: Name, VPC ID, State, IPv4 CIDR, and IPv6 CIDR. The table lists two VPCs: 'demoVPC1' (VPC ID: vpc-01e03eda71e8cbdfb, State: Available, IPv4 CIDR: 172.19.0.0/16) and 'DemoVPC2' (VPC ID: vpc-0955c87df6af41fd6, State: Available, IPv4 CIDR: 172.16.0.0/16). Below the table, there is a detailed view for the selected VPC (DemoVPC2), showing its VPC ID, State, DNS hostnames, DNS resolution, Tenancy, DHCP options set, Default VPC, IPv4 CIDR, Owner ID, Route table, and Network ACL.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
demoVPC1	vpc-01e03eda71e8cbdfb	Available	172.19.0.0/16	-
✓ DemoVPC2	vpc-0955c87df6af41fd6	Available	172.16.0.0/16	-

VPC ID	State	DNS hostnames	DNS resolution
vpc-0955c87df6af41fd6	Available	Disabled	Enabled

Tenancy	DHCP options set	Route table	Network ACL
Default	dopt-9e9d5ff5	rtb-0b694f61a65d63bb0 / DemoRoute2	acl-00bad5d0767532f3a

Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR
No	172.16.0.0/16	-	-

Owner ID
618639665310

The screenshot shows the AWS VPC console interface, similar to the one above, but with 'demoVPC1' selected. The table lists two VPCs: 'demoVPC1' (VPC ID: vpc-01e03eda71e8cbdfb, State: Available, IPv4 CIDR: 172.19.0.0/16) and 'DemoVPC2' (VPC ID: vpc-0955c87df6af41fd6, State: Available, IPv4 CIDR: 172.16.0.0/16). Below the table, there is a detailed view for the selected VPC (demoVPC1), showing its VPC ID, State, DNS hostnames, DNS resolution, Tenancy, DHCP options set, Default VPC, IPv4 CIDR, Owner ID, Route table, and Network ACL.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
✓ demoVPC1	vpc-01e03eda71e8cbdfb	Available	172.19.0.0/16	-
□ DemoVPC2	vpc-0955c87df6af41fd6	Available	172.16.0.0/16	-

VPC ID	State	DNS hostnames	DNS resolution
vpc-01e03eda71e8cbdfb	Available	Disabled	Enabled

Tenancy	DHCP options set	Route table	Network ACL
Default	dopt-9e9d5ff5	rtb-0bc0ae5e38f1f417b / DemoRoute1	acl-0de4c58d3986178cb

Default VPC	IPv4 CIDR	IPv6 pool	IPv6 CIDR
No	172.19.0.0/16	-	-

Owner ID
618639665310

Ss2: igw list (Showing demoIGW1 and DemoIGW2 screen below)

The screenshot shows the AWS Management Console for the 'ap-south-1' region. The 'Internet gateways' page displays a list of three gateways. DemoIGW1 and DemoIGW2 are both in an 'Attached' state. DemoIGW1 is associated with VPC ID vpc-01e03eda71e8cbdfb (demoVPC1), and DemoIGW2 is associated with VPC ID vpc-0955c87df6af41fd6 (DemoVPC2). The details pane for DemoIGW1 is expanded, showing its ID, state, VPC ID, and owner.

Name	Internet gateway ID	State	VPC ID	Owner
✓ DemoIGW1	igw-02497e7ba84d91623	Attached	vpc-01e03eda71e8cbdfb demoVPC1	61863966531
□ DemoIGW2	igw-05c3f6577cb0d0808	Attached	vpc-0955c87df6af41fd6 DemoVPC2	61863966531
□ -	igw-5dae1f35	Attached	vpc-77b3541c	61863966531

Details for DemoIGW1:

Property	Value
Internet gateway ID	igw-02497e7ba84d91623
State	Attached
VPC ID	vpc-01e03eda71e8cbdfb demoVPC1
Owner	61863966531

This screenshot is similar to the first one, but the 'Details' pane is expanded for DemoIGW2. The details show its ID, state, VPC ID, and owner.

Name	Internet gateway ID	State	VPC ID	Owner
□ DemoIGW1	igw-02497e7ba84d91623	Attached	vpc-01e03eda71e8cbdfb demoVPC1	61863966531
✓ DemoIGW2	igw-05c3f6577cb0d0808	Attached	vpc-0955c87df6af41fd6 DemoVPC2	61863966531
□ -	igw-5dae1f35	Attached	vpc-77b3541c	61863966531

Details for DemoIGW2:

Property	Value
Internet gateway ID	igw-05c3f6577cb0d0808
State	Attached
VPC ID	vpc-0955c87df6af41fd6 DemoVPC2
Owner	61863966531

Ss3: edit route list (Showing routes 172.19.0.0/16 and 172.16.0.0/16)

Edit routes | VPC Management Console

ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#EditRoutes:routeTableId=rtb-0bc0ae5e38f1f417b

Route Tables > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.19.0.0/16	local	active	No
0.0.0.0/0	igw-02497e7ba84d91623	active	No

Add route

* Required

Cancel Save routes

Feedback English (US)

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DemoServer2 (1).rdp DemoServer2.rdp

Show all

Type here to search

21:58 22/10/2020

Edit routes | VPC Management Console

ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#EditRoutes:routeTableId=rtb-0b694f61a65d63bb0

Route Tables > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.16.0.0/16	local	active	No
0.0.0.0/0	igw-05c3f6577cb0d0808	active	No

Add route

* Required

Cancel Save routes

Feedback English (US)

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DemoServer2 (1).rdp DemoServer2.rdp

Show all

Type here to search

21:59 22/10/2020

Ss4: subnet list (showing below demosubnet1 and Demosubnet2 details)

The screenshot shows the AWS Management Console interface for Subnets in the ap-south-1 region. The left sidebar contains navigation links for VPC Dashboard, Subnets, Route Tables, Internet Gateways, Egress Only Internet Gateways, DHCP Options Sets, Elastic IPs, Managed Prefix Lists, and VPCs. The main content area displays a table of subnets. Below the table, the details for subnet-02e054f5ab7e8c732 are shown, including its description, flow logs, route table, network ACL, tags, and sharing information.

Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR	Available IPv6
Demosubnet2	subnet-0244f3626e461e3ab	available	vpc-0955c87df6af41fd6 DemoVPC2	172.16.16.0/24	250	-	-
demosubnet1	subnet-02e054f5ab7e8c732	available	vpc-01e03eda71e8cbdfb demoVPC1	172.19.19.0/24	250	-	-
	subnet-468d093d	available	vpc-77b3541c	172.31.16.0/20	4091	-	-

Subnet: subnet-02e054f5ab7e8c732

Description	Flow Logs	Route Table	Network ACL	Tags	Sharing
Subnet ID	Subnet ID	Subnet ID	Subnet ID	Subnet ID	Subnet ID
VPC	VPC	VPC	VPC	VPC	VPC
Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses
Availability Zone	Availability Zone	Availability Zone	Availability Zone	Availability Zone	Availability Zone
Network ACL	Network ACL	Network ACL	Network ACL	Network ACL	Network ACL
Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address
Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool
Outpost ID	Outpost ID	Outpost ID	Outpost ID	Outpost ID	Outpost ID
State	State	State	State	State	State
IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR
IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR
Route Table	Route Table	Route Table	Route Table	Route Table	Route Table
Default subnet	Default subnet	Default subnet	Default subnet	Default subnet	Default subnet
Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address
Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address
Owner	Owner	Owner	Owner	Owner	Owner

The screenshot shows the AWS Management Console interface for Subnets in the ap-south-1 region. The left sidebar contains navigation links for VPC Dashboard, Subnets, Route Tables, Internet Gateways, Egress Only Internet Gateways, DHCP Options Sets, Elastic IPs, Managed Prefix Lists, and VPCs. The main content area displays a table of subnets. Below the table, the details for subnet-0244f3626e461e3ab are shown, including its description, flow logs, route table, network ACL, tags, and sharing information.

Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR	Available IPv6
Demosubnet2	subnet-0244f3626e461e3ab	available	vpc-0955c87df6af41fd6 DemoVPC2	172.16.16.0/24	250	-	-
demosubnet1	subnet-02e054f5ab7e8c732	available	vpc-01e03eda71e8cbdfb demoVPC1	172.19.19.0/24	250	-	-
	subnet-468d093d	available	vpc-77b3541c	172.31.16.0/20	4091	-	-

Subnet: subnet-0244f3626e461e3ab

Description	Flow Logs	Route Table	Network ACL	Tags	Sharing
Subnet ID	Subnet ID	Subnet ID	Subnet ID	Subnet ID	Subnet ID
VPC	VPC	VPC	VPC	VPC	VPC
Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses	Available IPv4 Addresses
Availability Zone	Availability Zone	Availability Zone	Availability Zone	Availability Zone	Availability Zone
Network ACL	Network ACL	Network ACL	Network ACL	Network ACL	Network ACL
Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address	Auto-assign public IPv4 address
Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool	Customer-owned IPv4 pool
Outpost ID	Outpost ID	Outpost ID	Outpost ID	Outpost ID	Outpost ID
State	State	State	State	State	State
IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR	IPv4 CIDR
IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR	IPv6 CIDR
Route Table	Route Table	Route Table	Route Table	Route Table	Route Table
Default subnet	Default subnet	Default subnet	Default subnet	Default subnet	Default subnet
Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address	Auto-assign customer-owned IPv4 address
Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address	Auto-assign IPv6 address
Owner	Owner	Owner	Owner	Owner	Owner

Ss5: instance details (Showing below demoserver1 and demoserver2 details instance)

The screenshot displays the AWS Management Console interface for the 'Instances' page. The left sidebar shows navigation options like EC2 Dashboard, Events, Tags, Limits, and a list of instance types. The main content area shows a table of instances with columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm Status, and Availability zone. Two instances are listed: DemoServer1 and DemoServer2, both in a 'Running' state. Below the table, the 'Instance summary' for DemoServer1 is expanded, showing details such as Instance ID (i-0f90fe4d21a7de65b), Public IPv4 address (65.0.74.223), Private IPv4 addresses (172.19.19.190), Instance state (Running), Public IPv4 DNS, Elastic IP addresses, Private IPv4 DNS (ip-172-19-19-190.ap-south-1.compute.internal), VPC ID (vpc-01e03eda71e8cbdfb), and Instance type (t2.micro).

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
DemoServer1	i-0f90fe4d21a7de65b	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1a
DemoServer2	i-02418de80630b26bf	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1a

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-0f90fe4d21a7de65b (DemoServer1)	65.0.74.223 open address	172.19.19.190
Instance state	Public IPv4 DNS	Private IPv4 DNS
Running	-	ip-172-19-19-190.ap-south-1.compute.internal
Instance type	Elastic IP addresses	VPC ID
t2.micro	-	vpc-01e03eda71e8cbdfb (demoVPC1)

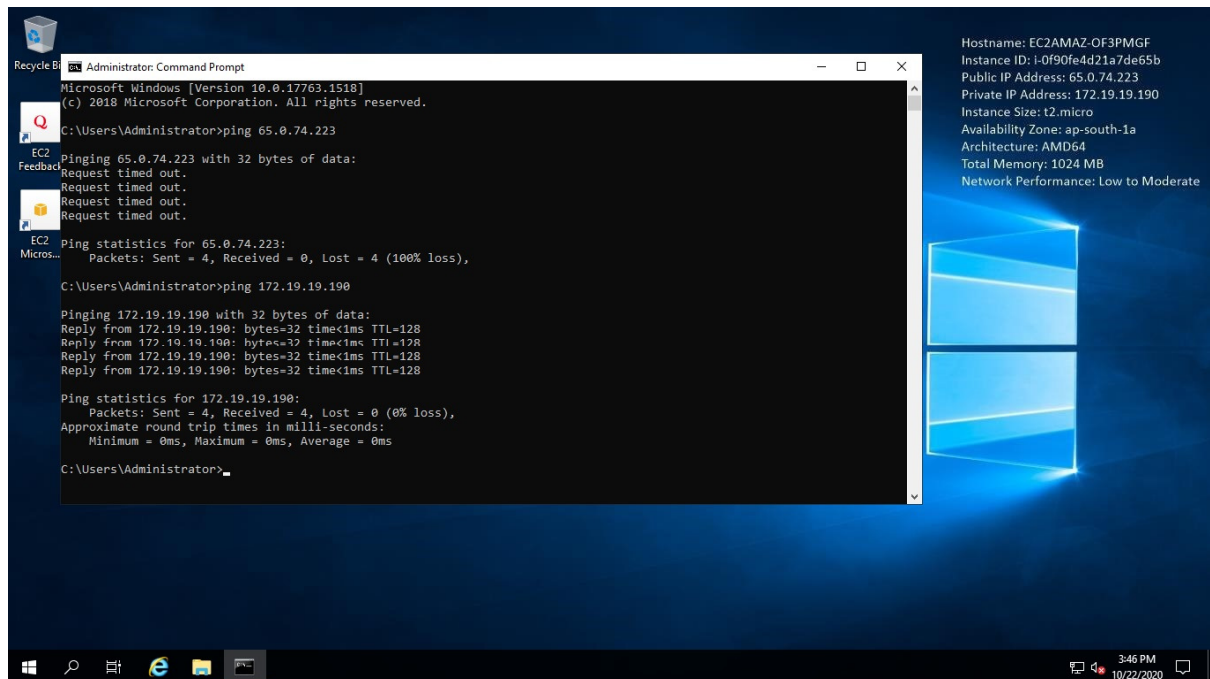
This screenshot shows the AWS Management Console with the 'Instances' page. In this view, DemoServer2 is selected. The table of instances is the same as in the first screenshot. The 'Instance summary' for DemoServer2 is expanded, showing details such as Instance ID (i-02418de80630b26bf), Public IPv4 address (65.0.30.172), Private IPv4 addresses (172.16.16.155), Instance state (Running), Public IPv4 DNS, Elastic IP addresses, Private IPv4 DNS (ip-172-16-16-155.ap-south-1.compute.internal), VPC ID (vpc-0955c87df6af41fd6), and Instance type (t2.micro).

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
DemoServer1	i-0f90fe4d21a7de65b	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1a
DemoServer2	i-02418de80630b26bf	Running	t2.micro	2/2 checks ...	No alarms +	ap-south-1a

Instance summary Info

Instance ID	Public IPv4 address	Private IPv4 addresses
i-02418de80630b26bf (DemoServer2)	65.0.30.172 open address	172.16.16.155
Instance state	Public IPv4 DNS	Private IPv4 DNS
Running	-	ip-172-16-16-155.ap-south-1.compute.internal
Instance type	Elastic IP addresses	VPC ID
t2.micro	-	vpc-0955c87df6af41fd6 (DemoVPC2)

Ss6: success public, rto to private IP (Showing result demoserver1 and demoserver2 instances with public and private ip) for your reference verify above demoserver1 & 2 instance details screen.



Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.17763.1518]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ping 65.0.74.223

Pinging 65.0.74.223 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 65.0.74.223:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\Administrator>ping 172.19.19.190

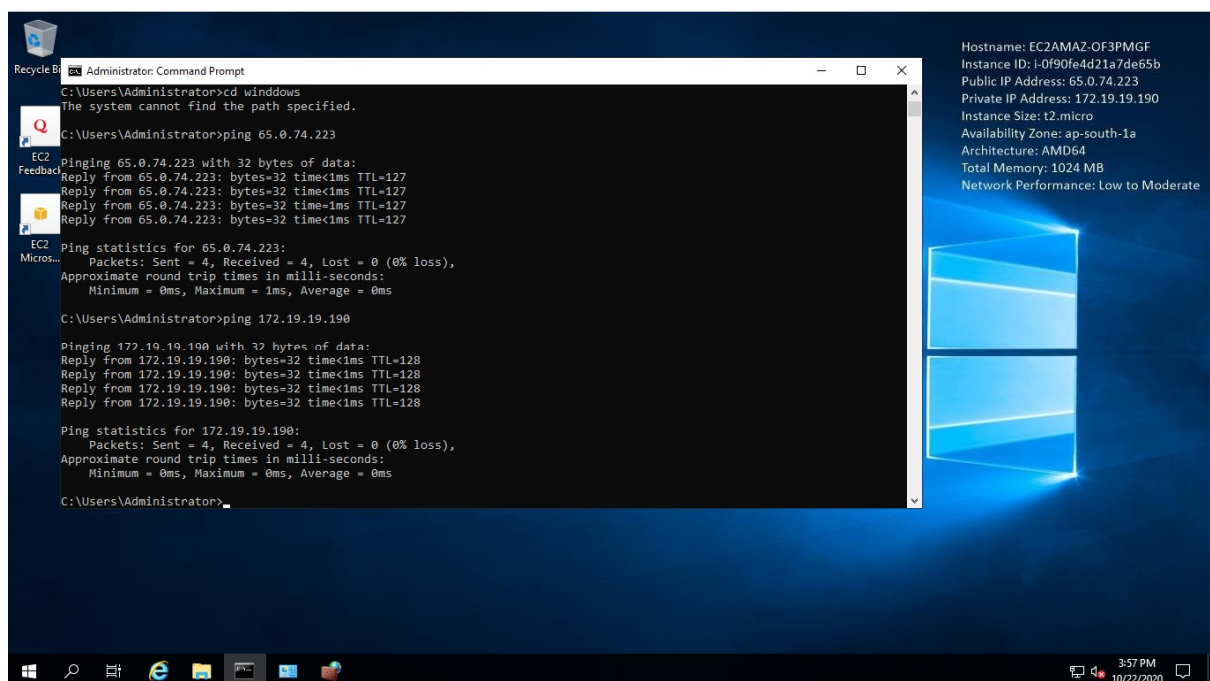
Pinging 172.19.19.190 with 32 bytes of data:
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128

Ping statistics for 172.19.19.190:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

EC2 Instance Details:

- Hostname: EC2AMAZ-OF3PMGF
- Instance ID: i-0f90fe4d21a7de65b
- Public IP Address: 65.0.74.223
- Private IP Address: 172.19.19.190
- Instance Size: t2.micro
- Availability Zone: ap-south-1a
- Architecture: AMD64
- Total Memory: 1024 MB
- Network Performance: Low to Moderate



Administrator: Command Prompt

```
C:\Users\Administrator>cd windows
The system cannot find the path specified.

C:\Users\Administrator>ping 65.0.74.223

Pinging 65.0.74.223 with 32 bytes of data:
Reply from 65.0.74.223: bytes=32 time<1ms TTL=127
Reply from 65.0.74.223: bytes=32 time<1ms TTL=127
Reply from 65.0.74.223: bytes=32 time<1ms TTL=127
Reply from 65.0.74.223: bytes=32 time<1ms TTL=127

Ping statistics for 65.0.74.223:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\Administrator>ping 172.19.19.190

Pinging 172.19.19.190 with 32 bytes of data:
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128
Reply from 172.19.19.190: bytes=32 time<1ms TTL=128

Ping statistics for 172.19.19.190:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

EC2 Instance Details:

- Hostname: EC2AMAZ-OF3PMGF
- Instance ID: i-0f90fe4d21a7de65b
- Public IP Address: 65.0.74.223
- Private IP Address: 172.19.19.190
- Instance Size: t2.micro
- Availability Zone: ap-south-1a
- Architecture: AMD64
- Total Memory: 1024 MB
- Network Performance: Low to Moderate

Ss7: peering with req and acceptor

The screenshot displays the AWS Management Console interface for creating a VPC peering connection. The page title is "Create Peering Connection | VPC". The URL is `ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#CreatePeeringConnection:`. The page shows a "Success" message: "A VPC peering connection (pcx-098b17f5eb8fb84a) has been requested." Below this, a table lists the details for both the requester and acceptor VPCs.

Requester VPC owner	618639665310 (This account)	Accepter VPC owner	618639665310 (This account)
Requester VPC ID	vpc-01e03ada71e8cbdfb	Accepter VPC ID	vpc-0955c87df6af41fd6
Requester VPC Region	ap-south-1	Accepter VPC Region	ap-south-1
Requester VPC CIDRs	172.19.0.0/16	Accepter VPC CIDRs	-

An "OK" button is visible at the bottom right of the success message.

Below the AWS console, a Windows taskbar is visible with the search bar and several application icons. The taskbar shows the time as 22:24 on 22/10/2020.

The bottom part of the screenshot shows a Windows desktop with a blue background. A command prompt window is open, displaying the results of a ping command. The output shows that the ping to 172.16.16.155 was successful, with a round trip time of 0ms. The output also shows the ping statistics for 172.16.16.155, indicating that all packets were received and there was no loss.

```
Administrator: Command Prompt
Approximate round trip times in milli-seconds:
  Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>ping 172.16.16.155

Pinging 172.16.16.155 with 32 bytes of data:
Reply from 172.16.16.155: bytes=32 time<1ms TTL=128
Reply from 172.16.16.155: bytes=32 time<1ms TTL=128
Reply from 172.16.16.155: bytes=32 time<1ms TTL=128
Reply from 172.16.16.155: bytes=32 time<1ms TTL=128

Ping statistics for 172.16.16.155:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>ping 65.0.30.172

Pinging 65.0.30.172 with 32 bytes of data:
Reply from 65.0.30.172: bytes=32 time<1ms TTL=127
Reply from 65.0.30.172: bytes=32 time<1ms TTL=127
Reply from 65.0.30.172: bytes=32 time<1ms TTL=127
Reply from 65.0.30.172: bytes=32 time<1ms TTL=127

Ping statistics for 65.0.30.172:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

On the right side of the desktop, a system information window is open, displaying the following details:

- Hostname: EC2AMAZ-OF3PMGF
- Instance ID: i-0f90fe4d21a7de65b
- Public IP Address: 65.0.74.223
- Private IP Address: 172.19.19.190
- Instance Size: t2.micro
- Availability Zone: ap-south-1a
- Architecture: AMD64
- Total Memory: 1024 MB
- Network Performance: Low to Moderate

Ss8: success for private (showing private ip successfully pinging below screen.)

