

AWS Project: -12

Project Date: – 29.04.2021

Prepared by: – Sarveswara Sarma Nemani

Q:- Create 2 VPC in same Account with Different Regions and Create **VPC peering** Access the "Request VPC " Private server Access and create a folder and keep some files in that server

Sol:

```
ec2-user@ip-10-0-1-236:~$ last login: Thu Apr 29 04:26:51 2021 from 136.185.61.148
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-0-160 ~]$ sudo -i
[root@ip-10-0-0-160 ~]# ssh -i sarvesh.pem ec2-user@10.0.1.236
Last login: Thu Apr 29 04:28:57 2021 from ip-10-0-0-160.ec2.internal
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-1-236 ~]$ vi nemani.pem
[ec2-user@ip-10-0-1-236 ~]$ chmod 400 nemani.pem
[ec2-user@ip-10-0-1-236 ~]$ ssh -i nemani.pem ec2-user@172.0.1.115
^[[A
^C
[ec2-user@ip-10-0-1-236 ~]$ ssh -i nemani.pem ec2-user@172.0.1.115
The authenticity of host '172.0.1.115 (172.0.1.115)' can't be established.
ECDSA key fingerprint is SHA256:EmKYM1jFXAtUmm2sLyPFXnmV6RhHAFBEN6K9K8VYmW1.
ECDSA key fingerprint is MD5:5b:5a:79:94:6a:af:3c:77:70:89:39:dd:8f:07:65:b5.
Are you sure you want to continue connecting (yes/no)? yes
Warning: Permanently added '172.0.1.115' (ECDSA) to the list of known hosts.
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-0-1-115 ~]$ logout
Connection to 172.0.1.115 closed.
[ec2-user@ip-10-0-1-236 ~]$ history
1 top
2 history
3 vi nemani.pem
4 chmod 400 nemani.pem
5 ssh -i nemani.pem ec2-user@172.0.1.115
6 history
[ec2-user@ip-10-0-1-236 ~]$
```

The screenshot shows the AWS Management Console interface. The top navigation bar includes the AWS logo, a search bar, and user information (snemani, N. Virginia, Support). The left sidebar shows the 'VPC Dashboard' with a filter for 'Select a VPC'. The main content area displays the details for VPC 'vpc-08756e506d297cd07'. The VPC is in the 'available' state with an IPv4 CIDR of 10.0.0.0/16. It has two subnets: 'vpc-de7217a3' (172.31.0.0/16) and 'vpc-de7217a3' (172.31.0.0/16). The VPC is associated with the 'dopt-fd0d987' DHCP options set and the 'rtb-037fabcb12502302a' main route table. The bottom of the console shows the 'Description' tab with details about the VPC ID, state, CIDR blocks, and associated resources.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	IPv6 CIDR (Network Border Group)	DHCP options set	Main Route table
INFRA-VPC	vpc-08756e506d297cd07	available	10.0.0.0/16	-	-	dopt-fd0d987	rtb-037fabcb12502302a
	vpc-de7217a3	available	-	-	-	dopt-fd0d987	rtb-0defef73

Description	CIDR Blocks	Flow Logs	Tags
VPC ID	vpc-08756e506d297cd07		
State	available		
IPv4 CIDR	10.0.0.0/16		
IPv6 CIDR	-		
IPv6 Pool	-		
Network ACL	acl-0cd0213f1b147b80		
DHCP options set	dopt-fd0d987		
Route table	rtb-037fabcb12502302a		
Tenancy	default		
Default VPC	No		
Classic link	Disabled		
IPv6 CIDR (Network Border Group)	-		
DNS resolution	Enabled		
DNS hostnames	Enabled		
ClassicLink DNS Support	Disabled		
Owner	833093811962		

Instances | EC2 Management Console

console.aws.amazon.com/ec2/v2/home?region=us-east-1#Instances:sort=instancetype

Services Search for services, features, marketplace products, and docs [Alt+S]

New EC2 Experience

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name
PVT-INFRA	i-06a321935d20c4c10	t2.micro	us-east-1a	running	2/2 checks	None	-	-	-	kp-new
INFRA-PUB	i-06c1d423d8e2c4b37	t2.micro	us-east-1a	running	2/2 checks	None	ec2-3-95-223-207.com...	3.95.223.207	-	kp-nviregia

Instance: i-06c1d423d8e2c4b37 (INFRA-PUB) Public DNS: ec2-3-95-223-207.compute-1.amazonaws.com

Description Status Checks Monitoring Tags

Instance ID: i-06c1d423d8e2c4b37
Instance state: running
Instance type: t2.micro
Elastic IP: -
Private DNS: ip-10-0-0-160.ec2.internal
Private IPs: 10.0.0.160
Secondary private IPs: -
VPC ID: vpc-08756e506297c077 (INFRA-VPC)
Platform: Amazon Linux
Platform details: Linux/UNIX
Usage operation: RunInstances
Source/dest. check: True
T2/T3 Unlimited: Disabled
EBS-optimized: False
Root device type: ebs

Public DNS (IPv4): ec2-3-95-223-207.compute-1.amazonaws.com
IPv4 Public IP: 3.95.223.207
IPv6 IPs: -
Elastic IPs: -
Availability zone: us-east-1a
Security groups: PUB-SG, view inbound rules, view outbound rules
Scheduled events: No scheduled events
AMI ID: amzn2-ami-hvm-2.0.20210421.0.x86_64-gp2 (ami-048f5ed52451373d9)
Subnet ID: subnet-0249dedd917a367 (INFRA-PUB)
Network interfaces: eth0
IAM role: -
Key pair name: kp-nviregia
Owner: 833093811962
Launch time: April 29, 2021 at 9:50:11 AM UTC+5:30 (less than one hour)
Termination protection: False

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vpcs | VPC Management

Route Tables | VPC Management

Instances | EC2 Management Console

create a folder and

Step 2: Map Your F

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ap-southeast-1.console.aws.amazon.com/vpc/home?region=ap-southeast-1#RouteTables:sort=routeTableId

Services Search for services, features, marketplace products, and docs [Alt+S]

New VPC Experience

Create route table Actions

Filter by tags and attributes or search by keyword

Name	Route Table ID	Explicit subnet association	Edge associations	Main	VPC ID	Owner
-	rtb-01e0f9d2fe392e5f	-	-	Yes	vpc-00a44ab6437ca3440	833093811962
SANITY-RT	rtb-0c3c3a144a904a3d	subnet-03bbfb5a0c67febb	-	No	vpc-00a44ab6437ca3440	833093811962
-	rtb-8e5c15e8	-	-	Yes	vpc-d7c207b1	833093811962

Route Table: rtb-0c3c3a144a904a3d

Summary Routes Subnet Associations Edge Associations Route Propagation Tags

Route Table ID: rtb-0c3c3a144a904a3d
Explicitly Associated with: subnet-03bbfb5a0c67febb
Owner: 833093811962
Main: No
VPC: vpc-00a44ab6437ca3440 | DEV-VPC

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The screenshot shows the AWS Management Console for the 'ap-southeast-1' region. The 'Instances' page is active, displaying a table with one instance: 'SANITY-PVT' (Instance ID: i-06fdb6f8d5677b34, Instance Type: t2.micro, Availability Zone: ap-southeast-1a, State: running). Below the table, the 'Description' tab is selected, showing details for the instance. A red box highlights the 'Private IP' field, which is '172.0.0.115'. Other details include: Instance ID: i-06fdb6f8d5677b34, Instance state: running, Instance type: t2.micro, Platform: Amazon Linux, Network interfaces: eth0, Source/dest. check: True, T2/T3 Unlimited: Disabled, EBS-optimized: False, Root device: /dev/xvda, Block devices: /dev/xvda.

The screenshot shows the AWS Management Console for the 'ap-southeast-1' region. The 'VPC Peering Connections' page is active, displaying a table with one connection: 'SANITY-IN' (Peering Connection ID: pcx-019499c16ca38948, Status: Active). Below the table, the 'Description' tab is selected, showing details for the connection. A red box highlights the 'Requester VPC Region' field, which is 'Singapore (ap-southeast-1)'. Other details include: Requester VPC owner: 833093811962, Requester VPC ID: vpc-00a44ab6437ca3440, Requester VPC Region: Singapore (ap-southeast-1), Requester VPC CIDRs: 172.0.0.0/16, VPC Peering Connection: pcx-019499c16ca38948, Expiration time: -, Accepter VPC owner: 833093811962, Accepter VPC ID: vpc-08756e506d297c0f7, Accepter VPC Region: N. Virginia (us-east-1), Accepter VPC CIDRs: 10.0.0.0/16, Peering connection status: Active.

Terminal Logs: -

login as: ec2-user
Authenticating with public key "imported-openssh-key"

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https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-10-0-0-160 ~]\$ sudo -i

```
[root@ip-10-0-0-160 ~]# yum install httpd -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core                               | 3.7 kB    00:00
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.46-1.amzn2 will be installed
--> Processing Dependency: httpd-tools = 2.4.46-1.amzn2 for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem = 2.4.46-1.amzn2 for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.46-1.amzn2.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.46-1.amzn2.x86_64
--> Running transaction check
---> Package apr.x86_64 0:1.6.3-5.amzn2.0.2 will be installed
---> Package apr-util.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.1-5.amzn2.0.2 for package: apr-util-1.6.1-5.amzn2.0.2.x86_64
---> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2 will be installed
---> Package httpd-filesystem.noarch 0:2.4.46-1.amzn2 will be installed
---> Package httpd-tools.x86_64 0:2.4.46-1.amzn2 will be installed
---> Package mailcap.noarch 0:2.1.41-2.amzn2 will be installed
---> Package mod_http2.x86_64 0:1.15.14-2.amzn2 will be installed
--> Running transaction check
---> Package apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2 will be installed
--> Finished Dependency Resolution
```

Dependencies Resolved

```
=====
=====
Package            Arch      Version           Repository        Size
=====
=====
```

Installing:

```
httpd                x86_64    2.4.46-1.amzn2    amzn2-core       1.3 M
```

Installing for dependencies:

```
apr                  x86_64    1.6.3-5.amzn2.0.2 amzn2-core       118 k
apr-util             x86_64    1.6.1-5.amzn2.0.2 amzn2-core       99 k
apr-util-bdb         x86_64    1.6.1-5.amzn2.0.2 amzn2-core       19 k
generic-logos-httpd noarch    18.0.0-4.amzn2    amzn2-core       19 k
httpd-filesystem     noarch    2.4.46-1.amzn2    amzn2-core       23 k
httpd-tools          x86_64    2.4.46-1.amzn2    amzn2-core       87 k
mailcap              noarch    2.1.41-2.amzn2    amzn2-core       31 k
mod_http2            x86_64    1.15.14-2.amzn2    amzn2-core      147 k
```

Transaction Summary

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=====
```

Install 1 Package (+8 Dependent packages)

Total download size: 1.8 M

Installed size: 5.1 M

Downloading packages:

(1/9): apr-util-1.6.1-5.amzn2.0.2.x86_64.rpm	99 kB	00:00
(2/9): apr-1.6.3-5.amzn2.0.2.x86_64.rpm	118 kB	00:00
(3/9): apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64.rpm	19 kB	00:00
(4/9): generic-logos-httpd-18.0.0-4.amzn2.noarch.rpm	19 kB	00:00
(5/9): httpd-2.4.46-1.amzn2.x86_64.rpm	1.3 MB	00:00
(6/9): httpd-tools-2.4.46-1.amzn2.x86_64.rpm	87 kB	00:00
(7/9): mailcap-2.1.41-2.amzn2.noarch.rpm	31 kB	00:00
(8/9): httpd-filesystem-2.4.46-1.amzn2.noarch.rpm	23 kB	00:00
(9/9): mod_http2-1.15.14-2.amzn2.x86_64.rpm	147 kB	00:00

Total 6.2 MB/s | 1.8 MB 00:00

Running transaction check

Running transaction test

Transaction test succeeded

Running transaction

Installing : apr-1.6.3-5.amzn2.0.2.x86_64	1/9
Installing : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64	2/9
Installing : apr-util-1.6.1-5.amzn2.0.2.x86_64	3/9
Installing : httpd-tools-2.4.46-1.amzn2.x86_64	4/9
Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch	5/9
Installing : mailcap-2.1.41-2.amzn2.noarch	6/9
Installing : httpd-filesystem-2.4.46-1.amzn2.noarch	7/9
Installing : mod_http2-1.15.14-2.amzn2.x86_64	8/9
Installing : httpd-2.4.46-1.amzn2.x86_64	9/9
Verifying : apr-util-1.6.1-5.amzn2.0.2.x86_64	1/9
Verifying : httpd-filesystem-2.4.46-1.amzn2.noarch	2/9
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64	3/9
Verifying : httpd-tools-2.4.46-1.amzn2.x86_64	4/9
Verifying : mod_http2-1.15.14-2.amzn2.x86_64	5/9
Verifying : apr-1.6.3-5.amzn2.0.2.x86_64	6/9
Verifying : mailcap-2.1.41-2.amzn2.noarch	7/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch	8/9
Verifying : httpd-2.4.46-1.amzn2.x86_64	9/9

Installed:

httpd.x86_64 0:2.4.46-1.amzn2

Dependency Installed:

apr.x86_64 0:1.6.3-5.amzn2.0.2

apr-util.x86_64 0:1.6.1-5.amzn2.0.2

apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2

generic-logos-httpd.noarch 0:18.0.0-4.amzn2

httpd-filesystem.noarch 0:2.4.46-1.amzn2

httpd-tools.x86_64 0:2.4.46-1.amzn2

mailcap.noarch 0:2.1.41-2.amzn2

mod_http2.x86_64 0:1.15.14-2.amzn2

Complete!

[root@ip-10-0-0-160 ~]# vi sarvesh.pem

[root@ip-10-0-0-160 ~]# chmod 400 sarvesh.pem

[root@ip-10-0-0-160 ~]# ssh -i sarvesh.pem ec2-user@10.0.1.236

The authenticity of host '10.0.1.236 (10.0.1.236)' can't be established.

ECDSA key fingerprint is MD5:56:d8:ee:3d:df:57:ea:5c:a2:f2:35:46:e1:f5:31:11.

Are you sure you want to continue connecting (yes/no)? yes

Warning: Permanently added '10.0.1.236' (ECDSA) to the list of known hosts.

```

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```

<https://aws.amazon.com/amazon-linux-2/>

```
[ec2-user@ip-10-0-1-236 ~]$ top
```

top - 04:29:19 up 7 min, 1 user, load average: 0.00, 0.00, 0.00

Tasks: 84 total, 1 running, 47 sleeping, 0 stopped, 0 zombie

```
%Cpu(s):  0.0 us,  0.0 sy,  0.0 ni,100.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
```

KiB Mem : 1006896 total, 745636 free, 83508 used, 177752 buff/cache

KiB Swap: 0 total, 0 free, 0 used. 789568 avail Mem

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
1	root	20	0	125508	5356	3968	S	0.0	0.5	0:01.62	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H
5	root	20	0	0	0	0	I	0.0	0.0	0:00.01	kworker/u30+
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
7	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
8	root	20	0	0	0	0	I	0.0	0.0	0:00.23	rcu_sched
9	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_bh
10	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	migration/0
11	root	rt	0	0	0	0	S	0.0	0.0	0:00.00	watchdog/0
12	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
14	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kdevtmpfs
15	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
16	root	20	0	0	0	0	I	0.0	0.0	0:00.01	kworker/u30+
174	root	20	0	0	0	0	S	0.0	0.0	0:00.00	khungtaskd
175	root	20	0	0	0	0	S	0.0	0.0	0:00.00	oom_reaper
176	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	writeback