

Firstly, create VPC

VPC > Your VPCs > vpc-02b52697fe04c42d3

vpc-02b52697fe04c42d3 / chetan-vpc

Actions

Details Info

VPC ID vpc-02b52697fe04c42d3	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP options set dopt-074f4e6af55615f75	Main route table rtb-0646ea2a0c495aaf1	Main network ACL acl-08730ad04bb76fdff3
Default VPC No	IPv4 CIDR 172.65.0.0/16	IPv6 pool -	IPv6 CIDR -
Route 53 Resolver DNS Firewall rule groups -	Owner ID 829912339674		

Create it's min 1 subnet for DHCP

Subnets (2) Info

Filter subnets

	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IPv4 addresses	Availability Zone
<input type="checkbox"/>	sub-2	subnet-0f46798d48a2c91e9	Available	vpc-02b52697fe04c42d3 che...	172.65.128.0/17	-	32763	ap-south
<input type="checkbox"/>	sub-1	subnet-0f5d4ff1920138333	Available	vpc-02b52697fe04c42d3 che...	172.65.0.0/17	-	32763	ap-south

Create internet gateway & attach to vpc

The following internet gateway was created: igw-02f0d8cf4c79bf763 - chetan-igw. You can now attach to a VPC to enable the VPC to communicate with the internet. Attach to a VPC

VPC > Internet gateways > igw-02f0d8cf4c79bf763

igw-02f0d8cf4c79bf763 / chetan-igw

Actions

Details Info

Internet gateway ID igw-02f0d8cf4c79bf763	State Detached	VPC ID -	Owner 829912339674
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VPC > Internet gateways > Attach to VPC (igw-02f0d8cf4c79bf763)

Attach to VPC (igw-02f0d8cf4c79bf763) Info

VPC
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs
Attach the internet gateway to this VPC.

Select a VPC

vpc-02b52697fe04c42d3 - chetan-vpc

AWS Command Line Interface command

Cancel Attach internet gateway

Now, make entry in default created route table

Edit routes → Internet Gateway

VPC > Route tables > rtb-0646ea2a0c495aaf1 > Edit routes

Edit routes

Destination	Target	Status	Propagated
172.65.0.0/16	local	Active	No
0.0.0.0/0	igw-02f0d8cf4c79bf763 (chetan-igw)	-	No

Now we make DHCP

aws Services Search for services, features, blogs, docs, and more [Alt+S]

S3 EC2 IAM EC2 Image Builder VPC

network. The options field of a DHCP message contains configuration parameters.

Tag settings

DHCP options set name - optional

chetan-dhcp

DHCP options

Specify at least one configuration parameter.

Domain name Info

jarvis.com

Domain name servers Info

172.55.66.44, 189.11.22.33, 156.88.55.44

Enter up to four IPv4 addresses and four IPv6 addresses, separated by commas.

NTP servers

172.16.16.16, 10.10.10.10, 75:ff9b::20, 75:ff9b::50

Enter up to four IPv4 addresses and four IPv6 addresses, separated by commas.

NetBIOS name servers

192.168.0.4, 198.168.0.5

Enter up to four IP addresses, separated by commas.

NetBIOS node type

Choose a node type

We recommend that you select point-to-point (2 - P-node). Broadcast and multicast are not currently supported.

► AWS Command Line Interface command

Provide required domain name & Random Domain Name server

Provide NTP Server any IPV4 from NIST Website <https://tf.nist.gov/tf-cgi/servers.cgi>

tf.nist.gov/tf-cgi/servers.cgi

Whether you connect to a server using the name or the IP address, it is a bad practice to "hard-code" a particular server name or address into a device so that these parameters cannot be changed by the end user if that becomes necessary at some future time.

All users should ensure that their software *NEVER* queries a server more frequently than once every 4 seconds. Systems that exceed this rate will be refused service. In extreme cases, systems that exceed this limit may be considered as attempting a denial-of-service attack.

Name	IP Address	Location	Status
time-a-g.nist.gov	129.6.15.28	NIST, Gaithersburg, Maryland	All services available
time-b-g.nist.gov	129.6.15.29	NIST, Gaithersburg, Maryland	All services available
time-c-g.nist.gov	129.6.15.30	NIST, Gaithersburg, Maryland	All services available
time-d-g.nist.gov	129.6.15.27	NIST, Gaithersburg, Maryland	All services available
time-d-g.nist.gov	2610:20:6f15:15::27	NIST, Gaithersburg, Maryland	All services via IPV6
time-e-g.nist.gov	129.6.15.26	NIST, Gaithersburg, Maryland	All services available
time-e-g.nist.gov	2610:20:6f15:15::26	NIST, Gaithersburg, Maryland	All services via IPV6
time-a-www.nist.gov	132.163.97.1	WWV, Fort Collins, Colorado	All services available
time-b-www.nist.gov	132.163.97.2	WWV, Fort Collins, Colorado	All services available
time-c-www.nist.gov	132.163.97.3	WWV, Fort Collins, Colorado	All services available
time-d-www.nist.gov	132.163.97.4	WWV, Fort Collins, Colorado	All services available

Created successfully

You successfully created dopt-0435ff001e815c4aa | chetan-dhcp

VPC > DHCP option sets > dopt-0435ff001e815c4aa

dopt-0435ff001e815c4aa / chetan-dhcp

Delete DHCP options set

Details Info

DHCP options set ID	Domain name	Domain name servers	NTP servers
dopt-0435ff001e815c4aa	jarvis.com	172.55.66.44, 189.11.22.33, 156.88.55.44	129.6.15.27
NetBIOS name servers	NetBIOS node type	Owner	
-	-	829912339674	

Now, Attach to our created VPC

Your VPCs (1/1) Info

Filter VPCs

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
<input checked="" type="checkbox"/>	chetan-vpc	vpc-02b52697fe04c42d3	Available	172.65.0.0/16	-

Actions

- Create default VPC
- Create flow log
- Edit CIDRs
- Edit DHCP options set
- Edit DNS hostnames
- Edit DNS resolution
- Manage middlebox routes
- Manage tags
- Delete VPC

Create VPC

VPC > Your VPCs > vpc-02b52697fe04c42d3 > Edit DHCP options set

Edit DHCP options set [Info](#)

DHCP options set

The DHCP options set to associate with the VPC.

VPC ID

vpc-02b52697fe04c42d3

DHCP options set

No DHCP options set

dopt-074f4e6af55615f75

dopt-0435ff001e815c4aa (chetan-dhcp)

chetan-dhcp

Cancel

Save changes

Now, we create on instance and attach created VPC, while creating instance

▼ **Network settings**

VPC - *required* [Info](#)

172.65.0.0/16

Subnet [Info](#)

VPC: vpc-02b52697fe04c42d3 Owner: 829912339674
Availability Zone: ap-south-1a IP addresses available: 32763

[Create new subnet](#)

Auto-assign public IP [Info](#)

Firewall (security groups)

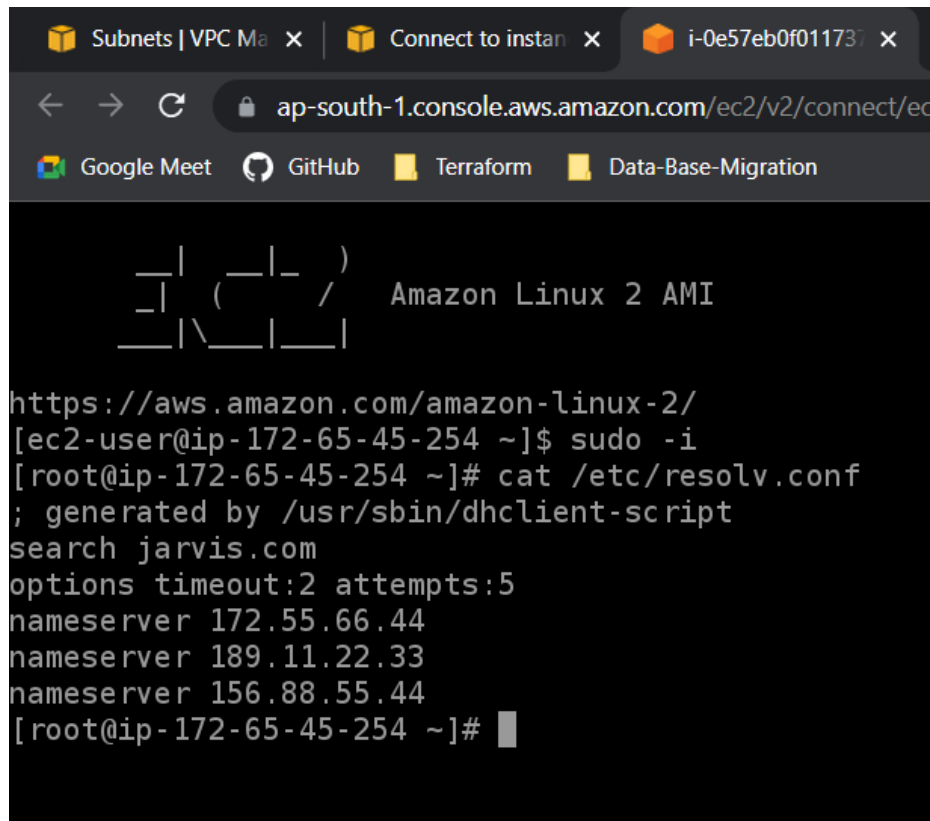
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Try to take availability zone only 1a & 1b not go with 1c

Instance created succsesfully

Instances (1) Info									
<input type="text" value="Search"/> < 1 > 									
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv	
<input type="checkbox"/>	chetan-vpc	i-06f6d87117f5eb194	Pending	t2.micro	-	No alarms	ap-south-1a	-	

Now we connect to the aws-cli mode, now we get our provided IP via DHCP option set



The screenshot shows a web browser window with the AWS Management Console URL: `ap-south-1.console.aws.amazon.com/ec2/v2/connect/ec2`. The browser tabs include 'Subnets | VPC Ma...', 'Connect to instan...', and 'i-0e57eb0f011737...'. Below the browser window, a terminal window displays the following output:

```

  _  |  _  |  _  |
 _  | (  _  | /
__  |\__  |__  |
                                     Amazon Linux 2 AMI

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-65-45-254 ~]$ sudo -i
[root@ip-172-65-45-254 ~]# cat /etc/resolv.conf
; generated by /usr/sbin/dhclient-script
search jarvis.com
options timeout:2 attempts:5
nameserver 172.55.66.44
nameserver 189.11.22.33
nameserver 156.88.55.44
[root@ip-172-65-45-254 ~]#
```