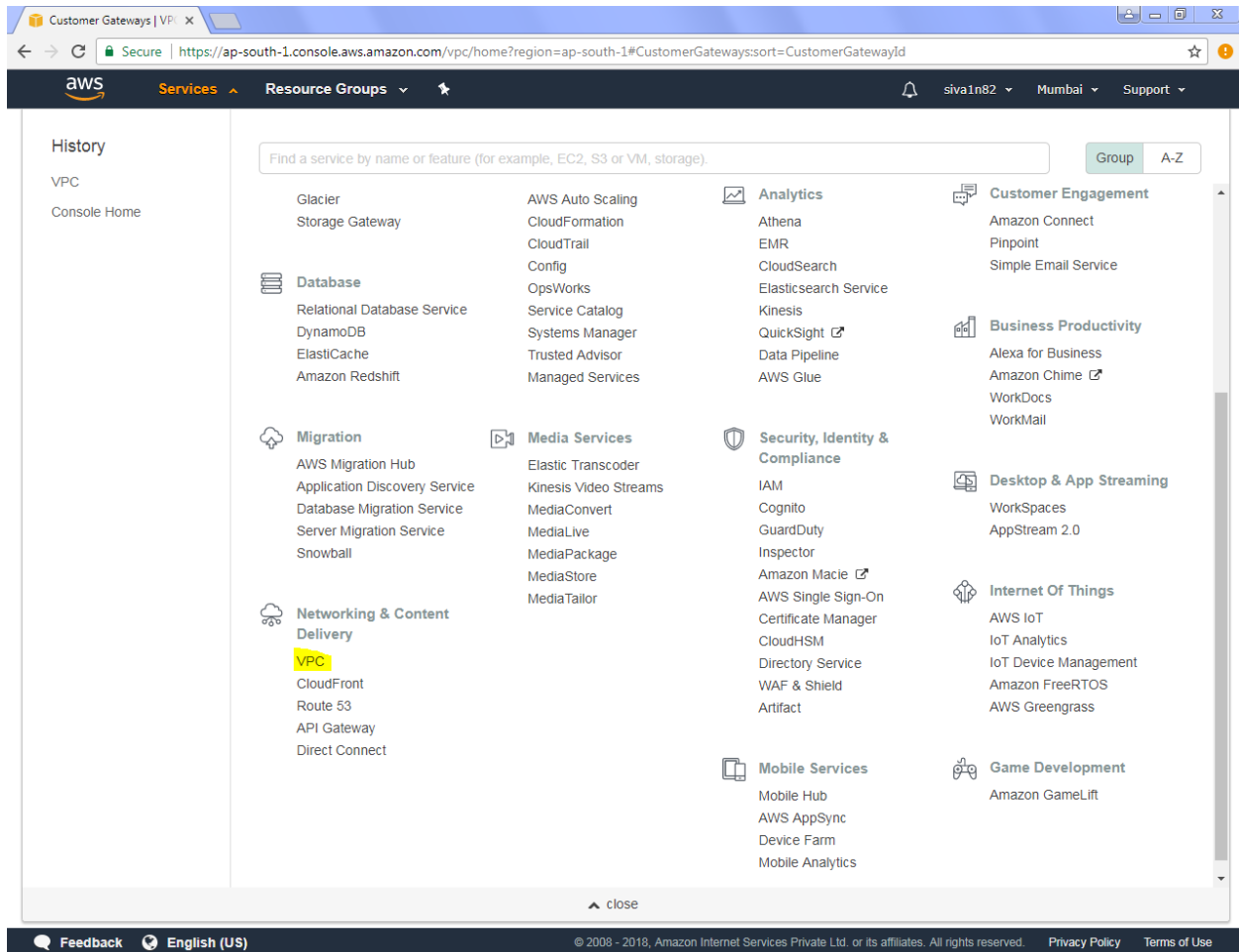


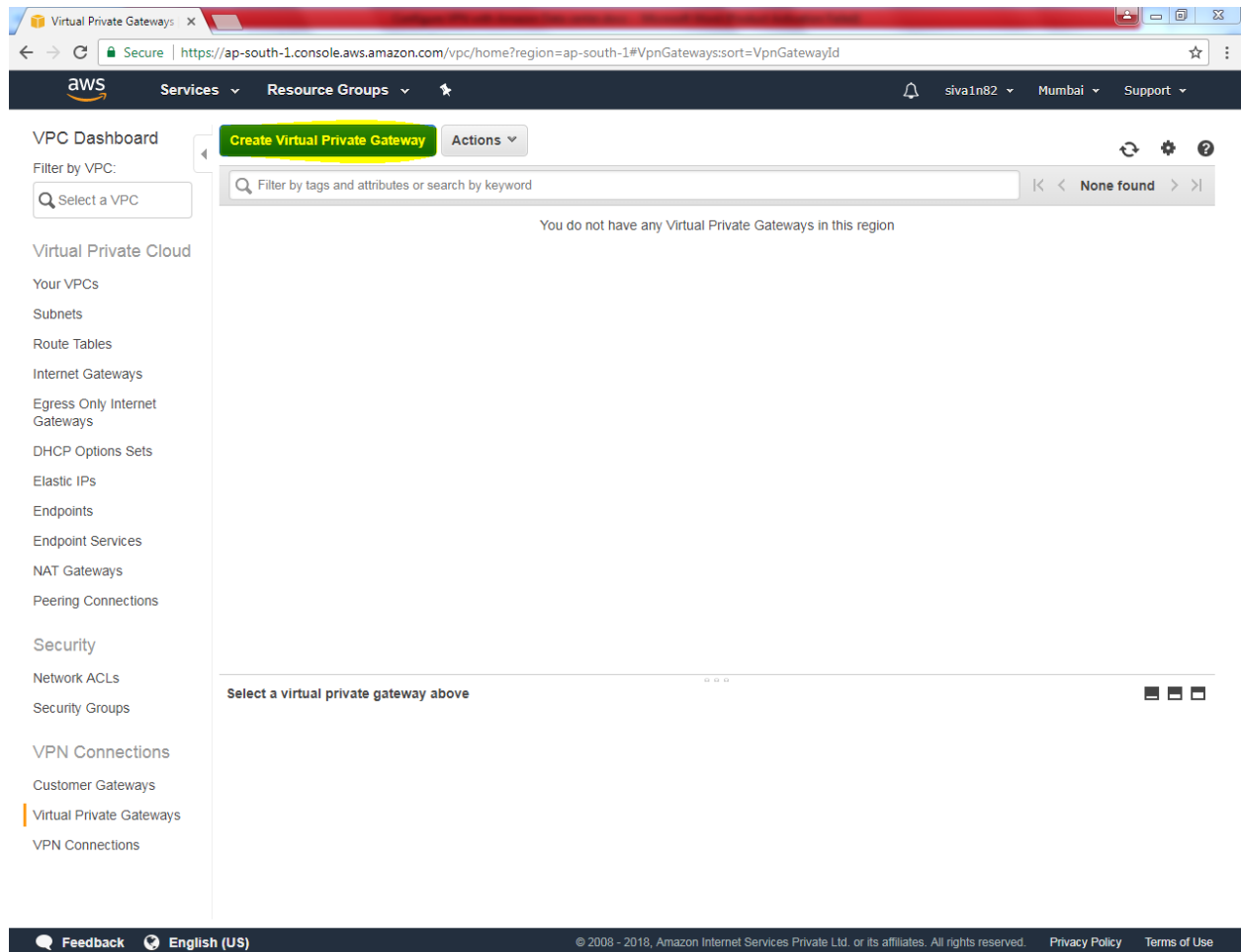
## Lab 15

### Configure VPN with Amazon Data center

Need to configure VPC in Mumbai region / or use default VPC.



Click “Create Virtual Private Gateway”.



## Create Virtual Private Gateway

The screenshot shows the AWS Management Console interface for creating a Virtual Private Gateway. The browser address bar displays the URL: `https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#CreateVirtualPrivateGateway;`. The AWS header bar includes the logo, navigation menus for Services and Resource Groups, and user information (siva1n82, Mumbai, Support).

The main content area is titled "Create Virtual Private Gateway" and includes a breadcrumb: "Virtual Private Gateways > Create Virtual Private Gateway". A descriptive text states: "A virtual private gateway is the router on the Amazon side of the VPN tunnel."

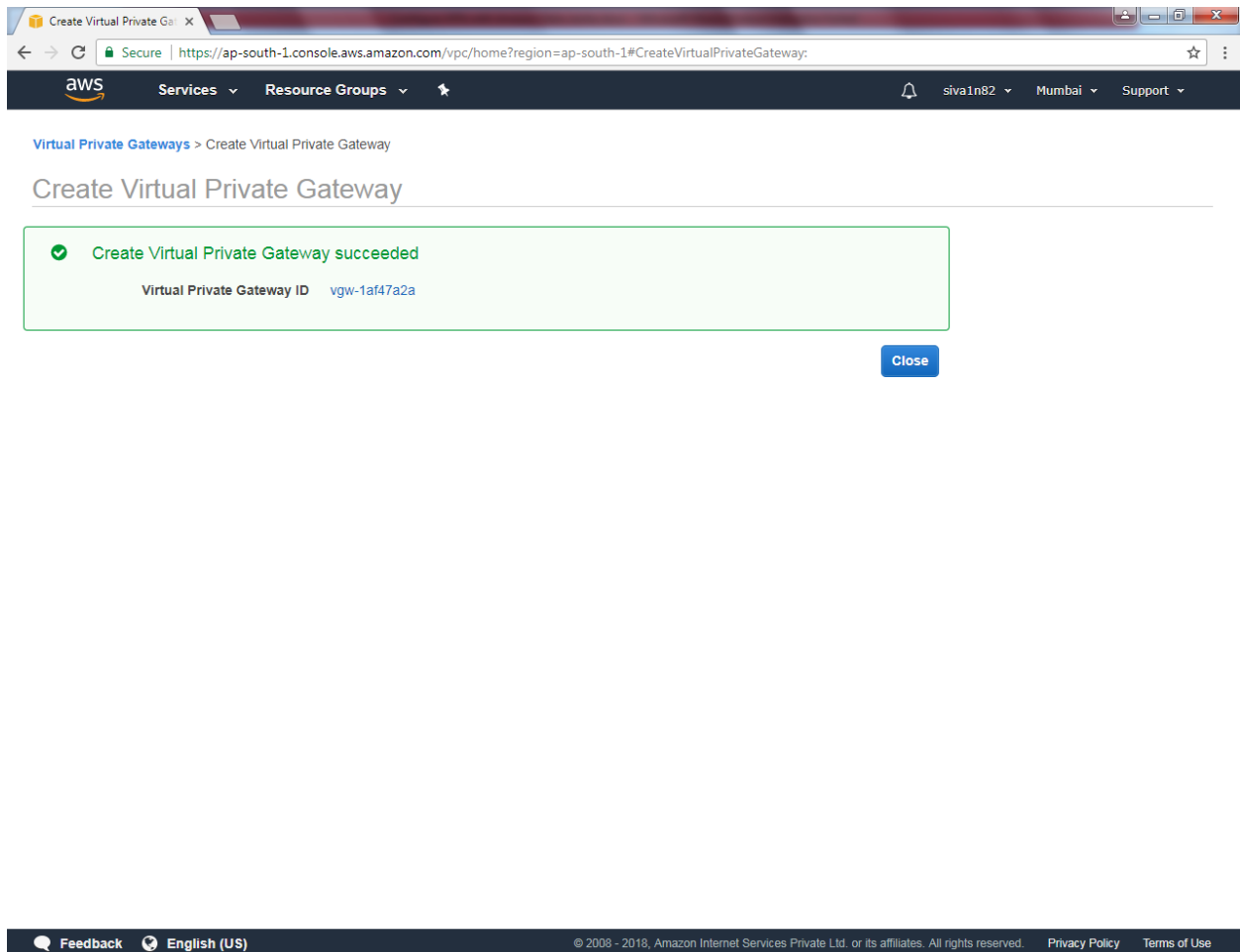
The form contains the following fields and options:

- Name tag:** A text input field containing "Sansbound\_VPG" with an information icon.
- ASN:** Radio button options for "Amazon default ASN" (selected) and "Custom ASN", with an information icon.

At the bottom right of the form, there are two buttons: "Cancel" and "Create Virtual Private Gateway" (highlighted in green).

The footer bar includes a "Feedback" link, "English (US)" language selection, and copyright information: "© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved." along with "Privacy Policy" and "Terms of Use" links.

Virtual Private gateway has been created successfully.



VPG is now in detached state, need to attach to VPC.

The screenshot displays the AWS Management Console for the 'Virtual Private Gateways' service. The left-hand navigation pane lists various network services, with 'Virtual Private Gateways' highlighted. The main content area shows a table of Virtual Private Gateways. One gateway, 'Sansbound\_...', with ID 'vgw-1af47a2a', is shown in a 'detached' state. Below the table, the 'Details' tab for this gateway is active, showing its configuration: ID 'vgw-1af47a2a', Type 'ipsec.1', and State 'detached'. The 'ASN (Amazon side)' is listed as '7224'. The 'VPC' field is empty, indicating it is not attached to any VPC.

Name	ID	State	Type	VPC
Sansbound_...	vgw-1af47a2a	detached	ipsec.1	-

Property	Value
ID	vgw-1af47a2a
Type	ipsec.1
State	detached
ASN (Amazon side)	7224
VPC	-

Clicks Actions → Attach to VPC.

The screenshot displays the AWS Management Console interface for Virtual Private Gateways. The left sidebar shows the navigation menu with categories like VPC Dashboard, Virtual Private Cloud, Security, and VPN Connections. The main content area shows a table of Virtual Private Gateways. The 'Actions' dropdown menu is open, showing options: 'Delete Virtual Private Gateway', 'Attach to VPC', 'Detach from VPC', and 'Add/Edit Tags'. The 'Attach to VPC' option is highlighted. Below the table, the details for the selected gateway 'vgw-1af47a2a' are shown, including its ID, Type ('ipsec.1'), and State ('detached').

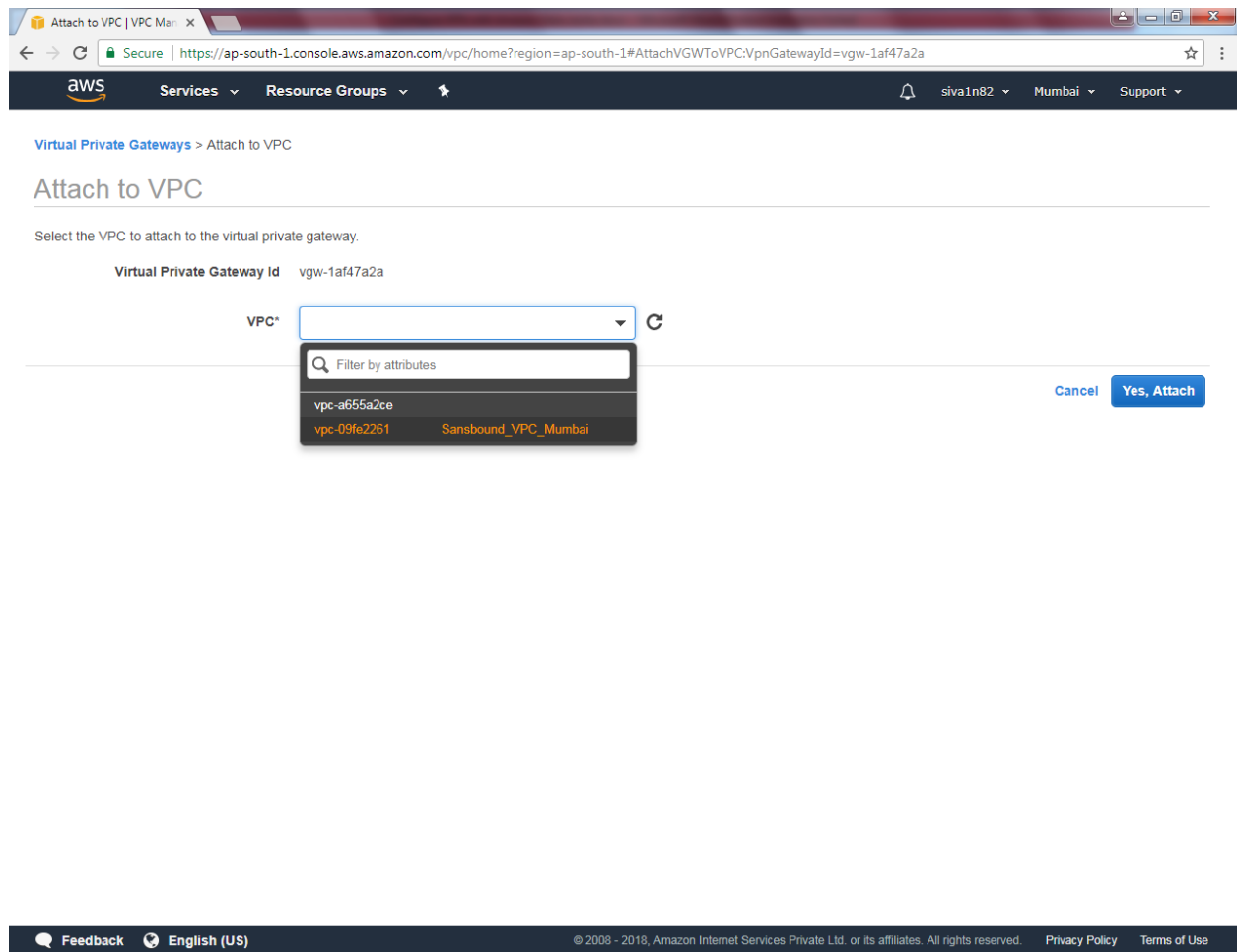
Name	ID	Type	VPC
Sansbound_...	vgw-1af47a2a	ipsec.1	-

Virtual Private Gateway: vgw-1af47a2a

Details | Tags

Property	Value	State
ID	vgw-1af47a2a	detached
Type	ipsec.1	
ASN (Amazon side)	7224	

While attaching VPC, Select “Sansbound\_VPC\_Mumbai” to attach.



Click “Yes”.

Attach to VPC | VPC Main X

Secure | <https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#AttachVGWToVPC:VpnGatewayId=vgw-1af47a2a>

aws Services Resource Groups

Virtual Private Gateways > Attach to VPC

## Attach to VPC

Select the VPC to attach to the virtual private gateway.

Virtual Private Gateway Id vgw-1af47a2a

VPC\*

Cancel Yes, Attach

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Now it's attaching VPC with VPG.



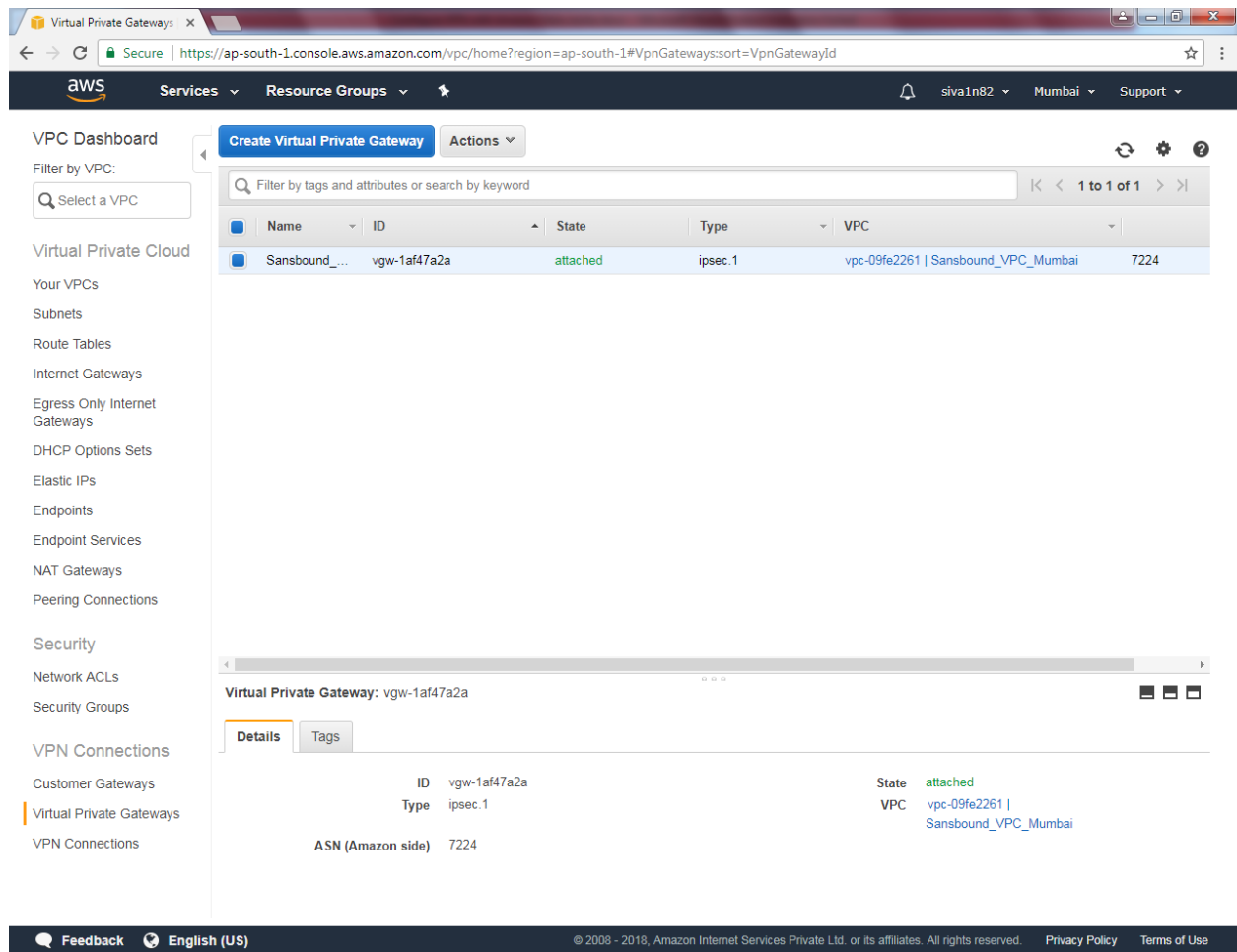
The screenshot displays the AWS Management Console interface for Virtual Private Gateways. The left-hand navigation pane lists various VPC-related services, with 'Virtual Private Gateways' currently selected. The main content area shows a list of Virtual Private Gateways. A table lists the gateway 'Sansbound\_...' with ID 'vgw-1af47a2a', state 'attaching', type 'ipsec.1', and associated VPC 'vpc-09fe2261 | Sansbound\_VPC\_Mumbai'. Below the table, the 'Details' tab for the selected gateway shows its ID, type, state, VPC, and the Amazon side ASN (7224).

Name	ID	State	Type	VPC
Sansbound_...	vgw-1af47a2a	attaching	ipsec.1	vpc-09fe2261   Sansbound_VPC_Mumbai

Property	Value
ID	vgw-1af47a2a
Type	ipsec.1
State	attaching
VPC	vpc-09fe2261   Sansbound_VPC_Mumbai
ASN (Amazon side)	7224

Now it's attached VPG with VPC.



The screenshot shows the AWS Management Console interface for Virtual Private Gateways. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, and VPN Connections. The main content area displays a table of Virtual Private Gateways. The table has columns for Name, ID, State, Type, and VPC. One gateway is listed: Sansbound\_VPC\_Mumbai with ID vgw-1af47a2a, State attached, Type ipsec.1, and VPC vpc-09fe2261. Below the table, the details for the selected gateway are shown, including its ID, Type, State, VPC, and ASN (Amazon side).

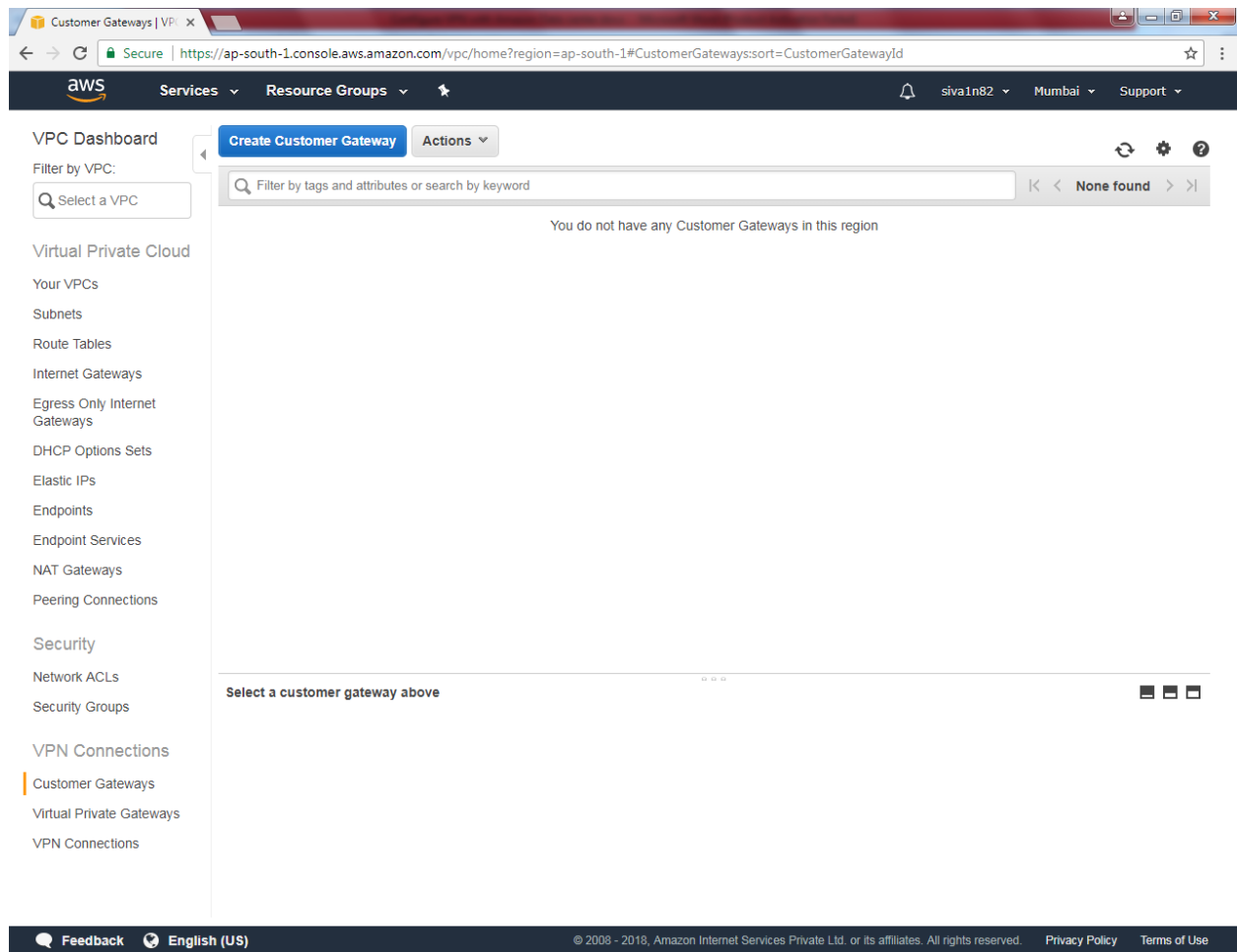
Name	ID	State	Type	VPC
Sansbound_VPC_Mumbai	vgw-1af47a2a	attached	ipsec.1	vpc-09fe2261   Sansbound_VPC_Mumbai

Virtual Private Gateway: vgw-1af47a2a

Details | Tags

ID: vgw-1af47a2a  
Type: ipsec.1  
State: attached  
VPC: vpc-09fe2261 | Sansbound\_VPC\_Mumbai  
ASN (Amazon side): 7224

Click “Create Customer Gateway”.



Type name as “Sansbound\_Onpremiesses

Routing as “Static”

IP address type customer / remote peer IP.

Customer Gateways > Create Customer Gateway

## Create Customer Gateway

Specify the Internet-routable IP address for your gateway's external interface; the address must be static and may be behind a device performing network address translation (NAT). For dynamic routing, also specify your gateway's Border Gateway Protocol (BGP) Autonomous System Number (ASN); this can be either a public or private ASN (such as those in the 64512-65534 range).

Name

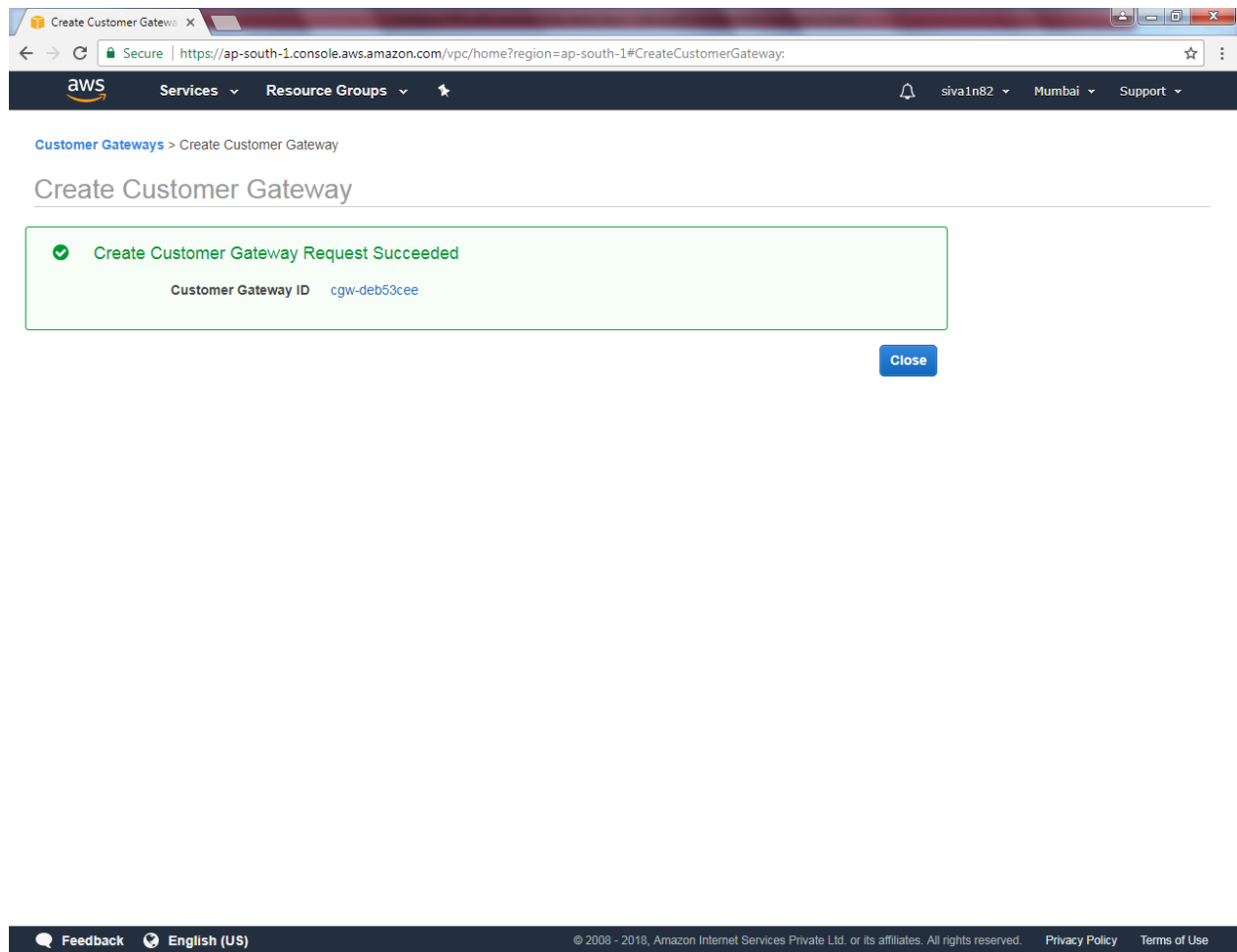
Routing ☐ Dynamic ☒ Static

IP Address\*

[Cancel](#) [Create Customer Gateway](#)

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Click "Close".



Now customer gateway is available.

Customer Gateways | VPC

Secure | <https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#CustomerGateways:sort=CustomerGatewayId>

aws Services Resource Groups

VPC Dashboard

Filter by VPC: Select a VPC

Virtual Private Cloud

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

DHCP Options Sets

Elastic IPs

Endpoints

Endpoint Services

NAT Gateways

Peering Connections

Security

Network ACLs

Security Groups

VPN Connections

Customer Gateways

Virtual Private Gateways

VPN Connections

Create Customer Gateway Actions

Filter by tags and attributes or search by keyword

Name	ID	State	Type	IP Address	BGP ASN	VPC
Sansbound_...	cgw-deb53cee	available	ipsec.1	27.121.244.21	65000	-

Customer Gateway: cgw-deb53cee

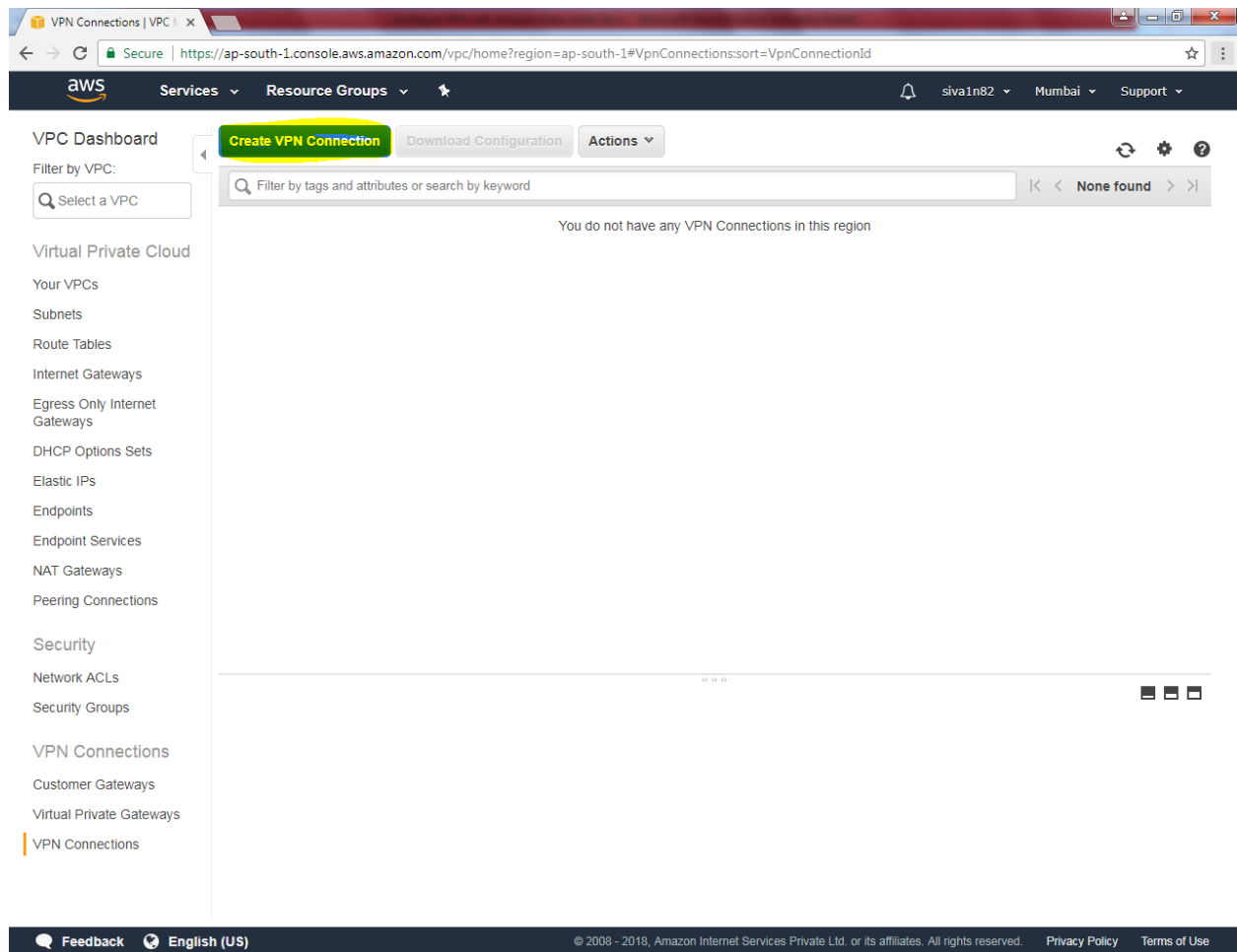
Details Tags

ID	cgw-deb53cee	State	available
Type	ipsec.1	IP Address	27.121.244.21
BGP ASN	65000	VPC	-

Feedback English (US)

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Now we need to create VPN connection.



Name Tag: Sansbound\_VPN

VP: Select VPG

Customer Gateway : Use existing

Customer Gateway ID: Select the CG

Create VPN Connection

Select the virtual private gateway and customer gateway that you would like to connect via a VPN connection. You must have entered the virtual private gateway and your customer gateway information already.  
VPN connection charges apply once this step is complete. [View Rates](#)

Name tag: Sansbound\_VPN

Virtual Private Gateway\*: vgw-1af47a2a

Customer Gateway: Existing  
New

Customer Gateway ID: cgw-deb53cee

Routing Options: Dynamic (requires BGP)  
Static

Tunnel Options

Customize tunnel inside CIDR and pre-shared keys for your VPN tunnels. Unspecified tunnel options will be randomly generated by Amazon.

Inside IP CIDR for Tunnel 1: Generated by Amazon

Pre-Shared Key for Tunnel 1: Generated by Amazon

Inside IP CIDR for Tunnel 2: Generated by Amazon

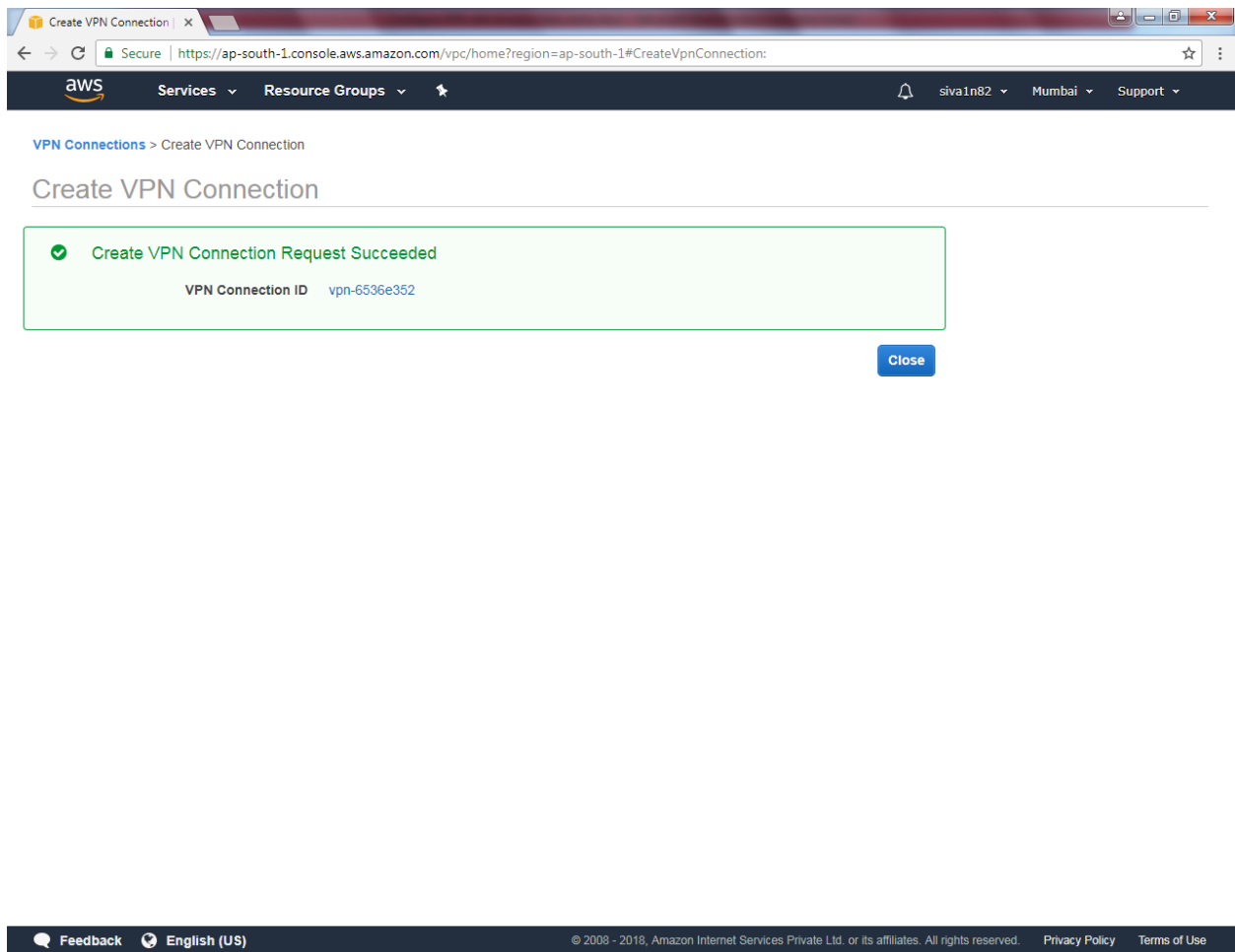
Pre-shared key for Tunnel 2: Generated by Amazon

Cancel Create VPN Connection

Click “Create VPN connection”.

Click “Close”.





Now it's pending because it was not valid Peer IP.

The screenshot shows the AWS Management Console interface for the 'VPN Connections' page. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various AWS services, with 'VPN Connections' highlighted. The main content area shows a table of VPN connections and a detailed view of a specific connection.

**VPN Connections Table:**

Name	VPN ID	State	Virtual Private Gateway	Customer Gateway
Sansbound_...	vpn-6536e352	pending	vgw-1af47a2a   Sansbound_VPG	cgw-deb53cee   Sansbound_Onpremises

**VPN Connection Details: vpn-6536e352**

Property	Value	Property	Value
VPN ID	vpn-6536e352	State	pending
Virtual Private Gateway	vgw-1af47a2a   Sansbound_VPG	Customer Gateway	cgw-deb53cee   Sansbound_Onpremises
Customer Gateway Address	27.121.244.21	Type	ipsec.1
Category	VPN	VPC	vpc-09fe2261   Sansbound_VPC_Mumbai
Routing	Dynamic		

Click “Download configuration”.

The screenshot displays the AWS Management Console interface for the 'VPN Connections' section. The 'Download Configuration' button is highlighted in yellow. Below the table, the details for a specific VPN connection (vpn-6536e352) are shown, including its state (pending), virtual private gateway, customer gateway, and routing information.

Name	VPN ID	State	Virtual Private Gateway	Customer Gateway
Sansbound_...	vpn-6536e352	pending	vgw-1af47a2a   Sansbound_VPG	cgw-deb53cee   Sansbound_Onpremises

VPN Connection: vpn-6536e352			
Details	Tunnel Details	Tags	
VPN ID	vpn-6536e352	State	pending
Virtual Private Gateway	vgw-1af47a2a   Sansbound_VPG	Customer Gateway	cgw-deb53cee   Sansbound_Onpremises
Customer Gateway Address	27.121.244.21	Type	ipsec.1
Category	VPN	VPC	vpc-09fe2261   Sansbound_VPC_Mumbai
Routing	Dynamic		

Select the vendor, platform and Software version.

## Download Configuration ×

Please choose the configuration to download based on your type of customer gateway

**Vendor**  ⓘ

**Platform**  ⓘ

**Software**  ⓘ

---

[Cancel](#) [Download](#)

Click “Download”.

Output will not come, hence we need to delete VPN Connection.

The screenshot shows the AWS Management Console interface for the 'VPN Connections' page. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, Security, and VPN Connections. The main content area displays a table of VPN connections. One connection, 'Sansbound\_...', is selected, and a context menu is open over it, showing options like 'Edit Static Routes', 'Delete', and 'Add/Edit Tags'. The 'Delete' option is highlighted. Below the table, the details for the selected VPN connection (vpn-6536e352) are shown, including its state (pending), virtual private gateway, customer gateway, and routing information.

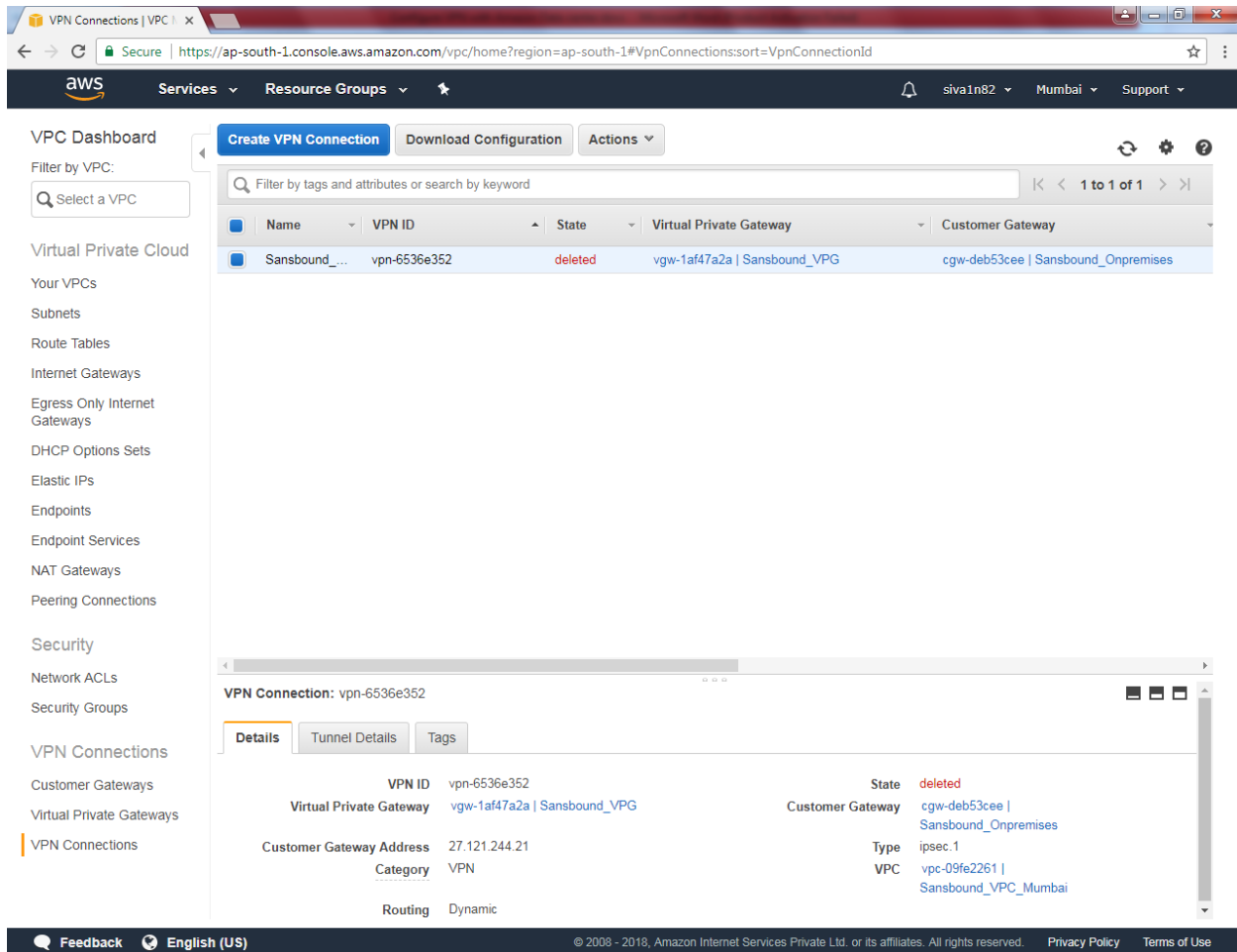
Name	VPN ID	State	Virtual Private Gateway	Customer Gateway
Sansbound_...	vpn-6536e352	pending	vgw-1af47a2a   Sansbound_VPG	cgw-deb53cee   Sansbound_Onpremises

VPN Connection: vpn-6536e352	
VPN ID	vpn-6536e352
Virtual Private Gateway	vgw-1af47a2a   Sansbound_VPG
Customer Gateway Address	27.121.244.21
Category	VPN
Routing	Dynamic
State	pending
Customer Gateway	cgw-deb53cee   Sansbound_Onpremises
Type	ipsec.1
VPC	vpc-09fe2261   Sansbound_VPC_Mumbai

It Prompts, confirmation click “Yes” to delete.

VPN connection has been deleted.



The screenshot shows the AWS Management Console interface for the 'VPN Connections' page. The top navigation bar includes the AWS logo, 'Services', 'Resource Groups', and user information. The left sidebar lists various AWS services, with 'VPN Connections' highlighted. The main content area shows a table of VPN connections. One connection, 'Sansbound\_VPN', is in a 'deleted' state. Below the table, the details of the selected VPN connection are displayed, including its ID, state, virtual private gateway, customer gateway, and routing information.

Name	VPN ID	State	Virtual Private Gateway	Customer Gateway
Sansbound_VPN	vpn-6536e352	deleted	vgw-1af47a2a   Sansbound_VPG	cgw-deb53cee   Sansbound_Onpremises

**VPN Connection: vpn-6536e352**

**Details** | Tunnel Details | Tags

VPN ID	vpn-6536e352	State	deleted
Virtual Private Gateway	vgw-1af47a2a   Sansbound_VPG	Customer Gateway	cgw-deb53cee   Sansbound_Onpremises
Customer Gateway Address	27.121.244.21	Type	ipsec.1
Category	VPN	VPC	vpc-09fe2261   Sansbound_VPC_Mumbai
Routing	Dynamic		

We have required to delete customer gateway.

The screenshot shows the AWS Management Console interface for the 'Customer Gateways' section. The left sidebar contains navigation links for VPC Dashboard, Virtual Private Cloud, and various network services. The main content area displays a table of Customer Gateways. A dropdown menu is open over the 'cgw-deb53cee' gateway, showing the 'Delete Customer Gateway' option. Below the table, the details for the selected gateway are shown, including its ID, Type, BGP ASN, State, IP Address, and VPC. A notification banner at the bottom indicates a message from 'chenipsaircel@deccaniserivies.in'.

Name	ID	State	Type	IP Address	BGP ASN	VPC
Sansbound_...	cgw-deb53cee	available	ipsec.1	27.121.244.21	65000	vpc-09fe2261

Customer Gateway: cgw-deb53cee

Details | Tags

ID: cgw-deb53cee  
Type: ipsec.1  
BGP ASN: 65000

State: available  
IP Address: 27.121.244.21  
VPC: vpc-09fe2261

Click "Yes, delete".

Delete Customer Gateway

Are you sure that you want to delete this Customer Gateway (cgw-deb53cee Sansbound\_Onpremises)?

Cancel

Yes, Delete

Click "Detach from VPC".

Virtual Private Gateways

Filter by VPC:

Virtual Private Cloud

- Your VPCs
- Subnets
- Route Tables
- Internet Gateways
- Egress Only Internet Gateways
- DHCP Options Sets
- Elastic IPs
- Endpoints
- Endpoint Services
- NAT Gateways
- Peering Connections

Security

- Network ACLs
- Security Groups

VPN Connections

- Customer Gateways
- Virtual Private Gateways
- VPN Connections

Name	ID	Type	VPC
Sansbound_...	vgw-1af47a2a	ipsec.1	vpc-09fe2261   Sansbound_VPC_Mumbai

Virtual Private Gateway: vgw-1af47a2a

Details | Tags

ID: vgw-1af47a2a  
Type: ipsec.1  
State: attached  
VPC: vpc-09fe2261 | Sansbound\_VPC\_Mumbai  
ASN (Amazon side): 7224

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Click “Yes, Detach”.



The screenshot shows the AWS Management Console interface for the 'Detach from VPC' operation. The browser address bar shows the URL: `https://ap-south-1.console.aws.amazon.com/vpc/home?region=ap-south-1#DetachVGWFromVPC:VpnGatewayId=vgw-1af47a2a`. The console header includes the AWS logo, navigation tabs for 'Services' and 'Resource Groups', and user information for 'siva1n82' in the 'Mumbai' region. The breadcrumb trail indicates the path: 'Virtual Private Gateways > Detach from VPC'. The main heading is 'Detach from VPC'. Below this, a confirmation message asks: 'Are you sure you want to detach from VPC?'. A table displays the resources involved in the operation:

Virtual Private Gateway Id	vgw-1af47a2a
VPC	vpc-09fe2261

At the bottom right of the confirmation area, there are two buttons: 'Cancel' and 'Yes, Detach' (the latter is highlighted in yellow). The footer of the console contains a 'Feedback' link, the language setting 'English (US)', and copyright information: '© 2008 - 2018, Amazon Internet Services Private Ltd. or its affiliates. All rights reserved.' along with links to 'Privacy Policy' and 'Terms of Use'.

Now VPG is in detached state, we need to delete VPG.

The screenshot displays the AWS Management Console interface for Virtual Private Gateways. The left-hand navigation pane lists various AWS services, with 'Virtual Private Gateways' highlighted. The main content area shows a table of Virtual Private Gateways. A single gateway, 'Samsbound\_...', is listed with ID 'vgw-1af47a2a', State 'detached', Type 'ipsec.1', and VPC '-'. Below the table, the 'Details' tab for the selected gateway is active, showing its ID, Type, and ASN (Amazon side). The State is 'detached' and the VPC is '-'. The bottom of the console shows the footer with 'Feedback', 'English (US)', and copyright information.

Name	ID	State	Type	VPC
Samsbound_...	vgw-1af47a2a	detached	ipsec.1	-

Virtual Private Gateway: vgw-1af47a2a

Details Tags

ID	vgw-1af47a2a	State	detached
Type	ipsec.1	VPC	-
ASN (Amazon side)	7224		

Click Actions → “Delete Virtual Private Gateway”.

The screenshot shows the AWS Management Console for Virtual Private Gateways. On the left is a navigation menu with categories like VPC Dashboard, Virtual Private Cloud, Security, and VPN Connections. The main area displays a table of Virtual Private Gateways. One gateway, 'vgw-1af47a2a', is shown with a state of 'detached'. An 'Actions' dropdown menu is open, showing options: 'Delete Virtual Private Gateway', 'Attach to VPC', 'Detach from VPC', and 'Add/Edit Tags'. Below the table, the 'Details' tab for the selected gateway shows its ID, Type (ipsec.1), and ASN (Amazon side) 7224. The footer contains 'Feedback', 'English (US)', and copyright information.

Name	ID	Type	VPC
Sansbound_VPG	vgw-1af47a2a	ipsec.1	-

Virtual Private Gateway: vgw-1af47a2a

Details | Tags

ID: vgw-1af47a2a, Type: ipsec.1, State: detached, VPC: -, ASN (Amazon side): 7224

Click “Yes, Delete”.

