Introduction

An Internet Gateway is a horizontally scaled, redundant, and highly available VPC component that allows communication between instances in your VPC and the Internet. It imposes no availability risks or bandwidth constraints on your network traffic. An Internet gateway serves two purposes:

1. Provide a target in your VPC route tables for Internet-routable traffic
2. Perform network address translation (NAT) for instances that have been assigned public IP addresses. (*Note*: It does not do this for instances with private IP addresses.)

In this lab, you will create an Internet Gateway and associate it to a VPC.

Instructions

1. From the **VPC Dashboard**, click **Internet Gateways** in the left navigation pane.

The **Internet Gateways** page lists all previously created gateways:

☑	Name ▽	Internet gateway ID ▽	State ▽	VPC ID ▽	Owner
☑	–	igw-0c48e6c335b0ed4f5	⊘ Attached	vpc-0360b2a4f8754e72a	9406787

Internet gateways (1/1) Info — [↻] [Actions ▼] [Create internet gateway] — Filter internet gateways — ‹ 1 › ⚙

Note: Your student account may already have an Internet gateway. If it does, it is likely attached to a default VPC. Regardless, this Lab Step will walk you through creating your own.

2. Click **Create internet gateway** to begin creating a new gateway with the following:

- **Name tag**: Enter *labs-gw*

Name tag
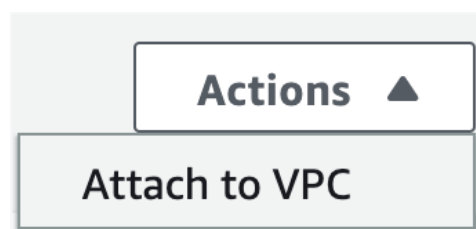Creates a tag with a key of 'Name'

labs-gw

3. Click **Create Internet Gateway**:

Create internet gateway

The **State** of your Internet Gateway will be **detached** to start. Now you need to attach the new gateway to the VPC you created earlier.

4. Click **Actions** then **Attach to VPC**:

Actions ▲

Attach to VPC

5. In the **Attach to VPC** form, select the **cloudacademy-labs** VPC from the drop-down menu:

Available VPCs
Attach the internet gateway to this VPC.

🔍 *Select a VPC*

vpc-0752f587b3aac2494 - cloudacademy-labs

Note: The ID of your VPC will differ slightly.

An Internet Gateway can only be attached to one VPC. Therefore, even if you have another Internet Gateway, and it's already attached to the default VPC, the drop-down menu when attaching your Internet Gateway will only include the detached VPC.

6. Click **Attach internet gateway**:

Attach internet gateway

7. In the **Details** tab, you will notice the new **Internet Gateway** is **Attached** and available to be used by EC2 instances of the attached VPC:

igw-06971bb6ae26fd079 / labs-gw

Actions ▼

Details Info

Internet gateway ID	State	VPC ID	Owner
🗗 igw-06971bb6ae26fd079	✅ Attached	vpc-09d83720b4c4cbfd2 | cloudacademy-labs	🗗 940678756880

Summary

In this lab step, you created an Internet Gateway and attached it to the VPC that you created earlier. Instances in the public subnet will route traffic destined for the public internet through the internet gateway.

VALIDATION CHECKS

1	Checks	Check again ↻

✔ **Attached Internet Gateway**

Attached the Internet Gateway to the non-default VPC

Networking for AWS