



## Module 7 – NAT Gateway

## NAT Gateway.

A managed AWS service that provides outbound internet access for resources within a private subnet in an Amazon Virtual Private Cloud (VPC). It allows instances in a private subnet to communicate with the internet or other AWS services, while hiding their private IP addresses.

### Different between NAT GW and IGW

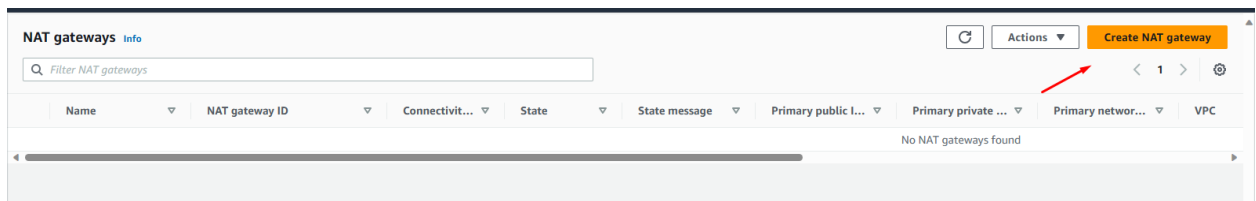
An Internet Gateway (IGW) allows both inbound and outbound access to the internet. A NAT Gateway only allows outbound access.

### What we are going to perform-

Now let's launch two instances, one instance in Public Subnet which will have default Auto-assign Public IP and another instance in Private Subnet which will not have Public IP. We will do SSH from Server 1 to server 2 and then will see if server 2 is able to ping gmail.com.

So let's go back to VPC and select NAT GW.

- Click on Create NAT gateway.



- So, fill in the details and make sure select the Public Subnet.

## Create NAT gateway [Info](#)

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

### NAT gateway settings

#### Name - *optional*

Create a tag with a key of 'Name' and a value that you specify.

Demo

The name can be up to 256 characters long.

#### Subnet

Select a subnet in which to create the NAT gateway.

subnet-01ab749a36eb84394 (VPC-NAT-subnet-public1-us-east-1a)

#### Connectivity type

Select a connectivity type for the NAT gateway.

☒ Public

☐ Private

#### Elastic IP allocation ID [Info](#)

Assign an Elastic IP address to the NAT gateway.

eipalloc-0576a67988ab85eb2

[Allocate Elastic IP](#)

### ► Additional settings [Info](#)

### Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

#### Key

Q Name

#### Value - *optional*

Q Demo

Remove

- Once the NAT gateway is created updated the Route Table. 0.0.0.0/0 target will be NAT GW. Save the changes.

VPC > Route tables > rtb-05a31c4869b2caad3 > Edit routes

### Edit routes

| Destination     | Target                | Status | Propagated |
|-----------------|-----------------------|--------|------------|
| 10.250.255.0/24 | local                 | Active | No         |
| 0.0.0.0/0       | NAT Gateway           | -      | No         |
|                 | nat-0ea5ff9580d78a696 |        |            |

[Add route](#)

[Cancel](#) [Preview](#) [Save changes](#)

- Now let try to ping gmail.com from server2.