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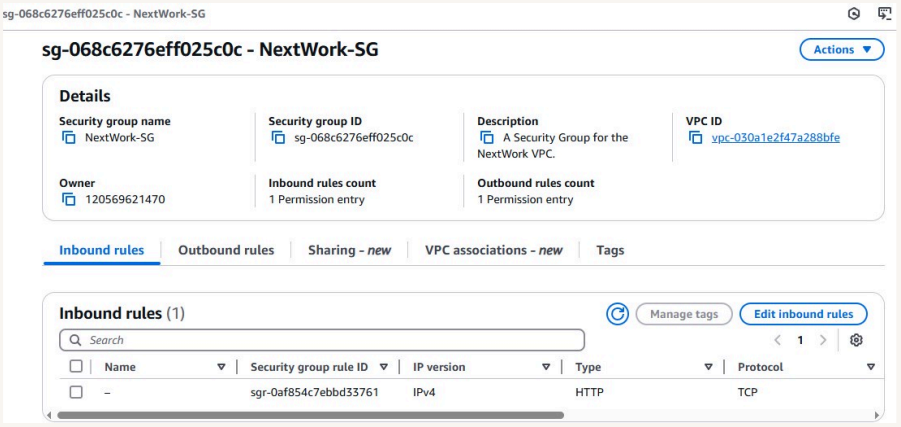
VPC Traffic Flow and Security

Ali Syed



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Introducing Today's Project!

What is Amazon VPC?

VPC is like a city, which allows our resources inside it and manages Ec2, Security, and make our resources accessible and available.

How I used Amazon VPC in this project

I used Amazon VPC to create a network inside it, with subnet, security groups, and network ACL.

One thing I didn't expect in this project was...

Before doing this project I thought it will be tough. But, the way you made it simple, it became easier for me to do the tasks and understand simultaneously in a learning with fun way.

This project took me...

This project took almost 20 minutes because of its simple step by step and easy guidance.

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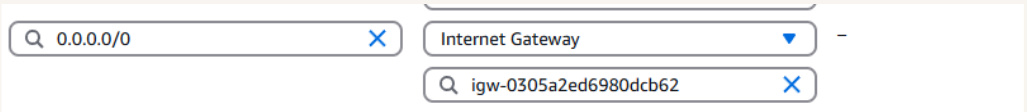
Route tables

Route tables are like a register that records the incoming and outing traffic according to specified rules and subnets.

we need a route table to make a subnet public because this is the only way to connect it to internet via gate way. Otherwise your vpc will not be accessible.



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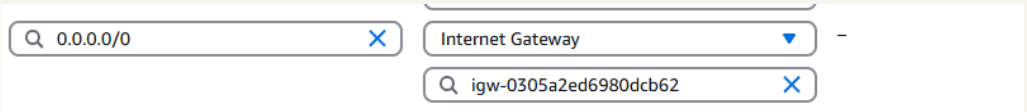
Route destination and target

Destination target indicates the traffic route from which and for which the vpc is made accessable.

My new route's destination and target are 0.0.0.0 which indicates all traffic from anywhere and NextWork-IG



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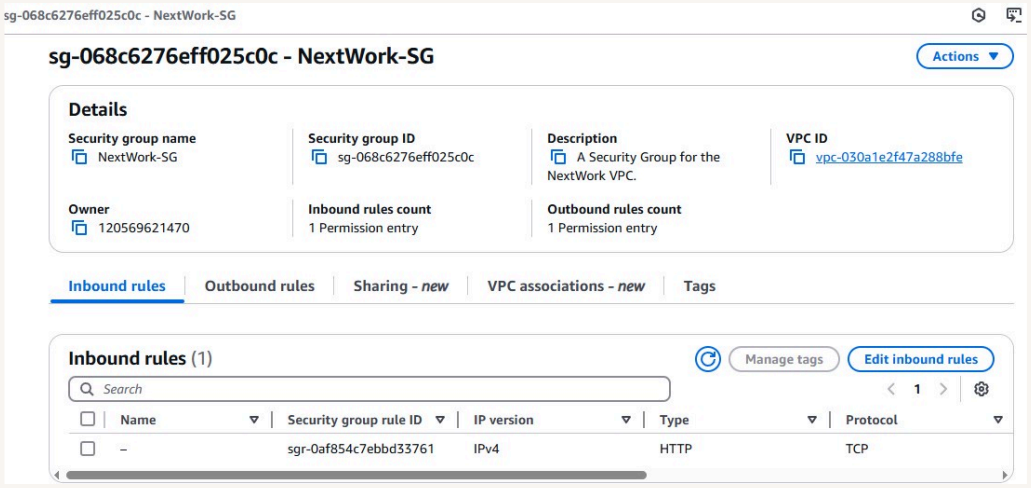
Security groups

Security groups are like security guard at an entrance. It decides which traffic is allowed to pass the gate which one is not.

Inbound vs Outbound rules

Inbound rules are set of rules we create for the type of traffic we want to allow or access. Inbound rules of my security group are HTTP, anywhereIPV4.

Outbound rule are set of rules created for the outbound traffic, which were selected by default in my case.


sg-068c6276eff025c0c - NextWork-SG
sg-068c6276eff025c0c - NextWork-SG
Actions
Details
Security group name
NextWork-SG
Security group ID
sg-068c6276eff025c0c
Description
A Security Group for the NextWork VPC.
VPC ID
vpc-030a1e2f47a288bfe
Owner
120569621470
Inbound rules count
1 Permission entry
Outbound rules count
1 Permission entry
Inbound rules
Outbound rules
Sharing - new
VPC associations - new
Tags
Inbound rules (1)
Manage tags
Edit inbound rules
Search
1
Name
Security group rule ID
IP version
Type
Protocol
–
sgr-0af854c7ebbd33761
IPv4
HTTP
TCP

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Network ACLs

ACL stands for Access Control List. It controls the access of traffic, which to allow and which to stop entering to our VPC.

Security groups vs. network ACLs

Security group works at resource level and is stateful. while the Network ACL works at subnet level and is stateless.

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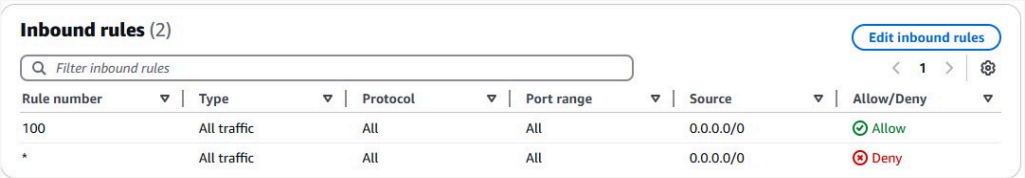
Default vs Custom Network ACLs

Similar to security groups, network ACLs use inbound and outbound rules

By default, a network ACL's inbound and outbound rules will allow all traffic.

In contrast, a custom ACL's inbound and outbound rules are automatically set to deny traffic.



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