



VPC Traffic Flow and Security



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sg-0fd7769d257ad7043 - NextWork Security Group Actions ▾

Details			
Security group name NextWork Security Group	Security group ID sg-0fd7769d257ad7043	Description A Security Group for the NextWork VPC.	VPC ID vpc-04248562bdb376773
Owner 908027415038	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

[Inbound rules](#) [Outbound rules](#) [Tags](#)

Inbound rules (1)

Name	Security group rule...	IP version	Type	Protocol
-	sgr-00ae47a5c640c6a64	IPv4	HTTP	TCP

Introducing Today's Project!

What is Amazon VPC?

Amazon VPC (Virtual Private Cloud) is like having your own private, secure section of the internet within the larger Amazon Web Services (AWS) cloud. and it is useful for Control and Security,scalability and isolation.

How I used Amazon VPC in this project

I used VPC to create subnets and created internet gateway to VPC and also security groups for subnets, route table,Network ACL' to the entire subnet.

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

I cannot expect the default inbound and outbound services by amazon services.

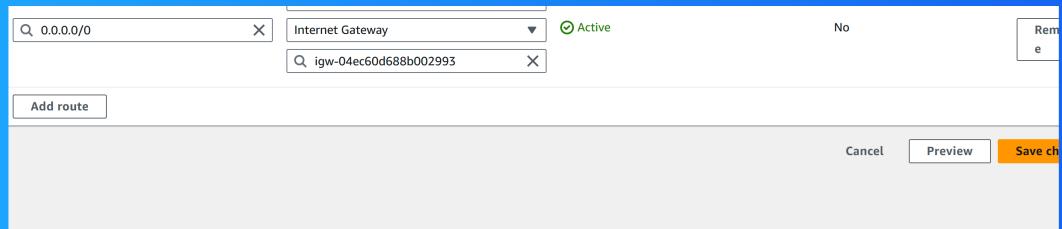
This project took me...

approximately one and half hour

Route tables

Think of a route table as a GPS for the resources in your subnet. Just like a GPS helps people get to their destination in a city, a route table is a table of rules, called routes, that decide where the data in your network should go.

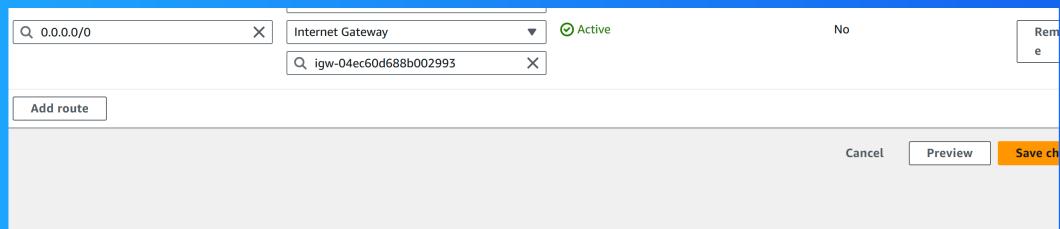
Route tables are needed to make a subnet public because a subnet needs to have a route to an internet gateway in order to be considered public. A route table is the only way to establish this connection.



Route destination and target

Route's destination is the range of IP addresses that traffic in my VPC is trying to reach. Target is the road/path that the traffic will use to get their destination.

The route in my route table that directed internet-bound traffic to my internet gateway had a destination of 0.0.0.0/0 and a target of my Nextwork IG(internet gateway).



Security groups

If VPCs are cities and subnets are neighbourhoods, a security group is a security checkpoint, or security guard, at the entrance for each building (resource) in that neighbourhood (subnet).

Inbound vs Outbound rules

security groups control traffic flow using two types of rules. 1) inbound rules are the that restrict inbound traffic. eg: users visiting a web app iam hosting.

outbound rules are the rules that restrict outbound traffic. ex: my web app requesting data from public source.

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Owner 908027415058	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

[Inbound rules](#) [Outbound rules](#) [Tags](#)

Inbound rules (1) Manage tags Edit inbound rules

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Network ACLs

Think of Network ACLs as traffic cops stationed at every entry and exit point of your subnet, checking each data packet against a table of ACL rules before allowing them through.

Security groups vs. network ACLs

Network ACLs are used to set broad traffic rules that apply to an entire subnet. Security groups allow for more granular control, managing access to individual resources. You can specify which ports and protocols are allowed for each connected resources.

Default vs Custom Network ACLs

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

A default network ACL's inbound rule is to set up to allow all incoming traffic.
A default network ACL's outbound rule is to set up to allow out outgoing traffic.

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

Inbound rules (2)							Edit inbound rules
<input type="text"/> Filter inbound rules							
Rule number	Type	Protocol	Port range	Source	Allow/Deny	Action	
100	All traffic	All	All	0.0.0.0/0	Allow	Edit	
*	All traffic	All	All	0.0.0.0/0	Deny	Edit	



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