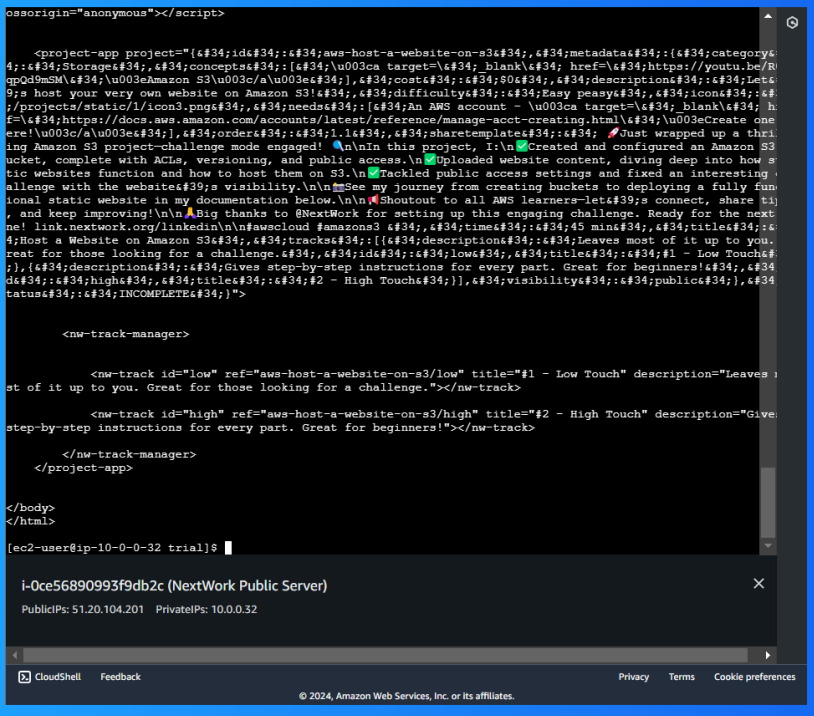
NextWork.org

Testing VPC Connectivity

sirajudeen athif



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Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a service that allows users to create private networks within the AWS cloud. It provides enhanced security, customizable network configurations and easy scalability.

How I used Amazon VPC in this project

I utilized Amazon VPC to set up a VPC that included both a public and a private subnet. I then launched servers in each subnet and successfully established a connection between them.

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

Setting up remote servers is a very simple process using AWS. With the right tools and configurations, you can easily create and manage servers that are accessible from anywhere.

This project took me...

Around 60 minutes.

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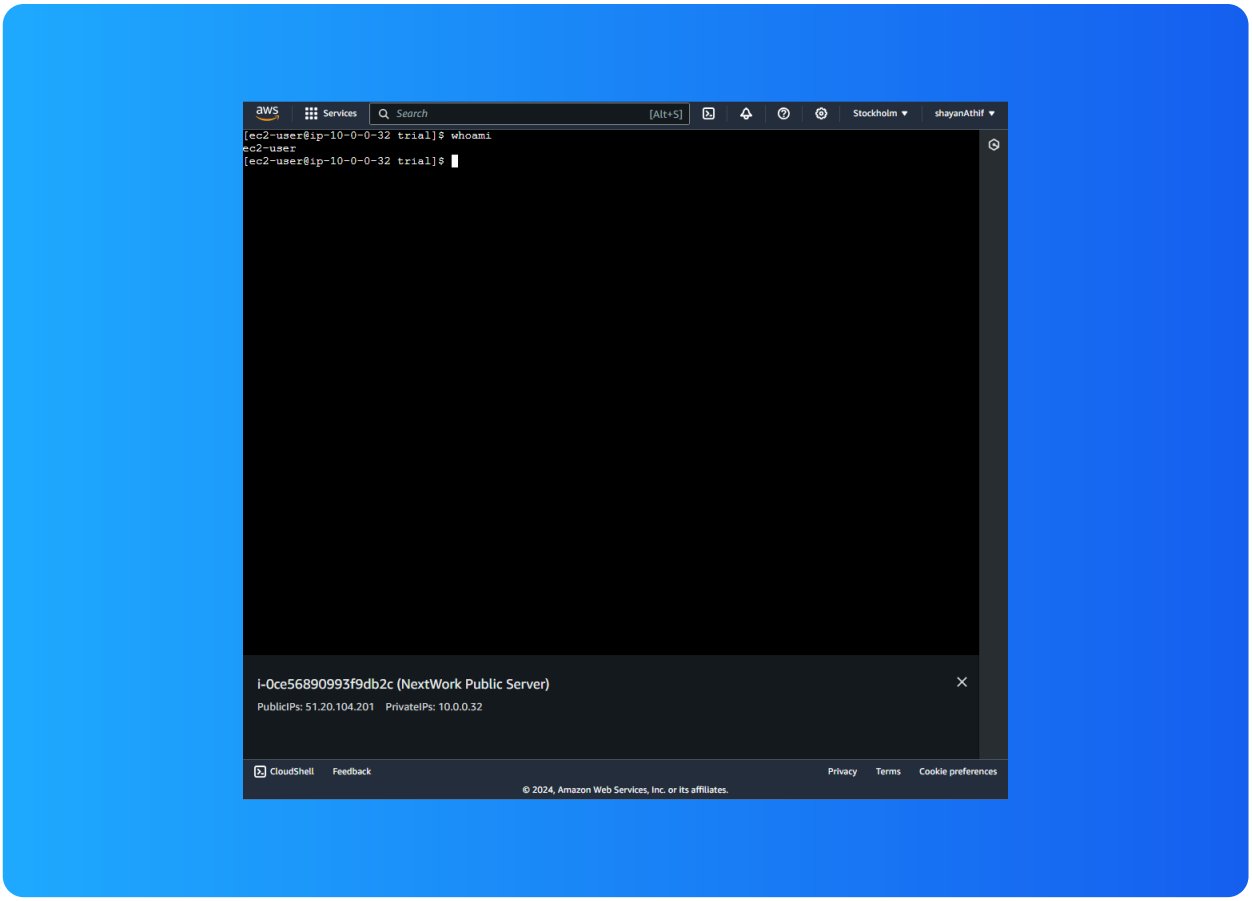
Connecting to an EC2 Instance

Connectivity is how different parts of your network communicate with each other and with other networks. It is important as it is how data flows smoothly, without any issues, across your network.

My first test for connectivity was to see if I could successfully connect to the public server that I created using EC2 Instance Connect. I wanted to ensure that the connection was working properly before proceeding with other tasks.



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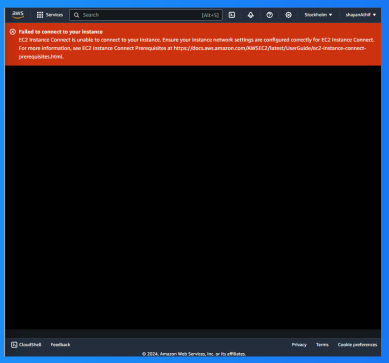
EC2 Instance Connect

I connected to my EC2 instance using EC2 Instance Connect, which is an alternative way to use SSH. It lets you securely connect to your EC2 instances directly using the AWS Management Console, taking away all the complexity of etting up an SSH.

My first attempt at getting direct access to my public server resulted in an error, because the security group associated with the public server lets in all inbound HTTP traffic but we're trying to access using SSH through EC2 Instance Connect.

I resolved the issue by adding a new inbound rule to the security group, which allowed inbound SSH traffic. This correction enabled me to successfully connect to the public server.



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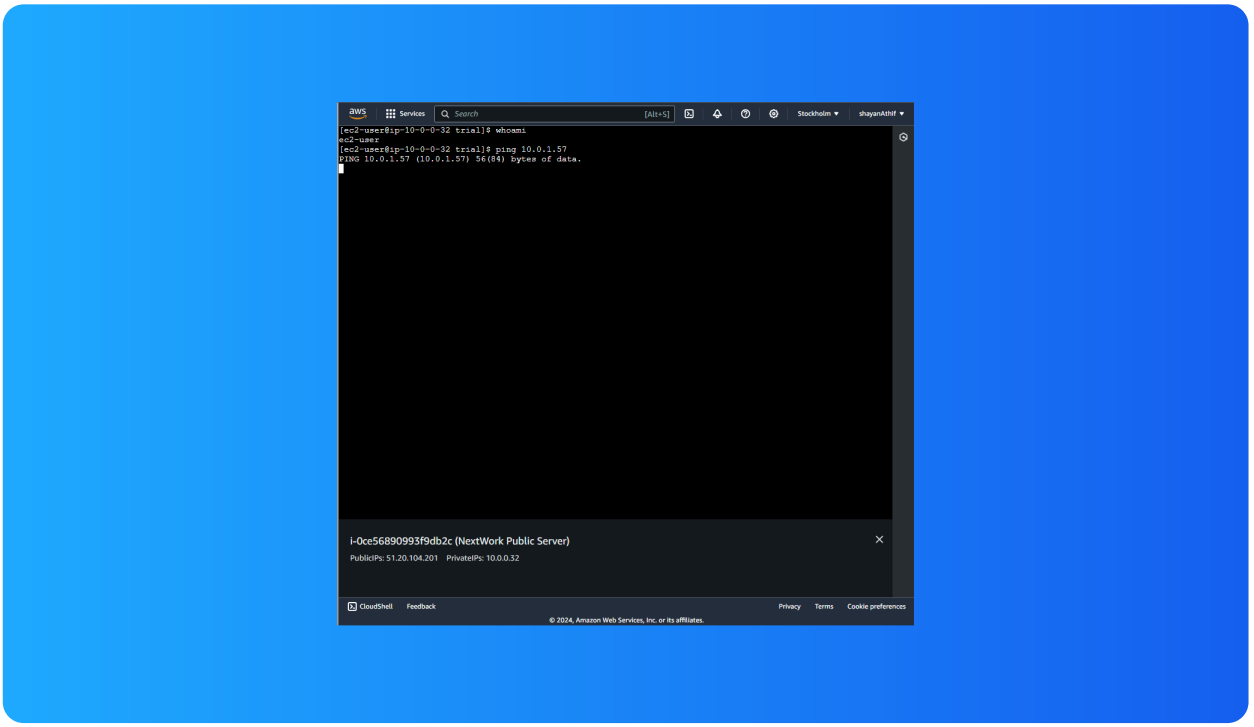
Connectivity Between Servers

Ping is a common computer network tool used to check whether your computer can communicate with another computer or device on a network. I used ping to test the connectivity between the public and private servers, respectively.

The ping command i ran was - ping 10.0.1.227 [The Private IPv4 address]

The first ping returned a single line and that was about it. This meant that the public server sent out a ping message but didn't receive a reply. It must be due to the fact that it doesn't allow traffic of type ICMP.



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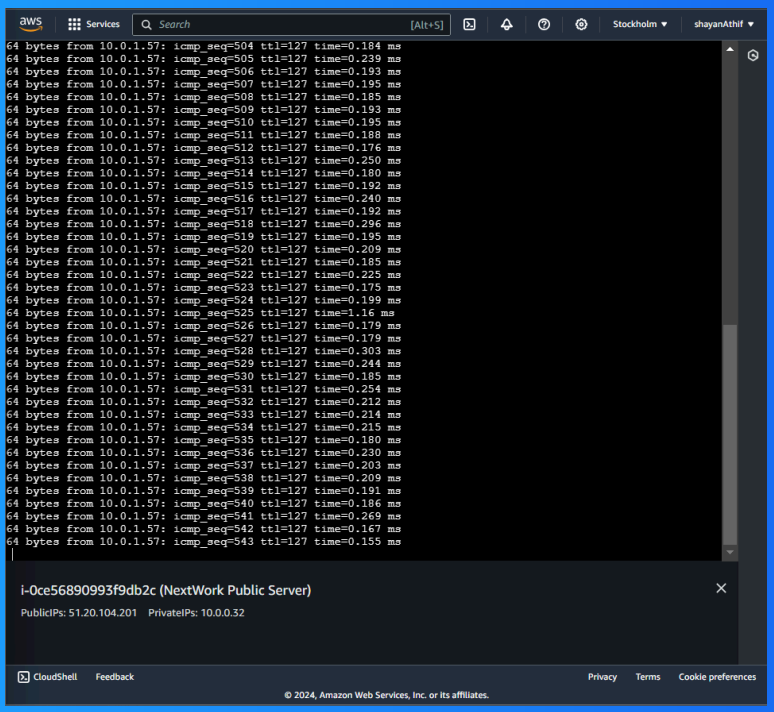
Troubleshooting Connectivity

I troubleshot the issue by examining the route tables and network ACLs, discovering that all inbound and outbound ICMP traffic was denied. I then added a new rule to permit ICMP traffic, resolving the connectivity problem.



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Connectivity to the Internet

curl is a tool to test connectivity in a network. It is used to transfer data to or from a server. When you use this command followed by a website address, it sends an HTTP request to the server that hosts the website .

I used curl to test the connectivity between the public server and the internet. Not only can it be used for checking connectivity, you can also use curl to grab data from, or upload data into other servers on the internet.

Ping vs Curl

Ping and curl are different because Ping is used to check whether your computer can communicate with another computer or device on a network while curl is a tool to test connectivity and grab/upload data from the internet.

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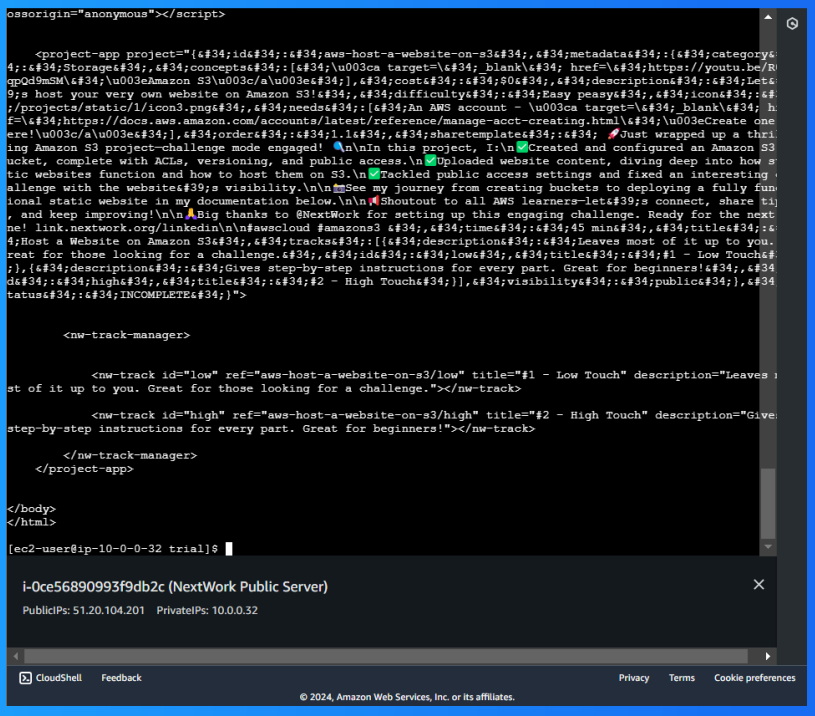
Connectivity to the Internet

I ran the curl command curl https://learn.nextwork.org/projects/aws-host-a-website-on-s3 , which returned the raw HTML data of NextWork's web app.



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