AWS re:Start LAB

Create Subnets in a VPC

WEEK 3

aws re/start

Overview

Customer scenario

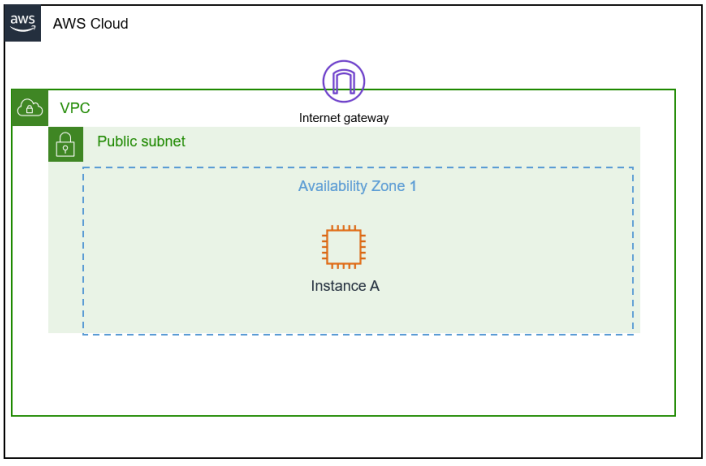
Your role is a cloud support engineer at AWS. During your shift, a customer from a startup company requests assistance regarding a networking issue within their AWS infrastructure. The following is the email and an attachment regarding their architecture.

Ticket from your customer

Hello, Cloud Support!

I'm new to AWS, and I need help setting up a VPC. Can you please help me through the setup process? I would like to build only the VPC part and would like to make it look something like the following picture. Can you help me ensure I have around 15,000 private IP addresses in this VPC available? I would also like the VPC IPv4 CIDR block to be a 192.x.x.x. I don't remember which is a private range though. Can you confirm that? I would also like to allocate at least 50 IP addresses for the public subnet.

Thanks!
Paulo Santos
Startup Owner



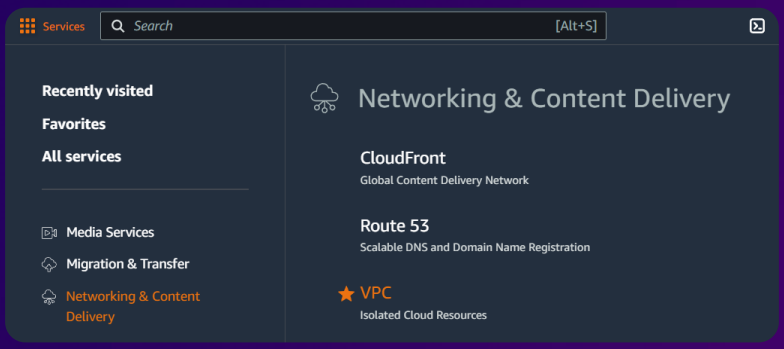
aws re/start

Task 1

Investigate the customer's environment

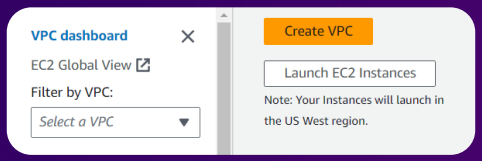
Step 1: Access the AWS Management Console

Open the AWS Management Console, and select VPC.



Step 2: Launch the VPC Wizard

In the Amazon VPC dashboard, choose the Create VPC button to launch the VPC wizard. This will launch you into a step by step process to set up a VPC with it's basic components.



aws re/start

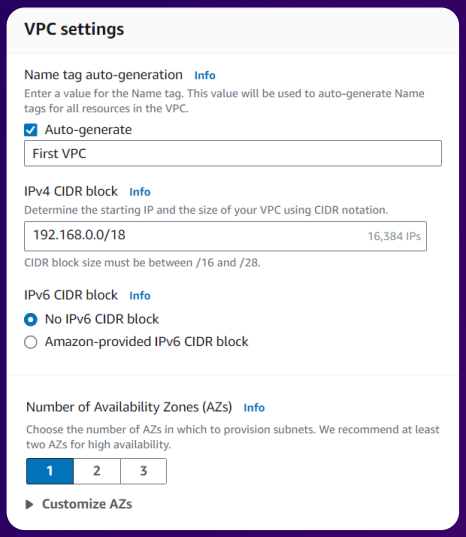
Task 1

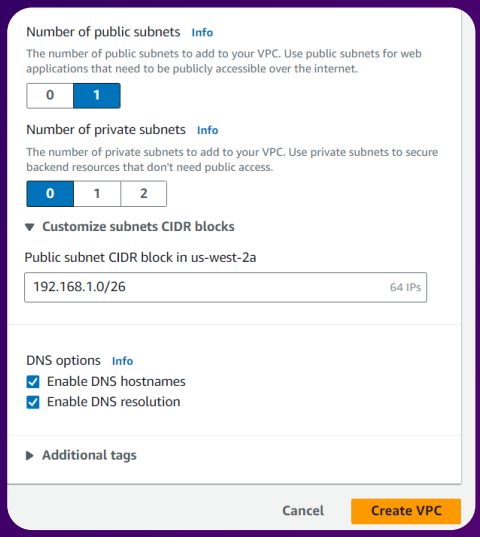
Investigate the customer's environment

Step 3: Set up the VPC

Once in the VPC wizard, use the following parameters to configure the VPC settings:

- The VPC name is set to First VPC
- The IPv4 CIDR block is set to 192.168.0.0/18
- The IPv6 CIDR block is set to No IPv6 CIDR block
- The number of Availability Zones is set to 1
- The number of public subnets is set to 1
- The number of private subnets is set to 0
- The Public subnet's IPv4 CIDR is set to 192.168.1.0/26





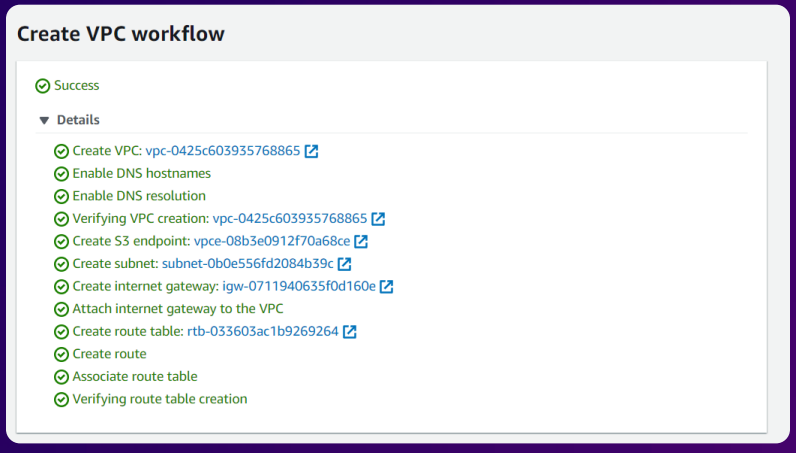
aws re/start

Task 1

Investigate the customer's environment

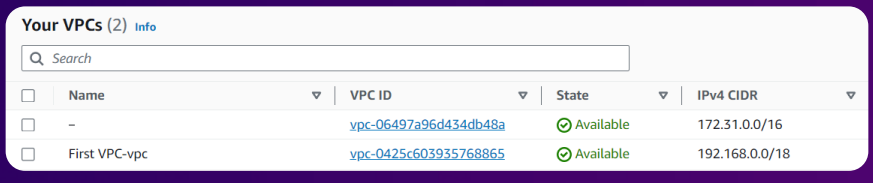
Step 4: Check the Create VPC workflow

Once you have successfully created the VPC, you should see a Success message in the Create VPC workflow.



Step 5: Review the VPC

Navigate to the Amazon VPC dashboard and select **Your VPCs** to verify that your VPC is available. You should see your VPC listed.



aws re/start

Task 2

Send the Response to the customer

Submit your findings

Dear Paulo,

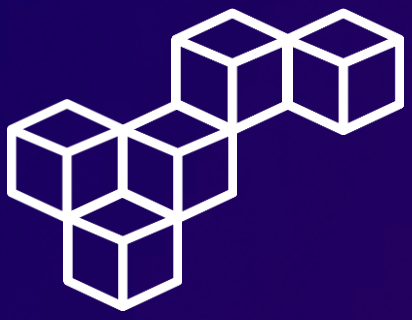
Thank you for reaching out. I'll be glad to assist you in setting up your VPC.

Here are the parameters to configure your VPC settings:

- Set the IPv4 CIDR block to 192.168.0.0/18
- Set the IPv6 CIDR block to No IPv6 CIDR block
- Set the number of Availability Zones to 1
- Set the number of public subnets to 1
- Set the number of private subnets to 0
- Set the Public subnet's IPv4 CIDR to 192.168.1.0/26

After configuring these settings, you can navigate to the Amazon VPC dashboard and select 'Your VPCs' to verify the availability and configuration of your new VPC.

If you need further assistance, please let me know.
Cristhian
Cloud Support Engineer



Conclusions

VPCs
Virtual Private Clouds provide isolated and customizable virtual network environments within cloud platforms like AWS, allowing users to launch and manage resources securely and efficiently.

Availability Zones
Availability Zones provide fault tolerance and high availability by distributing resources across different physical locations within a region.

Public Subnets
Public subnets are network segments within a VPC that are directly accessible from the internet, typically used for hosting public-facing resources like web servers or load balancers.

Private Subnets
Private subnets are network segments within a VPC that are isolated from the internet, often used for internal resources or backend systems that don't require direct internet access, enhancing security by reducing exposure to external threats.

CIDR blocks
CIDR blocks are used to define the IP address range for subnets within a VPC, enabling efficient IP address allocation and network segmentation.

aws re/start

Cristhian Becerra

cristhian-becerra-espinoza

+51 951 634 354

cristhianbecerra99@gmail.com

Lima, Peru