1. Multiserver Pattern

Provide multiple virtual servers in parallel, using the Load Balancer provided by the AWS Cloud service to distribute the load appropriately. This is known as a "Multi-Server." While you can achieve this in an on-premises system, you can structure this environment substantially more easily in the AWS Cloud than on-premises.

Prerequisites

The instance must be a running instance in the same network as the load balancer (EC2-Classic or the same VPC). If you have EC2-Classic instances and a load balancer in a VPC with ClassicLink enabled, you can link the EC2-Classic instances to that VPC and then register them with a load balancer in the VPC.

Register an Instance

When you are ready, register your instance with your load balancer. If the instance is an in Availability Zone that is enabled for the load balancer, the instance is ready to receive traffic from the load balancer as soon as it passes the required number of health checks.

To register your instances using the console

1. Open the Amazon EC2 console at https://console.aws.amazon.com/ec2/.
2. On the navigation pane, under **LOAD BALANCING**, choose **Load Balancers**.
3. Select your load balancer.
4. In the bottom pane, select the **Instances** tab.
5. Choose **Edit Instances**.
6. Select the instance to register with your load balancer.
7. Choose **Save**.

2. Floating IP Address Pattern

Assign an EIP to an EC2 instance.When there is a failure or when you are going to perform an upgrade, launch a new EC2 instance. You can use the Stamp Pattern when launching the new EC2 instance. You can perform the swap more rapidly by launching the other EC2 instance in advance. After launching the instance, detach the EIP from the current EC2 instance and attach it to the new EC2 instance.

To allocate an Elastic IP and associate it with an Amazon Web Services (AWS) instance, do the following:

1. Open the AWS Management Console, click the EC2 link, and display the page associated with your region.
2. Click the Elastic IPs link in the EC2 Dashboard.
3. Click Allocate New Address and choose VPC or EC2 from the drop-down list, depending whether you're going to associate this IP with an instance in Amazon EC2-Virtual Private Cloud (VPC) or Amazon EC2-Classic, respectively. Click Yes, Allocate to confirm your choice.
4. Right-click the newly created Elastic IP and choose Associate Address.
5. Choose your desired EC2 instance from the drop-down list of running instances and click Associate.

To disassociate an Elastic IP address

1. Open the Amazon VPC console at https://console.aws.amazon.com/vpc/.
2. In the navigation pane, choose **Elastic IPs**.
3. Select the Elastic IP address, choose **Actions**, and then choose **Disassociate address**.
4. When prompted, choose **Disassociate address**.