Category:

Containers

Amazon Elastic Kubernetes Service (Amazon EKS)

Created by:

Ashish Prajapati

What?

- Amazon EKS is a managed service that makes it easy for you to run Kubernetes on AWS without installing and operating your own Kubernetes control plane or worker nodes.

Why?

- Amazon EKS provisions and scales the Kubernetes control plane, including the API servers and backend persistence layer, across multiple AWS Availability Zones (AZs) for high availability and fault tolerance.
- Amazon EKS automatically detects and replaces unhealthy control plane nodes and patches the control plane.

When?

- You don't want operational burden of managing the Kubernetes control plane.
- You want to maintain existing applications that run on upstream Kubernetes and want to use plugins and tooling from the Kubernetes community.

Where?

- Amazon EKS is a regional service.
- It runs and scales the Kubernetes control plane across multiple AWS Availability Zones to ensure high availability.

Who?

- Amazon EKS handles provisioning, scaling, and managing the Kubernetes control plane. It also automatically detects and replaces unhealthy masters, and it provides automated version upgrades and patching for the masters.
- Customers provision an EKS cluster, Deploy Compute nodes, connect to EKS and run Kubernetes applications.

How?

- Amazon EKS runs a single tenant Kubernetes control plane for each cluster. It integrates with many AWS services to provide scalability and security for your applications
- It uses Amazon VPC network policies to restrict traffic between control plane components to a single cluster.

How much?

- You pay $0.10 per hour for each Amazon EKS cluster you create and for the AWS resources you create to run your Kubernetes worker nodes. You only pay for what you use, as you use it; there are no minimum fees and no upfront commitments.
- If you are using AWS Fargate, pricing is calculated based on the vCPU and memory resources used.