AWS EKS Networking Architecture Structure

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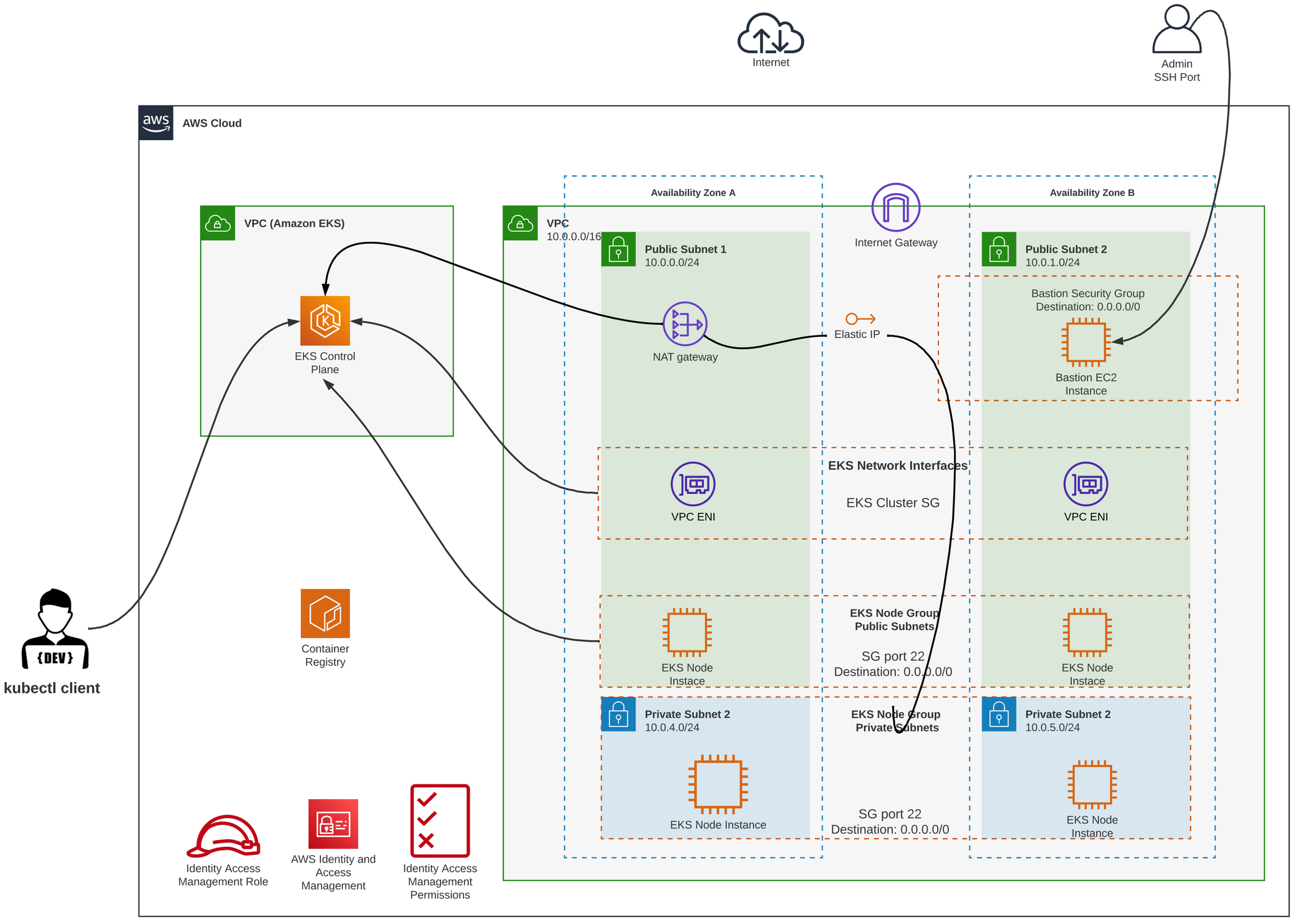

AWS EKS Workload & RDS Database

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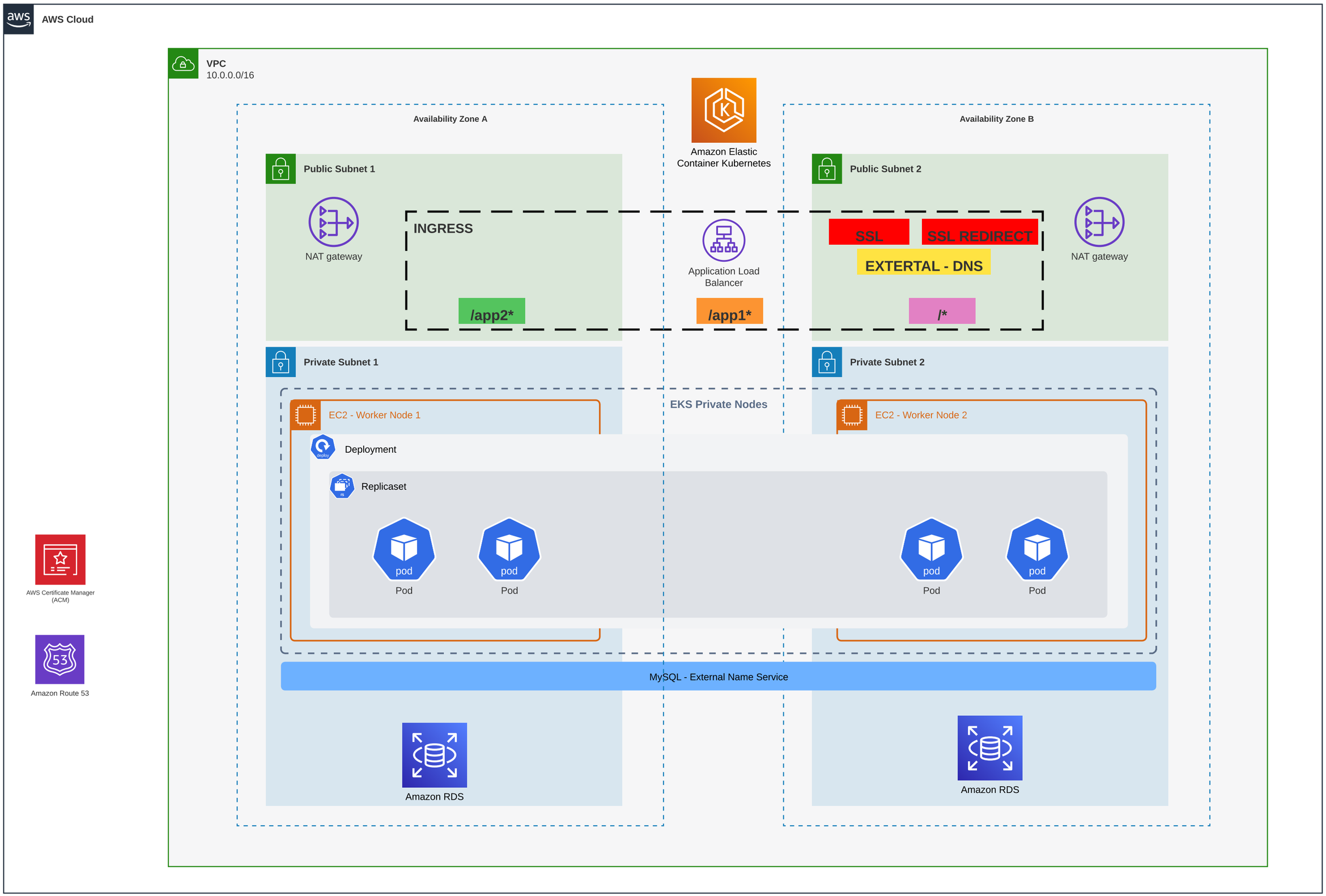

AWS EKS wit ALB, R53, Ingress & External DNS

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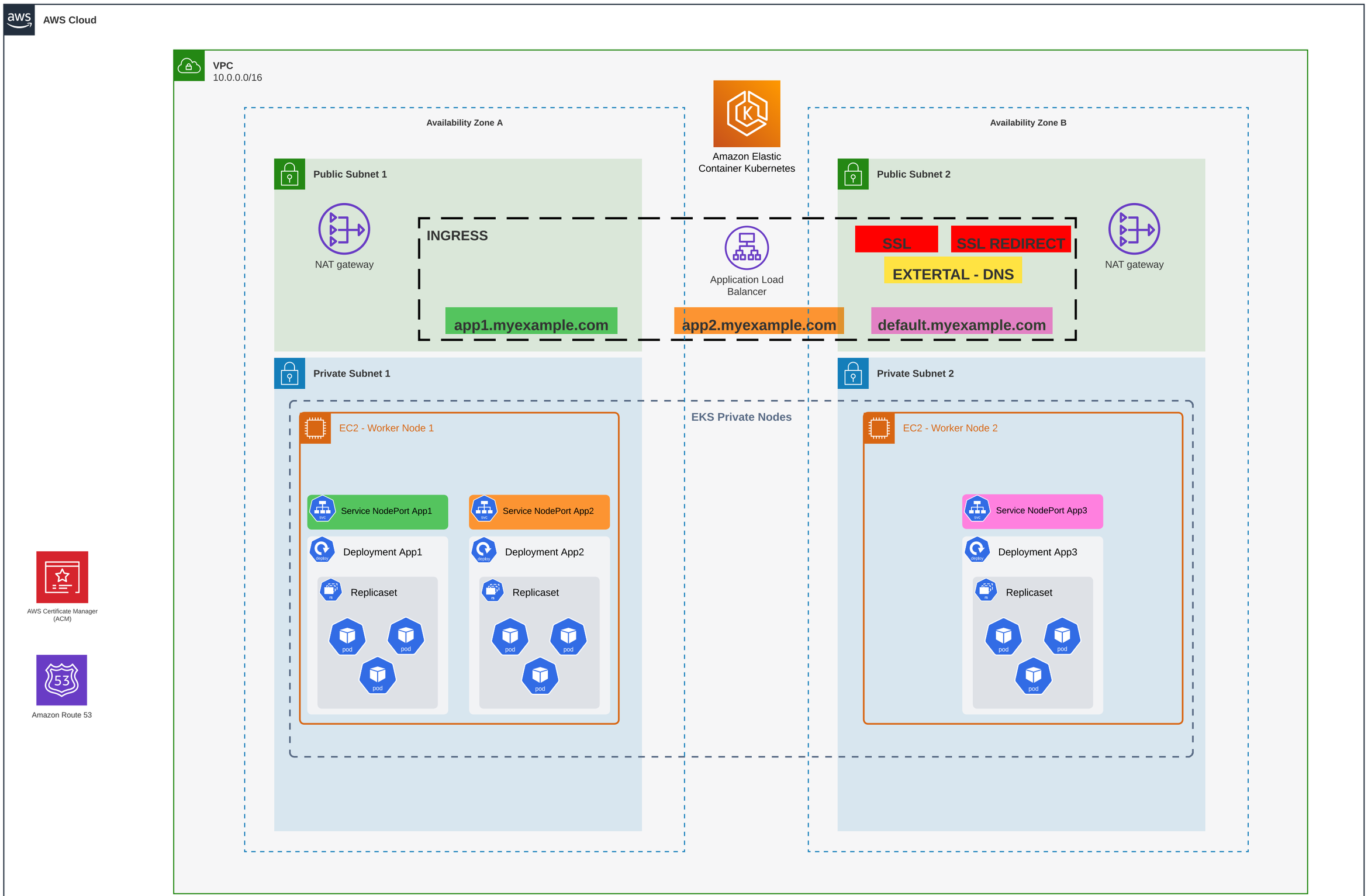

AWS EKS Mixed deployment (Fargate Profiles)

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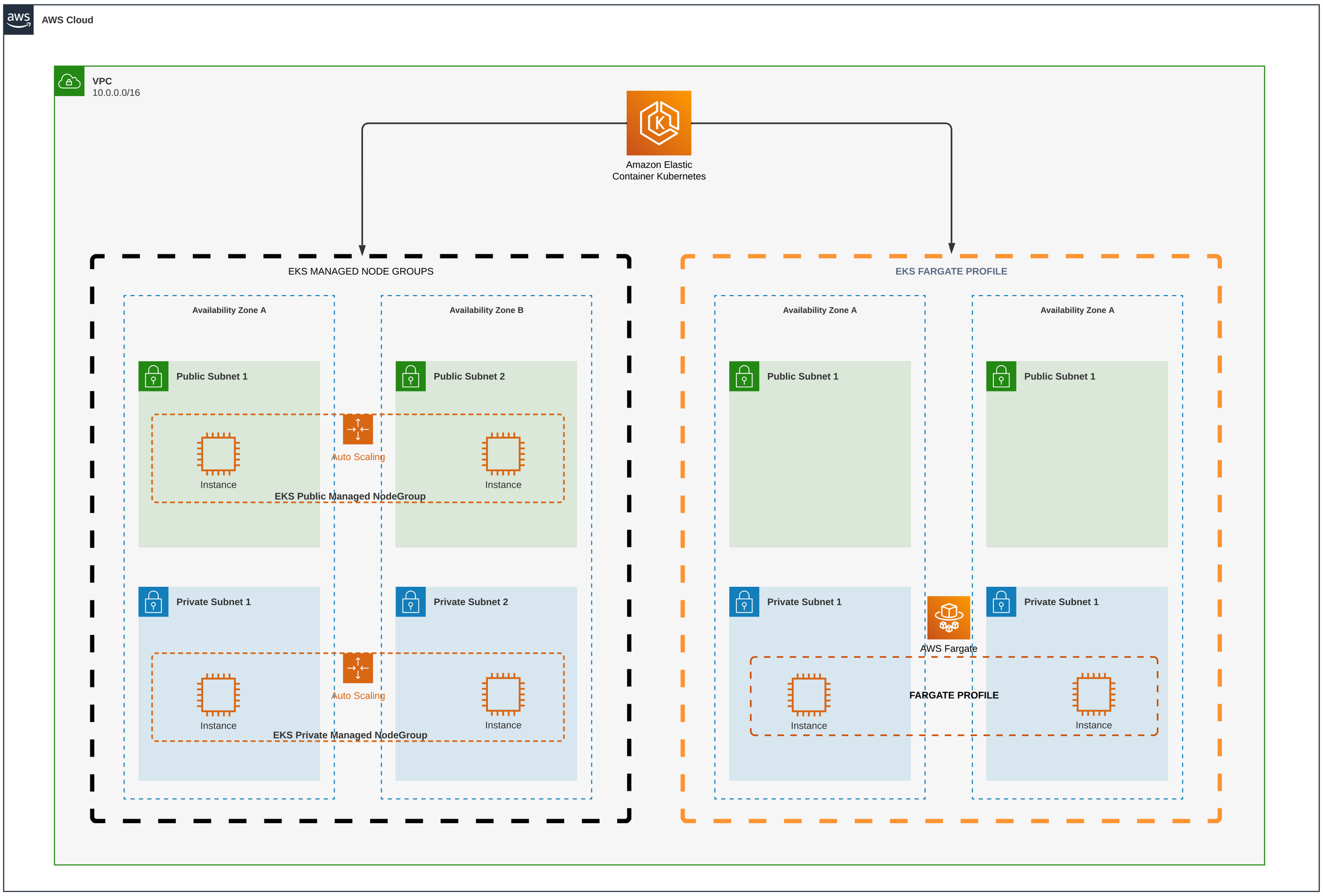

Microservice Deployment on AWS EKS Cluster

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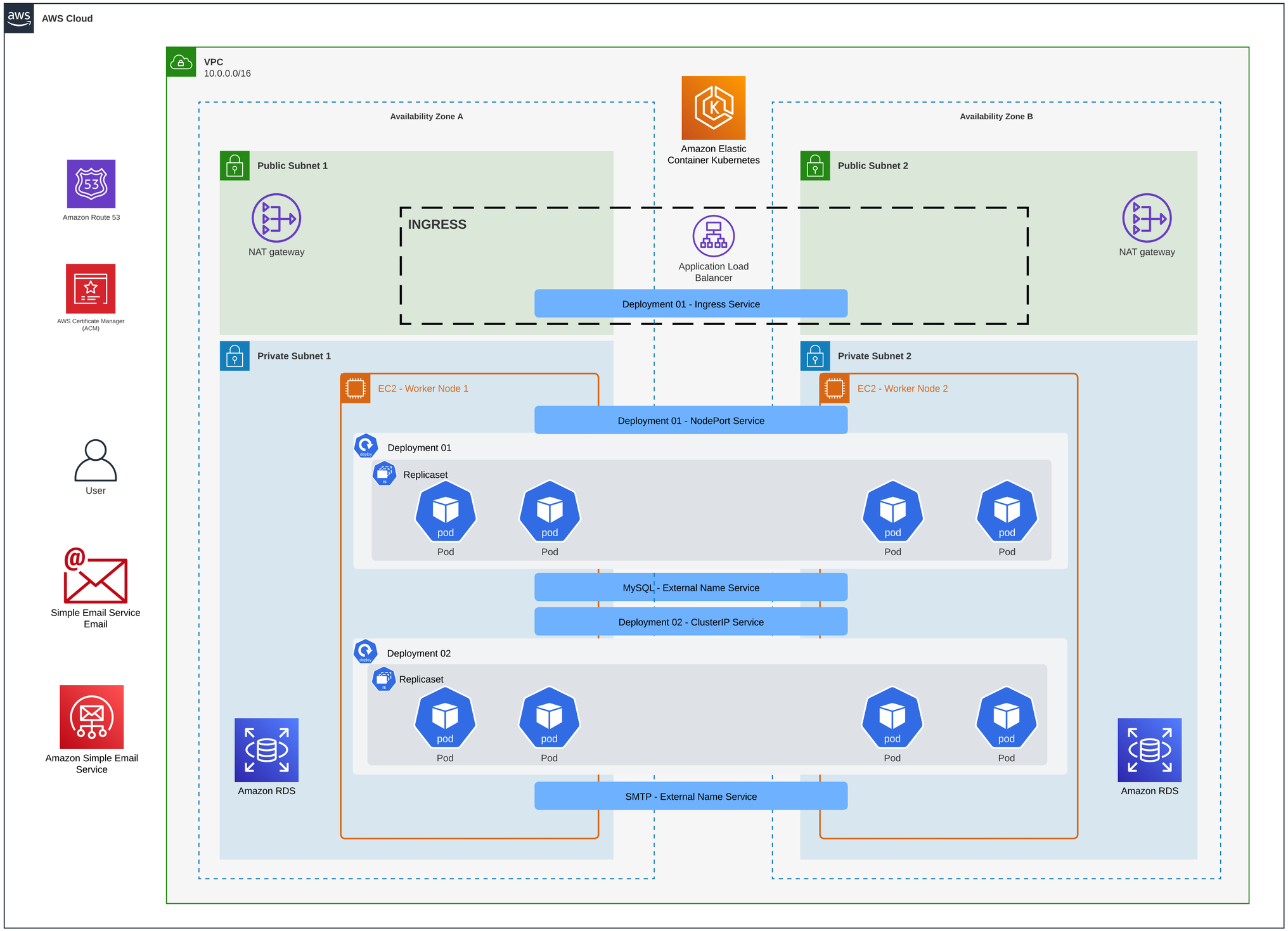

ALB Controller integration to AWS EKS

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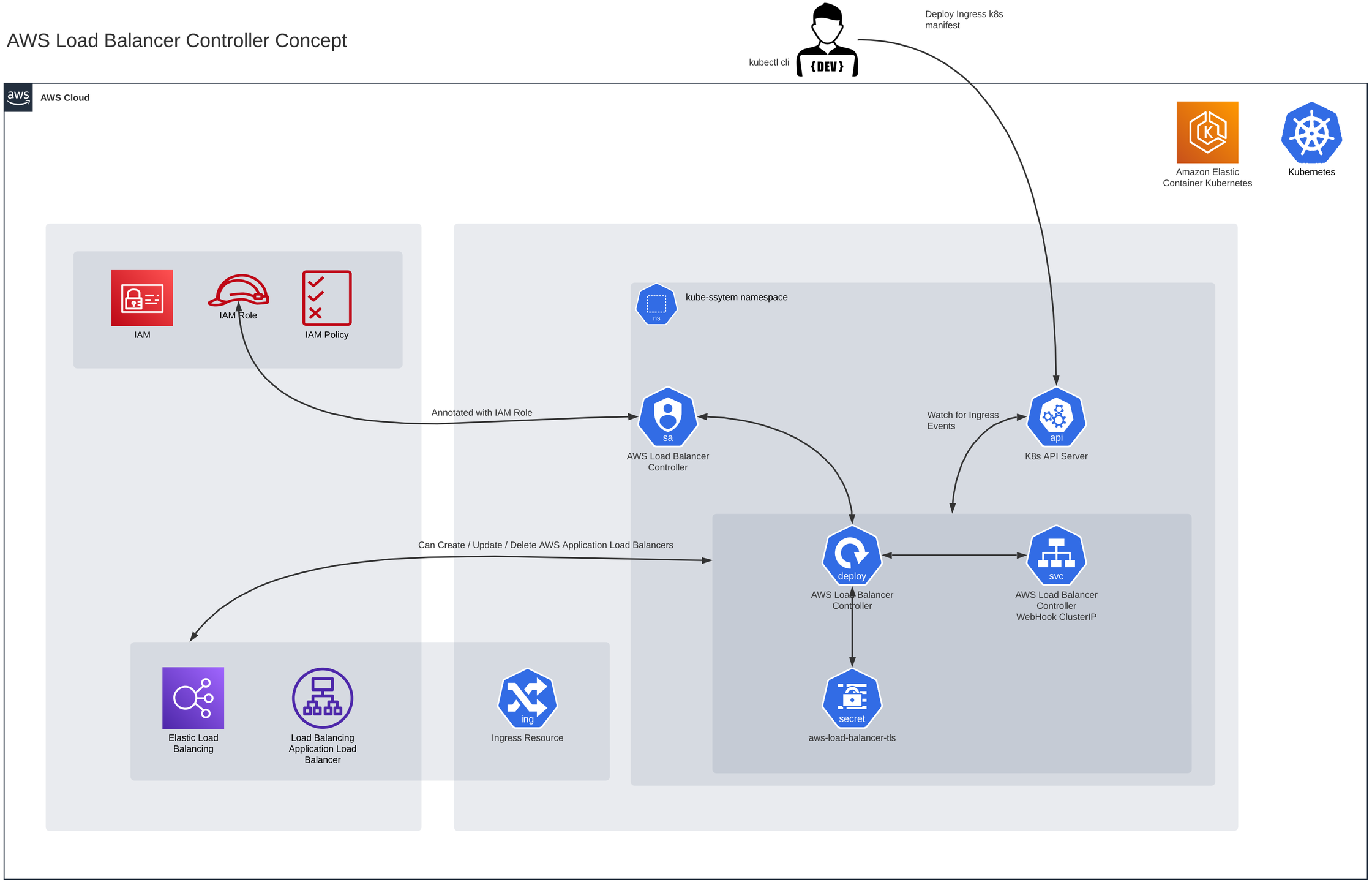
AWS Load Balancer Controller Concept



ALB INGRESS - CONTEXT PATH BASED ROUTING

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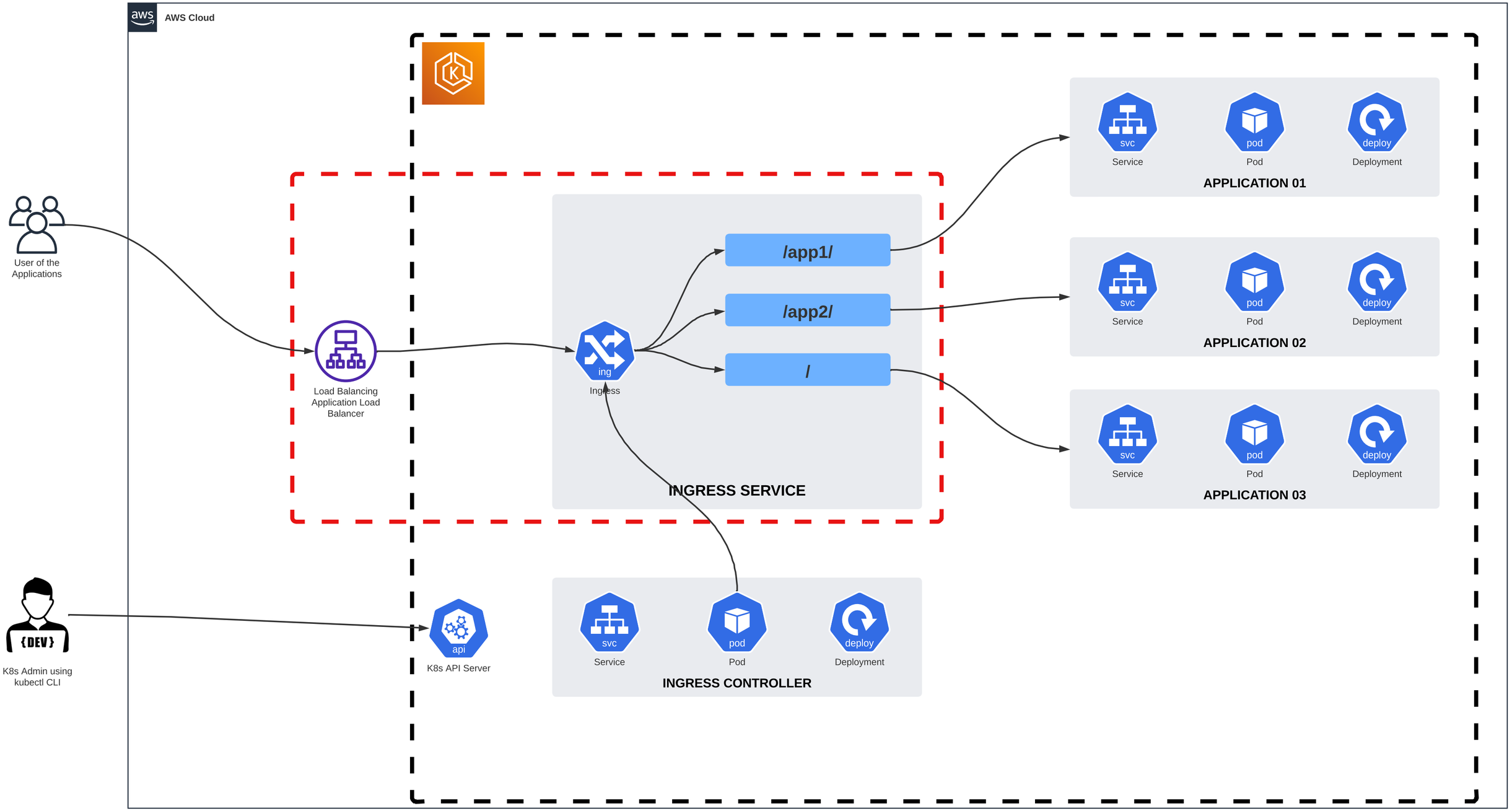
AWS Load Balancer Controller Concept



AWS EKS CLUSTER - EXTERNAL DNS interagrion

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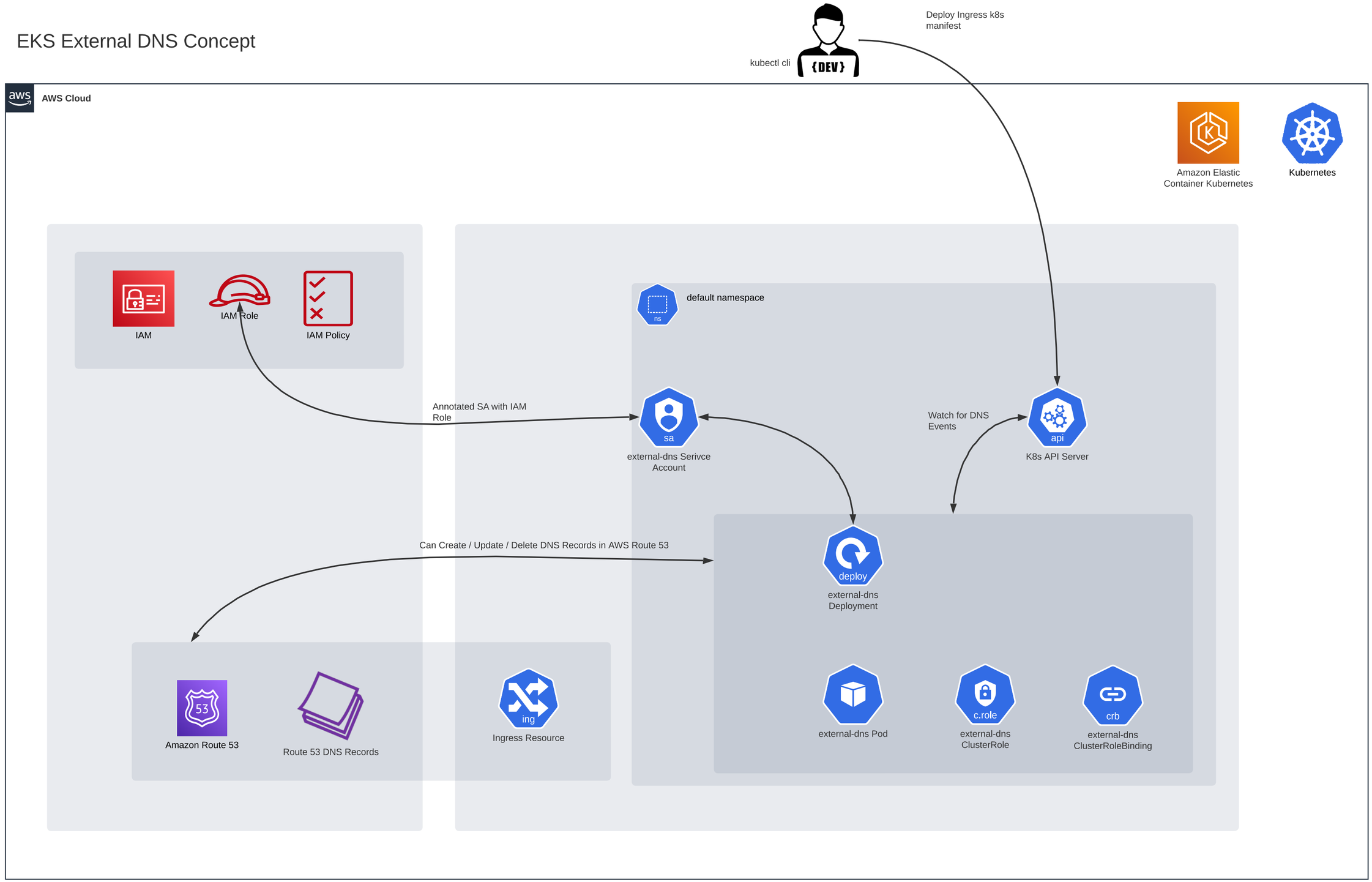
EKS External DNS Concept



CI/CD Pipeline with AWS EKS Cluster

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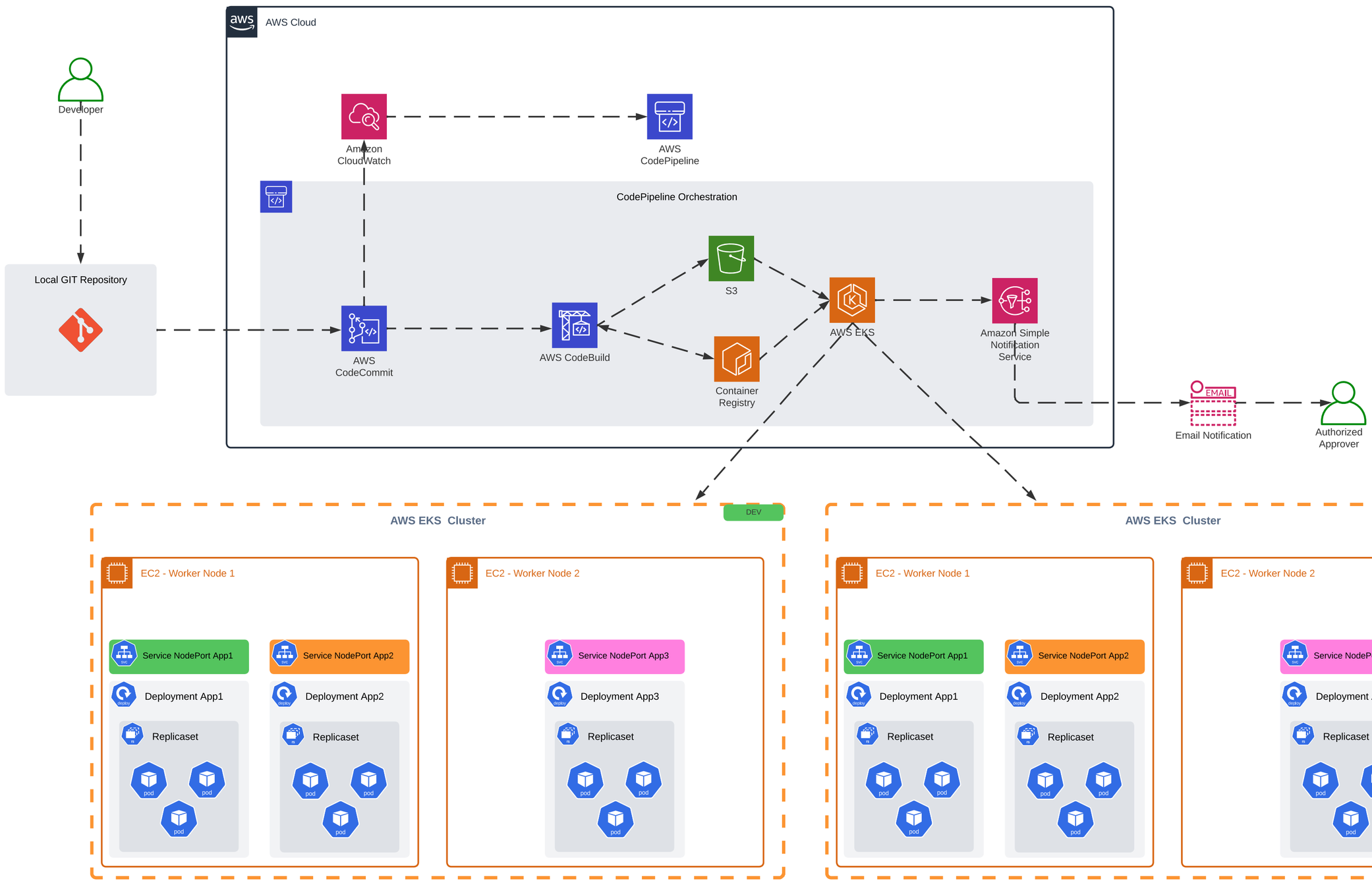

AWS EKS - IRSA WORKFLOW

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EKS IAM Roles Service Accounts (IRSA) Workflow

AWS Cloud

Feature: Federated Identities using OIDC

IAM

Validate and accept JWT Token from EKS Cluster

1

2

JWT will be sent to AWS STS

ProjectedServiceAccountToken JWT Token will passed to AWS IAM

AWS STS will generate IAM temporary role credential

3

Temporary Security Credential

IAM Policy

IAM Role

AssumeRoleWithWebIdentity API operation

AWS STS

4

Access AWS Service using Temp creds based on IAM role permissions

AWS S3

Bucket 1

Bucket 2

Bucket 3

Bucket 4

Amazon Elastic Container Kubernetes

Kubernetes

EKS Cluster acting as External IDP to AWS IAM

default namespace

ns

K8S Pod

job

k8s Job

k8s service account annotated with IAM Role

sa

k8s Service Account

AWS EKS Cluster - Authentication & Authorization

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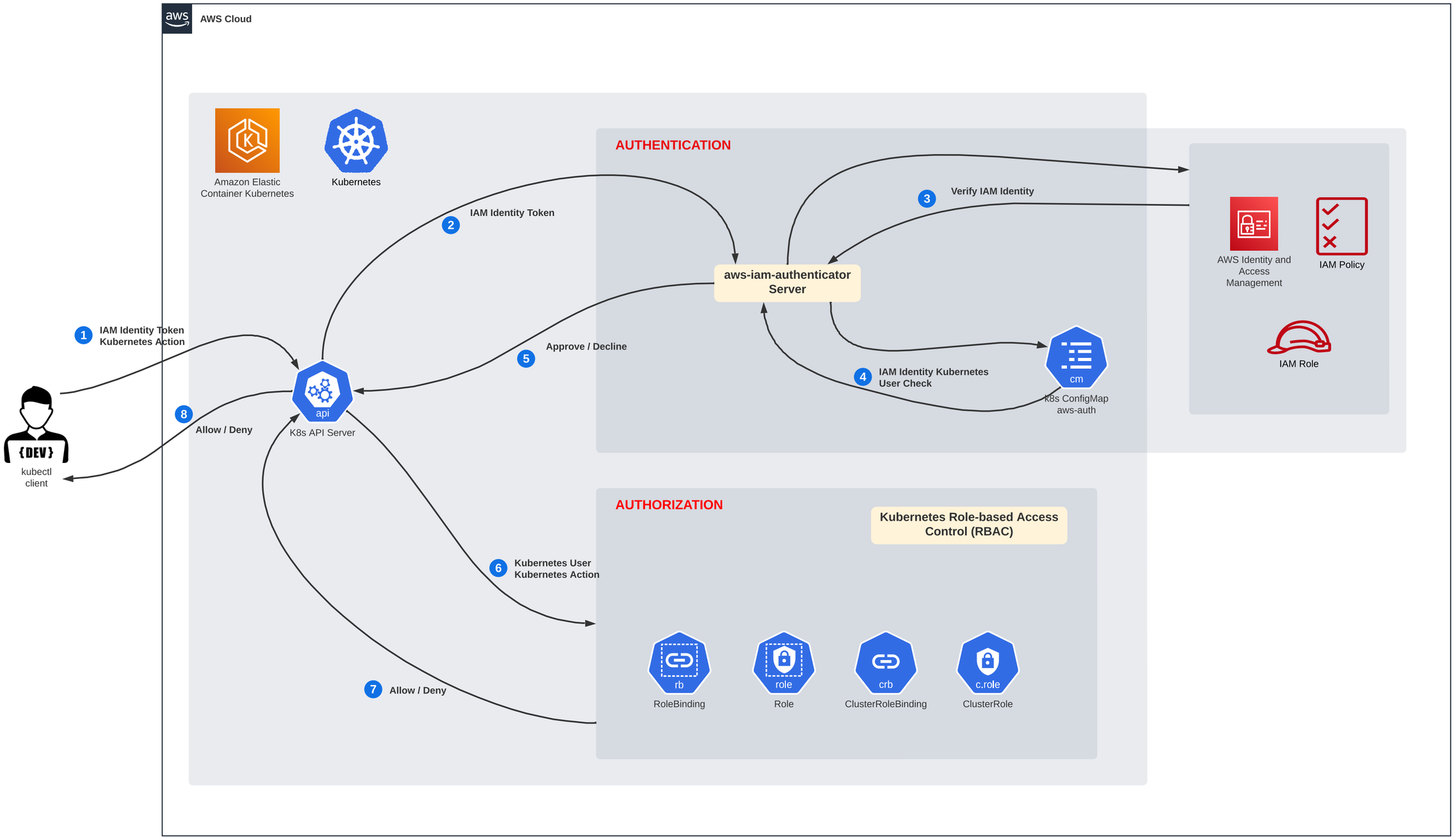
EKS Authentication & Authorization Concept