Rapyd Sentinel - Secure Multi-VPC Architecture
DevSecOps Technical Challenge Implementation

Internet

Gateway VPC (10.0.0.0/16)

HTTPS

ALB (Public)

NAT Gateway

HTTP

EKS Gateway Cluster

Private Subnet AZ-A (10.0.1.0/24)

HTTP (VPC Peering)

Proxy Service

Private Subnet AZ-B (10.0.2.0/24)

VPC Peering

Backend VPC (10.1.0.0/16)

NAT Gateway

EKS Backend Cluster

Private Subnet AZ-A (10.1.1.0/24)

Backend Service

Private Subnet AZ-B (10.1.2.0/24)

Security Groups (Gateway)

Network Policies (Gateway)

Network Policies (Backend)

Security Groups (Backend)

GitHub Actions CI/CD Pipeline
- Terraform Validation
- Security Scanning (Trivy)
- Infrastructure Deployment
- K8s Manifest Validation
- Application Deployment
- OIDC Federation

Legend:
- Internet
- Gateway VPC
- Backend VPC
- EKS Clusters
- Security Components
- Network Components
- Load Balancer
- NAT Gateway

Security Features:
- Private Subnets Only
- VPC Peering with Route Control
- Security Groups (Granular Access)
- Network Policies (Pod-Level Security)
- OIDC Federation (No Long-lived Credentials)
- Infrastructure as Code (Auditable)
- Automated Security Scanning
- Multi-AZ High Availability

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