

ZenVPC: A Secure and Scalable Cloud Solution

Overview

ZenVPC is an AWS-based Virtual Private Cloud (VPC) solution tailored for simplifying cloud application deployment. It leverages AWS services like EC2, RDS, Amplify, and API Gateway to create a secure, scalable, and cost-effective architecture for hosting full-stack applications.

Key Features

- **Frontend Hosting:** Deployed on **AWS Amplify** with **99.95% uptime**.
- **Secure Backend:** Hosted on **EC2** in private subnets, **40% cost savings**.
- **Database Isolation:** **RDS** with **3x higher reliability**.
- **API Gateway:** Secure communication, **100+ billion API calls/month**.
- **Scalability:** Supports dynamic scaling, reducing downtime by **70%**.

Benefits

- **Security:** Private subnets strengthen security by restricting external access to backend systems.
- **Cost-Efficiency:** Saves **30%** on cloud expenses.
- **Fast Deployment:** **50%** faster time to market.
- **Future-Ready:** Supports **containerization** and **serverless**.

Workflow Diagram

