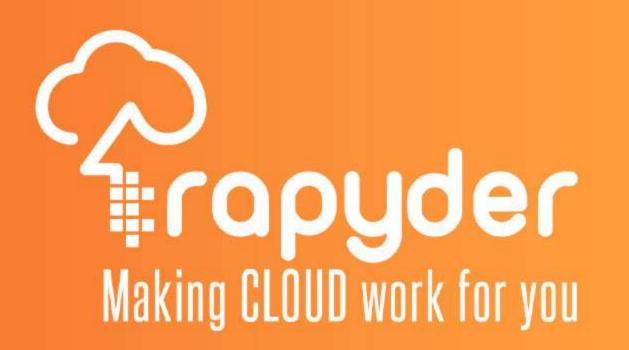# Ciperpay Collaborated with Rapyder for Hosting Its Workloads, Ensuring 99.99% Availability of Applications and Database

rapyder
Making CLOUD work for you

Client
Cipherpay

Industry
Fintech services, NeoBanking and Payment solutions

Offering
Greenfield Setup

AWS Services
EC2, RDS, Route 53 CloudTrail, CloudWatch, ALB, GuardDuty, RDS, Route53, SNS, S3, WAF.

Introduction

Cipherpay, founded in 2022, is an AI-powered Hybrid Transaction Processing Engine and a Neo-Banking Platform that enables businesses in India to process safe, secure, seamless online payments with its Hybrid processing engine.

They connect Banks, Payment Aggregator, and PPI's (Wallets) under their Hybrid processing engine to deliver an enterprise-level ecosystem to bring end-to-end connectivity for processing payments to achieve higher transaction success ratio and best-in-class processing rates for merchants.

Business Needs

In 2022, Cipherpay teamed with Rapyder to implement a cloud-based infrastructure for the first time with the intention of reducing the use and inconvenience of maintaining physical servers to save money. Now, it currently has one application running, which has to be up 24x7, and hence, it requires full-time monitoring of its infra as well as infra support, which Rapyder currently provides.

Solution Approach:

Rapyder is working with Cipherpay to assess its current application and infrastructure landscape and implement native AWS security and monitoring while the infrastructure is secure, reliable, and highly available. The Rapyder team hosted the application on web and app servers while the data was hosted on an AWS-managed database service. An Active Disaster Recovery for the application and database was also built to make sure the application is always reachable to end customers.

Next logical move

- The idea of WAR is explained to the client. Rapyder team will perform a Well Architecture Review to re-structure and maintain the overall health of the account in the next few months.

Implementation

- UAT, Production environments in AWS Mumbai Region, along with a replica setup of Production for Disaster Recovery, was set up in the AWS Hyderabad region.

- Implemented a robust approach for deployments, roll backs, and database replication for all the applications.

- Route53 is used for hosting the primary site and the disaster recovery site handled by Cipherpay and maintaining DNS configuration.

- Website and Application were hosted on different VMs to give more control on handling the incoming traffic.

- RDS instances were used to host the MySQL database in a multi-AZ mode.

- Certificates are purchased from ACM to keep their websites secure, and these certificates are renewed in a timely manner.

- A web Application Firewall was implemented to allow only the authorised traffic to flow through and block unwanted traffic.

- CloudWatch and CloudTrail were implemented from the monitoring suite of AWS.

- Rapyder follows AWS best practices to maintain Identity and Access Management (IAM) users & roles.

- 3 ALB's are maintained for UAT, Production, and DR sites.

- WAF is also set up with AWS-managed rules as per best practices.

Reaping Rewards

- The Disaster Recovery that was built in a different geolocation made sure that the application and data were 99.99% available.

- The infrastructure was reliable and highly available.

- The operating model of AWS helped to manage the infrastructure better with less running costs.

- AWS native security and monitoring were implemented to secure and give insights regarding infrastructure.