Production (prd-10)

John Doe | December 21, 2021

System Elements

1 The user's DNS requests are served by Amazon Route 53, a highly available Domain Name System (DNS) service.

2 HTTP requests are first handled by Elastic Load Balancing (ELB), which automatically distributes incoming application traffic among multiple Ocean Workers Amazon Elastic Compute Cloud (EC2) instances across Availability Zones (AZs).

3 Ocean workers are deployed in Auto-Scaling groups by spot.io which automatically adjust capacity up or down according to various conditions.

4 Containers developed by the Finxact Development Team are deployed and managed by Amazon EKS on the Amazon EC2 instances Ocean Workers.

5 Kubernetes Namespace with various deployed resources.

6 Customer account data is isolated from the front end eks pods for PCI compliance.

7 Transit Gateway is used to distribute traffic between the various accounts.

8 Postgres RDS stores the final data.

9 Multi region replication of final data.

AWS Cloud

AWS Admin (Finxact Root AWS Account)

AWS Organization

prd-10 (AWS Account)

1 Route53 DNS

eks-prd-10 VPC (us-east-1) 10.98.0.0/16

2 ELB

VPC Endpoint

S3

Availability Zone A — Private Subnet 1 10.98.0.0/19 — 3 EC2 Ocean Workers — Containers — 4 Auto Scaling

Availability Zone B — Private Subnet 2 10.98.32.0/19 — EC2 Ocean Workers — Containers — EKS — Auto Scaling

Availability Zone C — Private Subnet 3 10.98.64.0/19 — EC2 Ocean Workers — Containers — Object

5 000000 kubernetes namespace

Ingress -nginx — Whitelist allow per namespace

api — rabbit — Vault
pg admin — etl — event proxy
swag — ro — schd

RDS

6 000000 (AWS Account)

7 AWS Transit Gateway

000000 VPC (us-east-1) 10.207.0.0/16

Availability Zone A — Private Subnet 1 10.98.0.0/19 — RDS Subnet 1 10.0.4.0/24 — RDS Primary

Availability Zone B — Private Subnet 2 10.98.32.0/19 — RDS Subnet 2 10.0.5.0/24 — RDS Multi-AZ

Availability Zone C — Private Subnet 2 10.98.64.0/19 — RDS Subnet 3 10.0.5.0/24 — RDS Multi-AZ

Synchronous Replication

000000 DR VPC (us-east-2) 10.208.0.0/16

Availability Zone A — Private Subnet 1 10.99.0.0/19 — RDS Subnet 1 10.0.4.0/24 — RDS Secondary

Availability Zone B — Private Subnet 2 10.99.32.0/19 — RDS Subnet 2 10.0.5.0/24 — RDS Multi-AZ

Availability Zone C — Private Subnet 2 10.99.64.0/19 — RDS Subnet 3 10.0.5.0/24 — RDS Multi-AZ

Synchronous Replication