Enabling Flipzen Cloud Migration and Scalable Container Operations on AWS

Flipzen

Flipzen is an AI-powered compliance automation platform that transforms regulatory processes into strategic advantages. Specializing in tasks like KYC, KYB, document validation, and case management, Flipzen's autonomous AI agents streamline operations, reduce errors, and ensure 24/7 compliance monitoring. With the DeepFlip API, it handles complex, multilingual documents, adapting to regional regulations across LATAM, APAC, and EMEA.

Trusted by companies like Astropay and REMAX, Flipzen enables businesses to scale efficiently while maintaining robust compliance standards. Headquartered in Punta del Este, Uruguay, Flipzen is backed by investors including iThink VC and Microsoft for Startups.

Executive Summary

Flipzen is a fast-growing RegTech startup that leverages artificial intelligence to automate compliance processes such as KYC, KYB, onboarding, and document validation. By combining autonomous AI agents with collaborative workflows, Flipzen empowers businesses across industries—including fintech, real estate, and e-commerce—to streamline regulatory tasks and enhance operational efficiency.

As Flipzen scaled its operations, the company made the strategic decision to modernize its infrastructure and migrate to AWS, seeking improved scalability, centralized governance, and cloud-native DevOps practices. To support this shift, Binbash was engaged to architect and implement a secure AWS Landing Zone and deploy a fully containerized platform using Amazon ECS on Fargate for both development and production environments.

Customer Challenge

Flipzen's previous infrastructure setup posed several technical and operational limitations:

- Lack of multi-environment governance and security best practices
- Fragmented container orchestration and scaling mechanisms
- Manual, inconsistent infrastructure provisioning
- Limited visibility and control over resource access, compliance, and cost
- A need for a standardized, scalable architecture built for modern DevOps workflows
- Executing a seamless migration of workloads and services to AWS with minimal disruption to ongoing operations

The Flipzen team required a robust AWS-native solution that could provide both a secure migration path and a future-ready foundation for growth.

binbash ®

Solution

To support Flipzen's cloud modernization goals, Binbash designed and implemented a secure, scalable AWS environment using its open-source Leverage™ framework and the AWS Well-Architected Framework. The solution began with the deployment of a multi-account AWS Landing Zone, establishing centralized governance, identity management (via AWS Identity Center), and access control through Service Control Policies.

Binbash then provisioned Amazon ECS on AWS Fargate for both development and production workloads, enabling serverless container orchestration with autoscaling, secure networking, and integrated Amazon RDS Aurora databases. A shared networking layer with private/public subnets, NAT gateways, DNS zones, and VPC peerings connected all environments.

Security and observability were enhanced through the configuration of CloudTrail, GuardDuty, Security Hub, and IAM Access Analyzer, alongside AWS Secrets Manager and Certificate Manager for secure credentials and TLS handling. A Pritunl VPN server was also deployed to
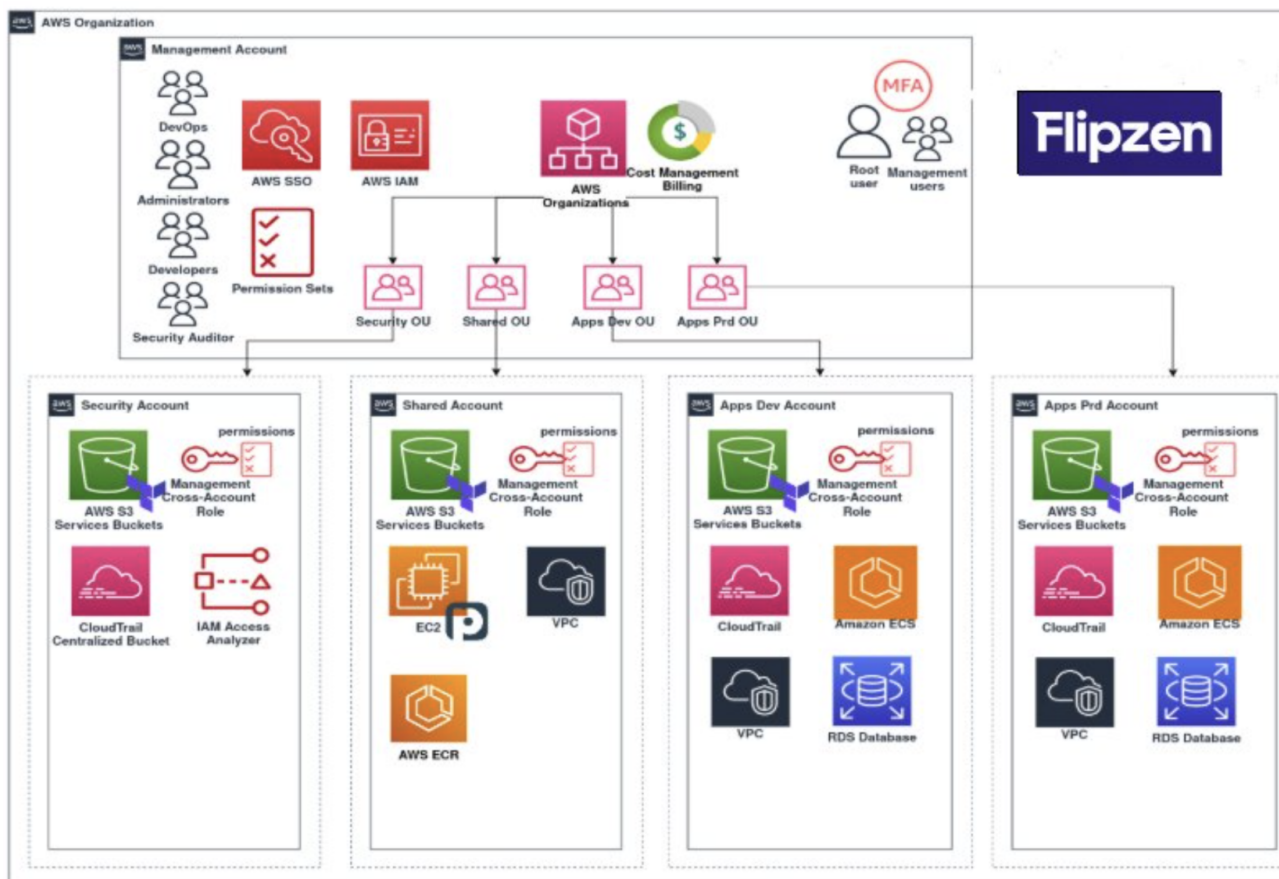
provide secure developer access to internal AWS resources.

All infrastructure was codified with Terraform, allowing for repeatable, auditable deployments. The entire engagement was fully subsidized through the AWS Startup Program, accelerating Flipzen's transformation at no cost.

Key Components of the solution

- **AWS Landing Zone Setup** Deployed a secure, scalable AWS Organization structure with dedicated accounts for management, security, shared services, and application workloads (Dev and Prod). Centralized access via IAM Identity Center (AWS SSO) and Service Control Policies.
- **Network Architecture** Designed VPCs across all accounts, set up private/public subnets, VPC peerings, hosted zones, and NAT gateways. Created DNS zones for internal and external services.
- **Amazon ECS on AWS Fargate** Provisioned serverless container orchestration with ECS Fargate clusters in Dev and Prod, auto-scaling enabled, and load balancing using ALB.
- **Amazon RDS Aurora** Deployed high-availability RDS clusters for persistent workloads in each environment, securely integrated with ECS and private networks.
- **Secrets Management & TLS** Used AWS Secrets Manager to securely store credentials and AWS Certificate Manager for TLS termination and secure communications.
- **Security and Compliance** Configured CloudTrail, IAM Access Analyzer, GuardDuty, and Security Hub across the organization. Enforced security baselines including MFA, encryption by default, and audit logging.
- **VPN Access** Installed a secure Pritunl VPN in the shared services account to provide developers with private access to AWS environments.
- **Automation & CI/CD Foundation** All resources deployed via Terraform modules from the Binbash Leverage™ framework, ensuring repeatable, scalable, and auditable infrastructure.
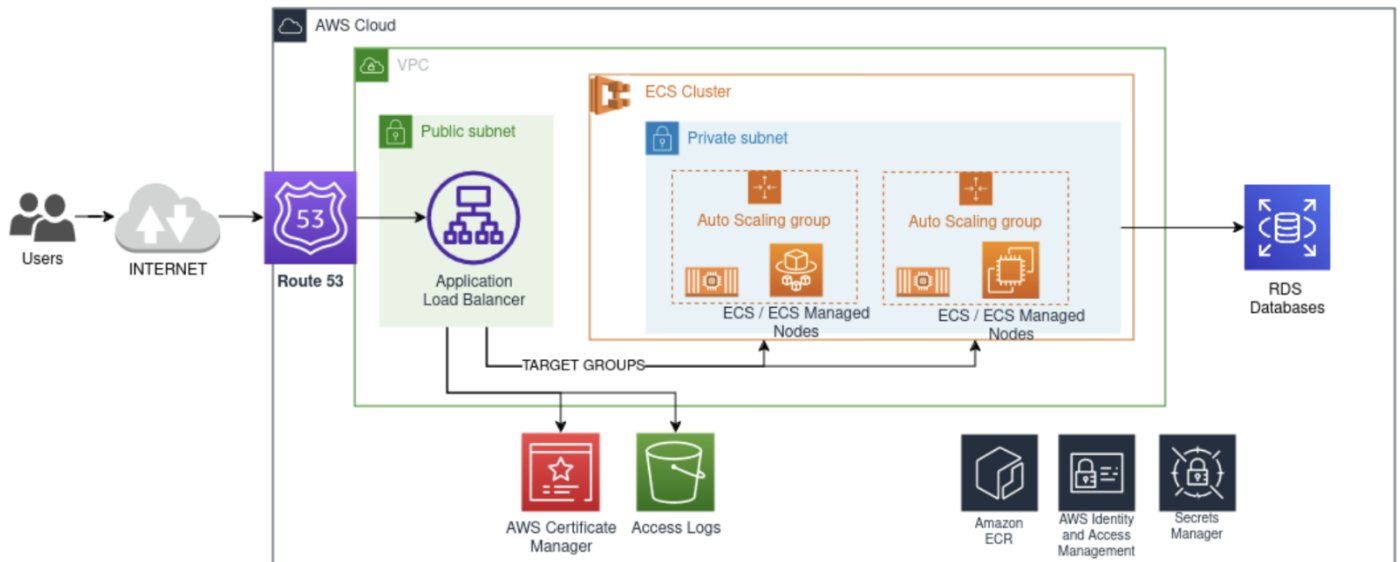
Results

✅ Successful migration of core workloads from a previous cloud provider to AWS with zero disruption to operations

✅ Modernized cloud infrastructure with secure, centralized governance and automated provisioning

✅ Seamless container orchestration using ECS and Fargate with environment-specific clusters

✅ Improved developer productivity via secure access, secrets management, and infrastructure standardization

✅ Enhanced security posture through organization-wide monitoring, logging, and IAM controls

✅ Zero cost to Flipzen, fully covered by the AWS Startup Program

Key Milestones

1. **AWS Landing Zone Delivery** Established account structure, baseline configurations, centralized SSO, and SCPs

2. **ECS Fargate Deployment (Dev & Prod)** Delivered scalable, container-based workloads with RDS, IAM, and ALB integrations.

3. **Secrets & VPN Implementation** Secured all services with Secrets Manager and enabled safe

infrastructure access via VPN

4. **Monitoring & Security Framework** Activated CloudTrail, GuardDuty, and Security Hub, plus Slack-based alerting for findings

Conclusion

Through its collaboration with **binbash**, Flipzen successfully transitioned to a secure, modern, and scalable cloud platform built entirely on **AWS**. The infrastructure was designed following the AWS Well-Architected Framework, ensuring best practices around security, reliability, performance, and cost optimization. By leveraging **binbash's Leverage™** reference architecture and Infrastructure-as-Code approach, Flipzen now operates with greater agility, operational efficiency, and control across its environments. The platform is fully prepared to support continued innovation, rapid scaling, and evolving business needs—without vendor lock-in or infrastructure bottlenecks. This engagement has not only positioned Flipzen for future growth but also enabled their teams to adopt DevOps best practices while remaining fully autonomous and cloud-native.