



Migrating and Enabling Prisma's Cloud-Native Foundation on AWS

Executive Summary

Prisma Retail AI is a cutting-edge retail technology company that empowers brands and retailers with AI-driven insights for pricing, promotions, and in-store execution. Leveraging machine learning and real-time analytics, Prisma helps optimize retail operations and enhance omnichannel experiences across global markets.

Binbash was responsible for planning and executing the full migration from Prisma's previous cloud environment to AWS, establishing a modern multi-account AWS Landing Zone, and deploying a containerized development environment using Amazon EKS.

This collaboration enabled Prisma to seamlessly migrate critical workloads while laying the groundwork for secure, scalable, and automated cloud operations — all designed in alignment with the AWS Well-Architected Framework.

Customer Challenge

Prisma expanded its AI capabilities and platform footprint, so its infrastructure faced several challenges:

- A lack of centralized governance across multiple environments and AWS accounts
- Manual and fragmented infrastructure provisioning, limiting developer productivity
- Security inconsistencies that could hinder compliance-readiness and operational resilience
- No unified container orchestration strategy for managing services in a scalable way

As Prisma embarked on a cloud migration to Amazon Web Services (AWS), it required a trusted partner to lead the design and execution of a secure, scalable, and automated infrastructure to support its AI-driven retail intelligence platform. To achieve this, Prisma engaged Binbash to drive the end-to-end migration from its previous cloud environment. The project involved establishing a robust multi-account AWS Landing Zone, deploying a Kubernetes-based development



Prisma is a B2B SaaS platform designed to help retailers optimize key business areas—pricing, promotions, assortment, inventory, and space—by combining AI with business rules. It captures and processes internal and external data, detects anomalies, and provides actionable recommendations to improve profitability and efficiency. Modules include Pricing, Assortment Planning, Space Planning, Smart Supply, Item Master, and a Mystery Shopper App, all integrated into a single omnichannel platform.

Founded by MIT alumni, Prisma supports various retail sectors, including convenience stores, supermarkets, and pharmacies.



They had a compromised and highly capable team that is available during the project and includes the completion of the project.

Damián Barletta - CTO



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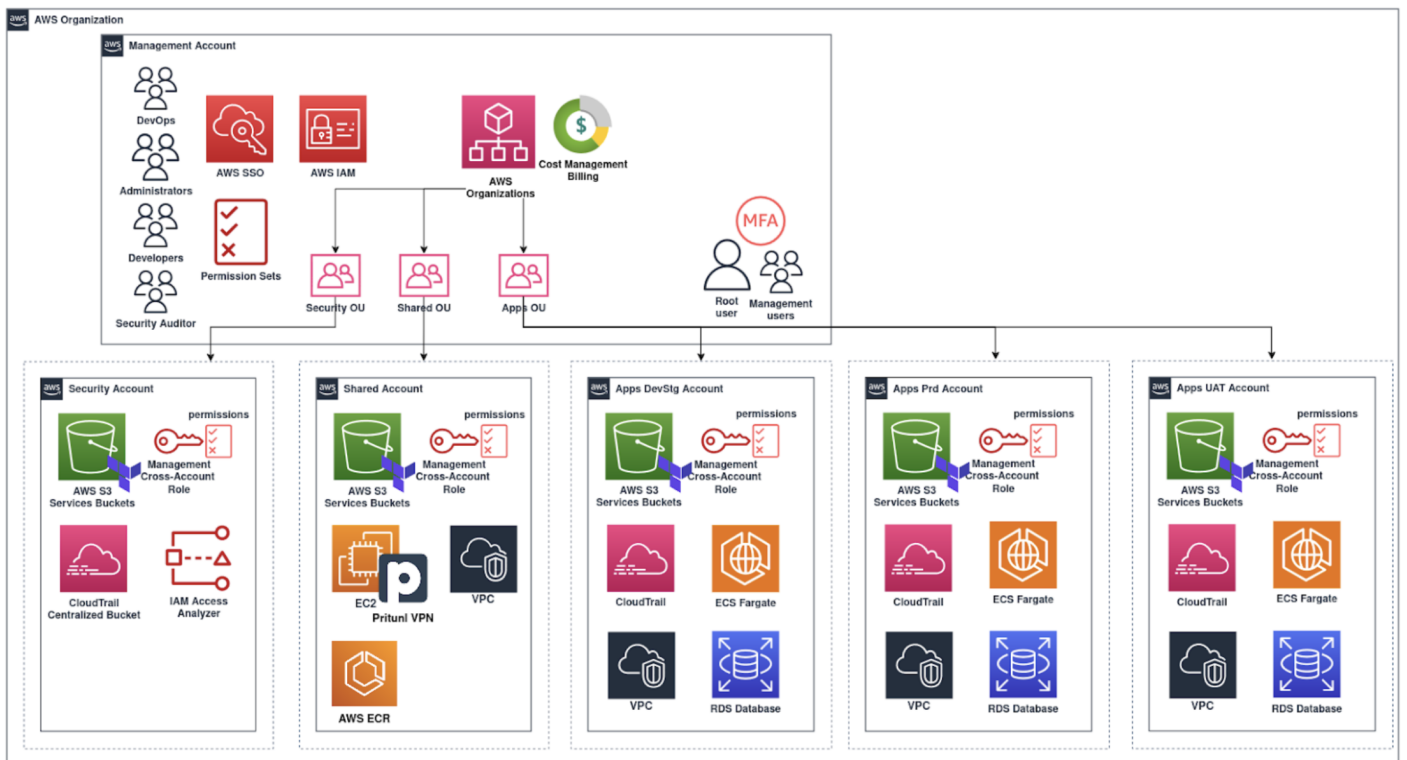
environment on Amazon EKS, and implementing centralized identity, security, and networking standards to ensure a foundation aligned with AWS best practices.

Solution

binbash implemented a robust AWS-native architecture using its open-source Leverage™ framework and the AWS Well-Architected Framework. The solution included the design and deployment of a secure multi-account AWS Landing Zone, setup of Amazon EKS for container orchestration, and delivery of fully automated infrastructure via Terraform.

Key elements included centralized identity and access management using AWS Identity Center (SSO), account-level security baselines, CloudTrail, IAM Access Analyzer, and GuardDuty. Prisma's development workloads were containerized on Amazon EKS in the Apps-DevStg account, with additional networking, VPN, and observability tooling provisioned for a secure and scalable developer environment.

This foundational infrastructure was fully automated and delivered through iterative demo sessions, accompanied by in-depth documentation and hands-on knowledge transfer to Prisma's internal engineering team.





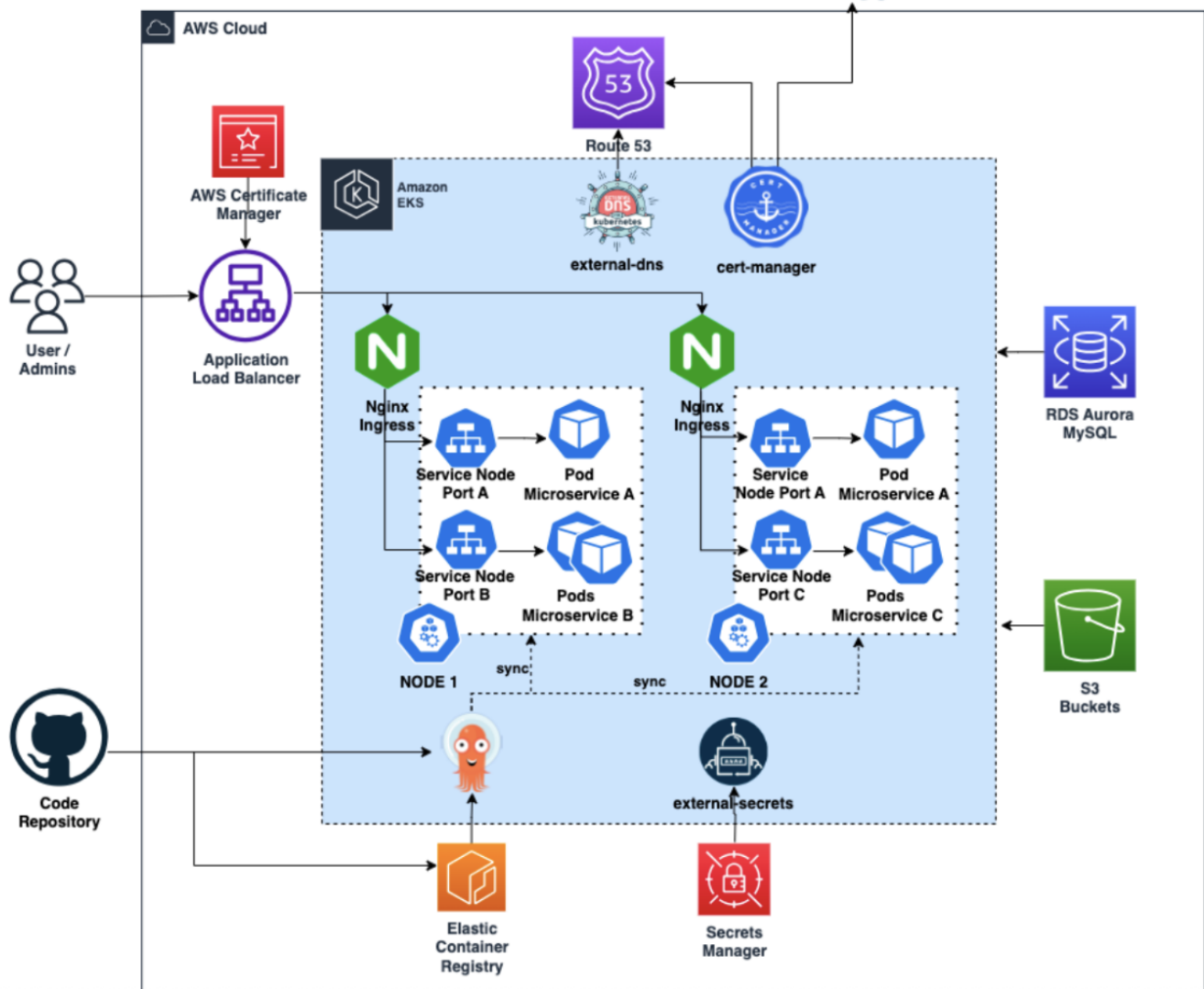
Key Components of the solution

- **AWS Landing Zone** Multi-account structure with dedicated accounts for management, shared services, security, and development workloads, governed via AWS Organizations and Service Control Policies.
- **Identity & Access Management** Centralized login and role-based permissions using AWS Identity Center (SSO), with preconfigured permission sets for developers and DevOps roles across all accounts.
- **Network Architecture** Multi-region VPCs, NAT gateways, and subnet segmentation deployed across accounts. VPC peerings enabled cross-environment communication. DNS hosted zones and private VPC associations ensured secure resolution of internal services.
- **Amazon EKS (Dev)** Deployment of an EKS cluster for development workloads, using managed node groups with spot instances for cost optimization. Workload isolation was implemented via namespaces, RBAC, and network policies.
- **Cluster Tooling & GitOps** Integrated ArgoCD for continuous deployment, with supporting components like AWS Load Balancer Controller, NGINX Ingress, External DNS, Cert-Manager, Cluster Autoscaler, and AWS ECR for container image management.
- **Security Baseline** Organization-wide enforcement of encrypted volumes, MFA, IAM Access Analyzer, VPC flow logs, and secure S3 policies. Centralized CloudTrail and KMS-based encryption were also provisioned.
- **Private Access via VPN** Hardened Pritunl VPN deployed on EC2 in the shared account for secure internal access to private Kubernetes API endpoints and developer tools, reducing public exposure risks.
- **Infrastructure-as-Code (IaC)** All infrastructure was defined using Terraform modules from Binbash's Leverage™ framework, ensuring reproducibility, modularity, and compliance.



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Platform: on Amazon Elastic Kubernetes Service (EKS)





Results

- ✓ Prisma now operates on a secure, multi-account AWS architecture built to scale as the company grows
- ✓ Containerized development environment on Amazon EKS enabled faster, more reliable service deployments
- ✓ Developer productivity increased through GitOps, VPN-secured private access, and automated provisioning
- ✓ Security posture and auditability strengthened with centralized logging, IAM policies, and encryption
- ✓ Prisma's internal engineering team was onboarded through documentation and demo sessions for long-term autonomy

Key Milestones

- 1. Landing Zone Setup:** Delivered a multi-account AWS architecture with governance, security, and networking layers.
- 2. EKS Deployment:** Provisioned development Kubernetes cluster with supporting tools and integrations.
- 3. VPN & Secure Access:** Enabled Pritunl-based private access and DNS resolution across environments.
- 4. CI/CD Tooling:** Installed ArgoCD and associated GitOps components to automate service lifecycle management.
- 5. Documentation & Demos:** Provided full documentation, IaC repos, and weekly delivery demos to support Prisma's adoption.

Conclusion

With **binbash's** expertise and its **Leverage™** reference architecture, Prisma successfully migrated from a legacy cloud provider to AWS, establishing a modern, secure, and scalable foundation for its AI-powered retail platform. The new infrastructure, aligned with the AWS Well-Architected Framework, delivered operational improvements in security, deployment automation, cost efficiency, and cloud governance.

The migration also positioned Prisma to standardize best practices for future production workloads, minimize manual operations, and strengthen its ability to meet security and compliance goals in a fast-moving retail technology landscape.