



Rapid Multi-Region AWS Deployment for Vistapath to Expand into the UK Healthcare Market

Executive Summary

Vistapath is a healthtech company modernizing pathology through AI and computer vision. Its platform automates diagnostic workflows for medical labs and hospitals, improving speed, accuracy, and consistency. Already operating in the U.S. through its AWS-based infrastructure, Vistapath needed to expand into the UK healthcare sector, requiring a secure, compliant, and production-ready environment in AWS eu-west-2.

To support this international rollout, Vistapath partnered with binbash to replicate its U.S. environment in the UK, provisioning the entire AWS infrastructure in under a week through binbash Leverage code. By leveraging Infrastructure as Code, binbash enabled a fast, consistent, and reliable deployment, making it possible to stand up a whole new region within just a few days.

Customer Challenge

- Vistapath's entry into the UK market came with two key challenges:
- Compliance with local healthcare regulations: Operating in the UK required ensuring the infrastructure aligned with regulatory standards for handling medical data.
- Time-sensitive deployment: To begin collaborating with UK clinics and hospitals, Vistapath needed a fully functional, secure environment in a new AWS region—fast.
- The complexity of replicating multi-account architecture, Kubernetes workloads, observability tooling, and security layers required a reliable, automation-driven partner.



VistaPath Biosystems is a groundbreaking innovator in digital pathology, focused on automating laboratory processes using computer vision and artificial intelligence. Their flagship product, Sentinel, revolutionizes the pathology workflow by automating the inspection, description, inking, and measurement of tissue samples, significantly improving diagnostic accuracy and operational efficiency. With a mission to modernize pathology through cutting-edge technology, VistaPath is transforming healthcare one sample at a time.



binbash have shown great flexibility throughout our engagement to help fill any gaps we need them to fill.

Jacob Guggenheim - CTO

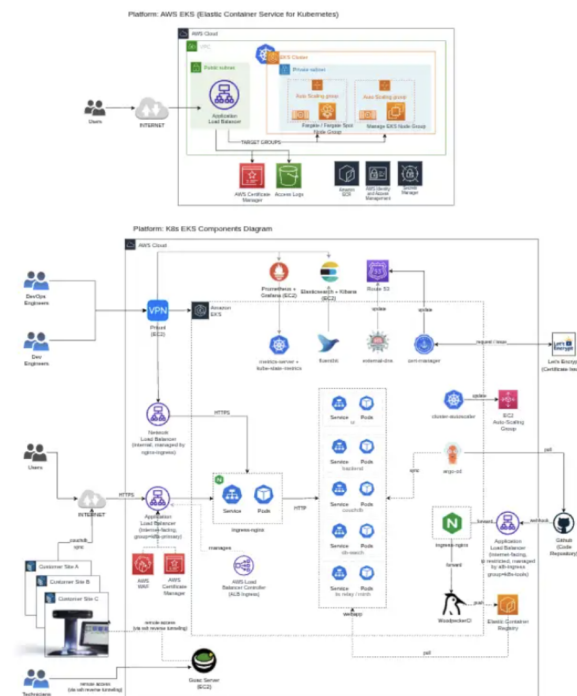


Solution

Binbash executed a full multi-region infrastructure replication by adapting and extending the Terraform codebase to support eu-west-2. The new AWS UK environment was provisioned in under one week, fully aligning with Vistapath's operational and compliance requirements.

Implementations Highlights

- **Terraform Multi-Region Support:** Binbash modified existing Terraform modules to support region-based variables and resource provisioning in the UK.
- **EKS Workloads:** Deployed Vistapath's key services—Cloud Webapp and LIS Relay—on a new Amazon EKS cluster.
- **CI/CD with ArgoCD:** Enabled GitOps-style deployments to manage workloads consistently across regions.
- **Observability Setup:** Integrated the UK infrastructure with the organization's centralized shared and monitoring account, tying logging, metrics, and alerting into the shared Prometheus and EFK stack.
- **Security Enhancements:**
 - WAF and IP whitelisting for controlled access.
 - CloudTrail and GuardDuty for audit and threat detection.
- **Networking:** Configured VPC, DNS, certificates, VPN, and VPC peering to integrate with the global infrastructure.





Key Components of the Solution

- AWS EKS-based Infrastructure in the UK region (eu-west-2).
- Modular Terraform architecture for scalable, region-agnostic provisioning.
- ArgoCD-based GitOps workflows for workload deployment.
- Observability stack including:
 - Prometheus for metrics.
 - EFK (integration with the centralized monitoring cluster)
 - Alertmanager for proactive alerting.
- Security Layer:
 - AWS WAF and IP-based access controls.
 - CloudTrail and GuardDuty for compliance and threat monitoring.

Results

1. Infrastructure replicated in < 1 week using Leverage, enabling Vistapath to meet aggressive timelines.
2. Production-ready AWS UK environment, aligned with local compliance and security standards.
3. Cross-region consistency in CI/CD, observability, and workload operations.
4. Improved visibility and threat detection through observability and security enhancements.
5. Future-proof infrastructure, easily extendable to other regions as business scales.

Key Milestones

Regional Analysis Evaluated requirements for UK healthcare compliance and operations

Terraform Refactor Adapted codebase for region-based deployment logic

EKS + Workloads Setup Deployed Cloud Webapp and LIS Relay on EKS in UK

Observability Installation Prometheus and EFK stack provisioned in UK cluster

Security Configuration Deployed WAF, IP whitelisting, CloudTrail, and GuardDuty

ArgoCD Integration GitOps-based deployments configured for new region

Metrics to Show

1. Deployment Efficiency

UK region deployment: <1 week in the UK region due to Infrastructure as Code (Terraform + Leverage framework).



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2. Cost & Efficiency Gains

The environment replicated all core components: Terraform modules, EKS workloads, observability, and security.

- Engineering effort avoided: rollout in 1 week which equals to savings in engineering hours
- Future scalability: new regions can be provisioned with near-zero incremental dev cost (code reuse >90%).

3. Security & Reliability

- 0 incidents / 100% service availability since go-live.
- 100% of accounts deployed with GuardDuty + CloudTrail enabled from day one, ensuring compliance with UK healthcare standards.

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Conclusion

- Vistapath's expansion into the UK was powered by binbash's ability to stand up a complete AWS environment in just a few days. Using Infrastructure as Code, our proprietary Leverage™ framework, and best practices with Terraform, EKS, and GitOps, binbash replicated the U.S. environment with speed, consistency, and compliance built in.
- This engagement highlights how binbash Leverage™ enables organizations to scale infrastructure across regions rapidly and reliably, providing a secure, observable, and production-ready platform aligned with the AWS Well-Architected Framework—ensuring operational excellence and regulatory compliance from day one.



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