



USE CASE

CLOUD MIGRATION – MONOLITH TO CLOUD

CLIENT PROFILE

Free ad-supported streaming television (FAST) service owned and operated by the Paramount Streaming division of Paramount Global.

Based in Los Angeles, California, app is available in the Americas and Europe. It primarily offers programming content through digital linear channels, aiming to recreate the traditional broadcast programming experience. The service generates revenue from video advertisements displayed during programming within commercial breaks, similar to conventional television.

Client licenses its content directly from providers. As of March 2020, it dealt with 170 content partners, providing users access to over 250 channels and an impressive 100,000 hours of unique programming.

With all the awesome channels and heaps of unique shows Client has to offer, it was clear they needed a supercharged setup to keep everything running smoothly. That's when Brightgrove stepped in. We saw Client's challenges and helped guide them on an exciting tech adventure. With our expertise, we transitioned Client to a cloud-native architecture on Amazon Web Services (AWS). Due to Brightgrove's invaluable assistance, Client is now equipped with a powerhouse platform that not only ensures seamless content delivery but can also evolve with their ever-expanding content library.

MIGRATION OBJECTIVE

The monolithic architecture was hindering the company's ability to adapt quickly to changing market demands and efficiently scale its services. The company aimed to modernize its infrastructure by transitioning to a micro-services-based architecture hosted on AWS. Their primary objectives were to achieve improved scalability, enhanced flexibility, increased reliability, fortified data security, and optimized disaster recovery capabilities. Throughout the migration process, the company was determined to minimize service disruptions to ensure a seamless experience for its customers.

MIGRATION STRATEGY AND RESULTS

The migration initiative was started in the past with a meticulous and strategic plan crafted by our team of professionals. They comprehensively assessed their existing monolithic system, identifying key components suitable for decomposition into microservices. Brightgrove's technical team adopted an incremental approach, developing and validating each microservice before moving on to the next phase of the migration.

As AWS offered a comprehensive suite of cloud services, we chose AWS as Client's future cloud provider. Leveraging AWS's managed services, we streamlined the deployment and management of their cloud infrastructure, allowing our development teams to focus on building and refining their microservices.

To bolster the security of its cloud environment, we involved AWS security experts. They implemented various security measures, including encryption at rest, network access controls, and identity and access management (IAM) policies. This ensured that sensitive data was protected and access to resources was tightly controlled.

We have leveraged AWS's automated backup and disaster recovery features which proved instrumental in strengthening the company's disaster recovery planning. By leveraging AWS's redundant data storage and failover capabilities, we significantly reduced the potential for data loss and system downtime, ensuring business continuity despite unexpected events.

TAKEAWAYS

Phased migration

Similar to successful migration strategies, we opted for a phased approach, transitioning from a monolithic architecture to a micro-services-based cloud infrastructure in incremental steps. This approach allowed us to validate each micro service's functionality and performance before moving forward, reducing the risk of migration issues.

Cloud security focus

Security was of paramount importance throughout the migration. Collaborating with our AWS experts, we implemented robust security measures to protect the cloud-based applications and data, ensuring the highest level of data privacy and regulatory compliance.

Improved disaster recovery

Significantly enhanced their disaster recovery planning by leveraging AWS's cloud capabilities. AWS's automated backups, redundancy options, and failover mechanisms provided a reliable and efficient way to recover from any unforeseen incidents, minimizing potential downtime and ensuring a resilient infrastructure.

CONCLUSION

Successful migration from a monolithic architecture to a cloud-native micro-services setup, powered by our cloud migration team, demonstrates the importance of a well-structured and security-focused approach to cloud migration.

By embracing micro-services, prioritizing cloud security, and leveraging AWS's disaster recovery capabilities, we achieved improved scalability, flexibility, and reliability in their software solutions, positioning themselves for continued success and growth in the technology market.

EXECUTIVE SUMMARY

Industry	Entertainment and Media Streaming
Partnership Duration	Ongoing
Architecture	Cloud-native microservice architecture and Rest API
Platforms	iOS, Android, Web, Windows, Mac
Team Structure	Cloud Architect, DevOps engineer, Client and Backend Developers, Full Stack, AQA engineers, BA, Data Engineer, Security Engineer, Network Engineer, Analytics Specialist
Tech Stack	<p>Cloud Provider: Amazon Web Services (AWS)</p> <p>Development Languages (for microservices): JavaScript (Node.js), Python, ReactJS, Golang, Redis, MongoDB, TypeScript</p> <p>Automated Deployment: CI/CD pipeline for seamless and efficient deployment</p> <p>Cloud Security: Encryption at rest, network access controls, IAM policies for ensuring data protection, and access control</p> <p>Disaster Recovery: AWS automated backup, redundant data storage, and failover mechanisms for enhanced disaster recovery capabilities</p> <p>Infrastructure as Code (IaC) Tools: Terraform and Ansible for automating the provisioning and configuration of cloud resources and managing the infrastructure in a repeatable and consistent manner</p>

Ready to take the next step?

Reach us today at info@brightgrove.com