



# AAM: DevOps in the Cloud for the media industry

Leading global digital cinema services provider, AAM, was looking to digitally transform one of their manually operated solutions by building a Cloud-hosted, fully automated DevOps application that's ready to take on significantly more traffic than before.

## BUSINESS NEED

DevOps is a developmental and operational way of working that makes programming teams responsible for the entire product life cycle - from development and testing, to providing artifacts, building environments, deployment, and application monitoring etc. In-line with the DevOps approach, the same individuals who create the application also manage its production process - most importantly, however, they're responsible for automating the solution, as automation lies at the heart of this way of working.

AAM, being a global leader in digital cinema software and services, provides a wide range of solutions that enable their clients to reduce costs, increase efficiency, and improve user experience.

Always looking for innovative ways to keep their customers happy, AAM wasn't satisfied with the user experience and cost-efficiency of how they were enabling clients to process Key Delivery Messages (KDMs).

As such, they were looking for a way to automate one of their solutions - KDM TS -, which would eliminate the need for the manual processing of KDMs via email. To enable this, they created a Cloud-based microservices infrastructure using Continuous Integration (CI) and Continuous Delivery (CD), which is able to handle KDM processing on its own.

## PROJECT DETAILS

AAM created an automated application, which allows their partners (KDM providers) to manage their KDMs using an API, instead of having to send them manually via email. The solution's system is fully automated and able to handle even the biggest traffic peaks.

The company already had a few monoliths in their ecosystem and the goal was to create a scalable, highly available, and reliable microservices infrastructure. To enable this, many AWS services were used, such as RDS, ElastiCache, ECS, ECR, S3, and SNS.

ECS and ECR were used to containerise the solution, thereby en-

sureing consistency throughout the application, regardless of its hosting environment, (on-premise or Cloud), while RDS and ElastiCache were used to guarantee the system's high availability.

As AAM wanted to create Cloud-hosted microservices, the entire infrastructure needed to be automated. To enable this, the DevOps experts built Continuous Integration pipelines and applied Continuous Delivery, resulting in zero-downtime deployments. Whereas, to achieve the sought after automation of KDM TS, the application's environment was built using Terraform, an Infrastructure as Code (IaC) tool.

## BUSINESS BENEFITS

Having built KDM TS in a DevOps way of working, where development teams are also responsible for the operations of the project and its full life cycle, allowed AAM to see a range of business and operational benefits. AAM and their customers can now take advantage of:

- **Automation** – an automated environment significantly accelerates processes while eliminating risk,
- **Scalability** – the app can be scaled to meet growing KDM processing demand and future system expansion,
- **Reusability** – having implemented microservices and containers protects the app from potential vendor lock-in and gives AAM more freedom,
- **Time saved** – manual effort has been eliminated thanks to automation, greatly streamlining KDM processing,
- **Performance** – the AWS Cloud, microservices, and containers ensure the highest possible availability,
- **Development speed** – employing DevOps allowed the teams to work without having to go through the traditional deployment process,
- **Zero downtime deployment** – updates can be made at any moment, without affecting availability and user experience,
- **Continuous updates** – having used CI/CD gives end users access to the newest app versions much more quickly,
- **Higher quality** – automation protects the application from human errors,
- **Efficiency** – KDM TS is now able to handle significantly more KDM deliveries than before,
- **New income** – AAM can now sell their innovative KDM TS app to new and existing clients to help them optimise their processes.

## TECHNICAL DETAILS

### SOLUTIONS

AWS Cloud, Infrastructure as Code, Continuous Integration, Continuous Delivery

### TECHNOLOGIES

Python3, Falcon, Bash, Behave, PostgreSQL, S3, Redis

### TOOLS

Jenkins, Terraform, Docker, Grafana, Sentry, JIRA, Confluence, Telegraf, Codacy, GitHub, PyCharm

### TEAM

5 Developers, 2 QA Specialists, 1 Scrum Master

## ABOUT THE CLIENT

Arts Alliance Media (AAM) is the global leader in digital cinema software and services. Its wide range of solutions enables its customers to reduce costs, increase efficiency, and improve the cinematic experience for their customers to keep them coming back for more.

## ABOUT PGS SOFTWARE

PGS Software is one of the largest public listed custom software & services providers in Poland. As an AWS Advanced Consulting Partner, we specialise in Cloud projects – consulting, cloud-native development, application modernisation, & migration. Working according to agile methodologies (Scrum, DevOps, & Continuous Delivery), we create mobile & web applications as well as provide Business Analysis, Visual Design, UX, UI, & QA services to clients worldwide. We have development & business entities in Poland, UK, Germany, & Spain.



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