



# Rebuilding the PMC Analytics Platform on AWS

A Case Study by Syed Quadri

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## At a glance

**Company:** PMC Analytics, part of PMC Treasury

**Technology:** AWS (Route 53, Certificate Manager, CloudFront, WAF, CloudWatch), Django, React, PHP, Docker, Bitbucket Pipelines

## The problem

Running the platform was harder than it needed to be. Domains and certificates sat with third-party IT partners, so simple changes waited on them. Security and logging needed work, the database was not ready for content in several languages, and releases involved too many manual steps.

## What I did

I proposed and delivered a set of changes, all inside the company's own AWS account:

- Domains and certificates: moved the domains to Route 53 and the SSL certificates to AWS

Certificate Manager, so the company controls both.

- Security and caching: put the platform behind a new CloudFront distribution with AWS WAF.
- Logging: sent server, PHP, Django and application logs to CloudWatch, so developers can troubleshoot without waiting for DevOps.
- Database: converted it to UTF-8 for multi-language content, and added indexes, including multi-column ones, to speed up queries and prevent duplicate rows.
- Releases: set up CI/CD on Bitbucket so every commit deploys to the test servers automatically.
- Code quality: added pre-commit hooks to the Django and React code to catch errors before review.
- Developer setup: containerised the environments with Docker

and wrote an installer that sets up a new developer's repositories and Docker images automatically.

### **The result**

The company no longer depends on outside partners to change its own infrastructure. The platform is better protected, queries are faster, new features reach testing sooner and onboarding a developer is much quicker.