

Case Study

Avoiding a Costly CMS Migration Through Platform Optimization

Magic
EdTech

The Client

A professional development platform focused on personalized, live 1:1 skills training for individuals and teams. The platform helps organizations build human-centered workplace skills that improve performance, engagement, and retention.

The Challenge

The client believed their CMS was the root cause of persistent platform slowness and was preparing to replace it. Key workflows were breaking under routine usage, including dashboard loads, reporting exports, and content model expansion. The broader issue, however, extended beyond the CMS itself and included poor code patterns, repeated unnecessary data calls, infrastructure inefficiencies, stale user records, and an overgrown content schema.

Critical Success Parameters

- ✓ Assess whether CMS replacement was truly necessary.
- ✓ Identify root causes behind performance bottlenecks across application and infrastructure layers.
- ✓ Restore reliability in reporting and dashboard workflows.
- ✓ Reduce operational strain on AWS infrastructure and eliminate recurring bandwidth incidents.
- ✓ Extend the life of the existing platform while enabling future personalization and AI enhancements.
- ✓ Avoid unnecessary migration costs and engineering effort.

Our Approach

- ✓ Conducted a detailed architectural and platform-level assessment to evaluate replacement options while analyzing the current implementation in depth.
- ✓ Reviewed headless and hybrid CMS alternatives, but first validated whether performance issues were caused by the platform architecture rather than the CMS alone.
- ✓ Diagnosed inefficient code patterns, including repeated background data calls and poorly optimized queries that were creating unnecessary backend load.
- ✓ Worked with infrastructure specialists to improve EC2 sizing, auto scaling behavior, caching, and peak-time capacity planning.
- ✓ Cleaned up stale and unused user records to reduce system overhead and improve data efficiency.
- ✓ Optimized reporting and export workflows so large employer and admin accounts could access operational data without failures.
- ✓ Consolidated and reduced the content-model field count, removing a structural limitation that had blocked new feature development.
- ✓ Delivered a path forward that improved current-system while postponing the need for full CMS replacement.



Key Result Highlights

35% reduction in AWS monthly spend from the 2025 peak.

4+ months with zero bandwidth incidents, down from an average of **2** per month.

Improved reporting exports from **2-3** days of data per download to as much as **2** months at a time.

Fully restored employer dashboard workflows that previously failed or stalled for large accounts.

Removed content-model constraints, enabling the lesson plan model without a new CMS.

Positioned the platform for future personalization and AI-driven enhancements without immediate migration.