**UX | PRODUCT BUILD | QA | APPLICATION MODERNIZATION**

Powering Global Audit Transformation for a Professional Services Firm

A globally recognised professional services firm approached gravity9 Solutions Limited to support a strategic internal technology transformation. The firm had developed two separate audit review applications; one for the US and another for Europe, each created independently to serve similar functions. In an effort to streamline global operations and eliminate duplication they made the decision to standardise on the US application as the single global solution. Having previously worked successfully with MongoDB technologies, they turned to MongoDB's Professional Services division for support.

That is when we were brought in to collaborate closely with both their in-house development team and MongoDB's services arm, taking on the critical task of extending the application to accommodate a global rollout, whilst their internal team continued focusing on US specific development. This partnership demanded technical precision, collaborative agility, and a deep understanding of scalable software delivery in complex enterprise environments.
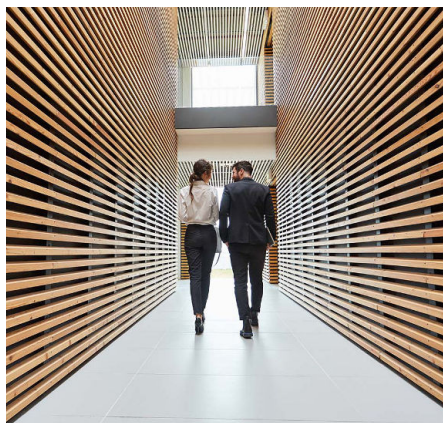
Utilized Technology Stack

Cloud: Azure

Database: MongoDB

Backend: NodeJS

Frontend: Angular

Other: Nest, RabbitMQ, Docker/Kubernetes

Review of Challenges

The project presented a number of unique and interconnected challenges. The original US based application had no concept of territories or regional segregation, and was deployed solely in the United States, posing latency issues and regulatory concerns for international users. The permission model, while sufficient for US operations, was not designed to accommodate the nuanced access controls required for global deployment.

Adding to the complexity, the core functionality for US users had to remain entirely untouched, and both US and global variants of the application had to maintain a shared codebase. Midway through the engagement, a significant security vulnerability was identified in the application's frontend built on Angular which required an urgent upgrade from version 14 to version 18. This brought forward styling inconsistencies, broken components, and architectural issues caused by years of legacy development. Many elements of the UI had been styled independently with no shared design system, creating fragmented user experiences across the app. Our task was to solve all of this without disruption to business continuity or user experience.

Our Solution

To ensure flexibility and stability, we introduced a temporary feature branch to house all global changes. This gave us the freedom to develop and test without impacting the production ready US version, while allowing us to merge in regular updates from the US team to maintain compatibility. Although only one of the application's six modules were scheduled for immediate global use, we committed to understanding the full scope of the app to ensure functional alignment and reduce future technical debt. When the Angular vulnerability came to light, we took decisive action, leading the upgrade effort across several major versions. This involved a meticulous code audit, replacement of deprecated components, and full UI regression checks. But we didn't stop at patching the problem. We used this opportunity to unify styling across the app eliminating duplication, creating reusable components, and standardising layout logic for a consistent, maintainable design system. Our approach was not just about fixing what was broken, it was about future-proofing the platform.

Our Approach

We followed an agile, collaborative delivery model throughout the engagement. From the outset, we worked closely with stakeholders across both the US and global development teams, embedding ourselves into their workflows and aligning our priorities with evolving business needs. As initial requirements shifted, we remained flexible and focused on delivering high-impact features that maximised value. Regular synchronisation with the US codebase ensured that integration would be seamless when the time came. When the Angular upgrade surfaced as a critical path issue, we stepped up to lead the transformation, not just upgrading the framework but elevating the quality, accessibility, and scalability of the entire frontend. We understood that global deployment wasn't just a technical exercise but that it was a strategic initiative that required sensitivity to the user experience, performance, and organisational trust.

Subsequent Outcomes

Today, the application has been successfully adapted to support global territories, with all major features delivered and key styling and functionality issues resolved. The global version has been released to production and is due to go live with users in the coming months, aligned to internal tax season. Meanwhile, we are actively managing the remerging of the global branch back into the shared codebase

bringing enhanced functionality and the benefits of the Angular upgrade to the US application. The project is in the final stages of User Acceptance Testing (UAT), with only minor bugs remaining before full deployment. Our work has not only addressed the original business goals but helped create a more scalable, secure, and unified platform for the future.

Client Feedback

They expressed clear appreciation for our technical capability, professionalism, and the collaborative spirit we brought to the engagement. This has resulted in the extension of our contract, and discussions for continued partnership are ongoing. The following feedback was received.

"It's rare for us to provide positive feedback to our vendors."

"Kudos to the entire team for making this project a success. This recognition is well-deserved, and it's a proud moment for all of us involved."

From framework upgrade to global deployment, delivering value through flexibility, precision, and trust.

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