

## CASE STUDY

# From 143-Day Lags to High-Velocity IT

*SQA Group partners with dental provider to drive transformation*

## OVERVIEW

DentaQuest, a purpose-driven oral health care company, partnered with SQA Group to transform into a high-volume IT department to drive superior customer experience, with a specific focus on implementing a suite of capabilities to fuel daily production code promotion, improve code quality, and increase velocity.

## CHALLENGE

DentaQuest approached SQA Group to re-engineer its DevOps approach with automation that enabled faster, more continuous deployments while improving quality gates.

“We were trying to move from waterfall to an Agile development lifecycle,” said Dan Sheehan, SVP & Chief Information Officer at DentaQuest at the time. “When we examined our architecture, we had many different integration systems and some of them were homegrown and came with their own type of development and resources.”

“We had our own way of doing things right down to when the software was moved into production. I needed SQA Group to identify where we are bleeding the most and come up with a new development lifecycle,” he added.

The DentaQuest logo features the company name in a blue, sans-serif font. To the right of the text is a stylized icon consisting of a grid of dots connected by thin lines, resembling a network or a molecular structure.

## IMPACT

DentaQuest shifted from an average of 143-day lag in undeployed code to 136 code deployments a day, with the ability to deploy code to production in one day.

This shift in productivity dramatically improved code quality and velocity, while also creating a culture of quality engineering. An enterprise Agile adoption removed organizational friction and increased morale.

Specifically, DentaQuest was interested in versioning software using an Agile methodology, properly backlogging requests and prioritizing them, automating key phases of the software development, integration and deployment, and ensuring it had the right capabilities in place from the beginning of a sprint all the way to production.

Moreover, the dental provider was experiencing quality issues that resulted in release rollbacks, growing technical debt, and late stage defect leakage.

## SOLUTION

SQA Group deployed a transformation strike team that analyzed current state and created a roadmap to leverage SQA Group's Wave, Capability, Reinforcement Model for a multi-year phased transformation program. Specifically, the strike team delivered:

- Custom-built C#/Selenium Page Object Model framework and expanded to cover an increasing proportion of the application portfolio
- Integrated automation solution with Specflow BDD tooling, thereby realizing shift-left testing with in-sprint automation
- Defined and refined a Continuous Integration (CI) capability through execution of a Theory of Constraints-based build and release overhaul
- Series of tool evaluations, and established criteria for selection including a prototype/POT decision making process
- Workforce survey and skill inventory/gap analysis against current and future state technologies
- Training and mentoring programs for DentaQuest's performance team in workflow analysis and model-based testing

"Through our partnership, we were able to switch to an Agile development lifecycle, put together a new way of testing and build in new quality thresholds to increase our time-to-market and drive quality solutions," said Sheehan. "Our team was also empowered, through training and mentoring, to continue to drive smooth software delivery processes moving forward."



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*-Dan Sheehan, SVP & Chief Information Officer*