

Case study - Team Foundation Server and Agile

Overview

A mobile data solutions company secured a contract with a leading UK police force to supply their own Police Mobile Data Solution (PMDS) to the whole of the forces following an extensive trial in 2007.

The PMDS now gives more than 2,000 police officers secure wireless access to individual constabulary databases as well as national resources such as the Police National Computer, Voters, Emerald Warrants, National Mobile Phone Register and Gazetteer.

Using the PMDS it is even possible for the police to use their PDAs to complete key administrative tasks such as issuing Fixed Penalty Notices while out in the field.



The challenge and the change

The software that was delivered to operate the mobile devices was initially developed in a traditional waterfall software development project. Business pressures and changing requirements made this approach unworkable, with the waterfall method proving to be a constraint. Furthermore reliance on key personnel created additional risks with the project.

To create greater predictability and productivity, the team decided to adopt an Agile SCRUM approach, working with a company that had a proven track record as well as experience with Microsoft technology. Dunstan Thomas was asked to join the project. With experience of running Agile SCRUM projects as well as Microsoft Team Foundation Server, a core technology component of the company, Dunstan Thomas was a natural choice.

“Dunstan Thomas consultants showed us how Agile had been applied successfully inside other Dunstan Thomas customers. We were able to paint a vision for what Agile should deliver”

“Dunstan Thomas also provided key tools and training to help implement it”

Nick Warren—Project Manager

Step by step

Step 1. Source control—The first area the software development team worked on was source control. They worked hard to define their Branching Strategy to help speed up delivery of changes to live systems in parallel with making systems changes for other customers which may be at different stages of development.

Step 2. Selection of software— Dunstan Thomas recommended Microsoft’s Team Foundation Server (TFS). TFS fitted well with engendering greater team spirit and enabling to work more dynamically and transparently with customers on changes and enhancements.

Step 3. Rolling out Agile SCRUM—Agile was rolled out in the MDT (Mobile Data Terminals) team first. They responded immediately to the idea that Agile would minimise ‘work in progress’ by delivering running, tested, features, and help reduce poor coding habits.

One of the major benefits of Agile, combined with TFS, has been a reduction in the number of returns to development of their delivered code which used to average nearly 15 per cent before and is now close to zero, i.e. 0-5. They also wanted to use the disciplines imposed by Agile, and tools provided within TFS, to automate software builds which it wanted to carry out overnight to increase productivity further.

Results – service transformation

Benefits also flowed from integrating software development, testing and building of tools within TFS.

Nick Warren the Project Manager explains

“We identify functional items that the team will deliver in the sprint which have shortened to seven days for software development and build and a further seven days to test and deliver. It is all highly collaborative.”

“We chose TFS over other tools principally because we wanted to take a more holistic view – managing the whole lifecycle of software creation and implementation rather than just trying to improve source control.”

“Cohesion in the team is better as a result of Agile and TFS. The Company’s software development team takes a lot more ownership in delivering working code to the test team. They tend to discuss in much more detail how they crafted the code and only then hand over to the test team once they have accepted the code in principle. The test team trust much more what they are receiving now.”

“In essence Agile & TFS has helped engender a much more collaborative approach which gets everyone owning the software delivery and ensuring nothing, within reason, gets overseen.”

Benefits

- The Company used Agile SCRUM to put software development disciplines in place which delivered more mission-critical software improvements with less overhead while engendering a more helpful work ethic and better team spirit.
- Indicative productivity has more than doubled in the team by using Agile SCRUM and TFS.
- TFS has helped manage many aspects of the process, most notably monitoring and reporting of software development progress end-to-end.
- Dunstan Thomas provided a ‘one stop shop’ for all of the Company’s needs from initial sounding board to Agile SCRUM training and consultancy, TFS provider and consultant.

