

CASE STUDY

AN POST

FUJITSU FACILITATES SMOOTH MIGRATION TO VB.NET AT AN POST

»FUJITSU HAS AN EXCELLENT TECHNICAL TEAM, WHICH WORKS CLOSELY WITH OUR STAFF. WE HAVE HAD A GOOD WORKING RELATIONSHIP FOR MANY YEARS AND FUJITSU HAS AN IN-DEPTH KNOWLEDGE OF OUR MISSION-CRITICAL APPLICATION GAINED FROM SEVERAL YEARS' DEVELOPMENT AND SUPPORT WORK.«

SYL BYRNE, IT MANAGER REMUNERATION SERVICES, AN POST



THE CUSTOMER

- An Post offers postal, communications, retail and financial services throughout Ireland.
- Delivers over 3.5 million mail items daily to 2.1 million homes.
- Employs over 9,600 people.

THE CHALLENGE

- An Post needed to migrate its bespoke, mission-critical Staff Remuneration and Administration System (STREAMS) application from MS Visual Basic 6 to VB.NET without disrupting services.

THE SOLUTION

- Fujitsu VB.NET migration services.
- Fujitsu application development and integration services.
- Application outsourcing services.

BUSINESS BENEFITS

- **NEW ENVIRONMENT** – offers a scalable and secure platform with lower management costs for the mission-critical STREAMS application.
- **INVESTMENT PROTECTION** – mainstream and extended support safeguards STREAMS for the foreseeable future.
- **END-USER SATISFACTION** – 400 users employ the application with confidence, eliminating a potential threat to business continuity.
- **STABILITY** – An Post continues to benefit from efficient data capture processes for its weekly payroll run.
- **SMOOTH TRANSITION** – automated migration of the legacy code proved cost effective and led to no service disruption.
- **FUTURE DEVELOPMENT** – the company will not waste time, money and resources on VB6 development and it will focus on the next stage of the project development on the latest technology platform.

CHALLENGE

An Post, one of Ireland's largest companies, is a major commercial organisation providing a wide range of postal, communication, retail and financial services. With 9,600 employees throughout its national network of retail, processing and delivery points, the business also provides services to government departments, the National Treasury Management Agency and its own National Lottery Company.

A decade ago, An Post implemented a new nationwide time and attendance system to calculate and record staff salary and wages functions. The Staff Remuneration and Administration Management System (STREAMS) is a bespoke, mission-critical application developed by Fujitsu as a reliable, scalable client server system using Microsoft technologies.

The STREAMS front-end system gathers information and feeds the data to the company's HR, payroll and financial departments. It primarily creates more efficient processes for An Post to capture data for the weekly payroll run whilst simultaneously minimising the number of payroll queries by employees. Following deployment, STREAMS improved cost centre reporting, significantly lowered the time to record pay details and enhanced the processing of casual staff pay.

During this period, Fujitsu provided quality support and maintenance services and application enhancements to increase functionality, ensuring the long-term reliability of STREAMS. For instance, as employee numbers steadily increased to exceed original expectations, Fujitsu boosted system performance by upgrading the infrastructure and optimising the software.

STREAMS originally employed Visual Basic (VB), a third-generation event-driven programming language and integrated development environment (IDE) from Microsoft. IDE provides programmers with comprehensive facilities for software development and comprises a source code editor, a compiler and/or an interpreter, build automation tools and a debugger. However, Microsoft no longer supports VB version 6.0, the edition employed by An Post.

Syl Byrne, IT Manager Remuneration Services, An Post, explains: "To ensure that our business-critical application is future-proof, we needed to move to a platform that Microsoft will support for the foreseeable future."

An Post therefore decided to migrate STREAMS to the VB.NET platform, an object-orientated programming language. This strategy would protect its investment for the next 10 years by creating a secure, scalable and supported environment with lower management costs.

"Migrating to VB.NET was the best solution because it would provide our 400 end-users with the same look-and-feel that they were accustomed to with VB6."

Moreover, for the next phase of the project, VB.NET allows us to move away from a client server product to a more flexible web-based environment," continues Syl Byrne.

Recently, An Post renewed its three-year technical development and support contract with Fujitsu and also asked it to manage the STREAMS migration project.

"Choosing Fujitsu was never an issue," says Syl Byrne. "Fujitsu has an excellent technical team, which works closely with our staff. We have had a good working relationship for many years and it has in-depth knowledge of our mission-critical application gained from several years' development and support work."

SOLUTION

Fujitsu managed the migration project in three phases. Stage one consisted of a proof-of-concept (POC) whilst the second and third stages comprised dealing with the CSAD subset and managing the main STREAMS migration respectively. The migration process involved over 194,000 lines of code.

From the onset, Fujitsu realised that identifying the correct migration tools and process were paramount. In addition, it appreciated that some code would undoubtedly require manual processing.

Fujitsu therefore used the POC to assess several automated migration tools. Each tool dealt with various screen samples and approximately 13,000 lines of code. This approach demonstrated the feasibility and effectiveness of proposed tools and, after identifying the most appropriate solution, would reduce any potential problems during future developments. Fujitsu recommended a solution by NewCode Technologies.

NewCode's suite of .NET migration products provides leading modernisation technology for migrating, enhancing and re-engineering legacy applications. During the POC, this solution migrated test code three-times faster than Microsoft's migration wizard, completed more code successfully and rapidly determined the proportion of code requiring manual resolution.

"It's not surprising that some companies find moving from VB6 to VB.NET a daunting task especially when they decide to perform it manually," comments, Syl Byrne.

"The process is very tedious, lengthy and fraught with difficulties because some code simply gets lost in translation. I believe many businesses are spending a fortune to get code rewritten manually because they do not have appropriate in-house resources. However, Fujitsu proved that we could migrate 90 per cent of our legacy code automatically in a cost-effective manner."

Before the migration, Fujitsu helped NewCode fine tune the tool and, compared to manual analysis, determined that this technology would

reduce the migration time by 85 per cent. The POC also identified any potential risks during the main migration, rework areas and over 30 code errors.

The STREAMS migration project involved design, systems integration, code deployment and performance testing. Fujitsu also piloted the new VB.NET code alongside the VB6 code at 10 offices to ensure end-users would not see any changes to the application environment.

"We liked Fujitsu's idea of appointing a test manager to oversee the entire test cycle. This approach was very apt because we intended to migrate the entire application. We had to test the product from the beginning to end so that its performance was identical to the old product. This involved testing every screen and every field," states Syl Byrne.

IMPACT

Fujitsu successfully completed the migration in four months and to budget. Today, An Post has a secure, scalable and supported Microsoft platform for its mission-critical STREAMS application.

With a combination of mainstream and extended support covering 10 years, An Post has protected its considerable investment in STREAMS and continues to benefit from efficient processes that capture data for the weekly payroll run. In effect, migrating from VB6 to VB.NET has given this important application a new lease of life. To ensure optimum performance, Fujitsu will provide biannual updates.

From an end-user perspective, they safely use the application with confidence because it looks and feels the same as the earlier VB6 platform. Consequently, processes appear identical, eliminating a potential threat to business continuity. At the same time, by moving away from a client server product, An Post will not waste time, money and resources on VB6 development and can focus on the next stage of the project; creating a more flexible web-based environment, which shares libraries with other .NET components.

EXPERTISE

Fujitsu's Microsoft Gold Partner status and in-depth knowledge of the required technologies, especially the .NET framework were a key benefit for An Post.

Fujitsu's MacroScope® Productivity centre™ is a robust, structured and dynamic development approach encapsulating more than 30 years of know-how and described by Gartner, the World's leading information technology research and advisory company, as 'the most extensive set of integrated methods, techniques and tools in the marketplace'.

"During the project, Fujitsu was very professional. We were assigned a dedicated project manager to control the whole project and, unlike some other organisations, its staff rigidly adhered to the correct processes and procedures," concludes Syl Byrne.

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