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Stephane Flaquet,
Chief Information Officer



Firefly Migration Case Study Hiscox Insurance



About Hiscox

International specialist insurance group Hiscox, which is headquartered in Bermuda and listed on the London Stock Exchange (LSE: HSX), comprises three main underwriting divisions. These include Hiscox London Market, Hiscox Re and Hiscox Retail, which includes Hiscox UK and Europe, Hiscox Guernsey, Hiscox USA and subsidiary brand DirectAsia.

Hiscox underwrites internationally traded, bigger ticket business and reinsurance through Hiscox Re and Hiscox London Market. It additionally offers a range of specialist insurance for professionals and business customers, as well as homeowners, through its retail businesses in the UK, Europe and the U.S.

New Benefits through Magic to .NET Migration

- Enhanced application performance and user experience
- Improved software quality, stability and reliability
- Easy maintenance and accelerated pace of change
- Seamless, risk-free migration with zero disruption to ongoing operations
- Licensing cost savings





“Migration was an absolute breeze...”

Neil Valentine,
System Architect

The Challenge

Hiscox employs a core retail insurance software system that was originally developed with the Magic application generator some 15 years ago, and serves most of its employees worldwide. While Magic may have been ideal for business application development back in the 1990s, and Hiscox has generally been pleased with it, growth in the number of users and increasing application complexity ultimately brought up maintenance limitations.

Inconveniences included inability to implement industry-standard IT tools, and increased maintenance overhead. For example, as many of the capabilities and benefits of version control systems – which are designed for use with code-based programming languages – cannot be achieved with Magic-based software, Hiscox essentially had to implement manual version control of its own, resulting in duplication of software versions and code bloat.

Intermittent system slowdowns – due mainly to lack of performance analysis and software fault investigation tools, and the “black box” nature of the Magic run-time executable, over which there was no control – were a problem, too. It also didn’t help that proficient Magic developers and sources of Magic know-how were becoming increasingly difficult to come by.

Options

Hiscox learned to live with these ongoing annoyances over time, and never considered going outside the realm of Magic in search of solutions. “We actually appreciated Magic quite a bit and had become accustomed to its quirks and restrictions,” explains Hiscox System Architect Neil Valentine. “Our developers had been programming

in Magic for as many as 15 years, and it served us well for a long time, so we weren’t really considering moving to an alternate platform.”

Hiscox’s commitment to innovation and a positive customer reference, however, soon brought it in touch with Firefly Migration, provider of an automated Magic/uniPaaS-to-.NET migration solution, and its “crazy” idea of migrating Hiscox’s core system to the .NET platform.

Why crazy? “To give you an idea of the complexity of the proposed undertaking, this core application is the most-used system throughout the company,” explains Hiscox CIO Stephane Flaquet. “Replacing its underlying platform could be likened to swapping out an aging airplane’s engine in mid-flight.”

Aside from the technical risk, there was the human factor to consider, given that Hiscox’s development team would have to learn an entirely new programming language. Additionally, Hiscox’s longer term plan to replace the application with a new, organization-wide policy administration system, could render any interim investment, such as the one Firefly Migration was proposing, technically and financially questionable.

Before making such a seemingly radical decision, Hiscox made sure to consider a number of alternatives, including restructuring its application into smaller software components that are easier to maintain, and upgrading to the latest version of Magic (xpa). However, both options would have Hiscox continuing to cope with Magic restrictions, at the cost of significant manual R&D effort and the risk of negatively impacting release schedules.

As time goes by, the value and benefits of having switched to .NET only continue to grow.

Debbie Forster,
Business Application Manager

Even worse, limited trials indicated that upgrading to Magic xpa would result in substantial loss of UI functionality and require code rewrites.

Driven by the desire to streamline its development, improve software quality and deliver increased value to its business users, Hiscox opted to proceed and attempt to port its core software application to .NET with Firefly Migration's fully automated solution.

Magical Migration

The migration project was carried out as per a simple and straightforward process. The Magic-based application was initially uploaded to a Firefly Migration server, only to be downloaded as functionally identical .NET code within mere minutes. Hiscox's application testing environment was painstakingly recreated in its entirety on Firefly Migration's own premises, to enable extensive QA on all migrated code. This environment allowed Firefly to quickly and easily reproduce any inconsistency, and continuously adapt its migration software to ensure that Hiscox always enjoy full migration automation going forward.

"Migration was an absolute breeze," notes Neil Valentine. "Firefly was extremely efficient in logging and handling any inconsistency detected, and its response time in delivering fixes couldn't possibly have been faster."

"A further significant convenience was that we could make the switch gradually and risk-free," he adds. "Our employees could use the new .NET-based application alongside its Magic-based predecessor, and switch back to the legacy application in case of trouble at any point during rollout. Additionally, our development team could simply

carry on coding in Magic, while performing incremental, on-the-fly migrations to .NET, to keep everything in sync and provide users with added value, even as the migrated system was undergoing QA."

Success!

"Firefly Migration's superb technology and its highly dedicated team, which backed us every step of the way, made this project a true triumph," states Stephane Flaquet. "Not only was it delivered on time and within budget, but the business benefits were greater than we had originally anticipated."

Key gains included the ability to integrate industry-standard IT tools, rapidly alleviate performance challenges, and implement automated testing and deployment. Significant cost savings – resulting from Hiscox no longer having to invest in annual and per-user Magic licensing – effectively put to rest any doubts about the cost efficiency of the migration in the context of the company's long-term plans to deploy a new policy administration system. No less importantly, Hiscox could finally tap into the vast, previously inaccessible .NET developer workforce and knowledge base, to support and scale up its R&D team.

"As time goes by, the value and benefits of having switched to .NET only continue to grow," concludes Hiscox Business Application Manager Debbie Forster. "The .NET-based application, which now serves roughly 600 employees, was just faster out of the box, and its 'tidied up' code is easier to maintain. It has been providing our staff, customers and business partners with significant stability and performance gains, and enables us to achieve increased software quality and accelerated pace of change."



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Neil Valentine, System Architect

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Firefly Migration
Magic to .NET

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