Seylan Bank save 90% of effort in application upgrades – managing IBM i and .NET code, with ARCAD for DevOps and Git.

The Customer

Incorporated in 1987, Seylan Bank PLC is one of the leading banks in Sri Lanka, focusing on conventional commercial banking and operating from its Head Office in Colombo through its islandwide network of branches.

With 167 banking centres island wide, 3000 staff members, an ATM network of 205 units covering crucial locations and 9 branches providing 365 day banking, the bank prides itself on producing many "industry firsts" (including the first homegrown credit card in Sri Lanka) and its culture of excellence in corporate governance.

Background

The core mission-critical application at Seylan Bank is built on the Fusion Equation system on IBM i, enhanced with local customizations via the Equation API. A local API layer has also been developed in RPG for communicating with external agents and banks.

In addition, the 14-strong development team at Seylan Bank also develops new functionality using .NET.

Challenges

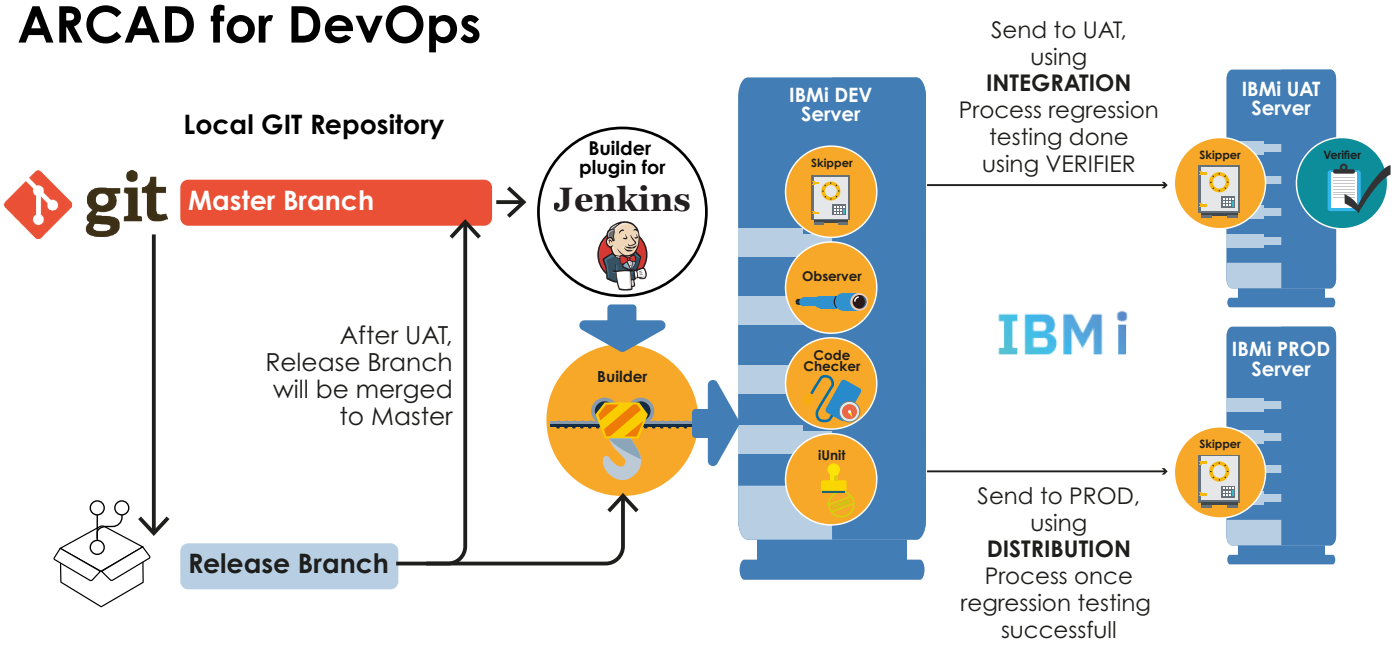
Previously, many processes at the bank were still manual, particularly on the .NET development side. To speed up development and secure quality, DevOps had become a management KPI and the bank came under increasing pressure from regulators, imposing 3 main requirements:

- Complete code repository across IBM i and .NET development
- End-to-end Automation and Traceability in Build & Deploy processes
- Adoption of DevOps best practices

At that time, the IT team kept only a manual record of source movements. When an urgent fix was needed, team members would retrieve a source, edit, compile and push – sometimes without updating the manual record. These discrepancies were costing the team significant effort and causing incidents in production.

Without build automation, the IT team struggled with upgrades to their core banking system. One upgrade required recompilation of 99% of the Seylan Bank programs, involving the in-house development of custom scripts and 2 days of continuous effort to complete the process.

ARCAD for DevOps



Solution (1): ARCAD for DevOps and DROPS

To fulfil audit requirements and retain their competitive edge, the Seylan Bank team implemented ARCAD for DevOps, delivering a complete and automated process across application build, transfer to test and deployment to production. ARCAD for DevOps allowed them to manage both their RPG and .NET code in a Git repository.

Kanaka Gunatilake, Senior Manager and Software Architect at Seylan Bank explained:

"ARCAD for DevOps took the pain out of our Equation upgrades. ARCAD tools managed the source code, recompiled and delivered to production, pushing all objects smoothly with zero defects in production. With ARCAD we saved at least 90% effort during the upgrade".

ARCAD tools also manage the dependencies between RPG database transactions and in-house development in .NET. Then DROPS synchronizes the transfer of interdependent RPG and .NET objects through 3 test environments and finally to production. DROPS also imports the bank's in-house developed SQL scripts directly from Git, then builds, distributes, and executes these scripts on the target machine to update production databases automatically.

The team have opted for a Feature branch model using ARCAD with Git, creating sandboxes and adapting the Git flow to an RPG way of working.

Solution (2): ARCAD CodeChecker and ARCAD iUnit

To further improve DevOps processes, Seylan Bank have also implemented ARCAD CodeChecker for automated RPG code quality checking and ARCAD iUnit for unit test automation.

"ARCAD CodeChecker is a brilliant tool. It checks RPG quality continuously, as the code is being developed. We can onboard new developers in complete confidence", added Kanaka.

Dual Culture: IBM i and .NET

With the ARCAD system, collaboration is easy between RPG and .NET developers, and many developers are now "hybrid", developing in both languages with ease.

"We often recruit .NET developers and teach them to be proficient on IBM i using RPG Free. Although we would never expect .NET developers to work in 'positional' RPG, they easily understand RPG Free Form. The syntax is similar, and the overall programming technique is the same. To get them started, our experienced IBM i developers guide the .NET developers with trouble shooting. We now have a 'hybrid' team which is a huge advantage".

Next step

Now that defects have been 'shifted-left' with ARCAD CodeChecker and ARCAD iUnit, Seylan Bank are now looking to automate their functional regression testing on IBM i using the ARCAD Verifier solution.

"The ARCAD support team are always helping and run an extra mile to get the job done.

I really appreciate the service ARCAD gave us during the project".

Kanaka Gunatilake,
Senior Manager and Software Architect at Seylan Bank

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