



**CASE STUDY | FINANCE**

# **ABSA Bank**

Introducing database  
automation with  
SQL Toolbelt



"Our key consideration for all activities is risk management – if our systems go down, it costs ABSA a lot of money very quickly."

A wholly-owned subsidiary of the Barclays Africa Group, **ABSA Bank** offers a range of retail, business, corporate, and investment banking, as well as wealth management products and services, primarily in South Africa and Namibia.

A team of 40 developers supports the bank's payment processing systems and handles 3,000 high-value transactions per day. To enable them to work faster and more effectively, the bank has two key technology objectives:

1. Establish DevOps working practices
2. Introduce automation where possible

The aim is for development teams to have end-to-end responsibility for the solution they are developing, without handovers, complex review processes, or spending too much time on non-value add activities.

The overall goal is to improve accuracy and therefore minimize risk, at the same time as reducing the time to release.

# "Our manual database deployment process typically took 2-3 hours per developer per week."

The development teams at ABSA have been using Redgate' SQL Compare, SQL Data Compare and SQL Prompt for many years. The bank has seen increased productivity as well as improved job satisfaction, a major contributor to employee retention and a key element of establishing high-performing IT teams.

Database deployments, however, were still holding the teams back. The process was a manual one where teams made changes, compiled deployment scripts, saved them to a directory, and handed them over to operations for review and deployment. All of which took a lot of time and occasionally caused problems with deployments.

To improve the process, Systems Analyst, Rynhardt van Rensburg, and Team Leader, Ria Snyman, kicked off an initiative to drive forward database automation, in particular continuous integration (CI) and automated deployments.

With an application development stack consisting of TFS for version control, TFS Build for continuous integration, and Microsoft VSTS release management, ABSA turned to Redgate as a trusted SQL Server vendor.

Redgate's SQL Toolbelt plugs straight into the existing stack, extending it to cover SQL Server. It helps the move toward standardization on one solution across development and operations – and across application and database development.

# "The SQL Toolbelt definitely provides a positive return on investment."

ABSA rolled-out the SQL Toolbelt over time, starting with a few tools and working towards a full SQL Server solution in just three weeks. "We did a bit of reading and asked Redgate some questions, but generally it was very straightforward to start using the SQL Toolbelt," says Rynhardt van Rensburg.

Having run a successful proof of concept with SQL Toolbelt, ABSA have been able to implement a one-step process from development through to production. This frees up the equivalent of an extra developer by removing the manual steps and provide an immediate return on investment. That's not even taking into account the faster time to market and reduced downtime.

With the SQL Toolbelt, the bank also has confidence that deployments are less risky, because less human intervention is needed. All database changes are now checked into version control alongside application code changes. The check-in triggers the CI process, which builds the changes to test everything is working as it should. If the changes aren't fit for deployment, the CI process automatically causes the build to fail and sends it back to development with quick feedback on what went wrong.

Once all tests are passed successfully, a NuGet package is created and automatically promoted across environments all the way to production. It doesn't need a human to spot what is sometimes impossible to spot, and any errors are caught early in the process in a systematic, repeatable way.

**"Redgate has the complete solution for SQL Server, and it's incredibly intuitive to use for what you would think should be complex, enterprise-level software."**

In addition to the database development changes, ABSA is also rolling out Redgate's SQL Server performance monitoring and alerting solution, another part of the SQL Toolbelt.

The team previously used an in-house tool, but it was fairly limited in scope and primarily covered long-running transactions. With SQL Monitor, they get a broad overview of SQL Server performance and are alerted to problems immediately.

Beyond the alerts, SQL Monitor provides detailed information on performance issues, presented in an easily accessible way, and much more flexibility in terms of the metrics that can be looked at. As a direct consequence, it's easier and quicker to get to the root cause of performance issues.

To sum up the benefits of the SQL Toolbelt, Rynhardt van Rensburg concludes: "Not only is our development team more productive, we are also seeing substantially faster delivery times and, most importantly, more accuracy. We're very pleased with the solution Redgate has provided, and it's a big plus for us to get everything we need from a single vendor. Redgate staff have always been available when we need them and are extremely helpful."



Redgate's SQL Toolbelt provides the industry-standard tools for SQL Server development and deployment.

To find out more about it , visit <http://www.red-gate.com/products/sql-development/sql-toolbelt/> where you can download a 14-day, fully-functional trial.