

STANDARD BANK SUCCESSFULLY MIGRATE MISSION-CRITICAL DATABASES TO ODA

A Database Journey

THE BACKGROUND

Standard Bank's New Business Online App (nBOL) is an Internet-based platform that facilitates corporate banking activities across 19 African geographies. In the context of Standard Bank, and the broader African ecosystem, this is a critical application where systems stability, availability and performance are of utmost importance due to the high transaction volumes and value flowing between corporates.

In March 2021, nBOL was running at less than 70% SLA. Its offline periods were mostly during business-critical periods, requiring many late-night heroics to keep it from crashing entirely.

RadixTrie stepped in and performed a detailed assessment of the environment as it was identified that most outages were due to database instability. Upon further investigation, it was discovered that nBOL was running at sub-optimal levels due to the high rate of change in the environment over the preceding 2 years. It was also noted that the in-house skill set, although adequate for normal maintenance did not stretch to the radical changes performed on the platform during the preceding period. This posed a huge risk to the business and was ultimately mitigated by the RadixTrie team.

THE SOLUTION

The first implementation of the project was to stabilise the database and get it to run at a decent level of performance. This involved getting the database patch levels to the latest versions, performing all the essential maintenance tasks, and resolving various inefficiencies between the nBOL application and the database.

Upon implementing an extensive database monitoring service, it was also identified that the shared server environment impacted the Oracle performance due to server resource constraints. The RadixTrie team then specced an ODA device that would be suitable and commissioned it before the full migration could take place.

Two mission-critical systems had to be migrated onto the new ODAs, with no room for error on the project. The team spent weeks planning, preparing and rehearsing the migration, before performing the actual migration to the ODA one application at a time.

The databases were all migrated to ODAs successfully, with a total of less than 4hrs of downtime for 17TB databases, including business acceptance.

THE RESULTS



No outages within the last 18 months and counting



Significant improvement on the stability and performance



Oracle DB running at an 99% SLA level with only approved planned downtime

AT A GLANCE

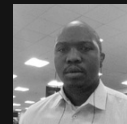
Project Challenges

- Compatibility issues between the ODA software stack and the Oracle DB version.
- The size of the Oracle DBs were enormous and the migration had to be completed within a matter of hours to avoid business impact.
- The secondary DR environment had to be an exact replica of the primary DB at the moment of the migration.

Project Highlights

- The joint nBOL application and DBA team collaborated well during project execution.
- As ODA devices were new to the environment, the best standards could be set.
- The migration was seamless to the business.

Meet the RadixTrie Project Team



Marcus Sikhakhane



Johnny Masha



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Zeyn Pahad



Gerhard Pieters



Nico van Rooyen



"RadixTrie has opened my eyes to the science involved in running a mission critical database environment.

Thanks guys we couldn't have done this without you."

Quentin Terry
Head of Service and
Delivery Management