SUCCESS STORY

A Leading Property & Casualty Insurer & Re-insurer **Netezza Data Warehouse Migration**

For the past 7 years or more IBM have been selling and installing their Highly successful Netezza Mako Data Warehouse platform, the latest version of their extremely successful Netezza Data Warehouse appliance family that for the last 20 years has been providing IBM customers across all industry sectors, with near linear scalable blistering performance, high available and advanced analytics capability. Once installed the Netezza appliance becomes the centre of DATA analytics and critical to organisations reporting and analytics needs.

Many of components of the Netezza Mako's have been out of production for a number of years and so it got to the point where IBM no longer has enough spare parts in stock to continue supporting the Mako. IBM had to withdraw the product from the market and remove support from April 2023.

To replace the older product IBM has built a next generation Netezza appliance with all new components built on non-proprietary technology avoiding the problem of part availability in the future. The new boxes are 4 x times faster on a like for like model, extensible and built on a modern architecture.

A leading Property & Casualty Insurer & Re-insurer a long-time user of the Netezza Appliance who acquired TWO Netezza's in 2018 are well known for solving the most complex risks for mid-sized companies to the world's largest multinationals, plus they offer traditional and innovative insurance solutions and services in over 200 countries and territories.

Due to the withdrawal of their Netezza Mako appliance from support in April 2023, this leading Property & Casualty Insurer & Re-insurer decided to purchase two of the latest generation Netezza Hammerhead appliances to replace their existing Makos. Due to our many years of experience SmallNet were chosen by the client to migrate the old databases to the new appliances.

> The Netezza platform is an extremely critical element to their regulatory reporting, the Netezza appliance processes Frame source data which is critical for Financial close, Actuarial and Group Reporting. The Netezza data processing also supports downstream systems like IDA Reporting, AXIOM, R Platform, Scoring and MI Claims. Under there deployment there were 2 platforms one for PROD and the other NON-PROD both virtually equal in size and data held.

The **TIMELINES** are critical here in that they placed and order in **DEC 2022** and managed with the assistance of IBM and its partner to go **LIVE by MID April 2023**. The machines only got delivered physically and then **installed by Mid-FEBRUARY 2023.**

The Challenges of **Migration**

The Data Migration and run up to actual LIVE running including testing was extremely challenging due to several key factors;

This was an international project, spanning many time zones, the Netezza Appliances were in two separate Data Centres in UKI, technical and infrastructure teams were in India, project management and business were in North America and SmallNet were in the UK. Multiple partners and System integrators were involved alongside the leading Property & Casualty Insurer & Re-insurer own employees.

The client had no specialist resources locally who knew the systems or deep knowledge that was in place ie sources of data and the subsequent reporting layers.

There were 2 Platforms to complete – PROD and NON-PROD with over 16 TB's each in both platforms.

Testing was complex, there were some 4-5 downstream systems feeding the Netezza appliances that were ETL based processes, and various data uploads. Ie not one common tool including SQL code and upstream the data was fed into some 12-15 plus reporting systems for compliance and regulatory reporting, which was critical to the operation for the insurer... these all need testing.

Lack of detailed documentation of the in-place architecture and solution, the new target architecture was not finalised. Unbeknown to the client there was many lines of 'user defined' set ups that were not documented.

Timescales were tight, we had around 2 months to undertake 3 months of activity across 3 continents. Final cutover had to happen over a weekend, downtime outside of the window was not available.

The GOOD News

IBM and its official DATA & AI partner SmallNet Consulting delivered professional services via the diligent hands-on approach by Smallnet Consulting staff using their many years of experience of Netezza appliances, Data Warehousing skills and in particular data migration expertise.

The SmallNet migration approach / methodology had been built over 20 years of migrations which Including detailed plans, checklists and information gathering aids. Smallnet have created for the Netezza platform pre-built tools and scripts that were able to automate the data migration process running 7x24 with resilient code which allowed reconciliation at each juncture of the migration process.

Smallnet
Integration · Governance · Warehousing

Key Steps / Activity

- The first critical step was to gain access to existing estate and create 'AS IS' to 'TO BE' architecture plan and uncovering all the data sources both downstream and upstream which was conducted 'in flight' over a 5–7-day period. This literally only took place at the end of FEB/Early March 2023.

- The architecture plan then allowed SmallNet to establish a detailed statement of works including a full migration plan with the detailed steps and analysis that had to be taken, including numerous check lists and tasks to complete.

- Over the coming days/weeks both SmallNet and client project teams worked on the migration of the NON-Prod DATA systems first (at a known point in time) which enabled the clients downstream application teams to test the applications.

- Within one week they all moved on to migrating the PROD Data Migration and similar activity by the client's team.

- During the migration IBM conducted some on-line training sessions for the clients' teams based upon new appliances for them to carry on operational support.

- The project was on a very aggressive times line, exacerbated by the distributed nature of the team. Project planning and management was critical ensuring nothing was missed and inter-continental activities were coordinate. Detailed and accurate plans with good communication and swift issue resolution was imperative. As we neared the deadline calls/updates took place 2-3 times a day driven hard by the client's project manager.

- Testing and reconciliation of data was critical as zero differences was mandated. Reconciliation was further complicated as the older systems were still being used so we often had a moving target.

- 'Cut over' was planned for a 'weekend' for both platforms at the beginning of APRIL 2023, all data had to copied across and reconciled.

- After 10 days of continuous running in production with no issues the client signed off the project.

Summary

From a standing still position from late FEBRUARY the teams managed to migrate 2 platforms PROD and NON-PROD with some 15-18TB of data in each system, with 5 plus systems downstream and test the upstream applications (reporting) and go LIVE within 7 WEEKS from OLD to NEW.

… a major success

From the Clients perspective, Clients' expectation whilst it was critical to migrate by mid April 2023 they are anticipating the following key benefits;

OPERATION:
IBM support for new Netezza appliance is available for many years to come

SECURITY COMPLIANCE:
90% reduction in vulnerabilities

PERFORMANCE IMPROVEMENT:
The NEW Netezza's have the potential of **4 fold performance improvement** in Netezza data processing through new appliance