

Helped Client Realize 50% Reduction In The Turnaround Time for Data Movement

OVERVIEW

Syntel's client is a Fortune 500 global payments, network and travel company, with a worldwide network that processes millions of merchant transactions daily, in more than 200 countries.

BUSINESS NEEDS

The client wanted to improve its information delivery system with a high-performance data warehouse for optimization and improved performance, while ensuring affordability and delivering an enhanced end-user experience. However, they were witnessing an exponential increase in the number of active users, data, and queries on DB2, thereby delaying system response, which was affecting end-user report generation.

To increase the efficiency in a DB2 system, it would be necessary to implement complex queries, complex schemas, indexes, aggregates, and advanced partitions; however the client was facing architectural constraints with this approach. They needed to collaborate with a strong technology partner with experience in their market niche to deliver the right solution in a short turnaround time.

SOLUTIONS

As the initial step in this project, Syntel conducted an impact analysis to gauge the implication of a migration from DB2 to Netezza. The study revealed that:

- DB2 deployment on advanced servers were unable provide optimal performance
- Huge amount of data was repeatedly exchanged between the storage and memory

Syntel set up a high-performance data warehouse and replaced the existing IBM DB2 with IBM Netezza for quicker processing. To ensure seamless migration and successful roll out of the solution our team worked in tandem to:

- Analyze and determine the performance of Netezza with a Proof of Concept
- Change the existing ETL jobs, scripts, views, queries, and functions to make it Netezza compliant
- Reverse engineer client architecture to make it platform-independent and Netezza-centric
- Develop new Netezza-compliant SQL queries and ETL jobs using IBM InfoStage, as defined in the client's business requirements for improved TAT, scripts and SQL queries
- Migrate end-to-end data from DB2 to Netezza using existing and newly developed InfoStage ETL jobs
- Implement performance improvement techniques to accelerate the loads and reduce the response time to half
- Assess the need to change administration attributes of ETL jobs
- Perform post implementation testing and validation for data accuracy

Key Challenges Faced and Mitigation provided in the Migration

- Creation of back up tables to reduce the excessive time taken to update Netezza tables in delta loads
- Removal of duplicate stage in Datastage ETL jobs before loading the data into the target tables to target the lack of a primary key concept in Netezza database
- A new audit process to validate loaded records at the ETL level and confirm the count of data rows in the target database tables
- Change in the data type in the tables and ETL level so that Netezza identifies special character updates the database with correct data



Data Warehouse Remediation for an Analytics and Reporting Application



DIFFERENTIATORS

The Syntel Advantage

- Created solution accelerator which is a utility trigger to automatically upload historical data, count the number of rows and send an automated notification of error/success
- In-house Netezza practice team to support and rapidly resolve any issues faced in the migration process
- Seamless migration and integration with the existing reporting systems—minimizing the change required for downstream applications

BENEFITS

Results

- By implementing Syntel's solution the client was able to achieve its goals of providing faster service to its clients and handle the large number of active users with optimized performance
- The client also realized 50% reduction in the turnaround time for ETL loads
- Extensive coordination and close collaboration with all the impacted technology and business teams and critical support groups to establish an information flow system, and enable smooth delivery

Why Syntel

- A leading global IT and KPO service provider
- Established in 1980 (NASDAQ: SYNT)
- More than 24 offices in North America, Europe and Asia
- Flexible and successful global delivery model to deliver cost-effective solutions

For more information, visit Syntel online at www.syntelinc.com
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