

CONVERSION: NETEZZA TO SNOWFLAKE

Diyotta's methodical approach to migrating data and converting data integration processes from Netezza to Snowflake incorporates best practices to ensure an efficient process and accurate results.

Technology Solution Brief

Preface

As organizations modernize their information management infrastructure, the cost vs benefit of Massively Parallel Processing (MPP) platforms like Netezza are being reevaluated. Today, organizations require consolidated and expanded data access and insights – something traditional architectures do not provide. To meet these needs, traditional data architectures must be replaced with a new, flexible, affordable, and scalable solution. Snowflake offers a modern solution by seamlessly matching your scale, concurrency, and data storage needs in the cloud and maximizing your ROI on a data warehouse.

Challenges

The primary barriers to migrating from Netezza to Snowflake are the enormous level of manual effort and time required to convert the previously developed Netezza processes embedded in the ELT Scripts, and the cost to do so. Potentially running into the millions of dollars, the cost often outweighs any benefits of the migration. In addition, manually migrating to a Snowflake environment can be plagued from the lack of a standardized design approach and no visibility, in terms of technical metadata, due to manual scripts that are developed. Consequently, the result is often mediocre quality outputs and project delays. Diyotta's automated approach of migrating Netezza processes to Snowflake saves significant time and cost, providing completely transparent processes critical to the data governance process. This technology solution brief is focused on Diyotta's migration approach for existing ELT SQL Scripts on Netezza to Snowflake.

Approach and Solution

Diyotta has a Migration Accelerator Package which contains utilities to migrate data structures and transformation processes within the previously developed Netezza scripts. Diyotta's approach to re-platforming to Snowflake involves the below three step processes:

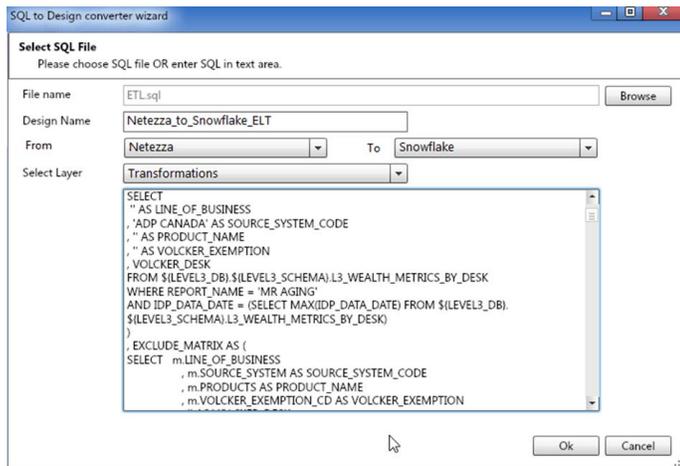
Step #1: Replicate Data Structures

Using Diyotta's Modern Data Integration (MDI) Suite, connections are defined and established with Netezza and Snowflake, the desired data structures are selected from Netezza and the corresponding metadata is automatically loaded into the MDI Suite's metadata repository. The migration package automatically converts Netezza data structures

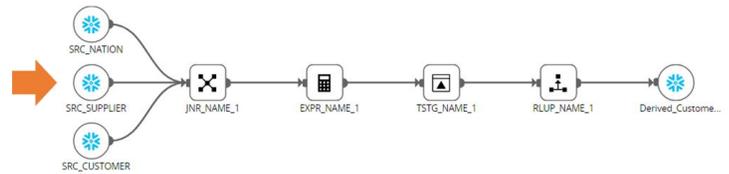
to compatible data structures within Snowflake. This metadata is utilized to convert the previously developed Netezza scripts into compatible Snowflake designs as will be described in Step #2.

Step #2: Convert MPP Scripts to Diyotta Designs

Using the Migration Accelerator Utilities, Diyotta automates the conversion process of existing SQL Scripts of any complexity that are built using the Netezza functions. This process produces an XML file which can then be imported within Diyotta’s MDI Suite as visually rich designs which replicate the transformation rules in Snowflake. This automation process can be run in bulk in the background or interactively for a single script at a time. The images below represent the interactive method.



Netezza Script for Conversion



Converted MDI Suite Design for Snowflake

The designs thus created out of the Migration Accelerator can be orchestrated as per the business requirements and scheduled for execution considering other dependencies. As the Snowflake platforms continue to evolve and the new functions are added, the Migration Accelerator is continuously enhanced to accommodate the new features and SQL patterns for better automation and optimization.

Step #3: Reconcile Snowflake to Netezza Platform

As part of this conversion effort, the Migration Accelerator also has a customized reconciliation approach which can be automated to perform the checks and balances. This accelerates and automates the quality assurance cycle by comparing the key migration metrics like number of records, sum of numeric values etc. All exceptions identified are investigated and resolved to ensure accuracy of the conversion. The Diyotta designs can finally be run in parallel along with the existing Netezza scripts to compare the outputs for a complete accuracy.

The approach that Diyotta takes to convert from Netezza to Snowflake is a well-defined, efficient and accurate process that expedites project delivery resulting in time and cost savings.

To learn more about this technology solution, please contact us at contact@diyotta.com or (888) 365-4230.