DW MIGRATION TO TERADATA

Case Study

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About The Client

Our client is a major Media and Entertainment company with business spanning cable television, publishing houses, TV channel and production houses

Challenge

Over the past decade, our client has grown via many acquisitions. The benefits of economy of scale from the acquisitions are difficult to achieve since the acquired companies continue to operate autonomously to minimize operational disruptions. In particular, the effort of integrating so many unique IT infrastructures and disjointed data models was enormous. Every acquired company had a different view of customer, product, revenue, and so on, all of which had to be rationalized into a common model. In response, our client needed to be more innovative and productive with its enterprise financial reporting system. In particular, our client needed to develop a scalable infrastructure for their financial data that will consolidation all financial data across the corporation. Further, this infrastructure needed to be flexible to accommodate additions of new financial data while lowering the Total Cost of Ownership. These were the business imperatives that drove the conception and execution of the consolidated data warehouse project.

Solution Overview

To respond to this data tsunami and other business problems, Pfizer's direction was to build a scalable framework of shared services, thereby reducing the total cost of ownership for each new application developed. The business case was based on saving money by avoiding the predicted high costs of continuing their current solution framework. The key assumptions were that (a) there was database technology that would scale gracefully without huge cost increases from higher data volumes, and (b) there was a solution framework that would allow the sharing of key services across applications so as to reduce the cost per application. A choice was made strategically to centralize common BT functions, including data management and then to share a common support model for the infrastructure to support those functions. Therefore, Pfizer would have the ability to scale both operations and delivery capacity, which was critical in light of the anticipated volume increases in data.

MPP Data Warehouse Platform

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Therefore, Pfizer's approach was to acquire a suitable MPP platform and consolidate the financial data warehouses by migrating them onto the MPP platform. Acquiring the MPP platform was the simpler of the two tasks. After considering several vendor alternatives, Pfizer decided to acquire Teradata as their MPP platform and extend their existing Informatica data integration environment to support the MPP platform.

Starting at bottom are the various transactional Systems-ofRecord that are the data sources for the data warehouse. Informatica serves as the data integration solution required to extract data from the source systems, load the data into the data warehouse, and then transform the data by verifying its accuracy and integrating with related data.

Next layer is the MPP data warehouse supported on the Teradata platform. Within the data warehouse are several logical collections of financial data. Over the data warehouse is a Common Semantic Layer that will present the columns in tables to business users in business terms like customer or region. Finally, the top layer is the presentation layer that supports a variety of reporting and analytics tools.

The center of the Data Warehouse architecture is a collection of financial data warehouses or, as some would say, separate (but large) data marts that focus on a small set of subject areas to support a particular organization unit. The Data Warehouse project is the migration of three of those financial data warehouses from their current Oracle and SQL Server platforms to a Teradata platform.

The goals to be accomplished were:

- Implement solution architecture that meets emerging business needs, aligns with the information strategy, and retire existing end-of-life infrastructure.

- Implement a solution that will achieve a 10x-50x performance improvement and reduce overall TCO over the current environments.

- Introduce massive parallel processing capabilities that are tightly coupled with the underlying database, storage and operating system components achieving significantly enhanced performance and streamlined data processing.

- Reduce reporting times

Value Delivered

The data warehouse migration project provided significant cost reductions from the shared platform and frameworks. Following were the key achievements –

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Technology Standardization

By standardizing on Teradata, Informatica, and Cognos, our client has adopted common corporate architectural standards, which have reduced the development effort on new projects. In particular, a tangible benefit has been the reduction in software licensing fees, which previously were paid to dozens of vendors. The effort of troubleshooting a problem has been reduced with a small set of vendors. And, the consolidation of platforms has resulted in smaller hardware footprint in the data centers and simplified maintenance

Data Scalability

With the linear scalability in processing data volumes by Teradata and Informatica, Pfizer has avoided future technology investments that could be on the order of $10M every few years. Results from performance testing confirmed the scalability of the MPP system. The overall times for report generation has significantly reduced.

Support cost

Ongoing support cost has been reduced by 25% to 30% especially in the staffing of database administration and application-level support/services (monitoring user problem and performing minor enhancements)