

Accelerate Your Migration from Teradata



PluralSoft
ideas in action ●●●



Highlights

- Take advantage of new technology—Leave costly Teradata systems behind with a data warehouse appliance from Sun and Greenplum and enhance the performance and economic scalability of your business intelligence infrastructure
- Leverage a proven methodology—Utilize PluralSoft's portfolio of services and tools and move to an innovative platform in less time
- Protect investments—Transform and migrate valuable information, scripts, rules, and procedures with ease
- Ensure a smooth transition—Let PluralSoft handle it all, from design and implementation, to delivery, maintenance, and support
- Minimize risk—Capitalize on PluralSoft expertise in creating repeatable, consistent, and risk-mitigated migrations



Organizations are clamoring for cost-effective exploratory warehouses to analyze and mine large data sets to find patterns and help businesses remain agile. These trends are fueling a steady migration of data marts and data warehouses from traditional storage-based solutions like Teradata platforms to new data warehouse appliances like the Data Warehouse Appliance Powered by Sun and Greenplum. By transitioning to appliance technology, enterprises can take advantage of performance gains, handle greater amounts of data, support mixed workloads, and consolidate platforms—all while reducing total cost of ownership. However, migrating existing data warehouses to new technology can be daunting. PluralSoft helps ease this effort with services that simplify the move to this new and innovative technology.

The PluralMove methodology

Migrating to a new data warehouse architecture can pose challenges—from ensuring support for existing tools, to preserving investments in data models, business rules, transformation engines, and report and online analytical processing (OLAP) platforms, to change management and organizational resistance. Based on years of experience helping businesses navigate these typically troubled waters, the PluralMove methodology and PluralSoft Migration Workbench toolkit combine proven questionnaires, scripts, and tools that work together to help companies save over 40 percent in migration time and cost, and ensure repeatable, consistent migrations with less risk.

Plan the vision

The first stage in the PluralSoft methodology, the Planning Phase focuses on working with business and IT users to gain an agreed upon view of the goals and constraints of the migration project. In the end, a project structure document defines the approach to be taken in organizing and managing the effort, while a vision document describes any initial project risks and contingency plans.

Assess the existing environment

Once planning is complete, all tasks, processes, and time estimates for the migration effort are detailed. During this phase, PluralSoft analyzes the current environment—business, technology, and organization—to establish objectives.

Next, the PluralSoft Migration Workbench is utilized to analyze the current data model and existing Extraction, Transformation, and Loading (ETL) methods, as well as the current reporting and OLAP infrastructure. Migration strategies, such as cutover methods, are evaluated and user skill levels are assessed.

Design the solution

Designing the new data warehouse solution requires mapping data flows from the existing infrastructure to the Sun and Greenplum solution, including refining the logical data model to enhance the richness or cohesiveness of data, where appropriate. The logical data flow is then mapped onto servers, databases, file systems, disk drives, and storage arrays, and schemas are analyzed. Indexing strategies are modified to optimize load and query response time, and the portability of native loader tools, such as FastLoad, MultiLoad, and TPump are considered. Finally, connectivity from clients and source systems in the existing architecture are validated to ensure a smooth transition.

Develop the solution

The speedy development of new solutions is made possible by the PluralSoft Migration Workbench and other open source or third-party tools.

- Schema migration—A toolkit that aids the migration of tables, views, indices, constraints, stored procedures, and triggers to equivalent Data Definition Language (DDL) in the Greenplum Database environment. Database artifacts, such as groups, roles, and users are manually updated.

- Data Migration toolkit—Tools that utilize native source system utilities, such as FastExport, to extract and convert data for bulk uploading to the appliance solution via the Greenplum Database COPY feature.
- Query Migration toolkit—Tools that take care of database differences, such as custom SQL extensions or deviations from ANSI standards, to generate syntactically correct queries for the Greenplum Database environment. For example, BTEQ is used for writing batch SQL scripts in the Teradata environment. A typical BTEQ script is a combination of SQL statements and BTEQ tags. Converting a BTEQ script involves converting SQL statements and BTEQ tags to equivalent Greenplum Database SQL statements and target tags. All source database functions are converted to analogous target functions, including accounting for different outer join syntaxes.
- Bulk Load Converter—A tool for converting bulk loading scripts to the new platform. Every database vendor supplies a utility for loading data quickly and efficiently. For example, the Teradata FastLOAD utility loads data into empty tables. The Bulk Load Converter helps convert FastLOAD scripts by parsing information—variable declarations, NULLIF conditions, column to variable mapping, INSERT statements, DATE formats, etc.—and generates equivalent control tags for the Greenplum Database system.

Application Migration

During this phase, client applications, such as reporting and OLAP engines, are tested to ensure existing client applications not only connect to new data sources, but also return expected query results.

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For more information, visit sun.com/bidw or pluralsoft.com, or contact your local sales representative.

Deploy the new environment

During this phase, PluralSoft works with operations support personnel to plan the deployment. Suitable modifications are made to scripts to reflect the actual production environment, such as servers, databases, security credentials, schemas, file systems, disks, and storage arrays. In this joint exercise, migration program managers keep the communication channels constantly open to inform end users of any planned outages.

About PluralSoft

PluralSoft has vast experience in delivering large data warehouses on a variety of hardware and RDBMS platforms, specifically consolidating to and from Teradata systems at Fortune 1000 companies. With certified experience and a wide range of customized services, PluralSoft helps companies convert innovative ideas into implementable solutions. Data warehouse migration is a complex project, and transitioning on time, on budget, and with minimal system downtime is essential for the realization of measurable objectives. Strong expertise and time-tested, proven methodologies form the foundation of the PluralSoft approach, helping organizations select the right conceptual and procedural elements to successfully navigate projects through implementation, delivery, maintenance, and support. The result—agile, high-performance, business-driven solutions based on best-of-breed technologies that scale economically in tune with the evolution of decision making in your enterprise.