

Automated transformation from Teradata to a cloud-native stack or modern data platform

Moving legacy Teradata ETL and analytics workloads to a cloud-native stack/modern data platform helps enterprises lower licensing costs, release capacity, and enable on-demand scalability.

However, migrating specific Teradata file formats like BTEQ, TPT, MultiLoad, FastLoad, and FastExport is a complex task. Teradata scripts contain hundreds of conditional statements (business logic), macros, procedural statements, and output formats.

In addition, many enterprises are skeptical of the business and technical risks involved:

- Will there be any business downtime?
- How do I transform years of complex business logic and code?
- Will my workloads be optimized to address the nuances of the new environment?
- How will I identify migration candidates and decide on the right migration strategy?
- How do I seamlessly operationalize ETL and analytics workloads in the target environment?

The Impetus Workload Transformation Solution addresses all these concerns and identifies optimization opportunities at the schema, code, data, and execution level. Its intelligent code transformation engine automatically converts all types of Teradata workloads, logic, and workflows to a target tech stack of your choice.



KEY BENEFITS

1. 4x faster
2. 2x cheaper
3. 4x developer productivity
4. 100% cloud-ready
5. 100% automation across the migration lifecycle



WHAT'S POSSIBLE

- ML-based assessment and recommendation for the target architecture and tech stack
- Business logic conversion
- End-to-end transformation to cloud-native services of your choice
- End-to-end packaging, orchestration, and execution for the target
- Code optimization and query validation to avoid business disruption
- Automated legacy code transformation to a cloud-equivalent format
- Cost-performance ratio optimization
- Data governance and security compliance

How it works

The Impetus solution enables end-to-end automated transformation and operationalization of workloads in four steps.

STEP 1: Assessment and prescription

- Lists entire inventory for diverse workloads
 - Assesses Teradata DML and DDL scripts, application logs, execution logs, stored procedures, shell scripts, scheduler scripts, BTEQs, TPT, macros, and more
- Identifies complex interdependencies to group workloads for offload
 - Provides advanced filters according to workload type and an interactive graphical interface to deep dive into certain flows
- Advanced blueprinting of the target architecture
 - Strategizes partitioning, bucketing, clustering, keys, etc. (as applicable on the target) to improve CPU usage, memory usage, cache hit ratio, and disk I/O
 - Provides comprehensive, configurable recommendations for workload parallelism to ensure optimal performance on target
 - Provides actionable insights and prescriptive recommendations for future-state architecture and tech stack components

STEP 3: Validation

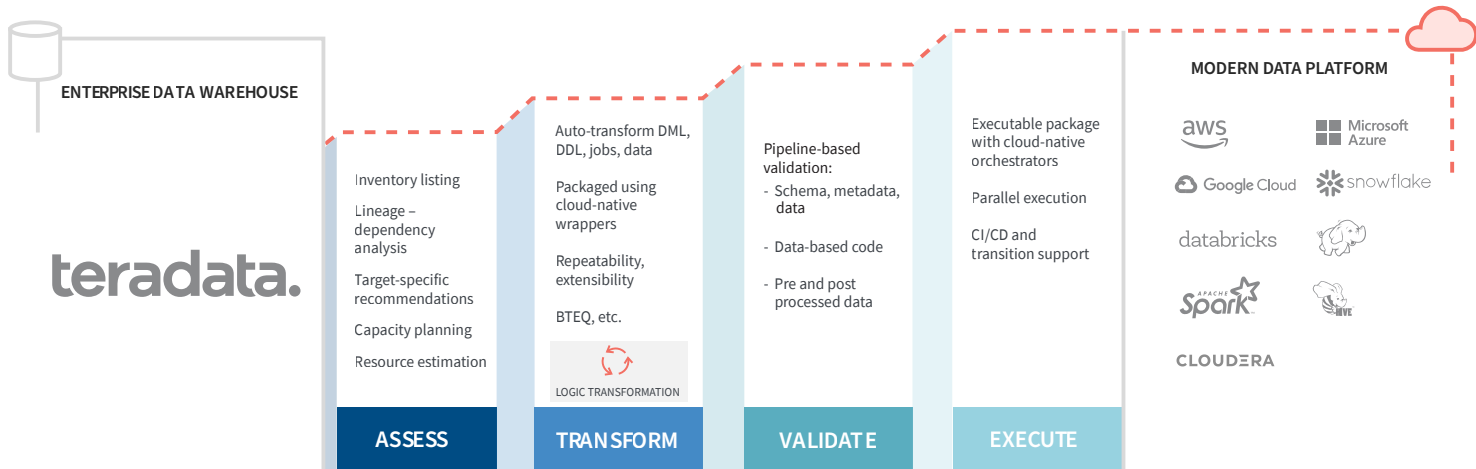
- Pipeline-based automated validation of the transformed code
 - Validates code at the row and cell-level and reports errors with a pluggable tool
- Data-based validation of transformed code
 - Auto-generates sample datasets based on complex query conditions – ideal for unit testing of the transformed queries
 - Feeds the customer-provided dataset for testing on real datasets – suitable for integration testing of the transformed queries

Step 2: Transformation

- Native conversion, packaging, and orchestration
 - Transforms core business logic to cloud-native wrappers or orchestrators
 - Converts Teradata constructs and stored procedures to cloud-native formats like Amazon Redshift, Azure Synapse, Snowflake, Google Dataproc, or PySpark
 - Re-packages to an open programming language of choice
 - Ensures end-to-end transformation of scheduler/orchestrator scripts to production-ready jobs on target
 - Ensures end-to-end execution on staging and production environment after system integration testing
- Notebook-based inline query editor to optimize or address errors
- Extensible tool and methodology
 - Converts code to a variety of target stores and formats, enabling enterprise-wide use

Step 4: Execution

- Delivers a target-specific executable package for cloud-native orchestration
- Ensures optimal performance through parallel execution
 - Provides parallel execution recommendations through exhaustive data-driven assessment
 - Generates required artifacts in the transformation output and executes them in parallel on production
- Supports productionization
 - Supports end-to-end transitioning into production and operationalization
 - Optimizes capacity
 - Stabilizes environment through a parallel-run period
 - Monitors operations to ensure implicit data governance and compliance on the cloud
 - Ensures continuous integration and delivery
 - Provides runbook documentation, training, and handholding



The Impetus Workload Transformation approach

Enterprise success stories

Impetus Technologies has helped several Fortune 1000 companies modernize their Teradata workloads and realize strategic business benefits.

Fortune 500 global enterprise technology provider realizes 20% SLA improvement by modernizing Teradata workloads on Azure

[Read more](#)

Multinational retail chain optimizes Teradata cost by transforming batch and ad hoc workloads to a modern data platform

[Read more](#)

Start your end-to-end Teradata workload transformation journey today! To learn more, write to us at inquiry@impetus.com

IMPETUS

Impetus Technologies is focused on enabling a unified, clear, and present view for the intelligent enterprise by enabling data warehouse modernization, unification of data sources, self-service ETL, advanced analytics, and BI consumption. For more than a decade, Impetus has been the 'Partner of Choice' for several Fortune 500 enterprises in transforming their data and analytics lifecycle. The company brings together a unique mix of software products, consulting services, and technology expertise. Our solutions include industry's only platform for the automated transformation of legacy systems to the cloud/big data environment and StreamAnalytix – a self-service ETL and machine learning platform.

To learn more, visit www.impetus.com or write to us at inquiry@impetus.com.