DATOMETRY

REPLATFORMING FROM TERADATA TO A MODERN CLOUD DATA WAREHOUSE IN SIX STEPS

The Datometry 6-Step Method gives IT leaders framework to replatform Teradata to cloud data warehouses with confidence

360° VIEW OF EXISTING SYSTEM

Datometry qInsight™ provides in-depth analysis of workloads and hi-res visibility into feature use and query complexity.

PRIORITIZATION OF WORKLOADS

Scorecard drives replatforming strategy and supports effective prioritization of workloads, accurate and without the guesswork.

SMART SCHEMA TRANSFER

Datometry Smart Schema™ generated by Datometry qShift™ emulates features not available on modern cloud data warehouses to provide full compatibility.

TRANSFER ONLY RELEVANT DATA

Selective data transfer eliminates unused or "dead" data, avoids unnecessary bloat, and keeps cloud resource consumption to a minimum.

SIDE-BY-SIDE TESTS BUILD CONFIDENCE

Ability to use existing test harnesses and tests accelerates time to value and cuts out lengthy and error-prone test processes.

100% COMPATIBLE RUNTIME

Datometry Hyper-Q enables business applications, originally written for Teradata, to run natively on modern cloud data warehouses.

As you join IT leaders worldwide in replatforming data warehouses to the cloud, Datometry Hyper-Q™ offers a powerful alternative to conventional and risky database migration. To take full advantage of the Datometry technology stack, we devised a simple to follow framework that provides a clear structure for your replatforming project.

REPLATFORMING CHALLENGE

IT leaders must operate within several constraints and address key challenges effectively.

- Decide on approach: off-load select workloads only, or replatform entire system
- Execute within deadlines: align with company's overall timeline for moving systems to the cloud
- Operate within a fixed budget: migration projects are notorious for spiraling out of control
- Formulate a solid risk mitigation strategy to advance enterprise and career

In addition, IT has to provide certain levels of business continuity during the move, which rules out drastic measures such as complete rewrites or redesigns from scratch.

THE DATOMETRY 6-STEP METHOD

The Datometry 6-Step Method™ helps enterprises break down the overall challenge, devise an implementation plan specific to each enterprise, and execute successfully.

Datometry software products form the foundation of each step. Full automation replaces guess work with accurate execution. Complete visibility at any point in time and control of the process ensures timely and successful implementation.

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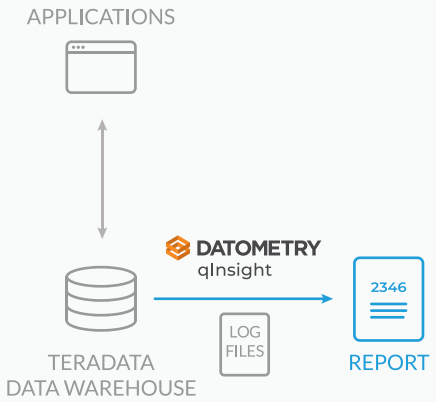

STEP #1: IN-DEPTH ANALYSIS

Datometry qInsight simulates execution of existing Teradata workloads. Using the logs and empty schema of the Teradata system, qInsight compiles a high-resolution analysis of queries and statements. The result is a detailed report that provides a full analysis of the system. It identifies potential challenges when replatforming and can even be used to evaluate different cloud data warehouses and determine fit.

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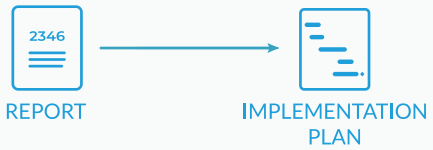

STEP #2: BUILD IMPLEMENTATION PLAN

Based on the report produced by qInsight in Step 1, IT leaders decide on an approach confidently taking business requirements into account:

- Determine priority order of applications to move
- Understand and preserve dependencies between applications when moving
- Optimize workloads by removing unused database objects or operations

The resulting implementation plan provides both guidance and flexibility while identifying any risks.

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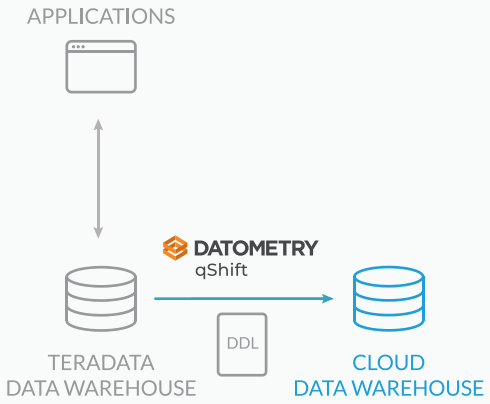

STEP #3: TRANSFER DATABASE SCHEMA

Datometry qShift™ converts the database schema from Teradata into a Smart Schema™ and transfers it to the cloud. qShift is the industry's most comprehensive schema translation—and the only one that is truly capable of converting all schema elements.

qShift produces a Smart Schema that emulates any functionality of Teradata's that is not available on the cloud target system. This includes advanced features such as global temporary tables, recursive views, a variety of procedural elements used in stored procedures.

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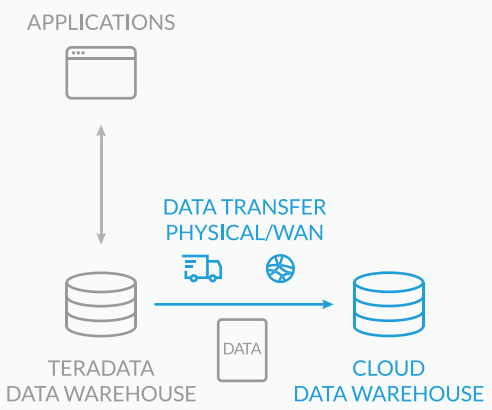

STEP #4: TRANSFER DATA TO THE CLOUD

Once the Smart Schema is set up, transferring data to the new target database is straightforward.

Using either the bulk-load utilities of the new target data warehouse or repointing ETL systems populates the cloud data warehouse efficiently. Depending on data center-to-cloud connectivity, physical transport of data may be advisable.

Data transfer, incremental loads, and cut-over are well-understood concepts and widely supported by cloud-specific tooling and system integration services.

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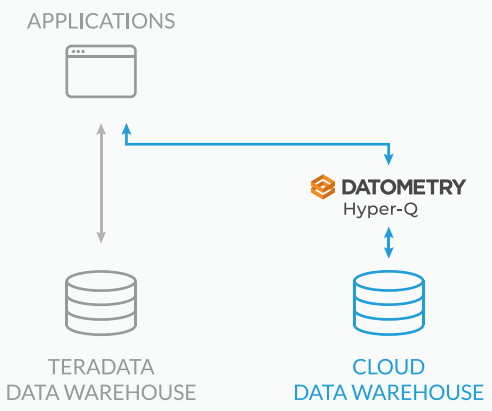

STEP #5: SIDE-BY-SIDE TEST EXECUTION

Datometry Hyper-Q enables any existing application to run natively on the cloud data warehouse. That includes test systems and harnesses that would otherwise have to be recreated from scratch.

Side-by-side testing, where the same tests are run against both the legacy Teradata system and the new cloud data warehouse, provide the highest level of quality assurance and confidence.

Even logs can be directly replayed to simulate end-of-year reporting or other significant events. This provides clarity and instant confidence in the resulting solution.

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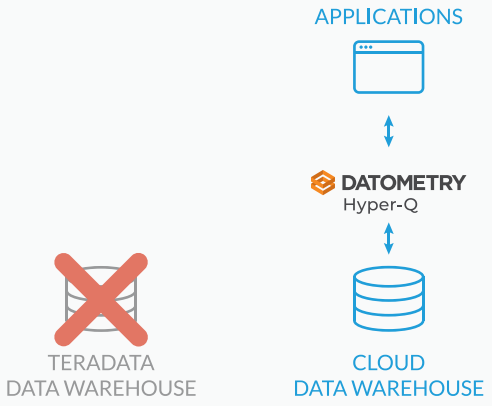


STEP #6: DEPRECATE TERADATA

Datometry Hyper-Q lets all existing applications run natively on the new cloud data warehouse. There is no need to rewrite or reconfigure applications. Even custom or customized applications are immediately productive just by repointing them to the new system.

Repointing can be as simple as modifying DNS entries, depending on setup. This is part of a cut-over strategy that includes catch-up loads for final data transfer.

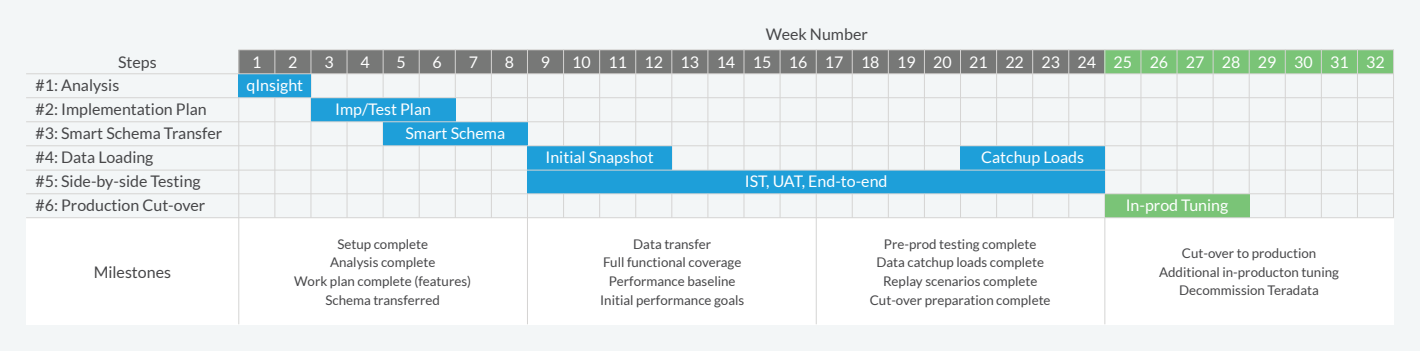
Once the new cloud data warehouse is live and applications are running using Hyper-Q, the old data warehouse can be decommissioned safely.

PROJECT TIMELINE

The 6-Step Method can typically be executed in a very compact timeframe of 6 to 9 months. This is in stark contrast to conventional migrations notorious for their constantly slipping timelines and overall duration. The below diagram shows an exemplary chronology of such an implementation and its components. The most critical elements in an implementation are analysis and up-front planning.

Once the planning milestone is completed, data loads and testing can simultaneously proceed. Testing can be further accelerated by executing independent test categories in parallel.

Procedures involving data migration and cut-over are dependent on existing infrastructure. Times given here should be interpreted as guidelines.



Sample timeline for full replatforming of medium sized EDW from Teradata to a modern cloud data warehouse

HOW TO GET STARTED

Whether an enterprise seeks to replatform only individual applications or their complete Enterprise Data Warehouse to the cloud, the Datometry 6-Step Method provides a robust framework that guarantees success. It provides guidance and combines the unique knowledge of subject matter experts with fully automated software products that accomplish each task in a short order of time.

IT leaders are in full control of the process, have the visibility they need, and the assurance of the most efficient execution possible.

Start transforming your organization and tap the benefits of cloud-based data management today. Leverage the 6-Step Method to produce results fast in a cost-effective way.

Visit https://datometry.com/get-started for more information.

ABOUT DATOMETRY

Datometry is the data virtualization platform for the cloud. Our technology brings unprecedented simplicity to enterprises that want the benefits of modern cloud databases—without the complexity of reinventing existing applications and business processes. Find out more at **datometry.com**