

# TERADATA DATA LAB

## SELF-SERVICE, COLLABORATIVE ANALYTIC DEVELOPMENT DRIVES IDEAS AND INSIGHTS

Success in today's competitive marketplace requires the agility to quickly test theories and new ideas that drive innovation, exploit market opportunities and react to competitive pressures. Companies need the ability to extend their analytic practice so they can get the right analytics to the right people at the right time. That means adding vital flexibility for exploring new, unrefined data and experimenting on emerging theories without long planning periods.

With 10 million customers, Bouygues Telecom is one of largest telecom companies in France. To stay competitive, the company had to lower costs without negatively affecting service.

The decision was made to consolidate its analytic data into a single data warehouse and to create temporary sandboxes—or data labs—to develop high-speed solutions and answer critical questions. Data labs allowed the company's business units to experiment with new data, deal with requests and test queries before integrating into the production data warehouse where it could be accessed by everyone.

**“When we began construction of the data warehouse, we realized we needed to arbitrate needs and prioritize business requirements, because there is never enough money to do everything that everyone wants. So we needed a plan that would help us combine agility with strong governance for our data warehouse environment. We achieved a 33 percent cost savings, but we were able to create 88 percent of the value that the business units requested. And we did this while decommissioning 100 percent of the old systems. So it was a successful arbitration.”**

Yann Decre, Business Intelligence Director and Chief Data Officer, Bouygues Telecom

Ironically, business analysts are often unable to access their own data warehouse because of the governance and safeguards built into the data warehousing process. These obstacles make it virtually impossible for them to work with untested data or to submit queries that may impact other data warehouse users. As a result, data marts proliferate throughout the enterprise, producing inconsistent analytic results and driving up IT cost with inefficient processes and redundant systems.

What's needed is a self-service solution that delivers immediate access to data that enables businesses to explore and examine new ideas and data. This would make it easy to identify new trends and insight or react to immediate business issues. A Teradata® Data Lab offers just such a solution.

## AGILE ANALYTICS DRIVES PERFORMANCE

A Teradata Data Lab enables self-service BI and analytics by simplifying the provisioning and management of analytic workspace within the production data warehouse. By allocating that space, it provides your lab users with easy access to critical production information without moving or replicating data. And it provides your entire business with flexibility to self-provision space and experiment with new data and theories without compromising data quality or performance of the production data warehouse.

The result is an environment that allows your business to maximize hardware, software and human resources; streamline your processes; and deliver fast and accurate answers while controlling the costs and other issues that stem from data mart proliferation.

## BUILT-IN BUSINESS AND IT BENEFITS

An agile analytic data warehouse with an integrated data lab provides both the IT technician and business analyst with an array of advantages.

### FOR IT USERS

Teradata Data Lab safeguards and controls production data to ensure predictable workload performance and maintain data quality within the data warehouse. It also

provides an interface to easily establish guidelines and rules for the work area by controlling size, expiration dates and user access. Teradata Data Lab implements these guidelines to help business analysts manage individual work areas and delivers these advantages to your IT department:

- ~ Control the environment with data lab hierarchy and workload management to ensure production users are not impacted by the exploratory nature of analytic development.
- ~ Governance is provided by enforcing expiration dates to data labs to prevent unintentional growth of data labs.
- ~ Eliminate shadow IT and personal external data marts to help control costs.
- ~ Optimize data integration by identifying and integrating only the data that provide high proven business value.

## FOR BUSINESS USERS

Teradata Data Lab provides an interface that allows your business users to easily provision space for exploration and experimentation within their production data warehouse. This interface allows business users to load and analyze data using their favorite tools or share their analysis and data with others. Teradata Data Lab simplifies collaboration, self-service and data access by eliminating unnecessary data movement and replication. Here are some of the advantages Teradata Data Labs offers your business users:

- ~ Rapid exploration and development environment with self-service analytics, provisioning and management.
- ~ Quick time to value by accelerating and simplifying the process for business users.
- ~ Eliminate data movement by allowing users to load and join new data with production data.
- ~ Access to new data sources without waiting for a full data warehouse integration project.
- ~ Simplified collaboration: Data lab users can easily invite others to share their analytic data and results.

## SMART LOADER

Teradata Studio complements Teradata Data Lab by providing users with smart self-loading capability. This allows data lab users to easily load their data without involvement from DBA, Hadoop programmers or ETL specialists. With Teradata Studio, users may easily browse through Teradata databases and Hadoop

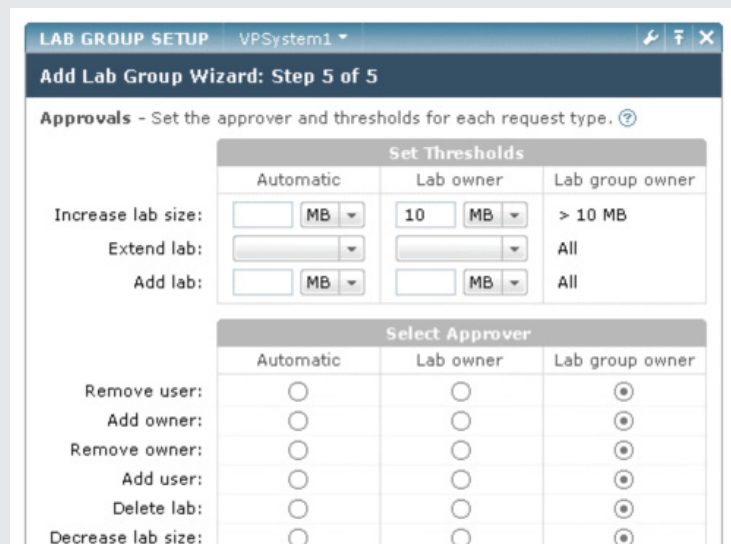


Figure 1. An interface for IT to quickly establish the data lab and customize permissions for the lab group.

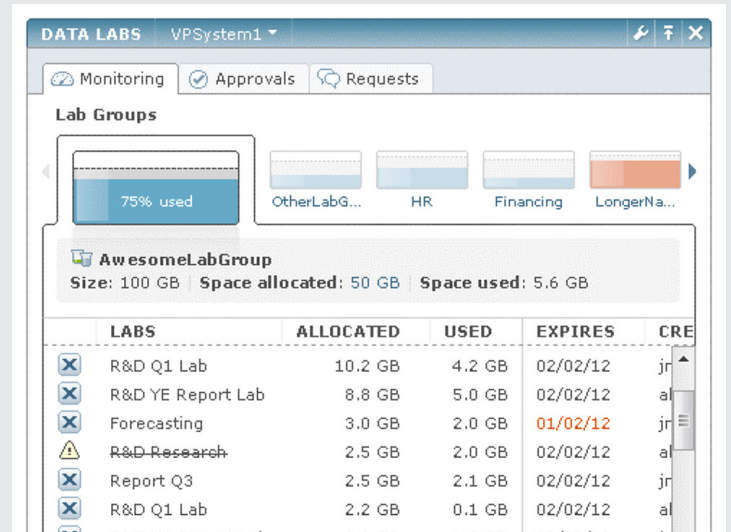


Figure 2. An interface for the business user to provision and manage their data labs.

Distributed File Systems (HDFS) and drag and drop tables into data labs on your production system. In addition, smart loader for data labs provides a wizard that examines data from .csv or Excel files to determine its structure, builds the load commands and, if necessary, creates the target table within the data lab and loads the new data.

## TIME-TESTED SUPPORT AND SERVICE

Teradata Corporation also provides you with proven methodology and services, plus the tools to enable agile development within your Teradata data warehouse. And Teradata Data Lab provides built-in governance and tools to help DBAs manage the entire data lab environment with minimal effort.

Our Data Lab consulting services will help you establish internal work areas so users can handle ad-hoc, experimental analysis in a safe, private copy of the data. This avoids skunk works data marts and costly procurement cycles. In addition, our workload management capabilities enable IT to control priority and workload processing while protecting the production applications and users' SLA. These features combined with the Teradata Integrated Data Warehouse provide on-demand, self-service capacity, upward scalability, complete control of service levels and parallel performance on a single platform.

Just as important, a Teradata Data Lab helps your business meet a wide range of day-to-day business challenges, including:

**Costs** – Thousands of small, non-mission-critical applications running on separate servers and storage systems all carry a minimum cost of hardware, licenses and labor. A data lab lets you minimize these costs by leveraging the extra cycles in a production data warehouse.

**System Utilization** – Many data warehouses and data marts are not fully utilized, but they still consume electricity, cooling, labor and floor space 24 hours a day.

**Time to Market** – Innovation will no longer be stifled due to time delays waiting for IT support and costs of procuring servers, networks and storage to test new ideas and theories.

**Flexibility** – Business analysts need an environment where they can quickly integrate and derive new data or analytic models for application prototypes. While there's a lot of integrated and reusable data in the production data warehouse, data are also stored in silos (logical data marts) with limited integration and reuse. Or data may be stored externally in an Excel file or data mart.

**Analytic Deployment** – Often analytics are built by one team on a single development system, and then ported by a different team into the production system with different data models, quality and definition. This leads to delays in deployment and impacts the quality of the analytics.

## A COST-EFFECTIVE, COLLABORATIVE ENVIRONMENT

A Teradata data warehouse has always enabled business agility by allowing users to ask any question on any data, at any time. What's different today is the need to apply the same business agility to new, untested, uncleansed data that have not yet met the criteria to reside inside the data warehouse. A Teradata Data Lab meets that demand by providing you with a collaborative self-service environment that allows analysts to accelerate time to value, reduce costs with shared resources and data, and promote structured corporate analytics by controlling data mart proliferation.

Teradata Data Lab actually provides the foundation for self-service BI by providing an interface to automate much of the provisioning and management of analytic workspace. And it offers the on-demand capacity you need for short-term projects such as ad-hoc analysis, data mining, proof of concept testing and quality assurance testing.

## WHY TERADATA?

Teradata Corporation is the world's leading analytic data solutions company focused on integrated data warehousing, big data analytics and business applications. Teradata's innovative products and services deliver integration and insight to empower organizations to achieve competitive advantage.

## FOR MORE INFORMATION

To find out how a Teradata Data Lab can provide agility to explore new data and test theories so you can improve your decision-making capabilities and grow a stronger, more productive business, contact your local Teradata representative or visit [Teradata.com](http://Teradata.com).



10000 Innovation Drive Dayton, OH 45342 [teradata.com](http://teradata.com)

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