

Teradata Data Mining Warehouse Solution

High-powered decision support for the most complex queries

Uncovering the unknown is never easy – especially in exploration and data mining activities. Searching for previously unknown patterns means sifting through detail data and running multiple iterations of complex, unstructured, ad hoc queries against huge volumes of current and historical data.



Unfortunately, not all data warehouses provide an environment that encourages exploration and experimentation to find the hidden jewels within your data.

Why? Because some data warehouses are designed for a specific business application that isn't conducive to ad hoc queries on data with previously unknown relationships. And other data warehouses are tightly tuned to day-to-day operational questions making it impractical to run complex queries.

Many non-Teradata solution users who aspire to run analytics on enterprise data find it difficult, if not impossible, to perform data mining and exploration tasks against their data warehouse. Because of the potential business value of these functions, not doing analytics is not an option.

One solution is to introduce analytic data marts and desktop analytic tools, which are great solutions for small or medium data volumes. However, these solutions soon become inefficient as data volumes grow. Another potential problem is the proliferation of analytic data marts throughout your warehouse environment. As you introduce analytic data marts to address business problems across your enterprise, you introduce new problems ranging from increasing costs to maintain analytic servers to the lack of an enterprise-wide view to solve complex business problems.

Exploration and data mining tasks require a data warehouse that centralizes analytic data to allow advanced business intelligence with efficiency only found with in-database technology. You also need the ability to create a data structure that is independent of business applications to enable experimentation and exploration, as well as the ability to query the warehouse with unstructured or ad hoc queries that other architectures can't accommodate.

Where do you find a data warehouse environment that will provide these capabilities? You find it in Teradata.

The Teradata Solution

The Teradata® Data Mining Warehouse Solution provides you with a high-powered analytic warehouse that streamlines the data mining process. Data is centralized in the analytic warehouse to create a consistent, up-to-date, single view of your business. Leveraging the inherent, parallel processing strength of Teradata Database and combining it with Teradata Warehouse Miner's in-database mining capabilities, you can significantly improve the accuracy and speed with which you can mine large data volumes.

The Teradata Data Mining Warehouse Solution combines highly scalable hardware, a world-class parallel database, the industry's only comprehensive in-database data mining technology, and Teradata expertise in data warehousing and data mining to deliver a solution to solve your most pressing business problems.

What makes the Teradata Data Mining Warehouse Solution so unique?

Teradata Database

No other database matches Teradata's scalability, performance, availability, and reliability. Exploration and data mining require the ability to submit queries on data with previously unknown relationships. These queries can span multiple databases (product, customer, billing,

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Teradata Warehouse Miner's SQL models can run in a fraction of the time it takes using the traditional modeling technique. Typically, models are run against hundreds of millions, or even billions, of records. One Teradata customer had previously spent 312 hours to run five models against 250 million rows, extracting the data into an analytic server. Although the information gathered from the analysis was valuable, this customer couldn't afford to continue the project. Before canceling, they called Teradata. Teradata converted these models into SQL models leveraging Teradata's in-database mining techniques. All five analyses ran in only 12 hours.

inventory, etc.) across multiple business units. Teradata Database provides the flexibility and performance to support an application-neutral data structure, as well as data from different subject areas with no predefined relationships or specialized tuning required.

Teradata Warehouse Miner

Teradata offers the most efficient and comprehensive in-database data mining solution. In-database techniques allow you to perform analytic functions in the database, eliminating the need for data movement. By removing the data movement bottleneck, your analyst can focus on analysis, not data acquisition. Data mining is a repetitive process where each iteration of analysis refines your models. So the faster analysts can perform each iteration, the more iterations they can perform, thereby, creating a better model faster.

Data Mining Expertise

Teradata's mentor program will put our experience and expertise to work for you to help integrate predictive analysis into your business process. And we offer much more than "tool training." Teradata provides a portfolio of services that solves today's business problems and teaches you how to expand and maintain models as your data and business requirements change.

Bottom Line Benefits

Teradata lets you off-load your exploration and data mining activities from your business-critical operational or application data warehouse onto a high-powered analytic warehouse designed for decision support. This data mining warehouse fits into any data warehousing environment, regardless of architecture or vendor platform. It also complements your existing data mining environment, providing the best of both worlds. Teradata Database provides the ideal foundation for

high-speed, parallel data preparation where analysts can explore, create, and transform data directly in the database, eliminating the need for data movement. The analyst then has the option of building the model directly in the database using Teradata Warehouse Miner or another desktop data mining tool. Finally, the analyst can rebuild the model using Teradata Warehouse Miner where the resulting SQL models are validated against the warehouse data. The result is a highly optimized SQL model, built and executed in a fraction of the time required by desktop mining techniques.

Why Teradata?

Teradata Corporation has led the technological evolution of data warehousing and decision support for more than 25 years. We have a long, successful track record of helping organizations – in industries as diverse as retail, transportation, financial services, telecommunications, travel, government, and e-commerce – build better solutions that help solve many business problems.

For More Information

To learn more about how the Teradata Data Mining Warehouse Solution can help solve your business problems, contact your Teradata representative or visit Teradata.com.

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