

Teradata Performance and Capacity Services

Professional Services

Business value derived from Active Data Warehousing™ capabilities has changed the demands and expectations placed on a data warehousing platform. Established performance management practices are now a requirement to realize maximum value and performance from your Teradata® system investment.

Continually changing variables include mixed workloads, analytical applications, increasing data volumes, and evolving business processes. These factors drive the need for a proactive approach to managing system performance, meeting service level agreements (SLAs), and maximizing capacity of your Teradata environment. Teradata Performance and Capacity Services are designed to provide these capabilities and provide mentoring for ongoing performance continuity.

Teradata recognizes that optimizing your data warehouse is critical to your return on investment. Teradata consultants can help by providing services that maximize and enhance the performance of your data warehouse. More importantly, because the needs of your business and the demands on your data warehouse will continue to change and evolve, Teradata won't simply perform these services, we'll mentor your personnel on practices for reporting and interpreting performance data. In other words, your database administrators become more self-sufficient and find bottlenecks early, before service levels become an issue.

Teradata Performance and Capacity comprises five integrated, but distinct, services:

- > Data Collection and Reporting
- > Application Performance
- > Workload Management
- > Capacity Management
- > Multi-Temperature Services

This holistic approach to performance management provides the foundation for meeting mission-critical SLAs and squeezing additional cycles from your existing environment. These services can also be included as part of your plans to upgrade your system and leverage the latest functionality that Teradata offers.

Data Collection and Reporting

Teradata has created a performance reporting database based on years of performance consulting. The database resides within your Teradata system and provides diagnostic reports and graphs used to tune applications, monitor performance, develop capacity plans, and operate the Teradata system at peak efficiency.

These reports are generated by more than 100 data points collected from Teradata Database at specified time periods. Performance data collection is the foundation for optimizing application performance, workload management, capacity management, and multi-temperature.

Application Performance

Application Performance is critical to maximizing the value of your Teradata system. Teradata consultants will utilize key reporting metrics to determine if applications are handling queries in the most efficient, productive manner while



utilizing the latest Teradata Database functionality. We'll also make recommendations and/or changes to the applications to improve overall performance.

Our consultants will evaluate each application to assess its interaction with the physical data model, looking closely at indexes, statistics, and compression. They will analyze SQL design and analyze performance of various queries. Key Teradata Database features, such as value list compression, multi-level partitioned primary index, and materialized views can be enabled to apply maximum resources to your most critical workload while balancing the performance of each application.

Teradata Performance and Capacity Services

As a result, you'll gain optimized price/performance for all of the applications running on your Teradata system.

In addition, Teradata consultants can mentor your staff to perform the same tests and identify performance issues. By enhancing your team's ability to address application performance, you will have made a solid investment in performance improvement.

Workload Management

As your data warehouse evolves, handling mixed workloads will become increasingly important. It's imperative that your warehouse handle strategic analysis while providing quick response to informational requests that drive daily operations. Establishing priorities for query types and users can be difficult and challenging.

Teradata consultants will analyze your query traffic and establish a set of rules that will deliver service availability, predictable performance, and process improvements.

A key part of this service will be assessing and tuning existing tools and features such as Teradata Workload Manager, Priority Scheduler, and Teradata Active Systems Management.

Our consultants will help you manage mixed workloads better, increase overall workload capacity, and ensure that system resources are allocated properly.

Teradata workload management tools enable demands to be prioritized using a variety of priority weightings and workload management rules. This allows the throttling of applications that consume large amounts of resources, such as data mining, to minimize the impact on other work. Queries are also reliably managed so they run at the most appropriate time based on predetermined thresholds.

With mixed workload requirements constantly changing and new and different peak demands placed on your system, the ability to adjust and handle changing business priorities is essential. Mentoring your staff about performance data collection and performance features and tools available to them will help drive ROI of your analytical applications.

Capacity Management

Planning for system growth and ensuring predictable performance with growing demand is a key component of maintaining a successful data warehouse. Teradata can help you achieve this goal.

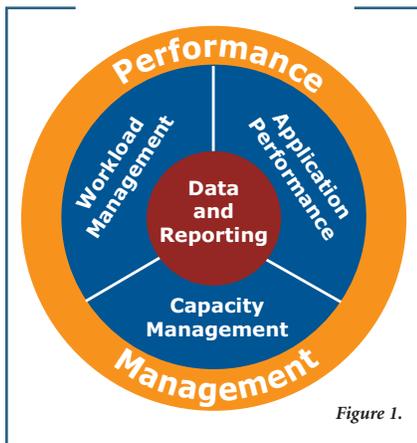
Using proven methodologies to estimate growth in data volumes, users, and applications, Teradata consultants can build a series of growth models that will accommodate future demands placed on your data warehouse. This includes a documented growth plan that provides various estimates and configurations that detail how your system should be configured to meet future demands.

Multi-Temperature Services

Business data volumes are exploding at an unprecedented rate. In addition to detailed transaction data, legal retention requirements mandate that years and years of historical data be readily accessible for analysis.

Multi-Temperature data warehousing describes an implementation concept where the Teradata Database manages both the active (hot) data and the inactive (cool) data, which has not traditionally been kept in the data warehouse due to cost constraints.

Teradata consultants will conduct interviews and analyses to identify business processes that can use cold data or a mix



Teradata Performance and Capacity Services

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of cold and hot data; and defining existing and future application data requirements and application workload profiles. We also identify storage optimization opportunities and design a solution that could include changes to the data model, load processes, and application access capabilities.

Availability of Teradata Virtual Storage, an optional software-based storage subsystem that operates between Teradata Database and storage arrays, enables mixing storage technologies and automated temperature-based data migration within or between drives as data temperature is established. Ultimately, Teradata Virtual Storage Multi-Temperature enhancements enable the mix of larger and smaller capacity drives within a clique to provide a lower cost per unit of data storage for less frequently accessed data.

The Data Warehouse Experts

Few companies will make a more strategic technology investment than when they deploy an enterprise data warehouse. Who better to help you plan for future data warehouse demands and growth than Teradata Corporation, the global leader in data warehousing?

Teradata is the world's largest company solely focused on creating enterprise agility through database software, enterprise data warehousing, data warehouse appliances, and enterprise analytics.

That's why many of the world's most successful companies trust Teradata as their solution provider. We've built more than 1,900 data warehouses that are used by businesses of all sizes around the world.

We also understand how important it is for you to achieve optimum performance levels from your Teradata system. The hardware, software, and applications must provide consistent, predictable performance to ensure a strong ROI. The unique combination of Teradata features, tools, and experience is unmatched in the data warehousing industry.

For More Information

To learn more about Teradata's Performance and Capacity Services, contact your Teradata representative or visit Teradata.com.

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