

Teradata Virtual Access

The Data Problem? Or the Decision-Making Opportunity!

Data is the fastest growing resource in every business. Figuring out how to manage and exploit your data – about customers, suppliers, transactions, products, and channels – is critical to profitable growth, and it will only continue to increase in importance. Michael Brodie, the Chief



Scientist at Verizon, reported in 2004 at the Very Large Database Conference that “typical large companies have 1 petabyte – 1000 terabytes – of data stored in more than 1000 locations supporting 5000 applications.” No wonder people talk about the “information explosion” problem.

Teradata’s own research confirms that executives face three issues: growth of

data, growth in the number of decisions needed, yet a decrease in the time to make decisions.

With the volume of data increasing at such a rapid rate, business executives in all industries face open questions of how to cope with all the data, and how to turn that problem from a decision-making crisis into a decision-making advantage.

Teradata and SAP to the Rescue

Teradata Corporation and SAP® have partnered to create a partnership focusing on helping companies in industries with high data volume requirements. Teradata is committed to helping SAP customers with needs for strategic enterprise analytics to make better business decisions.

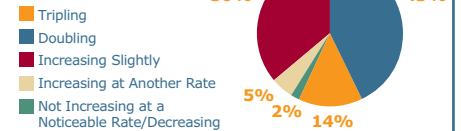
Teradata complements the SAP NetWeaver® architecture and, in particular, SAP® NetWeaver BI, with Teradata capabilities by using SAP standard interfaces and certifications to protect your investments.

As a Teradata customer you’re already familiar with the advantages of an enterprise-wide data warehouse. And as an SAP customer, you may already have sizeable data volumes from mySAP™ applications in SAP® R/3® or SAP BW data warehouses.

- > Leverage your investments in SAP and Teradata.
- > Access information seamlessly from SAP to Teradata using Virtual InfoCubes.
- > Use Assessment and Implementation Services.

Decision-Making Crisis

Amount of data available to you is ... every year:



Number of decisions you make daily has:



You have more or less time to make key decisions:



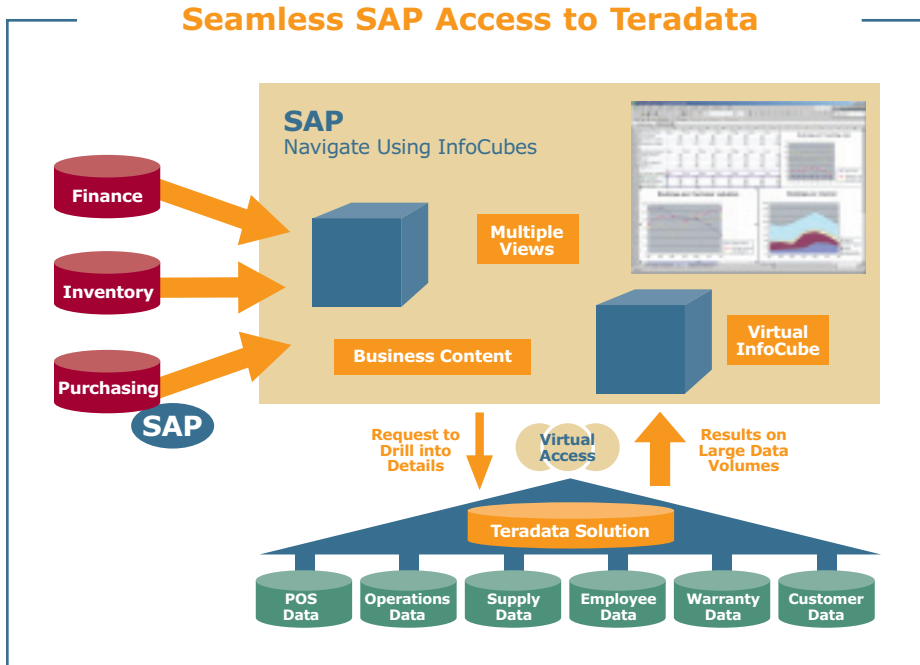
Source: Teradata Report on Enterprise Business Decision-Making, 2004 Survey of 202 senior executives, 51% VP or higher, all companies \$500M+

These are both significant investments, and the question is:

How Can I Leverage My Investments in Teradata and SAP with Minimum Disruption to My Current Systems?

It’s unlikely that you are going to stop everything and put all your SAP data in Teradata, or all your Teradata data in SAP NetWeaver BI. Yet for a variety of business reasons, it may be important to correlate financials in SAP with customer data in Teradata, or manufacturing data in SAP with financial information in Teradata.

Teradata Virtual Access



One way of solving this dilemma is to use the Teradata® Virtual Access solution, for SAP: the first offer in our Teradata Integration Suite. This is a software and services offer, which provides benefits for both the Business User and the IT Department.

How It Works

As the figure above shows, SAP loads data from a variety of front-end SAP and non-SAP data sources into SAP NetWeaver BI. Here we show Finance, Inventory, and Purchasing data sets but those are only a few of the possible sources. When the information is loaded into SAP NetWeaver BI, Information Cubes (or InfoCubes) are created that are then queried by end users.

Typical tools for viewing the data might include SAP NetWeaver BI's BEx (Business Explorer) or third-party SAP-certified tools such as Cognos® or MicroStrategy® for reporting. That's SAP, today.

Teradata provides even more access to data for SAP users, especially when a large amount of the data does not already reside in SAP NetWeaver BI, or when higher performance is needed. This includes four common cases:

- > Access to non-SAP data stored in Teradata where companies choose not to put that data in SAP NetWeaver BI. Information such as market basket point-of-sale detailed data, or employee data in Teradata might complement the information already in an SAP system.

- > Access to summary data in SAP NetWeaver BI with access to detailed data stored in Teradata using SAP drill-through capabilities.
- > Access to current (e.g., current quarter) detailed data stored in SAP NetWeaver BI, with access to historical data in Teradata. Periodically (and automatically) aged data can be rolled off to Teradata.
- > Access to legacy information which is not in Teradata or SAP, but can be consolidated into Teradata.

The technology behind providing access is called SAP NetWeaver BI Virtual InfoCubes. These look to users like basic SAP NetWeaver BI InfoCubes, but the data resides in Teradata.

Two things are important about Virtual InfoCubes. First, the end users require no new training. They continue to run applications and access information through InfoCubes in SAP NetWeaver BI. That includes using the report-to-report interface for navigating within SAP NetWeaver BI and for jumping into other attached systems. The difference is that behind the scenes, a request turns into a Teradata request for more detailed data. So the first part of the solution allows arbitrary levels of drill-down to detailed data, using SAP front-end tools to drill through to Teradata. Second, the end users can access non-SAP data that may reside in Teradata if the system administrators set up new Virtual InfoCubes for new subject matter areas.

Teradata Virtual Access

Many joint customers of both SAP and Teradata see the “1+1=3” advantages of being able to access all their data using familiar BI access tools.

Advantages for Business Users and for IT Departments

For the Business User, it opens up new enterprise analytics possibilities, which are industry-specific such as:

- > In the product arena, being able to track every product at every point in the value chain can provide your supply chain and partner management employees with a competitive edge. For example, we know that RFID tagging will dramatically increase the amount of data about products – the key question is how to parlay all that additional product information into business value.
- > In the financial space, having detailed data at the financial analyst’s fingertips can yield faster financial insights such as the ability to spot anomalies and correct them quickly, help close the

quarterly or annual books faster, and speed compliance with government financial reporting requirements.

- > Detailed customer data means that marketing and sales can do profitability analysis at the individual customer or account level, which often shows how to make better decisions about which prospects to target, how to service customers, how to do better merchandising and marketing, as well as how to focus on the right customer processes to increase satisfaction.

But the benefits don’t stop with the business side of the house. This solution also provides substantial advantages for the IT department.

First, you can achieve lower IT costs. This partnership makes it easier for you to:

- > Drive down total cost of ownership, and free up money for innovation, by consolidating info systems into the SAP NetWeaver environment (enhanced with Teradata).

- > Implement applications faster and realize ROI sooner.
- > Reduce risk (vs. custom development) to interconnect.

To elaborate, the trend now for IT departments is called consolidation – the adoption of a single vendor stack, strategically aiming at adopting service-oriented architectures and web services for deployment. If you have adopted the SAP NetWeaver environment, Teradata can accelerate the value that you achieve from NetWeaver because consolidation of data systems is simpler and cheaper with Teradata. We have experience with more than 125 accounts who consolidated complex legacy information systems into Teradata enterprise systems, which provides a huge reduction in the IT costs for licenses, systems, and people. Having all the information at their fingertips also makes life considerably easier for application developers, and reduces project development risks.

Second, we provide Investment Protection, because you can leverage SAP tools and functionality to access detailed data:

- > No new licenses for additional BI tools.
- > No new training or retraining costs for your users.

“We are delighted that SAP and Teradata as two of our strategic software partners are going to build a strong strategic relationship and are excited and expectant about the opportunities for improving our BI infrastructure and business processes.”

– Axel Hopp, Division Manager, METRO Group, April 2004

Since our offer fits seamlessly into the SAP environment, you can leverage your training and tools investments with Teradata. This preserves existing investments in SAP tools, such as Business Explorer, as well as third-party BI tools like Cognos or MicroStrategy. You may also realize a savings by consolidating ETL approaches, since many ETL vendors like IBM IIS® and Informatica® work with both Teradata and SAP.

Summary

Teradata complements SAP with greater data access and advanced analytics. The key piece of the Teradata Virtual Access, for SAP offer is Virtual InfoCubes, which to SAP users look and behave like SAP native InfoCubes, but under the covers access remote data stored in Teradata. Queries on Virtual InfoCubes are transformed into Teradata queries, and all the power of Teradata is brought to bear on materializing answers in parallel.

This solution complements the SAP NetWeaver BI layer of SAP NetWeaver in six ways:

1. No limits on the amount of data; leverages Teradata strengths in scalability, performance, and flexibility.
2. All information accessed through existing end-user BI tools; no end-user training needed.

Teradata Virtual Access, for SAP Components
Software <ul style="list-style-type: none">> ABAP function module and Java service, a J2EE application implemented as a Stateless Session Bean residing in the SAP Application Server> Complements SAP BW and SAP NetWeaver BI from release 3.0 and higher
Services <ul style="list-style-type: none">> Assessment Service: two-week engagement to review business and current systems, establish vision, objectives and goals, develop future state landscape and implementation roadmap, and conduct executive briefing.> Implementation Service: time depends on the scope defined in the Assessment Service. Includes project management, metadata mapping (subject matter mappings), master data mapping, installation, performance tuning and optimizations (e.g., indexes on Teradata).

3. Information access across underlying systems is seamless; all SAP and Teradata data can be accessed via InfoCubes.
4. Analytical queries can cross subject-matter functional boundaries, opening up richer and deeper business insights on SAP and Teradata data.
5. Provides the overall lowest total cost of ownership (TCO) for BI solutions. You can save money by using Teradata to consolidate information from non-SAP data sources, and benefit from

Teradata's more efficient data storage and lower database administration costs.

6. Thousands of users can access all detailed data in real-time.

For More Information

To learn more about how the Teradata Virtual Access solution, for SAP can help your company leverage your investments in Teradata and SAP, contact your Teradata representative or visit Teradata.com.

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