SAP Solution Brief
SAP Sybase IQ

Efficient and Effective Delivery of Key Information for Today's Decision Makers

Quick Facts

Summary

The SAP® Sybase® IQ server delivers analytics speed and power while dramatically improving affordability and manageability. Its column-oriented, grid-based architecture, and patented data-compression and indexing technology offer you the highest levels of performance while helping you make the most efficient use of available resources.

Business Challenges

- Accelerating analytics and reporting functions to deliver crucial answers quickly to decision makers
- Improving scalability to support large numbers of users analyzing years of data
- Reducing IT costs with technology that requires less hardware and storage capacity and lower maintenance
- Protecting investments through solutions that integrate with, and add value to, existing infrastructure

Key Features

- **Column data store** – Accelerate queries while slashing time spent tuning performance
- **Massively parallel computing grid** – Support heavy and ad hoc usage from hundreds of concurrent users
- **Management of very large databases** – Harness your Big Data through advanced partitioning techniques for convenient delivery of analytics
- **In-database analytics** – Take advantage of statistical and data mining expertise in algorithms from SAP partners to analyze structured and unstructured data

Business Benefits

- **Faster information delivery** while maintaining real-time data accuracy
- **Improved IT efficiency** with balanced utilization of available machine and human resources
- **Efficient response to market changes** through better-informed and timely decision making
- **Deeper collaboration** by means of analytics models and code that support sharing and ad hoc analysis across business functions

For More Information

Call your SAP representative or visit us online at www.sap.com.

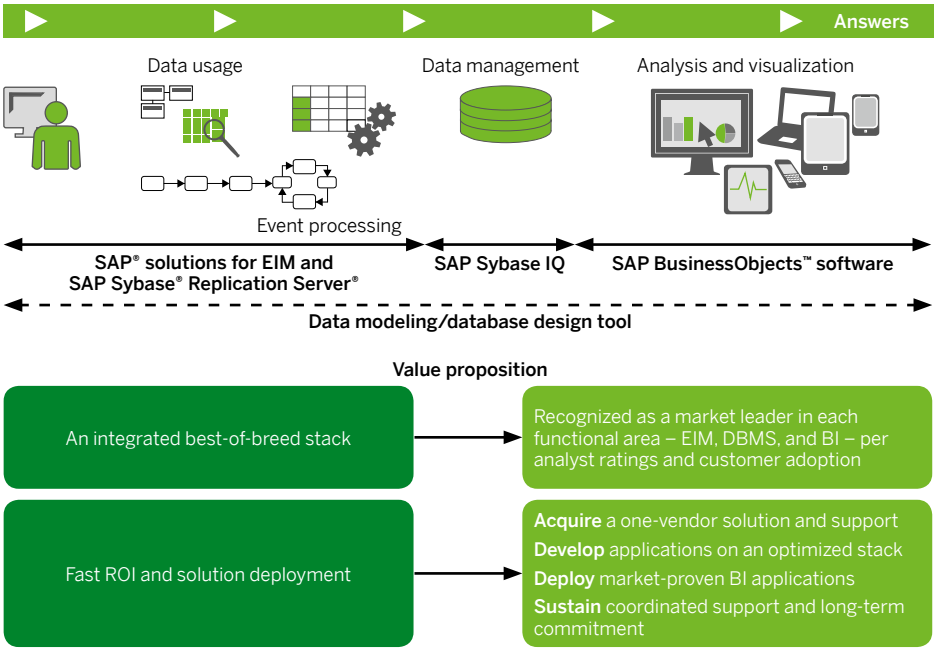
How do you foster superior efficiency, flexibility, and economy while meeting diverse and pressing analytics needs? Traditional database systems were meant for processing transactions, but SAP® Sybase® IQ server offers faster query performance while slashing maintenance, hardware, and storage costs. Realize exponential improvement, even as thousands of employees and years of data enter your ecosystem.

In a conventional relational database management system, data is stored and retrieved horizontally. This is the ideal structure for logging and processing transactions, but 21st-century business demands efficient data analysis as well. The first step toward a true analytical database is to store data in columns. That's a significant leap, but it's not enough. How can you support the ad hoc queries essential to intelligent decision making? How do you keep 10 terabytes of raw data from expanding to 20 terabytes of summaries and aggregates? Simply put, how can you build an analytics environment that clarifies business choices while reducing costly data bloat and labor-intensive maintenance?

The SAP Sybase IQ server can help. This analytics server is specifically designed to help you meet data warehousing and business intelligence requirements from your database. It brings you a grid-based architecture, patented data compression, and an advanced query optimizer to foster high performance, flexibility, and economy even in challenging reporting conditions (see Figure 1). You can boost performance over traditional database environments at least tenfold. And this benefit accrues even as you add thousands of users and years of data to the ecosystem and begin to process complex queries and database-intensive predictive analyses.

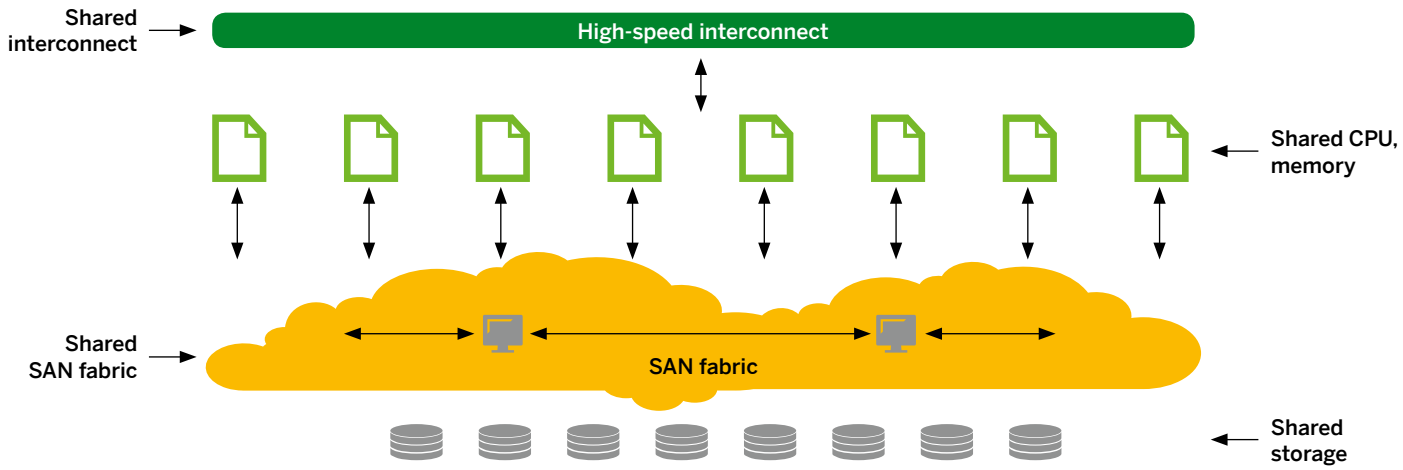
With SAP Sybase IQ, you store and retrieve data by columns of attributes, making information highly accessible for analysis. The data itself serves as the index, and you retrieve only the columns used in a specific query. You don't need to waste limited IT administrator resources to maintain elaborate metadata or add costly hardware to keep performance at acceptable levels. The patented

Figure 1: Solution Architecture



Source: Sybase, an SAP company

Figure 2: Shared Resources



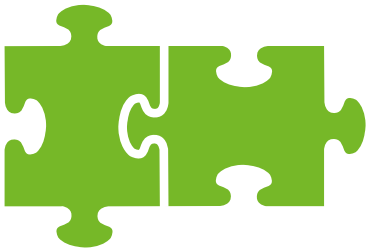
Source: Sybase, an SAP company

data-compression process gives your data warehouse or analytics environment a lean, green footprint – up to 70% smaller than the original input data. And you can easily scale loading and querying through a shared-everything grid architecture that dynamically manages and balances workloads across all computing nodes and reduces contention for system resources to negligible levels. SAP Sybase IQ helps you build flexibility into your analytics architecture as well. You can start with one server and add processors and memory as needed, with little or no loss of scalability (see Figure 2). And you can add hundreds of terabytes of disk space without lowering query efficiency.

With SAP Sybase IQ, you can also implement options that facilitate management of very large databases, unstructured data analytics, in-database analytics, or real-time data loading. To work with Big Data, you can use range partitioning and table space structures to raise the level of granularity in your analytics environment. Full text-search functionality helps you analyze unstructured data such as images, word processing files, presentations, and Web and multimedia content. You can access libraries of pluggable analytical algorithms from statistical and data mining experts to ensure that your data never leaves the database until results are filtered and processed. And to move information in real time into SAP Sybase IQ, you can select a replication offering that includes real-time loading and information priming.

Leaders in all industries realize that an enterprise succeeds today only to the extent it empowers decision makers everywhere to understand quickly and act boldly. In an age of no excuses, SAP Sybase IQ is a smart approach for businesses that need to analyze and deliver to compete.

Build an analytics environment that clarifies business choices while reducing costly data bloat and labor-intensive maintenance.



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