Support Extreme Transaction Processing Reliably and Affordably

Quick Facts

Summary
Fast and reliable data processing is essential to business operations. With SAP® Adaptive Server® Enterprise, you get a relational database management system that makes it possible to consistently achieve high performance in mission-critical, data-intensive environments.

Business Challenges
- Support a high volume of transactions on mission-critical applications
- Guarantee data security, reliability, and integrity
- Keep maintenance and administrative costs in check
- Protect current IT investments

Key Features
- **Flexible encryption and security technologies** – Protect your data from internal and external security breaches without changing applications
- **Hybrid-threaded database kernel** – Improve performance and scalability while minimizing hardware resources, especially in virtualized environments
- **Advanced in-database compression** – Store large data sets more compactly for lower storage costs and better over-all performance
- **Shared-disk clustering architecture** – Consolidate different application workloads for higher utilization, continuous availability, and flexible load balancing
- **Virtualized Resource Management™** – Elastically provision and manage database resources to meet service-level agreements cost-effectively, even at peak volumes

Business Benefits
- **Quickly process** millions of transactions with terabyte-sized databases, while supporting rapid growth in data and transaction volume
- **Reduce operational risks** by helping ensure data security and system stability, and supporting disaster recovery
- **Improve efficiency** with a system that requires less management resources and reduces underutilized assets
- **Lower IT costs** through efficient use of storage, processor, and staff resources

For More Information
Contact your SAP representative.

The Best-Run Businesses Run SAP™

If your business is going to create and sustain a competitive advantage in the face of exponential data growth, your data management systems must address key challenges in the areas of performance, reliability, and efficiency. With SAP® Adaptive Server® Enterprise (SAP ASE), you get a high-performance database that can help improve operational efficiency and reduce overall costs. You can achieve unparalleled performance in your data-intensive environment.
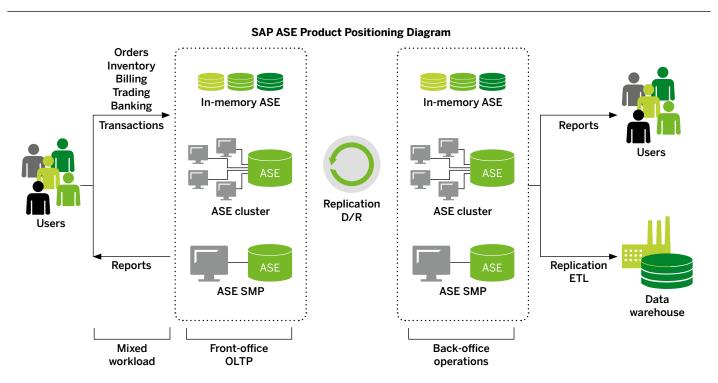
faster response times (see Figure 1). These databases reside completely in memory, and with a zero-disk footprint, provide an even higher level of performance.

DELIVER ROCK-SOLID SECURITY AND RELIABILITY

Data encryption and security technologies built into SAP ASE protect your data from both internal and external security breaches. That means you can keep your data secure at all times – whether in transit, when accessed, or while at rest.

SAP ASE employs a patented encryption system that allows you to encrypt selected parts of your databases and tables without the expense and effort of changing existing applications. You can

ACHIEVE HIGH DATA-PROCESSING RESPONSIVENESS AND THROUGHPUT

Architected with performance in mind, SAP ASE includes a number of features that enable it to consume fewer resources from the host hardware and operating system. The result? Greater performance

and scalability – even as the number of users and transactions increase.

A hybrid-threaded kernel frees database engines from performing I/O, network, and other potentially time-consuming activities, for more predictable and consistent performance. In-memory database functionality in SAP ASE provides even

Figure 1: SAP® ASE Mission-Critical Enterprise Data Management System

SMP = symmetric multiprocessing, OLTP = online transaction processing, ETL = extract, transform, and load

also help ensure data privacy through row-based access controls, the encryption of in-transit data, and support for Lightweight Directory Access Protocol (LDAP), Active Directory, and Pluggable Authentication Modules (PAM) services.

A shared-disk clustering architecture allows you to run database instances on multiple servers, enabling database operations even if one or more of the server nodes is unavailable. Automated failover helps combat unplanned interruptions. And Virtualized Resource Management™ technology simplifies the task of consolidating and maintaining multiple applications on a shared-disk cluster.
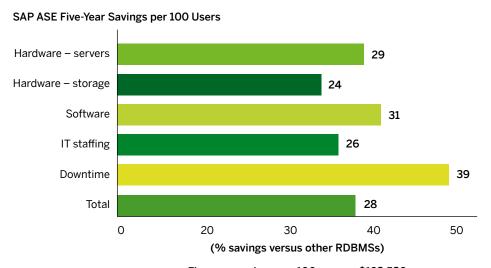
IMPROVE EFFICIENCY AND LOWER COSTS

Ease of use and efficient storage are key to controlling costs and raising service levels in the data center, especially as data volumes continue to grow. With SAP ASE, you can divide tables into smaller partitions, each of which can be individually managed. This allows you to reduce maintenance times, realize optimal data storage, and ultimately gain higher levels of performance.

Advanced in-database compression of both structured and unstructured data allows you to store data more efficiently. Because you use less storage for the same amount of data, you reduce storage costs. And because data retrieval is more efficient, you realize better performance.

SAP ASE also includes features that enable the system to be a stingy user of hardware resources, making it easier to optimize operations with a minimum of staff. According to a recent IDC report sponsored by Sybase, an SAP company, firms should regularly assess the total cost of ownership of their major database applications, including hardware, software, and staff time, as well as opportunity costs due to poor performance and other issues. IDC studied the total costs of 12 database sites that were using both SAP ASE and one or more other vendors' products. IDC found that SAP ASE total costs were 28% less than the total costs of the other relational databases.[1] (See Figure 2.)

Figure 2: SAP® ASE Five-Year Savings per 100 Users

SAP ASE Five-Year Savings per 100 Users

Hardware – servers	29
Hardware – storage	24
Software	31
IT staffing	26
Downtime	39
Total	28

(% savings versus other RDBMSs)

Five-year savings per 100 users = $128,580

Source: IDC, October 2011 (Sybase)

FOOTNOTE

1. IDC White Paper, sponsored by Sybase, "Calculating the True Cost of RDBMS Ownership and How Sybase ASE Stacks Up: A Guide for SAP Business Suite Users," December 2011.

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