SAP Solution Brief
SAP Technology | SAP IQ

Gain a Petabyte-Scale, Cost-Effective Data Warehouse

SAP Run Simple

A scalable, low-TCO approach for enterprise data warehousing

In an effort to address the demands for instant answers and deep analytics, today's IT landscapes are increasingly stressed. Traditional data warehouse and analytics systems are challenged to keep up with explosive growth in the volume and variety of data. You need a high-performing and reliable approach to **unlock the value of all your information** – for competitive advantage

Vast amounts of information flow through businesses each day. The data that influences each business decision grows exponentially and changes continually, adding complexity to the ways you store, manage, and interpret it. Implementing advanced technologies designed to capitalize on new sources and types of potentially valuable information can place significant strain on existing IT landscapes.

Today's business climate demands fast, accurate analytics to pinpoint new sources of revenue and streamline operations. Insufficient data can result in missed opportunities or lost customers. SAP understands that companies need to be able to analyze the vast amount of information available to them and to maintain and expand their data warehouses – all while keeping costs in check.

To benefit fully from the power of analytics, companies need a reliable and affordable way to store and access massive volumes of diverse data for fast answers to complex questions involving months or even years of data.

Speed and scalability for extreme workloads

SAP® IQ database software is more powerful than traditional row-based systems for extreme-scale data warehousing and business intelligence applications. It uses a column-oriented, grid-based massively parallel processing (MPP) architecture that can scale out to handle extreme workloads for large numbers of users and petabyte-size data volumes with performance up to 100 times faster than other systems.

Traditional databases require time-intensive tuning to deliver reports and analytics with acceptable performance. Purpose-built analytics systems can be difficult or expensive to scale as business needs evolve. SAP IQ is different. It is an open, flexible analytics foundation with patented data compression and advanced query optimization that make it faster and more efficient for advanced analytics involving massive amounts of data. It uses standard structured query language (SQL) and runs on commodity hardware, so you can leverage your existing resources, saving time and minimizing costs.

With SAP IQ, answers that once took hours can be delivered in minutes or less. Now you can empower more users with data-driven insights far more effectively.

Big Data, no problem

Sensors, social networks, and online digital behavior generate vast amounts of unstructured data – Big Data – that can contain significant business value for pattern detection, predictive analytics, or e-discovery. Yet Big Data, often stored in systems such as Apache Hadoop, is unwieldy, making it difficult to inject everyday decisions with insights that may lie buried within these new and immense pools of data.

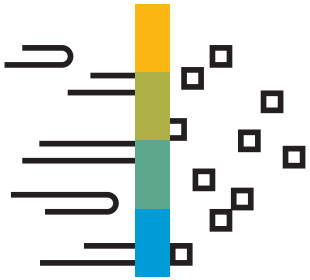
SAP IQ can efficiently store processed unstructured data from Hadoop along with historical and operational data from transactional systems in a unified data platform, allowing you to draw intelligence from all potentially valuable information for more accurate, timelier decisions.

A broad choice of tools makes it easier for organizations to incorporate Big Data into operational processes. This includes a rich dialect of SQL with built-in statistical and online analytical processing functions, native full-text search, an in-database analytics framework with Apache MapReduce scale-out properties, and interfaces for Web 2.0 programming languages. All of these are supported within a common analytical model, reducing complexity for data analysts.

Make your data available to applications and people faster

Today's competitive advantage depends on the ability to make decisions and take actions based on large volumes of data, not gut feel. Risk simulations, fraud detection, and telecommunication network monitoring are business-critical applications involving massive data sets analyzed instantaneously. SAP IQ centralizes access to all data and delivers the speed and power to load and store this extreme-scale data for immediate access.

With SAP IQ, you help ensure that users and processes across the enterprise are acting on the latest information. Fast, high-performance data loading handles even the largest data sets, and real-time updates make rapidly changing information instantly available. Next-generation column store compression in SAP IQ allows for highly efficient compression of fixed and variable-sized data, reducing storage costs and improving performance by removing bottlenecks in input and output.



Combine Big Data with operational data to gain insights that were previously impractical to obtain.

Intelligence for everyone

SAP IQ makes it practical to extend powerful on-demand analytics capabilities to large numbers of users and business processes across your entire organization. Customer service reps, field workers, and sales staff can have access to the most accurate, up-to-date information at interactive speeds.

Offering flexible scale-out options, SAP IQ can readily support a wide range of tasks and many users and workflows – from complex analytics involving massive data sets to drill-down dashboards. Elastic grid technology allows you to dynamically manage multiple analytics workloads across an expandable network of computing resources dedicated to different groups and processes. As a result, you can help ensure reliable, consistent performance for thousands of concurrent users, ad hoc reporting, and data-driven processes across the entire enterprise.

This dynamic approach to workload optimization and scalability reduces the cost and effort of supporting ever-growing volumes of data and rapidly growing user communities.

Speed and scalability for extreme workloads

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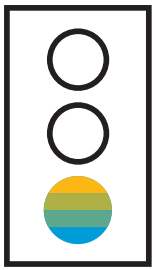
With elastic grid technology, SAP IQ can help you overcome the scalability limitations of your data warehouse.



Proven technology for a wide range of analytics

Faster answers to complex questions can transform the way companies compete and win through actionable intelligence delivered at just the right moment.

With SAP IQ as the foundation for your data warehousing, analytics, and business intelligence applications, you can equip more decision makers with fast answers and insight. With more than 4,500 installations in over 2,150 companies, SAP IQ is at the heart of next-generation business applications in a wide range of settings:

- In healthcare, more informed decisions enable executives to improve cost savings, operational efficiencies, and patient care outcomes.
- In telecommunications, the ability to instantly detect and resolve network bottlenecks and outages from vast amounts of communications traffic enables providers to improve service and reduce turnover.
- In financial services, advanced analytics performed in near-real time allow firms to reduce excessive exposure to risk and manage compliance.

At petabyte scale, SAP IQ makes quick work of scaling out servers and storage for high-demand workloads.

Summary

SAP® IQ software delivers speed and power for extreme-scale enterprise data warehousing and analytics. Its column-oriented, grid-based massively parallel processing (MPP) architecture and patented data compression and indexing technologies enable companies to exploit the value of huge amounts of data at the speed of business.

Objectives

- Optimize extreme-scale data warehousing for operational reporting and analysis
- Ingest large volumes of data quickly
- Enable faster analytics on structured and processed unstructured data
- Store and analyze massive volumes of data cost-effectively and securely

Solution

- Market-leading, disk-based, column-oriented SQL data warehouse
- Scalable MPP architecture
- Enhanced column store with extreme compression
- High-performance data loading for low-latency operational analytics
- Open, flexible platform

Benefits

- Accelerate performance of petabyte-scale enterprise data warehousing
- Provide a unified data store for operational reporting and analysis
- Extend a cost-effective data warehouse to the entire organization
- Support complex analytics with a broad ecosystem of tools

Learn more

To find out more, call your SAP representative today or visit us online at www.sap.com/iq.

www.sap.com/contactsap

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