



Partner
Program

Enabling Big Data Analytics & Reporting

For ISV and OEM Application Vendors

SOLUTION OVERVIEW



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Overview

To stay competitive, you need to deliver innovation and increasing value to your customers. To do this, you need a partner that can help you create a new enhanced offering to expand your portfolio of products. By creating new analytics applications, or adding analytics capabilities to an existing application, you gain an efficient way to create new revenue opportunities and maintain a leading edge. By working with Sybase® you get the best enterprise class analytics-optimized data management technologies with your application.

Capitalize on the Growing Adoption of Analytics

PARTNERING TO PROVIDE BIG DATA ANALYTICS AND HIGH-PERFORMANCE REPORTING

Your customers face the challenge of extracting insight and value from an abundant digital universe. Execution of business strategy with maximum efficiency and effectiveness is one of the few remaining bases for a competitive advantage. Analyzing large amounts of historical and real-time data enables your customers to do just this. Research shows companies that use “data-directed decision-making” enjoy a 5-6% boost in productivity.¹

We have entered the era of big data. More detailed information is being generated by ever newer and expanding sources, causing an explosion in the volume, variety, and velocity of data. This new phase in BI and advanced analytics presents a massive opportunity for application vendors as enterprises begin to embrace analytics throughout their organizational processes. The challenge for you is to select a data platform that will carry you through the analytics gold rush.

Many analytics applications rely on database systems designed for transactional excellence, which consistently provide the same disappointing results. Using a transactional database for analytics and reporting is a mistake for two reasons: First, transactional systems were not designed for analytics and reporting and simply cannot run ad-hoc queries quickly and accurately enough for the speed of today’s business. Second, traditional row-based databases require large amounts of tuning to perform analytics, yet still deliver very slow responses.

Application vendors leveraging analytics-optimized databases are outperforming their competitors, delivering real-time insights through their applications. At the same time these application vendors are seeing the database maintenance time drop along with their support costs.

PARTNER TYPES:

The Sybase partner program is open to ISV and OEM Application Vendors.

ISV – Independent Software Vendors (ISVs) create and market software applications that, when made compatible with a Sybase product, expand the market for both the ISV and Sybase. The license is not embedded in the application nor does the ISV sell it. ISV’s range from some of the biggest software companies in the world to small geography specific development companies.

OEM – Original Equipment Manufacturers (OEMs) embed Sybase software into their application which cannot be unbundled and is sold as a complete solution with the Sybase component invisible to the end user.



ENTERPRISE-CLASS BIG DATA ANALYTICS PLATFORM:

Empowering decision-making across the enterprise at the speed of business.

Big Data Analytics platforms purpose-built for big data analytics and reporting can deliver answers to critical questions up to 1,000 times faster than traditional databases, regardless of the complexity of the queries or the number of users.

Specialty analytics databases are the fastest growing sector within the overall data warehousing data management market.

Sybase IQ is a high-performance, columnar database with thousands of deployments — more than all other columnar databases, combined!

More importantly, your customers are ready for a change. In a recent Buyer Case Study² IDC advised technology users and purchasers looking for analytics database technology to consider:

- The workload requirements for query, analysis, and reporting are different from those of operational systems. *IDC Research shows that over the past seven years purpose-built data warehouse technology has increased its share of the overall data warehousing market.*
- Columnar database structure is becoming an increasingly popular option for organizations looking for purpose-built data warehouse technology. *IDC Research shows that over the past 3 years there have been strong gains not only in awareness of columnar databases but also in successful deployments.*

Why Sybase IQ?

For over 15 years Sybase has pioneered column-based databases for analytics with Sybase IQ. Today Sybase IQ is an enterprise-class Big Data Analytics platform. Sybase IQ delivers the performance partners require, in a form factor that can be optimized for deployment with their analytics solution. Sybase IQ can scale to solve the toughest analytic problems while slashing maintenance costs for you and your customer. *It's that simple.*

Unlike hardware appliances and MPP shared-nothing solutions, Sybase IQ can be optimized for your application's architecture, deployment model, and hardware requirements — whether you need to scale up, scale out, or pare down. If you want to deploy your solution on-premise, in the cloud, through an appliance, or on a specific operating system Sybase IQ supports it. Sybase IQ will not put your application in a straightjacket. *It's that simple.*

Application services contain hundreds of analytic functions, APIs, and open standards support. Text analytics capabilities enable you to ingest and analyze text stored in hundreds of proprietary document formats or online content. Combined with programming language drivers, a Web Services interface, and in-database analytics APIs, developers have everything they need to build a high performance analytic solution. *It's that simple.*

Sybase IQ's column data store delivers blazing fast query performance, often 10-to-100 times faster than traditional databases. Combined with PlexQ™ technology for massively parallel processing across a grid of servers and partners can scale to meet any performance and data volume. *It's that simple.*

“THE COLUMN-BASED APPROACH ADVOCATED BY SYBASE WILL PROVIDE SUBSTANTIALLY BETTER PERFORMANCE AT LOWER COST THAN TRADITIONAL APPROACHES FOR ANALYTICAL, REPORTING AND DATA WAREHOUSING ENVIRONMENTS.”

– PHILIP HOWARD, BLOOR RESEARCH, 2009

BENEFITS FROM EMBEDDING SYBASE IQ

- **Accelerate Performance** – Up to 1,000 times faster even under heavy concurrent workloads and with complex queries. Maintain service level agreements.
- **Increase Data Analyzed** – Store terabytes or petabytes of data in a highly compressed format to keep disk footprint down. Analyze years or decades of data
- **Scale Workloads** – Parallelize workloads across a grid with PlexQ™ technology or across CPUs on a server; commit resources to specific user communities with virtual grids. Perfect for datamart and EDW solutions.
- **Slash Maintenance** – Data is automatically indexed and speed removes need for aggregate views. Cut administration & tuning up to 75%.
- **Leverage Analytic Functions** – Use hundreds of analytic functions and APIs available through Sybase IQ. Accelerate development time and performance.
- **Fit Your Architecture** – Fully open approach to hardware, OS, deployment model, database schema. Eliminate the need to re-architect the application.
- **Deploy Quickly** – Short deployment and implementation time. Spend less time at your customer's site.

PROVEN AND MATURE LEADERSHIP

Sybase IQ is the most widely deployed columnar database in the world, with more than 2,200 customers, and over 4,000 installations worldwide. With more customers than all other column databases combined, Sybase IQ wins more new customers every year than other column databases have in total. Sybase IQ has won numerous industry awards, as well as positive reviews from major industry analysts. Gartner lists Sybase IQ as a Leader in its annual Data Warehouse Database Management System Magic Quadrant report.

Benefits of the Sybase IQ Architecture

The key benefit of a column-based architecture is the granularity of data access that can be achieved. Traditional row databases mainly conduct table scans or use only a few specialized indexes, or aggregates, for each query and require indexes to be pre-defined in advance. Running a query for which an index was not pre-defined forces a complete table-scan often resulting in poor performance. This prevents users from making new or ad-hoc queries, as it would have a negative impact on database performance, limiting user responsiveness. As a result the majority of the design and maintenance effort for traditional databases focuses on building and maintaining indexes, to support standard and expected queries. Not so for Sybase IQ.

Sybase IQ does not require such pre-built indexes. A column-based database can combine all the column indexes of any table within each query achieving significantly better response times. In a column-based database every data column represents an index. Due to the implemented bitmap index technique, only relevant data relating to that specific query is accessed. This is because every data column is set up automatically as an index, and there are further indexes for groups, sort and join operations. The performance difference is notable. Ad-hoc queries can be run on huge data sets with only short latency. Sybase IQ achieves short processing times and huge compression rates, whilst maintaining rapid query response times, since pre-aggregation of the data is not required.

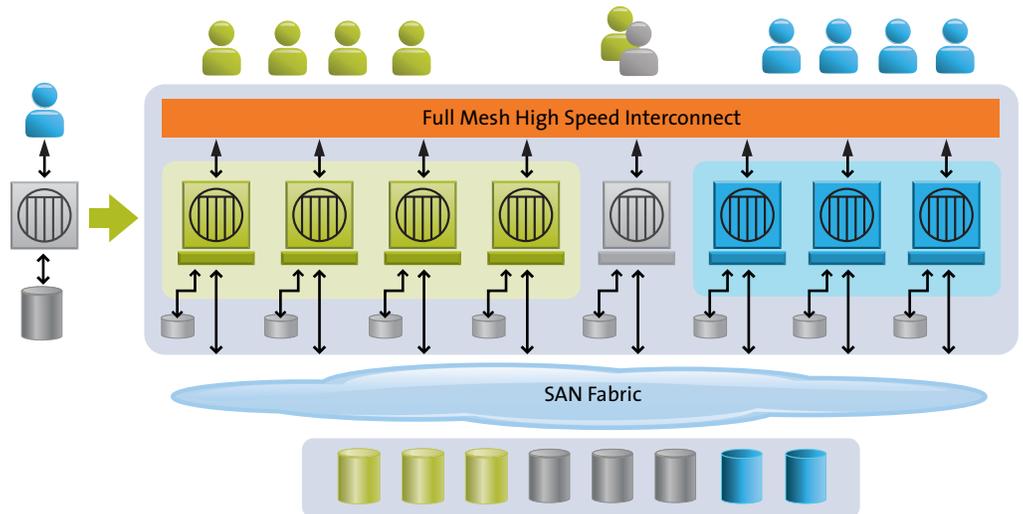


Figure 1. Single Sybase IQ deployment can scale to PlexQ™ grid (right).

Sybase IQ can scale from a single server deployment embedded in an application to a grid containing dozens of servers working together (see figure 1). Sybase IQ with PlexQ technology scales out in a far more flexible manner than shared-nothing approaches by separating compute resources from data storage. Queries can be processed in parallel on a PlexQ grid without concern for how, or whether, data is partitioned. Furthermore, compute resources can be dynamically added to support more users or workloads without impacting data storage. Similarly, data capacity can be added without having to rebalance data stored on compute nodes, simplifying maintenance.

Distributed Query Processing executes individual queries across many machines in a PlexQ grid, yet automatically balances workloads during peak periods. Distributed Query Processing improves the performance of a query by breaking it up into pieces and distributing those pieces for concurrent execution across multiple Sybase IQ servers in a PlexQ grid. This approach provides a massively parallel processing (MPP) model that leverages more independent computing resources for faster processing of increasingly complex and time-critical analytics.

A PlexQ grid can band together physical servers into virtual groups, called Logical Servers, and can be dedicated to certain users or processes. Each Logical Server can have its own set of compute and memory resources, separate security, and separate data if so desired. The performance of each Logical Server is not impacted by any others on the grid. This isolates the impact of different analytic workloads, ad hoc queries, and users from each other.

Optimizing Applications with Sybase IQ

MANY WORLD LEADING APPLICATION PROVIDERS USE SYBASE IQ TO DELIVER GAME-CHANGING ANALYTICS SOLUTIONS.

Ericsson (Sweden) – Telecommunications

Using Sybase technology Ericsson is able to model services and systems with the purpose of providing enhanced communication and early verification, and to unify, speed and assure quality of network designs in the early phases of projects, and to inter-link product development. Ericsson Network IQ (ENIQ) is a product for performance management in multi-vendor and multi-technology environments deployed on a wide range of network technologies and data sources.

InnovationCLEAR (U.K.) – Insurance

Innovation Group is a global provider of insurance claims and reporting software, and uses Sybase IQ as the backbone for its solution. Innovation Group is a specialist business service and solution provider to the global Property and Casualty Insurance, Financial Services, Motor and Fleet industries handling over 11,000 incidents each day for over 800 customers. InnovationCLEAR, offered by Innovation Group, and powered by Sybase IQ, delivers rapid answers to just about any question a claims adjustor, underwriter, or executive may have. InnovationCLEAR is a management information system that works with low-level data so insurance company personnel can analyze it in any way they wish.

“WE SOON DISCOVERED THAT SYBASE WAS THE LEADER IN COLUMN-BASED ANALYTIC TECHNOLOGY. WE LIKED THE TECHNOLOGY, WHICH WAS FAR MORE ROBUST THAN THAT FROM OUR PREVIOUS SUPPLIER. AND SYBASE HAD AN ENTERPRISE-SCALE SOLUTION, SO WE COULD TAKE OUR PRODUCT MUCH FURTHER.”

– DAVE BROTHERTON

“THE DATA WAREHOUSE STORES 150 TB OF DATA, MAKING IT ONE OF THE LARGEST KNOWN DATABASES IN THE WORLD, CONTAINING 700 TABLES, APPROXIMATELY 30,000 COLUMNS AND ABOUT 45,000 INDICES.”

– GOVERNMENTAL TAXATION AND REVENUE AGENCY

“[USERS] CAN GET WHATEVER ANALYSES AGAINST 10 YEARS OF DATA THEY WANT WITHIN A FEW SECONDS. THE RANGE OF THEIR QUERIES IS NOW BIGGER BECAUSE THEY’RE NO LONGER RESTRICTED TO AGGREGATED SUBGROUPS.”

– HANS KELMMER, HEAD OF APPLICATION DEVELOPMENT, EMI MUSIC

“THE DATA STORE IS USED BY APPROXIMATELY 10,000 USERS, AND IT STILL WORKS AT THE SPEED OF LIGHT. THE POWER OF SYBASE IQ GIVES US THE UNIQUE ABILITY TO ACCESS DATA, WHILE PROVIDING UNMATCHED SPEED. SCALABILITY OFFERED BY SYBASE IQ WITH INCREASING DATA, USERS AND QUERIES, AS WELL AS THE STABILITY OF THE APPLICATION PROVES THE PROMISE OF NEARLY LINEAR SCALABILITY. OUR DWH CAN BE EASILY EXTENDED TO MEET OUR GROWING NEEDS.”

– VADIM CHEREVKO, HEAD OF IT, PRIVATBANK, UKRAINE



Intervoice (USA) – Telecommunications

Intervoice, Inc. provides leading enterprises and network operators with the platform, software, applications and services necessary to optimize the customer experience through voice automation solutions. Intervoice develops and runs analysis on voice recognition systems and was attracted to Sybase IQ's lightning fast ability to allow their customers to extract their own kind of intelligence and provide an additional revenue stream for Intervoice.

“AS A COMPANY, WE’VE USED SYBASE PRODUCTS FOR ALMOST 10 YEARS. AS YOU MIGHT IMAGINE, IF YOU’RE KEEPING A PARTNER FOR 10 YEARS, YOU DON’T JUST KEEP THAT PARTNER BECAUSE YOU LIKE THE PEOPLE. TYPICALLY, THEIR PRODUCTS AND TECHNOLOGY HAVE TO DO THE JOB. SYBASE HAS BEEN A STRONG PARTNER WITH US, PROVIDING SUPER SUPPORT, AND GREAT TECHNOLOGY IN THEIR PRODUCTS.”

– ANDY THOMAS, VP PRODUCT DEVELOPMENT

TTI Telecom (Israel) – Telecommunications

TTI Telecom, A TEOCO Company, is a leading provider of next generation Operations Support Systems (OSS) to Communications Service Providers (CSPs) worldwide. TTI uses Sybase IQ in its application to store the Call Detail Records (CDR) and Performance Management (PM) data, mostly for Telecom providers. Sybase IQ is used as the data warehouse for TTI's CallExpert application that manages extremely large sets of data. TTI has tables with over 1,000 columns and 15 billion rows. The largest Sybase IQ database for a TTI end customer holds over 50 TB of data.

TTI's customers include some of the world's largest Telco's; Orange, Tele2, Reliance India, France Telecom, KPN Holland, Telia Sweden, SA Telekom, Allianz Australia, Nortel, Telstra and many others. TTI also operates in the defense sector and has several customers with very large systems. TTI's customers are extremely satisfied with the system and are constantly attesting to Sybase IQ's incredible performance.

Wide Range of Available Options

SYBASE IQ HAS A NUMBER OF OPTIONS THAT CAN HELP ADD VALUE TO ISV AND OEM OFFERINGS.

- **Sybase IQ Advanced Security Option**

The Sybase IQ Advanced Security Option provides the highest levels of security capability for Sybase IQ environments; both for data in-flight and at rest in the database.

- **Sybase IQ Multiplex Grid Option**

As described in the architecture section above the PlexQ™ grid enables scale out of an analytics environment in a far more flexible manner than shared-nothing approaches.

- **Sybase IQ Very Large Database Management (VLDB) Option**

The VLDB option enhances the manageability of very large data sets by allowing partitioning of data logically in a range of values and partitioning of data in logical groups of objects called table spaces.

- **In-Database Analytics Option**

An application programming interface that allows application programmers to build (in C/C++) and deploy User-Defined Functions (UDF). Enables application vendors to implement proprietary algorithms securely inside Sybase IQ. Further, a simulation environment allows testing of Table Parameterized UDFs executing inside Sybase IQ.

- **In-Database Analytics — Partner Solutions Option (for Predictive Analytics)**

This option provides in-database analytics capability to Sybase IQ via libraries of pluggable analytical algorithms from statistical and data mining software partners who have certified their products with Sybase IQ's in-database analytics capabilities.

- **Unstructured Data Analytics (UDA) Option**

Supports binary large object (BLOB) and character large object (CLOB) storage and retrieval. Uses the same applications and interface to access all structured and unstructured data in the repository. Enables search for words and phrases within text data, boolean and proximity searches and score results from text queries based on relevance.

- **Sybase Replication Server® — Real-Time Loading Edition (RTLE)**

High performance loading capability from Sybase ASE and Oracle OLTP source databases into Sybase IQ. Allows analysis of current data enhancing business intelligence.

- **Sybase IQ InfoPrimer**

Enables continuous data loading into Sybase IQ from a variety of enterprise sources via ELT, ETL or ETLT.





Utimaco Safeware: Partner Case Study

INDUSTRY

- Telecommunications

SYBASE TECHNOLOGY

- Sybase IQ

BUSINESS ADVANTAGE

- Utimaco developed a purpose-built data retention solution with Sybase IQ as the underlying data warehouse to enable network operators and Internet service providers to easily comply with new telecom regulations.

KEY BENEFITS

- Compresses stored data by factor of 40-80% reducing storage costs
- Delivers rapid search and massive analysis performance
- Simultaneous loading of massive data volumes
- Easily scales with data volumes from a few million to billions of data records as capacity and performance needs grow

In response to tough new telecom regulations for data retention and on requests by several telecom customers for integrated lawful interception and data retention solutions, Utimaco partnered with Sybase to develop a new purpose-built data retention solution.

UNDERSTANDING MARKET CHALLENGE AND OPPORTUNITY

Throughout the world laws have been introduced stipulating the responsibility of service providers for data retention purposes. Outlined within the laws is the process for storing call detail records and subscriber data for periods up to 24 months, and in addition responding in a timely manner to ad-hoc inquiries by law enforcement agencies. Data is then used to discover patterns of behavior to identify and trace suspects, uncover social networks among terrorists, or to collect admissible evidence for court proceedings.

For operators this meant three new challenges, firstly having to store millions to billions of records daily, secondly storing data from multiple sources in one location and lastly having the ability to retrieve information to thousands of ad-hoc inquiries. Overcoming these challenges telecom operators and ISPs needed to invest in systems that gave them the ability to store these “big” data volumes and then provide responses in near real-time to the law enforcement agencies. However, the laws stipulated that operators could not themselves derive value from the data stored; instead this data was to be maintained separately and exclusively accessed in response to queries from the law enforcement agencies. Operators needed a system that helped them comply with these laws but that minimized hardware expenses to not more than what was absolutely necessary.

ARCHITECTURE AND POC

Meeting these needs presented Utimaco with a new market segment, fresh revenue opportunities and an urgency to develop an application allowing them to exploit a first-to-market position. Utimaco, already a Sybase partner for over 10 years using the Sybase ASE database behind their “Lawful Interception and Monitoring Solutions”, turned to Sybase for a technology on which this new application could possibly be built. After receiving a call from Utimaco’s product management expressing the need for a powerful data warehouse providing very fast search and massive data analysis, Sybase Germany proposed Sybase IQ and prepared for the POC.

Sybase selected Sun hardware on which to run Sybase IQ and two pre-sales consultants were assigned to work alongside Utimaco during the POC. The first stage of the POC was for Utimaco to see for them self that a database could in fact store such large data sets, from multiple data sources and retrieve information in near real-time. Next the Sybase team had to prove that Sybase IQ was the best technology to do just that. One of the challenges facing the POC was the time needed to generate the data volumes required to truly test Sybase IQ and the Utimaco application against the real-life environment of a large telecom operator storing and querying data over a 24 month period.

Sybase IQ performed above Utimaco’s expectations with impressive query speeds, deep data analysis capabilities on massive data sets, and a compression rate of 40-80% for CDR data, meaning that the Utimaco data retention solution could be delivered to market at a very acceptable price point due to the significantly reduced data footprint and hardware requirements.

The combination of Sybase responsiveness, access to free of charge hardware, unlimited support from Sybase's consultants during POC testing and the outstanding performance of Sybase IQ meant that Utimaco did not see the value in researching or evaluating alternative technologies — Sybase IQ was the perfect choice upon which to build the new Utimaco solution.

A JOINT APPROACH REAPS THE REWARDS

Months of development work followed in which Utimaco had unrestricted access to Sybase consultants and engineers both through on-site visits and regular phone calls. Rather than charging partners for product training in order for the partner to develop their applications on our technology, Sybase believes in offering truly unrestricted support to enable our partners to deliver outstanding solutions to their target customers. In 2008 the Utimaco Data Retention Suite (DRS) was launched.

Winning the first deal with their new application would be a huge milestone for Utimaco, to help capture this crucial first deal, Sybase was ready to discount Sybase IQ heavily in order for Utimaco to seize this win and use it as a reference to increase momentum in the market for the solution. Supporting Utimaco in bringing the solution to market, Sybase also spoke and moderated panel discussions at numerous Data Retention conferences alongside Utimaco to advocate Sybase technology and build awareness for the Utimaco DRS solution.

THE RIGHT SOLUTION; AT THE RIGHT TIME AND AT THE RIGHT PRICE

Sybase IQ gives Utimaco a state-of-the-art data warehouse that has become the backbone of the DRS solution. Fully optimized for simultaneous loading of massive data volumes, the system can access "big" data volumes in near real-time, with average queries results returned in seconds not minutes. Capable of ingesting several billion data records per day, Utimaco DRS supports the transaction rates generated by large telecommunications networks with millions of subscribers, while maintaining a considerably reduced data footprint through exceptional compression rates to a factor of 80%. Utimaco DRS can scale with data volumes from a few million to billions of data records and customers can easily extend their installation as capacity and performance needs grow.

The result; Utimaco have a solution that addresses the market need, delivers on its promise, at the right price point — while generating a new revenue stream for Utimaco.

ON-GOING RELATIONS

Sybase maintains a tight relationship with the Utimaco product management team, offering Utimaco true account management, ongoing enablement and regular invitations to technology briefing sessions to help keep the Utimaco team up to date on the latest Sybase technologies.

ABOUT UTIMACO

With more than 150 installations in 60 countries, Utimaco is a leading global supplier in the lawful interception (LI) market. Since 1994 Utimaco has been providing LI systems for mobile and fixed network operators and Internet service providers. Utimaco is the preferred LI partner of the world's leading network equipment manufacturers.

Utimaco offers a broad range of lawful interception solutions for various telecommunications services such as telephony, Internet, VoIP, e-Mail, SMS, MMS and allows seamless and cost-effective integration into existing networks, for GSM, GPRS, UMTS, LTE, PSTN, DSL, Cable, WLAN and WiMAX.

In addition at the request of telecom customers for an integrated lawful interception and data retention solution, Utimaco introduced the Data Retention Suite corresponding to the EU directive 2006/24/EC. For more information visit:

<http://lims.utimaco.com>.

Sybase Partner Program

Sybase is committed to working with its channel partners to deliver superior business solutions to end user customers. The Sybase partner program helps application vendors to quickly build solutions that give their customers real-time analytics on huge data sets.

FLEXIBLE OPTIONS TO SUIT YOUR BUSINESS

You can work with Sybase IQ using the following and other flexible options to suit the needs of your business operations and processes — on platform or component technology:

- Embed Sybase solutions in your application on a licensed basis
- Bundle Sybase solutions with your application as one offering
- Resell Sybase solutions as optional modules to your own application

To learn more about becoming a Sybase partner, and to see how Sybase IQ can accelerate your application's performance, please contact your Sybase sales representative or email partner@sybase.com.

¹"Strength in Numbers: How Does Data-Driven Decision making Affect Firm Performance?" Erik Brynjolfsson, Massachusetts Institute of Technology (MIT) - Sloan School of Management, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1819486

²Source: IDC Buyer Case Study, Reorienting the DataWarehouse, Dan Vesset, Jan 2010