

Sybase helps customers deliver  
value-added information on demand



SYBASE®



# Delivering value-added information to your customers



When you're delivering value-added information services to your customers, the stakes are high. Your customers rely on the data and analytic services you provide to drive some of the most critical decisions about their own businesses—investments, customer relationships, product and service offerings and mix, competitive strategies, risk management, and more. Consumers of this information demand better services...faster. Your customers demand that their complex, ad hoc queries are answered in Internet time. They also want the flexibility to ask any question, against all of the data (across 1 – 1,000's of terabytes). And get answers in seconds.

So in this extremely competitive arena, whoever has the best information wins.

Gaining a technology advantage means finding the right solution. Powering your organization to offer highly differentiated services to meet the needs of your customers, while limiting costs and complexity. Our customers are saying that Sybase solutions have been integral to addressing their challenges related to data warehousing, data integration, modeling and metadata. With our innovative business intelligence and data warehousing solutions, companies just like yours are effectively leveraging their data stores and delivering valuable information to their customers.

Our customers are seeing real results with Sybase technology—from faster information delivery and customer satisfaction to improved top-line results and lowered expenses. And these kinds of results are occurring across industries and organizations large and small—from Fortune 100 enterprises to many of the world's top financial firms, marketing companies, government offices and organizations of every size.

We believe these kinds of results can also happen for your business. In the following pages, you'll find examples of innovators that have developed value-added information solutions by combining our technology and their unique vision to create a powerful competitive advantage. We're proud of these successful partnerships, and we're ready to work with you to solve your data challenges. If you would like a more detailed version of any of these stories, or to see hundreds of others, please visit our Web site at [www.sybase.com/success](http://www.sybase.com/success).

At Sybase, we're serious about delivering information. Your success is our success.

Sincerely,

A handwritten signature in black ink that reads "Raj Nathan". The signature is written in a cursive, flowing style.

Dr. Raj Nathan  
Senior Vice President,  
Information Technology Solutions Group,  
Sybase, Inc.



“Sybase IQ gives you a performance advantage and it’s also very stable. It’s been a wise investment for us.”

– Sam Morales, Data Services Manager, S&H Solutions

## S&H SOLUTIONS

To provide marketable, targeted purchase information to its retail partners, S&H Solutions established lofty goals for enhanced data delivery:

- Expand hardware capacity to manage significant growth and allow for flexible reporting
- Increase query performance by 500 percent
- Provide dynamic ad-hoc reporting capabilities and customized reports in real-time
- Increase online historic data retention by 50 percent

As the original creator of customer loyalty, S&H Solutions began operations more than 110 years ago with its nationally-recognized customer rewards program, S&H Green Stamps®. S&H partners now transact more than \$70 million per week.

To help the partners transact business more effectively, S&H provides the ability to target customers in real-time and on a one-to-one basis. The S&H system interfaces directly to retailer point-of-sale systems and provides detailed reports on shopper behavior and promotions. Capturing customer data at a detailed level from the point-of-sale systems requires the processing of more than 3.5 million customer purchases from hundreds of stores every day.

To meet this challenge, S&H turned to Sybase IQ to provide the level of performance necessary to recognize and extract an in-depth understanding from the large, accumulated reservoirs of information. By combining Sybase IQ with an IBM System p server and by redesigning the database schema, S&H achieved its goals, including an increase in end-to-end query performance of 500%. The system also gave S&H the ability to grow and undertake new business intelligence initiatives.

## NIELSEN MEDIA RESEARCH

For Nielsen Media Research, data is their business. Providing timely, accurate and detailed information to the \$65 billion TV advertising industry is the company's lifeblood. When Nielsen needed an online audience data warehouse with enough computing power to achieve specific attributes that would improve response times while lowering costs and complexity, it turned to Sybase:

- Overnight and historical audience rating data on demand
- Responses 10 to 100 times faster for complex queries against terabytes of data
- A 70 percent compression ratio to produce significant hard-cost storage savings
- 800 percent faster data loads to increase productivity during maintenance windows
- Reduce complexity, costs and risks of deploying a new data warehouse

As the leading provider of television audience measurement and related services in the world, it's not surprising that hundreds of terabytes of data on audience demographics and viewing habits reside in the Nielsen Media Research data center. This data is critical to broadcasters and advertisers alike who rely on it to make and fine-tune programming decisions and advertising placements.

Nielsen decided to build an online data warehouse that would allow each client to access its vast data store on an ad-hoc basis and to query that data rapidly. Sybase IQ fit the bill perfectly to deliver a Web-accessible data warehouse. This allowed Nielsen to reduce the complexity, costs and risks of deploying its new audience data warehouse.

**“Sybase IQ is the fastest in the industry. We load almost 10 billion rows a month, a terabyte a quarter. With Sybase IQ it just flies.”**

– Craig Silver, Senior Database Architect, Nielsen Media Research

“The speed of Sybase IQ improves our ability to mine the data and produce results for our customers much more quickly. That helps them market more effectively and generate more business.”

– Ric Elert, Vice President of Engineering, comScore

## COMSCORE

When comScore launched a mission to develop the industry’s first source of online buying activity, the company realized it needed an analytics server that could achieve specific results to serve customers quickly while controlling costs:

- Improve the ability to mine information and produce quicker results
- Provide a 40 percent data compression ratio
- Scale economically to large amounts of data and support data-intensive reporting while also controlling costs

As providers of data-based infrastructure services and solutions for the e-commerce marketplace, comScore also realized that the focus of Internet marketing was shifting from visitor counts to profitability. Thus the company knew it needed a data warehouse that would allow its software to smoothly handle rapid growth and provide the data required by its customers. The data warehouse supports the online customer knowledge platform and scales economically to handle over 20 terabytes of data while supporting intense data queries from customers.

ComScore implemented Sybase IQ and was immediately impressed with its scalability, performance and data compression. The company successfully built a data warehouse that enabled it to economically develop and test-market their solution. comScore then scaled the solution to meet the information and performance needs of their customers.

The service monitors surfing and buying behavior at every site visited by consumers that have opted-in to have their Internet behavior analyzed. ComScore’s online service provides a 360-degree view of customer behavior and preferences as users visit sites throughout the Internet.

## SHOPZILLA

Shopzilla, a popular online comparison-shopping search engine, is an information factory—gathering millions of data points about shoppers and making that information available as a product. Shopzilla sought an easy-to-install IT infrastructure to manage massive volumes of information and achieve several goals:

- Deliver query reports in seconds
- Limit administrative expenses
- Reduce query response times by 99 percent
- Improve customer satisfaction

Accomplishing these goals was critical because Shopzilla.com allows thousands of shoppers to search 30 million products from 40,000 stores. While the company had a standard data warehouse in place, it could only produce monthly reports based on canned, prepackaged queries. So Shopzilla sought new tools to offer data in real-time and allow merchants to query the data any way they wanted.

Shopzilla quickly determined that a system based on a typical relational database management system would not suffice. With Sybase IQ, Shopzilla merchants now have access to 13 months of data compiled from 15 million customer data sets that the merchants can analyze in a wide range of ways on an ad-hoc basis.

## LOANPERFORMANCE

LoanPerformance, provides financial-industry giants with information and services to assess portfolio strength and risk. To do this, LoanPerformance needed to deliver meaningful intelligence to meet increasingly-demanding customer requirements:

- Faster query speeds
- Fewer occurrences of long queries
- Scalability for additional users and data loads

Delivering meaningful, useful information to the world's top financial institutions, LoanPerformance also faced the challenge of operating an efficient technology architecture. The ability to implement changes rapidly was also paramount.

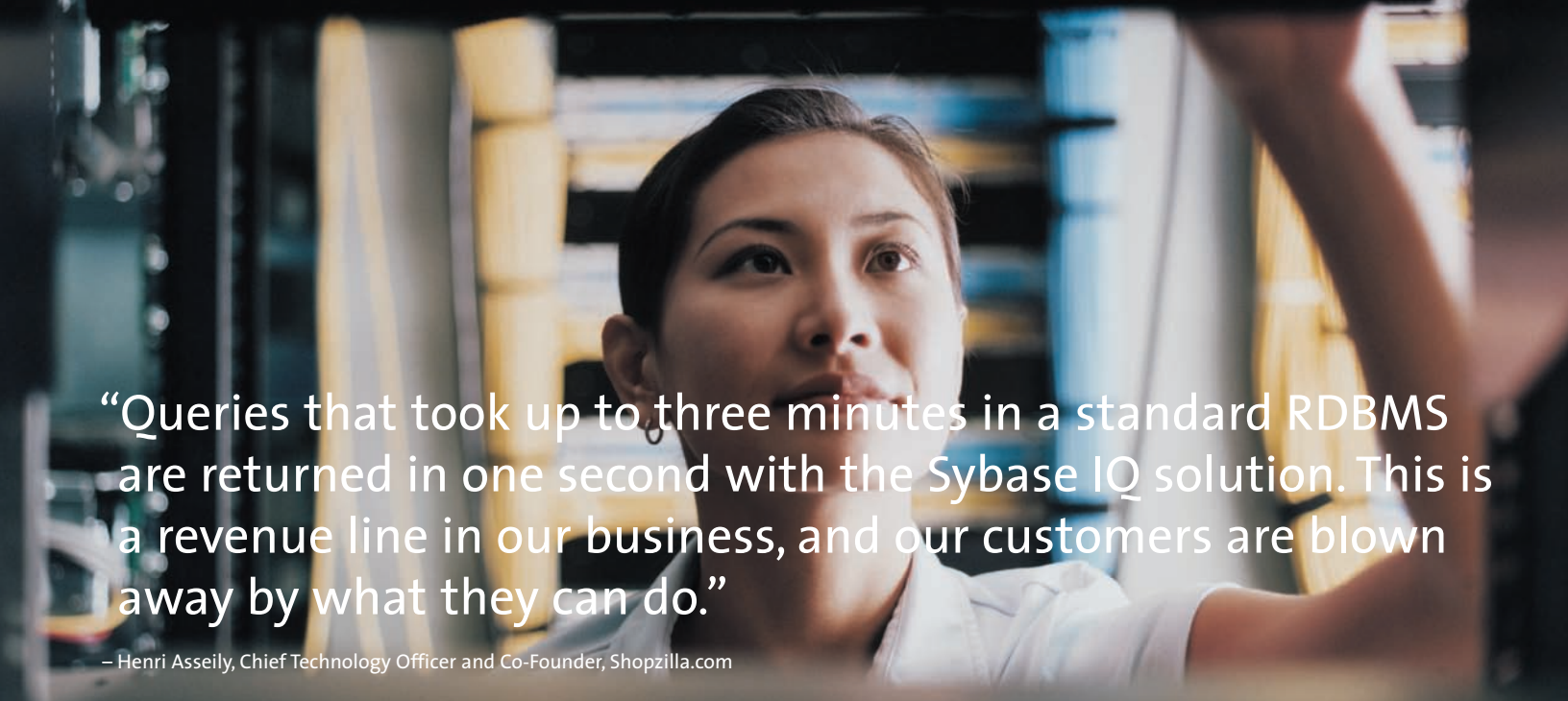
To meet these challenges, LoanPerformance added new Web-based capabilities and improve existing functionality of analytic applications. But as the central databases grew exponentially into the double-digit terabyte range, queries and reports took longer than anticipated, and customers became tired of extended wait times.

During exhaustive head-to-head testing, Sybase IQ emerged as the leader in speed. Even with increasing numbers of simultaneous users, Sybase IQ exceeded the speed requirements while other solutions slowed dramatically when additional concurrent users were added. LoanPerformance selected Sybase IQ to allow the company to pursue its healthy growth plans while providing astounding performance on low-cost Linux hardware.

With Sybase technology, processing terabytes of data, on-demand reports and queries are now delivered up to 100 times faster, resulting in better customer service. The number of queries lasting 10 minutes was reduced to less than one percent. These improvements have led to better customer service and improved utilization of IT resources.

“This isn’t just a case of a few show-stopping improvements. This is an across-the-board upgrade that provides a whole new experience for users—especially our power users.”


– Dan Feshbach, Chief Executive Officer, LoanPerformance

A woman with dark hair, wearing a white shirt, is looking upwards and to the right. She is in a server room, with server racks and blue lighting visible in the background. The image is slightly blurred, focusing on the woman's face.

“Queries that took up to three minutes in a standard RDBMS are returned in one second with the Sybase IQ solution. This is a revenue line in our business, and our customers are blown away by what they can do.”

– Henri Asseily, Chief Technology Officer and Co-Founder, Shopzilla.com





“We specifically chose Sybase IQ to serve as the platform for our audience data warehouse because it is optimized for analytics across very large volumes of data. For our audience data warehouse, Sybase IQ is the right technology.”

– Kim Ross, CIO, Nielsen Media Research

“Since we moved to Sybase IQ, we’ve had zero backlogs. Our tabulations are almost instantaneous.”

– Jerry MacGillivray, Systems and Database Administrator, Statistics Canada

#### STATISTICS CANADA

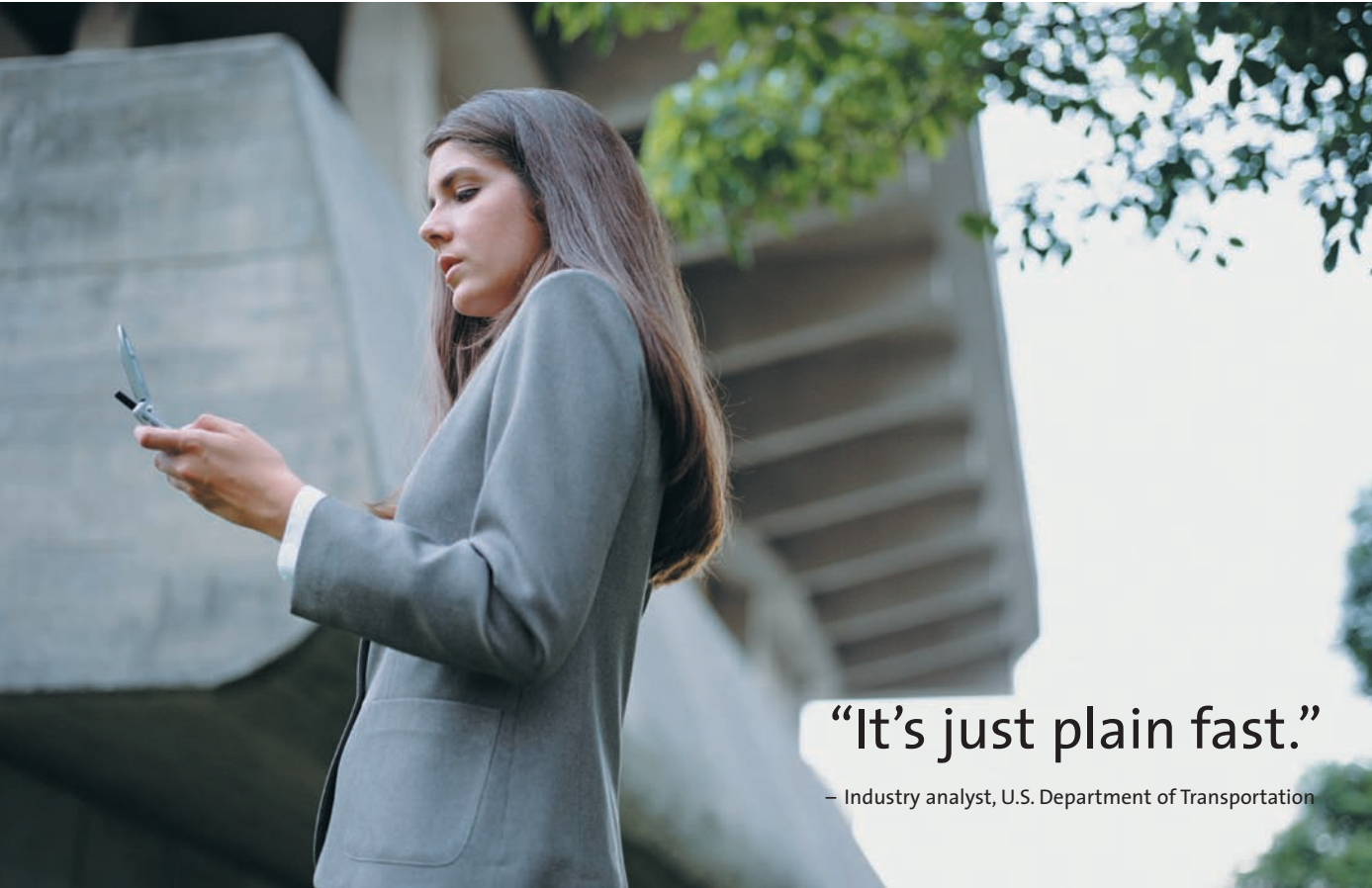
Statistics Canada provides aggregated census, social and economic survey information to the public while protecting sensitive details—and offering multi-year’s worth of data online using Sybase technology. Delivering a vast and deep information system to:

- Reduce administrative costs and a reduction in human error
- Improve customer service and offer more data products
- Maximize cost recovery

Like most countries, Canada relies heavily on census information for government and business planning. Budgets, social programs, and electoral boundaries require a foundation of reliable census data. Statistics Canada is a federally mandated agency of the Canadian Government charged with collecting, processing, maintaining, interpreting, preserving and disseminating the country’s census, social and economic information.

Statistics Canada has a vast online repository of data, some of it for public use and some for the Canadian government and subscription users. “We have different levels of access. We have access for the general public—while still maintaining confidentiality—we also provide access to deeper levels of detail tables to certain partners and subscribers,” said Ray Lackey, systems architect for dissemination.

Using the processing capacity of Adaptive Server® Enterprise, combined with the speed and compression of Sybase IQ, the information is always online.



“It’s just plain fast.”

– Industry analyst, U.S. Department of Transportation

## ALVION

Alvion Technologies provides data management services to some of the largest marketing data-list owners in the world such as Axiom, Equifax, Experian, and Dunn & Bradstreet. Alvion datasets range up to 190 million records and 200 attributes and the company also manages about a terabyte of data to meet their customers' needs:

- Maintain optimal query response time for the online, self-service delivery
- Allow end-users to execute ad-hoc queries in real time
- Reduce storage costs by minimizing high-speed, disk-space requirements
- Run nightly single-machine data loads fast enough to keep run times within the off-hours window

With the Sybase IQ data warehouse, Alvion reduced its off-hours data load windows by 50 percent, accommodated 4 times growth in usage while also providing for future usage growth, improved query response times by 10 times, enhanced data mining capabilities, and increased overall customer satisfaction.

Customers can now submit up to 5,000 specialized records of information requests and up to 120 gigabytes of data. The Sybase solution then runs customer-specific data transformations and uploads them to production servers for access by end-users. Data update cycles vary from daily to annually.

## U.S. DEPARTMENT OF TRANSPORTATION

The U.S. Department of Transportation's Bureau of Transportation Statistics (BTS), which provides data, analysis and consulting services, needed to develop a high-performance business intelligence solution. Using Sybase technology, it created a powerful system that delivers fast, reliable access to disparate data.

- Reduce query response time by up to 99 percent from 27 hours to 20 minutes
- Increase awareness and knowledge exchange
- Deliver near real-time query responses
- Earned top rating from 100 percent of Web site users

By developing a high-performance solution using Sybase IQ, BTS has given the transportation community fast, reliable access to disparate data. TranStats provides a single point of access, consistent metadata for efficient searches, the ability to selectively download data by a choice of variables, online interactive analysis through tables, charts and dynamic maps, and automatic cross-database linkages and data standardization for more focused analysis and decision-making.

This information is accessed by thousands of users leveraging every analysis tool imaginable from Microsoft Excel to complex statistical and data mining tools. The system contains more than 400 tables across 100 databases, with total raw data storage of roughly 2.5 terabytes (TB), compressed with Sybase IQ to about 1TB. The largest table exceeds 250 million rows, representing 11 years of transportation data, and typical query complexity is three-way joins of four tables. TranStats has helped BTS reduce the time required to process queries, and provides a unified source of data for users. TranStats business intelligence solution is a huge success with an average of more than 25,000 Web hits per day. Loading and indexing data, which used to take hours, now require 30 minutes.

"It's just plain fast," said an industry analyst for the Department of Transportation.

**“Our fast query times are what define us in this industry. We are building in more complexity into the system with Sybase IQ as the backbone while also maintaining lightning-fast response times. That’s going to take us a long way.”**

– Bojan Belovic, Database Administrator,  
Alvion Technologies

## KOREA INFORMATION SERVICE

Korea Information Service (KIS) collects and provides information about companies listed on the Korean Stock Exchange and registered on the KOSDAQ market using Sybase technology to enhance data timeliness and accuracy while reducing its costs.

- Ad hoc query response times reduced from an average of 4 to 5 days, to 1 day
- Reduced data storage requirements from 3 terabytes to 1.5 terabytes
- Significantly reduced TCO
- Zero data analysis errors since deployment of Sybase system

KIS aggregates information such as company overviews, sales breakdowns, capital changes, stock distribution, per share data, financial statements, financial ratios, profitability analyses and cash-flow statements. KIS also provides comprehensive credit-related services associated with all financial and commercial transactions among 270,000 corporations and 35 million consumer individuals. Consumers of this information include more than 40 financial institutions—such as banks, insurance companies, securities companies, etc.—and 1,000 other companies.

KIS required the following criteria for the system: high transaction processing and analytic performance, security, scalability and low TCO. All of this was delivered with the Sybase solution. “The Sybase ASE- and IQ-based KIS is a sophisticated information management tool that gracefully handles complex and changing data, and a data delivery system that provides fast, flexible analysis. “We have achieved an overall increase in performance and lower TCO thanks to Sybase’s data management technology. Most important, not a single error has occurred in data analysis since its installation.” said Lee Choon Keun, senior manager.

## EUROPEAN SOUTHERN OBSERVATORY

The European Southern Observatory, a multinational organization that conducts astronomical research, wanted to accelerate space exploration by circumventing the negative effects of weather. Using Sybase technology, it revolutionized the operations of ground-based astronomical observatories, allowing scientists to complete research up to 10 times faster.


- Save about \$2.6 million in travel costs
- Provide real-time services for mission-critical, transaction-intensive applications
- Improve query performance

Initiated in 1999, DFS is built on a collection of data management tools, databases, and software processes. The end-to-end flow of information from this array drives astronomical observations and stores the data in ESO’s science archive. Data from the archive became publicly available worldwide in early 2005 to benefit the international research community. This development makes ESO a leader in creating the Virtual Observatory concept.

To do this, ESO employs “service observing.” With this approach, astronomers use computer software to design their observing programs where they are. Once complete, they’re transferred over the Internet to ESO headquarters, where they’re checked before being transferred using Sybase technology and stored in local databases. Given the right weather conditions, the observations are executed. The data is then transmitted back to ESO in Munich. After processing and checking for quality, the data is forwarded to the originator and is available for worldwide access via Web-based tools.

“ We have achieved an overall increase in performance and lower TCO thanks to Sybase’s data management technology. Most important, not a single error has occurred in data analysis since its installation.”

– Lee Choon Keun, Senior Manager,  
Korea Information Service



“Since 1999, ESO has captured almost 4 million datasets totaling more than 30TB in size. This is all available on-line with a maximum access time of about 30 seconds to any randomly selected dataset.”

– Dr. Peter Quinn, Head of the Data Management and Operations Division, European Southern Observatory

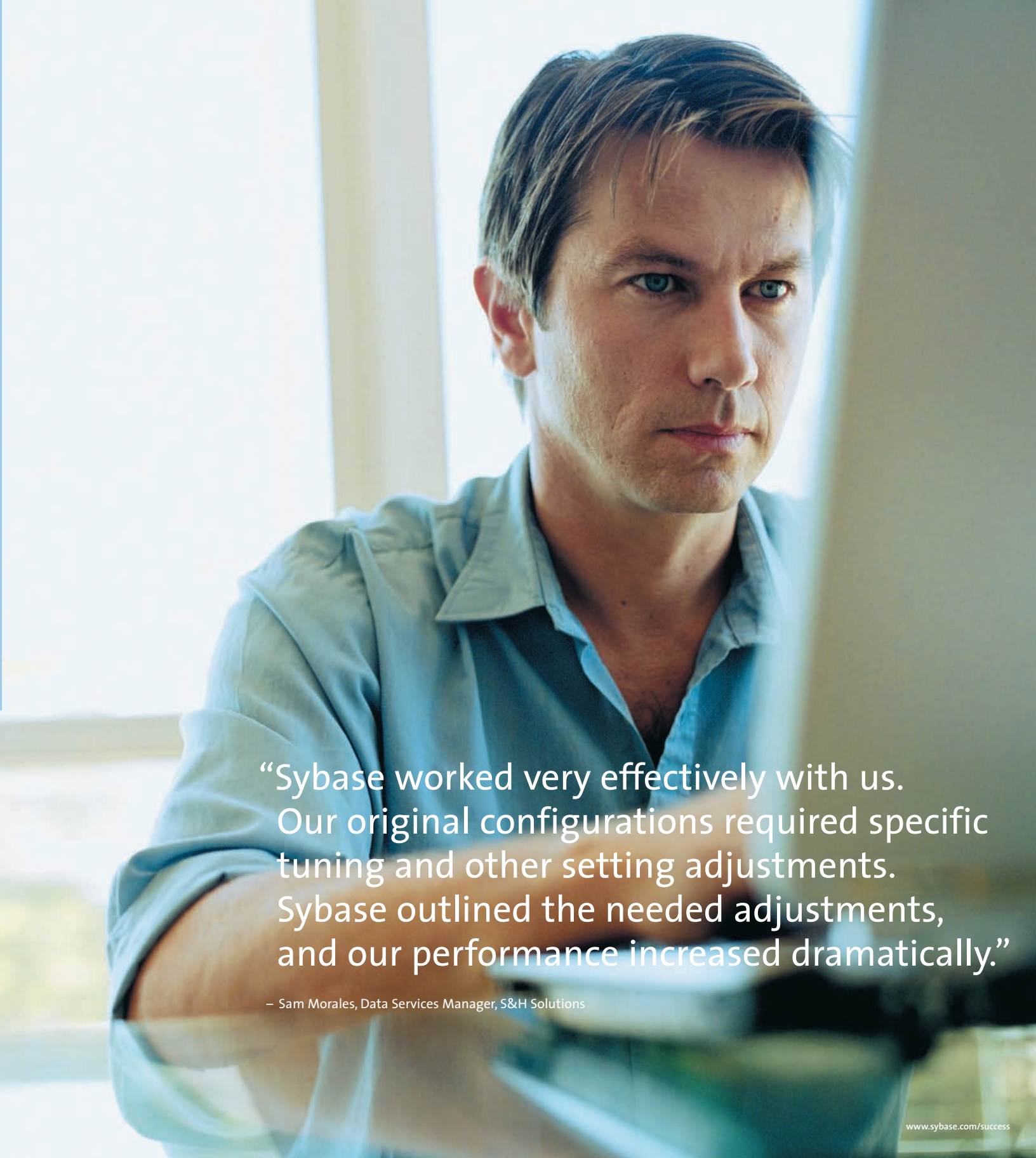


## “The savings are staggering.”

– Dr. Peter Quinn, Head of the Data Management and Operations Division, European Southern Observatory

“The European astronomical community has been extraordinarily enthusiastic about this new approach,” said Peter Quinn, head of the data management and operations division. Service observing is working so well for ESO that other ground-based observatories in the world are implementing the system for themselves.

For ESO, the savings translate to \$2.6 million a year for travel alone. In terms of time, researchers can complete their work 10 times quicker, for example, taking one year instead of 10. A turn-round of that magnitude not only boosts productivity, it also releases the scientist to uncover more answers. With more research at hand for worldwide collaboration among scientists, the concept of the Virtual Observatory is being realized, increasing scientific return on investment.

A man with short brown hair and blue eyes, wearing a light blue button-down shirt, is looking intently at a laptop screen. The background is a bright window with vertical blinds, creating a soft, natural light. The overall tone is professional and focused.

“Sybase worked very effectively with us. Our original configurations required specific tuning and other setting adjustments. Sybase outlined the needed adjustments, and our performance increased dramatically.”

– Sam Morales, Data Services Manager, S&H Solutions



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