

S&H Solutions

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— Steve Ritacco, CTO,
S&H Solutions

KEY BENEFITS

- Increases query performance by 500%
- Provides dynamic ad hoc reporting capabilities
- Customized reports can be tailored in real-time to match retailer advertising cycles
- Increases online reporting historic data retention by 50%

S&H Solutions was looking to expand their hardware capacity to manage significant growth as well as provide for more flexible reporting. By selecting a server with an IBM System p5™ P570, redesigning the database schema, and tuning Sybase IQ, S&H Solutions increased end-to-end performance by 500%. The upgrade gave S&H the ability to grow and to undertake new business intelligence initiatives.

THE MODERNIZATION OF AN AMERICAN TRADITION

As the original creator of customer loyalty, S&H Solutions began over 110 years ago with the nationally recognized customer rewards program, S&H Green Stamps®. Today, S&H Solutions has revolutionized their retail business offerings by providing sophisticated technological capabilities and knowledge tools that enable retailers to deliver in-store real-time, customer specific messaging.

A Sybase IQ customer since 2001, S&H Solutions has recently added an entire new layer of buying pattern analytics to the established loyalty formula. As a result, it gives S&H Solutions a leading competitive position in providing retailers with proprietary customer loyalty solutions, where retail partners can now better analyze the precise buying patterns of repeat customers.

FOCUSED SYNTHESIS ARISES FROM HIGHLY GRANULAR DATA

S&H Solutions' partners transact more than \$70 million per week. This shows the high level of volume they face. Sam Morales, Data Services Manager at S&H Solutions, briefly describes the service provided to retail partners, “In short, we provide our partners (the retail store owners) the ability to target their customers real time and on a one-to-one basis. The S&H system interfaces directly to the retailer's point of sale system and provides detailed reports on shopper behavior and promotions. The customers' unique loyalty card enables the one-to-one communication and data capture.”

Capturing this data at the most detailed level from the point of sale requires processing more than three and a half million customer item purchases from hundreds of stores every day. Sybase IQ provides the level of performance necessary to recognize and extract an in-depth understanding from the large accumulated reservoirs of information.

Customer purchase information data is captured in detail, and stored in the S&H proprietary data warehouse, regardless of the customers' membership status. This information can be reviewed historically to provide retailers with information on customer shopping behavior patterns and promotion acceptance. Data collection can also allow for product-type reporting including inventory management and customer response effectiveness. The various reporting that retailers have access to can provide answers to a question like: What was the promotional sales lift retention? S&H Solutions has developed very flexible reporting tools which include various drill-down capabilities for diverse user groups.

The cornerstone of the analytics solution is information—massive amounts of it. The S&H data warehouse stored in Sybase IQ is close to 1.5 terabytes, compressed, which if it were uncompressed in a raw format, would require at least 3 terabytes (double the compressed size). The main individual item detail table has 4 billion rows, and joins with a 500,000 record Universal Product Code (UPC) table of product lookups. This transaction table also cross references 10 million customers selected across different combinations of hundreds of individual stores.

This volume of information not only allows global trend analysis, it also provides analytics at the individual product and consumer level. Based on report results, customers can be individually identified, segmented, and offered behavior specific messaging and promotions. Each customer is identified with a member number through the S&H



ABOUT S&H SOLUTIONS

S&H Solutions is a leading provider of customer-based loyalty marketing and retail solutions. The company provides sophisticated, real-time technology and knowledge that enables a retailer to deliver real-time, one-to-one messages in-store through multiple hardware platforms. S&H, Green Stamps, S&H greenpoints and greenpoints are registered service marks and S&H Solutions is a service mark of The Sperry and Hutchinson Company, Inc. Additional information is available at <http://www.shsolutions.com>.

ABOUT S&H GREENPOINTS®

S&H greenpoints® is a nationally recognized, integrated reward network. The greenpoints program supports more than 10 million greenpoints members that are connected to retail, online, catalog and credit card through purchases and reward redemption. Additional information is available at <http://www.greenpoints.com>.

system located at the point of sale register. The system will notify the cashier in real-time with shopper specific details such as if the customer is a loyal or high-spending shopper. Real-time connectivity and one-to-one customer communication allows the retail partner to track customers on a continuous basis and develop high-level customer promotions and messaging to increase shopper frequency and loyalty.

TAKING IT UP A NOTCH

S&H Solutions' takes it up a notch by expanding system performance for increased flexibility in reporting capabilities. With the increasing size of the data-warehouse due to an influx of new customers, reporting performance had to be examined and improved.

Therefore, for competitive and operational reasons, S&H Solutions' data team set out to increase both the speed and the flexibility of the system. The team decided to address the situation on multiple fronts: upgrade server hardware, produce a new database model, and enhance reporting capabilities.

SYBASE IQ AND IBM SYSTEM P5™ SERVERS MAKE A GREAT COMBINATION

In order to expand system performance for increased speed and system flexibility, system hardware would have to be improved. Due to the sophistication of S&H Solutions' technology and reporting offerings, the data team had to integrate an advanced and proven solution into its operations. "We knew that other high-level technology companies were beginning to implement the IBM POWER architecture for Sybase IQ and were already experiencing substantial results. The p5™ 570 is priced similarly to its competitors but its performance was almost double in transactions per second. Given these and other relevant factors, we purchased the IBM P570 server, and configured it with four dual-core, 1.9 gigahertz POWER5 processors and 32 gigabytes of memory", stated Sam Morales, data services manager at S&H Solutions.

It was a wise decision. Upgrading to the IBM servers and revamping the data model dramatically increased overall system performance. This upgrade improved system responsiveness as well as allowed for substantial user-base growth.

S&H Solutions also received excellent technical advice and ongoing support from Sybase. Morales recalls, "Sybase worked very effectively with us; our original configurations required specific tuning and other setting adjustments. With the initial implementation, we didn't see the performance we expected. Sybase continued to work with us and outlined adjustments that needed to be made. Immediately our performance increased dramatically."

The combination of IQ and IBM p5™ has paid a handsome dividend in the form of increased speed and capacity. The entire end-to-end process delivered a performance increase of 500%. Specifically, the pool of historical information feeding into the analytics and trend reports increased by 50%, with no impact on performance. With this improvement, S&H Solutions is able to maintain three years worth of transactional data and can immediately access it. "The IBM and Sybase IQ combination offers unbeatable cost/performance and gives S&H a competitive edge in retail analytics", stated Steve Ritacco, chief technical officer at S&H Solutions.

These changes have been well received by S&H Solution's partners. The performance increase was certainly noticed and appreciated. The new reporting capabilities made a profound difference, especially with partner advertising campaigns. Instead of reconciling report dates with each advertising cycle, retail partners have the ability to run reports real time and assign any date period. Additionally, new software was added to the report suite to allow retailer partners the option to build unique, custom ad hoc reports. This capability has saved time and has improved their ongoing analysis capabilities.

Internally, at S&H Solutions, the upgrades completely satisfied management's requirements and the performance results were very apparent. In fact, Morales and his team gave a well received presentation discussing their successful Sybase IQ implementation at one of Sybase's user group conference. Sam Morales stated, "Sybase IQ gives you a performance advantage and it's also very stable. It's been a wise investment for us. Compared to other available solutions, it's very reasonably priced."

INCREASED RETAILER AND CONSUMER LOYALTY

S&H Solutions is able to provide to its retail partner's competitive customer loyalty solutions through the use of high-performance technology and ongoing improvements such as those strategic system improvements made with Sybase. This partnership has proven to enhance S&H Solutions' retail partner's loyalty programs through high-level reports that highlight virtually every aspect of each unique buyer segment. Sybase IQ's high volume capacity brings a critical richness to the data and an enhanced analytical capability. That information creates not only consumer loyalty for the stores, but also retailer loyalty for S&H Solutions.