WebFOCUS

Customer Profile

Information Builders enables agile information solutions with business intelligence (BI) and integration technologies. WebFOCUS – the most widely utilized business intelligence platform – connects to any enterprise system or application and enables simple and intuitive interaction with information.

U.S. Bank

Snapshot

Organization
U.S. Bancorp, the parent company of U.S. Bank, is the fifth largest commercial bank in the U.S. with $282 billion in assets.

The Challenge
Help small-business clients view their debit, Visa, and MasterCard transaction data online and run aggregate reports to track corporate spending.

The Strategy
Create BI dashboards that present a customized view of card payment activity along with one-button access to consolidated statements and reports. Permit customers to review and analyze company credit card spending on a monthly, quarterly, annual, or year-to-date basis.

The Results
A robust customer-facing BI application allows clients to easily monitor corporate credit card spending over various time periods and compare payment data with peer companies to discern industry trends.

Information Builders Solution
WebFOCUS and Professional Services.

Information Builders

U.S. Bank Creates Credit Card Reporting Solution for Small Businesses

High-Performance WebFOCUS Architecture Supports One Million Users

Small businesses have long been a priority for U.S. Bank. The company consistently rates as a top Small Business Administration (SBA) lender and is often lauded as an advocate for small businesses.

Small companies are attracted to U.S. Bank's intense focus on their needs, as well as the company's innovative Internet banking solutions. For example, U.S. Bank's Payments Solutions division recently unveiled a Software-as-a-Service (SaaS) application called ScoreBoard – built on Information Builders WebFOCUS business intelligence (BI) platform – that makes it easy for small business clients to create reports about their credit cards, debit cards, corporate cards, and other types of electronic payments.

"ScoreBoard allows small business owners and authorized officers to monitor their company's credit card spending over various time periods, as well as to compare overall credit card transactions to industry trends," explains Robert Kaufman, senior vice president in U.S. Bank's Payments Solutions division.

Kaufman and his team selected WebFOCUS to create this customer-facing BI application because of its inherently scalable architecture, which can support large numbers of users with minimal hardware investments and IT support. "Information Builders created a reporting infrastructure that can scale to support one million users," he continues. "One of our major goals across the organization is to improve the online experience and encourage more customers to use the Internet channel."

Boosting Revenue Through Online Channels

With multiple services for small business customers – including checking accounts, credit cards, equipment leasing, payroll, insurance, and financing – Kaufman believes ScoreBoard will help boost the adoption of U.S. Bank's online banking services. "We are promoting the ScoreBoard as one of the tools that will help us boost the number of clients using Internet banking services to 50 percent of the customer base over time."

"Information Builders created a reporting infrastructure that can scale to support one million users."

U.S. Bank's ScoreBoard application helps clients create a variety of reports.

U.S. Bank is initially targeting three primary groups of customers with the ScoreBoard application:

- The Elavon payment-processing subsidiary, with about 600,000 customers
- The Retail Payment Services (RPS) division, which has 400,000 customers
- The Corporate Payment Systems division, which has close to 10,000 customers

To appeal to this diverse user base, which includes retailers, restaurants, service bureaus, healthcare companies, and many other types of companies, Kaufman and his team used WebFOCUS to create a BI dashboard that uses in-memory analytics to present card transaction

data in a graphical, easy-to-read format. The visually appealing interface uses Adobe Flex graphics to present four basic types of interactive reports:

- Merchant Summary presents spending at specific merchants, as determined by total dollar amount spent. Users can view the data by individual cardholder or on a total company basis
- Merchant Detail presents this same information at the transaction level, including date, merchant location, reference number, and amount
- Industry Summary recaps spending by calendar month for each individual business card or on a total company basis
- Industry Detail shows purchase activity by account, amount, market segment, and industry

Users can view these reports onscreen, output them to PDF files, or download data into Microsoft Excel and Intuit QuickBooks. About 80 percent of U.S. Bank's small business customers use these popular financial accounting and analysis programs. Automating the data-entry process is a huge timesaver for these firms. "ScoreBoard reports let our credit card customers see spending trends on a monthly, quarterly, or annual basis, with the data broken down by market segment," explains Kaufman. "For example, a customer might see that over the last two quarters, 20 percent of their spending went towards travel and entertainment purchases."

Customers can also compare their spending habits and trends against similar businesses. An insurance broker in Northern California, for example, could see how his office equipment purchases compare to others in that area. To provide these aggregate reports, U.S. Bank forged a partnership with Visa to obtain data from across its nationwide network.

Building a Scalable Reporting System

Kaufman credits Information Builders Professional Services for managing a complex project that included several distinct teams from U.S. Bank and its Elavon subsidiary. Business leaders and technologists contributed insight, with help from the U.S. Bank infrastructure team, which hosts the application, and core technology group, which supplies the data. "We went from idea to implementation in about five months," Kaufman says.

The team created a clustered, three-tiered architecture designed for maximum scalability. The WebFOCUS Reporting Server is installed on 64-bit Windows computers running Windows Server 2008. Each computer uses 16 processors and 32 GB of memory. This efficient and cost-effective configuration uses relatively inexpensive commodity hardware, offering all the advantages of high-end symmetric multiprocessing and host-based systems for a fraction of the cost.

WebFOCUS Scalability

WebFOCUS provides a foundation for large-scale BI deployments at a relatively low cost by minimizing hardware, maintenance, and support requirements. WebFOCUS Reporting Server is a highly efficient reporting, query, and analysis engine that ensures optimum performance, even as the demands placed on U.S. Bank's ScoreBoard environment continue to grow.

Find Out More

To find out how our solutions can help your company succeed, talk to an Information Builders representative today. Contact your local Information Builders office, visit us at **informationbuilders.com,** or in the U.S. and Canada, call **(800) 969-4636.**

The cluster in this first tier is geographically distributed to ensure business continuity, with half in one data center and the other half in another. Information Builders tested the resiliency of this architecture by suddenly disconnecting the servers in one data center. Report requests were instantly routed to the other data center, with zero failover time.

The second tier includes an application server cluster, based on IBM WebSphere, which operates in a Sun Solaris environment. This is where the WebFOCUS clients are installed. The third tier hosts an Oracle database, where U.S. Bank maintains the ScoreBoard data.

High Performance, Low Administration

WebFOCUS ensures scalability by providing advanced clustering, load-balancing, failover, and queue management capabilities. WebFOCUS also supports discrete caching, preemptive governing, query analysis, and has its own scalability tool for fine-tuning a runtime environment.

As an example, with WebFOCUS' built-in load balancing and failover enhancements, a server can be asleep during off hours to conserve resources or awakened during peak performance times to preserve performance levels. WebFOCUS uses server resources only when accessing or processing data, while other types of BI tools require persistent connections to the reporting server, which consumes valuable server resources. Server multi-threading permits multiple users to share the same resources, eliminating the risk of server overload and allowing for greater concurrency.

WebFOCUS queries are dynamically partitioned, with complex number-crunching and aggregation operations optimized across the back-end database and reporting servers, not the Web server or desktop. Thus a single processor can maximize system performance by serving multiple, simultaneous user requests.

WebFOCUS includes many tuning parameters and configuration options on the Reporting Server to fine-tune throughput and optimize the management of report requests. Administrators can easily scale out each tier by adding more hardware to the cluster, and can proactively manage this virtual infrastructure using the WebFOCUS Cluster Manager, Autonomic Server, and Workload Distribution Facility, which intelligently routes requests to servers that have the most available capacity.

The team performed scalability tests using the Cluster Manager, demonstrating that this WebFOCUS configuration could handle all the traffic that U.S. Bank expects to receive from small business customers. The Cluster Manager lets users manage the distribution of requests to the clustered WebFOCUS reporting servers – optimizing scalability and response time. Reporting servers are currently configured to process 300 simultaneous report requests. Since these are short-running requests, the system can theoretically support about 700,000 sessions per hour.

Information Builders

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