

## REAL WORLD CUSTOMER VALIDATION SCENARIOS PROVEN!

### COMPANY PROFILE

- Ranked the largest provider of information technology services to the U.S. financial services industry
- Reported \$4.1 billion in total revenue for 2005
- Provides information management systems and services to the financial and health benefits industries
- Company serves more than 17,000 clients worldwide

### OBJECTIVES

- Tenfold increase in user base anticipated for financial services enterprise management application, IntelligEnt
- Needed to validate that IntelligEnt application would scale well to support anticipated tenfold increase in user base
- Needed to examine architecture, so that product could shift from point solution to a hosted model in a future product release

### BUSINESS CHALLENGE

Fresh on the heels of releasing its new flagship product IntelligEnt, Fiserv Customer Centered Solutions (CCS), a business unit of Fiserv, Inc. (Nasdaq: FISV), was setting the bar higher for its next product release – and with good reason. The company anticipated aggressive growth and a new customer was expected to adopt the next release of their IntelligEnt suite. The new installation, with the highest number of concurrent users IntelligEnt faced to date, would quickly prove whether the application could perform well under pressure.

The Fiserv CCS team was confident in its product, but wanted to ensure that the end user experience and overall customer satisfaction would be high at this newest deployment. With 10 times the current number of concurrent users anticipated, Fiserv CCS needed to validate that IntelligEnt would scale sufficiently and perform well at high usage loads. Equally important, Fiserv CCS wanted to make sure IntelligEnt was architected so that it could potentially shift from being a point solution to a hosted model in a future product release.

As an enterprise relationship system for financial institutions, IntelligEnt provides mission-critical information to end users, running the following core functions, also sold as functional modules:

1. Business Process Management – a work flow engine to handle actions like stopping a check payment, opening an account and conducting a financial transaction
2. Contact Management – used by the call centers and to track customer interactions
3. Sales Force Management – for managing customer and prospect information, and tracking sales opportunities and performance against goals
4. Campaign Execution – for outbound telemarketing
5. Email / Calendar Management

Fiserv CCS's team conducted its own initial performance evaluation. But because of limited time and staff availability, the firm chose an independent third party – Summa – to assess its application performance, identify areas for improvement and establish a repeatable process for measuring and managing performance to meet future near and long-term product goals.

"I was familiar with what differentiates Summa based on my previous experience with them as a customer," said John Puccetti, vice president of product technology for Fiserv CCS "I knew their people would be senior technologists, would be able to quickly become integrated with my existing staff, and would be able to work well independently."

Puccetti added, "Summa's technicians have a strong architectural awareness which is what differentiates them from a traditional staff augmentation firm. Not only do their people have good depth and breadth of technical knowledge, but they also excel at designing and building extensible, open architecture systems".

## SOLUTION

- Summa Performance Engineering Solution – assess performance, isolate issues and conduct any necessary remedial actions
- Built scalable, repeatable performance testing process, structure and scripts
- Executed testing program and architecture evaluation
- Identified opportunities for application and database structure enhancement

## RESULTS

- Validated scalability
- Improved performance: 20x faster processing of most common transactions
- Executed changes with no compromise to end-user experience
- Plotted architecture modification map for hosted model

## SUMMA SOLUTION

First, Summa interviewed the Fiserv CCS technical team and examined diagnostic information from the earlier performance slowdowns, hunting for clues. Summa also interviewed customers and prospective customers to better understand how they planned to use the system. This “detective work” helped Summa to document key usage patterns and create validation scenarios.

Next, Summa focused on arming Fiserv CCS with best practices for conducting load testing in a rigorous and repeatable manner. The Summa team implemented testing tools and infrastructure, and layered scalable, re-usable processes and test scripts – based on those real-world customer validation scenarios – on top.

Then, Summa ran tests – lots of them. First, the team established a baseline measure of performance. Then, it conducted load testing using the projected anticipated transaction mix and load, basing this volume of transactions and data and historical demand by real customers plus projected additional users. Incrementally ramping up the load allowed the team to isolate and address any bottlenecks until full hardware and network saturation was achieved.

Summa’s performance testing framework pinpointed opportunities for critical application and database changes with big payoffs. Improvements at different layers of the architecture – including application design, server and database tuning – enabled IntelligEnt to push significantly more data at a faster speed through the workflow engine. Summa and Fiserv CCS conducted additional sequences of tests to measure impact of Internet connection speed on IntelligEnt performance and to determine whether the host system database might impact performance, and whether specific hardware configurations were required to optimize performance.

Most important, Summa provided a repeatable performance testing framework and validated that IntelligEnt was a scalable product through “clustering” – the practice of adding additional hardware (servers) to support additional users. Clustering benefits organizations because it eliminates a single point of failure and simplifies resource cost allocation as additional users are added to a system.

“Through this repeatable performance testing framework that Summa established, we were able to show that IntelligEnt was scalable,” Puccetti said. “This was a significant milestone in the IntelligEnt product’s life and validated our architecture and design.”

## RESULTS

Puccetti is pleased with the outcome. “Now we’re confident that we can scale to serve customers with multiple thousands of users.” Plus, Fiserv can offer its customers recommendations on network speeds and hardware configurations to optimize performance with SQL Server and Oracle Database, the two platforms that were tested.

Not only was performance faster, Puccetti said, but also system memory requirements were reduced and the user experience was not compromised. Summa’s work improved overall system performance by an average factor of 20 for the most common “IntelligEnt” transactions.

Fast performance matters to Fiserv's customers. Banks are always seeking ways to quickly cross-reference data about a customer to potentially up-sell them other services. Being able to quickly access key data in the midst of conducting business with that consumer helps banks to suggest appropriate services to the customer while they are standing at the teller window.

"What we initially were looking for was a baseline performance measurement. We were pleased that Summa was able to also improve performance as much as they did."

#### **ABOUT FISERV®**

Fiserv, Inc. (Nasdaq: FISV) provides information management systems and services to the financial and health benefits industries, including transaction processing, business process outsourcing and software and systems solutions. The company serves more than 17,000 clients worldwide, including banks, credit unions, financial planners and investment advisers, insurance companies and agents, self-funded employers, lenders and savings institutions. Headquartered in Brookfield, Wis., Fiserv reported \$4.1 billion in total revenue for 2005. Fiserv was ranked the largest provider of information technology services to the U.S. financial services industry in the 2004 and 2005 FinTech 100 surveys by the *American Banker* newspaper and the Financial Insights research firm. Fiserv can be found on the Internet at [www.fiserv.com](http://www.fiserv.com).

The Fiserv CCS division provides software solutions that enable financial institutions and service providers to drive profit by effectively leveraging information technology. The CCS business unit functions as a software product development company that produces solution suites both used by other Fiserv divisions and sold through them to hundreds of financial institutions worldwide.

The CCS product, IntelligEnt Suite offers users a complete suite of contact, relationship and information management, sales force automation, analytics, business process management and business intelligence tools.

#### **ABOUT SUMMA**

Since 1996, Summa has been providing high-impact IT consulting services and customized, commercial-grade software development for companies ranging from regional businesses to Global 2000 firms. Summa specializes in helping companies evaluate and implement IT modernization strategies to better meet their business objectives.

Whether a business needs a web accessible interface to a mission-critical application, to renovate legacy systems, or to connect existing applications, Summa can help.

Summa is an IBM Premier Business Partner, a BEA Select Level Partner, a Microsoft Certified Partner and member of the Oracle Partner Network. In addition to the corporate headquarters in Pittsburgh, Summa maintains a subsidiary in Sao Paulo, Brazil.

For more information, visit [www.summa-tech.com](http://www.summa-tech.com).

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