

THE COMPUTERWORLD HONORS PROGRAM

CASE STUDY



LOCATION:
*Lake Mary, Florida,
United States*

YEAR:
2006

STATUS:
Laureate

CATEGORY:
*Finance, Insurance
and Real Estate*

NOMINATING COMPANY:
Sybase

ORGANIZATION:

Fiserv

PROJECT NAME:

Titan

Summary

Fiserv National Archive is designed to work primarily with small to medium financial institutions, giving them the ability to compete head to head with the largest financial institutions. Before the creation of this facility, small to medium financial institutions were at a competitive disadvantage with larger institutions. They couldn't deliver the flexible servicing options that a larger institution could because they couldn't afford the high cost of technology itself.

Traditionally, these second tier institutions had always provided a high degree of personalized service to their bank customers. However, by the mid 1990s the large institutions were using electronic equipment and technology to relieve the burden on their employees and deliver what they believed would be improved service at reduced costs. In reality, however, this did not translate into improved service, just reduced cost.

With the creation of the Fiserv national archive, Fiserv's objective was to pass on similar savings with increased service to their customers. This would allow the small to medium bank to remove the processing burden from their day-to-day workload and, as a result, provide more real services and technology to their customers.

This document describes some of the steps that were taken to make this happen.

Introductory Overview

In 1994, Fiserv saw the emerging need to level the technology playing field for small to medium size banks. At that point in time, it was not known if technology alone would save this tier of financial institution, but it was widely known that if something was not done to lower the cost of technology to this tier of banks their numbers would drop considerably over the coming years. Fiserv embarked on an aggressive consolidation of technical capabilities that could be offered to the small to medium bank remotely from a central data center. During this initial stage, the offerings were made from a number of locations around the US. These were consolidated in 1996 into the Fiserv national archive in Atlanta.

The goal was to provide the smallest institution with the same advantages that image processing was then providing to the large institutions. These advantages included customer convenience



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and retention, as well as back-office processing efficiency. When this was coupled with the core processing capability offered by Fiserv, it was possible for the smallest bank in the US to provide the same services to its customers, and in some cases more services, than were available from the largest of institutions.

These services included, but are not limited to, the ability to have bank customers query on any check 24/7, and retain checks in an image archive that is available for documents that are up to 7-years old. Small banks could now provide their customers with image statements, send their commercial customers image CDs, provide image-based research and returns processing, and full home banking capabilities, to name a few. By having the small to medium bank customers send their checks to the regional Fiserv processing centers, which are totally Image enabled, the institutions were able to capture images of all their checks into the archive without the outlay of large sums of money for the image enabled capture technology. Now, the smallest institutions and Credit Unions have all the technical capabilities of the largest banks, and in many cases, these smaller more agile institutions can use this capability to provide services to their customer base more quickly and dynamically than their larger competitors.

As a result, this lower end tier of the financial institution market is still growing and gaining new customers 12 years after many in the financial market were saying that only the large institutions would survive.

Benefits

There is no doubt that this project which started over 12 years ago has helped the financial institutions it was designed to help. Throughout this period, the number of services offered by each institution has expanded greatly. Also, the number of institutions being serviced by this national archive has increased at double digit rates year over year. Prior to Fiserv providing this service, the customer of the small to medium bank could not get access to a paid check until they received their statement. Today the bank customer can access check images via the Internet anytime day or night and view a check document that has been received by the bank 5 minutes before, or see any check document that has been seen by the bank for the last seven years. In today's world, these banks use the Fiserv technology to allow the bank customer to truly do banking 24 hours a day, as well as allow the bank to pay the customers' bills electronically. Without this technology, none of this would be possible.

It is widely acknowledged by the financial industry, as well as the national and international press, that the use of technology has fundamentally changed banking. As a result, it has also provided the bank customer freedom of access that was never available in the past. The use of this technology today has become ubiquitous to the point today that people under the age of 30 do not know any difference.

At this point, the use of image is becoming a basic standard of not only the financial industry but across business in general. By using image in all business processes where the document image is captured as early in the business process as possible, much of the labor expense related to routing, filing, and managing documents is eliminated. In addition litigation, disputes, and questions related to transactions are eliminated because the an image of the original document is used for all correspondence and business process. The image is always available 24 hours. It is backed up to eliminate document loss, and in many cases, full disaster recovery sites are used to ensure long term availability of the information.



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When Fiserv Imagesoft started working with image-based technology in 1987, the general feeling was that there was not a need for this capability. As a result of much hard work on the part of many visionaries, this technology and the capabilities deployed by Fiserv, the use of this technology is growing exponentially both domestically and internationally.

The Importance of Technology

Let us look at the technological innovations that have made this practical. There are many key technologies with which the present growth and ease of use of this image capability would not have happened:

- The first capability was the placing of a high speed image camera on the REI Trace 1000 in the mid 1980s. This enabled the bank to now capture pictures (check images) at over 40 front and back electronic images per second. Up to this point this capability existed, but it was cost prohibitive to be used practically in a financial institution.
- The cost of storage was a restrictor to the wide growth of the use of image. Up to the late 1990s the primary form of long term storage was optical storage and tape storage. By 1998 disk storage cost had dropped to the point where large archives of image data on hard drives were becoming practical with the increase in retrieval speeds that is tied to the use of hard drives.
- From the very beginning network communications have been crucial to the use of image within the financial institutions. The cost of these networks has continued to drop to the point that in the late 1990s banks were considering opening their internal image archives to the bank customers. This was initially done on a dial-up basis but the line speed restricted use. Also financial institutions were reluctant to open up the internal archive because of security concerns. This was resolved in the late 1990s by practical hardware encryption and firewall capabilities. The internet was also becoming a practical network option in the late 1990s for the bank customers, but did not become a commonly used communications network until the early 2000s.
- The managing of image data in an archive has been technically demanding from the very first. In the beginning the RDBMS were very primitive and did not handle very large databases with rapid content growth. Sybase has had as its goal a very high speed and efficient internal engine which has allowed it to work easily with the ever growing 100 TB + image archives. This was the capability that allowed rapid growth in the archive over many different media types.

Fiserv has been a leader at every step of this technology growth. Throughout, Fiserv has found ways to get the most out of the available technology so as to deliver a bundle of services to its stated customer base (small-to-medium sized financial institutions) at as low a price as possible. At each step along the way the technology's envelope has been pushed so as to reduce the cost to the customer while increasing the services provided. The capabilities presented here would not have been practical without the rapid growth of technology that has allowed the financial institutions to keep up with the almost insatiable demand for service by the bank customers. As a result of this demand the bank customers keep the pressure on Fiserv to supply these services to the banks.



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Originality

Fiserv Imagesoft has been the leader in the use of image processing from its conception in 1987. Much of the original work in this area came from the engineers and visionaries that comprised this organization. This fact has been proved many times due to other organizations claiming ownership of some image processing capability which has been disproved through the use of original art from Fiserv Imagesoft.

Fiserv Imagesoft was the first to install and put into production image-based applications in 1988. The organization has maintained its industry-leading position to this very day. The Fiserv national archive is one of many organizations making use of image-based technology to make the life of the average bank customer easier and more productive. In addition, Fiserv Imagesoft, as well as the Fiserv national archive, is heavily involved in developing systems to reduce the growing threat of fraud in the financial system today.

Success

When the predecessor to the current Fiserv National Archive was set up in 1993 – 1994 as a prototype to determine the acceptance by the project client base, acceptance was far beyond expectation and that growth even exceeded projections that were re-estimated on a 6 month basis. This growth led to the creation of the Fiserv national archive in 1996 – 1997, which at the time was expected to have far beyond the capabilities that would be needed for the next 4 to 5 years. These projections were rapidly surpassed. As more technology became less costly (storage, Internet, and delivery) more and different uses were rapidly brought on-line. These were made available to both the bank customer and the customer of the bank. With every passing year, starting from the first year, the bank customer has seen an ever increasing array of services many of which he/she can use from the comfort of their home through the internet.

Because of the nature and breadth of the services delivered, it is difficult to project the numbers of bank customers that make use of the services. There are well over 1200 bank customers today making use of the Fiserv National archive. Each bank will have 150,000 + account holders, most of which are husband and wife. This means that every day the Fiserv National Archive could be accessed by well over 360 million bank customers. This has all been accomplished in the background with no disruption of services to the customer. The customer can be comfortable in the knowledge that all the technology is fully backed up and is supported by a full DR capability.

This same capability is being offered to Canadian bank customers through a similar center being set up in Toronto.

Difficulty

As shown above, none of this was accomplished easily. At every step there were many well known industry leaders that stated very publicly that there was nobody in the market for such a capability and that what was in use at the time provided all the capabilities needed by the financial institutions and the customers of the institutions. In addition, because Fiserv Imagesoft has been on the leading edge of this technology from the very beginning using the available technology to provide the required services, we were forced to plow new ground at every stage.