COCC innovates in banking services, improves user experience

Enabled by enormous gains in I/O performance with IBM FlashSystem technology

Overview

The need
At COCC, beating larger competitors demands a laser focus on customer experience, especially for web-based systems. Existing technology was not able to meet growing needs for speed and extensibility.

The solution
Replacing conventional disk storage with an IBM® FlashSystem™ array gave COCC the performance, scalability and flexibility to give its clients a radical new web-app-based approach to banking services.

The benefit
Boosted online transaction speed by a factor of ten, for fast client service; cut physical footprint by 75 percent and energy usage by 80 percent; avoided estimated $500,000 of additional software fees.

COCC was founded in 1967 to deliver technology's promise through banking solutions. This mutually owned organization—approximately 80 percent of COCC's clients are also shareholders—today offers a broad range of banking technology services, from core processing to business process management, with an absolute focus on client success. COCC is headquartered in Avon, CT, and serves approximately 200 mid-market banks and credit unions across 20 states.

Excellence in client service is vital to COCC, and the company has a particular focus on delivering reliable and responsive performance on its core banking platform. When COCC saw an opportunity to innovate on this platform, it realized that the proposed new functionality might slow down the service.

Steven Reis, Infrastructure Manager, explains: "Core banking systems are traditionally stable and reliable—but also inflexible. We wanted to differentiate our service by giving clients a unique new ability to plug in browser-based applications to quickly extend and adapt the core functionality. Moving from a classic client/server approach to a completely new web-based user interface was a huge step, so the performance had to be sparkling to ensure user acceptance."

COCC evaluated an IBM FlashSystem 820 array to replace its existing top-tier storage—and immediately gained the performance boost it needed.

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Accelerating time-to-value

COCC initially deployed four RamSan devices (the previous generation of IBM FlashSystem arrays) into its production environment, boosting website response times by a factor of ten and dramatically improving the user experience. With no performance issues to hold them back, client users were able to focus on learning the new interface and seeing all the advantages it would give them.

"With FlashSystem ensuring extreme responsiveness, we were able to accelerate user acceptance and cut the time-to-value for our clients," comments Reis. "As we have added more and newer FlashSystem units over recent years, our capacity has grown significantly without a corresponding increase in physical or environmental footprint."

The company continues to use older models alongside its two recently deployed FlashSystem 820, and enjoys significant decreases in cost per terabyte with each successive generation of the technology.

"We continue to evaluate other options, and we always come back to FlashSystem," says Reis. "Right at the outset, the price point was already compelling when stacked up against the alternative of re-writing our software. And today, the price per terabyte is three times lower."

Fast, compact, efficient

The FlashSystem arrays at COCC act as Tier 0 storage for core banking services running on IBM Power Systems™ servers, supporting both online and batch tasks throughout the day, and integrating seamlessly with non-IBM enterprise storage systems. As well as supporting enterprise applications with special performance demands, the FlashSystem array hosts the golden copy for COCC's 350 VMware View virtual desktops in its disaster recovery center.

COCC estimates that its FlashSystem storage can deliver the same capacity as conventional spinning-disk storage, but in a 75 percent smaller physical footprint and with 80 percent lower energy consumption. As the company continues to expand its FlashSystem landscape, it is handling enormous growth in transaction volumes without hitting floor space or power constraints in its data center.

Solution components

Hardware
- IBM® FlashSystem™ 820
- IBM Power Systems™

"For us, FlashSystem represents the top level of performance in storage today, and is one of the key technologies that makes our infrastructure an enabler in competing against bigger players," comments Reis. "The extreme I/O performance of FlashSystem allowed us to create this unique environment in which clients can flexibly deploy new apps linked to their core banking systems. One is a CRM-style application that helps in-branch tellers understand the complete relationship with the customer—for example, so that they can make on-the-spot decision to waive a penalty fee for a long-standing customer."

Lightning speed, huge cost savings

All across the board, COCC is seeing spectacular performance figures from its FlashSystem arrays. Oracle database transactions consistently run in less than 100 milliseconds at all times. Overnight batch runs used to terminate at 6:00 a.m.; more than 90 percent of them are now complete before midnight. Where Power Systems servers could previously only run at 50 or 60 percent utilization, their CPUs now run at 80 to 90 percent because they are no longer waiting on data.

"Beyond the outright speed improvements, FlashSystem technology is saving us money on Oracle database licensing," adds Reis. "That's because we can get the same performance using fewer Power Systems servers, resulting in estimated savings of around $500,000 in licensing fees alone—not to mention the additional hardware costs."

The other major advantage of the FlashSystem array is its low administration requirements. Reis states that COCC's DBAs spend far less time managing file systems and indexes or tuning queries, enabling them to focus on other tasks. "In the past, we had to actively move storage volumes and add disks to meet SLAs for clients—we never have to think about any of that today," he says.

The innovative core banking platform made possible by FlashSystem technology has supported COCC in acquiring four major new clients, and has helped deliver the company's best-ever financial years.

"FlashSystem technology has been a major enabler of growth at COCC, helping us to deliver unprecedented speed and flexibility to our clients, and giving us a significant competitive advantage," concludes Reis.

For more information

To learn more about IBM FlashSystem products, contact your IBM sales representative or IBM Business Partner, or visit us at:

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