

Reduce Costs and Accelerate Payments Processing with EMC Payments Solution

Summary

Challenges

- Growing volumes of payments transactions straining existing systems
- Increased time for batch processing jeopardizing revenue
- New regulations, such as the Single European Payments Area (SEPA), and increasing competition reducing profit margins
- Mainframe upgrades evaluated as too costly an option to address performance shortcomings

EMC Payments Solution for Financial Services

- Symmetrix DMX-4 and Enterprise Flash drives

Results

- Avoided mainframe upgrades costing more than U.S. \$3 million with an approximately \$500,000 investment in the EMC Payments Solution
- Substantial application and systems performance improvements of batch processes
- Flexible, lower-cost EMC architecture to offset higher costs of SEPA compliance and provide competitive advantage

European payments company avoids U.S. \$3 million upgrade and cuts critical batch processing cycle by five hours

Challenges

Payments firms worldwide are processing growing volumes of electronic transactions as retail and commercial customers favor credit and debit cards over cash and checks. With this shift, the volume of daily and monthly transactions has spiked. Existing systems and architectures not designed for these increased loads are taking longer to complete batch processing of transactions. Because of the sequential nature of batch processes, time to process transactions is delayed further, which has severely negative consequences for payments firms.

Operating in a business with low profit margins, payments firms can increase their profitability by processing more payments messages in less time. Delays in authorizing realtime transactions and running daily and monthly processes are costly. Fees cannot be charged, funds cannot be transferred, and customers and merchants cannot be paid. In addition, certain processes must be completed within specified windows to avoid both cash and funding issues. If payments processors do not satisfy service-level agreements (SLAs) with their customers, they must pay fees that directly cut into their profits.

A leading European payments processor was facing these issues as time to run its batch processes continued to grow. Responsible for processing more than six billion debit and credit card payments annually, this large firm was required by SLAs to meet 99.99 percent uptime and other strict service levels for payment processing.

The company is preparing to comply with the Single European Payment Area (SEPA), a European Union (EU) regulation that will require payments processors to lower their fees for cross-border payments. These lower fees will reduce revenue and profits for the firm.

Competition from new entrants such as PayPal and others providing new services also are challenging the firm. To compete in a changing market, this company and other traditional processors must lower their fees and provide new offerings. The company determined that they could address performance issues and SEPA compliance by substantially lowering their IT costs per transaction. Lower transaction costs also would give them flexibility to be more competitive and improve profit margins.

EMC Payments Solution for Financial Services

Before making a decision on a solution, the payments firm evaluated various alternatives. First, they could run more jobs in parallel, which would require a substantial mainframe upgrade of 1,000 MIPS (million instructions per second) at an estimated all-in cost of at least U.S. \$3 million. This option would be only a temporary fix as increasing loads would soon exceed batch windows. Second, they could reduce batch job times by running them sequentially without impacting daily processing.

The company's existing EMC® Symmetrix® DMX environment stored critical credit card and payment system data on 54 mirrored 73-gigabyte Fibre Channel 15K RPM disks running in an IBM DB2 mainframe environment. To enable fast access to this data, only a minor part of the logical volume (referred to as "short-stroked disks") was used.

After a three-month evaluation, the company determined EMC Enterprise Flash drives were the most effective way to improve performance and lower costs. EMC Services successfully designed and deployed an EMC Payments Solution that replaced 54 of the company's Symmetrix DMX 73-gigabyte Fibre Channel drives with 16 Symmetrix DMX-4 RAID 5 (7+1) Enterprise Flash drives, providing two terabytes of flash capacity and data protection.

Results

After the EMC Payments Solution was deployed, the payments company achieved several substantial improvements to both its business and IT operations.

The Enterprise Flash drives immediately delivered a performance increase from 4,000 to 6,000 I/Os per second and a reduction in average response times by more than 60 percent. These improvements reduced monthly batch process times from 22 to 17 hours.

By improving their application performance with an approximately one-half-million-dollar investment in the EMC solution, the European company avoided the IBM mainframe upgrade at an estimated cost of more than U.S. \$3 million. The net savings were estimated to be at least \$2.5 million. In addition, decreased daily and monthly batch processing cycle times have protected the company from the risk of revenue loss by ensuring they complete processing within SLA windows. And, they are prepared to handle huge workloads driven by ongoing growth of payments volumes.

Additional savings were achieved with consolidation. The EMC solution allowed the firm to reduce the number of storage drives from 54 to 16 and the number of DB2 database volumes from 600 to 80, contributing to lower administrative and energy costs and, ultimately, lower costs per transaction.

With a lower-cost, flexible architecture, the company is anticipating market share growth because the costs of SEPA compliance will force smaller firms to exit the market. The company will offset lower SEPA-mandated fees with lower costs per transactions, further strengthening their competitive advantage.

Because of the successful deployment of the EMC Payments Solution for Financial Services, the European payments company is planning to extend their usage of EMC Enterprise Flash drives to address their risk management challenges, and evaluate other components of EMC's Payments Solution for archiving and fraud prevention.



EMC Corporation
Hopkinton
Massachusetts
01748-9103
1-508-435-1000
In North America 1-866-464-7381
www.EMC.com