

# Retail Performance Crisis Solved

## Case Study



## The Business Challenge

A large international, multi-chain retailer headquartered in Ohio was working hard to meet the PCI data security requirements by the end of 2007. As a Level 1 Merchant, the retailer was undergoing a mandatory PCI audit and was required to be fully compliant by encrypting sensitive data. With multiple server platforms, different operating systems, and a wide variety of applications, the company had worked hard to identify all of the applications and databases that contained credit card information, and had purchased encryption and key management software to secure the data. They thought they would meet their compliance deadline with time to spare.

## About Townsend Security

Townsend Security provides data encryption & tokenization, key management, secure communications, and compliance logging solutions to Enterprise customers on a variety of server platforms including IBM i, IBM z, Windows, Linux, and UNIX. The company can be reached on the web at [www.townsendsecurity.com](http://www.townsendsecurity.com), or (800) 357-1019.

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## What They Had Not Done Was Test The Encryption Software Performance

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With just a few weeks to go before the deadline the IT testing team discovered that a nightly batch job would take 9 and ½ hours to complete. This was a dramatic increase in processing time due to the encryption load, and would not fit into their nightly processing schedule. Upgrading the

### PERFORMANCE STUDY:

**Many Enterprise customers do not realize that the performance of encryption solutions can vary greatly from one vendor to another. Even for the identical type of encryption and key size, the performance can vary by a factor of 100 or more! The impact of poorly performing encryption solutions can be severe. Missed deadlines, expensive hardware upgrades and increased software license fees, and the inability to enhance applications to meet competitive challenges add very real costs to a data security project.**

production and backup server platforms would cost over \$1 million in hardware and license upgrade fees, and could not be accomplished in the short time remaining. Panic set in as their encryption vendor was unable to improve the run times. The company was facing the prospect of missing the PCI deadline with severe financial consequences.

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## Meeting The Performance Challenge

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Townsend Security was asked to help evaluate the problem and propose a solution. Within 24 hours the company had identified the problem as a poorly optimized encryption solution and proposed a replacement with its own encryption and key management technology on the IBM I platform. The company provided side-by-side comparisons and analysis software with source code so that the retailer could perform its own analysis of performance. The retailer learned that the performance improvements would be dramatic!

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## Speedy Success And A Well Kept Secret

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After performing their own analysis of encryption performance the retailer switched to the Townsend Security encryption suite on the IBM I platform. The nightly batch run times went from 9 and ½ hours to 10 minutes! The company met its PCI data security deadline and saved thousands of dollars in expensive hardware upgrades and license fees. It retained the confidence of its investors and the IT team delivered to company management. The return on investment was the fastest they had ever experienced for any software package.

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## Lessons Learned

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Encryption solutions can vary greatly in performance and this can have large consequences for compliance and to on-going hardware and software costs. A company with poorly performing encryption may not be able to enhance its systems to meet competitive challenges, incurring lost opportunity costs. Technologists are learning how important it is to test the performance of the solutions in the early stages of a data security project. Because applications vary greatly in their design and implementation strategies, you should never deploy a vendor encryption solution without testing it in your own application environment.

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