SAS OPTIMIZATION SOLUTION

LEGAL RESEARCH FIRM CASE STUDY

WHO IS OUR CLIENT?

Our client is a legal consulting and research firm that provides a myriad of subject matter experts and data technologies to support their clients during complex litigation and regulatory proceedings. Their consultants provide economic and financial analysis and expert testimony to attorneys, corporations, and government agencies.

The company's practice areas include: accounting; antitrust and competition; bankruptcy and financial distress litigation; consumer fraud and product liability; corporate governance; corporate transaction litigation; data analytics; Employee Retirement Income Security Act (ERISA); energy and commodities; financial institutions; intellectual property; international arbitration and litigation; labor and employment; pharmaceuticals and healthcare; real estate; securities; and valuation.

WHAT WERE THEIR CHALLENGES?

As an organization that provides statistical analytics to their clients, every moment waiting for a query to finish is a potential lost opportunity. To our client, waiting unquestionably meant lost time and money.

Prior to engaging with Saturn they were having performance and execution issues with their SAS system. At the time they ran SAS in a multiple Intel server Windows environment utilizing EMC storage. The system was unreliable. Significant time was being wasted because jobs were crashing requiring constant reboots.

Our client's goal was to improve the reliability and performance of their SAS system. They needed an alternative, scalable, Windows infrastructure that was optimized for their SAS environment while also consolidating their existing analytics platforms into one easy to support environment. Their goal was to leverage faster, scalable processing, to support analysis their SAS system was previously unable to perform.

sas
THE POWER TO KNOW.

WHAT WAS THE PROPOSED SOLUTION?

Saturn's analytics team, SAS architect, and Power 8 enablement group educated the client on a new architecture optimized for SAS.

The solution consisted of utilizing Power 8 and IBM Flash storage to consolidate and replace the existing Windows and EMC environment, then migrating their applications to run under Power 8 and AIX.

The solution consisted of the following hardware and software:

The IBM Power824 was designed to consolidate the existing eight server Windows Grid infrastructure into one scalable, easy to use, high performance platform.

The EMC VNX storage could not provide the application enough I/O to support processing. It was then replaced with an IBM V840 Flash array and 8gb fiber to support the high performance processing capabilities of Power 8.

IBM V840 Flash storage with virtualization and real time compression technologies

SAS Enterprise 9.4, SAS Studio and AIX

IBM Power824 server with Power VM Enterprise and AIX
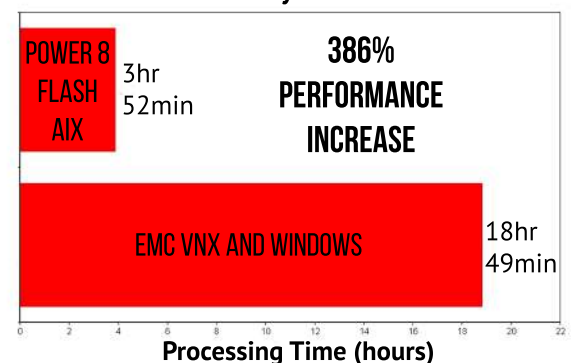
WHAT WAS THE RESULT?

Once the Power8 enablement team completed the hardware installations and our SAS architect completed the data and application set migration, the results were phenomenal.

SAS analytic job processing time decreased from 18hr 49min to 3hr 52min, while SAS data preparation and sort time decreased from 3 Hours to 28 minutes. This allows the client to spend more time running analysis instead preparing for analysis.

Our client is now able to run more SAS jobs and perform analysis that was previously not possible or complete on the former Windows architecture. Saturn's strategic combination of services and IBM products were able to increase performance, consolidate hardware, all while providing reliability.

They now believe they have what they consider a "game changing SAS environment" to take them into the future. They will be able to provide faster turnaround time for clients, and be able to complete dramatically more work for clients, resulting in more bountiful services and increased revenue.

SAS Analytic Jobs

POWER 8 FLASH AIX — 3hr 52min

386% PERFORMANCE INCREASE

EMC VNX AND WINDOWS — 18hr 49min

Processing Time (hours)

SAS Data Preparation and Sort Time

P8 FL AIX — 23min

689% PERFORMANCE INCREASE

EMC VNX AND WINDOWS — 3hr

Processing Time (hours)