The Problems

- Growing IT Budget
- Operational Inefficiencies
- IBM MLC Costs
- Software Licensing Fees

TurboTune

Performance is Profit®

The Solution

- TurboTune® Suite
- TurboTune® SQL Suite

The Benefits

- Reduce Mainframe Environment Costs up to 30%.
- Increase Operational Efficiencies

CRITICAL PATH SOFTWARE INC

TURBOTUNE® SUITE
TURBOTUNE® SQL SUITE

CASE STUDIES
OPTIMIZATION AND COST REDUCTION
MAINFRAME OPERATING SYSTEMS / DATABASES

CRITICAL PATH SOFTWARE INC

ABOUT CRITICAL PATH SOFTWARE

Critical Path Software, Inc. (CPSI) provides cost reduction and optimization services for mainframe environments. CPSI utilizes TurboTune® and TurboTune® SQL, proprietary suites of highly-specialized, one-of-a-kind analytics tools to audit mainframe systems. These non-intrusive tools analyze I/O subsystems and databases in the mainframe environment.

CPSI provides a series of reports describing, in detail, the data sets that are underperforming and require modification. These reports enable companies to fully optimize their mainframe file systems. After optimization, companies achieve dramatic performance increases and reductions of MIPS/MSUs, software costs, CPU cycles and recovery of DASD. CPSI is proven highly effective to optimize and dramatically reduce costs, especially when companies are facing:

- Latency obstacles
- Hardware upgrades
- Performance problems
- Company mergers or acquisitions
- Consolidation of data centers
- Selecting an outsourcing vendor

CPSI is currently offering a preliminary assessment, at their cost, to help companies identify inefficiencies in their mainframe processing. The auditing process is simple and non-intrusive. Required data can be collected in less than two hours and the assessment is usually completed within a week. The resulting report, gives companies a measurable/verifiable snapshot of where inefficiencies reside in their mainframe system.

CPSI has been in business since 1986 and has performed in excess of 2,000 mainframe audits for companies spanning the globe. CPSI is an IBM Business Partner and has an excellent reputation in the industry. CPSI stands behind its process with a 100% performance guarantee.

www.TurboTune.com (212) 686-4350 info@TurboTune.com

Case Study: Large Insurance Organization

PROJECT OVERVIEW

One of the largest US insurance providers was able to reduce their software costs by 30%.They were able to increase their I/O by 453% and reduced response time by 57%. The entire project was completed in 3 months.

CLIENT BACKGROUD

The client was one of the largest not-for-profit health insurance organizations in the US. The insurer's membership included large and small groups, individuals and families.

THE CHALLENGE

The mainframe environment was at the core of their business. They were facing operational inefficiencies, increasing MLC costs and exuberant software licensing fees. They had tried to optimize their mainframe for a number of years but couldn’t find a solution that worked.

THE ENVIRONMENT

The mainframe was accessed by both CICS and nightly batch processing, there was also a significant daytime workload. The client was facing the addition of new hardware (e.g. a new engine) at significant expense to carry the workload.

Case Study: Large Insurance Organization

THE SOLUTION

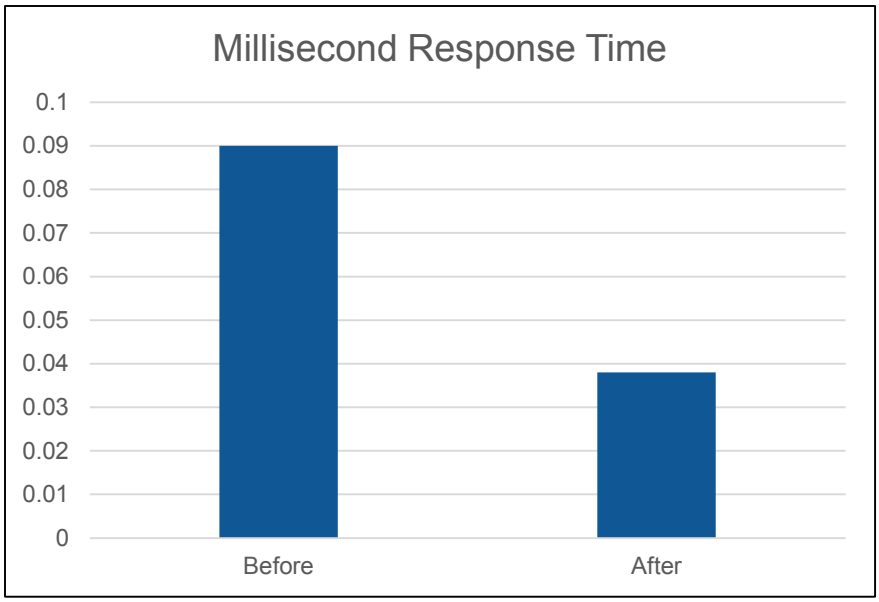
CPSI performed an analysis of the mainframe and provided a detailed report that identified improvements to:

- CPU utilization for Batch & Online processing
- I/O measurements (i.e. EXCP counts) for Batch & Online processing
- Millisecond response time for Batch & Online processing
- Elapsed Time improvements for Batch processing
- Recovery of “over allocated” disk space (due to non-optimal allocation)

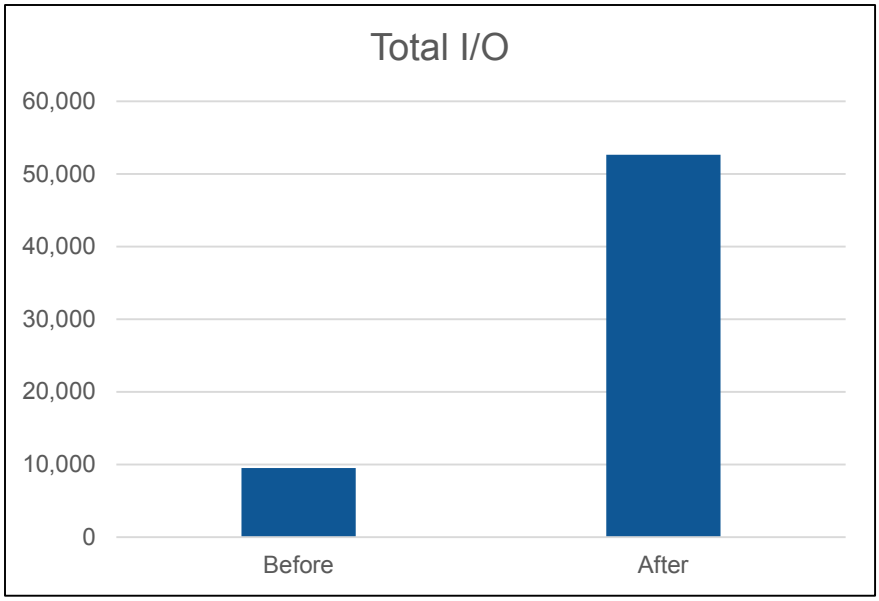
The client implemented CPSI’s recommendations in 3 months and achieved immediate results. All of the following results were provided by the client.

Case Study: Large Insurance Organization

THE RESULTS



Response Time Reduced by 57.78%



Total I/O Increased by 453.21%

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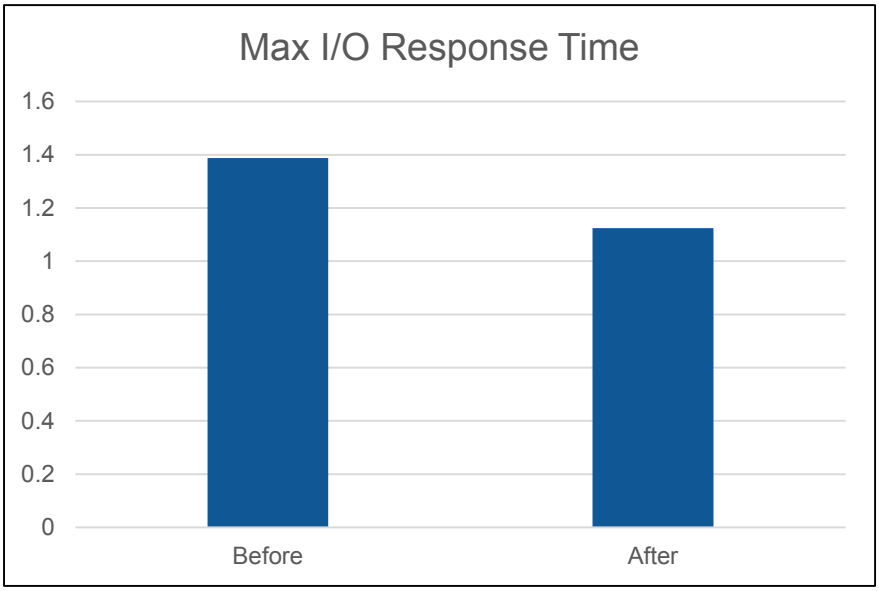
Case Study: Large Insurance Organization

THE RESULTS



Max I/O Response Time Reduced by 18.96%

Max Server Time Reduced by 12.80%

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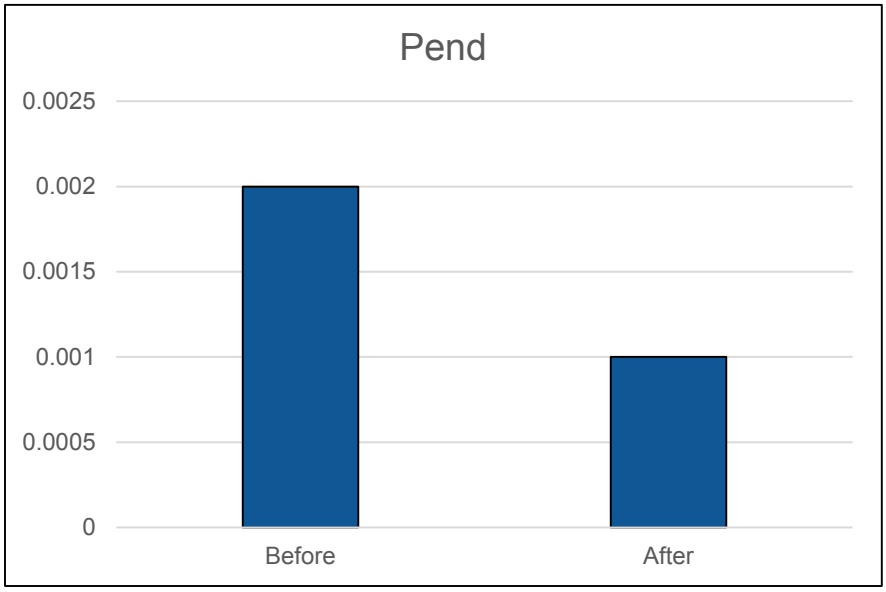
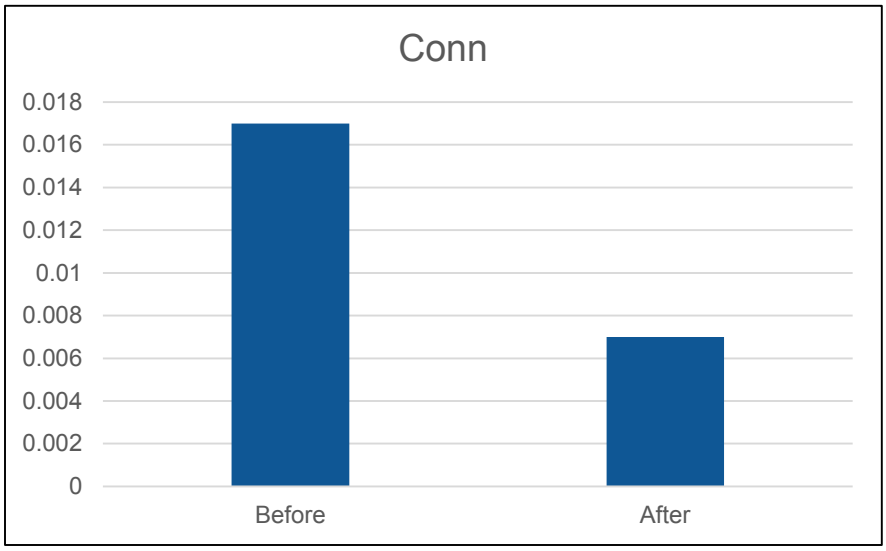
Case Study: Large Insurance Organization

THE RESULTS



Pending time Reduced by 50.00%



Connect time Reduced by 58.82%

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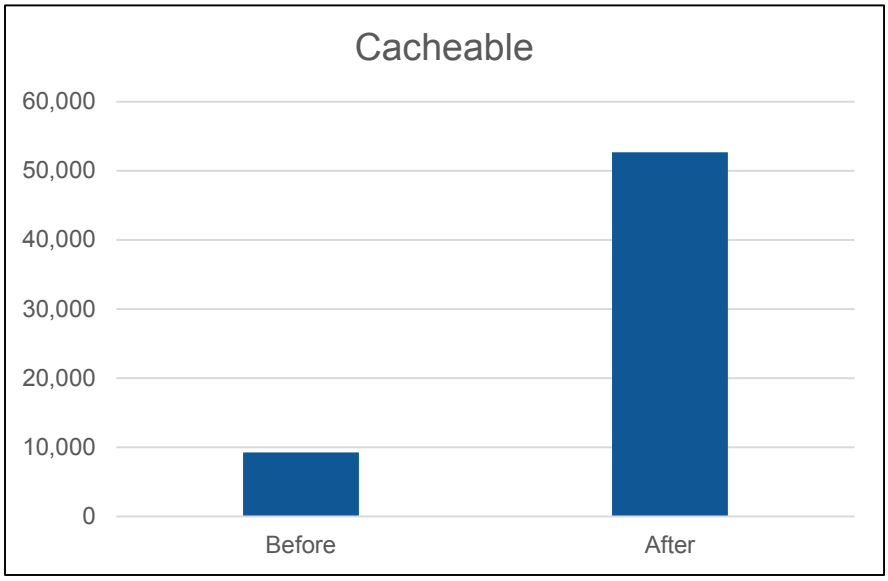
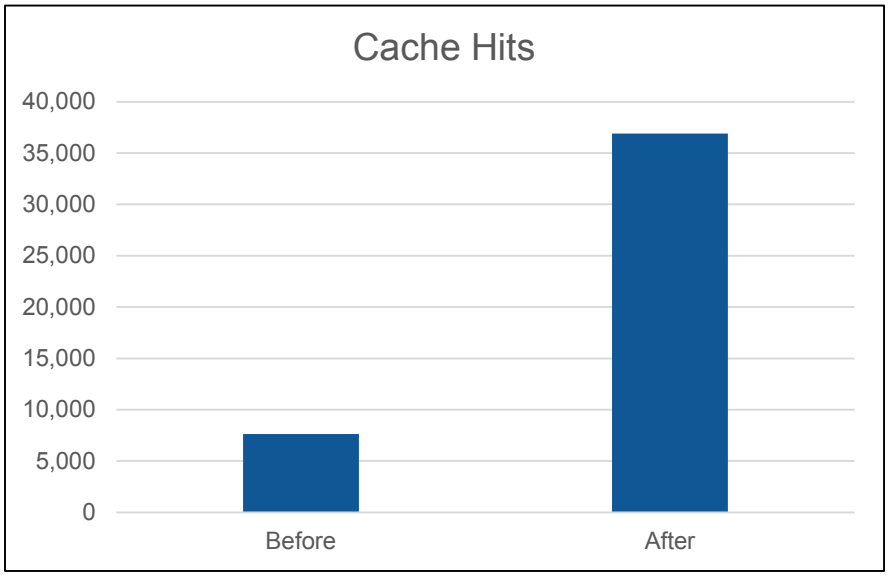
Case Study: Large Insurance Organization

THE RESULTS



Cacheable Increased by 469.37%



Cache Hits Increased by 384.40%

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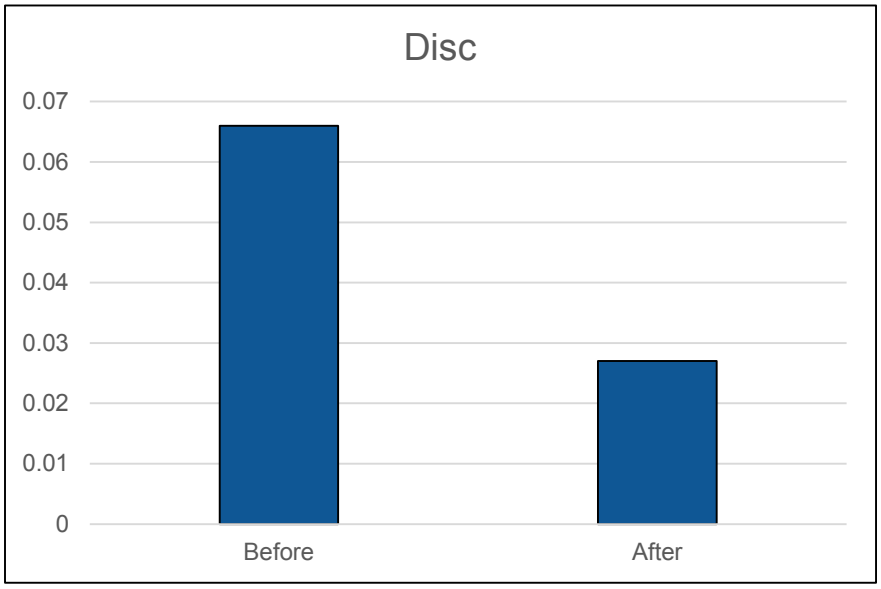
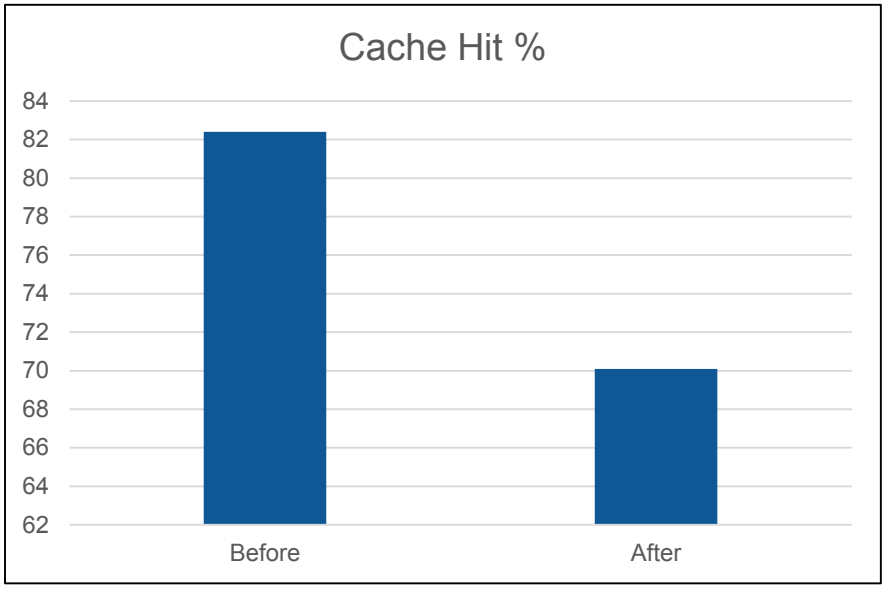
Case Study: Large Insurance Organization

THE RESULTS



Disc Reduced by 59.09%



Cache Hit Percent Reduced by 14.92%

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Other Case Studies

62% SAVINGS IN RUN-TIME

A Fortune 25 West Coast Bank was experiencing various performance problems. Erroneous CISIZE errors were taxing the system. Upon an extensive analysis, TurboTune® identified the problem. Once the TurboTune® recommendations were implemented the senior tech on the job wrote us the following email:

"Yes we installed and we did see great results. The fiche processing that normally starts the 3rd business day of the month and has over 45,000 jobs ran in less than 9 hours – normal time Is 24 hours. We have tracked the improvements. Thanks for the recommendation this one worked out nicely."

A savings of 62% in their mainframe run-time allowed the bank to process additional jobs. These jobs were previously being held for 24 hours for the Fiche jobs to finish.

Other Case Studies

US AIRLINE REDUCES RUN-TIME BY 318 HOURS

An airline reservation system (for a top US Airline) had outsourced their mainframe processing. The client was facing exorbitant charges for increased MIPS utilization and was experiencing long run-times for a month end job. The job was a CICS IMS Data Base containing 200 million records running a Month End Edit. The job ran for an unacceptable amount of time, 14 days each month.

The client tried in vain to get the outsourcer to fix the issues but they could not identify the issues. The client engaged with CPSI. CPSI performed an in-depth analysis using the TurboTune® suite of tools.

TurboTune® identified several run-time improvements and specific recommendations were made. These recommendations were then tested and implemented into production. The client was able to dramatically reduce the run-time of the job from 14 days to 18 hours. The CPU remained stable and the job remained in the same low priority 8 Meg Region.

Other Case Studies

39% SAVINGS IN RUN-TIME FOR FINANCIAL FIRM

A large New York based financial services firm was in the process of extensive reprogramming of their mainframe applications. A normal workday was inadequate to test the massive amount of programming changes. To further complicate things, their mainframe processing was outsourced to a hosting provider. When testing would overflow into weekends, they would get hit with increased usage rates. They also had to pay for additional support, programmers and operators that were required during these periods. This cost structure was exorbitant and not maintainable.

Critical Path was engaged to improve mainframe efficiency by shortening on-line transaction response times, reducing batch consumption, and reducing run-times in the batch production cycle. The TurboTune® Analysis was completed and a full Audit report was provided to the client. The client implemented the recommendations, resulting in performance reductions, on an average, of 39%. This reduction allowed testing to resume during normal work hours and delayed costly hardware upgrades for 18 months.

Other Case Studies

GLOBAL BANK REDUCES STORAGE BY 40%

A multi-national banking institution wished to consolidate all its data centers, residing in seventeen separate countries, into one center in Singapore. The Singapore location lacked the necessary storage space for the consolidation. Additionally, their Sydney data center was experiencing severe online and batch window problems.

Critical Path was engaged when it became evident the vendor of the Systematics package would be unable to successfully solve the issues. The TurboTune® Analysis was completed in one extended overnight session. 800 file improvements were recommended and fully implemented resolving 100% of the performance issues. The file reorganization also provided a reduction of 40% of the DASD footprint paving the way for the complete migration of all global data centers to the Singapore location, saving the bank untold millions.

Other Case Studies

CONVERTING DATABASES & SAVING RESOURCES

A large New York financial institution, acquired the largest student loan company in the United States. All of the loan company's files were required to be converted to the financial institution. They were to be consolidated moving from an IDMS ADSO database into an AMS vendor package. The student loan company was processing and maintaining 10,000,000 student loans each year. Exceptional run-times during the conversion process prevented the completion of the conversion. Even though they had IBM's largest mainframe, test runs were taking over seven days to execute.

CPSI was engaged to reduce these run-times. The TurboTune ® Analysis was completed and recommendations were provided to the client. The recommended performance improvements were identified and implemented. This resulted in a successful, complete, conversion in less than 24 hours.

Other Case Studies

BANK SAVES $20,000,000 IN MIPS

At the onset of a merger between two large financial institutions CPSI was engaged to improve performance and recover DASD. The TurboTune ® Analysis identified in excess of 125,000 necessary file improvements to the existing 1,500,000 files.

Collaborating with application managers, the CPSI team assisted with implementation and created the internal tools necessary to identify on-going performance concerns. Upon the completion of the project, the merged facility had achieved savings in excess of $20 million. These savings came from reducing the clients MIPS utilization; eliminating 10,000 hours in batch processing time and recovering 3 TBs of DASD. Additional performance options and parameters were identified as well.

Other Case Studies

INSURANCE COMPANY REDUCES RUN-TIME

A large Health Insurance Company, was unable to consistently complete their nightly batch work prior to bringing up the CICS regions in the morning hours. They attempted to alleviate the problem on their own but were unable to reduce their runtimes. The company engaged CPSI to perform an Audit of their mainframe environment. Over the next three months, the insurance company implemented the recommended changes. They were able to sufficiently reduce their run-time.

Here is what the leader of the implementation team wrote CPSI at the completion of the project:

“The SMF analysis allowed me to report the improvements more scientifically. What I was most pleased about was that the amount of “cache hits” we saw when accessing our data increased substantially and our CICS response times improved dramatically. The higher your I/O content, the more substantial your improvement should be. I didn’t have to show an ROI as it relates to $$$ as this was a performance based initiative. The SMF Type42 records were the data source for my reporting. We saw improvement here that far exceeded the guarantees made by CPSI. At the conclusion of the effort I wrote a process that analyzed our SMF data to report on performance-related improvement that were realized. I put this into a spreadsheet and graphed it for a presentation at our Technical Architecture Meeting. My boss was very satisfied with the improvements we achieved (As was I).”

Other Case Studies

BANK REDUCED RUNTIME BY 79%

Two large financial institutions were engaged in a merger. They faced a huge processing challenge in the consolidated mainframe environment. The newly merged bank needed to run a general ledger using a new combined chart of accounts. One facility would use one of the other facility's general ledger applications. The new general ledger would accept duel transactions from both systems and now produce both the previous and current daily reports. These new transactions were causing the overnight batch process to run for 24 hours. This restricted the bank's online capabilities to every second day, not an acceptable scenario.

The bank worked with the application vendor but was unable to improve the speed of processing. The bank engaged CPSI to perform an analysis of their mainframe environments. The resulting recommendations were fully tested and moved to the merged system within 90 days. The resulting batch process was reduced to 5 hours from 24 hours (a 79% reduction) each night. This allowed their CICS to come up on time each morning without incident.

Post merger, it was determined the costs associated with the new system were consistent with the previous cost of a single side of the merger; even though the number of records being processed had quadrupled. The bank achieved four times the work with no increase in cost.

Other Case Studies

OUTSOURCED BANK SAVES $540,000 A MONTH

A primary United States banking institution was facing extreme internal pressure to reduce their mainframe processing costs. They were spending over $66 million a year to maintain their mainframe and were looking for creative ways to reduce their costs. The bank was on track to outsource their mainframe but wanted to lower their mainframe's footprint before outsourcing.

CPSI was engaged to evaluate their mainframe and find process improvements. The TurboTune® Analysis identified more than 2,000 files where CPU could be reduced and speed of processing could be improved. CPSI made extensive recommendations, which were easily implemented. Within 30 days (at 20% implementation), initial metrics were run establishing savings of $540,000. The lesson learned, never outsource before you optimize. Utilizing TurboTune® to reduce costs, prior to outsourcing, will provide on-going cost reduction for years.

Some Of Our Clients

Contact Information

NO-COST ANALYSIS

Critical Path is offering a complimentary analysis of your mainframe environment. This will allow you to see efficiencies to be gained by optimizing your system. The analysis will also identify specific opportunities to reduce your software costs.:

- Online and batch CPU savings
- Online and batch I/O savings
- Online and batch EXCP's savings
- Online response time savings
- Batch run time savings
- DASD track savings
- Include processor cache optimization metrics

The information you provide takes about 2 hours to collect. This is non-sensitive statistical information concerning architecture of your file structure.

- 100% non-invasive
- We NEVER touch your mainframe
- There are NO security implications
- We NEVER see sensitive data
- We NEVER add software
- We NEVER alter system logic
- You maintain 100% CONTROL of your system

CONTACT US

Please contact us to find how we can help you optimize your mainframe.

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