



Executive Brief

Reduce IT Costs and
Improve Business Performance.

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Summary

You could be paying too much for your enterprise software licences. Most mainframe software charges are based on peak CPU usage, so whatever your peak workload is in a given month is what you pay for. This means that one workload spike could push your costs up significantly.

By identifying and taking control of your peak workload, ongoing software costs can be reduced and you may even be able to defer mainframe upgrades.

Our unique zTune service will identify potential mainframe workload management improvements and could immediately reduce your IT spend.

Market Overview

Worldwide economic uncertainty over the last 24 months has put significant pressure on CIOs to at least keep IT costs level, and more likely push for cost reduction across the board. Gone are the days when performance issues were relatively easily handled by adding or upgrading hardware and such purchases were part of the routine budget cycle – today everyone is expected to “sweat the assets” and “do more with less”.

Managing performance and cost has become a significantly more difficult job with capacity planners and performance analysts being asked to defer hardware and software upgrades due to restricted budgets. Many large IT departments have also seen loss of experienced staff due to redundancy and this has put added pressure on maintaining good application performance.

One of the most effective ways of reducing or containing mainframe costs is through better management of CPU consumption. By slowing down the growth of CPU usage and managing workload placement, hardware and software upgrades can be deferred thereby allowing organisations to keep costs down and performance and profitability up.

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MIPS Growth in the Mainframe Market

Mainframe CPU workloads are typically measured in MIPS, or Millions of Instructions per Second. In their latest results, IBM reported that total delivery of System z computing power, as measured in MIPS (millions of instructions per second), increased 66 percent versus the prior year and represented the largest MIPS shipment quarter in the company’s history. Also, in Ovum’s “The State of the Mainframe” research, they found that mainframe MIPS growth is averaging around 20 percent per year and large mainframe-centric enterprises have been consistently averaging MIPS growth of 35% or more.

The main reasons for this growth can be categorised as follows:

- Increased transaction rates. Whilst it is generally good news for businesses to see transaction rates on the rise, with z/OS usage based pricing this increase in workload can push up software costs and can also negatively impact application performance.
- More demanding applications. As enterprises strive to remain competitive, more business operations are being automated and packaged business applications from vendors such as SAP and Oracle are becoming more common. Such applications are highly capable and flexible, but typically require more computing resources than their bespoke equivalents. Other factors can also result in increased application CPU usage, such as the move to Java-based applications and reductions in development and testing time due to business and cost pressures.
- Middleware overheads. IBM is constantly enhancing critical enterprise middleware components such as DB2 and CICS, adding new capabilities to improve productivity and reduce development and operational costs. However, such enhancements can often entail additional CPU overheads and many organisations find themselves paying the CPU cost for the new function without being able to exploit the benefits.

The Effects of MIPS Growth

The growth factors discussed above can have a direct impact on the cost and performance of an organisation's mainframe applications:

- Cost – The major driver for many IT teams is the need to reduce mainframe resource usage and thereby potentially defer hardware upgrades and reduce monthly MIPS costs. There are also human costs to consider: maintaining an underperforming system takes more time and resource for IT teams and adds pressure from the business teams who are calling for improved response times.
- Performance – Typically, any significant increase in the amount of CPU used by a given workload will result in an associated increase in transaction elapsed times. For performance-critical online workloads, that increase can translate directly into poorer critical business metrics such as customer satisfaction and retention.

Regain Control of your Software Charges

Triton can help you to regain control of your enterprise software charges by analysing your current environment and identifying opportunities to optimise and tune your critical mainframe workloads.

- Initial Analysis. Typically customers can reduce their peak CPU charges by a minimum of 3% with no performance impacts whatsoever and many customers can reduce their peak by 5% from this initial analysis.
- Performance Tuning. The majority of mainframe users have significant potential for further reducing resource consumption (and therefore costs) through performance tuning of key workloads. This is especially true for those with older applications that haven't been actively maintained for a while or who have lost some of their deep middleware skills through retirement or redundancy. By tuning these workloads, ongoing software costs can be reduced and mainframe upgrades potentially deferred. In addition, application performance will be enhanced and overall Total Cost of Ownership (TCO) reduced.

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zTune

zTune from Triton Consulting helps organisations like yours to ensure that their critical systems are performing at their best whilst ensuring costs are effectively controlled. The service is typically split into four distinct phases, but this can be tailored to your specific requirements.

Phase 1

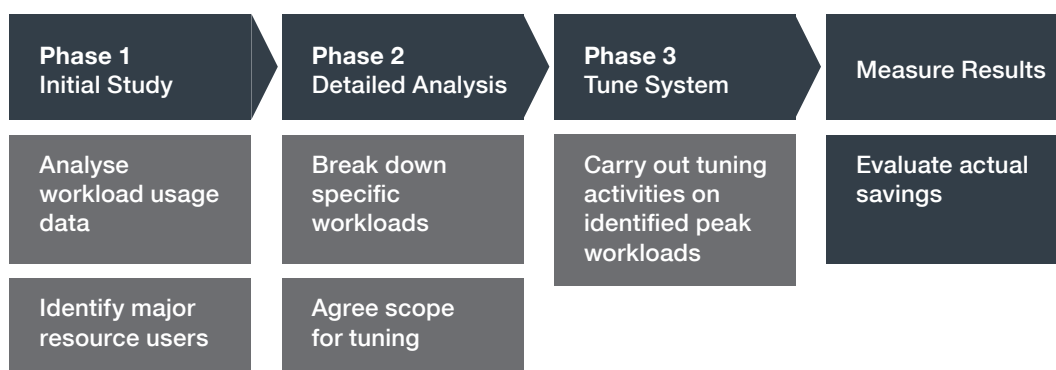
The first step is for Triton to analyse workload usage data and identify the major resource users within your system. From this we can provide a report which shows what drives your mainframe enterprise software charges. If relevant, the report will also include specific short-term cost reduction recommendations for reducing charges based on defined capacity and workload placement. The report will also form a baseline for any subsequent reductions achieved in later phases. We are confident that the majority of customers will be able to quickly benefit from between 3% and 5% savings from phase 1.

Phase 2

Based on the outputs of the report above, more detailed analysis will be conducted on the workload running during the specific 4-hour rolling peak periods responsible for setting monthly software licence costs. The analysis will break down and identify the specific workloads (CICS, DB2, IMS etc) that are active during the peak periods and provide an indication of the potential scope for further cost reduction through additional tuning activities.

Phase 3

If the Peak Workload Analysis Report identifies significant potential for tuning one or more specific workloads during the identified peak periods, this phase will undertake the tuning and optimisation activities necessary to further reduce MSU usage/cost relative to the original baseline.



Customer Example

Triton Consulting carried out a tuning project for a Swiss insurance company who were faced with the prospect of having to pay for a very expensive mainframe upgrade in order to cope with the peak workload they experienced during their busiest time of year. After a zTune data gathering and analysis exercise, Triton was able to recommend a number of DB2 and CICS tuning activities that removed nearly 20% of their peak CPU requirement, allowing them to defer the upgrade for a full 18 months.

Conclusion

If one of your key goals is to reduce the cost of running mainframe applications whilst still providing the best possible service to your customers, let Triton's team of mainframe experts and their zTune offering help.

About Triton Consulting

Triton Consulting specialises in Data Management and has been an IBM Premier Business Partner since 1998. With deep skills in both mainframe and distributed systems, Triton provides a full range of technical services from consultancy through to 24/7 database support.

For more information on the zTune service visit - www.triton.co.uk/DatabaseTuning.php

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