



Mainframe Tuning at Tesco: CPT Boosts Mainframe Performance to Handle the Christmas Peak

Background

Tesco is the world's third largest grocery retailer with operations in 13 international markets. It prides itself on providing increasing choices to its customers through its expanding international presence, innovative retail services and growing non-food offerings. In the UK, the company has 280,000 employees and over 2,100 stores.

The Challenge

One of the keys to the company's success is being able to get the right products to the right stores so that customers are always satisfied.

In the UK, this supply chain challenge involves co-coordinating a portfolio of 780,000 products, which come from 32 distribution centers and involve up to 34,000 store deliveries a day.

These operations are supported by a number of key business applications which reside on Tesco's corporate mainframe computers. The systems collate daily sales figures and stock counts and churn out round-the-clock forecasts as well as actual order requirements. The efficiency and performance of these systems is key, especially during the holidays.

A major concern is to ensure that there is enough raw processing capacity, measured in Millions of Instructions per Second (MIPS), to power the mainframes' batch calculations. This is particularly challenging during the frenetic Christmas period when retail activity peaks.

MIPS consumption tends to increase over time as a result of functional changes to business applications. Many mainframe customers spend millions every year on CPU and software upgrades, just to keep pace. Business growth also drives higher transaction volumes. Without a continuous investment in expanding capacity, response times will gradually deteriorate, reducing service levels and eroding customer service.

The Approach

As part of an initiative to drive savings and efficiencies throughout Tesco's IT operations, John Westnedge was tasked with reducing MIPS utilization. The immediate objective was to avoid the costs associated with loan machines or hardware upgrades, without affecting service levels. The longer term objective was to introduce tuning and performance management processes as a fundamental

"From our point of view, mainframe performance management is a very specialist task and it made sense to go with a performance specialist organisation such as CPT Global. They live and breathe this kind of work."

John Westnedge
Tesco

“In fact, the issue of processing power did not come up at all during the busy Christmas season. We avoided spending a substantial sum of money and were able to maintain our service levels despite all the extra activity.”

*John Westnedge
Tesco*

component of Tesco’s systems development methodology.

Westnedge concluded that this was a specialist task for which his in-house team would benefit from external guidance and expertise. Having evaluated a number of companies, Tesco selected performance expert CPT Global, and the performance software tools from Macro 4.

The initial phase of the MIPS reduction project lasted three weeks. CPT’s experts conducted a review of Tesco’s mainframe environment using the Macro 4 tool set. They identified a wide range of opportunities where changes to databases, systems software and applications could generate reductions in MIPS.

In the second phase, which lasted approximately three months, CPT provided a more detailed assessment of how further capacity savings could be achieved, working closely with Tesco’s internal team, which was now also using the Macro 4 software.

The Results

The exercise enabled Tesco to reduce MIPS consumption by between 10 and 15 per cent.

Tesco’s in-house team also received training on the Macro 4 software as well as on performance management processes. A CPT consultant visited Tesco’s Support Centre in Bangalore to help the development staff embed performance management concepts in their standard process.

The ongoing benefits will include fewer upgrades and reduced software costs, as well as more efficient applications. By making performance a standard part of Tesco’s development life-cycle, it will be able to resolve performance issues before new systems or changes go into production.

The best way keep MIPS under control is to write efficient code from the start.

About CPT Global Inc.

CPT Global is a specialized consultancy with two focus areas. Its Technical Consulting services enhance the control, stability, efficiency and reliability of both mainframe and mid-range platforms, with offerings that include Capacity Planning, Stress and Performance Testing, Data Migration and Configuration Management. Its Management Consulting services review and improve the business processes associated with Information Technology, with offerings that include Program and Project Management, IT Governance Reviews, Strategic Sourcing Strategies and Technology Transition Planning. For more information please visit www.cptglobal.com.

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