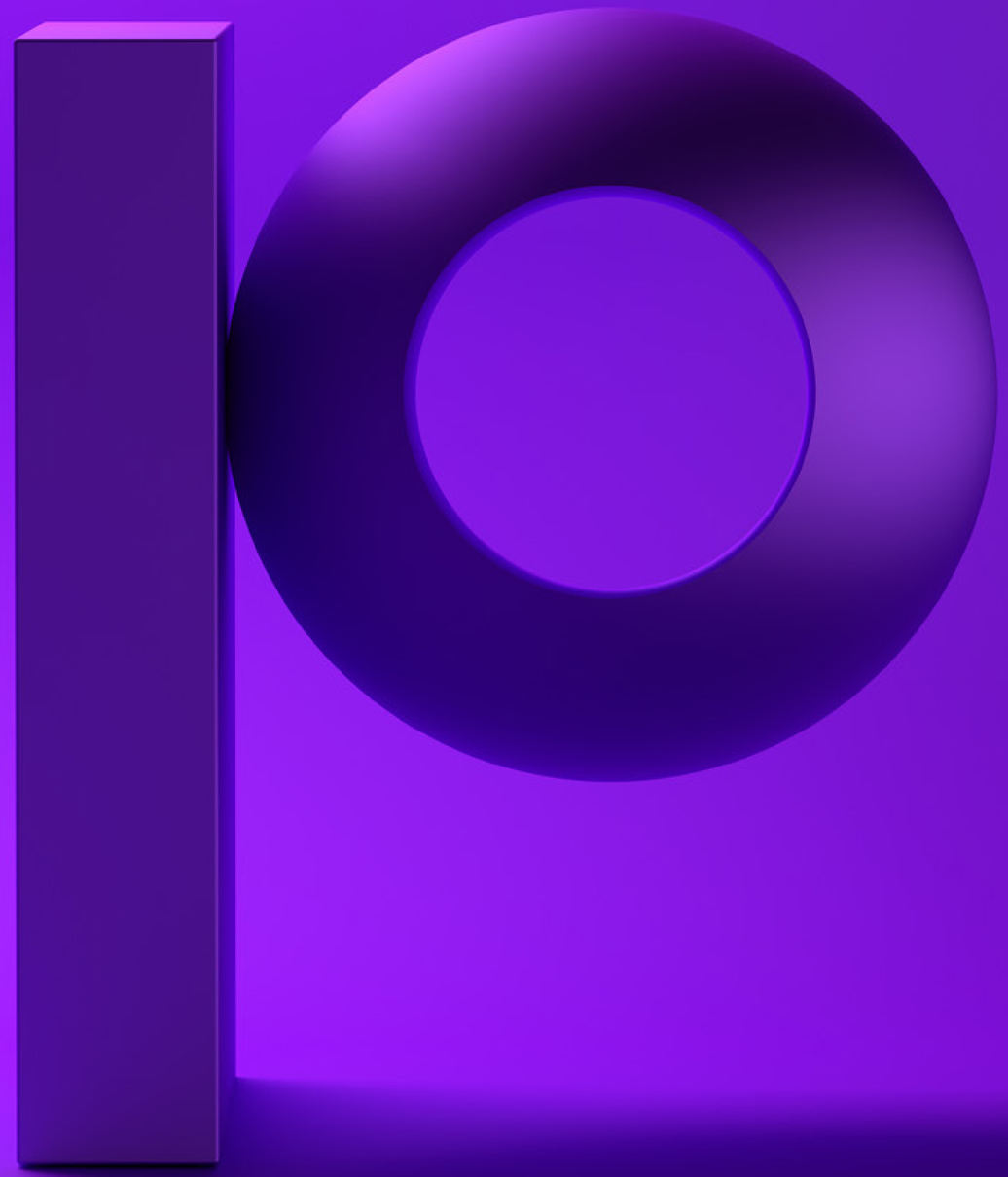
precisely

Real-World Examples of zIIP Offload and CPU Savings with Precisely



Overview

Today's complex computing environments continue to challenge IT organizations to get the most out of their infrastructures while containing costs and controlling capacity expansion. In days gone by, organizations had well defined "batch windows" for their IBM mainframes for long running CPU and I/O intensive workloads... but in today's 24/7 always up, and always online world, those batch windows are shrinking if not disappearing. Gone is the luxury of having extra capacity available "off shift" to run less critical resource intensive workloads. Whether you are challenged with controlling your utilization in the 4-hour rolling average window (4HRA) or you just need to minimize your overall utilization in the new Tailored Fit pricing model, taking advantage of the savings available with zIIP offload can have a dramatic impact on your mainframe costs.

What is zIIP?

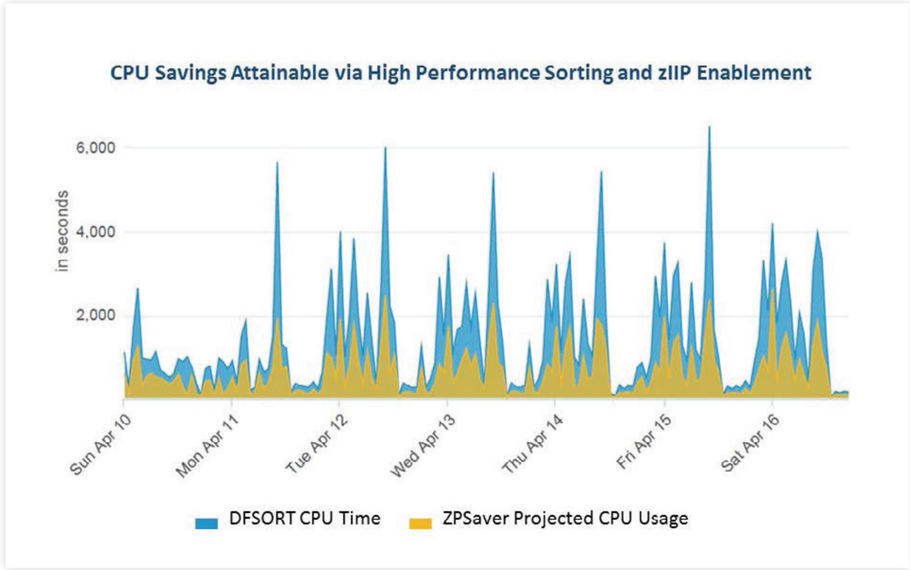
IBM introduced z Integrated Information Processors (zIIP) over a decade ago. zIIP is a purpose-built processor designed to operate asynchronously from general processors (CP) in the mainframe to help provide additional computing capacity, without any associated software licensing charges, to enable IT organizations to control costs. zIIPs can be purchased and used to provide additional processing without affecting the total MSU utilization. IBM does not impose IBM software charges on zIIP capacity, however charges do apply when additional general purpose CP capacity is used.

Many organizations that have purchased zIIP processors are not gaining full benefit by maximizing use of those processors. In a lot of cases, they simply do not have workloads that use software that is effectively zIIP enabled. In essence, they purchased an engine, but can't get it out of first gear – it's like having a Ferrari and only being able to drive it in the neighborhood to the grocery store! You need to get it out on the highway and open it up!

Sort, copy, and related compression activities tend to deal with high volumes of data resulting in significant CP resources, I/O operations, and potentially long elapsed times.

Shortening the execution time of these operations helps organizations deal with the shrinking and disappearing batch window. Offloading CP resources to zIIP for sort, copy, and compression provides organizations with additional capacity and helps to ensure that total MSU utilization is kept under control.

Here are three real-world examples of how organizations reduced CP utilization and saved money with highperformance zIIP-enabled sorting technology.



Sort Swap Saves $ for This Mexican Bank

Precisely Solution Cuts CPU Usage and Processing Time

Challenge

A careful analysis performed for this Mexico-based banking and financial services firm indicated that the routine batch processing of sort functions in the mainframe environment was costing about $1 million annually just in the consumption of CPU time.

Equally concerning was how the CPU time for sort jobs was encroaching on the 11 a.m. to 5 p.m. period when getting CPU time was critically important for vital business applications like transaction processing, CRM, and others. At stake were customer satisfaction, service level agreements, and similar matters.

These two factors prompted a search for a DFSORT substitute, as DFSORT (IBM's standard-issue mainframe sort utility) wasn't providing what they needed. The bank's mainframe IT group knew there were faster sort utilities out there, but which one was best? And how much difference would it make in terms of time saved and lower CPU usage charges?

Solution
Through its relationship with Devant Mexico, an IT and management consultancy in Mexico City, the bank became aware of Syncsort™ and of its flagship sort utility, Precisely MFX. The bank's IT team was impressed enough with the joint Devant-Precisely presentation of potential CPU-time savings that they asked Precisely for a proof-of-concept (POC) exercise using portions of their actual banking workloads.

The POC confirmed expectations, so the customer licensed Syncsort™MFX and began testing it in their own mainframe environment. Two months later they began running Syncsort™ MFX in their production system.

Results
Once Syncsort™ MFX was in the production environment:

- The customer saw approximately a 40% savings in CPU time for sort/copy/merge processes and a 10%-to-15% reduction in elapsed time.
- Sort-processing encroachments on interactive applications were eliminated.
- Potential compromises with customer service and response times in critical business applications were reduced.

Several months after Syncsort™ MFX implementation, Precisely performed a workload optimization analysis for this customer over a 21-day period. Extrapolating results out to a full year from those 21 days, and using the industry standard estimate of $0.12 per CPU second for mainframe sort processing, it was estimated that the customer was spending roughly $785,000 annually on its sort/copy/merge tasks. This compares to the approximately $1 million before Syncsort™ MFX implementation.

While the comparison is rough – as it is based on extrapolating out to a year from a three-week time period – it suggests a better than 20% drop in CPU charges for sort processes following Syncsort™ MFX implementation.

Given this experience, the customer is considering adding Precisely's Syncsort™ ZPSaver to the equation. Syncsort™ ZPSaver extends Syncsort™ MFX by offloading a higher percentage of eligible workloads from the general-purpose processor(s) to the zIIP processor(s) installed on IBM z Systems machines. Because the pricing on zIIP processors is not usage-based, as it is on the general purpose processors, this can mean a further reduction in CPU usage costs.

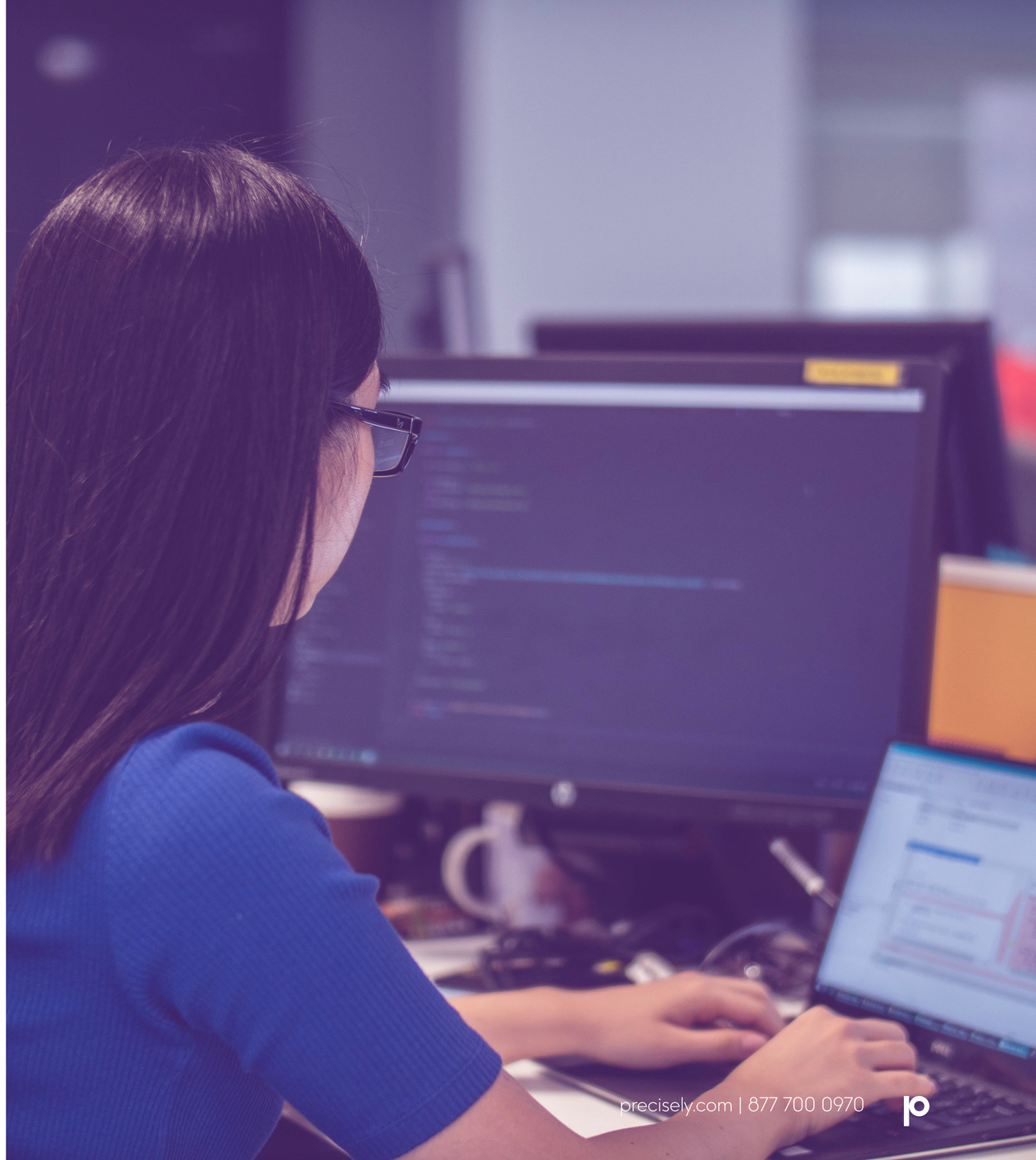
Financial Services Firm Saves Millions via Sort Offload to zIIP

Syncsort™ ZPSaver Cuts IBM Mainframe MLC Costs and Elapsed Time for Fortune 500 Company

Challenge

With transaction volumes and workloads soaring, this global financial services and technology company was staring at growing IBM MLC (monthly license charge) costs and a need for expensive capacity upgrades as well. As with so many companies dealing with new and growing mobile-related and other transaction volumes, controlling (or if possible, reducing) overall mainframe costs is a key objective.

Compounding the impact of double digit transaction growth, internal SLAs (service level agreements) are requiring faster transaction processing times to meet the expectations of today's users. Cost and elapsed time were both becoming an issue for this financial services company as demanding customers required immediate access, faster transaction processing and response times whenever they interacted with the business.



Solution
The company took advantage of a free Precisely SMF Analysis to get a projection on how much they could save in terms of MIPS (and ultimately MSUs and MLC costs) and in elapsed time with Precisely's industry-leading sort and zIIP offload solution Syncsort™ ZPSaver.

Having already switched from DFSORT to Syncsort™ MFX years ago (and saved big every year since then), the company knew they could trust a savings projection for Syncsort™ ZPSaver and they were well aware that Precisely was known for being years ahead of IBM on sort innovation to lower costs and elapsed time.

Results
The results were impressive and showed a yearly savings in the hundreds of thousands. The free SMF Analysis Report showed both summary level and detail information on savings from Compression, Copy and Sort being offloaded to zIIP. Filtered to focus on their critical four hour rolling average window (4HRA), Precisely's SMF analysis also converted CPU time savings to MIPS/MSUs (and to $) for convenience. The discussion to review the SMF Analysis Report also helped reveal other insights into their sort and may enable them to push off costly upgrades being positioned to them for the near future (driving substantial "cost avoidance" gains).

Better yet, after a quick install the company saw an immediate reduction in elapsed time and gained a competitive advantage there too. Being a publicly traded Fortune 500 company, they know how important that is to all their stakeholders. All told, Precisely is now saving them millions of dollars while improving their competitiveness in this particularly challenging sector, all of which makes the mainframe team stand out in their IT organization for leveraging ready-to-implement innovation to address both issues and new opportunities.

Next up for this firm is seeing if Precisely's other mainframe optimization solutions can drive even more savings and efficiencies.

Learn more about Precisely MFX by visiting www.precisely.com/product/precisely-syncsort/syncsort-mfx

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