Making what matters work with Adabas & Natural for zIIP™

software AG | EATON Powering Business Worldwide

Customer Profile

Power management company Eaton provides energy-efficient solutions to manage electrical, hydraulic and mechanical power more safely and sustainably. The company has 96,000 employees, achieved $20.4 billion in sales in 2017 and serves customers in 175 countries. Eaton was founded in 1911 in the U.S.

New Challenges

- Mainframe CPU reaching maximum capacity more often
- Latency issues slowing down order management system
- Mainframe reaching end of marketing life

Software AG Solutions

- Adabas & Natural for zIIP™

Key Benefits

- More than 90% offloaded to zIIP engine
- Cut average MSUs in half
- Eliminated latency
- Enhanced user experience
- Avoided costly hardware upgrades

" With Adabas and Natural for zIIP, Software AG is turning legacy into future asset. And we're reaping the benefits of this partnership. We have sustainably reduced our mainframe usage, saved money for investments elsewhere and are experiencing zero latency issues. Using our existing mainframe, we are looking forward to a faster future.

— Brian Johnson | Database Analyst, Eaton Corporation

Taming the mainframe

Eaton's slogan is "we make what matters work." The corporation is dedicated to optimizing power usage and developing solutions that drive sustainable growth through the conservation of natural resources.

But for Eaton's IT department, it was time to demonstrate that it practices what it preaches. Its mainframe CPU was recurrently running at maximum capacity. The resulting latency backed up input queues—a critical problem because the order management system for U.S. electrical systems was on this mainframe. When the mainframe was slammed, orders took longer to process, leaving workers and customers waiting. Something needed to be done.

Getting out of a tight spot

Eaton's Adabas & Natural team knew mainframe demands were only going to increase with time. They faced growing demands for more business functionality and end-of-period reporting transactions. And they had to be prepared to handle new initiatives and acquisitions.

"In addition, our BC12 mainframe was nearing the end of its marketing life, meaning we had limited time in which to make changes," explained Brian Johnson, Database Analyst at Eaton. "We had two traditional options available: Purchase a new model with higher capacity or add capacity to the existing model. Both were expensive."

Inspired by efficiency, Johnson had a better idea. He'd just heard about Software AG's Natural product for the IBM® zIIP™ z Systems® Integrated Information Processor. So he looked into it further. An analysis of CPU data in SMF format to Software AG estimated 80% and 50% offload from the GPP to zIIP for batch and online Natural (CICS) respectively.

"We have a very heavy batch Natural component," explains Johnson. "The savings potential justified a trial. Our trial lasted just over a month. It was exciting to see at least 90% average offloading to the zIIP processing!"

Adabas for zIIP

In early 2018 Eaton learned of Software AG's upcoming Adabas for zIIP enabler, another core component of its Adabas & Natural 2050+ agenda. "We beta-tested it in a sandbox environment and found that the busier Adabas gets the more offloading you get from the zIIP enabler," Johnson said. "We couldn't wait to see what it could do in our actual production environment."

After the Adabas for zIIP enabler launched in April 2018, Eaton trialed the release version. "We also tested the Adabas and Natural zIIP enablers together and the results were nothing short of amazing," Johnson said.

With project approval received later in 2018, Eaton officially installed Adabas zIIP and Natural Batch for zIIP. "Implementation was easy," he continued. "With Natural it's just a license key activation. Adabas for zIIP is supplied just like the parent Adabas product. There's no learning curve or difficulty getting the zIIP enabler products installed and running. Nor is any additional maintenance required."

Measuring amazing results

CPU use dropped by half immediately. The mainframe suddenly had headroom the likes of which hadn't been seen since they got their BC12 back in 2015. Also eliminated was latent workload, caused whenever the mainframe was close to being maxed out or had very little headroom.

"Our mainframe is soft-capped at 80 MSUs," Johnson said. "Without zIIP we were hitting that peak at times and our average was in the 70s. With zIIP our average dropped to below 35."

Added Patricia Hanna, Eaton's Order Management Program Manager: "We learned that IBM bills us based on a four-hour rolling average. This was elevating our mainframe costs massively. Now we are saving capacity costs every month and did so even during our trial periods."

Further improvements will be coming. Software AG's initial analysis pinpointed that third-party software in use at Eaton is a significant user of CPU and main driver of current peak measurement. Eaton's initiative to address this will further improve performance, reduce costs and most importantly increase the financial benefit of Eaton's investment in Software AG's zIIP enabler products.

Savings + optimized operations

By making its mainframe more efficient, Eaton successfully avoided costly hardware purchases. And the reduction in monthly IBM charges is already providing Eaton with a contribution towards its ROI. "Everyone with at least a moderately sized mainframe should evaluate what the Adabas and Natural zIIP enabler products can do for them," recommends Johnson.

With Adabas and Natural for zIIP in place, there is no more delay in processing orders. That means customers get orders faster and more sales can be processed each month. With sustainable savings and optimized operation, the "zIIPed" mainframe is now a shining example of Eaton's values in action, making "what matters work."

Take the next step

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ABOUT SOFTWARE AG

Software AG simplifies the connected world. Founded in 1969, it helps deliver the experiences that employees, partners and customers now expect. Its technology creates the digital backbone that integrates applications, devices, data and clouds; empowers streamlined processes; and connects 'things' like sensors, devices and machines. It helps 10,000+ organizations to become a truly connected enterprise and make smarter decisions, faster. The company has more than 5,000 employees across more than 70 countries and annual revenue of over €830 million.

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