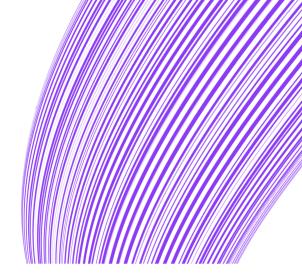# Natural for zIIP™

Lower mainframe total cost of ownership

Lower the Total Cost of Ownership (TCO) of operating your mainframe by taking advantage of IBM's specialty processors with Natural for zIIP™. By redirecting Natural workload from the General Purpose Processor (GP) to less expensive IBM® zIIP™ engines for execution, Natural for zIIP provides you a low-cost alternative to increasing capacity on your existing GPs when you reach your z/OS capacity limit.

Take advantage of specialty processors from IBM®

The z Systems® mainframe's legendary reliability, speed and security has put it at the very top of enterprise-class computing. Building on that tradition, IBM introduced the IBM z Integrated Information Processor (zIIP), a dedicated processor designed to operate asynchronously with the general processors in a mainframe, to process new workloads and improve system resilience.

At Software AG, we strongly believe that mainframe applications have a strong role to play in your Digital Transformation. To help you address the increasing demand to serve online, mobile and cloud applications, as well as the Internet of Things, Natural for zIIP can offload batch and ever-increasing Online Transaction Processing (OLTP) application workload to a low-cost alternative.

With minimal effort, you can redirect your Natural workload from the GP to zIIP processor with Natural for zIIP. Since no changes to the Natural application or TP environment are required, this is a low-risk solution.

Key benefits

- **Reduce mainframe operating costs**
  Realize significant GP CPU savings, often more than 90 percent, thus reducing the overall total cost of computing on the z/OS mainframe.

- **Postpone hardware upgrades**
  This low-cost alternative to increasing capacity on existing GPs allows you to continue using your existing hardware.

- **Save software costs**
  Most software is priced based on the capacity represented by or the utilization of the configured GP, independent of any specialty engines. Consequently, any work moved off the GPs to zIIP is free from a software perspective.

- **Improve price-performance ratio**
  Achieve higher throughput with the low cost computing power of the zIIP and defer processor upgrades—and their attendant software costs—significantly improving mainframe price-performance and further reducing the mainframe's TCO.

Features

Workload redirect

Move eligible workload from the GP by switching to Service Request Block (SRB) execution mode whenever possible. By keeping the overhead involved with switching to a minimum while maximizing the execution time on the zIIP processor, reductions in GPP CPU of up to 98 percent can be achieved.

Statistical reporting

Forecast how much load can be directed to zIIP in your environment from provided statistical reports. Even if you currently don't have any zIIPs in place, the statistics will tell you how much load could be moved to zIIP for each Natural batch job or any of your TP regions.

Full processor speed

zIIPs always run at full speed, never throttled, enabling faster batch run completions with higher throughput and more computing power.

Batch and OLTP support

You can offload Natural workload from batch and OLTP servers. With Natural Batch for zIIP, Natural for Com-plete for zIIP, Natural for CICS® for zIIP, and Natural for IMS™ for zIIP, you can zIIP enable your batch and online applications to achieve optimum results and reduce the overall total cost of computing.

Natural for Db2 Support

Reduce even more GP by shifting Natural for Db2 client and nucleus workload to zIIP, thanks to the ability to access the Db2 application remotely using a JDBC driver. Realize up to 90% GP reduction on your core Natural application with Db2 clients and up to 60% reduction for the Db2 nucleus.

Natural Roll Server

Offload internal Natural workload from CICS and IMS environments to zIIP using Natural Roll Server. Because Natural Roll Server operates as a separate server outside the TP environment, it is an essential tool for transferring workload to zIIP as you cannot offload workload to zIIP with other roll facilities such as CICS Temporary Storage or Natural Swap Pool which reside inside TP systems.

Production-ready

Your Natural code requires no changes for this low-risk approach to lowering your TCO.

KPI dashboard

Monitor the impact Natural for zIIP has on your system from a single web-based dashboard. View overall zIIP utilization as well as analyze trends over certain time frames. Opportunities for performance improvement can be found by evaluating Key Performance Indicators (KPIs) and measuring the impact of system changes.

GP

Natural for zIIP

Move eligible
Natural workload to zIIP

Using GP
(General Purpose Processor)

GP   **zIIP**

Using GP with zIIP
(zSystem Integrated Information Processor)

Directing workloads from the GPP to the zIIP decreases CPU-consumption and associated costs, lowering overall mainframe TCO.

Offload more with Adabas for zIIP

Improve your mainframe's price-performance ratio even more by leveraging zIIP for your Adabas workload. Realize reductions of CPU consumption of up to 75 percent or more with Adabas for zIIP.

Take the next step

Ask your Software AG representative about a free proof-of-value assessment. Using our proven methodology, Software AG experts will assess your mainframe environment, peak usage times and application and database workload to determine the full potential of leveraging Adabas & Natural for zIIP.

www.AdabasNatural.com

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