

IBM Mainframe Tackles Java-based Applications with Aplomb

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IBM's eServer zSeries Application Assist Processor (zAAP) for the newest members of the mainframe family enables customers to consolidate Java-based applications onto the mainframe for greater efficiency, resiliency, and security. Additionally, because of reduced dependence on the main processor, existing customers with Java-based applications can expect to save on software pricing as well.

Consolidation Done Smart

No longer content with myriad flashing LEDs and cool-sounding but obscure feature sets, IT managers are now insisting that their technology not only look good, but also that it work together in an orchestrated — dare we say — integrated fashion. Based on the technology at hand and the applications involved, several methodologies have evolved, with distributed computing being a popular example. However, there are problems inherent in having the database in one location and the application logic and business rules elsewhere. There are performance and efficiency issues. Mainframes have been traditional repositories for databases, but previously they were not optimal for running applications, particularly as many applications were written for open systems. Many new workloads can now run on the mainframe, but Java-based code tends to eat up more CPU cycles than traditional mainframe applications, which translates to higher overall mainframe software costs. The new zAAP solves these issues and lets customers run new workloads more affordably. IT managers can take advantage of integration that only the mainframe architecture can truly provide, making the mainframe a more attractive platform for consolidation and infrastructure simplification.

It's the Architecture Actually

Mainframe customers are spoiled among IT users for having a truly integrated architecture, which is what makes the mainframe continually relevant to cutting edge computing. Enabling Java-based applications such as WebSphere to take advantage of the mainframe architecture brings another class of applications to the mainframe. The zAAP is an assist processor, which means it sits under z/OS and all Java-based work is routed to it for execution. After the Java application is completed or when it requires the service of a non-Java function such as a database subsystem, the zAAP routes the execution of the requested non-Java function back to a general-purpose processor. Since nothing is offloaded to another platform, there are no lost cycles for data compression or conversion and no TCP/IP stacks with which to contend. The data can get no closer to the application than this, which leads to enormous performance and efficiency gains for many applications. On the pricing side, zAAP is priced similarly to an Integrated Facility for Linux (IFL); significantly lower than a standard processor. It is a one-time hardware purchase, which can be configured to remove most cycles consumed by Java applications from the software pricing, which either reduces the price existing customers are paying, or means that new applications can be added without significant additional cost to the IT manager.

A Good Idea Whose Time Has Come

Mainframe customers with Java-based applications on their systems are advised to consider using zAAP to streamline costs and overall efficiency. For those currently running Java in the data centre, this is a good time to consider consolidating these applications onto the mainframe. Java programmers looking for a highly reliable, scalable, and efficient platform to develop applications should take the time to get to know the z890 and z990 with zAAP and discover how they can bring Java to the next level of mission-critical computing.