

## Sun first to open source web single sign-on technology

Sun Microsystems Inc., founder and lead advocate for Java technology, plans to open source its website authentication and web single sign-on (SSO) technologies through the Open Source Web Single Sign-On (OpenSSO) project.

OpenSSO will empower Java technology developers to participate in the evolution of these critical security components and include them in every application they build and deploy. Sun also plans to release the source code for agents to connect the website authentication and web SSO technologies with the Sun Java System Web Server and Sun Java System Application Server.

In addition, Sun announced the OpenSSO

community website: <http://opensso.dev.java.net>. OpenSSO will provide developers with project information and resources to foster discussion and facilitate participation in the community, including: roadmaps, FAQs, documentation, tutorials, sample code, and mailing lists.

Initial source code will be available in the fourth quarter, with full release of OpenSSO in spring 2006. **ENR**

## IFPUG touts software article

The International Function Point Users Group (IFPUG) recently announced the publication of the article, "The Statistically Unreliable Nature of Lines of Code" by Joe Schofield, in the April 2005 issue of the software magazine, Crosstalk.

"This article ([stsc.hill.af.mil/crosstalk/2005/04/0504Schofield.html](http://stsc.hill.af.mil/crosstalk/2005/04/0504Schofield.html)) suggests that the venerable line of code measure is a major factor in poorly scoped and managed projects because it is itself a vague, ambiguous, and unsuitable parameter for sizing software projects," Schofield said.

The data for this article came from several "Personal Software Process" courses taught at Sandia National Laboratories in New Mexico.

The demonstrated variation in LOC counts for programs that were written to the same specification (all programs were verified to have the same function point count), in the same language, verified by the same certified instructor, ranged from 2,200 percent in the worst cases to 300 percent in the best cases. The 500-plus data points came from more than 60 attendees.

"Mr. Schofield's article is an important addition to the software measurement body of knowledge," said Mary Bradley, president of IFPUG. "Anyone involved in measurement or estimation should read this article and understand the ramifications of using unreliable data."

In 1979, Allan Albrecht of IBM published his paper on function point analysis, outlining a method to measure software size from a business perspective. Interest in establishing an industry-wide standard for function points inspired the 1986 formation of IFPUG, which manages the evolution of the method and provides supporting materials and training services. Since 1986, IFPUG function points have been published as an ISO standard, and IFPUG has grown to become the pre-eminent software measurement organization with members throughout the world.

For more information, see [ifpug.org](mailto:ifpug.org) or e-mail to [ifpug@ifpug.org](mailto:ifpug@ifpug.org). **ENR**

## IBM z9

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mainframe has operated in a shared environment from the start, IBM has engineered layer upon layer of security into its underlying technology, from the way the mainframe partitions memory to how it classifies and encrypts data and manages system access. The mainframe's latest generation of security technology makes the IBM System z9 the most secure enterprise-computing engine in the world.

The second achievement is resource management, which is critical to the mainframe's legendary control and resilience. Shared systems environments need more sophisticated ways of managing and allocating shared computing resources.

The IBM System z9 will run five world-class operating systems (including Linux), allowing secure data transport between 35 different computing platforms. These platforms will support the virtualization of thousands of applications (including Java-based applications) at the same time. These two strengths — security and resource management — are what give the mainframe its compelling economics. As collaborative processing puts greater strains on corporate systems and the way companies manage them, the mainframe's economics are likely to improve further. In a study commissioned by IBM, Arcati Research calculates that, per user (and over five years), Unix servers cost 58 percent more to run than mainframes, and PC servers cost 163 percent more to run. By 2010, calculates Arcati Research, Unix servers will cost more than three times as much to run as mainframes, and PC servers nearly four times as much to run.

These economics make the mainframe increasingly attractive as a standalone engine. But IBM believes that the mainframe will play a bigger and more important role in modern IT systems, as the needs of the collaborative-processing environment become more demanding. This role will be to manage security and systems resources across the entire corporate IT network. In this way, the mainframe will provide the essential, central point of control.

In preparation for this role, IBM has invested heavily in improving the performance of its mainframe technology. The IBM System z9 is the result of a three-year investment involving 5,000 IBM engineers, software developers and security experts from around the world. This investment has yielded impressive results.

The IBM System z9's 54-way CPU will be able to process 1 billion transactions per day. With 17.800 MIPS, it can process 6,000 secure transactions per second. And it will do all of this with three hours of downtime a year. That compares to the market leader z990's 32-way CPU that processes 450 million transactions per

day. It has 9,060 MIPS driving 2,000 secure transactions per second, and it has 12 hours of planned downtime per year. The z9 (Danu) has more than double the performance of the z990 (T-Rex).

IBM has also begun to extend these unmatched security and resource-management capabilities outwards, into other parts of corporate IT systems. With the z9, IBM is unveiling a breakthrough version of its flagship operating system, z/OS version 1.7 which for the first time will allow clients to encrypt mainframe archival data onto tape or disk storage so that data can be managed more securely.

IBM's zSeries servers have achieved several consecutive years of market-share gains. According to IDC, IBM's zSeries servers in 2004 gained 4.1 points year-over-year in factory revenue share in the greater-than \$250,000 server category, while both Sun and HP declined during the same time period. IBM zSeries servers won nearly one third of the overall market in 2004. Following the introduction of the z990, IBM zSeries posted several quarters of double-digit revenue growth. The mainframe's embrace of Linux continues to open the platform and drive costs lower.

About one in five mainframes that IBM ships runs Linux. About 260 ISVs sell more than 700 Linux applications on IBM zSeries servers. In 2004, IBM signed 50 new ISV partners, along with 150 new applications, to the mainframe platform, bringing the total to more than 1,200 ISVs for the zSeries. In 2005, IBM announced new software for Linux for zSeries (Red Hat), security (Vanguard), Foxfire e-mail (Scalix), data extraction and loading (Informatica), social enterprise solutions (Cúram Software) and middleware (Websphere, Rational, Tivoli). Recognizing the strategic importance of IBM's mainframe technology and the robustness of its prospects, on July 14th IBM announced that 150 colleges and universities worldwide have joined its eServer zSeries Academic Initiative.

This initiative is aimed at training a new generation of mainframe experts as older ones retire. IBM has pledged to work with schools to reach a target of 20,000 mainframe-literate IT professionals in the marketplace by 2010. As corporate IT systems become more shared and more open, demand for a central point of control to handle the vital security and resource-management needs of a collaborative-processing environment will inevitably increase. The mainframe's unique ability to perform these tasks secures its position at the heart of modern enterprise computing.

Spokesmen say the IBM System z9, a landmark in computing technology with security, virtualization and collaborative processing capabilities, may well act as the hub of a new era of collaborative computing. **ENR**