



Performance Brief

xSeries 445 delivers high performance for running Java applications

June 2003

The IBM® @server™ xSeries® 445 features advanced function and 16-way SMP capability using high-performance Intel® Xeon™ MP processors at speeds up to 2.8GHz with 2MB L3 cache. (1) The x445 incorporates numerous Enterprise X-Architecture® design points to significantly enhance performance and reliability, making it ideal for advanced, mission-critical applications. Recent results on the SPECjbb2000 benchmark demonstrate the x445's ability to run Java applications in a SuSE Linux environment.

SPECjbb2000 (Java Business Benchmark) is SPEC's first benchmark for evaluating the performance of server-side Java. Joining the client-side SPECjvm98, SPECjbb2000 continues the SPEC tradition of giving Java users an objective and representative benchmark for measuring a system's ability to run Java applications.

SPECjbb2000 represents a middleware application written in Java. Hardware vendors can use the benchmark's results to analyze their platforms' scalability when running Java applications. Software vendors can evaluate the efficiency of their JVMs, JITs, garbage collectors and thread implementations.

The results and configuration details are summarized in the table.

Operations per Second (op/sec) Using SuSE Linux
128,556
Eight 2.8GHz Xeon MP Processors with 2MB L3 Cache
32GB Memory
One 18.2.4GB (2) 15K Ultra160 Disk Drive
JVM Version
J2RE 1.4.1 IBM build cxia32141-20030621
Operating System
SuSE Linux 8.0 Professional

These results are current as of June 30, 2003, and will be posted upon completion of SPEC review at www.spec.org, which contains a complete list of published SPECjbb2000 results.

IBM makes no representations or warranties regarding non-IBM products. IBM reserves the right to alter product offerings and specifications at any time, without notice. THE INFORMATION CONTAINED IN THIS DOCUMENT IS DISTRIBUTED ON AN AS IS BASIS WITHOUT ANY WARRANTY EITHER EXPRESS OR IMPLIED. The use of this information or the implementation of any of these techniques is the customer's responsibility and depends on the customer's ability to evaluate and integrate them into the customer's operational environment. While each item has been reviewed by IBM for accuracy in a specific situation, there is no guarantee that the same or similar results will be obtained elsewhere. Customers attempting to adapt these techniques to their own environment do so at their own risk. This publication was produced in the United States. IBM may not offer the products, services, or features discussed in this document in other countries, and the information is subject to change without notice. Consult your local IBM representative for information on products and services available in your area.

Published by the IBM xSeries Server Performance Laboratory, IBM Corp.

© Copyright International Business Machines Corporation 2003. All rights reserved.

Permission is granted to reproduce this document in whole or in part, provided the copyright notice as printed above is set forth in full text at the beginning or end of each reproduced document or portion thereof.

Note to U.S. Government Users — Documentation related to restricted rights — Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract with IBM Corp.

Trademarks

IBM, the IBM logo, the e-business logo, xSeries and X-Architecture are trademarks or registered trademarks of International Business Machines Corporation.

Intel and Xeon are trademarks or registered trademarks of Intel Corporation.

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

SPEC and SPECjbb are trademarks or registered trademarks of Standard Performance Evaluation Corporation.

Other company, product and service names may be the trademarks or service marks of others.

Notes

(1) GHz only measures microprocessor internal clock speed, not application performance. Many factors affect application performance.

(2) When referring to hard disk capacity, GB, or gigabyte, means one thousand million bytes. Total user-accessible capacity may vary depending on operating environment.