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System Virtualization Support in Sun Java System Products

June 2008

Software Products Covered by this Statement

This document summarizes Sun support for Sun Java System products when used in conjunction

with system virtualization products and features. It applies to Sun products contained in the following Sun Java System suites:

- Sun Java Application Platform Suite
- Sun Java Identity Management Suite
- Sun Java Composite Application Platform Suite
- Sun Java B2B Suite
- Sun Java ESB Suite
- Sun Java Web Infrastructure Suite

Refer to the [Sun Java Enterprise System \(Java ES\) product information](#) for more information on these suites.

The Sun Java Availability Suite and Solaris Cluster are not addressed in this support statement. Refer to the [Solaris Cluster product information](#) for further details on Solaris Cluster's support for operating system virtualization.

Introduction

A core capability of system virtualization offerings is the ability to execute multiple operating system (OS) instances on shared hardware. Functionally, an application deployed to an OS hosted in a virtualized environment is generally unaware that the underlying platform has been virtualized. Sun performs testing of its Sun Java System products on select system virtualization and OS combinations to help validate that the Sun Java System products continue to function on properly sized and configured virtualized environments as they do on non-virtualized systems.

System Resource Sizing

The combination of being able to deploy multiple OS instances and applications on a single system and the ease by which system resources can be allocated to OS instances increases the likelihood of realizing undersized environments for your applications. Under these circumstances it is especially important for you to follow the documented resource allocation recommendations and requirements for processor, memory, storage and network for each virtual OS instance and the underlying hardware platform so as to ensure sufficient levels of application performance. Refer to the Sun Java System product documentation for recommended and supported system resource requirements.

Advanced Features of Virtualized Systems

Enterprise-oriented system virtualization offerings provide features to enable administrators to efficiently manage resources provided to OS instances. For example, administrators can dynamically adjust the amount of memory allocated to each OS instance and clone or live-migrate OS instances along with their deployed applications. Since the Sun Java System product deployments may not be qualified to operate under these dynamic circumstances, you should exercise caution when utilizing advanced features such as dynamic resources management. As Sun Java System products are tested successfully in these advanced virtualization scenarios, this support statement will be updated to reflect support for these features.

Supported System Virtualization Products and Features

The following virtualization products and features are addressed in this support statement:

- [“Sun Logical Domains \(LDoms\)” on page 3](#) for SPARC processor-based systems
- [“Solaris 10 Containers and Zones” on page 3](#)
- [“Solaris 8 Containers” on page 3](#)
- [“Sun xVM Server” on page 3](#)
- [“VMware ESX Server 3” on page 3](#)

Further details on these supported products and features appear below. Where appropriate, specific versions of Sun Java System products are referenced.

As additional virtualization products and technologies emerge in pre-production and production form, this support statement will be expanded to explicitly include those products and features.

Regardless of the virtualization product or feature in use, the Sun Java System product version being deployed in a virtualized environment must support the guest OS and processor architecture provided by the virtualized environment. For information about the OSes and processor architectures supported by Sun Java System products, see the following:

- [Sun Java Composite Application Platform Suite documentation](#)
- [Sun Java System Identity Manager documentation](#)
- [All other Sun Java System product documentation](#)

Sun Logical Domains (LDoms)

Sun Java System products that support Solaris 10 are supported for deployment using the Logical Domains (LDoms) feature.

As of Solaris 10 11/06, LDoms is available on sun4v based platforms (for example, UltraSPARC T1-based and T2-based servers). For information about LDoms, its capabilities, and its requirements, see the [Logical Domains documentation collection](#).

Solaris 10 Containers and Zones

Sun supports the use of recent versions of Sun Java System products for use in Solaris 10 Containers and Zones. See the Sun Java System product documentation for any special considerations when deploying Sun Java Systems on Solaris Containers and Zones:

- [Sun Java Composite Application Platform Suite documentation](#)
- [Sun Java System Identity Manager documentation](#)
- [All other Sun Java System product documentation](#)

Solaris 8 Containers

Sun Java System products that support Solaris 8 are supported for deployment using Solaris 8 Containers (formerly known as Solaris 8 Migration Assistant), in which a Solaris 8 instance is deployed using Solaris 10 Containers technology.

Sun xVM Server

As the preview release of Sun xVM Server for x64 systems emerges in 2008, Sun expects that Sun Java System products will operate properly on a guest OS within a Sun xVM server environment as long as the guest OS itself is supported by Sun for the Sun Java System product being deployed. As production deployment support for Sun xVM Server also emerges in 2008, Sun will support production deployments of Sun Java System products on guest operating systems as long as the guests are supported for use with the Sun Java System products being deployed.

VMware ESX Server 3

Sun actively tests Sun Java System products on Solaris 10 using VMware ESX Server 3 and has not uncovered any Sun Java System product issues related to VMware ESX Server 3 when running in such environments. Therefore, Sun fully supports the use of Sun Java System products deployed to supported updates of Solaris 10 when running on top of VMware ESX Server 3.

Apart from Solaris, Sun does not test the wide range of operating systems supported by Sun Java System products in a VMware ESX Server 3 environment. However, as long as the OS version in use is supported by the Sun Java System product being deployed and by VMware ESX Server 3, Sun expects the Sun Java System product to work properly. In these cases Sun will do its best to support customers, but Sun may ask a customer to reproduce a problem in a non-virtualized environment when Sun determines that the virtualization component may have an impact on the problem.

Currently, Solaris 8 and Solaris 9 are not supported for production use on VMware ESX Server 3. Recent updates of Solaris 10 on x86 are supported on VMware ESX Server 3. For more information about the guest OSes supported by VMware ESX Server, see:

- The “Supported Guest Operating Systems” section of the [VMware Guest Operating System Installation Guide](#).
- The [VMware ESX Server 3](#) entry in the [Solaris Hardware Compatibility List](#), which lists system virtualization platforms that are supported by Sun for Solaris.

Currently, only x86 processor-based systems are supported by VMware ESX Server. SPARC processor-based systems are not. For more information about the servers supported by VMware ESX Server, see the VMware ESX server, network, and storage compatibility guides in the [VMware ESX documentation](#).

Support for System Virtualization Products and Features Not Listed

When you deploy Sun Java System products using system virtualization products or features not listed in this document and encounter a problem, Sun will use commercially reasonable efforts to provide support subject to the following constraints:

- The OS and processor architecture in use must be supported by the Sun Java System product.
- The OS, processor architecture, server and other hardware in use must be supported by the virtualization product or technology.
- Sun may request that you reproduce a problem either in a non-virtualized environment or in an environment using virtualization technologies listed in this document. If the problem cannot be reproduced in one of those environments, then Sun may choose not to address the problem and you should seek support concerning the problem from the virtualization technology provider.
- Sun actively tests Sun Java System products with only virtualization products and technologies listed in this document.

Revision History

Version	Date	Description of Changes
12	June 2008	Removed the note from the section “ VMware ESX Server 3 ” on page 3, as it conflicted with information in the section “ Support for System Virtualization Products and Features Not Listed ” on page 4.
11	April 2008	Added the section “ Support for System Virtualization Products and Features Not Listed ” on page 4.
10	March 2008	Initial release version.

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