System Virtualization Support in Sun Java System Products

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This document is maintained by Sun Java System team.

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 GlassFish Portfolio
- Sun Java Application Platform Suite
- Sun Java Identity Management Suite
- Sun Java Composite Application Platform Suite
- Sun B2B Suite
- Sun ESB Suite
- Sun MDM Suite
- Sun Java Web Infrastructure Suite
- Sun Java Communications Suite

Refer to the Sun Java Enterprise System (Java ES) and Communications Suite product pages 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.

Product-Specific Considerations

Refer to the documentation and release notes of a Sun Java System product for any system virtualization considerations that are specific to that product.

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
- "Solaris 10 Containers and Zones" on page 3
- "Solaris 8 and Solaris 9 Containers" on page 3
- "Sun xVM Server" on page 3
- "Sun xVM VirtualBox" on page 4
- "VMware ESX and ESXi" on page 4

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, it 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 and Solaris 9 Containers

Sun Java System products that support either or both Solaris 8 and Solaris 9 are supported for deployment using either or both Solaris 8 Containers and Solaris 9 Containers. Solaris Containers enables Solaris 8 and Solaris 9 instances to be deployed and managed on a Solaris 10 system. For more information, see the Solaris Containers product page.

Sun xVM Server

As the preview release of Sun xVM Server for x64 systems emerges in 2009, 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 2009, 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.

Sun xVM VirtualBox

Sun Java System products are supported for development and evaluation use on guest operating systems running on Sun xVM VirtualBox. The selected host and guest operating system must be supported by Sun xVM VirtualBox, and the guest operating system must be supported by the Sun Java System product.

If you would like formal support for Sun xVM VirtualBox, Sun offers enterprise support subscriptions, as described on the xVM VirtualBox support page.

Refer to the following documents for more information on Sun xVM VirtualBox operating system support:

- VirtualBox Guest Operating Systems
- VirtualBox Host Operating Systems: see VirtualBox Downloads

VMware ESX and ESXi

Support for Solaris 10

Sun actively tests Sun Java System products on Solaris 10 using VMware ESX and ESXi, beginning with version 3.5 of VMware ESX and ESXi, and has not uncovered any Sun Java System product issues related to VMware ESX and ESXi 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 and ESXi 3.5 and 4, which are the VMware ESX and ESXi versions included in the VMware Virtual Infrastructure 3 and VMware vSphere 4 offerings, respectively.

If an issue arises during the use of a supported combination of Sun Java System products, Solaris 10, and VWware ESX or ESXi, troubleshooting and analysis of the issue will be performed in the virtualized environment. In cases where this troubleshooting and analysis fails to resolve the issue, Sun may ask the customer to reproduce the issue in a non-virtualized environment.

Support for Other Operating Systems

Apart from Solaris 10, Sun does not test the wide range of operating systems supported by Sun Java System products in a VMware ESX and ESXi environment. However, as long as the OS version in use is supported by the Sun Java System product being deployed and by VMware ESX and ESXi, 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.

VMware ESX and ESXi Operating System and Server Support

For more information about the guest OSes supported by VMware ESX and ESXi, see:

- The “Supported Guest Operating Systems” section of the VMware Guest Operating System Installation Guide.
- The VMware ESX and ESXi entry in the Solaris Hardware Compatibility List. Additionally, searching the Solaris Hardware Compatibility List for “VMware” will provide the most up-to-date information.

For more information about the servers supported by VMware ESX and ESXi, see the VMware ESX and ESXi 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
15	October 2009	Updated VMware ESX and ESXi information to include version 4 and the VMware vSphere 4 offering.
14	February 2009	Added Sun GlassFish Portfolio and Sun Java Communications Suite to the list of software products covered by this statement; added information about Solaris 9 Containers; and information about Sun xVM VirtualBox; updated VMware ESX information to include VMware ESXi and to refer to version 3.5.
13	September 2008	Added Sun MDM Suite to the list of software products covered by this statement.
12	June 2008	Removed the note from the section"VMware ESX and ESXi" on page 4, 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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