GemStone<sup>®</sup>

# GemStone/S Release Notes

Version 6.5.7.5

January 2011



#### INTELLECTUAL PROPERTY OWNERSHIP

This documentation is furnished for informational use only and is subject to change without notice. GemStone Systems, Inc. assumes no responsibility or liability for any errors or inaccuracies that may appear in this documentation.

This documentation, or any part of it, may not be reproduced, displayed, photocopied, transmitted, or otherwise copied in any form or by any means now known or later developed, such as electronic, optical, or mechanical means, without express written authorization from GemStone Systems, Inc.

Warning: This computer program and its documentation are protected by copyright law and international treaties. Any unauthorized copying or distribution of this program, its documentation, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted under the maximum extent possible under the law.

The software installed in accordance with this documentation is copyrighted and licensed by GemStone Systems, Inc. under separate license agreement. This software may only be used pursuant to the terms and conditions of such license agreement. Any other use may be a violation of law.

Use, duplication, or disclosure by the Government is subject to restrictions set forth in the Commercial Software - Restricted Rights clause at 52.227-19 of the Federal Acquisitions Regulations (48 CFR 52.227-19) except that the government agency shall not have the right to disclose this software to support service contractors or their subcontractors without the prior written consent of GemStone Systems, Inc.

This software is provided by GemStone Systems, Inc. and contributors "as is" and any expressed or implied warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose are disclaimed. In no event shall GemStone Systems, Inc. or any contributors be liable for any direct, indirect, incidental, special, exemplary, or consequential damages (including, but not limited to, procurement of substitute goods or services; loss of use, data, or profits; or business interruption) however caused and on any theory of liability, whether in contract, strict liability, or tort (including negligence or otherwise) arising in any way out of the use of this software, even if advised of the possibility of such damage.

### **COPYRIGHTS**

This software product, its documentation, and its user interface © 1986-2011 GemStone Systems, Inc. All rights reserved by GemStone Systems, Inc.

### **PATENTS**

GemStone is covered by U.S. Patent Number 6,256,637 "Transactional virtual machine architecture", Patent Number 6,360,219 "Object queues with concurrent updating", and Patent Number 6,567,905 "Generational Garbage Collector". GemStone may also be covered by one or more pending United States patent applications.

#### TRADEMARKS

**GemStone**, **GemBuilder**, **GemConnect**, and the GemStone logos are trademarks or registered trademarks of GemStone Systems, Inc. in the United States and other countries.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Sun, Sun Microsystems, Solaris, and SunOS are trademarks or registered trademarks of Sun Microsystems, Inc. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. SPARCstation is licensed exclusively to Sun Microsystems, Inc. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

Intel and Pentium are registered trademarks of Intel Corporation in the United States and other countries.

Linux is a registered trademark of Linus Torvalds and others.

Red Hat and all Red Hat-based trademarks and logos are trademarks or registered trademarks of Red Hat, Inc. in the United States and other countries.

Microsoft, MS, Windows, Windows XP, Windows 2000, Windows 2003, Windows Vista and Windows 7 are registered trademarks of Microsoft Corporation in the United States and other countries.

VisualWorks is trademark of Cincom Systems, Inc.

Other company or product names mentioned herein may be trademarks or registered trademarks of their respective owners. Trademark specifications are subject to change without notice. All terms mentioned in this documentation that are known to be trademarks or service marks have been appropriately capitalized to the best of our knowledge; however, GemStone cannot attest to the accuracy of all trademark information. Use of a term in this documentation should not be regarded as affecting the validity of any trademark or service mark

GemStone Systems, Inc.

1260 NW Waterhouse Avenue, Suite 200 Beaverton, OR 97006

# Chapter **1**

# GemStone/S 6.5.7.5 Release Notes

### Overview

GemStone/S 6.5.7.5 is a new version of the GemStone Smalltalk object server. This special build release fixes a critical bug that can cause system crash.

These release notes provide changes between the previous version of GemStone/S, version 6.5.7.4, and version 6.5.7.5. If you are upgrading from a version prior to 6.5.7.4, please also review the release notes for each intermediate release to see the full set of changes.

No separate Installation Guide is provided with this release. For installation instructions, use the Installation Guide for version 6.5.7.

# **Supported Platforms**

GemStone/S version 6.5.7.5 is supported on the following platforms:

- ▶ Solaris 8, 9 and 10 on SPARC
- ▶ Red Hat Linux ES 5.0

For more information and detailed requirements for each supported platforms, please refer to the GemStone/S v6.5.7 Installation Guide for that platform.

## Changes in this release

### SEGV due to duplicate call to free memory after a network problem encountered

When the page manager removes pages from remote shared page caches, there is a code path in which, if a call fails (for example, due to a network error), the buffer used to communicate to the remote caches is freed a second time. This cause the page manager to SEGV, and therefore shutdown the system. (#41184)

The Page Manager code has also been modified so that all pages are retried if any network error is detected while talking to any remote cache. Previously code paths existed where pages may not have been retried. Not retrying risks a race condition with the Stone where a page could be reported ready for disposal before the stone has terminated all gems on the dead remote cache.

The number of times that all pages had to be retried due to a network error or timeout with a remote SPC is now reported in the Page Manger cache statistic SessionStat4.