Sun Cluster 3.2 1/09 Geographic Edition Release Notes

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820-4991

Release Notes

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(English) Sun Cluster Geographic Edition 3.2 1-09 Release Notes

This document provides the following information for Sun™ Cluster Geographic Edition 3.2 1/09 software.

- New Features and Functionality
- Supported Products
- Commands Modified in This Release
- Restrictions
- Known Issues and Bugs
- Required Patches
- Sun Cluster Geographic Edition 3.2 1/09 Documentation
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New Features and Functionality

This section describes each of the following new features provided in the Sun Cluster Geographic Edition 3.2 1/09 software.

Oracle Data Guard Replication

This release introduces support of Oracle Data Guard for data replication in a Sun Cluster Geographic Edition environment that runs Oracle Real Application Clusters (RAC). This feature supports RAC versions 10g and 11g. You can use this new feature only in primary and standby sites that have the following numbers of Oracle RAC instances:

- One instance at the primary site to one instance at the standby site
- Two instances at the primary site to one instance at the standby site

> **Note**
> This release currently supports only the Physical standby type. The Logical standby type is not yet tested with this release of Sun Cluster Geographic Edition.

For details, see Sun Cluster Geographic Edition Data Replication Guide for Oracle Data Guard.

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Supported Products

This section describes the supported software for Sun Cluster Geographic Edition 3.2 1/09 software.

- Supported Software Products
- Restrictions
- Support for EMC Symmetrix Remote Data Facility (SRDF) Configurations

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Supported Software Products

This section lists the software products and versions that are supported by Sun Cluster Geographic Edition 3.2 1/09 software.

Data Replication

- EMC Symmetrix Remote Data Facility
- Hitachi TrueCopy RAID Manager
- (with Oracle RAC 10g/11g only) Oracle Data Guard
- (Solaris 9) Sun StorEdge Availability Suite 3.2.1
- (Solaris 10) Sun StorageTek Availability Suite 4

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Solaris Operating System

Platform	OS Version
SPARC™	Solaris 10 5/08, Solaris 10 10/08 Solaris 9 9/05, Solaris 9 9/05 HW
x86	Solaris 10 5/08, Solaris 10 10/08

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Sun Cluster Software

- Sun Cluster 3.2 1/09
- Sun Cluster 3.2 2/08

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Volume Management Software

Data Replication Software	Supported Volume Managers
EMC Symmetrix Remote Data Facility	Veritas Volume Manager
Hitachi TrueCopy	Veritas Volume Manager
Oracle Data Guard [1]	Solaris Volume Manager for Sun Cluster Veritas Volume Manager with cluster feature Oracle Automatic Storage Management
(Solaris 10) Sun StorageTek™ Availability Suite 4	Solaris Volume Manager Veritas Volume Manager
(Solaris 9) Sun StorEdge™ Availability Suite 3.2.1	Solaris Volume Manager Veritas Volume Manager

[1] For information about additional supported storage management options, see "Storage Management Requirements for Oracle Files" in the Sun Cluster Data Service for Oracle RAC Guide.

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Restrictions

As of the time of initial release, the following features or products are not supported by Sun Cluster Geographic Edition 3.2 1/09 software:

- GUI - The Sun Cluster Geographic Edition graphical user interface (GUI) is not functional on a cluster that runs Sun Cluster 3.2 2/08 software. Use the command-line interface instead, or upgrade the cluster to 3.2 1/09 software.

- Oracle Data Guide - Support for data replication with Oracle Data Guard is not available on a cluster that runs Sun Cluster 3.2 2/08 software. The cluster must run the 3.2 1/09 software to use Oracle Data Guard replication.

- ZFS replicated storage - ZFS storage pools are not supported as replicated storage that is managed by Sun Cluster Geographic Edition software. However, you can have a ZFS storage pool on a cluster node that runs Geographic Edition software if that storage pool is not part of the replicated storage that is managed by Geographic Edition software.

Contact your Sun representative to learn whether a feature or product becomes qualified with Sun Cluster Geographic Edition 3.2 1/09 software at a later date.

Support for EMC Symmetrix Remote Data Facility (SRDF) Configurations

Sun Cluster Geographic Edition 3.2 1/09 software currently supports the following SRDF configurations:

- Dynamic SRDF device group
- Static SRDF device group

Sun Cluster Geographic Edition 3.2 1/09 software supports SRDF configurations in Synchronous and Asynchronous modes for data replication in disaster-recovery environments.

> ⚠️ Caution
> Before you choose to use SRDF Semi-synchronous, Domino, or Adaptive Copy modes with Sun Cluster Geographic Edition software, consult EMC documentation for any warnings or restrictions concerning the use of these modes in business-continuity configurations.

Commands Modified in This Release

`geopg *-device-group` Subcommands Changed to `geopg *-replication component`

For the `geopg` command, the subcommands `add-device-group`, `modify-device-group`, and `remove-device-group` are changed in this release to `add-replication-component`, `modify-replication-component`, and `remove-replication-component`, respectively. These name changes reflect the expansion of objects that the subcommands manage with the additions of support for Oracle Data Guard replication. See the `geopg`(1M) man page for the updated command usage.

However, the original subcommands `add-device-group`, `modify-device-group`, and `remove-device-group` still function as they have in previous Sun Cluster Geographic Edition releases. No changes are needed to scripts that use these `geopg` subcommands.

Known Issues and Bugs

The following known issues and bugs affect the operation of the Sun Cluster Geographic Edition 3.2 1/09 release.

All Updates to HAStoragePlus Resource Fail After Upgrading to Sun Cluster 3.2 1/09 on Solaris 9 (6787430)

Problem Summary: The Sun Cluster Geographic Edition software creates strong dependencies between the HAStoragePlus resource in the application resource group and the HAStoragePlus resource in the lightweight resource group for the device group. This update occurs when the protection group is brought online on the primary site or when an online application resource group is added to an online protection group on the primary site. Because updates to HAStoragePlus resources are failing after Sun Cluster software on the Solaris 9 OS is upgraded to the 3.2 1/09 version, a Sun StorEdge Availability Suite protection group will remain in an error state and resist attempts to enable it.

Workaround: Uninstall the previous version of Sun Cluster Geographic Edition software and perfrom a fresh installation. Until a patch is available, do not upgrade a Sun Cluster Geographic Edition configuration that runs Sun StorEdge Availability Suite on the Solaris 9 OS to the Sun Cluster 3.2 1/09 release.

Protection Group Remains Locked if Attempt to Delete it Results in Failure to Remove Corresponding Data-Replication Resource Group (6762231)

Problem Summary: If an exception occurs during a delete operation on a protection group, it is possible for some resources to be left 'dangling'. Subsequent attempts to delete the protection group will fail with an error message saying that the configuration is locked.

Workaround: Restart the common agent container framework, which will restart the protection group code and clean up the lock. Use the following commands:

```
# cacaoadm stop -f
# cacaoadm start
```

If necessary, complete the Sun Cluster Geographic Edition operations and validate the protection group with the following command:

```
# geopg validate pgname
```

Lightweight and Data Replication Resource Groups Left Behind After Protection Group Deleted, Later Addition of Resource Groups to New Protection Group for Configuration Will Fail (6762201)

Problem Summary: If an administrator removes device groups from a protection group on a primary cluster, and then deletes the protection group itself on primary and secondary clusters, some internal device groups are left behind on the secondary.

Workaround: The correct procedure is simply to delete the protection group as a whole on both clusters without first removing the device groups.

If this problem is encountered, delete the data replication resource groups and the Sun StorageTek Availability Suite lightweight resource groups that were left behind. Use the following command:

```
# clresourcegroup delete [-F] dg1-stor-rg pg-rep-rg dg2-stor-rg
```

where dg1, pg, and dg2 are replaced by the names of the device groups and protection group concerned.

Unable to Take Over Availability Suite Protection Group From Secondary After Primary Cluster Is Gracefully Brought Down (6762103)

Problem Summary: When using Sun StorageTek Availability Suite replication, if an active primary cluster is gracefully shut down by using the `cluster shutdown` command, the secondary data volume can be left in the `need sync` state by Availability Suite software. Data on that volume will be inaccessible until synchronization is completed.

Workaround: Do not use the `cluster shutdown` command to gracefully shut down a cluster that is a member of an active Sun Cluster Geographic Edition partnership. In normal circumstances, use the appropriate Sun Cluster Geographic Edition commands to first stop the protection groups and the Sun Cluster Geographic Edition framework, and then shut down the cluster.

To perform an abrupt shutdown to simulate a site failure for test purposes, use the `uadmin 2 0` command on all nodes at the same time.

When Some Devices in a Device Group Are Synchronized and Some Are Suspended, we Return 0 From Protection Group Start Incorrectly (6742323)

Problem Summary: When some devices in an EMC Symmetrix Remote Data Facility (SRDF) device group are in Synchronized state and some are in a Suspended state, a `geopg start` command can return success without actually establishing the device group for SRDF.

Workaround: The administrator should manually establish the device group using the following command:

```
# symrdf -g devicegroup establish
```

Subsequent operations on the device group by Sun Cluster Geographic Edition software will then function correctly.

Unable to Restart Geo on the Same Node Immediately After Start Failure (6528160)

Problem Summary: If an exception occurs while starting the Sun Cluster Geographic Edition control module, the module is disabled on the node.

Workaround: Before you restart the Sun Cluster Geographic Edition framework, restart the common agent container (CAC):

```
# cacaoadm restart
```

If the Sun Cluster Geographic Edition framework still does not start, stop the CAC framework, remove the old resource groups that the `geoadm start` command created, and restart the CAC:

```
# cacaoadm stop -f
# clresourcegroup delete -F geo-resourcegroup...
# cacaoadm restart
```

Then restart the Sun Cluster Geographic Edition framework.

Switchover Cannot Be Performed with Asynchronous SRDF (6389092)

Problem Summary: When Symmetrix Remote Data Facility (SRDF) data replication is used, Sun Cluster Geographic Edition software does not allow you to issue the `geopg switchover` command if a device group that is included in a protection group is set to Asynchronous mode.

The failback-switchover procedure that is included in the Sun Cluster Geographic Edition documentation for SRDF therefore does not work as written for device groups in Asynchronous mode because the procedure includes the `geopg switchover` command.

Workaround: To perform a failback-switchover, after you resynchronize the clusters in the partnership, temporarily change device groups from Asynchronous mode to Synchronous mode by using the following command:

```
# symrdf -g devicegroup set mode sync
```

After you complete and verify the switchover, set the device groups back to Asynchronous mode by using the following command:

```
# symrdf -g devicegroup set mode async
```

Required Patches

This section provides information about patches for Sun Cluster Geographic Edition configurations.

> ℹ️ **Note**
> You must be a registered My Oracle Support™ user to view and download the required patches for the Sun Cluster Geographic Edition product. If you do not have a My Oracle Support account, contact your Oracle service representative or sales engineer, or register online at My Oracle Support.

If a cluster runs Sun StorageTek Availability Suite or Sun StorEdge Availability Suite, you must have the following patches installed:

- Sun StorEdge Availability Suite 3.2.1 CORE: a minimum of 116466-09
- Sun StorEdge Availability Suite 3.2.1 II: a minimum of 116467-09
- Sun StorEdge Availability Suite 3.2.1 SNDR: a minimum of 116468-13
- SPARC: Sun StorageTek Availability Suite 4 SNDR: a minimum of 123246-03
- x86: Sun StorageTek Availability Suite 4 SNDR: a minimum of 123247-03

Check with a Sun service representative for the availability of these patches.

Sun Cluster Geographic Edition 3.2 1/09 Documentation

The Sun Cluster Geographic Edition 3.2 1/09 user documentation set consists of the following collections:

- Sun Cluster Geographic Edition 3.2 1/09 Release Notes Collection
- Sun Cluster Geographic Edition 3.2 1/09 Software Collection
- Sun Cluster Geographic Edition 3.2 1/09 Reference Collection

For the latest documentation, go to the docs.sun.com web site. The docs.sun.com web site enables you to access Sun Cluster Geographic Edition documentation on the Web. You can browse the `docs.sun.com` archive or search for a specific book title or subject at the following Web site:

http://docs.sun.com

Sun Cluster Geographic Edition 3.2 1/09 Software Collection

The Sun Cluster Geographic Edition 3.2 1/09 Software Collection contains the following manuals.

Part Number	Book Title
820-3004	Sun Cluster Geographic Edition Overview
820-2995	Sun Cluster Geographic Edition Installation Guide
820-2996	Sun Cluster Geographic Edition System Administration Guide
820-2997	Sun Cluster Geographic Edition Data Replication Guide for EMC Symmetrix Remote Data Facility
820-2998	Sun Cluster Geographic Edition Data Replication Guide for Hitachi TrueCopy
820-5016	Sun Cluster Geographic Edition Data Replication Guide for Oracle Data Guard
820-2999	Sun Cluster Geographic Edition Data Replication Guide for Sun StorageTek Availability Suite

Sun Cluster Geographic Edition 3.2 1/09 Reference Collection

This collection contains the Sun Cluster Geographic Edition Reference Manual, part number 820-2992.

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Localization Issues

No localization issues are known of at this time.

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Documentation Issues

This section discusses known errors or omissions for man pages, documentation, or online help and steps to correct these problems.

Data Replication Guide for Oracle Data Guard

In the beginning of Chapter 1, the introduction incorrectly states that both the Oracle Data Guard Physical standby and Logical standby types are supported with this release of Sun Cluster Geographic Edition software. At this time, only the Physical standby type is supported.

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