

TotalStorage Productivity Center for
Replication V3.4.1.3



Release Notes

Version 3 Release 4.1.3

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Note

Before using this information and the product it supports, read the information in "Notices," on page 9.

First Edition (December 2008)

This edition applies to the IBM TotalStorage Productivity Center for Replication V3.4.1 release and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this release

This document contains the release notes in support of TotalStorage[®] Productivity Center for Replication V3.4.1.3.

Prerequisites

Prerequisites for this release are the same as for TotalStorage Productivity Center for Replication V3.4.

Note: Connecting DS8000™ storage systems using the Hardware Management Console (HMC) on TotalStorage Productivity Center for Replication version 3.4.1.x will be officially supported in TotalStorage Productivity Center for Replication V4.1.

Fixes

This section describes current fixes for the product.

An issue was found affecting the Recover processing of ALL TotalStorage Productivity Center for Replication sessions that use Global Mirror

This issue might affect users who have Global Mirror sessions as part of their solution. Global Mirror sessions include the following:

- Global Mirror Single Direction
- Global Mirror Failover/Failback
- Global Mirror Failover/Failback with Practice
- Metro Global Mirror

A severe issue has been identified during the processing of a Recover command, in which consistency group formation for a Global Mirror session is stopped or abruptly terminated. This problem might result in TotalStorage Productivity Center for Replication incorrectly reverting the FlashCopy® relationships. Although this is an unusual event, it is strongly encouraged that all users running Global Mirror apply this fix to ensure that the Recover process provides data consistency across the session.

Errors during a Recover or Flash of a TotalStorage Productivity Center for Replication Global Mirror session caused the TotalStorage Productivity Center for Replication server either to stop responding, or to remain stuck in a Recovering or Flashing state.

This issue was addressed by APAR IC59152.

In previous releases, an error during the Recover or Flash command of a TotalStorage Productivity Center for Replication Global Mirror session caused the TotalStorage Productivity Center for Replication server to do one of the following:

- Stop responding
- Remain in a Recovering or Flashing state

When the Recover or Flash experienced an error (for example, failure to perform a failover because of a limited number of logical paths from the secondary site back to the primary site) and also had a configuration in which an H1 storage system had targets on multiple I2 storage systems, then an internal error prevented TotalStorage Productivity Center for Replication from updating the pair states. This caused TotalStorage Productivity Center for Replication to continually loop on actions, in an attempt to recover the session and remain in the Recovering or Flashing state. With this fix, TotalStorage Productivity Center for Replication will more efficiently handle errors during the Recover or Flash process, so that you can issue a new Recover or Flash, and take the appropriate manual actions to ensure the data is consistent.

Start H2->H1 for a TotalStorage Productivity Center for Replication Global Mirror Failover/Failback with Practice session might cause a full copy from H2 back to H1.

In previous releases, the Global Mirror Failover/Failback with Practice session might perform a full copy after doing the following:

- Recovering to the secondary site
- Issuing a **Start H2->H1** command

This fix resolves a known issue with the **Start H2->H1** command. It prevents a full copy, and only updates the tracks that have been modified on the H2 or H1 volumes.

Known issues and workarounds

This section describes current known issues with the product and associated workarounds.

A Global Mirror session is stuck in a Preparing state.

There is a known issue in which a Global Mirror session might get stuck in a Preparing state when you issue a restart (Start H1->H2). This occurs after you have successfully recovered to H2, but the H1 box is down and the TotalStorage Productivity Center for Replication server cannot communicate with it. Do not issue a **Start** command unless all of the source devices for the Start are successfully communicating with the hardware.

TotalStorage Productivity Center for Replication does not explain why the Global Mirror portion of the session does not start correctly.

There is a known issue in which if the H2 box in a Metro Global Mirror session does not have the Global Mirror microcode enabled, TotalStorage Productivity Center for Replication does not issue an error message to let you know why the Global Mirror portion of the session does not start successfully, and the session does not reach a Prepared state. Ensure the H1 and H2 storage systems in the Metro Global Mirror configuration have the Global Mirror feature enabled.

An error occurs during the Start command when restarting the session after a suspend while running H1->H3.

There is a known issue in which during a Metro Global Mirror session, TotalStorage Productivity Center for Replication attempts to establish the pairs with an incorrect option. This causes an error on the Start command when you restart the session after a suspend command when running H1->H3 due to an Incremental resynchronization. The error on the start does not affect the actual command, and the pairs are successfully started on the hardware.

When connectivity is lost, only the source storage system presents a disconnected message for a device on a Global Mirror session.

There is a known issue in which only the source box presents a disconnected message for a device on a Global Mirror session when you lose connectivity. If the target box loses connectivity, a message will not be displayed. This does not affect the status of the session, since the Global Mirror source controls the consistency group formation, and TotalStorage Productivity Center for Replication can manage the Global Mirror session through the source box.

After you upgrade a standby server, users that no longer exist might reappear.

There is a known issue where after upgrading a standby server, users that no longer exist may end up reappearing. If you modify the users on a standby server by deleting users, upgrading the standby server may result in the deleted users reappearing. After upgrading the standby, ensure that the users are correct.

You receive an 0f88 error when you start a session using Global Mirror, where Space Efficient volumes are used as the J3 volumes.

There is a known issue in which when you start a Global Mirror session using Space Efficient volumes as your J3 volumes, and the H2H3 pairs for those copy sets using the Space Efficient volumes do not start successfully,

a restart to the session will fail with an 0f88 error. This occurs because the FlashCopy pairs were previously established, and a full copy of the H2H3 Global Copy pairs is necessary. To restart the session, you need to manually delete the FlashCopy pairs (using either the DSCLI or DSGUI) and then reissue the **Start** command to the session.

For any DS8000 devices connected to an HMC, the heartbeat could trigger a freeze on the hardware and application impact for the duration of the long busy timeout timer, if the HMC is shut down for any reason

When connecting to a DS8000 using an HMC device versus a direct connection via Ethernet, caution should be used when activating the heartbeat between the TotalStorage Productivity Center for Replication server and the DS8000. On the Advanced Tools panel, the server's heartbeat can be enabled. If any DS8000 devices are connected using an HMC, the heartbeat could trigger a freeze on the hardware and application impact for the duration of the long busy timeout timer, if the HMC is shut down for any reason. Since the HMC is external to the actual DS8000 device there may be situations where the HMC shuts down or needs to be shut down, such as in a microcode upgrade.

If an HMC connection is necessary to support an IPV6 environment, and the heartbeat function is required, it is recommended to always use a dual HMC configuration to help guarantee that one of the HMC devices is connected.

If planned maintenance is necessary on the HMC, it is strongly recommended that you disable the heartbeat function on the TotalStorage Productivity Center for Replication server while the maintenance is performed.

If the HMC you use to connect to the DS8000 needs to go down frequently or ends up rebooting frequently, it is recommended that the TotalStorage Productivity Center for Replication server heartbeat be disabled unless absolutely required and the risk of application impact due to a non-disaster related shutdown has been properly assessed.

If the heartbeat is vital for your application, then the recommended interface would be a direct connection interface unless IPV6 is also required.

The TotalStorage Productivity Center for Replication server may need to be restarted if the Metro Global Mirror session fails to update the pair state.

There is a known issue when running a TotalStorage Productivity Center for Replication Metro Global Mirror session and the H2 volumes are connected using an HMC connection that loses connectivity. Due to the disconnect the pairs using the H2 volumes will show as unknown, but after connectivity is regained to the HMC, the pairs might remain in an unknown state. The problem is due to an internal deadlock in the processing code. If the pairs fail to update their pair state and the session fails to respond to commands, then restart the TotalStorage Productivity Center for Replication server.

Rebooting a logical partition on the DS8000 device briefly causes a loss in connectivity to the TotalStorage Productivity Center for Replication

There is a known issue when running TotalStorage Productivity Center for Replication with a DS8000 device connected using an HMC device and a logical partition (LPAR) on the DS8000 is quiesced and resumed. It appears that when the LPAR is resumed, TotalStorage Productivity Center for

Replication briefly loses connectivity to the DS8000 device. If the TotalStorage Productivity Center for Replication server has the heartbeat enabled to the device this could lead to a freeze and application impact for the duration of the long-busy timeout timer.

If an LPAR needs to be quiesced and the heartbeat function on the TotalStorage Productivity Center for Replication server is required, it is highly recommended that the heartbeat be disabled during the quiesce and not be re-enabled until after the LPAR is resumed.

After several reboots and restarts of the HMC, the console logs indicate that the DS8000 communication has been lost.

There is a known issue when running TotalStorage Productivity Center for Replication with a DS8000 device connected using an HMC, and the HMC is rebooted or restarted while TotalStorage Productivity Center for Replication is connected, the connection might appear to disconnect and reconnect several times before finally keeping the connection. The console logs will state that the communication is lost to the device and followed shortly by the device being accessible.

If it is necessary for the HMC to be rebooted or upgraded and the heartbeat on the TotalStorage Productivity Center for Replication server is enabled, it is recommended that the TotalStorage Productivity Center for Replication heartbeat is disabled prior to rebooting the HMC to prevent the heartbeat from causing a freeze that will impact application for the duration of the long busy timeout timer.

While modifying your single HMC configuration to a dual HMC configuration, the DS8000 device might be temporarily disconnected.

There is a known issue when running TotalStorage Productivity Center for Replication with a DS8000 device connected using a single HMC. If you modify the connection to add a secondary HMC in a dual HMC configuration, the connection to the device might be temporarily lost. In order to modify the connection from a single HMC to a dual HMC, TotalStorage Productivity Center for Replication must break the connection to the device, and then reestablish the connection. This causes the device to show as disconnected until the new dual connection is complete.

Appendix. Notices

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