TotalStorage Productivity Center for
Replication V3.4.1.2

IBM

Release Notes

Version 3 Release 4.1.2

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Contents

About this release

This document contains the release notes in support of TotalStorage® Productivity Center for Replication V3.4.1.2.

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

Return code 170 was not handled correctly.

This issue was addressed by APAR IC57783. In previous releases, TotalStorage Productivity Center for Replication did not correctly handle return code 170, saying that an LSS Configuration Query was already in progress. This resulted in the inability to reconnect the TotalStorage Productivity Center for Replication server to a DS8000 device. This fix addresses this issue by correctly handling the timeout, and thereby enabling the device to eventually connect successfully.

Using a Service name other than the default caused installation to fail.

This issue was addressed by APAR IC57921. In previous releases, the TotalStorage Productivity Center for Replication installation failed when DB2® was set up using a Service name other than the default. If a different Service name was used, errors such as login problems might occur after an upgrade. This fix addresses this issue so that a different Service name can be used for DB2.

The TotalStorage Productivity Center for Replication session remained in a Preparing state after a Start command.

This issue was addressed by APAR IC58537. In previous releases, there was a problem in which the TotalStorage Productivity Center for Replication session remained in a Preparing state when you issued a **Start** command to a session which contained SAN Volume Controller pairs that currently existed on the hardware. If at least one of those pairs was suspended, the TotalStorage Productivity Center for Replication server attempted to restart the pair incorrectly. This caused TotalStorage Productivity Center for Replication to delete the consistency group that it created on the hardware, causing the session to remain in a Preparing state. This fix addresses this issue.

The iSeries® volumes were incorrectly displayed.

In previous releases, there was an issue in properly displaying iSeries volumes under an ESS 800 device. This issue created problems when attempting to replicate iSeries volumes from an ESS 800 device to a DS8000 device, or from a DS8000 device to an ESS 800 device. This fix enables iSeries volumes to display in the correct sizes under an ESS 800 device, and to be used as volumes in a session that spans ESS 800 and DS8000 devices.

An Out of Memory issue on the standby server caused the TotalStorage Productivity Center for Replication server to crash.

In previous releases, an Out of Memory issue on the standby server caused the TotalStorage Productivity Center for Replication server to crash. When the standby server had connections to SAN Volume Controller devices, there was a problem in the number of threads used to connect to the devices. This caused an Out of Memory issue. This fix resolves this issue.

Restarting the TotalStorage Productivity Center for Replication server using the same DB2 instance caused database communication problems.

In previous releases, there was a problem in which restarting the TotalStorage Productivity Center for Replication server on a server with multiple applications using the same DB2 instance caused database

communication issues with DB2 and TotalStorage Productivity Center for Replication. This fix resolves the issue by increasing both the number of connections, and the timeout value.

An OC6 Abend occurred.
In previous releases, there was a problem that occurred when stopping WebSphere® on z/OS® that has TotalStorage Productivity Center for Replication installed by calling P BBOS001. This would occasionally result in an OC6 Abend. This fix addresses the issue by calling SDMs clean up functions before shutting down the server.

SNMP events were not thrown when a Metro Global Mirror session went into a Severe status.
In previous releases, there was a problem in which an SNMP event was not being thrown when a Metro Global Mirror session went into a Severe status when it lost communication with an H2 device. This fix addresses the issue by ensuring that an SNMP event will be thrown when a session enters a Severe status.

A Flash command performed a full copy instead of an incremental copy.
In previous releases, there was a problem in which, when a FlashCopy® session was flashed with NoCopy and Incremental set, and an **initiate background copy** command was issued to the session, the next Flash command would perform a full copy instead of an incremental copy. This fix fixes this issue, so that an Incremental Flash is done after an **initiate background copy** command is issued.

A Metro Global Mirror session was stuck in a Preparing state.
In previous releases, there was a problem in which a Metro Global Mirror session remained in a Preparing state because a failed query to the hardware caused an internal state not to be reset. This meant that the Master was not started on the hardware. This fix addresses the issue so that the Metro Global Mirror will not be stuck in the Preparing state, and will eventually reach a Prepared state.

Issues with TotalStorage Productivity Center for Replication not releasing I/O after Starts to the session.
In previous releases, the following problems occurred:

- In a Metro Global Mirror session when the "Hold I/O After Suspend" option was set with a high LSS long busy timeout setting, and then a **Start H1->H3** command was issued to perform an Incremental Resynchronization, the I/O was not released. This caused the **Start H1->H3** command to fail.

- When a freeze occurred because of a disconnect between the TotalStorage Productivity Center for Replication server and the hardware (and the heartbeat was enabled), the I/O was not released when communication was regained and a **Start** command was issued to restart the session.

This fix addresses these issues, so that the I/O will be released before issuing a **start** command to the hardware.

The 0400 hardware error occurred.
In previous releases, there was a problem in which an 0400 hardware error occurred with certain hardware configurations, when the session attempted to terminate a Metro Mirror or Global Copy pair to the secondary volume. This fix resolves the issue so that the **terminate** command is successful to the secondary volume of the relationship.

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,

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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 the 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, than 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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