

TotalStorage Productivity Center for  
Replication

A Terminate command to FlashCopy relationships where  
data is being written to the target, could cause potential  
data loss



# Flash

*Version 34.1 and earlier*



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**Note**

Before using this information and the product it supports, read the information in "Notices," on page 3.

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

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## About this flash

This flash addresses the issue of a potential data loss if the **Terminate** command is issued to a TotalStorage® Productivity Center for Replication session using FlashCopy® relationships where the target of the FlashCopy relationships have data being written to them.

This issue was addressed by APAR IC57623. The following PTFs address the issue:

- 3.3.3.6
- 3.4.0.2
- 3.4.1.1

The information is organized into general categories.

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## Problem description

When issuing a **Terminate** command to a session using FlashCopy relationships where the application is running and writing data on the target of the FlashCopy relationship, data loss could occur. This typically occurs while you are practicing for a disaster during the Metro Mirror Failover/Failback with Practice session, or a Global Mirror Failover/Failback session.

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## Resolving the problem

This issue was addressed by APAR IC56828.

When you issue a **Terminate** command to a TotalStorage Productivity Center for Replication session using ESS800, DS6000™, and DS8000™ FlashCopy relationships, where the targets of those FlashCopy relationships are connected to a host application applying writes, the **Terminate** to this session could result in a potential loss of data. After a FlashCopy is successfully issued, the target of the FlashCopy relationship is available immediately for writes. When the relationship on the hardware is withdrawn, even if the background copy is complete, the ESS800, DS6000, and DS8000 storage system will discard all cached data at the time of the **terminate**. If writes are being written to the FlashCopy target, those writes could potentially be in cache and thus discarded, causing a loss of data.

Metro Mirror Failover/Failback with Practice session and Global Mirror Failover/Failback with Practice session use FlashCopy relationships in which the host volume on Site 2 is a target of a FlashCopy relationship. This enables you to practice what you would do in a disaster. If you use these sessions and switch the application to site 2 to begin to write data to the H2 (Host at Site 2) volumes, you might experience potential data loss if you issue a **Terminate** command and the application is writing to H2 volumes.

The program temporary fix (PTF) addresses this issue by no longer making the FlashCopy relationships between the I2 and H2 volumes persistent on both the Metro Mirror Failover/Failback with Practice session and Global Mirror Failover/Failback with Practice sessions. Because the relationships are no longer persistent, when the background copy completes, the relationships will be removed from the hardware automatically, and the **Terminate** command will not affect the H2 volumes.

By no longer making the I2 to H2 FlashCopy persistent, the **Flash** command on the Metro Mirror Failover/Failback with Practice session will no longer establish the relationships with Incremental flashes. A full copy will be done every time that a FlashCopy is issued from I2 to H2 as well as returning the application to the H1 host after having run on the H2 host.

If a TotalStorage Productivity Center for Replication FlashCopy session is being used with the Incremental or Persistent options set, it is recommended that the final **Flash** command, prior to Terminating the session, be issued with the Persistent option no longer set. This will turn off the persistence on the relationships and cause the relationships to be removed from the hardware automatically after the background copy has completed. The **Terminate** command should only be issued after it has been confirmed that the background copy is complete, to avoid the potential loss of data.



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## Appendix. Notices

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