IBM TotalStorage Productivity Center for Replication for System z V3.4 delivers enhanced management and new high availability features for IBM System z

At a glance

IBM Total Storage Productivity Center for Replication for System z (5698-TPC) delivers:

- Volume protection to exclude any volumes from being used for disaster protection copy operations
- User roles for administrative levels of access
- Site awareness to indicate site locations of the storage volumes and help assure copies are done correctly
- Metro Global Mirror support for the DS8000, providing failover and failback support, fast re-establishment of three-site mirroring, quick re-synchronization of mirrored sites using incremental changes only, and data currency at the remote site

What's new in Total Storage Productivity Center for Replication for System z V3.4:

- Command prompting to confirm storage administrator actions prior to executing the copy services commands
- Global Mirror support for IBM System Storage SAN Volume Controller (SVC), providing asynchronous copy services protection over long distances
- Advanced copy session support for SVC for two-site replication management, including failover and failback
- Support for Space Efficient FlashCopy and Dynamic Volume Expansion capabilities of IBM System Storage DS8000
- Basic HyperSwap (also in new product IBM TotalStorage Productivity Center for Replication Basic Edition for System z V3.4 (5698-TRB))

Overview

IBM TotalStorage® Productivity Center for Replication for System z™ (5698-TPC) is designed to manage the advanced copy services provided by IBM Enterprise Storage Server™ (ESS) Model 800, IBM System Storage™ DS8000™, IBM System Storage DS6000™, and IBM System Storage SAN Volume Controller (SVC).

A new product, IBM TotalStorage Productivity Center for Replication Basic Edition for System z V3.4 (5698-TRB) enables Basic HyperSwap™ on z/OS®, which allows the management of disk replication services using an intuitive GUI on z/OS systems.

IBM TotalStorage Productivity Center for Replication for System z V3.4 extends existing support for Global Mirror and two-site copy services to include SVC. Enhancements for SVC in V3.4 include:
• Support for asynchronous mirroring (Global Mirror) for SVC
• Advanced copy session support for SVC for two-site replication management, including failover and fallback
• Practice volume support for SVC in Metro Mirror and Global Mirror configurations that lets IT managers practice disaster recovery scenarios between two locations without disrupting online production environments
• Display SVC cluster information on the Device Overview page
• Change to the background copy rate for SVC FlashCopy® sessions

Additional enhancements for TotalStorage Productivity Center for Replication for System z V3.4 include:

• Ability to fail Metro Mirror and Global Copy session command if the target volume is online
• Support for Space Efficient FlashCopy and Dynamic Volume Expansion capabilities of the DS8000
• Basic HyperSwap on z/OS

By leveraging the capabilities of TotalStorage Productivity Center for Replication for System z, you can increase administrator efficiency by utilizing a single tool to manage all copy services functions for IBM storage hardware, thus helping improve overall disaster recovery preparedness.

Starting with this release, if you have purchased the TotalStorage Productivity Center for Replication V3.3 base feature and have a current Subscription and Support contract, you are entitled to the TotalStorage Productivity Center for Replication Two Site BC V3.4 feature without the need to purchase an additional license. With V3.4, you could save up to 50% off previous list pricing for TotalStorage Productivity Center for Replication offerings.

IBM TotalStorage Productivity Center for Replication Basic Edition for System z is offered as a no charge license for System z customers so they can enable Basic HyperSwap capability. You have the option to upgrade to IBM TotalStorage Productivity Center for Replication for System z to take advantage of the advanced copy services functions.

Key prerequisites

Refer to Hardware and software requirements section.

Planned availability date

April 18, 2008

Description

IBM TotalStorage Productivity Center for Replication is designed to support hundreds of replication sessions across thousands of data volumes and supports both open and z/OS-attached volumes. IBM TotalStorage Productivity Center for Replication for System z V3.4 adds support for Global Mirror and two-site copy services for IBM System Storage SAN Volume Controller (SVC) customers.

Usability enhancements in IBM TotalStorage Productivity Center for Replication for System z V3.4 (5698-TPC):

• Shows the SVC cluster information on the Device Overview page so you are able to relate the volume to a single SVC cluster, instead of any of the SVC clusters behind the SVC CIMOM.
• Accepts a session setting that may be turned on or off to request that Metro Mirror or Global Mirror establish be failed, if the target volume is varied online. This may help prevent a Metro Mirror or Global Mirror relationship from copying over data that is being used by z/OS.
• Allows you to change the rate of background copy that occurs for SVC FlashCopy. The copy rate is a percentage to define how much resource SVC uses to get all of the tracks moved from the source to the target volume. A value of zero means no active background copy is performed, while a value of one hundred specifies that the background copy should complete in the shortest time possible.
Supports IBM System Storage DS8000 Space Efficient volumes in the target role for FlashCopy sessions. IBM TotalStorage Productivity Center for Replication reacts to volumes that are dynamically expanded by displaying the new volume size. You receive a warning when the start of a session, with a volume that has been expanded, will cause an error.

IBM TotalStorage Productivity Center for Replication is designed to monitor all copy session types and to report on the volumes exposed at the disaster recovery site (not in synchronization with the source site).

**Business continuity**

TotalStorage Productivity Center for Replication for System z is designed to scale to many thousands of data volumes, providing the capability to freeze and run within a Metro Mirror environment, and provide FlashCopy Establish for FlashCopy operations with minimum application impact. The TotalStorage Productivity Center for Replication for System z Three Site BC optional feature provides three-site recovery management, supporting DS8000 Metro Global Mirror. The TotalStorage Productivity Center for Replication Three Site BC function is designed to support fast failover and failback, fast re-establishment of three-site mirroring, data currency at the remote site with minimal lag behind the local site, and quick re-synchronization of mirrored sites using incremental changes only.

The TotalStorage Productivity Center for Replication Manager provides command line interfaces for all of its tasks to enable automation via scripts or workflows for advanced copy services.

**Basic HyperSwap**

IBM TotalStorage Productivity Center for Replication Basic Edition for System z (5698-TRB) (and TotalStorage Productivity Center for Replication for System z) enables Basic HyperSwap on z/OS to provide a low-cost, single-site, high-availability disk solution, which allows the configuration of disk-replication services using an intuitive GUI from z/OS. The intention is that with Basic HyperSwap function enabled, seamlessly swapping between primary and secondary disk volumes in the event of planned and unplanned outages such as hardware maintenance, testing, or device failure, can be accomplished from z/OS. When using Basic HyperSwap, TotalStorage Productivity Center for Replication helps eliminate single disk failures as a source of application outages by enabling you to specify a set of storage volumes to be synchronously mirrored. For example, in the event of a permanent I/O error, I/O requests can be automatically switched to the secondary copy, thereby masking the failure from the application and minimizing the need to restart the application (or system) after the failure. You can also initiate a planned failover to a secondary disk for the purpose of initiating hardware maintenance on primary storage controllers, or simply to periodically test the function. You can switch back to your preferred configuration via the GUI or operator commands.

Additional IBM TotalStorage Productivity Center for Replication functions are offered by IBM TotalStorage Productivity Center for Replication for System z. The IBM TotalStorage Productivity Center for Replication for System z family of products provides centralized administration of SAN storage devices including the management of IBM FlashCopy, Metro Mirror, and Global Mirror capabilities for the IBM Enterprise Storage Server (ESS) Model 800, IBM System Storage DS6000, DS8000, and SVC on z/OS.

If you are using TotalStorage Productivity Center for Replication Basic Edition for System z and desire the advanced features of two-site replication and three-site replication, you will be required to purchase a license for TotalStorage Productivity Center for Replication for System z. In addition, if you are running TotalStorage Productivity Center for Replication Basic Edition for System z in conjunction with IBM System Services Runtime Environment for z/OS, instead of IBM WebSphere® Advanced Server, and wish to upgrade to the advanced features of two-site replication and three-site replication, you will be required to purchase a license for IBM WebSphere Advanced Server and install the full version of TotalStorage Productivity Center for Replication for System z.

**Accessibility by people with disabilities**

A U.S. Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at


**Value Unit-based pricing**

Value Unit pricing for eligible IBM System z IBM International Program License Agreement (IPLA) programs enables a lower cost of incremental growth and enterprise aggregation. Each System z IPLA product with Value Unit pricing has a single price per Value Unit and a
A conversion matrix, called Value Unit Exhibit, for converting from some designated measurement to Value Units. Most commonly, Millions of Service Units (MSUs) is the measurement designated by IBM to be converted to Value Units. Some other measurements are engines or messages. Since MSUs are the most common measurement, that measurement will be used for the remainder of this description.

Value Unit pricing offers price benefits for you. For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Each of the various Value Unit Exhibits stipulate that the larger your required license capacity, the fewer Value Units per MSU you will need. Value Unit Exhibits are uniquely identified by a three digit code and referred to using the nomenclature VUExxx, where xxx is the three digit code.

Subsequent acquisitions of Value Unit priced programs offer additional price benefits. The quantity of each System z IPLA program that you have acquired is referred to as the **entitled license capacity**. If you wish to grow your entitled license capacity for a System z IPLA program, the calculation to determine additional needed Value Units is based upon the number of Value Units already acquired.

For each System z IPLA program with Value Unit pricing, you should:

- Determine the required license capacity, in MSUs
- Aggregate the MSUs across the enterprise
- Convert the total MSUs to Value Units, using the applicable Value Unit Exhibit
- Multiply the price per Value Unit by the total number of Value Units to determine the total cost

To simplify conversion from the designated measurement to Value Units or vice-versa, use the Value Unit Converter Tool. For additional information or to obtain a copy of the Value Unit Converter Tool, visit the Value Unit Converter Tool Web site

http://ibm.com/zseries/swprice/vuctool

Note that Value Units of a given product cannot be exchanged, interchanged, or aggregated with Value Units of another product.

To determine the required license capacity for the System z IPLA program you selected, refer to the Terms and conditions section.

**Product positioning**

IBM TotalStorage Productivity Center for Replication for System z is designed to support hundreds of replication sessions across thousands of volumes and supports both open and z/OS-attached volumes. It is also designed to monitor all copy session types and to report on the volumes exposed at the disaster recovery site (not in synchronization with the source site).

**Preview**

IBM intends to remove the current prerequisite for IBM System Services Runtime Environment for z/OS or IBM WebSphere Advanced Server for z/OS that is required in order to run IBM TotalStorage Productivity Center for Replication for System z and IBM TotalStorage Productivity Center for Replication Basic Edition for System z.

All statements regarding IBM's future direction and intent are subject to change or withdrawal without notice and represent goals and objectives only.

**Reference information**

For information on IBM TotalStorage Productivity Center for Replication for System z V3.3, refer to Software Announcement ZP07-0205, dated April 18, 2007.

For information on IBM TotalStorage Productivity Center for Replication V3.4 (distributed platforms), refer to Software Announcement ZP08-0184, dated April 8, 2008.

For information on IBM System Services Runtime Environment for z/OS V1.1, refer to Software Announcement ZP08-0143, dated April 8, 2008.
### Availability of national languages

IBM TotalStorage Productivity Center for Replication for System z and IBM TotalStorage Productivity Center for Replication Basic Edition for System z are available in the following languages on the date shown below.

<table>
<thead>
<tr>
<th>Language</th>
<th>Availability date</th>
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<tbody>
<tr>
<td>English</td>
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### Trademarks

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