

What's new/changed in GDPS 3.12?

On February 24, 2015, IBM has announced Version 3 Release 12 of GDPS/PPRC, GDPS/PPRC HyperSwap Manager, GDPS/XRC and GDPS/GM with Generally Availability on March 31, 2015.

In addition to V3R12 of these GDPS® products, two new GDPS products have been announced¹:

- ▶ GDPS/Multi-Target Metro Mirror (GDPS/MTMM)
- ▶ GDPS Virtual Appliance

This document describes at a high level:

- ▶ The new GDPS/MTMM and GDPS Virtual Appliance offerings
- ▶ New function and changes in GDPS V3.12, including new function added in GDPS V3.11 via Small Programming Enhancement (SPE) APARs.
- ▶ Information on GDPS functions that are planned to be discontinued in a future release.
- ▶ GDPS Statement of Direction.
- ▶ End of support information for GDPS prerequisite products.

¹ The General Availability dates for GDPS/MTMM and the GDPS Virtual Appliance are March 31, 2015 and April 30, 2015, respectively.

GDPS/Multi-Target Metro Mirror (GDPS/MTMM) - new product:

IBM has introduced the Multi-Target PPRC (MT-PPRC) technology on the DS8870 disk subsystems. MT-PPRC allows mirroring a single primary disk to multiple target disks, synchronously or asynchronously. Multi-Target Metro Mirror (MTMM) is one of the configurations supported by the MT-PPRC technology. In an MTMM configuration, primary volumes are synchronously mirrored (Metro Mirror) to two independent target volumes. The MTMM configuration, with two synchronous copy of the primary data, provides added protection when compared to a configuration with only a synchronous copy.

GDPS/MTMM is a new GDPS product that is designed to manage data replication, continuous availability and disaster recovery in an MTMM configuration. GDPS/MTMM is designed to manage Freeze and HyperSwap® in a configuration where one of the synchronous copies is the local (assumed to be in the same site with or at short distance to the primary disks), continuous availability copy and the second copy is in the second site and is the disaster recovery copy. HyperSwap is possible to either synchronous copy and whether both copies should be considered candidate for a swap and which copy should be preferred is governed by client policy specification.

In addition to the replication and swap management support, GDPS/MTMM provides extensive automation capabilities, very similar to those provided by the full function GDPS/PPRC product, for managing the GDPS sysplex resources, the systems in the sysplex, IBM z Systems™ hardware management, automation scripting and so on. GDPS/MTMM also provides support for z/VM® and the guests of the z/VM hosts using the GDPS xDR technology.

GDPS Virtual Appliance - new product:

The GDPS Virtual Appliance is intended for clients that use z/VM systems hosting Linux on IBM z Systems™ guests and *do not* have z/OS® systems in their environments. The GDPS Virtual Appliance delivers GDPS/PPRC xDR capabilities² through a self-contained GDPS Controlling system that is delivered as an *appliance*.

The GDPS Virtual Appliance monitors and manages PPRC, secondary data consistency and planned and unplanned HyperSwap for the disks of the managed z/VM systems (and guests). The appliance also monitors and manages the z/VM systems and provides system and hardware management capabilities to perform actions such as performing graceful shutdown of managed z/VM systems or loading, resetting, activating or deactivating the LPAR of z/VM systems. Facilities for managing temporary capacity (CBU, OOCoD or CPE) are available.

A new, intuitive graphical user interface is provided for monitoring of the environment and performing various actions. GDPS scripting is available to automate workflow for planned and unplanned actions that require multiple operator actions.

The GDPS Virtual Appliance provides a comprehensive high availability and disaster recovery solution for z/VM clients that do not have z/OS systems or skills.

² Not all capabilities of xDR are available with the Virtual Appliance at this time.

What's new or changed in GDPS/PPRC 3.12

- ▶ The z/OS Proxy is a new capability which extends GDPS management to z/OS systems outside of the GDPS sysplex, including planned and unplanned HyperSwap. The z/OS Proxy is a GDPS “agent” that runs on the “foreign” z/OS systems, either stand-alone monoplex systems or z/OS systems in a foreign sysplex and coordinates with the GDPS Controlling systems. Each z/OS Proxy managed foreign system connects to and communicates with the GDPS Controlling systems over FICON® channel-to-channel connections to provide GDPS with system status and coordinate actions such as HyperSwap. Neither System Automation nor NetView® is required on the z/OS Proxy managed systems. A maximum of 16 z/OS Proxy systems can be managed by a single instance of GDPS/PPRC. The z/OS Proxy is a separately priced feature. The z/OS Proxy is also supported in GDPS/MzGM and GDPS/MGM 3-site configurations.
- ▶ GDPS Health Checks check that systems in the GDPS environment adhere to selected best practice recommendations for GDPS and report any exceptions that are found in order to facilitate timely action and correction. A number of health checks are extended to check for additional conditions. Additionally:
 - Some usability enhancements are made to the GDPS Health Check panel interface.
 - New capability is included to allow suffixed GEOHCPxx override members in addition to the fixed GEOHCP00 override member, providing a manageability enhancement for the GDPS Health Check parameter overrides.
- ▶ A new Reactivate function is added to the GDPS zBX management panel which facilitates recycling an active blade using a single panel operation. This new panel option shuts down a selected blade, waits for the blade and each of its virtual servers to shut down and then restarts the blade and its virtual servers.
- ▶ The Query Host Access (QHA) data collection process is enhanced to use GEOCP/AUTCP automation operators for parallelization of the data collection across multiple CPCs, reducing the overall elapsed time for this process. This function is also available in GDPS V3.11 via SPE APAR.
- ▶ A new GDPS tool, GDPS EasyLog Tool, is available. The tool makes it easy to extract and download Syslog and Netlog to a Windows-based workstation and analyze Netlog once downloaded.
- ▶ For xDR z/VM Guest environments, the minimum recommended storage size for xDR proxy guests is increased from 256 MB to 512 MB.
- ▶ GDPS/PPRC V3.12 no longer supports disk subsystems that do not support the PPRC Failover/Failback capability.
- ▶ GDPS/PPRC V3.12 no longer supports the Peer-to-Peer VTS tape subsystems. The TS7700 grid remains supported.
- ▶ Support for the OVERRIDE specification in GEOPLEX OPTIONS will no longer be supported in the next release of GDPS following V3.12.

What's new or changed in GDPS/HM 3.12

- ▶ GDPS Health Checks check that systems in the GDPS environment adhere to selected best practice recommendations for GDPS and report any exceptions that are found in order to facilitate timely action and correction. A number of health checks are extended to check for additional conditions. Additionally:
 - Some usability enhancements are made to the GDPS Health Check panel interface.
 - New capability is included to allow suffixed GEOHCPxx override members in addition to the fixed GEOHCP00 override member, providing a manageability enhancement for the GDPS Health Check parameter overrides.
- ▶ The Query Host Access (QHA) data collection process is enhanced to use GEOPC/AUTPC automation operators for parallelization of the data collection across multiple CPCs, reducing the overall elapsed time for this process. This function is also available in GDPS V3.11 via SPE APAR.
- ▶ A new GDPS tool, GDPS EasyLog Tool, is available. The tool makes it easy to extract and download Syslog and Netlog to a Windows-based workstation and analyze Netlog once downloaded.
- ▶ GDPS/PPRC V3.12 no longer supports disk subsystems that do not support the PPRC Failover/Failback capability.

What's new or changed in GDPS/XRC 3.12

- ▶ GDPS integrates support for the DS8000® Easy Tier® Heat Map Transfer capability. Heat Map Transfer (HMT) transfers Easy Tier learning from the primary in the application region to the secondary or secondary FlashCopy® target disk subsystems in the recovery region. This ensures that following a region switch or unplanned failover to the recovery region, the disk subsystems used for production or for recovery testing have similar performance as the former production disks. GDPS integrates and simplifies HMT management actions such as starting, stopping the transfer process in conjunction with XRC actions that are performed using GDPS scripts or panels.
 - This support is also available for the XRC leg of a GDPS/MzGM configuration. However, GDPS/XRC HMT in an MzGM IR configuration, always transfers the PPRC Site1 disk heat maps and relies on GDPS/PPRC or GDPS/HM HMT to transfer the Site2 heat maps to Site1 (which is then transferred to the XRC recovery site) following a planned or unplanned HyperSwap.
- ▶ GDPS Health Checks check that systems in the GDPS environment adhere to selected best practice recommendations for GDPS and report any exceptions that are found in order to facilitate timely action and correction. New health checks are added and a number of health checks are extended to check for additional conditions. Additionally:
 - Some usability enhancements are made to the GDPS Health Check panel interface.
 - New capability is included to allow suffixed GEOHCPxx override members in addition to the fixed GEOHCP00 override member, providing a manageability enhancement for the GDPS Health Check parameter overrides.
- ▶ The Query Host Access (QHA) data collection process is enhanced to use GEOCP/AUTCP automation operators for parallelization of the data collection across multiple CPCs, reducing the overall elapsed time for this process. This function is also available in GDPS V3.11 via SPE APAR.
- ▶ A new GDPS tool, GDPS EasyLog Tool, is available. The tool makes it easy to extract and download Syslog and Netlog to a Windows-based workstation and analyze Netlog once downloaded.
- ▶ GDPS/PPRC V3.12 no longer supports the Peer-to-Peer VTS tape subsystems. The TS7700 grid remains supported.
- ▶ Support for the OVERRIDE specification in GEOPLEX OPTIONS will no longer be supported in the next release of GDPS following V3.12.

What's new or changed in GDPS/GM 3.12

- ▶ GDPS Health Checks check that systems in the GDPS environment adhere to selected best practice recommendations for GDPS and report any exceptions that are found in order to facilitate timely action and correction. New health checks are added and a number of health checks are extended to check for additional conditions. Additionally:
 - Some usability enhancements are made to the GDPS Health Check panel interface.
 - New capability is included to allow suffixed GEOHCPxx override members in addition to the fixed GEOHCP00 override member, providing a manageability enhancement for the GDPS Health Check parameter overrides.
- ▶ The **GDASD RECOVER** script statement (with or without the **TERMINATE** or **REFRESH** options) is enhanced to monitor progress of the Fast Reverse Restore (FRR) action that is performed as part of the recovery process. This allows you to identify a potentially stalled FRR process in a timely manner and take action to try and break the stall or terminate the command as appropriate. This enhancement is also available in GDPS V3.11 via SPE APAR.
- ▶ The Query Host Access (QHA) data collection process is enhanced to use GEOCP/AUTCP automation operators for parallelization of the data collection across multiple CPCs, reducing the overall elapsed time for this process. This function is also available in GDPS V3.11 via SPE APAR.
- ▶ A new GDPS tool, GDPS EasyLog Tool, is available. The tool makes it easy to extract and download Syslog and Netlog to a Windows-based workstation and analyze Netlog once downloaded.

What's new or changed in GDPS/MzGM 3.12

- ▶ There is no new GDPS/MzGM-specific function in GDPS 3.12. However, GDPS/MzGM 3.12 clients benefit from those enhancements described for GDPS/PPRC (or GDPS/HM) and GDPS/XRC 3.12.

What's new or changed in GDPS/MGM 3.12 (3-site and 4-site)

- ▶ Support for managing Copy Once devices for MGM configurations and managing these devices through the GDPS/GM Copy Once process is now available for 3-site and 4-site MGM configurations. This capability is also available in GDPS V3.11 via SPE APAR.
- ▶ A new 4-site MGM procedure, **MGMM_CLEANUP_MIRROR_LOCAL**, is provided. This procedure cleans up the PPRC mirror in the region where it is executed. This capability is also available in GDPS V3.11 via SPE APAR.
- ▶ The 4-site MGM procedure, **MGMM_START_XD_SITE1**, is enhanced. The procedure previously strictly required all Site1/Site2 devices in the region where the procedure executes to be Simplex. With this enhancement, the procedure is more flexible; in addition to Simplex, it also accepts Suspended and Pending-XD PPRC relationships and performs any necessary actions to establish XD copy on a pair by pair basis. This capability is also available in GDPS V3.11 via SPE APAR.
- ▶ The GDPS/MGM Incremental Resynchronization Tool which was introduced in GDPS V3.8 is no longer supported in GDPS V3.12. The capabilities provided by the tool were replaced by GDPS Procedure Handler PROCEDURES in GDPS V3.11. Clients using the MGM IR Tool must replace their usage of the tool with the PROCEDURES prior to implementing GDPS V3.12.

Statement of direction

IBM intends to deliver a four site solution to add to the GDPS solution family. This capability would allow four copies of data to be managed by GDPS across sites in a production region and disaster recovery region, provide the ability to switch between regions, and provide customers with both high availability and disaster recovery in both regions.³

End of support

- ▶ In accordance with the GDPS “n, n-2” support policy, support for GDPS V3.9 will be discontinued on March 31, 2015.
- ▶ Support for z/OS release V1.12 has been discontinued on September 30, 2014. GDPS must be running on z/OS V1.13 or z/OS V2.1 for continued support.
- ▶ Support for System Automation for z/OS V3.3 will be discontinued on April 30, 2015. After this date, you must be running System Automation for z/OS V3.4 or higher for continued support.
- ▶ Support for NetView for OS/390 V1.4 will be discontinued on June 30, 2015 and support for Netview for z/OS V5.3 will be discontinued on September 30, 2015. After these dates, you must be running NetView for z/OS V5.4 or NetView for z/OS V6.1 or higher for continued support.
- ▶ Support for System Automation for Multiplatforms V3.1 will be discontinued on April 30, 2015. After this date, clients using xDR must be running System Automation for Multiplatforms V3.2 or V4.1 or higher for continued support.

³ GDPS 3.11 delivered a 4-site solution based on MGM mirroring technology. This Statement of Direction is still valid for a 4-site solution based on MzGM mirroring technology.



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