

What is GDPS?

GDPS® (Geographically Dispersed Parallel Sysplex™) is an IBM service offering providing end-to-end disaster recovery (DR) protection for IBM® System z™.

Many companies practice disaster recovery – but real disasters may not be like practice

- Procedures may not be current.
- Key employees may have other priorities (family, safety ..).
- Key employees may not be able to get to DR site.
- Key employees may not survive a disaster.
- Recovery may take longer than expected, or may not be successful.

GDPS facts:

GDPS/PPRC 1998, GDPS/XRC 1999, GDPS/GM 2005

- 360+ customers worldwide today
- Interoperates with all System z automation packages
- Supports z/OS®, z/VM®, zLinux, zTPF and z/VSE®
- Interoperates with all storage vendors' XRC and PPRC implementations
- IBM end-to-end solution created across multiple IBM development labs (z/OS, TPF, zLinux, VM, VSE, Tivoli Automation Products, storage, etc.)
- \$25M GDPS System Test Facility in MOP
- Open Solution - IBM Data Replication Architecture sold to other vendors. (host-to-storage subsystem interfaces)

PiT Consistency Groups across CKD + FB (2001)

- GDPS Exploitation of Open LUN Support. (ESS, and DS6000™/DS8000™)

High Availability Solutions (HyperSwap)

- GDPS/PPRC HyperSwap
- GDPS/PPRC HyperSwap Manager (simple and low cost, but fully upgradeable to full GDPS)
- Root cause analysis of Parallel Sysplex failures
- Allows for continuous availability for disk subsystem trigger events
- Supported by OEM storage subsystems

GDPS solutions

GDPS automation is designed to:

- Remove dependencies on people at the time of failure
- Manage changing / updating DR environment
- Requires single operator respond to console message to switch sites
- Rapid Recovery without SPOF of people

What DR requirements does your business require?

- Recovery Time Objective – how long to recover
- Recovery Point Objective – how much data loss

GDPS High Availability options

GDPS/PPRC with HyperSwap™

- Includes z/OS, z/VM, zLinux, zTPF, and z/VSE

GDPS/PPRC HyperSwap Manager

- Single site or 2-site configuration

2-site disaster protection options:

- GDPS/PPRC HyperSwap Manager
- GDPS/PPRC with HyperSwap
- GDPS/XRC
- GDPS/GM

3-site disaster protection + High Availability options

High Availability locally + out of region DR protection

- GDPS/MGM (GDPS/PPRC & DGPS/GM)
- GDPS/MzGM (GDPS/PPRC & GDPS/XRC)

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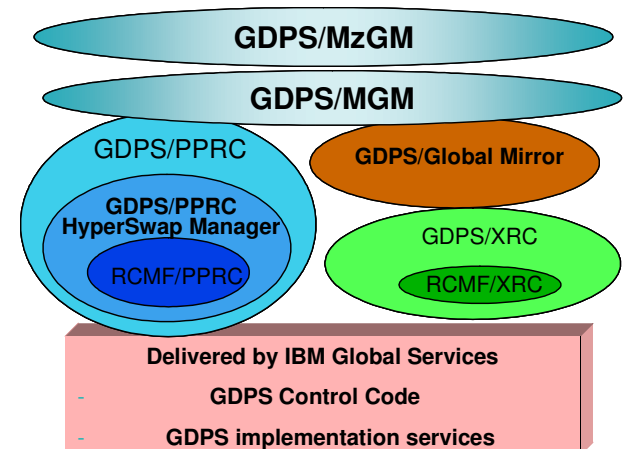


GDPS

Geographically Dispersed Parallel Sysplex

This trifold covers the following topics:

- **What is GDPS®?**
- **GDPS Solutions For:**
 - High Availability Options
 - GDPS 2-Site D/R
 - GDPS 3-Site HA + D/R
- **GDPS business justification**
- **10 principals for business continuity operations**
- **Business problem(s) that business resilience resolves**



GDPS business justification

- Are Business Resilience and Disaster Recovery (BR/DR) currently your business (vs. IT) focus?
- What level in the organization is driving this? (business or technical)
- Is your BR/DR solution driven by business competition? Regulation/Litigation? Reputation and brand loyalty? Productivity?
- What does your enterprise do for BR/DR today?
 - Do you currently subscribe to a DR off-site solution?
 - Do you currently have multiple data centers today? If so, is there value in bringing DR in-house? What is the distance between the two data centers? Do you currently have network communications between the two data centers?
- What is your current Recovery Time Objective (RTO)? That is, how long can your business afford to be down if you do have a disaster?
- What is your Recovery Point Objective (RPO)? That is, how much valuable data do you lose if you were to have a disaster today?
- What is your Network Recovery Objective (NRO)?
- On what platforms do your “mission critical” applications reside? (System z™ platform? Linux®? Open?)
- How much “mission critical” data would need to be recovered in the case of a disaster?
- What is your timeline for implementing a new/revised BR/DR strategy?
- Where does your enterprise currently fall on the attached chart, Tiers of Disaster Recovery?
- Where does your Enterprise “need” to fall on the attached chart, Tiers of Disaster Recovery?
- Who are the key decision makers? Internal and external - Describe the details of your relationship with the decision makers.
- Is the project fully funded? What impending event is driving this? Which recent external event/s are impacting your business?
- Are there any business events that will dramatically increase/decrease the size of your infrastructure (planned)? - How will you assess and prioritize your defined risk?

10 principals for business continuity operations

1. Understand what you consider business resilience to be ...
2. Grasp what problem it is you are solving ... “which one it isn’t”
3. Build consensus with the extended teams ... “engagement meter”
4. Educate the ecosystem / remove concerns ... “build partnerships”
5. Confirm and appreciate your linkage between I/T and Business
6. Identify and validate how you will gain real benefit based on achieving the availability objective ... “measure of success”
7. Comprehend what is driving the problem or providing pressure... “vulnerable”
8. Cost of not doing this ... have you accepted the notion ... “avoidance”
9. Focus of attention on...Who is dependent on the success... “stakeholders”
10. Determine quickly if this is a journey or a few simple steps ... “well-timed”

Business continuity is not simply IT disaster recovery... it is a management process that relies on each component in the business chain to sustain operations at all times.

→People/Facilities/Business Processes/Infrastructure & Applications..

Effective business continuity depends on the ability to:

- ✓ Reduce the risk of a business interruption
- ✓ Stay in business when an interruption occurs
- ✓ Respond to customers
- ✓ Maintain public confidence
- ✓ Comply with requirements:
 - ✓ Audit
 - ✓ Regulator/legislative
 - ✓ Insurance
 - ✓ Health and safety

Business problem(s) that business resilience resolves

- **Continuity of business operations** - help businesses become more anticipatory, adaptive, and robust -- from IT to all business processes (takes orders, ship, manufacture, etc.).
- **Regulatory compliance** - help business comply with new government rules and regulations more quickly and cost effectively.
- **Reduce the cost of risk management** - help businesses stay competitive by managing risk more efficiently and cost effectively.
- **Security, privacy and data protection** - help protect businesses against both internal and external threats, and develop a critical information management strategy.
- **Expertise and skills (outsourcing or training)** - help businesses obtain and manage the expertise and skills necessary to maintain continuous business operations.
- **Maintaining market readiness** - help businesses stay competitive by anticipating and quickly responding/adapting to changes in market requirements, and accelerate R&D to ensure that we have the right products, in the right place, at the right time.
- **Becoming a more attractive partner** - help businesses partner more quickly and effectively within their industry by becoming a trusted and reliable business partner in their supply or value net.

Continuous operations and/or High Availability of operations includes managing:

- ✓ Unplanned outages - disaster recovery
- ✓ Planned outages
- ✓ Disaster recovery unlimited distances
- ✓ Continuous data availability
- ✓ Site failover – planned and unplanned



An end-to-end business continuity program is only as strong as its weakest link.