

# A Fresh Look at the Mainframe

Keep Your Business Running When Disaster Strikes

## What Are ODI's Needs?

- ODI is a worldwide insurance company
- In times of disaster ODI has to be very visible and reliable
- ODI must have its systems continuously available at all times

I can't afford to lose any data, and I want to be online in one hour after a disaster

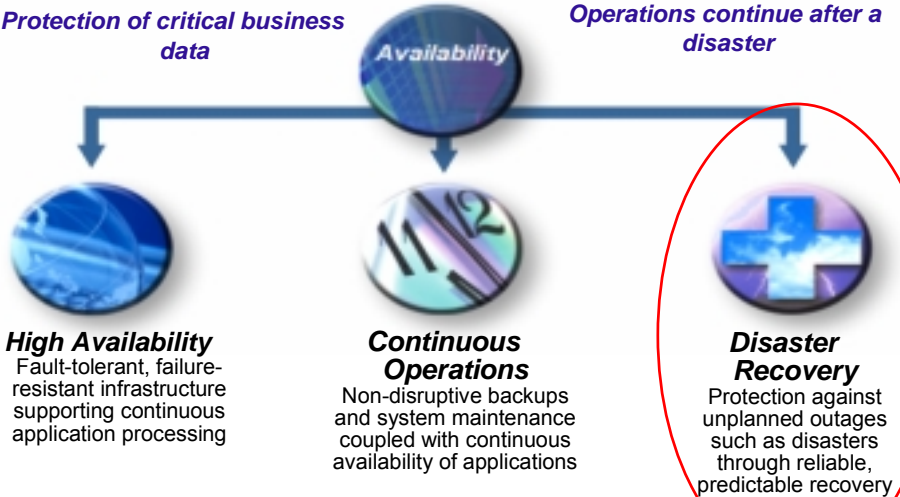


On Demand Insurance  
CIO

## Aspects of Availability

*Protection of critical business data*

*Operations continue after a disaster*



*Recovery and costs are predictable, manageable, and reliable*

07 - Disaster Recovery v3.5.ppt

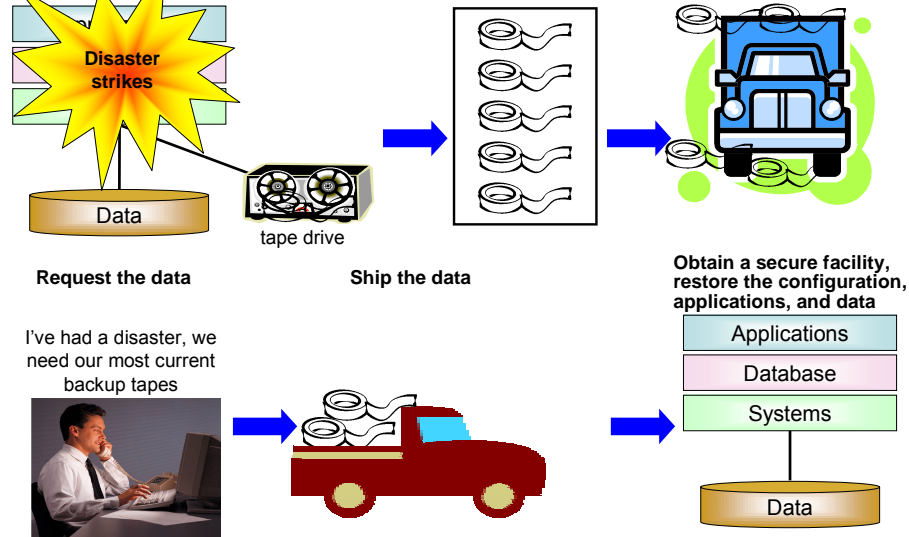
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## Pick-up Truck Access Method (PTAM)

Dump the data to tape every 24 hours

Tapes waiting to travel

Shipping data (tapes)



0 hrs

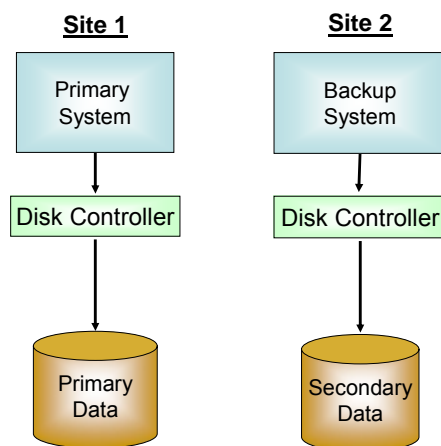
>72 hrs

## A Better Solution - GDPS

- GDPS is a software capacity to fail over to an alternate (backup) site
- With GDPS, customers can be up and running within one hour following a disaster, with no data loss
- Delivered through IBM Global Services as a services engagement

## GDPS

- GDPS manages the application environment, and the consistency of data
- It provides full data integrity (across volumes, subsystems, operating system platforms and sites)
- It provides the ability to perform a normal restart in the event of a site switch, thus minimizing the duration of the outage



## GDPS Uses Restart to Improve Failover Time

### ■ Achieve Application and Database Restart

- ▶ Consistent, repeatable, fast
- ▶ Database Restart: To start a database application following an outage without having to restore the database
  - This is a process measured in minutes



### ■ Avoid Application and Database Recovery

- ▶ Unpredictable recovery time, usually very long and very labor intensive
- ▶ Database Recovery:
  - Restore last set of Image Copy tapes and apply log changes to bring database up to point of failure
  - This is a process measured in hours or even days

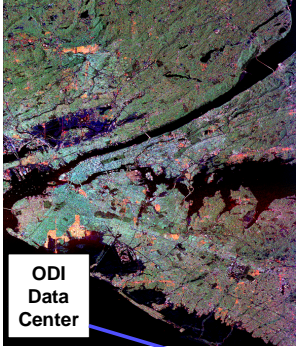


## GDPS Disaster Recovery Solutions – Depending on Distance

GDPS/Metro Mirror	GDPS/Global Mirror
Synchronous. Application impact with distance	Asynchronous. No application impact
Up to 100 km	Virtually unlimited distance
zSeries & Open Data	zSeries Data <ul style="list-style-type: none"> <li>• z/OS</li> <li>• Linux on zSeries LPAR or Guest</li> <li>• VM, VSE (consistent data if 1 CU)</li> </ul>
Single Sysplex spanning configuration	Requires additional MIPS on secondary site to support System Data Mover (SDMs)
Highly Scalable. Unlimited configuration	Highly Scalable. Up to 285 coupled SDMs

## ODI's Data Centers


**NYC**



**ODI Data Center**

- The heartbeat of the primary system is listened to by the backup system or controlling system
- ODI has chosen to locate its remote data center in the Morristown, N.J. area which is approximately 80 kilometers from NYC

**Morristown, N.J.**

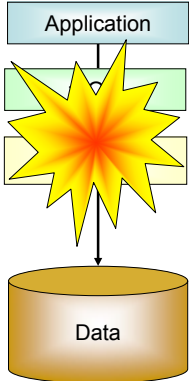


**Remote Data Center**

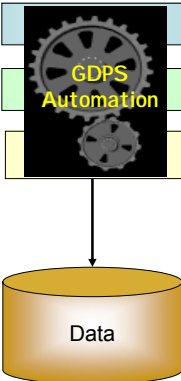
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## GDPS – Switchover

**Site 1**



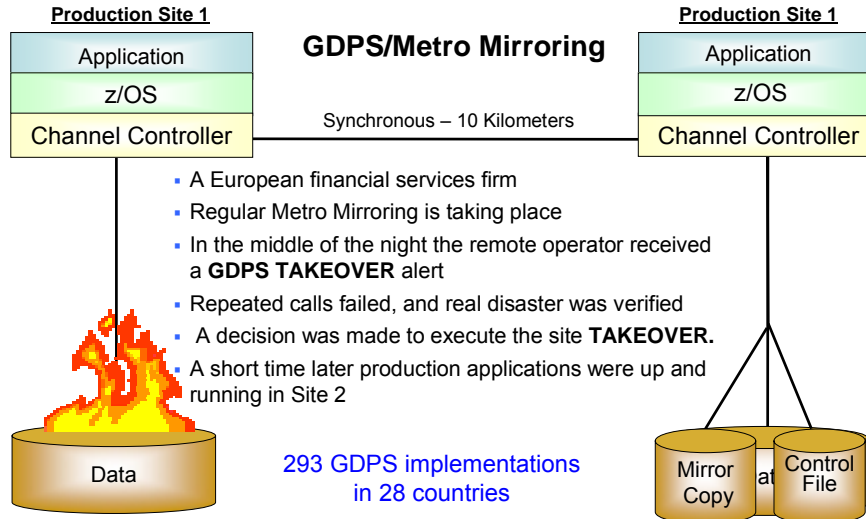
**Site 2**



- Site #1 is the Primary running Production and Site #2 is the backup also running Production, but less critical.
- Volumes are being continuously mirrored via the Metro Mirroring component
- When a Disaster strikes, GDPS issues a freeze then resets all production systems
- GDPS will take over and automates all the steps for restart
- Site 2 is the production site

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## GDPS – A Real Disaster – Fire



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