



HP OpenView Storage Data Protector 6.0

What's new

Beta registration: December 4, 2005
Beta download: January 20, 2006
Release: April 2006

November 2005
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StorageWorks Division



HP Data Protector 6.0

What's New Summary

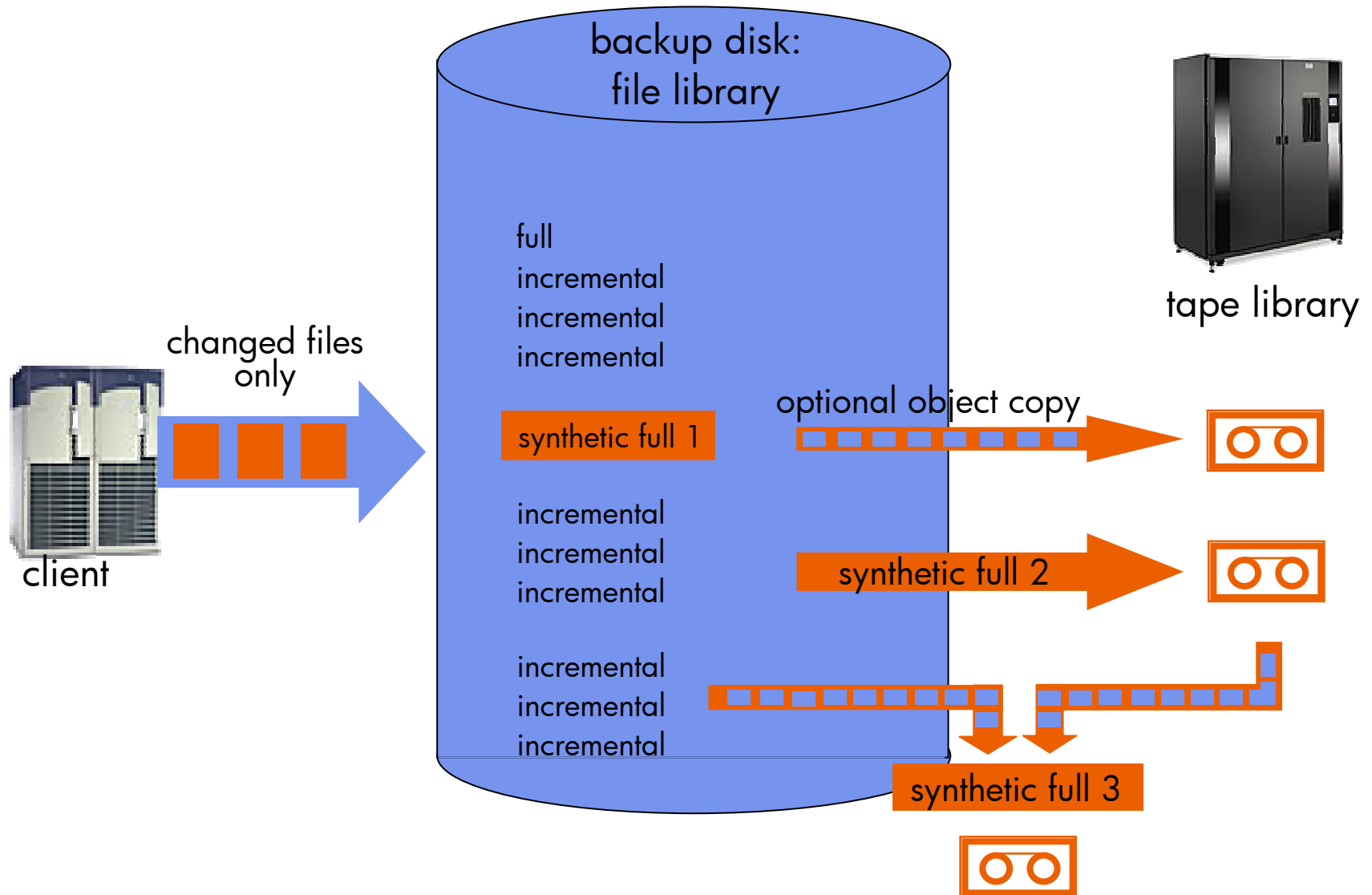


- Backup to disk
 - Synthetic Full
 - Incremental Forever
 - Space efficient Virtual Full
 - Cost reduction
 - Higher service levels
- Cell Manager for Linux
- Instant Recovery based on VSS
 - incl. Exchange
 - VSS = Volume Shadow copy Service from Microsoft
- Miscellaneous



HP Data Protector 6.0

Synthetic Full – Incremental Forever

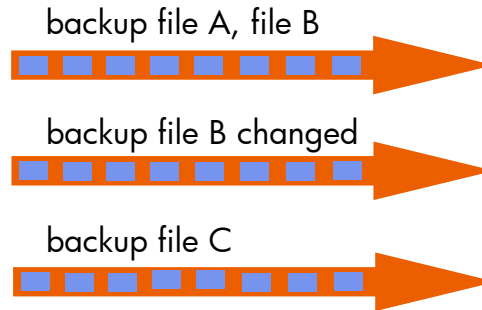
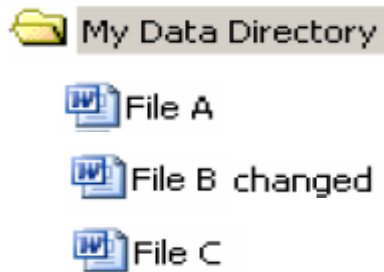


HP Data Protector 6.0

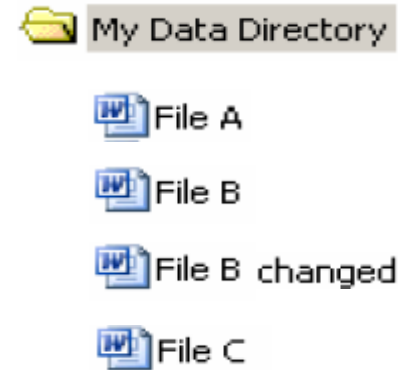
Synthetic Full – Incremental Forever



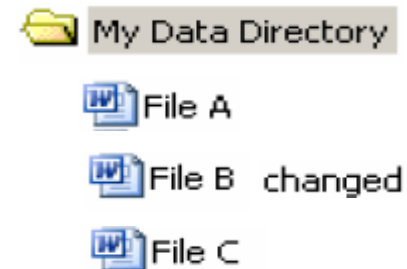
Source



Backup



Synthetic Full



Use case scenario: Long term protection with fast DR

- 10 TB of data stored in the file system
- 10% change rate per month
- Must be kept for 10 years for legal reasons

Classical backup to tape

$$\begin{aligned} &10 \text{ years} * 12 \text{ months:} \\ &= 120 \text{ full backups} * 10 \text{ TB} * 100\% \\ &= \mathbf{1200 \text{ TB}} \end{aligned}$$

Incremental forever backup protected for 10 years

- 1 * 10 TB full backup
- Plus 10 years * 12 months * 10% change rate * 10 TB
= 120 TB incremental backup
- Plus 3 synthetic full from the recent 3 months for fast DR
- Total **160 TB**

87% space reduction !!!

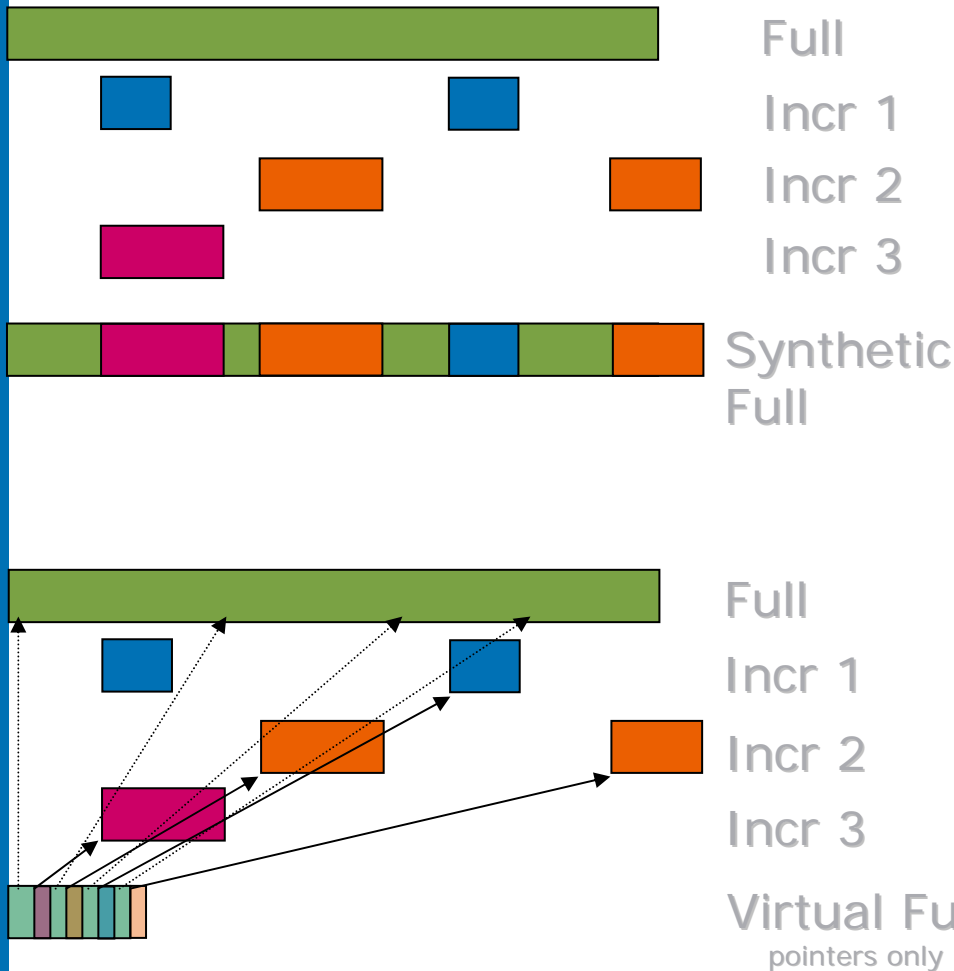
HP Data Protector 6.0

How Incremental Forever saves your money



- Space efficient
 - Only one full backup
 - No file stored multiple times
 - Up to 87% space reduction (see use case scenario)
- Faster backup
 - Only changed files need to be backed up
 - Fast backup of file servers with millions of files
 - Allowing more frequent backup
- Less time to manage
 - No tedious tape management with backup to disk
- Faster restore of individual files
 - Single file restore from disk
 - Tape goes off-site
- Synthetic Full provides fast disaster recovery

How does Virtual Full position against Synthetic Full?

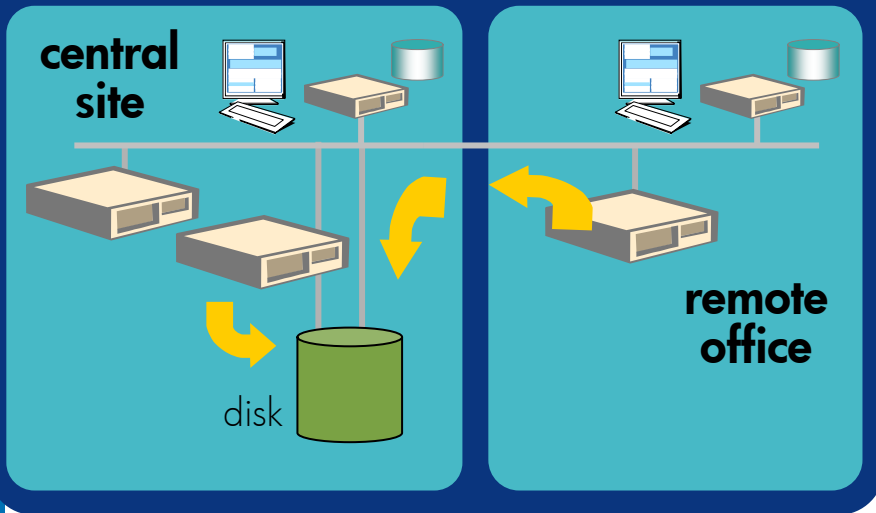


	Virtual Full	Synthetic Full
Space efficient full	Yes	No
Storage type	Disk only	Disk & tape
Competitors	No	Yes
HP Data Protector	Yes	Yes

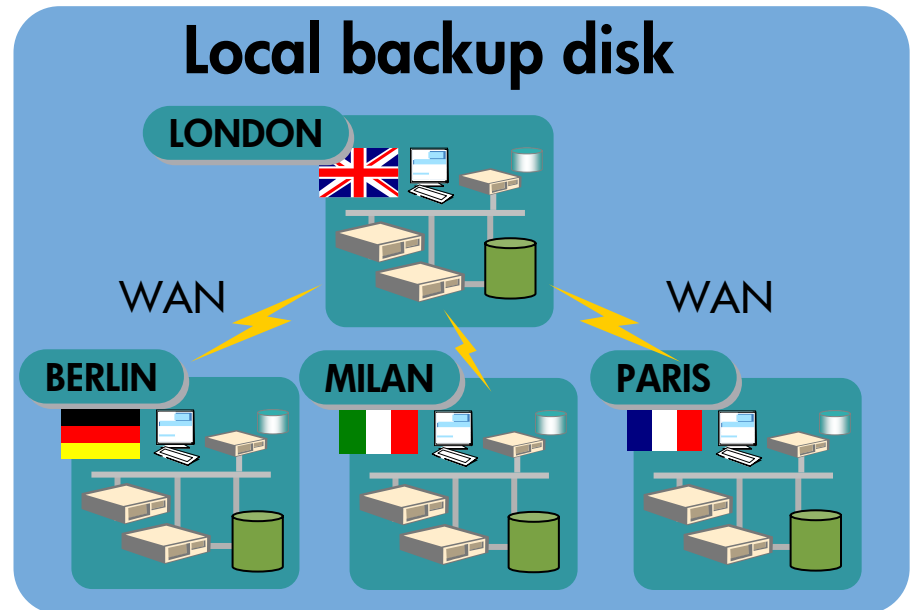
Remote Office Backup

- Only changed files need to be transferred

Backup disk sharing



Local backup disk



Positioning backup to disk technologies



	ZDB / IR Replication	Advanced Backup to Disk Virtual Tape, Disk Stage D2D(2T)	File Device Virtual Tape
How?	mirror, snap...	backup to disk	backup to disk
Instant Recovery	yes	no	no
Easy single file restore	no	yes	no
Easy setup	yes	yes	no
Incremental backup	yes	yes	yes
Synthetic Full	no	yes	no
Cheap disk	no	yes	yes
Operating systems	HP-UX, Win, Linux, Solaris	all	all
Licensing	per TB	per TB	Per file device "drive"
Use case	7* 24 DBs, appl	many	limited

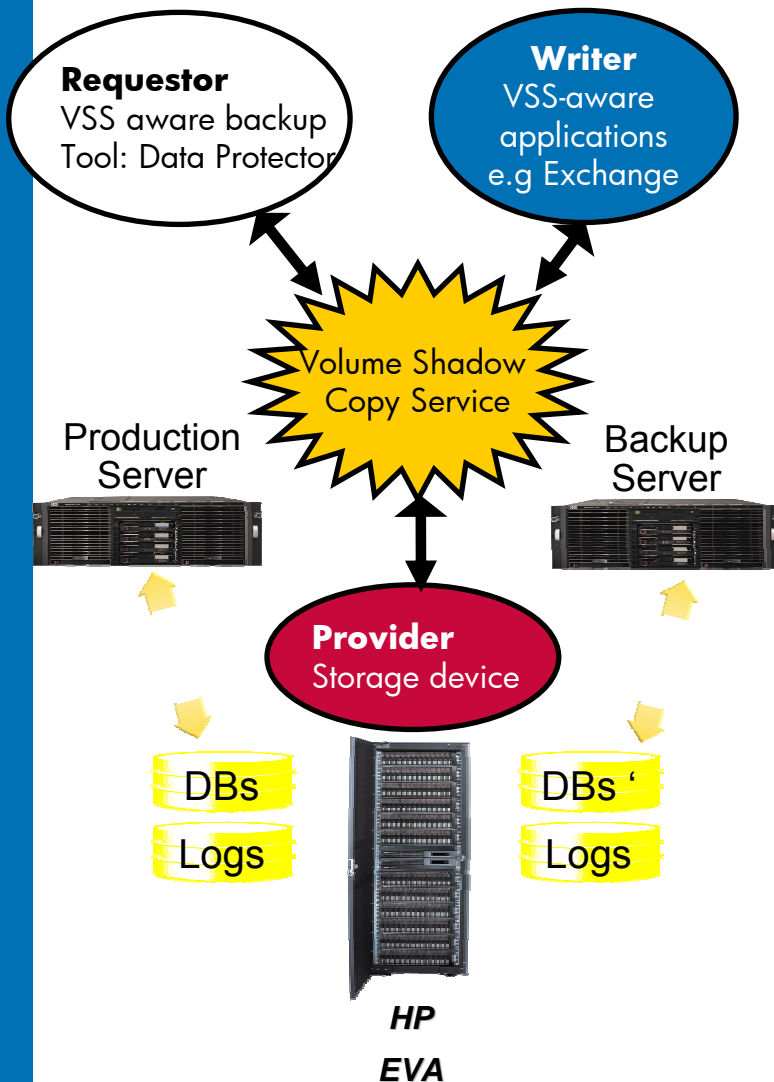
Synthetic Full requires backup to disk

- Synthetic full backup can be on disk and tape
- Incremental backups must be on disk
 - File library only
 - Only the file library has direct file access, which is required for fast consolidation of incremental backups into the Synthetic Full
 - Requires B7038AA Advanced Backup to Disk license for each TB stored in the file library
- All Disk Agent platforms supported except HP MPE and Novell NetWare

HP Data Protector 6.0 for Linux

- Cell Manager
- Installation Server
- Platforms
 - SuSE Linux Enterprise Server 9
 - Red Hat Enterprise Linux 4
- Processors
 - AMD x64
 - Intel EM64T
- Native 64-bit Disk & Media Agents
 - AMD x64, Intel EM64T, IA-64
- GUI
 - Data Protector 6.1 (September 2006)

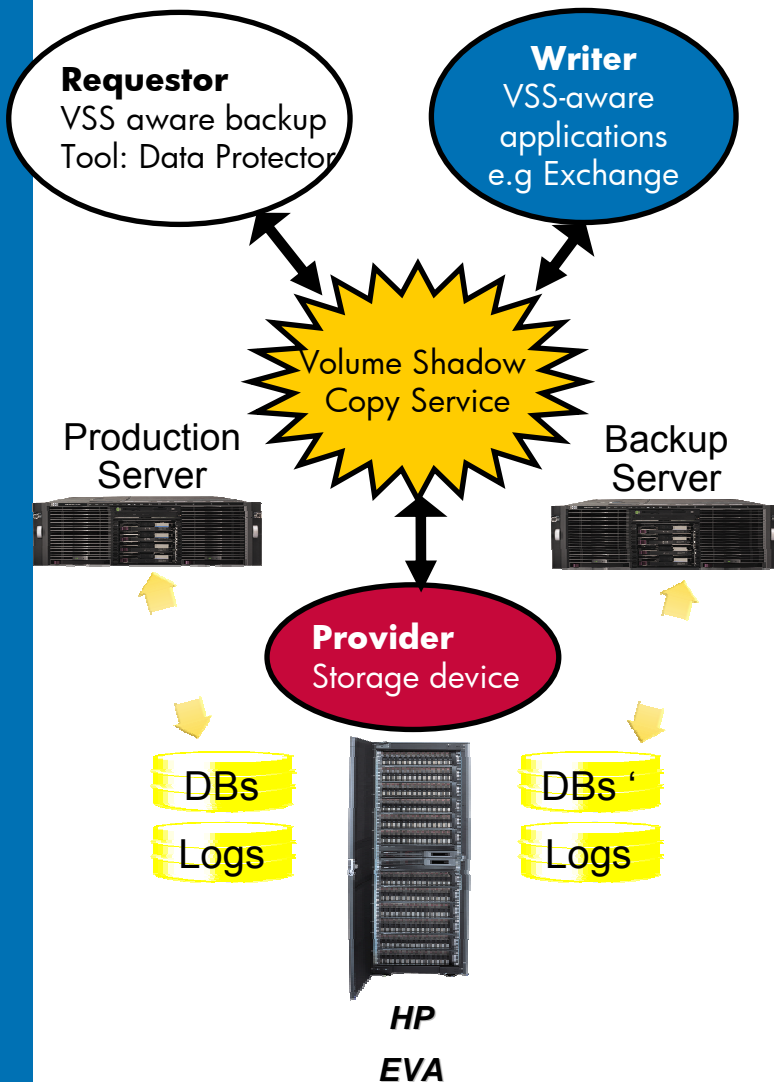
HP Data Protector 6.0 Instant Recovery Exchange 2003



- Continuous mail services during backup
- Point in time restore
 - Instant Recovery of Storage Group
 - Restore of incr. / diff. backup
 - Automatic roll forward of transaction logs to any point in time
- Transportable backup
 - Backup server offloads application server
- Windows 2003 32bit
- Providers: HP EVA snapclone
- ZDB / IR based on VSS / VDS
(Volume Shadow copy Service / Virtual Disk Service)

HP Data Protector 6.0

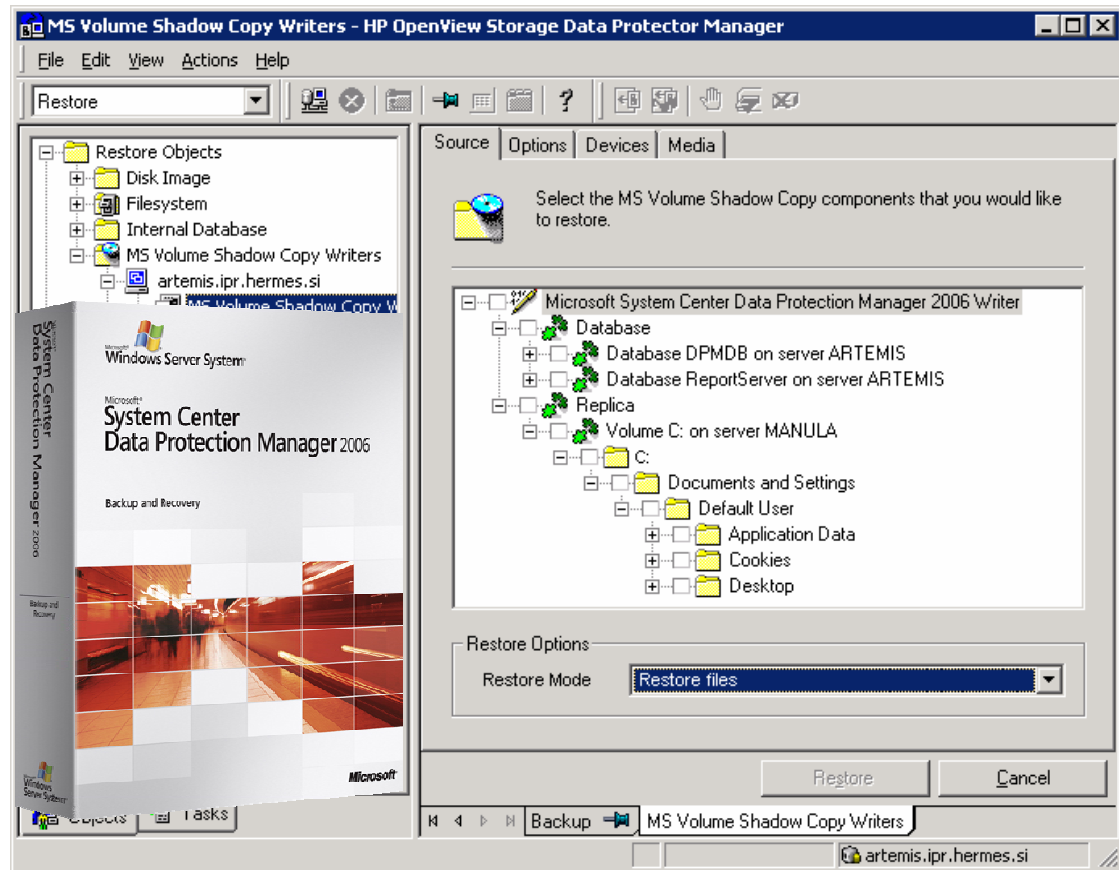
Instant Recovery – More Writers



- SQL Server 2000, 2005 32bit
 - Differential backup
 - Maybe patch after release
- Other VSS supported applications
 - expected to be certified after release
 - e.g. Oracle

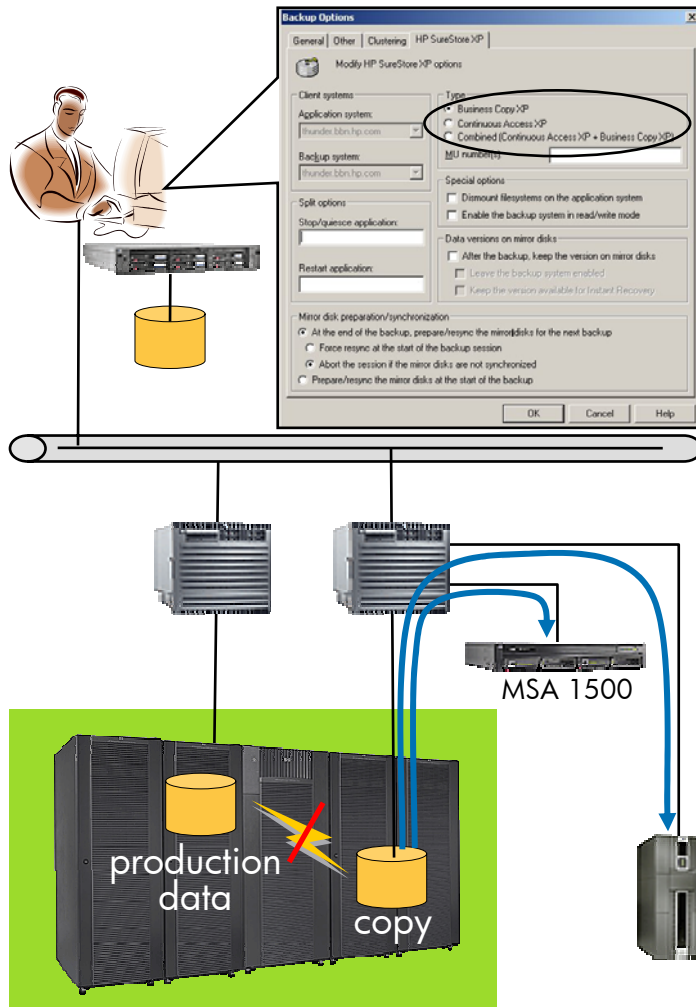
HP Data Protector 6.0 protects Microsoft Data Protection Manager

- DPM complements Data Protector with
 - End user single file restore
 - Continuous Data Protection
- Data Protector protects DPM / original data against
 - Viruses
 - Software failures
 - Hardware failures
- VSS based on-line backup of DPM's last replica state
- Single file restore to DPM clients directly



HP Data Protector 6.0

Zero Downtime Backup / Instant Recovery



zero downtime backup

- Incremental backup
- HP EVA remote replication
 - CA/BC
- LVM Mirroring for HP EVA via SMI-S
- HP EVA on HP-UX IA-64
- HP EVA on Windows x86-64
 - File system / raw only
 - Compatibility mode
- HP EVA 4000/6000/8000
- ZDB for EMC DMX on HP-UX
 - PA-RISC, IA64

Miscellaneous

- New internal database version
 - Better Performance
- Media Free Pool per library and per tape format
 - For example distinct free media pools for LTO-2 and LTO-3
- Oracle
 - 10g enhancements
 - DataGuard (disaster recovery solution) support
- Support localized database integrations
- New HP-UX Cluster File System & ServiceGuard
- Secure software distribution via Secure Shell (ssh) - optional
- NDMP
 - Adjustable tape block size
 - Dirty drive detection and automatic cleaning
 - Usage of free pools
 - Media Agent port to HP-UX 11.23 IA-64
- Delivery via DVD and download

Windows Miscellaneous

- Exchange
 - Public Folder restore
 - Single folder (Calendar, Contacts, Drafts, Inbox, Notes, Tasks) restore
- SQL Server 2005
 - 32bit x86 (DP 5.5 patch in November 2005)
 - IA64
- SharePoint Portal Server (via patch)
 - Full server farm restore
 - Full server restore
- Mail notification with SMTP Server
 - No need to install Outlook on the Cell Manager
- Improved Windows 2003 ASR (Automated System Recovery)
 - Possibility to stop ASR
 - RSM (Removable Storage Manager) compatibility
 - System recovery from VSS based backup
- Native Windows 64-bit Disk & Media Agents
 - AMD x64, Intel EM64T
 - IA-64 already available
- Renewed Windows 2003 and NetWare certifications

Data Protector 6.0

New Supported Environments



GUI

- Windows (32/64)
- HP-UX (PA-RISC)
- HP-UX IA64 (6.1)
- Solaris (SPARC)
- Linux SuSE (6.1), Red Hat (6.1)
(Intel EM64T, AMD x64)



management system

- Linux SuSE, Red Hat
(Xeon64, AMD64)
- Windows (32/64 bit)
(Intel EM64T, AMD x64)
- HP-UX (PA-RISC, IA64)
- Solaris (SPARC)

on-line backup

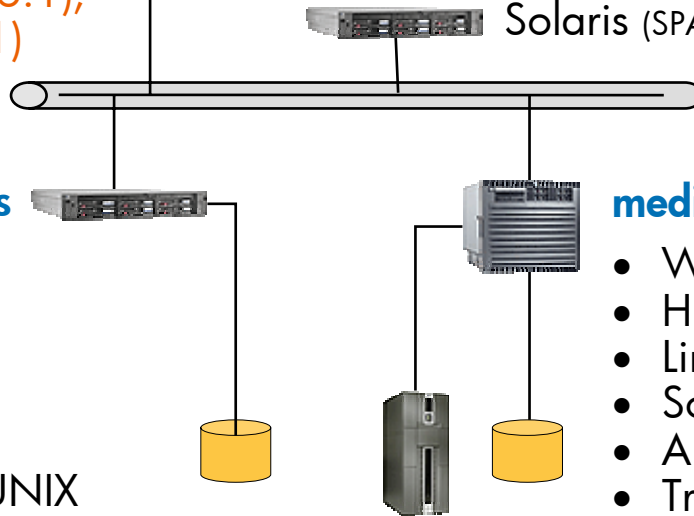
- MS SharePoint Portal Server
- MS Data Protection Manager
- Oracle
- MS SQL Server
- MS Exchange
- MS VSS API
- MS Internet Info Server
- SAP R/3
- SAPDB / MAXDB
- Informix
- Sybase
- Lotus Notes / Domino
- DB2
- OpenView NNM

backup agents

- Windows
- HP-UX
- Linux
- Sun Solaris
- IBM AIX
- HP Tru64 UNIX
- HP MPE/iX
- HP OpenVMS (Alpha, IA64)
- Novell NetWare
- SCO OpenServer; SCO Unixware
- SNI SINIX; SGI IRIX
- Additional platforms via NFS, shared disk (CIFS) or NDMP

media agent

- Windows
- HP-UX
- Linux
- Solaris
- AIX
- Tru64 UNIX
- MPE/iX
- OpenVMS (Alpha, IA64)
- NetWare
- SCO OpenServer, Sinix



complete Data Protector support matrixes under:
<http://www.hp.com/go/dataprotector>

Migration Strategy



- License migration
= **INVESTMENT PROTECTION**
 - Licenses compatible with previous versions down to OmniBack 3.0
 - All customers under valid support contract can upgrade free of charge
 - Support contracts of obsolete products can be migrated to new products keeping support fees flat
 - New products only for new capabilities
- Technical migration
 - Data Protector 5.x
 - HP-UX PA-RISC -> IA64
 - Disk & Media Agent compatibility for Data Protector 5.5

Virtual Library System licensing option B7038AA - Advanced Backup to Disk



- Can be used instead of drive licenses
- 1 * B7038AA for 2 TB of backup data
 - Compression is transparent for Data Protector
 - A compression rate of 2:1 is assumed
- A patch is available for Data Protector 5.5

Example 1: VLS native capacity 5 TB storing 10 TB compressed data

- Only 5 * B7038AA are required

Example 2: VLS native capacity 10 TB storing non compressible data

- Only 5 * B7038AA are required

- Can be used for other Virtual Tape Libraries too
- You can continue to use the conventional drive and library licenses

HP OpenView Storage Data Protector 6.0 product structure



1. starter packs (obligatory)		all platforms	Windows NEW	Linux	HP-UX	Solaris
LTU, media	1x mgmt. system		B6961AA	B6961DA	B6951AA	B6951DA
LTU only	1x mgmt. system		B6961BA	B6961CA	B6951BA	B6951CA
media only / core manuals		B6960MA / B6960LA				

2. drive&library extensions		all platforms	Windows, NetWare, Linux	SAN, UNIX, NAS
drive LTU	1x drive		B6963AA	B6953AA
library LTU	1x 61-250 slots	B6957BA	NEW	
	1x unlimited slots	B6958BA	1x unlimited slots upgrade	B6958BU

3. functional extensions		all platforms	Windows & Linux	UNIX
on-line backup LTU	1x system		B6965BA	B6955BA
manager-of-managers LTU	1x system	NEW	B6966AA	B6956AA
advanced backup to disk LTU	1x TB / 10x TB	B7038AA/DA		
functional extensions-manuals		B6960EA		

		NEW NDMP	HP XP	HP EVA	EMC
zero downtime backup LTU	1x TB / 10x TB		B7023CA/DA	B7025CA/DA	B6959CA/DA
instant recovery LTU	1x TB / 10x TB		B7026CA/DA	B7028AA/DA	
direct backup LTU	1x TB / 10x TB	B7022BA/DA	B7027AA/DA		

open file backup	media	1-server LTU	10-servers LTU	5-workstations LTU	1-enterprise server LTU
	BA152AA	BA153AA	BA153BA	BA154AA	BA155AA
media operations LTU	1x 2,000 media		1x 10,000 media	unlimited media	
	B7100AA		B7101AA	B7102AA	

single server edition	Windows	HP-UX	Solaris
LTU, media & manuals	B7030AA	B7020AA	B7020DA
LTU only	B7030BA	B7020BA	B7020CA
migration to starter pack	HP RESTRICTED	B7021AA	B7021DA

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For more information on HP Data Protector



HP OpenView Storage Data Protector: storage management software - overview & features - Microsoft Inter...

Address: www.hp.com/go/dataprotector

United States - English

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HP Storage All of HP

Storage > Storage Software

HP OpenView Storage Data Protector

Overview & Features

HP invent

HP StorageWorks

HP strategy

- Adaptive Enterprise
- Information Lifecycle Management
- Multilevel Protection and Recovery
- StorageWorks Grid

Storage products

- Archiving & Active Archiving
- Array systems
- Media
- NAS
- SAN infrastructure
- Software
- Solutions
- Tape storage
- WAN Accelerator

Browse by OS

- HP-UX
- Linux
- Microsoft Windows®

Browse by capacity

- Entry-level storage
- Mid-range storage

Business Value

A scalable data management solution that automates high performance backup and recovery, from disk or tape, over unlimited distances, ensuring 24x7 business operations and maximized IT resources.

Product information

- Overview & features
- Specifications
- Questions & answers
- Collateral
- Technical documentation
- Technical training
- Product demo
- Downloads
- Patches
- Related products
- Related information
- Services
- Success stories
- Support for your product

Overview

HP OpenView Storage Data Protector is software that manages backup and recovery from both disks and tapes, delivering maximum data protection while providing continuous 24x7 business operations. The software is designed to simplify and to centralize backup and recovery operations by integrating a variety of techniques to eliminate backup windows. These range from on-line backup, open file backup, and instant recovery or zero-downtime backups. Its proven industry-leading instant recovery features and several other integrated disaster recovery alternatives meet the demands of the most complex enterprises so that they can recover critical data within minutes.

Government Computer News Best New Technology Awards at FOSC Finalist 2004

Please see:

<http://www.hp.com/go/dataprotector>

- product information
- support matrices
- manuals
- evaluation software (60-day trial)

or speak to your HP storage specialist



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