Introduction
HP OpenView Storage Data Protector automates high performance backup and recovery, from disk or tape, over unlimited distances, to ensure 24x7 business continuity, and seamless integration with HP storage hardware and management solutions. Data Protector delivers innovation and performance at a much lower cost than competitive solutions, while offering flexibility, scalability, and performance. Data Protector is a key member of the fast-growing HP storage software portfolio and offers the unique advantage of being able to source hardware, software, and award winning service offerings from a single, trusted source. Data Protector is both easy to deploy and use. It has a simple installation, automated routine tasks, and centralized licensing facility that reduces costs and data center complexity.

What's New
- Unique Virtual Full backup allows space savings of full versions on disk, faster full backup creation and improved tape utilization by enabling backup creation through pointers versus copying data again.
- Synthetic Full backup eliminates the need to run regular full backups by consolidating incremental backups. Ideal solution for a distributed environment, minimizing the traffic burden on the network.
- Continuous mail service during backup, ensuring maximum availability via Zero Downtime Backup and Instant Recovery based on Microsoft Volume Shadow Copy Service and Virtual Disk Service.
- Cell Manager on Linux provides high performance network-wide data protection for Linux systems.
- Enhanced Incremental Forever backup enables reliable detection of renamed, moved, or files with changed attributes. Full backup is done to tape only once and incremental backups to disk.
- Incremental Zero Downtime Backup provides support for file system Zero Downtime Backup. Only those file changes are captured that fit a specific backup criterion, which reduces number of full backups needed.
- Overcomes local data loss by performing backup on the copy of the production data in the remote site (Continuous Access) with HP StorageWorks Enterprise Virtual Array (EVA). Business Copy with EVA is available today.
## QuickSpecs

### HP OpenView Storage Data Protector

#### Customer Benefits

##### Robust backup solution
- HP OpenView Storage Data Protector Software is designed for the most demanding 24x7 environments and offers an automated high performance backup and recovery from disk or tape.

##### Best price/performance ratio combined with simple licensing model
- HP OpenView Storage Data Protector delivers backup/recovery innovation, performance, and functionality at a much lower cost than competitive solutions, with a total cost of ownership for mid to large backup configurations being 30-70% lower than other products. First year of support is included.

##### Ease of deployment
- HP Data Protector is both easy to deploy and use. Installation is simple and has a fully-automated software distribution of agent software to all connected clients, and a centralized licensing facility that reduces complexity. Competitive solutions fail to deliver this level of automation, and require manual administration that drives up IT support costs.

##### Example of HP products working Better Together
- HP OpenView Storage Data Protector is a key member of the fast-growing HP storage software portfolio, which also includes storage resource management, archiving, replication, and device management software. Data Protector also offers the unique advantage of being able to source hardware, software, and service from a single, trusted vendor.

##### Increasing application server performance
- HP Data Protector is designed to simplify and centralize backup and recovery operations by integrating a variety of techniques to eliminate backup windows. These include On-line Backup, Open File Backup, or Zero Downtime Backup that ensure that data is both protected and available.

##### Recover terabytes of data in minutes
- Utilizing Instant Recovery, Data Protector meets the demands of the most complex enterprises for specific recovery time and recovery point objectives, and enables critical data to be recovered within minutes.

##### Scales from a single server to distributed enterprise data centers
- Data Protector is designed for mid-range and enterprise organizations. It scales from small homogeneous environments to distributed worldwide infrastructures, enabling customers to scale backup operations to accommodate any foreseeable growth in data retention requirements.

##### Centralized management of multi-site data protection processes
- Centralized multi-site management capabilities enable customers to automate routine tasks and easily implement changes. Simple wizards and clear navigation makes these management features easy to configure. In addition, role-based user rights can be defined so that responsibilities can be safely distributed to different users.
Hardware Support

- Broad coverage of HP-UX, Windows, Solaris, Tru64, OpenVMS, NetWare, Linux, AIX, and other operating environments
- HP StorageWorks XP/EVA, and EMC Symmetrix disk array support for ZDB/IR
- Backup to disk supports any storage that the server's operating system supports
- HP StorageWorks Tape libraries, StorageTek, ADIC, IBM etc.
- For detailed information on Data Protector support matrices please visit: http://www.openview.hp.com/products/datapro/spec_0001.html

Software Pre-Requisites

<table>
<thead>
<tr>
<th>Cell Manager Requirements</th>
<th>The Data Protector Session Manager does not support the IDB on a file system that is mounted as NFS type.</th>
</tr>
</thead>
</table>

On Systems Running HP-UX (PA-RISC) - 11.0, 11.11, 11.23 and HP-UX (IA64) - 11.23

The Cell Manager must meet the following minimum requirements:

- The Soft File Limit per Process on the Cell Manager should be at least 1024.
- 256 MB RAM (512 MB recommended)
- For each parallel backup session 40 MB of RAM are required and 5 - 8 MB per data segment size. For example, if you want to run 60 parallel backup sessions 3 GB of RAM plus 512 MB for data segments are needed.
- 240 MB of disk space + approximately 2% of planned data to be backed up (for use by the IDB).
- It is recommended to modify the kernel parameters as follows:
  - Set maxdsiz (Max Data Segment Size) to at least 134217728 bytes (128 MB).
  - Set semmnu (Number of Semaphore Undo Structures) to at least 256.
  - After committing these changes, recompile the kernel and reboot the machine.

On Systems Running Solaris 8/9/10

The Cell Manager must meet the following minimum requirements:

- 256 MB RAM (512 MB recommended)
- For each parallel backup session 40 MB of RAM are required and 5 - 8 MB per data segment size. For example, if you want to run 60 parallel backup sessions 3 GB of RAM plus 512 MB for data segments are needed.
- 240 MB of disk space + approximately 2% of planned data to be backed up (for use by the IDB)
- The following values of kernel parameters are recommended:
  - SEMMNI (maximum number of semaphore sets in the entire system) = 100
  - SEMMNS (maximum semaphores on the system) = 256
  - A system restart is necessary for kernel changes to take effect.

On Systems Running Windows 2000/XP

The Cell Manager must meet the following minimum requirements:

- 256 MB RAM (512 MB recommended). For each parallel backup session 40 MB of RAM are required. For example, if you want to run 60 parallel backup sessions 3 GB of RAM are needed.
- Windows 2000, Service Pack 3 or later
- Windows XP Professional, Service Pack 1
- 190 MB of disk space + approximately 2% of planned data to be backed up (for use by the IDB)
- 2 <size of the biggest package to be installed> + 5MB of disk space needed on system drive
- Microsoft Internet Explorer 5.x or later
The Cell Manager must meet the following minimum requirements:

- 256 MB RAM (512 MB recommended). For each parallel backup session 40 MB of RAM are required. For example, if you want to run 60 parallel backup sessions 3 GB of RAM are needed.
- 190 MB of disk space + approximately 2% of planned data to be backed up (for use by the IDB)
- 2 <size of the biggest package to be installed> + 5MB of disk space needed on system drive
- Microsoft Internet Explorer 5.x or later

On Systems Running SUSE Linux Enterprise Server 9 (64-bit x86_64)

- 256 MB RAM (512 MB recommended). For each parallel backup session 40 MB of RAM are required and 5 - 8 MB per data segment size. This means that, for example, if you want to run 60 parallel backup sessions 3 GB of RAM plus 512 MB for data segments are needed.
- 240 MB of disk space + approximately 2% of planned data to be backed up (for use by the IDB).
Installation Server and Client System Requirements

Installation Server Requirements

On Systems Running HP-UX

The Installation Server must meet the following minimum requirements:

- 64 MB RAM
- 512 MB of disk space

On Systems Running Solaris 8/9/10

The Installation Server must meet the following minimum requirements:

- 64 MB RAM
- 512 MB of disk space

On Systems Running Windows 2000/XP

The Installation Server must meet the following minimum requirements:

- 64 MB RAM (Windows 2000 Professional)
- 250 MB of disk space
- Microsoft Windows 2000 Service Pack 3 or later
- Windows XP Professional, Service Pack 1
- Microsoft Internet Explorer 5.x or later

On Systems Running Windows 2003 (32-bit & 64-bit x86_64)

The Installation Server must meet the following minimum requirements:

- 64 MB RAM (Windows 2000 Professional)
- 250 MB of disk space
- Microsoft Internet Explorer 5.x or later

On Systems Running SUSE Linux Enterprise Server 9 (64-bit x86_64)

The Installation Server must meet the following minimum requirements:

- 64 MB RAM (Windows 2000 Professional)
- 250 MB of disk space

Client System Requirements

On Systems Running UNIX

The prerequisites for UNIX user interface installation and remote installation on the client are:

- Netscape Navigator 4.7.x or Netscape Navigator 7.0 or Mozilla 1.4 for Data Protector online help on UNIX
- The inetd daemon must be up and running.
- The Web browser must be able to run under the same account as Data Protector.

Disk space and RAM requirements of Data Protector UNIX clients

The following table shows the minimum disk space and RAM requirements for the various Data Protector UNIX clients:

<table>
<thead>
<tr>
<th>Client System</th>
<th>RAM (MB)</th>
<th>Disk Space (MB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interface</td>
<td>256 &lt;sup&gt;b&lt;/sup&gt;</td>
<td>150 &lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>Disk Agent</td>
<td>64 (recommended 128)</td>
<td>10</td>
</tr>
<tr>
<td>Media Agent</td>
<td>64 (recommended 128)</td>
<td>20</td>
</tr>
<tr>
<td>Integration Modules</td>
<td>64 (recommended 128)</td>
<td>20</td>
</tr>
</tbody>
</table>
NOTES:

a. The documentation (pdf files, 55MB) is included.
b. The memory requirements for the GUI system vary significantly with the number of elements that need to be displayed at a time. This consideration applies to the worst case actual display which you want to view (like expanding a single directory). You do not need to consider the total of directories and file names on a client, unless you want to expand all directories while viewing. It has been shown that 2 MB memory is required per 1000 elements (directories or file names) to display plus a base need for about 50 MB. So the 128 MB of RAM are enough to display the maximum number of file names.
c. With regard to the disk space, keep in mind, the page file alone should be able to grow to about 3 times the physical memory.

NOTE: The figures indicate requirements from the agent only. For example the "disk space" figure does not include space allocation for the OS, page file or other applications.

NOTE: The Data Protector A.06.0 HP-UX and Solaris GUI are based on Windows emulation software and therefore require higher graphical processing power. It is recommended to use midrange (or higher) workstation system with considerable graphics power. Usage over dial-up line is not feasible.

HP-UX Systems

When installing or upgrading remotely, the available disk space in the folder /tmp should be at least the size of the biggest package being installed.

Solaris Systems

When installing a Media Agent, make sure that the following entry is in the file /etc/system: set semsys:seminfo semmni=100.

When installing or upgrading remotely, the available disk space in folders /tmp and /var/tmp should be at least the size of the biggest package being installed.

The Solaris installation CD-ROM is in the pkg stream format, which is not recognized by the standard tar utility. That is why the HP-UX, and not the Solaris installation CD-ROM must be used for the local installation/upgrade of Solaris clients.

On Systems Running Windows 2000

The prerequisites for Windows user interface installation and remote installation on the client are:

- Microsoft Windows 2000 with Service Pack 2
- Windows XP Professional, Service Pack 1
- Have Microsoft Internet Explorer 5.0 or higher installed on the system.

The following table shows the disk space and RAM requirements of Data Protector Windows clients:

<table>
<thead>
<tr>
<th>Client System</th>
<th>RAM (MB)</th>
<th>Disk Space (MB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interfacea</td>
<td>256b</td>
<td>100c</td>
</tr>
<tr>
<td>Disk Agent</td>
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</tr>
</tbody>
</table>
NOTES:  

a. The documentation (.pdf files, 55 MB) is always included.

b. The memory requirements for the GUI system vary significantly with the number of elements that need to be displayed at a time. This consideration applies to the worst case actual display which you want to view (like expanding a single directory). You do not need to consider the total of directories and file names on a client, unless you want to expand all directories while viewing. It has been shown that 2 MB memory are required per 1000 elements (directories or file names) to display plus a base need for about 50 MB. So the 256 MB of RAM are enough to display about the maximum number of file names.

c. With regard to the disk space, keep in mind, the page file alone should be able to grow to about 3 times the physical memory.

NOTE: The figures indicate requirements from the agent only. For example the "disk space" figure does not include space allocation for the OS, page file or other applications.

### Windows XP Service Pack 2

Windows XP Service Pack 2 introduces an improved version of the Internet Connection Firewall (ICF), under a new name as Microsoft Firewall. Contrary to Service Pack 1, the firewall is turned on by default. During the installation of a new Data Protector client using the Installation Server, the installation agent is started on the remote computer. The Installation Server then connects to this agent through the Data Protector Cell port (by default 5555). However, if Microsoft Firewall is running, the connection cannot be established and the installation fails.

To resolve this, perform one of the following steps:

- Configure Windows Firewall to allow connection through a specific port.
- If the omnirc variable OB2FWPASSTHRU is set on the Installation Server, the installation agent automatically registers itself with Windows Firewall and the installation continues normally.

### Java web reporting

Java VM versions 1.4.2 or later must be installed on the system and enabled in the Web browser. The supported browsers are Netscape Navigator 4.7.x, Netscape 7.x, Mozilla 1.7 and Microsoft Internet Explorer 6.0 or later. You can download a Java VM plug-in for Internet Explorer and Netscape Navigator browsers at [http://java.sun.com/products/plugin/](http://java.sun.com/products/plugin/).

### Novell NetWare

- Any Novell system that is part of a Data Protector cell must have TCP/IP version 3.1 or later installed.
- Novell NetWare 5.1 must have the Support pack 5 or later installed. Novell NetWare 6.0 must have the Support pack 4 or later installed. Novell Netware 6.5 must have the Support pack 1 or later installed.

### Local Client Installation

UNIX clients are installed locally using the installation script omnisetup.sh. You can install the client locally from the HP-UX Installation Server installation CD-ROM and import it to the Cell Manager using automated procedure. For the installation procedure, refer to the HP OpenView Storage Data Protector Installation and Licensing Guide. MPE/iX, Novell NetWare, and OpenVMS clients can be installed only locally. Remote installation is not supported.
Upgrade

The upgrade procedure to Data Protector A.06.00 from Data Protector A.05.00, A.05.10, and A.05.50 is documented in the HP OpenView Storage Data Protector Installation and Licensing Guide. To upgrade from an even earlier version, you need to first upgrade to Data Protector A.05.00 and then upgrade to Data Protector A.06.00 following the procedure in the HP OpenView Storage Data Protector Installation and Licensing Guide.

On Solaris, you can perform a one-step upgrade from Data Protector A.05.00, A.05.10 or A.05.50 to Data Protector A.06.00. When upgrading both, HP-UX from 10.20 to 11.x and from OmniBack II to Data Protector, you need first to remove OmniBack II, upgrade the operating system and then install Data Protector A.06.00.

Requirements for Data Protector Services on Windows Server 2003

Data Protector uses three services: OmniInet - Client backup service, CRS - Cell Server Service, and RDS - Cell Server Database Service. By default, OmniInet and RDS services are running under the Local System account, and CRS service is running under the Administrator's account.

You can change the account information for any of these services.

However, the following are minimum requirements that must be met by the new accounts:

<table>
<thead>
<tr>
<th>Service</th>
<th>Resource</th>
<th>Minimum resource permission required by service</th>
</tr>
</thead>
<tbody>
<tr>
<td>OmniInet</td>
<td>Backup and Restore, Take Ownership</td>
<td>-</td>
</tr>
<tr>
<td>RDS</td>
<td>&lt;Data_Protector_home&gt;/db40 HKLM\SOFTWARE\Hewlett-Packard\OpenView\OmnibackII</td>
<td>Full access Read</td>
</tr>
<tr>
<td>CRS</td>
<td>&lt;Data_Protector_home&gt; HKLM\SOFTWARE\Hewlett-Packard\OpenView\OmnibackII</td>
<td>Full access Full access</td>
</tr>
</tbody>
</table>

Files installed in the %systemroot%\system32 Folder

The following files are placed (depending on the components selected) into system32 folder on Windows systems:

- **BrandChgUni.dll**: This is a resource library. It is used only internally; however, it also contains the path to registry settings, so it must be located in a well-known location where it can be accessed by integration libraries.
- **libarm32.dll**: This is a NULL shared library for ARM instrumentation. It may be replaced by third-party monitoring software.
- **ob2informix.dll**: This library is used to integrate with the Informix database.
- **orasbt.dll**: This library is used to integrate with the Oracle database.
- **snmpOB2.dll**: This library is used to implement system SNMP traps.
### Backup Agents

Windows 2000/XP HE/XP/XP 64 bits; Windows 2003 /2003(64-bits); Novell NetWare; HP-UX, HP MPE/iX; Sun Solaris; Linux Red Hat/SUSE/Debian, United Linux; IBM AIX; SGI IRIX; SNI SINIX; SCO OpenServer, SCO Unixware; HP Tru64 UNIX; OpenVMS

Additional operating systems supported via:

- NFS/shared disk, CIFS
- NDMP NAS filer:
  - Network Appliance filers
  - EMC Celerra
  - HP NAS 8000
  - HP Storage Server NAS

### Application Agents

- Oracle®, Informix, Sybase, MS SQL Server, MS SQL, MS Exchange, SAP, SAP DB/MaxDB, Baan IV, Lotus Notes, Solid Database, DB2, Vmware
- Backup device servers - with robotic control (for control of tape drives and tape library systems, including shared tape libraries)
- Windows 2000/XP/ XP (64-bit)/2003/2003 (64-bit), HP-UX, Sun Solaris, Novell NetWare, Linux Red Hat/SUSE/Debian, MPE/iX, OpenVMS
- Backup device servers-without robotic control (for direct connection to tape drives-can be used in shared tape libraries where library robotics are controlled by another media agent described above)
- IBM AIX, SNI SINIX, SCO OpenServer

### High Availability Applications

- Clusters: Microsoft® Cluster Server, HP MC/Serviceguard, VERITAS Cluster, Tru64 Cluster, Novell Netware Cluster, OpenVMS Cluster, HP EFS Clustered Gateway
- Zero-downtime backup: HP Business Copy XP and Continuous Access XP, HP Business Copy EVA and HP-UX Campus Cluster for HP Virtual Array (like Continuous Access), EMC TimeFinder and EMC SRDF, HP CA EVA
- Instant recovery: HP Disk Array XP, EVA
- Direct backup (server-less backup): HP Disk Array XP

### Management Platforms

<table>
<thead>
<tr>
<th>Management Systems</th>
<th>Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HP-UX</td>
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<tr>
<td></td>
<td>Sun Solaris</td>
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<td></td>
<td>Linux</td>
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</table>

<table>
<thead>
<tr>
<th>Manager-of-Managers</th>
<th>Windows</th>
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<tbody>
<tr>
<td></td>
<td>HP-UX</td>
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<td></td>
<td>Sun Solaris</td>
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<tr>
<td></td>
<td>Linux</td>
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</tbody>
</table>

### Supported Backup Devices

<table>
<thead>
<tr>
<th>Supported Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDS, DLT, DLT1, Super DLT, QIC/Travan, Magneto-Optical, Mammoth M2, Eliant, IBM 3590 (Magstar), STK 9840, STK 9940, AIT, LTO Ultrium.</td>
</tr>
<tr>
<td>Supported range of standalone backup devices, auto changers, library systems and silos from Hewlett-Packard, Compaq, StorageTek, Sony, Dell, Seagate, ADIC, ATL, Spectralogical, Exabyte, Quantum, Breece Hill, Overland Data and others.</td>
</tr>
<tr>
<td>One Button Disaster Recovery</td>
</tr>
<tr>
<td>Storage Networking</td>
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<tr>
<td>---------------------</td>
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</table>

Distribution Media

Data Protector manuals are available in printed format and in PDF format. Install the PDF files during the Data Protector setup procedure by selecting the User Interface component on Windows or the OB2-DOCS component on UNIX. Once installed, the manuals reside in the \Data_Protector_home\docs directory on Windows and in the /opt/omni/doc/C/ directory on UNIX. Data Protector support matrices can be found at the above mentioned locations in the support_matrices sub-directory. You can also find the manuals in PDF format at http://ovweb.external.hp.com/lpe/doc_serv/

Additionally, the following file is provided:
A spreadsheet to estimate the size of the IDB, IDB_capacity_planning.xls

Printed Documentation
The Data Protector printed documentation set consists of the following manuals:

**HP OpenView Storage Data Protector Installation and Licensing Guide**
This manual describes how to install the Data Protector software, taking into account the operating system and architecture of your environment. This manual also gives details on how to upgrade Data Protector, as well as how to obtain the proper licenses for your environment.

**HP OpenView Storage Data Protector Concepts Guide**
This manual describes Data Protector concepts and provides background information on how Data Protector works. It is intended to be used with the task-oriented online Help.

**HP OpenView Storage Data Protector Disaster Recovery Guide**
This manual describes how to plan, prepare for, and perform a disaster recovery using HP OpenView Storage Data Protector.

**HP OpenView Storage Data Protector Troubleshooting Guide**
This manual describes how to troubleshoot problems you may encounter when using Data Protector. It contains general problems and proposed actions to solve them.

**HP OpenView Storage Data Protector Integration Guide**
This manual describes how to configure and use Data Protector to back up and restore various databases and applications. There are four versions of this manual:

- HP OpenView Storage Data Protector Integration Guide for Microsoft Applications: SQL Server, Exchange Server, and Volume Shadow Copy Service
- HP OpenView Storage Data Protector Integration Guide for Oracle and SAP
- This manual describes the integrations for Oracle, SAP R3, and SAP DB.
- HP OpenView Storage Data Protector Integration Guide for IBM Applications: Informix, DB2, and Lotus Notes/Domino
- This manual describes the integrations for IBM applications: Informix Server, IBM DB2, and Lotus Notes/Domino.
- HP OpenView Storage Data Protector Integration Guide for Sybase, Network Node Manager, and Network Data Management Protocol
- This manual describes the integrations for Sybase, Network Node Manager, and Network Data Management Protocol.

**HP OpenView Storage Data Protector Zero Downtime Backup Concepts Guide**
This manual describes Data Protector zero downtime backup and instant recovery concepts and provides background information on how Data Protector works in a zero downtime backup environment. It is intended to be used with the task-oriented HP OpenView Storage Data Protector Zero Downtime Backup Administrator's Guide and the HP OpenView Storage Data Protector Zero Downtime Backup Integration Guide.

**HP OpenView Storage Data Protector Zero Downtime Backup Administrator's Guide**
This manual describes how to configure and use the integration of Data Protector with HP StorageWorks Virtual Array, HP StorageWorks Enterprise Virtual Array, EMC Symmetrix Remote Data Facility and TimeFinder, and HP StorageWorks Disk Array XP. It is intended for backup administrators or operators. It covers the zero downtime backup, instant recovery, and the restore of filesystems and disk images.

**HP OpenView Storage Data Protector Zero Downtime Backup Integration Guide**
This manual describes how to configure and use Data Protector to perform zero downtime backup, instant recovery, and standard restore of Oracle, SAP R/3, Microsoft Exchange, and Microsoft SQL databases.

**HP OpenView Storage Data Protector Integration Guide for HP OpenView**
This manual describes how to install, configure, and use the integration of Data Protector with HP OpenView Service Information Portal, HP OpenView Service Desk, and HP OpenView Reporter. It is intended for backup administrators. It discusses how to use the OpenView applications for Data Protector service management.

**HP OpenView Storage Data Protector MPE/iX System User Guide**
This manual describes how to install and configure MPE/iX clients, and how to back up and restore MPE/iX data.

**HP OpenView Storage Data Protector Integration Guide for HP OpenView Operations**
This manual describes how to monitor and manage the health and performance of the Data Protector environment with HP OpenView Operations (OVO), HP OpenView Service Navigator, and HP OpenView Performance (OVP).

This manual provides tracking and management of offline storage media. It is intended for network administrators responsible for maintaining and backing up systems. It describes the tasks of installing and configuring the application, performing daily media operations and producing reports.

**HP OpenView Storage Data Protector Product Announcements, Software Notes, and References**
This manual gives a description of new features of HP OpenView Storage Data Protector A.06.00. It also provides information on supported configurations (devices, platforms and online database integrations, SAN, and ZDB), required patches, and limitations, as well as known problems and workarounds. An updated version of the supported configurations is available at [http://www.openview.hp.com/products/datapro/spec_0001.html](http://www.openview.hp.com/products/datapro/spec_0001.html).

The HP OpenView Storage Data Protector Administrator's Guide was obsolete with the A.06.00 release. It is replaced by the online Help, the HP OpenView Storage Data Protector Troubleshooting Guide, and HP OpenView Storage Data Protector Disaster Recovery Guide.
Software Licensing

The Data Protector A.06.00 product structure is based on performance. The more drive licenses that are installed, the more tape drives can be used for backup in parallel, thus the faster the backup will be performed. The product structure is modular and offers a lot of flexibility. You can order the license that provides the Data Protector functionality, which best meets the specific requirements of your environment. The Data Protector A.06.00 product structure and licensing consists of three main categories:

1. The Starter Packs: A management server (Cell Manager) is supported on HP-UX, Windows, Solaris and Linux.
2. Additional tape drive licenses, referred to as Drive Extensions, for one drive.
3. Data Protector Functional Extensions: The functional extensions licenses are required once per instance (system, library and terabyte) for on-line backup of databases and applications, the Manager-of-Managers functionality, for libraries with more than 60 media slots, for open file backup, direct backup, Instant Recovery, NDMP, and zero downtime backup.

**NOTE:** The UNIX product licenses operate on the UNIX, Windows and Novell NetWare platforms, providing the functionality regardless of the platform, while the Windows product licenses operate on the Windows, Novell NetWare and Linux platforms only. Passwords are bound to the Cell Manager and are valid for the entire Data Protector cell. Clients do not require any license for file system or disk image backups.

Software Product Services

- HP Backup and Recovery Solutions Service for Data Protector (Level1, Level2 and Level3)
  This service consists of installation of the Data Protector backup software for the supported environment according to HP's quality standards by a trained service specialist. HP Backup and Recovery Solution Service for Data Protector provides for the implementation of the Data Protector software in a supported environment. The three levels of service described here are based on the size and complexity of the backup environment.
  - Service benefits
    - Installation in accordance with product manufacturer's specifications and your business's configuration requirements
    - Validation of the design, configuration, and utilization of backup environment
    - A project manager to manage the implementation of the service
    - A project manager to manage the implementation of the service (Level 2 and Level 3 only)
    - Reduced implementation time and impact on the backup environment
    - The ability to achieve more effective data management
    - Expedited installation, if all service prerequisites met before service is performed
    - Availability of a service specialist to answer questions during the onsite portion of the delivery
    - Delivery of the service at a mutually scheduled time
    - For Level 3, availability of custom installation through the SOW (Statement of Work)
    - Documentation of the deployed backup environment
  - Service feature highlights
    - Service planning
    - Service deployment
    - Installation verification tests
    - Customer orientation session
    - Project management (Level 2 and Level 3 only)
  - Advanced features
    - Integration testing and verification of the backup environment with customer's existing management environment (HP OpenView, Tivoli, CA)
    - Split-mirror backup implementation
    - Direct or server less backup implementation
    - Zero-downtime backup implementation
Integration with HP approved third-party applications
For more information, please visit: [http://www.hp.com/hps/storage/](http://www.hp.com/hps/storage/).
Customers on support contract may migrate to new product versions free of charge.

## Software Warranty

HP warrants only that the Software media will be free of physical defects for a period of ninety (90) days from delivery (warranty code 3U; replacement of defective media).

## Software Product Support

The wide range of service offerings enables you to choose the support program that best matches your needs. Options include:

- **Software Support**: phone-in assistance; 8X5 unlimited telephone support, timely software updates; versions & revisions. First-year included in the price of each Data Protector License.
- **Software Support 24 x 7**: includes all benefits of customer Support plus 24 X 7 phone-in assistance.
- **Proactive 24**: Includes all the benefits of software support plus semi-annual on-site support planning, quarterly activity reviews (remote), and semi annual patch management.
- **Critical Service**: Includes all the benefits of Proactive 24 plus accelerated escalation management, and on-site support planning done quarterly.
- **eSupport**: The HP Support Portal provides one-stop access to the information, tools, and services you need to manage the daily operations of your IT environment. Features include access to self solve tools (including search technical knowledge base), efficient logging and tracking of support cases, collaborations with other businesses and IT professionals, download of patches, and proactive notification of relevant information.

For additional Care Pack (hardware & software) information, as well as orderable part numbers, please refer to the URL listed: [http://www.compaq.com/services/carepaq/index.html](http://www.compaq.com/services/carepaq/index.html).
NOTE: HP OpenView Storage Data Protector 6.0 will be available in Q3, 2006. In order to get the new Data Protector 6.0 functionality listed below, please request your entitlement/s with the release request form that will be sent to you upon release of Data Protector 6.0. The Release Request form, must be returned in order for you to receive this update.

### Step 1 – Starter Packs

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP OpenView Storage Data Protector Starter Packs</td>
<td>License &amp; DVD</td>
<td>B6951AA</td>
</tr>
<tr>
<td></td>
<td>for HP-UX</td>
<td>B6951DA</td>
</tr>
<tr>
<td></td>
<td>for Sun Solaris</td>
<td>B6961AA</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td>B6961DA</td>
</tr>
<tr>
<td></td>
<td>for Linux</td>
<td></td>
</tr>
<tr>
<td></td>
<td>License Only</td>
<td>B6951BA</td>
</tr>
<tr>
<td></td>
<td>for HP-UX</td>
<td>B6951CA</td>
</tr>
<tr>
<td></td>
<td>for Sun Solaris</td>
<td>B6961BA</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td>B6961CA</td>
</tr>
<tr>
<td></td>
<td>for Linux</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Media Only</td>
<td>B6960MA</td>
</tr>
<tr>
<td></td>
<td>DVD set</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CD set</td>
<td>B6960MB</td>
</tr>
<tr>
<td></td>
<td>Manuals Only – Starter Pack</td>
<td></td>
</tr>
<tr>
<td></td>
<td>English</td>
<td>B6960LA</td>
</tr>
<tr>
<td></td>
<td>Japanese</td>
<td>B6960LJ</td>
</tr>
<tr>
<td></td>
<td>French</td>
<td>B6960LF</td>
</tr>
</tbody>
</table>

Includes the license for:

- one Cell Manager on the specified platform
- unlimited number of Backup Agents on any platform
- one drive license (B6951xx contains 1xB6953AA, and B6961xx contains 1xB6963AA)
- built in media management
- libraries up to 60 slots
- System Disaster Recovery options
- sophisticated reporting (in Data Protector GUI and via the web)
- SAN support (with the Cell Manager for HP-UX, Solaris)
- service-centric management through integrations into HP OpenView

MEDIA: Data Protector 6.0 will be delivered with two DVDs. In case that customers require CDs, there is also a CD set available (B6960MB) consisting of 15 CDs. The DVD set is recommended.

MANUALS: All manuals are available Electronically on the DVDs, CDs, and at [http://www.hp.com](http://www.hp.com). Printed manuals can be ordered with two different sets, the Starter pack set and the Functional Extensions set. The Starter pack manuals - printed, include:

- Concepts Guide
- Installations & Licensing Guide
- Troubleshooting Guide
- Disaster Recovery Guide
- Product Announcements, Software Notes, and References
NOTE: When ordering the DVD and LTU product numbers, customers will receive a DVD case that includes DVDs, LTU, and the Getting Started Guide. Further printed manuals are not included. The manuals are electronically available on the DVD or at http://www.hp.com.

Step 2 – Drive and Library Extensions

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP OpenView Storage</td>
<td>DP Backup Drive for UNIX, NAS, SAN</td>
<td>B6953AA</td>
</tr>
<tr>
<td></td>
<td>DP Backup Drive for Windows, NetWare, Linux (Intel)</td>
<td>B6963AA</td>
</tr>
<tr>
<td></td>
<td>Includes the LTU for one additional backup drive directly attached either to a system specified, a NAS device or used in a SAN (regardless of the operating system). Drives attached to HP MPE systems and OpenVMS systems require the SAN, UNIX, and NAS license. You need as many licenses as there are drives in use at any point in time. This is typically the total number of configured drives to allow all drives to be used simultaneously. For supported drives please refer to the Data Protector support matrixes: <a href="http://www.openview.hp.com/products/datapro/spec_0001.html">http://www.openview.hp.com/products/datapro/spec_0001.html</a>.</td>
<td></td>
</tr>
<tr>
<td>HP OpenView Storage</td>
<td>DP Library Extension with 61-250 slots</td>
<td>B6957BA</td>
</tr>
<tr>
<td></td>
<td>DP Library Extension with unlimited slots</td>
<td>B6958BA</td>
</tr>
<tr>
<td></td>
<td>Upgrade to unlimited slots library</td>
<td>B6958CA</td>
</tr>
<tr>
<td></td>
<td>Includes the LTU for managing tape libraries within one Data Protector Cell, the license is required once per library. For details on supported libraries please refer to the Data Protector platform and integration matrixes under specification at <a href="http://www.hp.com/go/dataprotector">http://www.hp.com/go/dataprotector</a>.</td>
<td></td>
</tr>
</tbody>
</table>

- StorageTek silos using ACSLS and GRAU/EMASS library systems using DAS require the license B6958BA.
- In case of library sharing between multiple Cells, the Manager-of-Managers LTU is required for each Cell sharing the library
- This license is based on the physical slots inside the library, instead of logical slots.
Step 3 – Functional Extensions

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP OpenView Storage</td>
<td></td>
<td>B6955BA</td>
</tr>
<tr>
<td>Data Protector</td>
<td></td>
<td>B6966BA</td>
</tr>
<tr>
<td>On-line extension</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Includes the LTU to perform on-line backup of databases and applications running on the specified platform.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• If a system runs multiple partitions, this LTU is required for each partition.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• In a cluster environment, each system participating in the cluster requires this LTU.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• On-line backup licenses are required for Zero Downtime Backup (ZDB).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The Windows 2003 file system snapshot feature VSS (Volume Shadow copy Service) is supported at not extra charge. However on-line backup of databases, which are not part of the operating system, require this on-line backup extension. System configuration backup does not require the on-line backup extension.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• This LTU is required for Microsoft Exchange Single Mailbox backup.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• This LTU is not required for HP OpenView Network Node Manager on-line backup.</td>
<td></td>
</tr>
</tbody>
</table>

For supported databases please refer to the Data Protector support matrices under specification at: http://www.hp.com/go/dataprotector

| HP OpenView Storage                   |                                                  | BA153AA     |
| Data Protector                        |                                                  | BA153BA     |
| Open File Backup                      | for 1-server                                     | BA154AA     |
|                                       | for 10-servers                                    | BA155AA     |
|                                       | for 5-workstations                               | BA152AA     |
|                                       | for 1-enterprise server                           |             |
|                                       | Media                                            |             |
|                                       | Includes the LTU for open file backup of applications, databases and e-mail files (e.g. "pst"- Microsoft Outlook files) running on the specified servers that are not covered by the Data Protector platform and integration matrixes. |
|                                       | The CD is included in the Data Protector Starter pack DVD. It can also be ordered separately via BA152AA (which includes the open file backup CD). |
|                                       | For supported configurations please refer to the Data Protector support matrices under specification at: http://www.hp.com/go/dataprotector |

| HP OpenView Storage                   |                                                  | B6956AA     |
| Data Protector                        |                                                  | B6966AA     |
| Manager-of-Managers extension         | for UNIX                                         |             |
|                                       | for Windows                                      |             |
|                                       | Includes the LTU required for each Data Protector Cell Manager running on the specified platform to be part of a Manager-of-Managers environment. |
|                                       | This license is required to share tape libraries between multiple Data Protector cells. It is an ideal solution for central backup management of branch offices. |

For supported configurations please refer to the Data Protector support matrices under specification at: http://www.hp.com/go/dataprotector
Includes the LTU for the number of terabytes (TB) specified of used backup to disk storage. Used backup disk storage is the space occupied by protected backups, and protected backup copies and mirrors according to the Data Protector internal database.

- Used capacity differs from raw capacity in that the RAID overhead is excluded. This means the RAID configuration does not need to be considered.
- The backup to disk storage can be distributed over multiple disk arrays and systems.
- This extension does not require any drive and library LTU. Drive and library licenses are required for file devices, but not for advanced backup to disk. Similarly, advanced backup to disk cannot be licensed with drive and library licenses.
- It does not matter whether the backup to disk functionality is being run on Windows or Unix.
- This license is required to backup to a Data Protector file library or a Virtual Tape Library.
- This license is also required to perform Virtual full or Synthetic full backups.

Includes the LTU for the number of terabytes (TB) of used disk space capacity of the specified disk array protected by Zero Downtime Backup (ZDB) and utilizing:

- HP Business Copy XP/EVA and/or
- HP Continuous Access XP or
- EMC TimeFinder and/or
- EMC SRDF

Used disk space capacity is the total capacity of all primary volumes on the disk array type being used for Zero Downtime Backup or Instant Recovery (i.e. Primary means the original production data volumes). This amount represents the total usable capacity of these volumes matching with their configured LDEV sizes. Data Protector does not require licenses for the capacity consumed by the secondary volumes, mirrors, snapshots that are used for protection.

- Excludes RAID overhead. This means the RAID configuration does not have to be considered.
- An on-line backup LTU (B6955BA, B6865BA) is required.
- The Windows 2003 file system snapshot feature VSS (Volume Shadow copy Service) is supported at no extra charge. However, backup via a hardware provider requires this ZDB extension LTU. For example, file system snapshot, Microsoft Exchange Server, Microsoft SQL Server backup via an HP disk array provider.
Includes the LTU for the number of terabytes (TB) specified of used disk space capacity, required for Instant Recovery of the specified disk array type utilizing Instant Recovery. Data Protector Instant Recovery permits recovery of terabytes of data from one or multiple recovery disks in minutes; rather than recovery from tape, which could take hours.

Used disk space capacity is the total capacity of all volumes on the disk array types that are used for Zero Downtime Backup (ZDB) or Instant Recovery (IR) (i.e. Primary means the original production data volumes). This amount represents the total usable capacity of these volumes corresponding with their configured LDEV sizes. Data Protector does not require licenses for the capacity consumed by the secondary volumes, mirrors, snapshots that are used for protection.

- Excludes RAID overhead. This means the RAID configuration does not need to be considered.
- Requires a matching quantity of Data Protector ZDB LTUs, which at the same time requires an On-line LTU.

Includes the LTUs to perform direct backup with HP StorageWorks disk array XP. Required for the number of terabytes (TB) specified of used source disk space needed for Direct (serverless) backup.

Requires a matching quantity of Data Protector ZDB LTUs, which at the same time requires an On-line backup LTU.
<table>
<thead>
<tr>
<th>HP OpenView Storage Data Protector Media Operations</th>
<th>Entry Level, for 1 x 2,000 media</th>
<th>B7100AA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enterprise, for 1 x 10,000 media</td>
<td>B7101AA</td>
</tr>
<tr>
<td></td>
<td>for unlimited media</td>
<td>B7102AA</td>
</tr>
<tr>
<td></td>
<td>Manuals</td>
<td>B7128AA</td>
</tr>
<tr>
<td></td>
<td>Media</td>
<td>B7129AA</td>
</tr>
</tbody>
</table>

The Entry Level includes the license-to-use (LTU) for 2000 media, one management server and unlimited clients.

The Enterprise includes the license-to-use (LTU) for 10000 media, one management server and unlimited clients.

The unlimited media includes the license-to-use (LTU) for unlimited media, one management server and unlimited clients.

- Media refers to the total number of tape media to be tracked in the Data Protector Media Operations internal database. The entry level and enterprise level licenses can be used in any combination to match the customer's total number of tape media to be tracked.

- The Data Protector Media Operations media is included in the Data Protector starter pack DVD, but it can also be ordered separately via B7129AA.

- The Data Protector Media Operations manuals are included in the Data Protector Functional Extensions printed manuals set, but they can also be ordered separately via B7128AA.

<table>
<thead>
<tr>
<th>HP OpenView Storage Data Protector Manuals</th>
<th>functional extensions, English</th>
<th>B6960EA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>functional extensions, Japanese</td>
<td>B6960EJ</td>
</tr>
</tbody>
</table>

Manuals are available electronically on the DVDs, CDs, and at hp.com

Printed manuals can be ordered with two different sets, the Starter pack set and the Functional Extensions set. The Functional Extensions manuals - printed, include:

- Integration Guide for Microsoft Applications
- Integration Guide for Oracle and SAP
- Integration Guide for IBM Applications
- Integration Guide for Sybase, Network Node Manager, and Network
- Data Management Protocol
- Zero Downtime Backup Integration Guide
- Zero Downtime Backup Concepts Guide
- Zero Downtime Backup Administrator’s Guide
- Integration Guide for OpenView Service Information Portal and OpenView Reporter
- Integration Guide for HP OpenView 7.1x, 7.2x for Windows
- Integration Guide for HP OpenView Operations for UNIX
- Integration Guide for HP OpenView Operations 7.5x for Windows,
- OpenView Operations for UNIX, Product Announcements, Software
- Notes, and References
- Data Protector Media Operations User’s Guide
- Data Protector Media Operations Product Announcements, Software Notes, and References
## Single Server Editions

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Description</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP OpenView Storage Data Protector, Single Server Edition</td>
<td>LTU &amp; DVD for HP-UX</td>
<td>B7020AA</td>
</tr>
<tr>
<td></td>
<td>for Sun Solaris</td>
<td>B7020DA</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td>B7030AA</td>
</tr>
<tr>
<td></td>
<td>LTU Only for HP-UX</td>
<td>B7020BA</td>
</tr>
<tr>
<td></td>
<td>for Sun Solaris</td>
<td>B7020CA</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td>B7030BA</td>
</tr>
<tr>
<td></td>
<td>Migration To Starter Pack for HP-UX</td>
<td>B7021AA</td>
</tr>
<tr>
<td></td>
<td>for Sun Solaris</td>
<td>B7021DA</td>
</tr>
<tr>
<td></td>
<td>for Windows</td>
<td>B7031AA</td>
</tr>
</tbody>
</table>

LICENSE: The Single Server Edition LTU includes the license to backup one single server on the specified platform with an unlimited number of UNIX and/or Windows workstations, one backup drive. Additionally, this edition can manage one autochanger/library with up to 10 slots.

MIGRATION: Includes de LTU to migrate from the SSE or from Data Protector Express to Data Protector Starter pack.

To obtain the following functionality the Single Server Edition has to be migrated to the Starter Pack:

- additional backup clients (agents) on any platform
- additional backup drives
- the ability to manage autoloaders/libraries with more than 10 slots
- systems disaster recovery
- sophisticated reporting (in the Data Protector GUI and via the web)
- SAN support (with the management server for HP-UX, Solaris)
- service-centric management through integrations into OpenView

To order the migration LTU, a single server edition LTU is required.

MEDIA: Data Protector 6.0 will be delivered with two DVDs. In case that customers requires CDs, there is also a CD set available (B6960MB) consisting of 15 CDs. The DVD set is recommended.

MANUALS: All manuals are available electronically on the DVDs, CDs, and at hp.com. Printed manuals can be ordered with two different sets, the Starter pack set and the Functional Extensions set. The Starter pack manuals - printed, include:

- Concepts Guide
- Installations & Licensing Guide
- Troubleshooting Guide
- Disaster Recovery Guide
- Product Announcements, Software Notes, and References
QuickSpecs

Configuration Information

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