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Enterprise

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Getting Started Guide

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Chapter 1: Installation

Note: This guide applies to the full Data Protector product. If you have a Single Server Edition, some of the platforms and features mentioned do not apply.

This guide is designed to help you get started quickly. Using the default settings, you can quickly and easily install the software, create a backup, and do a restore.

Installing on Windows systems

Note: For full installation details, see the *HPE Data Protector Installation Guide* in the Docs directory of the top level of the Windows installation DVD-ROM.

Prerequisites

- Management server (Cell Manager):
 - 4 GB of RAM
 - For recovery of the Internal Database, twice as much total RAM is required.
 - 1.5 GB of free disk space + approximately 100 bytes for each backed up file (for use by the IDB)
 - If you have insufficient free storage space on the chosen disk volume, you can mount another volume to a directory on it, but you should do so before the installation.
- Backup client (Disk Agent):
 - 64 MB of RAM (128 MB recommended)
 - 20 MB of disk space
- Device server (Media Agent):
 - 64 MB of RAM (128 MB recommended)
 - 20 MB of disk space
- User Interface:
 - 512 MB of RAM
 - 150 MB of disk space
- Guides and Help
 - 100 MB for guides in PDF format and the Help system

These figures are the requirements for the components only. They do not include space allocation for the operating system, its paging file, and other applications.

Installing Cell Manager

For details of supported platforms, see the latest support matrices at <https://softwaresupport.hpe.com/>.

Prepare for installation

1. On the system that is to be your Data Protector Cell Manager:
 - a. For a standalone tape drive, connect the tape drive to the Data Protector Cell Manager and power it on.
 - b. Enable TCP/IP protocol and hostname resolution.
To check if they are enabled:
 - i. Verify that name resolution is working properly by finding the name of the computer:
 - Open Command Prompt (on Windows systems) or Terminal (on UNIX systems).
 - Run: `hostname`
The name of your computer will be displayed.
 - ii. Verify name resolution and reachability:
 - Run: `nslookup Hostname`
 - Trigger a reverse DNS lookup, by running: `nslookup IPAddress`
The network is set up properly when you get the same hostname and IP address from both commands.
If you have problems with your network, see the *HPE Data Protector Troubleshooting Guide*.
 - c. Assign a static IP address.
 - d. Deactivate the Windows tape device and changer drivers (recommended). Only use these drivers in exceptional cases, for example, when other applications access this tape device.
2. Log on to the system as Administrator (on Windows systems) or root (on UNIX systems).
3. Set up a separate operating system account for use with Data Protector, such as `dpadmin`.

On Windows systems, ensure that:

- The user is a member of Administrators and Backup Operators user groups.
- The user has logon rights as service (Windows advanced rights).

This user account is needed solely to provide the required services. It will not be used to log on to an individual's system.

The account should be used as the Data Protector service account in server and client installations. In a Windows domain, you only need to set up the account on the Primary Domain Controller.

Install Data Protector

1. Insert the Windows installation DVD-ROM and start the wizard:
 - 64-bit AMD64/Intel EM64T systems: `\x8664\setup.exe`
2. Select **Cell Manager** and follow the wizard using the default values.
3. In the **Account information** window, enter the user name and password for the user account you created in step 3 of the installation preparation procedure.

Run Data Protector

Start > Programs > HPE Data Protector > Data Protector Manager

For further information, see the documentation in the `Docs` directory in the top-level directory of the DVD-ROM.

Installing clients

See <https://softwaresupport.hpe.com/> and search for "Data Protector". Select the required version to find out about supported platforms.

Prerequisites

- Cell Manager installed
- Administrator rights and password
- TCP/IP protocol and node name resolution enabled

RAM and disk space—minimum and recommended

Client system component	RAM (MB)	Disk space (MB)
User Interface	512 ¹	150 ²
Disk Agent	64 for each (128 recommended)	20 for each
Media Agent		
integration components		
English Documentation (Guides, Help)	n/a	100

¹Depends on the number of elements that need to be displayed at a time.

²The page file alone needs to be able to grow to about 3 times the physical memory

Installing remotely from the Cell Manager GUI

1. Log on to the system as Administrator.
2. Click **Start > Programs > HPE Data Protector > Data Protector Manager**.
3. In the Data Protector Manager, switch to the **Clients** context.
4. In the Scoping Pane, right-click **Clients** and select **Add Clients** to start the wizard.
5. Follow the wizard instructions.

Installing locally on the intended system

1. Log on to the system as Administrator.
2. Verify network connection between the Cell Manager system and the client system by running the following command: `ping CellManagerHostname`
3. Run:
 - 32-bit systems: `\i386\setup.exe`
 - 64-bit AMD64/Intel EM64T systems: `\x8664\setup.exe`
 - 64-bit Itanium systems: `\ia64\setup.exe`
4. Select **Client**.
5. Follow the wizard instructions.
6. In the Cell Manager system dialog box, enter the name of your Cell Manager.

Installing on UNIX systems

Note: For full installation details, see the *HPE Data Protector Installation Guide* in the /DOCS/C directory of the UNIX installation DVD-ROM.

Installing Cell Manager

Note: For supported platforms, see the latest support matrices at <https://softwaresupport.hpe.com/>.

The following is an example of a Cell Manager installation with backup device locally attached using the default configuration.

Prerequisites (HP-UX and Linux)

HP-UX	Linux
8 GB of total RAM	4 GB of total RAM
Note: For recovery of the Internal Database, twice as much total RAM is required.	
1.5 GB of free disk space + approximately 100 bytes for each backed up file (for use by the IDB) in the /var directory, where the IDB is stored.	
If you have insufficient free storage space on the disk volume, you can use linked directories, but you should create the links before the installation and ensure that the destination directories exist.	

Procedure

On your Data Protector Cell Manager:

1. Mount the UNIX installation DVD-ROM to a mount point, for example:

```
mkdir /cdrom  
mount /dev/dsk/c0t0d0/ cdrom
```

2. Run `omnisetup.sh`. To run the command from the DVD-ROM:

```
cd /cdrom/LOCAL_INSTALL  
./omnisetup.sh -CM
```

3. Follow the instructions when prompted.

Install clients either from the Cell Manager or locally.

Running Data Protector

The Cell Manager services are automatically started during the installation.

To use the Data Protector GUI, install the GUI client on a Windows system.

Installing clients

See <https://softwaresupport.hpe.com/> and search for “Data Protector”. Select the required version to find out about supported platforms.

Prerequisites

- root permissions on every target system

RAM and disk space —minimum and recommended

Client system component	RAM (MB)	Disk space (MB)
Disk Agent	64 (128 recommended)	10
Media Agent	64 (128 recommended)	20
integration components	64 (128 recommended)	20
English Documentation (Guides, Help)	n/a	95

Remote installation

Distribute the software to clients using the Data Protector user interface. Cross-platform client installation is supported.

1. On you GUI client, start the Data Protector Manager.
2. In the Data Protector Manager, switch to the **Clients** context.
3. In the Scoping Pane, right-click **Clients** and select **Add Clients** to start the wizard.
4. Follow the instructions. For details on each wizard page, see the *HPE Data Protector Help*.

After the Media Agent is installed, check your configuration files (`/kernel/drv/st.conf`). For specifics, see Installing Data Protector clients in the *HPE Data Protector Installation Guide*.

Finally, connect a backup device to the system.

Local installation

1. Insert the UNIX installation DVD-ROM.
2. Mount the installation DVD-ROM to a mount point.
3. Change directory to `Mount_Point/LOCAL_INSTALL` and run:

```
omnisetup.sh [-source directory][-server name][-install component List]
```

For a list of Data Protector component codes, see the *HPE Data Protector Installation Guide*.
4. `omnisetup` informs you if the installation was completed and if the client was imported to the Data Protector cell. The CORE and CORE-INTEG components are automatically installed.

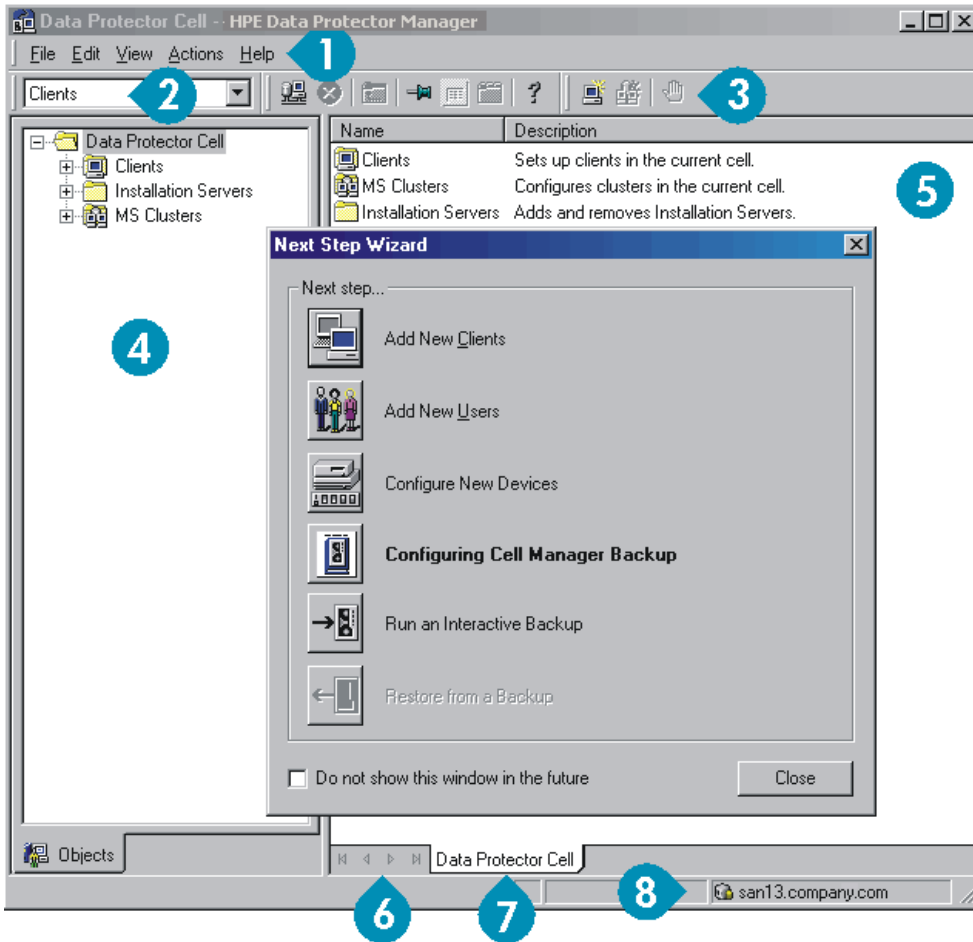
If you specified the name of the Cell Manager, the client will be imported to the cell. If not, import it using the Data Protector GUI.

Next steps

You can now run the Data Protector Manager.

Start the Data Protector Manager. The Data Protector Manager will open, displaying the Clients context and Next Step wizard:

Next Step Wizard



- | | | | | | | | |
|---|--------------|---|-----------------|---|--------------|---|--------------|
| 1 | Menu bar | 2 | Context list | 3 | Tool bar | 4 | Scoping pane |
| 5 | Results area | 6 | Navigation tabs | 7 | Results tabs | 8 | Status bar |

Configuring backup devices

Configuring a file library device

These instructions are for a simple file library device configuration on a local or shared drive using mostly default options. For other possibilities see the *HPE Data Protector Help* index: “configuring backup devices”.

Before you start: On Windows, disable the compression option.

1. Create a directory on a local or shared disk.
Example: C:\FileLibrary
2. Start Data Protector Manager.
3. Select **Devices & Media** from the Context List.

4. Right-click **Devices** and select **Add Device** to open the device definition pane.
5. Enter details:

Device name	Example: File Library Device 01
Description	optional
Client	Select the client to which the device is connected.
Device type	Select File Library .

Click **Next**.

6. Specify the directory for the file library device you created in step 1 and click **Add**.
7. Click **Next**. In the Results Area, select the media type: **File**.
8. Click **Finish**.

Configuring a standalone drive

Autoconfiguration

1. Select **Devices & Media** from the Context List.
2. Right-click **Device**.
3. Select **Autoconfigure Devices**.
4. Select your system from the list and click **Finish**.

Your device is configured automatically.

Manual configuration

Follow the instruction for a file library device above, up to step 4. Then:

1. Enter details:

Device name	Example: LTO-3 Tape Drive
Description	optional
Client	Select the client to which the device is connected.
Device type	Select Standalone .

Click **Next**.

2. Enter the SCSI address by expanding the field and selecting one of the options. Click **Add**.
3. Click **Next**. In the Results Area, select the correct media type, such as **LTO**.
4. Click **Finish**.

Formatting media

Data Protector writes its own header on each tape so it can be recognized later. This can be done manually, as described in this section, or automatically. Before tapes can be used with Data Protector they need to be formatted. Skip this section if you want Data Protector to format the tape automatically.

Caution: Formatting deletes all data on the media.

1. In the Devices & Media Context expand **Pools**.
2. Right-click the appropriate media pool.
3. Select **Format**.
4. In the Results Area select the drive and click **Next**.
5. Keep default settings and click **Next**.
6. Click **Force Operation** and **Default Medium Size** then **Finish**. Data Protector formats the media.

Chapter 2: Backing up your system

The following steps show how to create a backup specification and perform a simple backup:

1. In the Context List, click **Backup**.
2. In the Scoping Pane, expand **Backup** and then click **Backup Specifications**.
3. In the Results Area, right-click the **Filesystem** item and select **Add Backup**.
4. Select the **Blank Filesystem Backup** template and click **OK**.
5. In the Source page that appears in the Results Area, browse for and select the checkboxes next to the directories and files that you want to back up, then click **Next**. If you do not have a tape device connected, select just a few small directories.
6. Use the default backup specifications options or select the desired backup options and click **Next**.
7. Use the predefined schedule options or select the desired backup options and then click **Next**. For an example, see [Defining a schedule for a simple backup routine](#).
8. The backup specification summary is displayed in the Results Area. Click **Next**.
9. Click **Save As** to save the backup specification for later use.
10. Click **Start Backup** to run the backup.
11. When the Start Backup window opens, click **OK** to start the backup using the default specifications.
12. The Backup window shows you the progress of the backup session. The Session Information window will tell you when the backup is finished.

Defining a schedule for a simple backup routine

As an example, suppose you want to define a schedule with a full backup every Friday and incremental backups on other weekdays, all at 21:00h and retained for 4 weeks, plus a full backup each month retained for 12 months.

Data Protector has several predefined schedules. “Weekly full” is close to what is needed—full every Friday and Incr1 every weekday at 21:00h. Incr1 backups back up all changes since the last full backup.

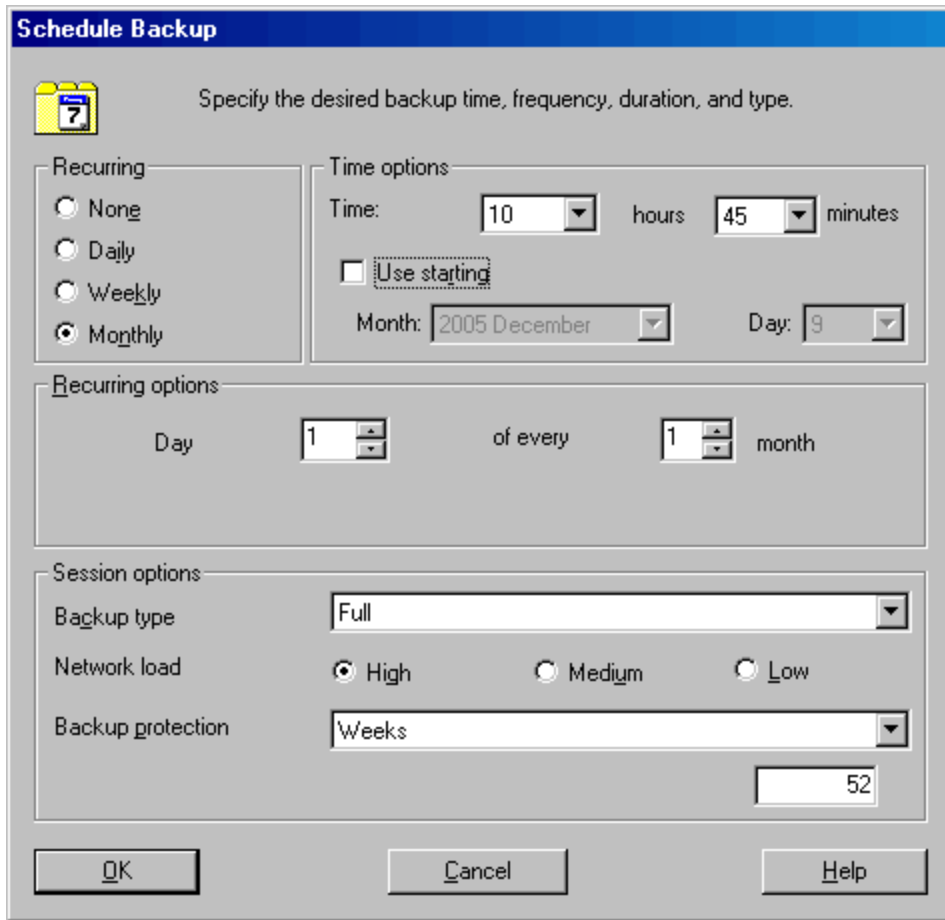
To create the defined schedule:

1. When defining your backup specification, at step 3 in [Manual configuration](#), go to the **Schedule** tab.
2. Click **Predefined**.
3. Select **Weekly full** and click **OK**.
4. Click **Add**.
5. Under **Recurring**, select **Monthly**.

Under **Time options**, specify the time for the monthly backup.

Under **Session options**, from the Backup protection drop-down list, select **Weeks** and enter the number of weeks in the box below (1 year = 52 weeks).

Schedule Backups



6. Click **OK**.
7. Click **Apply**.

Chapter 3: Restoring from a backup

By default, the backup object is restored to the same path from which it was backed up. The following steps show how to perform a simple restore:

1. In the Context List, click **Restore**.
2. Browse the **Filesystem** item and select the client object that you want to restore. The Restore view appears in the Results Area.
3. Browse for and select the check-boxes next to the directories/files to be restored.
4. Select the **Destination** tab to choose where you want to restore to. If you do not select anything, the selected directories/files will be restored to the original path.
5. Click the **Start Restore** button. The restore wizard appears.
6. Follow the proposed defaults in the wizard (click **Next** and **Finish**).
7. The Start Restore Session window opens, showing you the progress of the selected objects being restored to the system.

Chapter 4: More information

Note: The documentation set available at the HPE support website at <https://softwaresupport.hpe.com/> contains the latest updates and corrections.

You can access the Data Protector documentation set from the following locations:

- Data Protector installation directory.
Windows systems: `Data_Protector_home\docs`
UNIX systems: `/opt/omni/doc/C`
- **Help** menu of the Data Protector GUI.
- HPE Support website at <https://softwaresupport.hpe.com/>

Documentation map

The following table shows where to find information of different kinds. Squares shaded in gray are a good place to look first.

	Admin	Help	Getting Started	Concepts	Install	Troubleshooting	DR	CLI	PA	Integration VSS	Integration Guide				ZDB Guides		GRE Guide	
											MSFT	Oracle/SAP	IBM	Sybase/NDMP	Virtual Env	ZDB Admin	ZDB IG	Exchange
Admin tasks	X	X																
Backup		X	X	X						X	X	X	X	X	X	X		
CLI								X										
Concepts, techniques		X	X							X	X	X	X	X	X	X	X	X
Disaster recovery				X			X											
Installation, upgrade			X		X				X									
Instant recovery				X	X									X	X			
Licensing					X				X									
Limitations	X				X	X			X	X	X	X	X	X		X		
New features		X							X									
Planning strategy		X		X														
Procedures, tasks	X	X			X	X	X			X	X	X	X	X	X	X	X	X
Recommendations				X					X									
Requirements					X				X	X	X	X	X	X				
Restore	X	X	X	X						X	X	X	X	X	X	X	X	X
Supported configurations				X														
Troubleshooting		X			X	X				X	X	X	X	X	X	X	X	X

Abbreviations

Abbreviations in the documentation map above are explained below. The documentation item titles are all preceded by the words “HPE Data Protector.”

Abbreviation	Documentation item	
Admin	Administrator's Guide	This guide describes administrative tasks in Data Protector.
CLI	Command Line Interface Reference	This guide describes the Data Protector command-line interface, command options, and their usage as well as provides some basic command-line examples.
Concepts	Concepts Guide	This guide describes Data Protector concepts, zero downtime backup (ZDB) concepts, and provides background information on how Data Protector works. It is intended to be used with the task-oriented Help.
DR	Disaster Recovery Guide	This guide describes how to plan, prepare for, test, and perform a disaster recovery.
Getting Started	Getting Started Guide	This guide contains information to get you started with using Data Protector. It lists installation prerequisites, provides instructions on installing and configuring a basic backup environment and procedures for performing backup and restore. It also lists resources for further information.
GRE Guide	Granular Recovery Extension User Guide for Microsoft SharePoint Server, Exchange and VMware	<p>This guide describes how to configure and use the Data Protector Granular Recovery Extension for:</p> <ul style="list-style-type: none"> • Microsoft SharePoint Server • Exchange Server • VMware vSphere
Help	Help	
Install	Installation Guide	This guide describes how to install the Data Protector software, taking into account the operating system and architecture of your environment. This guide details how to upgrade Data Protector, as well as how to obtain the proper licenses for your environment.

Abbreviation	Documentation item	
Integration Guide	Integration Guide	<p>This guide describes the integrations of Data Protector with the following applications:</p> <ul style="list-style-type: none"> • MSFT: Microsoft SQL Server, Microsoft SharePoint Server, and Microsoft Exchange Server. • IBM: Informix Server, IBM DB2 UDB, and Lotus Notes/Domino Server. • Oracle/SAP: Oracle Server, MySQL, SAP R3, SAP MaxDB, and SAP HANA Appliance. • Sybase/NDMP: Sybase and Network Data Management Protocol Server. • Virtual Env: Virtualization environments integration with VMware vSphere, VMware vCloud Director, Microsoft Hyper-V, and Citrix XenServer.
Integration VSS	Integration Guide for Microsoft Volume Shadow Copy Service	<p>This guide describes the integrations of Data Protector with Microsoft Volume Shadow Copy Service (VSS).</p>
IG IDOL	Integration with Autonomy IDOL Server	<p>This technical white paper describes all aspects of integrating Data Protector with Autonomy IDOL Server: integration concepts, installation and configuration, Data Protector backup image indexing, full content search-based restore, and troubleshooting.</p>
PA	Product Announcements, Software Notes, and References	<p>This guide gives a description of new features of the latest release. It also provides information on installation requirements, required patches, and limitations, as well as known issues and workarounds.</p>
Troubleshooting	Troubleshooting Guide	<p>This guide describes how to troubleshoot problems you may encounter when using Data Protector.</p>
ZDB Admin	ZDB Administrator's Guide	<p>This guide describes how to configure and use the integration of Data Protector</p>

Abbreviation	Documentation item	
		with HPE P4000 SAN Solutions, HPE P6000 EVA Disk Array Family, HPE P9000 XP Disk Array Family, HPE 3PAR StoreServ Storage, NetApp Storage, EMC VNX and EMC VMAX Storage families, and EMC Symmetrix Remote Data Facility and TimeFinder. It is intended for backup administrators or operators. It covers the zero downtime backup, instant recovery, and the restore of filesystems and disk images.
ZDB IG	ZDB Integration Guide	This guide describes how to configure and use Data Protector to perform zero downtime backup, instant recovery, and standard restore of Oracle Server, SAP R/3, Microsoft Exchange Server, Microsoft SQL Server databases, and Virtual Environment for VMware .

Integrations

Software Application Integrations

Software application	Guides
Autonomy IDOL Server	IG IDOL
IBM DB2 UDB	Integration Guide
Informix Server	Integration Guide
Lotus Notes/Domino Server	Integration Guide
Microsoft Exchange Server	Integration Guide, ZDB IG, GRE Guide
Microsoft Hyper-V	Integration Guide
Microsoft SharePoint Server	Integration Guide, ZDB IG, GRE Guide
Microsoft SQL Server	Integration Guide, ZDB IG
Microsoft Volume Shadow Copy Service (VSS)	Integration VSS

Software application	Guides
Network Data Management Protocol (NDMP) Server	Integration Guide
Oracle Server	Integration Guide, ZDB IG
MySQL	Integration Guide
SAP HANA Appliance	Integration Guide
SAP MaxDB	Integration Guide
SAP R/3	Integration Guide, ZDB IG
Sybase Server	Integration Guide
VMware vCloud Director	Integration Guide
VMware vSphere	Integration Guide, ZDB IG, GRE Guide

Disk Array System Integrations

Look in these guides for details of the integrations with the following families of disk array systems:

Disk array family	Guides
EMC Symmetrix	all ZDB
HPE P4000 SAN Solutions	Concepts, ZDB Admin, Integration Guide
HPE P6000 EVA Disk Array Family	all ZDB, Integration Guide
HPE P9000 XP Disk Array Family	all ZDB, Integration Guide
HPE 3PAR StoreServ Storage	Concepts, ZDB Admin, Integration Guide
NetApp Storage	Concepts, ZDB Admin, ZDB IG
EMC VNX Storage family	Concepts, ZDB Admin, ZDB IG
EMC VMAX Storage family	Concepts, ZDB Admin, ZDB IG

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Feedback on Getting Started Guide (Data Protector 9.08)

Just add your feedback to the email and click send.

If no email client is available, copy the information above to a new message in a web mail client, and send your feedback to AutonomyTPFeedback@hpe.com.

We appreciate your feedback!