

HP Smart Online and Backup Recovery Service

HP Care Pack Services



The HP Care Pack Smart Online and Backup Recovery Service provides automated online backup and recovery for Intel®-based Microsoft® Windows® 2000, Windows 2003, and Red Hat Linux® Enterprise Edition 3 servers. The primary objectives of the service are to help protect critical data and minimize total data protection costs. HP provides this service in cooperation with LiveVault Corporation.

The HP Care Pack Smart Online and Backup Recovery Service provides you with access to your own online backup service. The service backs up your data to a data center that is monitored and managed by LiveVault Corporation, an authorized subcontractor of HP. Access to the service is provided through a personalized Web management interface. Dynamic Web pages display the current status of backup and restore jobs, provide access to backup administration, and provide access to restore requests through an integrated view of current and historical data. Restore requests can be delivered either online in encrypted form over the Internet or through the shipment of network-attached storage (NAS).

Service benefits

- **Protection of critical data**—This service helps to reduce many manual, error-prone, and disaster-exposed steps in traditional tape recovery and replaces them with an automatic process that stores Customer data in secure offsite vaults. Your data is backed up using AES encryption and digital certificate authentication or other equivalent technologies.
- **Cost-effective solution**—Although at first glance this service may appear slightly more expensive than tape backup, once you have taken into account reduced labor costs, free Internet restores, and the increased level of protection of your business-critical data, the cost is likely to be significantly less than tape backup and recovery. The service provides built-in protection for open files and databases, without requiring third-party agents or open file managers.
- **Improved utilization of IT staff**—Rather than having your IT staff spend their time on handling tapes for backups, taking tapes offsite, requesting tapes for restores, and other mundane and error-prone tasks, this service allows you to use your staff for other activities. Once set up, the process will typically run unattended unless a file or database restore is needed.
- **Convenience**—Enjoy the convenience and peace of mind that comes with completely tapeless backup and recovery.

Service feature highlights

- Data protection and recoverability
- The Smart Online and Backup Recovery Service
 - System requirements
 - Bandwidth requirements
 - Restrictions and limitations
 - Initial protection time
- Customer service

Specifications

Table 1. Service specifications

Feature	Delivery specifications
	<p>The HP Care Pack Smart Online and Backup Recovery Service will back up the data selected by the Customer for each protected server under contract, up to the maximum gigabyte limit for the Care Pack Service. Customers exceeding the purchased limit for their server plan will be charged for any overage at the same rate, per GB, the Customer paid for their Care Pack plan.</p> <p>This service will perform to the service levels specified below for any protected server after the initial backup has taken place on the protected server.</p>

Specifications

Table 2. Data protection

Feature	Delivery specifications
Current data protection	<p>Backup configurations can be set to run either continuously (24x7) or on a scheduled basis. When a backup configuration is running, only changes to files and databases the Customer has selected for backup on the protected server are captured by the Online Backup and Recovery Agent, encrypted and sent to the Online Backup and Recovery server. Queued changes, as defined below, are sent to the Online Backup and Recovery server when there is a valid connection, as defined below, between the protected server and the Online Backup and Recovery server and there are no preceding items waiting to be sent.</p> <p>Changes arriving at the Online Backup and Recovery server are saved to disk when the Online Backup and Recovery software deems it a safe point to write the file(s) in order to help verify data integrity. The result is that the changes are written to the Online Backup and Recovery server in as little as one second or as much as two hours from the time the changes occur on the protected server.</p>
Historical data protection	<p>Historical images of Customer data are retained based on one of the following retention periods, as purchased by the Customer:</p> <ul style="list-style-type: none">• 30-day service: The Online Backup and Recovery servers hold daily backups of Customer data for 30 days. The Customer may initiate restore requests from any of these data sets.• 1-year service: The Online Backup and Recovery servers hold daily backups of Customer data for 30 days and copies from the end of each month for the past 12 months. The Customer may initiate restore requests from any of these data sets.

Specifications

Table 3. Recoverability *continued*

Feature	Delivery specifications			
Restore performance	Restore time over the network is limited by Customer connection bandwidth speed and quality, up to speeds of approximately 2 Mbps. At speeds faster than 2 Mbps, other factors may limit network restore times. The time elapsed before a restore begins is variable and largely determined by whether current or historical data is being restored. The following table provides approximate restore times, after a restore has started, for various bandwidths and data sizes:			
	Total restored data (MB)			
		20	100	1,000
	Bandwidth (kbps)	Time (in hours)		
	384	0.1	0.5	4.8
	1,000	0.1	0.2	1.9
	1,500	0.1	0.1	1.3
	>7,000 or LAN	0.1	0.1	0.4
	Total restored data (MB)			
		4,000	10,000	
	Bandwidth (kbps)	Time (in hours)		
	384	19.3	48.3	
	1,000	7.4	18.5	
	1,500	5.0	12.4	
>7,000 or LAN	1.6	4.0		
Restore estimations assume at least 60% of the subscribed bandwidth is available for the restore. Network performance, data compression, and Customer systems affect restore times.				
Should HP, through its authorized subcontractor LiveVault Corporation, as part of its monitoring function, observe any unusual, abnormal, or excessive number of restore requests, then HP reserves the right to require the Customer to modify the Customer's procedures in this area.				
Physical media restores (NAS)	Restores via physical media utilizing NAS disks is supported. Each NAS device is rented to the Customer and must be returned to HP within two (2) weeks of shipment from HP. The Customer is responsible for arranging return shipment.			
	Shipment of physical media restores is dependent on the time the restore request is received and the amount of data being restored. The following table indicates the latest time at which the physical media will be available for shipment based on the time the restore is requested and the actual amount of data being restored.			
	Request submitted (EST)			
	Restored data	by 5:00 p.m.	5:00 p.m.–12:00 a.m.	
0–100 GB	Next day (5:00 p.m. EST)	Next day (5:00 p.m. EST)		
100–200 GB	Next day (5:00 p.m. EST)	Second day (9:00 a.m. EST)		
200+ GB	After the initial delivery, as described above, an additional 200 GB will be available for shipment each 24-hour period until the complete restore is shipped.	After the initial delivery, as described above, an additional 200 GB will be available for shipment each 24-hour period until the complete restore is shipped.		

Specifications

Table 4. The Online Backup and Recovery Service

Feature	Delivery specifications
	<p>When used in accordance with the following usage requirements and guidelines, the HP Care Pack Smart Online Backup and Recovery Service provides online backup protection for the operating systems listed below. The service is able to protect applications, open files, open databases, and registry and security information.</p> <p>To deploy the service, the Customer must download a software module (the "Online Backup and Recovery Agent") from http://hp.onlinebackup.com onto each server to be protected. Once configured and deployed, the Online Backup and Recovery Agent replicates and synchronizes the selected data in its entirety to one of HP's offsite data storage backup vaults (the "Online Backup and Recovery server"). After the initial backup, only changes to files and databases selected for backup on the protected server are sent to the Online Backup and Recovery server.</p> <p>The Customer manages the HP Care Pack Smart Online Backup and Recovery Service through a Web management interface that is personalized with the Customer's custom content. A dynamic management page shows the current status of all of the Customer's backup and restore jobs and enables the Customer to make immediate modifications or requests. The Customer may view an inventory of all data files, current and historical, initiate restores from the Web, and view all backup and restore processes.</p> <p>The Customer backup and restore processes are also monitored and managed by LiveVault Corporation, an authorized subcontractor of HP. If any problems arise, HP Customer Service will notify the Customer and suggest corrective action.</p> <p>From time to time this service level may change. A modification may include changes in system requirements, restrictions, limitations, or bandwidth requirements. The Customer will be notified at least 30 days prior to such service-level changes via electronic mail and through a Web site posting, whose location will be specified in the electronic mail notification. The Customer is responsible for ensuring that the Customer's system conforms to any updated restrictions, limitations, or requirements.</p>
Disclaimer	<p>In the event that the Customer's use of the HP Care Pack Smart Online Backup and Recovery Service is adversely affecting the operation of the service, the Customer's service may be terminated by HP without liability to HP, its distributors or suppliers, or other end users, upon prior written notice (from HP or its authorized distributor, as the case may be) unless, in HP's sole discretion, a technical emergency shall require immediate termination (which shall be without liability to HP, its distributors or suppliers, or other end users) in order to prevent Customer use of the service from adversely affecting the effectiveness of the Online Backup and Recovery Service for other end users, or to preserve system integrity or prevent network abuse. If this is the case, notice shall be provided to the Customer via telephone call and e-mail promptly following such emergency termination. The Customer is responsible for updating HP and the authorized distributor, if any, as to any changes to Customer e-mail and contact information to facilitate communication of these notices.</p>
System requirements	<p>The Customer is responsible for ensuring that each of its protected servers meets the following system requirements in order to effectively utilize the HP Care Pack Smart Online Backup and Recovery Service:</p> <ul style="list-style-type: none">• A continuously available Internet connection with an upload speed of at least 56 Kbps (see "Bandwidth requirements" for specifics)• Windows Server 2003 (Standard, Enterprise, or Web Edition), Windows Storage Server 2003, Windows 2000 (Professional, Server, or Advanced Server), Server Appliance Kit (SAK), Windows XP, or Red Hat Linux Enterprise Edition 3• FAT-32 and NTFS or NTFS 5.0 with Windows 2000 file systems; NTFS or NTFS 5.0 with Windows 2003• Pentium II or faster CPU technology• 128 MB of free memory under normal load• The greater of 150 MB or 5% free disk space
Bandwidth requirements	<p>The HP Care Pack Smart Online Backup and Recovery Service is able to measure the rate at which data on a protected server is changing. After a few hours of routine operation, during normal business hours, HP will be able to provide an estimate of the completion time for the initial backup and an estimate of bandwidth required for Customer continuous operation of the Online Backup and Recovery Service. Bandwidth requirements are based on a combination of rated bandwidth, latency, and bandwidth error rates. The estimated completion time will be available on the Customer custom Web page. Customers will be notified if HP determines that there is insufficient bandwidth for Customer continuous operation.</p> <p>Changes are sent to the Online Backup and Recovery server when there is a valid connection between the protected server and the Online Backup and Recovery server. "Valid connection" means that the bandwidth actually available between protected server(s) and the Online Backup and Recovery server is adequate for the amount of data being protected and the rate of the data changes as discussed below. The bandwidth actually available can be affected by other network traffic into or out of Customer premises and may be affected by occasional or intermittent slowdowns or interruptions in the network path(s) to the Online Backup and Recovery server. The HP Care Pack Smart Online Backup and Recovery Service will continue operation during brief periods when limited bandwidth is available and will automatically resume operation following network interruptions; however, changes that occur on the protected server will require additional time before they are saved to disk at the Online Backup and Recovery server.</p>

Specifications

Table 4. The Online Backup and Recovery Service *continued*

Feature	Delivery specifications										
	HP estimates that a typical file system will see a daily change rate of 5%. At this change rate, the expected bandwidth requirement is 20 Kbps per protected gigabyte (GB). The following table provides an estimate of the upstream bandwidth required to protect various amounts of data:										
	<table border="1"><thead><tr><th>Protected GB</th><th>Bandwidth</th></tr></thead><tbody><tr><td>6 GB</td><td>128 Kbps</td></tr><tr><td>20 GB</td><td>384 Kbps</td></tr><tr><td>60 GB</td><td>1.0 Mbps</td></tr><tr><td>80 GB</td><td>1.5 Mbps</td></tr></tbody></table>	Protected GB	Bandwidth	6 GB	128 Kbps	20 GB	384 Kbps	60 GB	1.0 Mbps	80 GB	1.5 Mbps
Protected GB	Bandwidth										
6 GB	128 Kbps										
20 GB	384 Kbps										
60 GB	1.0 Mbps										
80 GB	1.5 Mbps										
	Highly dynamic servers such as mail servers and active database servers may have additional bandwidth requirements. Higher rates of change will result in a linear increase in bandwidth required.										
	Increased amounts of protected data, increased rates of data change, other demands for bandwidth, or other factors that contribute to latency may, at a given time, limit the effectiveness of the Customer's use of HP Smart Online Backup and Recovery Service.										
Initial protection time requirements	The initial backup process for each protected server must complete before a protected server is fully protected by the HP Care Pack Smart Online Backup and Recovery Service. This process may take several days. Data transfer rates for the initial backup can be estimated at 2 GB per day for each 256 Kbps of available bandwidth. The data transfer rate may improve by as much as 50% when a few large files, as opposed to an equivalent amount of data consisting of many smaller files, are being protected. Typically, if only the minimum bandwidth is available for the given capacity, it could take nine days or more to complete the initial backup. It is recommended that Customers have enough bandwidth to complete the initial backup for any single large file in five days or fewer. Extended network interruptions can force a re-transmission of the current file, thereby delaying the Customer's initial backup.										

Customer service

The HP Care Pack Smart Online Backup and Recovery Service provides the Customer with access to customer service as follows:

- Maintenance updates to the Online Backup and Recovery Agent: Updates include any corrections and patches to the Online Backup and Recovery Agent and the Online Backup and Recovery Service as well as any available improvements of existing features.
- Technical support: Technical support for the service is available during normal business hours, which are 8:30 a.m. to 5:00 p.m. Eastern Time, Monday through Friday except HP holidays.
- Off-hours technical support for the service: Customers may request technical support by using the e-mail and telephone number available at <http://hp.onlinebackup.com>.

Customer responsibilities

This service will be considered activated upon the completion of the following Customer setup procedures.

Customer setup:

- Register your HP Care Pack. A Customer contact e-mail address is required as part of the Customer's registration information to help ensure receipt of HP Care Pack documentation and to activate the service.
- During the registration process you will receive a welcome letter e-mail from HP containing your HP Care Pack serial number and instructions for activation. This e-mail notification will instruct you to log on to <http://hp.onlinebackup.com>, and it will request that you enter additional information necessary to complete the registration process.

Server provisioning (after completion of Customer setup):

- You should log on to <http://hp.onlinebackup.com> and request the addition of the servers you wish to be protected.
- The service will define security provisions and build a secure software download for you to install. This process will complete by the next business day, and you will be notified via e-mail that the download is available.
- You may then download and install the software agent onto the pre-designated protected server, set up your backup policies, and begin the initial synchronization of the server.

- The initial synchronization is complete once all the data designated by the backup policies is transferred to the backup systems.

Service limitations

The service only supports Windows 2000, Windows Server 2003, and Red Hat Linux Enterprise Edition 3 servers with Pentium II (or faster) processors. The service also requires an always-on Internet connection.

The service does not support Windows 98, Windows NT, UNIX®, Novell Netware, laptop computers, or dial-up connections.

This service is available in the United States and Canada.

Media restores

Per-incident Customer-requested data restores to an alternate media will be billed separately to the Customer by HP, based on the following prices:

- NAS restore: \$25 per GB or portion thereof, plus shipping (subject to a minimum \$400 charge)

NAS devices must be returned to HP within two weeks of the date the device is shipped to the Customer, otherwise an additional charge equal to the initial charge for the restore will be applied every two weeks until the NAS device is returned.

For more information

For more information on HP Care Pack Services, contact an HP Authorized Reseller or visit our Web site for SMB Smart Support Services:

www.hp.com/go/carepack

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