One of the most common challenges for enterprises is dealing with the exponential volumes of data. With growth comes several data management challenges – meeting stringent backup service-level agreements (SLAs), keeping up the desired Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO), and simplifying and enhancing remote office protection. IT organizations are challenged to do more with limited budgets and fewer IT resources. Meeting these pain points requires a paradigm shift towards optimized data protection.

HP, the leader in storage infrastructure solutions, and Symantec, the leader in data and information management, have partnered together to modernize data protection for enterprises dealing with challenges of every day data protection.

**Business challenges for data protection**
Organizations spend over 70% of time on maintaining current infrastructure and only 30% on business innovations.

**Challenge: Meeting backup windows for explosive data environments**
The IT industry is undergoing a transformation. Various analyst studies suggest that data is doubling every 12–18 months. The emergence of new information sources and the appetite to access data instantly is exerting pressure on IT to protect and manage all of these information assets. Legislations such as Sarbanes Oxley and others are mandating organizations to retain information longer and restore data quickly for the purposes of eDiscovery. Additionally, IT organizations are faced with the challenge of backing up all of the information within the backup window to meet the SLAs. Traditional backup and recoveries are too slow and often fail to meet the required business SLAs for today’s data center.

**Solution: Reduce backup windows, increase data protection and eliminate business risk**
What’s your data worth? Is your data adequately protected? HP StoreOnce Catalyst with NetBackup delivers ground breaking 100 TB/hour backup performance and industry leading 40 TB/hour restore performance. This is 3x faster than competing solutions and helps you meet stringent backup windows. This means less time to manage backups and more time to focus on business operations and generate revenue.

In response to rapid and unpredictable data growth, organizations often tend to add more data protection devices to manage exponential volumes of data. This leads to system sprawl and increased management complexities. While disk-based data protection and deduplication solutions have clearly emerged as alternatives to the traditional tape-based backup and recovery, the first wave of deduplication technologies had several limitations including incompatible technology silos, restricted scale and performance, untenable SLAs and backup failures, fully hydrated copy, and distributed and complex management.

**Deduplication 2.0: Breakthrough architecture**
To address the limitations and break through the barriers of incompatible silos of deduplication, HP is delivering Deduplication 2.0 technology which enables:

- **Federated deduplication** – A common deduplication algorithm across all access points and storage systems. No more reconstituting data as it traverses from edge to core—saving bandwidth, improving backup and restore performance, and simplifying management.
- **Industry-leading restore performance** – HP understands that Big Data requires fast restores. HP StoreOnce offers up to 40 TB/hour restore speeds.
- **High availability and scalability** – Built-in redundancy and failover capabilities prevent manual intervention in case of failed jobs, a crucial consideration for large data centers that have to backup several hundreds to thousands of servers on a regular basis.
- **Simplicity** – Centralized and lights out data management for enterprise wide data protection, greater control, and reduced administrative complexities.

**HP StoreOnce and StoreOnce Catalyst with NetBackup**
The HP StoreOnce appliances are deduplicating backup targets delivering on deduplication 2.0 vision and are designed to meet the storage backup demands of small, medium, and large enterprises. HP StoreOnce B6200 Backup is an enterprise-class, deduplication-based backup appliance incorporating scale-out architecture. A new level of integration is now available for HP B6200 and Symantec NetBackup through OpenStorage Technology (OST) via a software feature called StoreOnce Catalyst.
StoreOnce Catalyst enables the deduplication process to be distributed between the NetBackup Media Servers and the StoreOnce appliance, reducing stress on the backup server and significantly boosting performance of the backup operation. With backup performance of 100 TB/hour, organizations can meet any stringent backup SLAs and protect their information.

The StoreOnce employs adaptive micro-chunking technology with variable data chunking to deliver significantly better deduplication that allows 95% more data to be stored on the appliance, saving space, as well as aiding faster data recovery (DR).

Challenge: Complex disaster recovery provision

We know from a number of sources that companies that are unable to recover from catastrophic data loss are likely to go out of business within a few weeks. Recent worldwide events have made us all too aware of the fact that a disaster resulting in fire, flood, or building collapse can strike without warning, taking systems, data, and businesses with them. With traditional data replication as an expensive option, tapes are frequently used to transport the data from remote sites to the data center, or using snapshots to replicate data over a normal wide area network (WAN) link.

• **Cost overhead** – From physically transporting data from the remote site to the data center, or using snapshots to replicate data over a normal wide area network (WAN) link

• **Downtime** – The loss in productivity from the delay in restoring files that have been protected but held outside the data center

Solution: Meet business continuity with our extensive disaster recovery options

Did you know that HP StoreOnce appliances are 5x faster for recovery and offer up to 75% price/performance advantages over competing offerings?¹

For many years, enterprises have resorted to traditional tape-based vaulting to off-site locations as a primary mechanism for disaster recovery. Tape is a very good option for longer term retention, and should be part of overall data protection strategy of any organization. In the highly competitive world, fast recovery is absolutely critical to keep business running, and helps to ensure

¹ EMC recently introduced DD990 has maximum BU speed with Boost of 31 TB/hr. The maximum BU speed for a B6200 with Catalyst is 100 TB/hr. Assume the DD990 backs up all of a customer’s data in 8 hours. The B6200 could backup this same amount of data in 2.5 hours (100/31 = 3.2x faster for HP. 8 hours/3.2 = 2.5 hours/day. 8 hours – 2.5 hours = 5.5 hours saved each and every day.) 5.5 hours/day x 365 days/year /30 days/month = ~3 months.
higher customer satisfaction. Having multiple copies of consistent backup images are not only essential but highly desired, and disk-based systems have emerged as an alternative. Multi-site disaster recovery was previously not possible due to cost and bandwidth constraints.

**NetBackup Controlled Replication**
As in Figure 1, the HP StoreOnce Catalyst for Symantec NetBackup enables the "Optimized duplication" feature that allows backup application to control the underlying replication capabilities of the HP B6200 StoreOnce, and send those backup copies to multiple locations. The HP B6200 appliance only transmits the changed blocks over to another B6200 appliance at the remote data center, saving time and up to 99% reduction in bandwidth helping to lower the cost of data protection.

Customers can choose between concurrent replication of content or use multi-hop or cascaded copy of backup images to multiple data centers, eliminating the need to ship and store tapes. The StoreOnce Catalyst enables NetBackup to track, monitor, and control the replication of backup. The catalog is updated and backup images can be restored from any of the available recovery sites. The entire process from backup to offsite replication is automated for reliable, error free, and simplified DR protection.

**NetBackup storage lifecycle policies enables asymmetric retention**
With HP StoreOnce Catalyst integration and NetBackup, the backup image replica is treated as a copy, allowing NetBackup administrators to set asynchronous retention policies and asymmetric expiration of data copies. Storage lifecycle policies ensure that all necessary backup is created in the correct locations and with the right retention periods without needing to create separate duplication jobs. For long-term retention, data can be migrated to a tape device at any location.

This single pane-of-management provides backup administrators with a greater control over data protection while significantly reducing the cost of management.

Symantec and HP have collaborated for a long time to help our customers protect their data. The technologies have continued to evolve, but our customer-focused relationship has remained constant. Symantec is leading the way to provide better backup for all with a goal to drive out up to 80% of the operating costs out of backup. This cannot be achieved without the NetBackup OST program and partners like HP, who have integrated into the NetBackup ecosystem to provide industry-leading performance for backup and restores with up to 100 TB/hour backup and up to 40 TB/hour restore and simplicity through a pay-as-you-grow, scale-out architecture.”

—Matt Cain Vice President, Information Management Group, Symantec

**Challenge: Unreliable remote office backup**
Recent reports suggest that there are a growing number of remote and branch offices for each enterprise, and that as much as 50% of company data may reside outside of the data center.

Several ROBO sites are still using tape based backup and recovery methods. Often times, the backup is handled by non-IT staff making backup unreliable at best, overlooked completely at worst. Transporting tapes offsite makes for slow recovery and loss of productivity. Tapes lost in transportation poses serious compliant threats and risk.

**Solution: Secure remote office protection**
The HP StoreOnce eliminates data protection risks through automated backup and recovery process at the remote sites. The HP StoreOnce Catalyst for NetBackup running on NetBackup Media Servers can send the deduplicated data over low bandwidth links to the HP StoreOnce B6200 Appliance at the main data center. This tape consolidation strategy reduces manual labor, eliminates the need to ship tapes, and ensures complete remote site protection and fast recovery from the StoreOnce B6200 appliance from any of the available sites. Centralized management ensures complete data protection delivers IT cost efficiencies. A single highly scalable StoreOnce B6200 appliance can act as a backup target for up to 384 remote locations. The lights-out data management automates backup and recovery, reducing administration burden while providing enterprise-class data protection to remote sites simultaneously.

**Challenge: Dreaded 3:00 a.m. wake up calls**
It is an understatement to say that data protection and, in turn, data availability are critical business needs. Have you had the dreaded 3:00 a.m. early morning call to a backup administrator regarding a failed backup job? Knowing that backup failure was caused by the failed storage disk backup target can be quite unsettling. Extending the backup operation during business hours can mean disrupting the business operations and diminishing SLAs for business applications. To ensure recovery in the event of a disaster, IT organizations require data to be highly available, regardless of its age or backup location to ensure daily business challenges are met.

**Solution: High availability with autonomic restart**
The HP StoreOnce B6200 StoreOnce Backup System is the industry’s first and only scale-out dedupe solution with automated node failover—enabling no single-point-of-failure from a number of perspectives. To enable high availability of data, an autonomic restart feature of the HP StoreOnce B6200 StoreOnce is designed to eliminate failed backups across nodes, controllers, cache, disks, paths, power, and cooling. The autonomic restart of the HP StoreOnce B6200 provides Symantec NetBackup self-managing characteristics to adapt to unpredictable failure modes without
any scripting. The backup jobs are automatically restarted after the node failover without manual intervention, simplifying backup management, which saves time and costs. The pay-as-you-grow architecture allows addition of capacity and performance only as needed without downtime eliminating costly forklifts and costs associated with expansion.

**Extending the value of Symantec NetBackup 5200**

Customers using Symantec NetBackup Media Server 5200 appliance now have the option to seamlessly expand the capacity of the NetBackup Media Server using the highly scalable and high performance HP StoreOnce B6200. The capacity expansion is made possible via the OST plug-in installed on the 5200 appliance to leverage HP StoreOnce B6200 scalable capacity backend. With this Symantec customers can enjoy all the scalable and high availability benefits of HP StoreOnce B6200 appliance.

**HP Services**

Tap into the HP support services advantage, backed by the strategic and technical know-how of our consulting experts, for a single source solution that makes more effective use of your investments. The HP Backup and Recovery Solution service, designed to accelerate technology return on investment helps customers reduce the implementation time and impact on the backup environment while achieving more effective data management. The Installation and Start-up services helps with right installation, tailored deployment of StoreOnce Backup systems, and ensures the technology is properly integrated into your environment.

### HP StoreOnce and Symantec NetBackup – enhancing modern data protection

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<th>Feature</th>
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| Industry-leading backup performance of up to 100 TB/hour with StoreOnce Catalyst and 40 TB/hour native restores | • Meet backup and recovery SLAs  
• Enables business continuity and uptime.  
• Up to 3x faster backup and 5x faster restore than competitive solutions  
• Up to 75% price/performance advantages |
| Scale-out capacity and autonomic failover and restart of backup jobs    | • Provides high availability  
• Low upfront investment and non-disruptive growth  
• Ensures backups complete on time and offers greater data protection |
| Federated deduplication or Zero Hydration Single Deduplication technology at application source, backup server, or target appliance | • Deployment independence  
• Cost efficiencies – 95% reduction of storage and 99% reduction in bandwidth requirements  
• Simplified management and deployment flexibility |
| Optimized duplication and storage lifecycle policy control              | • Mitigates risk with consistent and cost-efficient disaster recovery copies  
• Enables faster recovery from any surviving site to helps meet RTO |
| Centralized management, lights-out data management                      | • Manage backup and disaster recovery operations from a single console |

For more information on HP StoreOnce and Symantec NetBackup solutions, please get in touch with your HP storage sales rep or HP authorized channel partner. For additional information visit [hp.com/go/storeonce](http://hp.com/go/storeonce) and [symantec.com](http://symantec.com).