Overview

New challenges and unique environments

In today’s enterprise, information technology groups continue to struggle to meet backup and recovery requirements. Companies now manage more servers and data in a greater variety of locations and environments than in the past. They manage servers not only in a primary data center, but also in distributed locations outside the data center. In addition, many of the servers now reside in virtual environments which can complicate data protection. Continuous data growth rates of 30-50 percent per year now strain the backup process, because in most cases available network bandwidth cannot keep pace with data growth. Meeting backup windows continues to be a challenge not only in the data center, but beyond it as well.

Distributed environments, typified by many remote offices or servers outside the data center, face the challenge of where to back up data locally (tape or disk) and how to send a copy offsite for disaster recovery. The traditional approach of local tape backups can be unreliable, cumbersome, and expensive. The alternative approach, sending backup data over a wide area network (WAN), becomes untenable as data growth exceeds available bandwidth.

In virtual environments, a traditional streaming backup can strain even the smallest configuration because it consumes both CPU and network bandwidth needed by other servers. The alternative, a backup of the entire virtual environment, eliminates this problem but results in larger backups and slower recovery because companies lose the ability to quickly recover individual files or directories.

Veritas NetBackup PureDisk™ software can address these challenges and enable companies to centrally manage and protect data across distributed, virtual, and data center environments.

The Symantec solution

Veritas NetBackup PureDisk offers a secure, storage-optimized data protection solution for enterprise environments with distributed data, remote offices, and network-based backups. This disk-based backup solution dramatically reduces the size of backups and the network bandwidth required to perform them by using PureDisk data deduplication technology at the source (or client) of a backup. PureDisk data deduplication technology allows customers to cost-effectively substitute disk for tape-based backups. Finally, NetBackup PureDisk offers web-based administration and data recovery which streamlines management and access to important data.

Key benefits

- Optimized protection for decentralized data using data deduplication
  - Can reduce total storage consumed from backups by 10–50 times
  - Can reduce network bandwidth required for daily full backups by up to 500 times
- Flexible recovery from disk at multiple locations
- Manage backup storage growth with an open and scalable storage system
- NetBackup integration for enhanced functionality
Optimized protection for decentralized data

Traditional network-based methods are increasingly insufficient for protecting both decentralized and virtual servers. NetBackup PureDisk performs data deduplication at source (or client) which enables companies to overcome network limitations and improve their storage utilization. Because decentralized data is often in less secure locations, customers can also choose to encrypt local backup data to secure it at rest, in transit, and at another site. The smaller backups by NetBackup PureDisk minimize overhead associated with encryption. Moving less data and using less storage for backups can free up existing resources to help customers meet backup windows.

Flexible recovery from disk at multiple locations

NetBackup PureDisk can efficiently replicate globally unique file segments to another site for centralized backup and recovery. PureDisk data can also be replicated from the data center to another location for enhanced disaster recovery from disk. Customers can vary the retention time of data between locations for greater flexibility with how and where they manage online backup data. Finally, NetBackup PureDisk presents every backup as a full backup, which simplifies recovery wherever it occurs.

Manage backup storage growth with an open and scalable storage system

A core part of PureDisk technology is its open and scalable storage system used to catalog and store backup data. Customers can use any type of storage as a target for deduplicated data and a wide array of enterprise servers to

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<table>
<thead>
<tr>
<th>Backup method</th>
<th>Traditional Network Backup</th>
<th>NetBackup PureDisk Deduplication*</th>
<th>Data/bandwidth reduction factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>First full backup</td>
<td>100%</td>
<td>25%</td>
<td>4x</td>
</tr>
<tr>
<td>Incremental backup</td>
<td>12%</td>
<td>1%</td>
<td>12x</td>
</tr>
<tr>
<td>Second full backup</td>
<td>100%</td>
<td>1%</td>
<td>100x</td>
</tr>
</tbody>
</table>

* Based on standard office files. Results can vary based on data type and environment.
host NetBackup PureDisk software. As needs or data grows, both catalog (or metadata) and storage can be expanded in a modular fashion. Finally, features like load balancing, online server-failover, and flexible disaster recovery provide customers with greater control over their environment.

**What's new**
- Online failover to spare node high availability
- Integration with Veritas™ Backup Reporter
- Enterprise directory services authentication
- Data Lock to prevent unauthorized access to backup data
- Version-based retention

**Detailed features and benefits**

**Data deduplication across the data center, virtual environment, and remote office**
- Can reduce network bandwidth required for daily full backups by up to 500 times
- Can dramatically reduce total storage consumed from backups by 10–50 times

**Fast and flexible data recovery**
- Recover data from a local server, a data center, or another remote site
- Quickly search for and recover files using a Web-based interface

**Highly scalable storage architecture with online failover**
- Protect small offices (one or two servers) or large ones with the same technology
- Easily expand storage capacity by adding PureDisk servers connected to any disk-based storage device
- Keep large, multi-node PureDisk storage pools online in the event of server corruption or failure.

**Bandwidth-efficient replication**
- Protect NetBackup PureDisk servers by replicating content to a data center and/or a disaster recovery site
- Maintain any number of full backups at a remote office (or data center) using local retention policies
- Maximize available bandwidth with asynchronous replication mode and policy-based filtering

**Integration with NetBackup for enhanced functionality**
- Schedule export of full backup images out of PureDisk storage to NetBackup for long-term retention
- Stores backup image in NetBackup catalog and writes client data to tape or any supported media
- Recover PureDisk client data directly to a server using NetBackup

**Multilayer security for access, management, and restores of backup data**
- Authenticate application access with Microsoft® Active Directory® or LDAP
- Configure flexible user roles, including visible scope and functional access
- Prevent administrators from browsing or restoring backup data with Data Lock
- Secure backup data at rest or in transit with 256-bit encryption
Platforms supported
Clients (or servers) to be protected with NetBackup PureDisk require an agent. The agent functions on the following operating system platforms:

• Microsoft Windows®
• SUSE Linux®
• Red Hat® Linux
• Major UNIX platforms: Sun™ Solaris™, HP-UX, and IBM® AIX®

Applications supported
• Microsoft Exchange Server 2003
• Microsoft SQL Server 2000–2005

Advanced backup and reporting
• Veritas Backup Reporter (a separate application)

This is a summary of applications and platforms supported as of the publication date. Additional information on platform and application support and system requirements is available; see www.symantec.com/enterprise/support for a complete and current list.

More information
Visit our Web site
http://enterprise.symantec.com

To speak with a Product Specialist in the U.S.
Call toll-free 1 (800) 745 6054

To speak with a Product Specialist outside the U.S.
For specific country offices and contact numbers, please visit our Web site.

About Symantec
Symantec is a global leader in infrastructure software, enabling businesses and consumers to have confidence in a connected world. The company helps customers protect their infrastructure, information, and interactions by delivering software and services that address risks to security, availability, compliance, and performance. Headquartered in Cupertino, Calif., Symantec has operations in 40 countries. More information is available at www.symantec.com.

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