

# Veritas NetBackup™ 6.5

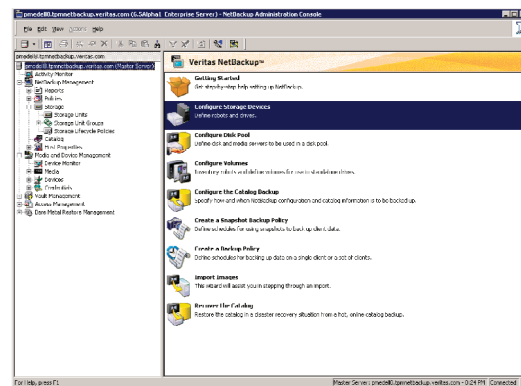
## The Veritas NetBackup Platform—Next-Generation Data Protection

### Overview

As an established market leader in enterprise backup and recovery, Veritas NetBackup provides unparalleled data protection for enterprise backup and recovery environments. Minimize cost and complexity by implementing a unified data protection solution that provides desktop, remote office, and data center protection across the entire enterprise. NetBackup delivers centralized and simplified real-time management to help organizations manage all aspects of backup and recovery including disk- and tape-based data protection (see Figure 1). It unlocks the power of disk to help make backup and recovery faster, more reliable, and more secure than ever. Service Level Agreement (SLA) commitments can be met by using storage lifecycle policies to create storage tiers and automatically move backup data through its lifecycle. Also achieve advanced and automated disaster recovery with integrated Bare Metal Restore™, enabling full system recovery on any platform within 15 minutes and granular recovery of critical applications. To help ensure data is secure before it is taken offsite for long-term storage, NetBackup offers a wide variety of authorization and access controls as well as encryption options.

With no hardware agenda, NetBackup is the enterprise data protection software layer upon which to standardize. It offers the broadest range of options to optimize backup and recovery and support for all major operating platforms, including HP-UX®, HP® Tru64, IBM® AIX®, Linux®, Microsoft® Windows®, Novell® NetWare®, SGI IRIX, and Sun™ Solaris™. For online and granular recovery of mission-critical databases and applications, NetBackup offers a comprehensive list of agents for IBM, Microsoft, Oracle®, SAP, and Sybase.

For more detailed information on compatibility and interoperability, refer to the Veritas NetBackup Compatibility List on [www.symantec.com/enterprise/support](http://www.symantec.com/enterprise/support).



**Figure 1. The NetBackup Administration Console provides a centralized location for NetBackup setup and administration.**

### Product highlights

- **End-to-end data protection**—Data protection for all environments, from desktop to data center.
- **Centralized management**—Increase efficiencies by managing all data protection technologies and multiple NetBackup servers from one location.
- **Disk-Based Data Protection**—In addition to its classic tape offerings, NetBackup delivers the ultimate in flexibility and choice by allowing disk to be used for data protection in any architecture and across devices. This includes the support of intelligent disk devices or commodity disk already existing in the environment.
- **Automated disaster recovery**—Fully automated system recovery with Bare Metal Restore to help ensure servers are up and online quickly in the event of a disaster. For offsite tape management, the NetBackup Vault Option creates and manages tape duplicates for offsite vaulting.

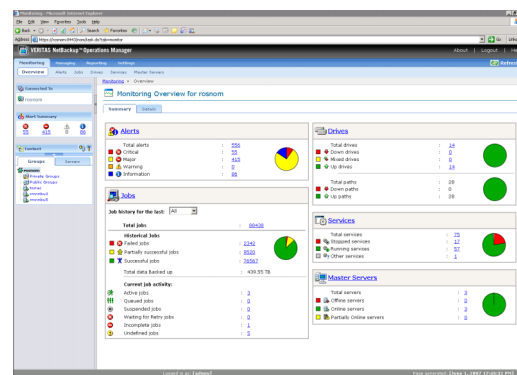


- **Granular recovery of critical applications**—Help ensure granular recovery of critical applications such as VMware, SAP, Exchange, SharePoint Portal Server.
- **Advanced data protection**—Perform low-impact, high-performance backup and restores with the Snapshot Client. A consolidated suite of snapshot-based technologies enables instant recovery of critical applications to any point in time.
- **Data security**—Help ensure the identity of those who access your data and their access levels and that any tapes taken offsite are encrypted.
- **Virtually unlimited scalability**—Benefit from a flexible, three-tiered architecture that scales with the needs of today's growing data center.
- **Unparalleled performance**—Use synthetic backups to consume less network bandwidth and decrease the impact on the application host, since files are backed up only once. Multiplexing up to 32 different data streams to a single tape drive helps to achieve the maximum rated throughput of your storage hardware.

### Real-time centralized management of global data protection operations

Effective data management and analysis tools are required to address the proliferation of data in today's computing environments. Monitoring and managing this growth is becoming more complex and should be an integral part of any backup application. NetBackup Operations Manager (NOM) is the advanced, easy-to-use Web-based graphical user interface (GUI) for NetBackup that provides administrators with real-time operational monitoring, management, troubleshooting, and alerting across multiple NetBackup domains (see Figure 2). Key highlights include:

- Policy-based alerts aid administrators with the proactive updating of critical events and allow for a health check of NetBackup server status 24 hours a day, seven days a week.
- SNMP is integrated with event management frameworks such as HP OpenView® and Microsoft Operations Manager.
- Point-and-click operational reports support day-to-day operations.
- Comprehensive data management and reporting solution when used in conjunction with Veritas Backup Reporter



**Figure 2. The NetBackup Operations Manager's centralized Web-based interface provides a single management view of all NetBackup servers in the user's worldwide enterprise.**

### Changing the data protection landscape with disk<sup>1</sup>

While tape continues to be a key part of backup and recovery operations, disk has become the technology of choice to achieve better recovery point objectives (RPOs) and recovery time objectives (RTOs) or as a means to optimize replication for fast disaster recovery. NetBackup enhances disk-based data protection by unlocking the full potential of disk to make backup and recovery faster, more reliable, and more secure. It allows you to centralize the administration of any type of disk—whether direct attached storage (DAS), network attached storage (NAS), storage area network (SAN), or

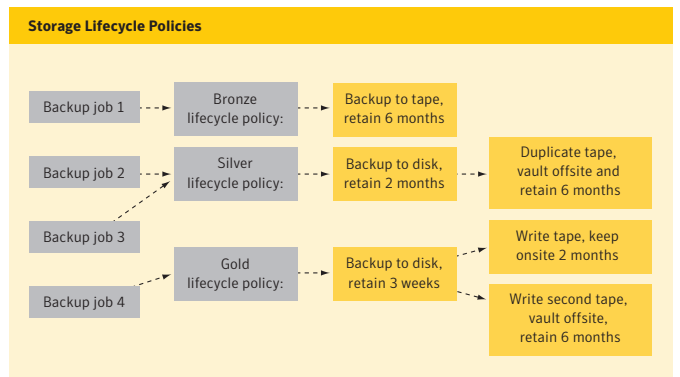
<sup>1</sup> For additional details on all NetBackup disk-based options please see the 6.5 options data sheet

intelligent disk device such as OpenStorage or a virtual tape library—at any location. NetBackup also offers a wide variety of features to fully leverage disk, including Snapshot Client and synthetic backups.

The NetBackup Snapshot Client bundles together a wide and flexible variety of advanced disk snapshot technologies for faster backups, faster restores, or lower impact backups. This enables more frequent backups and, in many cases, significantly enhances the types of restores that are possible for more applications, such as VMware, and databases such as Oracle. Via a simple, easy-to-use client interface, a snapshot wizard helps you configure snapshots and use them to perform advanced backup and recovery operations.

Synthetic backups significantly enhance backup and recovery operations by creating a new, synthesized backup image from previous full and incremental backups. This helps to reduce the time required to perform a recovery. Synthetic backups decrease the amount of data being moved over the network, thereby minimizing the network bandwidth required for backup and recovery.

With storage lifecycle policies, NetBackup introduces a new paradigm for data protection management by allowing protection service levels to be defined so that backup data can be classified based on business value. This allows different types of backup data to be treated uniquely with respect to how they move through the tiered backup infrastructure. With storage lifecycle policies, you can assign tiers of backup service to backup data to help ensure that data is kept on the appropriate media to meet backup windows and recovery objectives. Create service levels—such as gold, silver, and bronze—to help ensure data is stored on the right place at the right time and then automatically migrated from disk to tape (see Figure 3).



**Figure 3. Storage Lifecycle policies enable definition of automated backup service levels which you can apply to applications according to business value.**

### Advanced and automated disaster recovery

Uptime is money, and when mission-critical systems are offline, every second counts. Precious time is wasted installing operating systems and configuring hardware, or chasing down the people skilled enough to perform these complicated tasks. Bare Metal Restore is fully integrated with NetBackup and automates and streamlines the server recovery process on any platform, including the ability to restore to dissimilar hardware. This makes it unnecessary to manually reinstall operating systems or configure hardware. With simple commands, complete server restores can be accomplished in a fraction of the time without extensive training or tedious administration.

To help enable fully automated disaster recovery, the NetBackup Vault Option simplifies tape rotation and the creation and management of tape duplicates for offsite vaulting. Vault manages the ejection of tape duplicates and the monitoring of retention periods for offsite media. This facilitates the management of duplicate media created either concurrently with the primary backup or at a scheduled time, such as during nonproduction hours.

### Data security assurance

Data security is paramount in any organization. A security breach in a company’s data storage can result in business interruption, lost valuable assets, and reduced consumer confidence. Backup administrators are tasked with protecting data from a variety of different areas, and NetBackup provides some flexible means to secure data, including the ability to validate the identity of administrators accessing information and authorization control to identify who has access to what. For companies that send tapes offsite—tapes that oftentimes include company or customer confidential information—NetBackup offers the ability to encrypt at the client and an option that encrypts at the media server. Highlights include:

- Client encryption provides the highest security, as data is encrypted at the source/client. So data is protected while in transit and in media.
  - Ideal for protecting smaller, yet dedicated clients/databases
  - Uses both disk and tape as a target
  - Supports a variety of encryption algorithms, including 128-bit and 256-bit and legacy 40-bit and 56-bit encryption methods
- Media Server Encryption Option provides the highest flexibility and leverages the NetBackup media server, which is more I/O bound than CPU bound.

- Avoids client performance impact
- Provides parallelized and selectable encryption and compression and “set it and forget it” key management
- Supports 128-bit and 256-bit encryption methods

### Flexible deployment offerings for environments of all sizes and levels of sophistication

Veritas NetBackup is available in three editions to support organizations ranging from SMBs to large enterprises (see table).

- **Veritas NetBackup Enterprise Server**—The most comprehensive solution designed for the data center. Supports multiple NetBackup media servers, including support of all advanced NetBackup Agents and Options such as Snapshot Client, NAS SnapVault, and database agents.
- **Veritas NetBackup Server**—Designed for heterogeneous workgroups or remote offices. Includes support for most NetBackup options.<sup>2</sup>
- **Veritas NetBackup Starter Pack**—Designed for small workgroups or remote offices. Includes 5-, 20-, and 40-client versions and database/application agents in 20- and 40-client versions.

### Veritas NetBackup editions comparison

Edition	Market	Architecture	Number of Clients	Available Agents and Options	Bundled
Veritas NetBackup Enterprise Server	Enterprise and large enterprise	3-tier (client, media server, master server)	Unlimited	All	No
Veritas NetBackup Server	SMB to enterprise	2-tier (client, master server)	Unlimited	All except for Shared Storage Option and Snapshot Client	No
Veritas NetBackup Starter Pack	SMB	2-tier (client, master server)	5, 20, or 40	All except for Shared Storage Option and Snapshot Client	Yes (includes server, clients, tape drive, and database agent(s))

<sup>2</sup> Veritas NetBackup Server does not support NetBackup Snapshot Client, NAS SnapVault Option, or any of the NetBackup database and application agents.



## Additional NetBackup features and benefits

### Performance

- **Synthetic backups**—Enable quick client restore from a single backup image. Synthetic backups consume less network bandwidth and decrease impact on the application host.
- **Disk staging**—Facilitates faster backups and restores since there is no tape device latency, and nonmultiplexed backup images can be used for faster recovery.
- **Checkpoint/restart**—Allows a failed backup or recovery job to be resumed from the last checkpoint. If either a backup or a recovery job fails, the issue causing the failure can be corrected, or the job can be resumed from the last checkpoint rather than started at the beginning, saving valuable time. Backup and recovery jobs can also be suspended and resumed, as necessary.
- **Multiplexed backup**—Writes multiple data streams from one or more clients/servers to a single tape drive for optimum performance.
- **Inline copy**—Enables the creation of multiple concurrent backup images, each with unique retention attributes, run either simultaneously with the primary backup or after completion of the primary backup. For disk-to-disk and/or disk-to-tape backups.
- **Online NetBackup catalog backup**—Provides full or incremental NetBackup catalog backups while backup and recovery jobs are running. Significantly improves data RPOs and RTOs.

### Management and reporting

- **Tape volume, drive, and library viewing**—Report on tape utilization, drive configuration, tape logs, tape contents, and more.
- **Operational report for disk**—Report on images on disk, disk logs, and disk storage unit status.

- **Error message identification, categorization, and troubleshooting**—Easily diagnose problems without having to parse transaction logs. Error explanations and recommended actions have been integrated into NetBackup interfaces to further simplify troubleshooting.

### Media management

- **Enterprise Media Manager**—Centralizes and improves the scalability of NetBackup media and device databases.
- **Automatic robotic/tape drive configuration**—Provides the ability to specify policies for the automatic generation of drive names and automatically configure swapped tape drives. Helps greatly reduce the time required to configure tape devices.
- **Media Sharing**—Allows multiple NetBackup media servers to actively share a given tape media for write purposes. Media sharing reduces tape media-related expenses by enabling increased media utilization which in turn reduces amounts of partially full media and total number of tape media required to store a given amount of backup data.
- **Broad tape device**—Supports all leading tape device providers, including Dell, Exabyte, HP, IBM, Overland Data, Qualstar, Quantum, Sony, Spectra Logic, and Sun StorageTek. Enables enterprises to select best-of-breed technologies.

### Heterogeneous support

- **Broad platform coverage**—Supports all major UNIX platforms, Microsoft Windows, Linux, Novell NetWare, and others, allowing enterprises to leverage their current infrastructure or choose best-of-breed technologies to handle their data protection requirements.
- **Support for leading networking topologies**—Leverage NAS, Gigabit Ethernet (GbE), and more for backup and recovery.

### Agents and Options for databases, applications, disk, tape, and disaster recovery

NetBackup Agents optimize the performance of critical databases and applications:<sup>3</sup>

- Lotus Notes and Lotus Domino® Server
- IBM DB2®
- Informix
- Lotus Notes®
- Microsoft SQL Server
- Microsoft Exchange Server
- Microsoft SharePoint® Portal Server
- Oracle
- SAP NetWeaver
- Sybase

NetBackup Options customize backup and recovery operations:<sup>3</sup>

- Flexible Disk Option (new)
- OpenStorage Disk Option (new)
- PureDisk™ Deduplication Option (new)
- Virtual Tape Option
- NetApp® SnapVault Option
- Shared Storage Option
- NDMP Option
- Media Server Encryption Option
- Desktop and Laptop Option
- Vault Option
- Bare Metal Restore Option<sup>4</sup>
- Client Encryption Option<sup>4</sup>

<sup>3</sup> For more details on NetBackup Agents, refer to the NetBackup Agents data sheet.

<sup>4</sup> The NetBackup Bare Metal Restore and Client Encryption Options are now included components in all NetBackup 6.5 client software.

### More information

*Visit our Web site*

<http://enterprise.symantec.com>

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### 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](http://www.symantec.com).

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