VERITAS The truth in information.

VERITAS NETBACKUP 8.1.2

Unified data protection for the Cloud-ready enterprise.

ENTERPRISE-CLASS DATA PROTECTION

Long recognized as the market share leader of enterprise backup and recovery software, Veritas NetBackup[™] is built to protect the largest and most demanding multi-cloud and data center environments. NetBackup delivers breakthrough capabilities for virtualized and cloud-based deployments that go well beyond what traditional backup practices can achieve.

- Comprehensive—As a single, unified solution to protect all of your data assets, NetBackup provides support for virtually every popular server, storage, hypervisor, database, application, and cloud platform used in the enterprise today.¹
- Scalable—High performance, intelligent automation, and centralized management based on a flexible, multitier architecture enables NetBackup to adapt to the growing needs of a fast-paced, modern enterprise.
- Integrated—From backup appliances to cloud storage, NetBackup integrates at every point in the technology stack to improve reliability and performance.
- Innovative—With hundreds of patents awarded in areas including backup, recovery, virtualization, deduplication, and snapshot management, NetBackup continues a long tradition of bringing advanced technologies to market first. No backup software has won Best of VMworld as many times as NetBackup.²

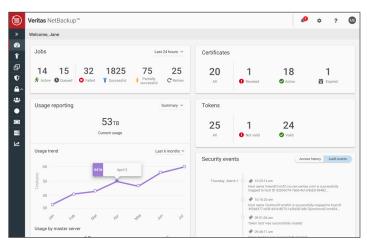


Figure 1. The NetBackup web UI dashboard conveniently displays a single, aggregated view of the most important information in one place.

• **Proven**—For over a decade, NetBackup has led the industry as the most popular enterprise data protection software by market share and is used by many of the largest enterprises on the planet. When you need your data back, you can trust NetBackup.

PROTECT ANY WORKLOAD

One of the hallmarks of enterprise IT is its heterogeneity. The wide variety of platforms, applications, and infrastructure often grows with the size of the enterprise. NetBackup supports a vast array of environments and integrates with every layer of the infrastructure stack to unify your entire data protection strategy.

- Operating systems—NetBackup integrates with dozens of server operating system (OS) versions, including Microsoft Windows[®], Linux[®], and UNIX[®] files.
- Virtual systems—NetBackup integrates with leading hypervisors including VMware vSphere® and Microsoft® Hyper-V.

- Databases and applications—NetBackup integrates with leading relational database and application platforms, including IBM DB2[®], Microsoft[®] Exchange Server, Microsoft SQL Server[®], MySQL[™], Oracle[®], SAP[®], and others.
- Storage systems—NetBackup protects data at the storage system level by integrating with various snapshot, replication, and NDMP facilities from Dell EMC[®], HP, Hitachi, IBM[®], NetApp[®], and others.
- Cloud platforms—NetBackup supports the backup and recovery of workloads within cloud environments by leveraging cloud snapshot technology.
- **Big Data systems**—With NetBackup Parallel Streaming, large scale-out, multi-node systems such as Hadoop and HBase can be protected much more quickly by streaming data from every node simultaneously.

CHOOSE YOUR STORAGE

A lot has changed since the days of traditional tape backup. Enterprises now have many choices where they store backups. NetBackup integrates this diverse collection of storage targets without compromising manageability.

- Cloud storage—NetBackup supports a growing list of third-party cloud storage providers such as AWS, Microsoft[®] Azure and Google that can be easily incorporated into NetBackup policies. And, with NetBackup[™] CloudCatalyst, backup data is deduplicated before being quickly transferred and efficiently stored within the cloud.
- Purpose-Built Backup Appliances (PBBA)—NetBackup uses its OpenStorage Technology (OST) interface to integrate with a wide range of PBBAs.
- Disk—Ordinary disk volumes can be organized into disk pools under NetBackup control.



Figure 2. Veritas NetBackup[™] 5240 is an integrated enterprise backup appliance with expandable storage and intelligent deduplication.

- Storage system snapshots—NetBackup can orchestrate hardware snapshots using proprietary capabilities from vendors such as NetApp, Dell EMC, HDS, HPE, and Pure Storage.
- **Tape**—NetBackup brings mainframe-class media management to a massive selection of supported tape drive and robotic hardware configurations.

BREAK THE BACKUP WINDOW

It's not uncommon for IT organizations to report data growth of 40-60 percent per year. To keep up, you need backups that run as fast as possible without disrupting production activity. NetBackup combines innovative design with the latest technical advancements to deliver impressive performance numbers with minimal impact.

- Parallel Streaming—Eliminate performance bottlenecks and optimize storage for Big Data environments. NetBackup parallel streaming provides agentless, API-based backup and restore of multi-node, scale-out clusters such as Hadoop.
- Accelerator—Eliminate full backups once and for all. With Veritas NetBackup[™] Accelerator, only changed blocks are backed up each time. These blocks are combined with previous backups to synthesize a new full backup for quick recovery.
- Snapshots—Let the storage system run backups for you. With Veritas NetBackup[™] Snapshot Management, snapshots are orchestrated, cataloged, and replicated using storage technologies from vendors such as NetApp and Dell EMC.

BACKUP REMOTELY

Whether backing up a remote office, a cloud-hosted workload, or a customer site as part of a backup service, backups over a wide area network (WAN) or the Internet must be as efficient as possible. NetBackup leverages the latest change tracking and deduplication technologies to make these backups not just possible, but practical.

- Virtual Appliance—Veritas NetBackup[™] Virtual Appliance is an integrated solution deployable for data centers and remote offices. It provides simplified and secure data protection in a small footprint at lower cooling and power costs. With built-in deduplication benefits, you can significantly decrease storage and network utilization.
- Extreme data reduction—By combining Veritas NetBackup[™] Accelerator change tracking with Veritas NetBackup[™] Intelligent Client Deduplication, backup traffic is further reduced and full backup seeding is noticeably faster. WAN optimization can further increase performance by as much as ten times when backups are transferred to the primary site.

RESCUE YOUR BUSINESS

The unthinkable happens. Services are down and the clock is ticking. There's no time to waste: it's time to recover from backup NetBackup is ready with fast, reliable recovery options to get your systems up and running as quickly as possible.

- Instant Access—Mount and browse a VMware backup image using a simple, web-based user interface, accessible by any user that has been granted access.
- Instant Recovery—Recover VMs and databases by booting them directly from backup disk.
- Veritas NetBackup Bare Metal Restore[™] Quickly prepare a physical system for restore, eliminating the need for manual reconfiguration.
- Veritas NetBackup[™] Granular Recovery Technology (GRT)—NetBackup Granular Recovery Technology (GRT) indexes the contents of data sources, making it easy to restore specific items without endless trial-and-error restore attempts.

PREPARE FOR DISASTER RECOVERY

No business will survive if it keeps its data in one place. Protect your business from natural disasters and site outages by keeping a copy off-site or in the cloud. NetBackup can help you automate disaster recovery (DR) readiness regardless of what storage or transport method is used.

- Veritas NetBackup[™] Auto Image Replication (AIR)—With NetBackup AIR, backup images and catalogs are automatically replicated over a network to other NetBackup domains on-premises or in the cloud, according to preset policies.
- Snapshot replication—Hardware snapshots created using NetBackup Snapshot Management can be automatically replicated to other storage systems at off-site locations, all under the control of NetBackup.
- Tape vaulting—Vault automatically ejects the proper tapes from a robotic library, tracks the movement of tapes to and from off-site storage facilities, and prints daily reports to include with the daily shipment or email to your records management vendor.
- Integration with Veritas[™] Resiliency Platform—Meeting business uptime Service Level Objectives across hybrid clouds with multiple point products and different data sources can be complicated and costly. Resiliency Platform from Veritas helps you proactively ensure resiliency for applications across your heterogeneous environments regardless of whether your data source is replication, or a combination of replication and NetBackup data sources.

Status : O FINISHED Start	Fime : Oct 14 2016 18:01:46	End Time : Oct	14 2016 18:16:51	Objects :		
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Unregister WWWare virtual machine	FINISHED	APP1	New York DC	Oct 14 2016 10:04:40	Oct 14 2016 10:07:49	
* Restore WWWare virtual machine	FINISHED	APP1	New York DC	Oct 14 2016 18:07:49	Oct 14 2016 18:10:49	
Restore VMWare virtual machine	FINISHED	rhei-66-sys5	New York DC	Oct 14 2016 18:07:49	Oct 14 2016 10:08:49	
Restore VMWare virtual machine	FINISHED	mei-66-sys7	New York DC	Oct 14 2016 18:08:49	Oct 14 2016 18:09:49	
Restore VM/Ware virtual machine	FINISHED	mei 66-sys6	New York DC	Oct 14 2016 18:09:49	Oct 14 2016 18:10:49	
Add network for VMWare virtual machine	FINISHED	APP1	New York DC	Oct 14 2016 18:10:50	Oct 14 2016 18:13:50	
Start VWWare virtual machine	FINISHED	APP1	New York DC	Oct 14 2016 18:13:50	Oct 14 2016 18:16:51	

DEPLOY QUICKLY

Experienced IT professionals know how difficult it can be to

Figure 3. Veritas Resiliency Platform can orchestrate complex NetBackup site recovery operations with a single click.

deploy or upgrade backup systems. Not only do backup servers and storage require their own care and feeding, but backups interact with just about every server, storage, or network component. NetBackup eases this burden and offers a fully integrated, turnkey appliance that combines software with server and storage.

- Agentless backup—Agents within VMs are unnecessary for backups, greatly simplifying the deployment and maintenance of backup software across a virtual environment.
- NetBackup appliance family—For the fastest deployments, consider deploying NetBackup appliances. NetBackup appliances come
 preinstalled with all necessary hardware and software components and can be set up within minutes.
- Automatic client updates—For systems that use client or agent software, NetBackup can automate the deployment of this software using built-in or third-party software distribution tools.

STREAMLINE OPERATIONS

With constant pressures of relentless data growth and escalating service requests, IT is always challenged to do more with less. NetBackup helps you maximize staff productivity so you can invest more in your core business.

- Centralized, policy-based management—All NetBackup policies are configured from a single management console enforced by the NetBackup master server.
- Role-based Access—Grant limited access privileges to other people in your organization based on role. Users can only manage
 workloads they have been assigned and can only perform the range of tasks you authorize.
- Console plug-ins for Hyper-V and vSphere—Plug-ins for the VMware vSphere[®] web client and Microsoft[®] System Center Virtual Machine Manager (SCVMM) give VM admins direct control over backup and restore operations.
- Extensive API library—Leverage NetBackup RESTful APIs to customize the user experience and integrate with 3rd-party operations platforms such as ServiceNow® to achieve a much greater level of automation.
- Veritas NetBackup[™] Self Service—Offers business users a single "store front" to perform self-service backups and restores using custom-designed interfaces. A single instance can register multiple tenants to allow secure separation. SLA measurement, notification, and reporting make it easy to manage.

PLAN FOR THE FUTURE

No successful organization stands still. There are always improvements to make, processes to optimize, and costs to reduce. NetBackup provides extensive reporting and analytics to help understand past results and clarify the road ahead.

- Point-and-click operational reporting—Veritas NetBackup[™] Ops Center quickly identifies tape drive utilization, success rates, and unprotected areas across NetBackup, and provides contextual reporting based on line-of-business, geography, or application across a heterogeneous environment.
- Long-term trending and analysis—Better predict backup storage consumption by tracking growth rates over time, including pre- and post-deduplication, for easier ROI tracking, and deduplication rates.
- Integration with Veritas[™] Information Map—Information Map renders your information environment in visual context and guides users towards unbiased, information-governance decision making. Using the Information Map's dynamic navigation, customers can identify areas of risk, areas of value and areas of waste across their storage environment and make decisions which help reduce information risk and optimize information storage.



Figure 4. Veritas Information Map renders your information environment in visual context and guides users towards unbiased, information-governance decision making.

UNIFIED DATA PROTECTION FOR THE CLOUD-READY ENTERPRISE

Veritas NetBackup[™] 8.1.2 reduces the staggering complexity of enterprise data protection through a unified solution built on converged infrastructure, scales with relentless growth through best-in-class performance at petabyte-level capacity, and paves the way to IT-as-a-Service through convenient, self-service operation. It lays the foundation for universal data management, enabling rapid visualization of data and accelerating cloud adoption with minimal risk. As IT transforms from cost center to business enabler, NetBackup is engineered to solve the diverse challenges of today and tomorrow, and ultimately give organizations the confidence to move faster and take bigger risks trusting that their information will be safe.

ABOUT VERITAS TECHNOLOGIES LLC

Veritas Technologies empowers businesses of all sizes to discover the truth in information—their most important digital asset. Using the Veritas platform, customers can accelerate their digital transformation and solve pressing IT and business challenges including multicloud data management, data protection, storage optimization, compliance readiness and workload portability—with no cloud vendor lock-in. Eighty-six percent of Fortune 500 companies rely on Veritas today to reveal data insights that drive competitive advantage. Learn more at www.veritas.com or follow us on Twitter at @veritastechIIc.

¹ For more information, please refer to the NetBackup Master Compatibility List.
 ² Best of VMworld, Business Continuity and Data Protection category: 2007, 2008, 2010, 2012.

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