

# Symantec NetBackup™ 5220

A single-vendor enterprise backup appliance that installs in minutes

## Data Sheet: Data Protection



### Overview

Symantec NetBackup™ 5220 is a single-vendor enterprise backup appliance that installs in minutes, with expandable storage starting at 4 TB and deduplication for physical and virtual systems. Only Symantec appliances deduplicate on both the client and target. Equipped with V-Ray technology, they provide unique visibility into virtual environments that speeds recovery and reduces storage costs. Content-aware deduplication reduces the size of backups by up to 50 times and network bandwidth utilization by up to 99 percent, so you can backup and replicate faster. Pay once for deduplication and replicate securely to any number of targets.

### Product highlights

- **Suitable for environments of any size**—Starting at 4 TB usable capacity and expandable up to 36 TB, NetBackup 5220 is ideal for remote offices and enterprise data centers.
- **Multiple functional roles**—NetBackup 5220 can be deployed as master server, media server, or both for a NetBackup domain.
- **Easily fits into existing NetBackup environments**—Easily expand or refresh existing NetBackup environments, no separate management required.

- **Support for all major platforms and applications**—Platform and application support, same as core NetBackup software.
- **Operational simplicity**—Sets up in a matter of minutes with pre-installed NetBackup.
- **Advanced virtual machine protection**—Support for end-to-end Storage Area Networks (SAN) transport backups, VMware® Intelligent Policy, Block Level Incremental Backups, and more.
- **Reduction in storage and bandwidth**—Decrease backup storage up to 50 times and bandwidth consumption up to 99 percent.
- **Flexible deduplication options**—Deduplication at source or target, inline, or post-process.
- **Up to 32 TB of deduplication capacity per appliance**—Protect several hundred terabytes of backup data.
- **Flexible storage**—The usable capacity can be used for a deduplication pool or Advanced Disk pool or a combination of both.
- **SAN Client support**—High-speed streaming through Fibre Channel from SAN Clients to appliance.
- **Built-in replication**—Backups stored can be replicated to compatible targets at no additional cost.
- **Auto image replication**—Replicate backup images to a remote NetBackup domain for disaster recovery readiness
- **Security for in-flight and at-rest backup data**—Encryption may be configured for source and target deduplication.
- **Tape support**—Write data-to-tape for long term data retention.

### **Operational simplicity and easy integration**

The NetBackup 5220 comes pre-installed with software and can be set up in a matter of minutes to start a new NetBackup deployment or may be integrated into existing NetBackup deployments. The appliance can be easily managed via an existing instance of the NetBackup OpsCenter management console. Pre-installed NetBackup can be managed through familiar administration consoles. Symantec provides end-to-end technical support for the appliance, reducing operational overhead on IT teams.

### **Advanced virtual machine protection**

NetBackup 5220, enabled by V-Ray technology, breaks down virtual vs. physical silos and delivers simple, yet comprehensive backup and recovery. This award-winning unification allows for more standardization and consistent policies, reduced duplication of effort, eliminates redundant storage pools and lowers licensing, training, and operational costs. Protect your virtual machines through deeper integration VMware vStorage™ Application Programming Interfaces (API) for Data Protection (VADP), end-to-end SAN transport through VMware® backup hosts, Block Level Incremental Backups, Automated Virtual Machine (VM) discovery and backup (VMware Intelligent Policy), content-aware deduplication, and much more.

### **Built-In client and media server deduplication**

NetBackup 5220 offers a choice of deduplicating data at the client or at the media server. Removing redundant data as close to the source as possible maximizes the benefits of deduplication. NetBackup client deduplication removes redundant data at the source, which leads to lower Central Processing Units (CPU), I/O, and memory utilization, compared to a traditional backup, freeing up more client resources for production services. Client deduplication can deliver up to 10 times faster backups. For client machines that do not have sufficient CPU cycles for deduplication, the deduplication processing can be moved to the NetBackup 5220 appliance. The ability to choose the type of deduplication (client or media server) at the backup policy

level allows the backup administrator the flexibility to set up deduplication based on the type of data being protected.

### **Storage and bandwidth efficient backups**

With built-in deduplication technology, NetBackup 5220 appliance eliminates the backup of duplicate data offering storage savings of up to 50 times. This allows for cost efficient, long-term retention of data on disk, resulting in faster and more reliable backup, and recovery of data. The source deduplication option eliminates duplicate backup data at the source, making the backups more bandwidth efficient as well.

### **Inline and post process deduplication**

The appliance supports both inline and post-process deduplication. The disk subsystem on the appliance can be partitioned as deduplicate or non-deduplicate storage or a combination of the two. When used in a combination mode, backups can be sent to the non-deduplicate partition for fastest possible backups. The non-deduplicate partition acts as a staging area for the backups. The backups can then be moved to the deduplicate partition during off-peak hours for maximum storage optimization. This feature is especially useful for users that are looking to solve the problem of backup windows and backup storage growth via one single backup solution.

### **Suitable for both data centers and remote offices**

NetBackup 5220 is a 2U appliance with deduplication storage starting at 4 TB which is ideal for remote offices. The appliance may also be deployed as a media server in large data centers to stream backups to a NetBackup 5000 series global deduplication pool via Fibre Channel or Ethernet. With an optional Symantec™ Storage Shelf, the deduplication capacity of the appliance itself may be expanded up to 32 TB.

### **Built-in replicator**

The backups in NetBackup 5220 deduplication storage pool can be replicated to other compatible targets. The target

devices could be in the same NetBackup domain (optimized duplication) or in a different NetBackup domain (Auto Image Replication). In both use cases, replication is bandwidth optimized; the source will not send data segments that are already present in target deduplication pool thereby minimizing the bandwidth usage between sites. Encryption may also be used for replication at no additional cost.

Auto Image Replication (A.I.R) provides the ability to automatically manage the replication of a deduplicated backup image from one NetBackup master server domain to another. It enables fast and scalable data recovery (DR) because backup images are available for immediate recovery from any domain or global location, with minimized storage footprint and bandwidth impact.

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#### **NetBackup SAN client support**

NetBackup 5220 appliances may be configured as Fibre Transport Media Server if equipped with six Fibre Channel ports. Four ports out of six will function as targets for SAN Clients. Clients with Fibre Channel connections can stream backups through SAN to NetBackup 5220 for high-speed backups. This method is ideal for clients with large data sets that do not want to perform deduplication at source. The SAN Clients could also be a VMware backup host or Microsoft Hyper-V™ host, thereby enabling end-to-end SAN transport for virtual machine backups.

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#### **Tape support**

NetBackup 5220 provides a tape out option via a Gb dual channel Fibre Channel Host Bus Adapter (HBA). This option is ideal for organizations that wish to use a hybrid approach for data protection consisting of disk and tape backups. Backups may be directly streamed to tape or staged via deduplicate/non-deduplicate disk storage pool.

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#### **Reliable hardware platform**

The NetBackup 5220 appliance and optional Storage Shelf are built on reliable enterprise class hardware. Both feature redundant power supplies, redundant fan modules, hot pluggable data disks, and power entry modules. The 1 Gb and 10 Gb Ethernet ports may be bonded together for redundancy. In a Fibre Channel Media Server configuration, the availability of four ports on two separate cards provide redundancy for SAN Client connections

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#### **Hardware monitoring and call home feature**

The NetBackup 5220 appliance provides monitoring of key hardware components such as CPU, disks, power supply modules, fans, RAID groups, and Fibre Channel HBA cards. Additionally, the product performs periodic monitoring of these components and notifies the hardware administrator of faulty events. The hardware monitoring feature makes sure that your backup environment is working at top efficiency, allowing you to anticipate needs before they become issues.

The call home feature keeps a watchful eye on a multitude of preset conditions and maintains a history of the product's health on Symantec's Call Home server. This hardware history is available to the Symantec™ Global Support Center to use while assisting with support cases, providing useful context to help resolve issues in a time-efficient manner.

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#### **Platform and application support<sup>1</sup>**

All core NetBackup software agents can be utilized with the NetBackup 5220 appliance. NetBackup agents optimize the performance of critical databases and applications, including: IBM DB2®, Informix®, Lotus® Notes® and Lotus® Domino® Server, Microsoft Active Directory®, Microsoft® Exchange Server, Microsoft SharePoint® Portal Server and Microsoft Office SharePoint® Server, Microsoft SQL Server®, Oracle®, SAP®, Sybase®, and Symantec Enterprise Vault™.

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1. For more information, please refer to the NetBackup Clients and Agents Data Sheet

### Hardware Specifications for NetBackup 5220 Appliance and Storage Shelf

NetBackup 5220 appliance is a 2U device with two quad-core Intel E5620 CPUs, up to 48 GB RAM, SATA system disks configured in RAID 1, SAS data disks in RAID 6, Dual Hot Spare Disks for RAID1 and/or RAID 6, LSI disk management, 6 x 1 Gig E ports, up to 2 x 10 Gig E ports with LC Optical connection, up to 6 x 8 Gb Fibre Channel ports, redundant power supply, redundant fan modules, hot pluggable data disks, and power entry modules.

Storage Shelf for NetBackup 5220 is a 3U device with SAS disks configured in RAID6, Dual Hot Spare Disks, LSI disk management, redundant power supply, redundant fan modules, hot pluggable disks, and power entry modules.

Technical Specifications	NetBackup 5220	Storage Shelf
Usable storage capacity (TB)	4	20 or 32
Dimensions H x W x D (inches)	3.4 x 16.9 x 27.7	5.1 x 17.6 x 22.1
Maximum Weight (lb)	76.1	71.7
Floor Space (sq. feet)	3.25	2.70
Floor Loading (lb/sq. feet)	23.42	26.56
AC voltage Range (Volts)	100 to 127, 200 to 240	100 to 127, 200 to 240
AC Frequency Range (Hz)	47 to 63	47 to 63
Inherent Availability	≥ 99.95 percent	≥ 99.95 percent
Mean Time to Repair (hours)	< 1	< 1

### Power and cooling requirements

The power and cooling requirements for NetBackup 5220 appliances vary based on connectivity and storage options. The typical power consumption range for NetBackup 5220 is 349W to 415W. For planning purposes the maximum power consumption and cooling requirements are given below:

Maximum Power Consumption for NetBackup 5220: 750 W

Maximum Cooling for NetBackup 5220: 2562 BTU per hour

Maximum Power Consumption for Storage Shelf: 580 W

Maximum Cooling for Storage Shelf: 1980 BTU per hour

### Management

Management through existing NetBackup Graphical User Interface.

### Protocol standards followed

IPMI 2.0, SMBIOS 2.5, SAS 1.0a, ACPI rev 3, IP RFC0791

### Safety and EMC standard compliance

GB4943-2001, IEC 60950-1, UL 60950-1, FCC 47 CFR Part 15 Subpart B, EN 60950-1, EMC Directive 2004/108/EC, EN 55024: 1998+A1+A2, LVD Directive 2006/95/EC

Environmental Specifications	NetBackup 5220	Storage Shelf
Operating temperature (°F)	+41 to +95	+41 to +95
Storage temperature (°F)	-40 to +158	-40 to +158
Transportation temperature (°F)	-40 to +158	-40 to +158
Operating humidity (RH)	10 to 85 percent	10 to 85 percent
Operating altitude (ft)	100.1 to 9842.1	100.1 to 9842.1
Maximum Noise (dBA)	72	72

### More Information

*Visit our website*

<http://enterprise.symantec.com>

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