Ensuring data availability and integrity while meeting capacity and backup-window constraints is easy with the Dell DR Series. These disk backup appliances offer built-in, block-based deduplication and compression technology to help you overcome your toughest data protection challenges. With the Dell DR Series, you’ll reduce the amount of backup data that needs to be stored, replicated and moved through your network.

By removing redundant data from the backup queue, the DR4100 and the DR6000 dramatically:
- Reduce the storage footprint.
- Enable backup data to remain on disk and online longer.
- Provide faster and more reliable restores.
- Reduce tape management complexity.

**Simple, affordable solutions**
The DR Series systems are high-performance, disk-based backup and recovery appliances that are simple to deploy and manage, and offer unsurpassed total cost of ownership (TCO) benefits. Innovative system software and an all-inclusive licensing model provide optimal functionality and help eliminate the hidden costs of future feature upgrades. The DR Series appliances have a simple installation process with intuitive remote setup and management capabilities. In addition, they are available in a range of usable capacity points¹, making them ideal for small enterprise, remote office environments, and larger enterprise settings.

**Harness the power of deduplication.**
Through the use of innovative Dell deduplication and compression technology, the DR Series systems can help achieve data reduction levels up to 15:1. This reduction in data means that more backup data can be retained longer and within the same footprint.

As disk backup target appliances, the DR Series systems are specifically engineered to handle high-throughput streaming backup workloads, with all deduplication and compression operations being performed inline. This approach minimizes the impact on backup and recovery performance.

### Fast and affordable data reduction with the future built in.

**Benefits:**
- Lowers backup storage costs to as little as $.17/GB using deduplication and compression.
- Decreases TCO with all-inclusive licensing (replication, OST, RDA, Rapid NFS, Rapid CIFS and future software enhancements).
- Makes disaster recovery more economical compared to standard disk and tape.
- Increases disaster recovery readiness by reducing WAN traffic more than 20x.
- Enhances data protection with built-in software safeguards (early write verify and continuous data protection).
- Incorporates data protection hardware features (NVRAM, surface scans, RAID6 storage, hot spares).

¹ See feature table for specific capacity information.
Scalability
The DR Series systems offer flexible and seamless capacity expansion with the addition of Dell PowerVault MD1200 expansion shelves. The DR4100 appliances start at 2.7TB and scale to as much as 81TB of usable capacity (after RAID) using two MD1200 expansion shelves. For larger enterprises, the DR6000 starts at 9TB and can grow up to 180TB of usable capacity (after RAID). This pay-as-you-grow model allows you to expand capacity based on your business demands and helps alleviate challenges in the backup workflow.

DR6000 – Enterprise-grade backup appliance
The DR6000 is tailored to enterprise-grade backup requirements. The DR6000 scales up to 180TB of usable capacity (after RAID) using up to four Dell PowerVault MD1200 expansion shelves and 4TB disks. The system also has significantly faster ingest performance for all network protocols — Rapid CIFS, Rapid NFS, Rapid Data Access (RDA), and Open Storage Technology (OST) — and doubles the existing network connectivity and the number of shares that can be managed or replicated in a single system from 32 to 64.

Reap the rewards.
Through the use of the DR Series replication functionality, the benefits of data deduplication can extend across the enterprise to provide a complete backup solution for multi-site environments. Shorter recovery time objectives (RTO) and more attainable recovery point objectives (RPO) can also be assured, as critical backup data remains on disk and online longer. Capital and administrative costs are diminished simultaneously as internal service level agreements (SLAs) are more easily met.

By replicating only deduplicated data, the network bandwidth requirement is reduced and disaster recovery time is drastically improved. Replication enables better disaster tolerance without the operational costs associated with transporting tapes off site. Replication can be scheduled to occur during non-peak periods and ingest data is prioritized over replication data to help ensure optimal backup windows. Deduplication coupled with replication minimizes the costs and inefficiencies associated with distributed backup environments.

Management simplicity
A graphical user interface, Global View, provides an overview of the system, including system stats, hardware and software alerts, storage capacity and savings and important system information such as system and software versions. Global View allows administrators to monitor a network of up to 64 DR appliances from a single screen for a seamless view of status across the enterprise.

The DR Series system automatically monitors the health of the hardware and verifies the integrity of the system software. Critical hardware and software issues can be sent by email and SNMP traps for immediate notification.

As purpose-built backup target appliances, the DR Series systems are specifically designed to perform the functions of deduplication and compression. Optimized for this purpose, they support a broad range of leading backup software solutions, such as Dell Software’s NetVault Backup, AppAssure 4.7 and VRanger, as well as Symantec® NetBackup® and Backup Exec®, CommVault® Simpana®, Hewlett Packard® Data Protector®, Bridgehead®, Amanda®, and Acronis®.¹

Accelerate backup operations with OST, RDA, Rapid NFS and Rapid CIFS.
The DR Series supports Symantec’s Open Storage Technology (OST) plug-in to accelerate backup ingest and recovery performance when used with Symantec Backup Exec or NetBackup. As part of a continuing development effort, Dell introduced Rapid Data Access (RDA)

¹ Please see online tech specs for additional software certifications.
<table>
<thead>
<tr>
<th>Feature</th>
<th>DR4100</th>
<th>DR6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form factor</td>
<td>2U</td>
<td>2U</td>
</tr>
<tr>
<td>Internal storage</td>
<td>Redundant OS storage on dedicated disks (inside chassis) 12 3.5&quot; drives, Near Line SAS--hardware RAID 6 configuration (11 drives + 1 hot spare)</td>
<td>Redundant OS storage on dedicated disks (inside chassis) 12 3.5&quot; drives, Near Line SAS--hardware RAID 6 configuration (11 drives + 1 hot spare)</td>
</tr>
<tr>
<td>Protocol support</td>
<td>NFS, CIFS, OST and RDA</td>
<td>NFS, CIFS, Rapid NFS, Rapid CIFS, OST and RDA</td>
</tr>
<tr>
<td>Networking</td>
<td>One Network Daughter Card option per node: 4-port 1GbE (base-T) or 2 port 10GbE (base-T or SFP+) + 2 port 1GbE Plus one optional add-on NIC: 2 port 1GbE (base-T)</td>
<td>One Network Daughter Card option per node: 4 port 1GbE (base-T), or 2 port 10GbE (base-T or SFP+) + 2 port 1GbE, or 4 port 10GbE (SFP+) Plus one optional add-on NIC: 2 port 1GbE (base-T) or 2 port 10GbE SFP+</td>
</tr>
<tr>
<td>Systems management</td>
<td>iDRAC 7 Enterprise</td>
<td>iDRAC 7 Enterprise</td>
</tr>
<tr>
<td>Physical dimensions</td>
<td>2U RAC-mountable chassis or 29.72&quot; (75.5cm) D x 18.99&quot; (48.24cm) W x 3.44&quot; (8.73cm) H with bezel attached</td>
<td>2U RAC-mountable chassis or 29.72&quot; (75.5cm) D x 18.99&quot; (48.24cm) W x 3.44&quot; (8.73cm) H with bezel attached</td>
</tr>
<tr>
<td>Rack weight</td>
<td>32.5kg, (71.5lbs.); maximum configuration</td>
<td>32.5kg, (71.5lbs.); maximum configuration</td>
</tr>
<tr>
<td>Capacity points</td>
<td>Available in five configurations: 2.7TB post-RAID (41TB logical)⁵ 5.4TB post-RAID (81TB logical)⁵ 9TB post-RAID (135TB logical)⁵ 18TB post-RAID (270TB logical)⁵ 27TB post-RAID (405TB logical)⁵</td>
<td>Available in four configurations: 9TB post-RAID (135TB logical)² 18TB post-RAID (270TB logical)² 27TB post-RAID (405TB logical)² 36TB post-RAID (540TB logical)²</td>
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<tr>
<td>Expansion unit capacity⁶</td>
<td>9TB post-RAID (135TB logical)² 18TB post-RAID (270TB logical)² 27TB post-RAID (405TB logical)²</td>
<td>9TB post-RAID (135TB logical)² 18TB post-RAID (270TB logical)² 27TB post-RAID (405TB logical)² 36TB post-RAID (540TB logical)²</td>
</tr>
<tr>
<td>Wattage</td>
<td>750 W (redundant power supply)</td>
<td>1100 W (redundant power supply)</td>
</tr>
<tr>
<td>Voltage</td>
<td>100 VAC to 240 VAC, auto ranging, 50Hz to 60Hz</td>
<td>100 VAC to 240 VAC, auto ranging, 50Hz to 60Hz</td>
</tr>
<tr>
<td>Heat dissipation</td>
<td>2891 BTU/hr (maximum)</td>
<td>2891 BTU/hr (maximum)</td>
</tr>
<tr>
<td>Regulatory model</td>
<td>E135 Series</td>
<td>E145 Series</td>
</tr>
<tr>
<td>Maximum throughput</td>
<td>7.5TB/hr with RDA (Rapid Data Access), 3.9TB/hr²</td>
<td>22TB/hr with Rapid NFS/Rapid CIFS² and RDA</td>
</tr>
<tr>
<td>Backup software certifications</td>
<td>Dell AppAssure 4.7 and Dell AppAssure 5.3 (Archive repository support only), NetVault Backup, vRanger, CommVault Simpana, Symantec Backup Exec, and NetBackup, CA² ARCServe³, EMC² Networker⁴, Veeam⁵, IBM² TSM, Oracle² Recovery Manager⁶, Hewlett Packard Data Protector, Bridgehead, Acronis⁷, Amanda</td>
<td>Dell AppAssure 4.7 and Dell AppAssure 5.3 (Archive repository support only), NetVault Backup, vRanger, CommVault Simpana, Symantec Backup Exec, and NetBackup, CA ARCServe, EMC Networker, Veeam, IBM TSM, Oracle Recovery Manager, Hewlett Packard Data Protector, Bridgehead, Acronis⁷, Amanda</td>
</tr>
</tbody>
</table>

² Expected performances when using RDA, Rapid NFS or Rapid CIFS, 10GbE and multiple backup or client server connections
³ All capacity values are calculated using Base 10 (i.e., 1TB = 1,000,000,000,000 bytes). Logical capacity based on overall deduplication ratio average of 15:1.
⁴ Maximum throughput achieved using Rapid Data Access (RDA) with deduplication at source, 10Gb Ethernet, multiple backup or client servers, and the maximum number of expansion shelf enclosures.
⁵ Maximum throughput achieved using Rapid Data Access (RDA), multiple backup or client servers, 10 GB Ethernet and the maximum number of expansion shelf enclosures.
⁶ Expansion unit must be greater than or equal to size of base unit and requires installation of the required expansion shelf license.
⁷ Support available with future release of DR system software.
a software framework that enables applications to have a deeper integration with a DR appliance. RDA integration is currently available with Dell NetVault Backup, offering you a complete, end-to-end backup and disaster recovery solution from Dell. The RDA/NetVault Backup combination enables you to take advantage of source-side deduplication to speed up data ingest, along with the ability to catalog and log remote copies of data to optimize management of the backup and replication process.

To accelerate ingest performance when backing up NFS or CIFS shares, Dell has added the industry’s first source-side deduplication for NFS and CIFS — Rapid NFS and Rapid CIFS — to the DR6000 for no additional license charge. Similar to the RDA technology, these accelerators sit on either the client servers or media servers to perform the chunking and hash computation before sending only unique data to the DR6000 system. Using RDA, Rapid NFS, or Rapid CIFS, you can boost performance to as much as 22TB/hour. 8

Future-proof your data center.
The DR Series changes the economics of disk-based protection by trimming storage costs, mitigating risk in data protection, and reducing complexity in the infrastructure. By accelerating and streamlining the backup process, the Dell DR Series systems help ensure information restores are delivered in a convenient and accurate manner in time with business needs. The deduplication and compression features within the DR Series systems are cornerstone technologies of Dell’s data protection vision. Future products within this architecture will continue to leverage the same deduplication/compression capabilities.

Find the answers.
Reduce IT complexity and costs and eliminate inefficiencies by making IT and business solutions work harder for you through Dell Services. The Dell Services team takes a holistic view of your needs and designs data protection solutions for your environment and business objectives while leveraging proven delivery methods, local talent and in-depth domain knowledge for the lowest TCO. 9

Learn more at dell.com/deduplication

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About Dell Software
Dell Software helps customers unlock greater potential through the power of technology—delivering scalable, affordable and simple-to-use solutions that simplify IT and mitigate risk. This software, when combined with Dell hardware and services, drives unmatched efficiency and productivity to accelerate business results.


8 Expected performances when using RDA, Rapid NFS or Rapid CIFS, 10GbE and multiple backup or client server connections
9 Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions.