Dell DR4100 disk backup and disaster recovery solution

Ensuring data availability and integrity, while still meeting capacity and backup window constraints, is about to get significantly easier. The Dell DR4100 disk backup appliance with built in deduplication and compression technology can help you overcome your toughest data proteciton challenges by reducing the amount of data that needs to be stored and replicated. By removing redundant data from the backup work stream, the DR4100 can drastically reduce the storage footprint, enable backup data to remain on disk and online longer, provide faster and more reliable restores, and reduce tape management complexity.

Simple, affordable solution

The DR4100 is a high-performance, disk-based backup and recovery appliance that is simple to deploy and manage, and offers unsurpassed total cost of ownership benefits. Features such as innovative firmware and an all-inclusive licensing model provide optimal functionality and help eliminate the hidden costs of future feature upgrades. The DR4100 has a simple installation process with intuitive remote setup and management capabilities, and is available in five usable capacity points—2.7TB, 5.4TB, 9TB, 18TB, 27TB[1]— ideal for small enterprise as well as remote office environments.

Harness the power of deduplication

Through the use of innovative Dell deduplication and compression technology, the DR4100 can help achieve a data-reduction level up to 15:1. This reduction in data means more backup data can be retained longer and in the same footprint. By removing redundant data and occupying the same footprint, the DR4100 disk backup appliance with built-in deduplication and compression delivers fast, reliable backup and restore functionality, reduces media usage, power and cooling requirements, and improves overall data protection and retention costs.

As a disk backup target appliance, the DR4100 is specifically engineered to handle streaming backup workloads, with all deduplication and compression operations being performed in the appliance. This approach helps minimize the impact to backup and recovery performance.

Reap the rewards

The benefits of data deduplication can extend across the enterprise as well— through the DR4100 deduplicated replication function—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 at the same time as internal service level agreements (SLAs) are more easily met.

> **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 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.

By replicating only deduped data, 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.

Manage with simplicity

The DR4100 enables fast, daily replication of backups, providing an easy-to-implement and cost-effective disaster recovery solution compared to traditional tape methods. It also reduces the burden on staff and provides a simple disaster recovery solution that can help reduce capital and operational costs, while minimizing reliance on tape at remote offices.

A graphical user interface (GUI) gives users an overview of the system, including system status, hardware and software alerts, storage capacity and savings, and important system information such as system and software versions. The DR4100 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 a Purpose Built Backup Target Appliance, the DR4100 is specifically designed to perform the functions of deduplication and compression. Optimized for this purpose, it supports a broad range of leading backup software solutions, such as Dell Software's NetVault Backup, AppAssure 4.7 and vRanger, as well as Symantec's NetBackup and Backup Exec, CommVault and HP Data Protector.[2]

Dell recently introduced a new system update for the DR Series (DR4000 & DR4100), an improved Rapid Data Access (RDA) plug-in (v2.1) that is integrated with NetVault Backup 9.2. This combination enables you to take advantage of source-side deduplication and optimized replication capabilities to maximize storage savings and reduce network bandwidth requirements — without adding complexity.

The DR4100 offers flexible and seamless capacity expansion – allowing you to grow your DR4100 solution from as little as 2.7TB to as much as 81TB of capacity, as your business and data grows. This pay-as-you-grow model allows you to expand capacity based on your business demands and helps alleviate challenges in the backup workflow.

Future-proof your data center

The DR4100 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 DR4100 helps to ensure information restores are delivered in a convenient and accurate manner—in time with business needs. The deduplication and compression features within the DR4100 are cornerstone technologies of Dell's data protection vision. Future products within this architecture will continue to leverage the same dedupe/compression capabilities.

Find the answers

Dell Services can help reduce IT complexity, lower costs and eliminate inefficiencies by making IT and business solutions work harder for you. The Dell Services team takes a holistic view of your needs and designs solutions for your environment and business objectives while leveraging proven delivery methods, local talent and in-depth domain knowledge for the lowest TCO.[3]

[2] Please see online tech specs for additional software certifications.

[3] Availability and terms of Dell Services vary by region. For more information, visit www.dell.com/servicedescriptions

Feature	Dell DR4100 Backup target appliance
Form factor	2U
Internal storage	Redundant OS storage on dedicated disks (inside chassis) 12 3.5" drives, Near Line SAS—hardware RAID 6 configuration (11 drives + 1 hot spare)
Protocol support	NFS, CIFS, OST and RDA
Networking	6-port 1GbE (base-T), 2-port 10GbE (base-T) per node or 2-port 10GbE (SFP+) per node
Systems management	iDRAC 7 Enterprise
Physical dimensions	2U RAC-mountable chassis or 29.72" (75.5cm) D x 18.99" (48.24cm) W x 3.44" (8.73cm) H with bezel attached
Rack weight	32.5kg, (71.5lbs.), maximum configuration
Capacity points	Available in 5 configurations: 2.7TB post-RAID (41TB logical)[4] 5.4TB post-RAID (81TB logical)[4] 9TB post-RAID (135TB logical)[4] 18TB post-RAID (270TB logical)[4] 27TB post-RAID (405TB logical)[4]
Wattage	750 W (redundant power supply)
Voltage	100 VAC to 240 VAC, auto ranging, 50Hz to 60Hz
Heat Dissipation	2891 BTU/hr (maximum)
Regulatory Model	E13S Series
Maximum throughput with RDA (Rapid Data Access)	7.5TB/hr[5] ; 3.9TB/hr[6]
Backup software certifications	CommVault Simpana, Symantec Backup Exec, Dell AppAssure 4.7, NetVault Backup, vRanger, CA ARCserve, Symantec Net-Backup, Networker, Veeam, IBM TSM, Oracle RMAN and HP Data Protector

[4] All capacity values are calculated using Base 10 (i.e., 1TB = 1,000,000,000,000 bytes).
[5] Maximum throughput achieved using DR Rapid Data Access with deduplication at source and 10Gb Ethernet.
[6] Maximum throughput achieved using DR Rapid Data Access and 10Gb Ethernet.

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. www.dellsoftware.com.