

## DAKOTA RAID-LP

DakotaRAID-LP is a Linux powered Network Attached Storage & CD/DVD Caching Appliance. Just attach it to your existing network and within minutes you're ready to share RAID protected CD/DVD images and data files to Windows, UNIX, Linux and Macintosh clients. DakotaRAID-LP delivers advanced features at entry-level prices for applications such as CD/DVD content sharing, disc-based software installation, network CD/DVD burning, file serving, disk-to-disk backup, online archiving, data collection, disaster recovery, and email retention, just to name a few.



### Performance

DakotaRAID-LP is powered by a streamlined Linux-based NAS operating system embedded in flash ROM. Equipped with dual Gigabit Ethernet NICs, DakotaRAID-LP 8520 can achieve transfer rates of up to 44 MB/s per second for 50+ clients.

### Reliability and Data Availability

DakotaRAID-LP's low overhead operating system is designed to perform one function - data delivery. This specialization provides for maximum operation efficiency and high reliability. RAID level 1 and 5 support protects your data from disk failure, while features such as hot swappable drives, global hot spares, hot expansion, automatic drive failure detection, automatic data rebuild, bad sector remapping, UPS support, and redundant hot swappable power supplies provide for high data availability. A journaling file system ensures data and file system integrity and enables DakotaRAID-LP to quickly recover in the event of a system failure. The dual Gigabit Ethernet ports can be configured in failover mode for further redundancy.

### CD/DVD Sharing & Recording

The DakotaRAID-LP Server Module enables you to create and manage up to 4,096 RAID protected CD/DVD images for fast and easy CD/DVD sharing. Features include volume sets, remote imaging, local CD/DVD emulation & title management software. The Unique CD/DVD burning feature enables you to archive data to CD or DVD-R via the web browser management interface.

### Management and Security

Web browser-based management tools embedded in firmware simplify configuration and enable administrators to manage multiple units from one location. Active Directory support enables integration into Windows 2000/2003/2008 Domains and permissions can be managed with native Windows management tools. Just right click on the file/folder to set permissions. Other authentication features include NT Domain Authentication (PDC) and Unix Network Information Services (NIS). Operating system upgrades can be downloaded from our support center and flashed to DakotaRAID-LP via the web interface.

## Features

- Optimized NAS Operating System
- Journaling File System
- Web Browser Management
- Multi-Protocol Client Support
- RAID Level 0, 1, 5, & 6 Support
- Hot Swappable Drives
- Global & Dedicated Hot Spares
- Drive Roaming
- Real-Time Virus Protection
- CD/DVD Sharing & Recording
- Dual NICs
- NIC Teaming
- Active Directory Security
- Unix NIS Security
- Access Control List (ACL) Security
- Local Tape Backup
- Tape Autoloader Support
- iSCSI Target
- SmartSync Data Replication
- SmartExtend Management
- Snapshots
- E-mail Event Notification
- UPS Support
- Redundant Hot Swap Power Supplies\*
- Flash Upgradeable Firmware
- No Client Licenses

## Multi-Protocol Connectivity

DakotaRAID attaches directly to your existing network and transfers data over industry standard network access protocols (TCP/IP or AppleTalk) using standard file sharing protocols (SMB/CIFS, NFS, AFP, FTP or HTTP). A journaling file system is located and managed onboard, therefore, data can be shared simultaneously by clients regardless of which server or operating system is being used. Cross-platform connectivity provides a common storage resource and increased user productivity.

## Configuration and Scalability

DakotaRAID-LP can be configured with up to 8 hot swappable SATA drives for up to 16 TB of raw storage. Scalability features such as multiple RAID set capability and Hot RAID Expansion enable you to grow your storage capacity as needed. Dual 10/100/1000 Ethernet ports can be configured for performance, redundancy, load balancing, or separate LANs.

## iSCSI Target

The built-in iSCSI target feature provides an affordable IP-SAN alternative.

## Data Backup

DakotaRAID-LP is equipped with embedded tape backup tools featuring multiple backup options including full/incremental backups and scheduling. Local backup devices include SCSI AIT, DLT, Super DLT, & LTO. DakotaRAID-LP built-in tape backup software conforms to open standards by adopting UNIX-tar format. The backup tapes can be restored by any backup software which supports UNIX-tar format, so you need not worry about proprietary formats. Tape autoloaders are supported as an option. For Network-based backup, DakotaRAID-LP is compatible with Veritas Backup Exec, CA BrightStor ARCserve, and all other major backup software applications.

## SmartSync Disaster Recovery

SmartSync is an embedded data synchronization tool that allows two or more DakotaRAID-LP units to mirror each other over a LAN or WAN automatically and efficiently. Advanced features and configuration settings reduce demand for network bandwidth. For instance, when updating files, SmartSync only transfers differential blocks within files, thus largely reducing unnecessary network traffic. SmartSync can also optionally compress the data stream during synchronization. To allocate network resources, administrators can assign different bandwidth limits for different SmartSync tasks, depending on applications and priority. To further assist in resource management, the SmartSync software displays all running and idle tasks and their progress, so administrators can watch task progress and abort one task to allow others to run faster. SmartSync runs over SSL, which provides secure connections.

## SmartExtend Disaster Recovery

SmartExtend option enables you to manage storage resource for multiple DakotaRAID-LP units on the network as a single IP Storage network. That's mean better resource utilization, ease of storage management and simpler expansion of storage infrastructure.

## Snapshots

DakotaRAID-LP features a snapshot function, which creates a read-only copy of the contents of the NAS Appliance at a particular point in time. Users can access the snapshots and easily restore previous versions of files or folders without having to contact a system administrator. Up to 256 snapshots are supported with version control. Standard on 4420/8420 models and optional on others.

## Virus Protection

DakotaRAID-LP features embedded antivirus software providing trustworthy and instant virus protection. Real-time, scheduled or manual virus scanning options protect your data from virus attacks around the clock. Automatic virus pattern updates from Trend Micro keeps virus protection up to date.

## UPS Integration

DakotaRAID-LP seamlessly integrates with the smart-signaling UPS systems and administrators can monitor and configure the UPS condition from the administration webpage. In the event of an extended power outage, DakotaRAID-LP will be shutdown safely, preventing potential data corruption and email an administrator of the related event.

## Total Cost of Ownership

DakotaRAID-LP ensures a low total cost of ownership by eliminating the unnecessary hardware, operating system license and administrative costs of a general-purpose server. Easy-to-replace hot swappable components simplify maintenance and service.

## Specifications

### Storage

- ✓ Up to 8 Serial ATA Drives
- ✓ Hard Drive Capacities: 500 GB, 1 TB, & 2 TB (7200 RPM)
- ✓ Up to 2 IDE CD-R/RW, DVD-R/RW, DVD+R/RW, or tape drives
- ✓ Supports SCSI tape drives (AIT, DLT, Super DLT, or LTO)
- ✓ Supports Tape Libraries (Check with AMS Sales for supported models)
- ✓ iSCSI Target Support

### RAID

- ✓ RAID Level 0, 1, 5, & 6 support
- ✓ Hot Swappable drives
- ✓ Global hot spares
- ✓ Hot RAID Expansion
- ✓ Supports multiple RAID volumes
- ✓ Bad sector re-mapping
- ✓ Drive Roaming
- ✓ Multiple RAID set support

### CD/DVD Server Module

- ✓ Concurrent disc sharing for Windows, Macintosh and UNIX clients
- ✓ Mount ISO-9660 and HFS simultaneously for hybrid discs
- ✓ CD/DVD Formats: ISO-9660, Joliet, Rock-Ridge, HDF, UDF, HFS, HFS+, VCD, Hybrid & Multi-Session
- ✓ Maximum # of CD/DVD Images: 4096 (with 1 GB RAM)
- ✓ Supports Volume Sets
- ✓ Includes remote imaging & recording software
- ✓ Includes local CD/DVD emulation software
- ✓ Includes title management software
- ✓ Blu Ray device support

### Dual NIC Configuration

- ✓ Load Balancing
- ✓ Failover
- ✓ Teaming
- ✓ Dual Segment

### Network Environment

- ✓ Microsoft: Windows 2000/2003/2008/XP
- ✓ Unix/Linux: Solaris, FreeBSD, Linux, and other UNIX derivatives
- ✓ Macintosh: MacOS 8.x, 9.x, OS X

### Network Protocols

- ✓ TCP/IP, AppleTalk
- ✓ HTTP, CIFS/SMB, NFS v1, 2, 3 & 4, FTP, AFP
- ✓ BOOTP, RARP, DHCP; DNS; WINS; SMTP, SNMP; NTP; SSL

### System Management

- ✓ Web-based interface for system administration and alerts
- ✓ LCD console for setting IP addresses and displaying system information
- ✓ Alert email notification
- ✓ NASTart software for server discovery, quick setup, and system configuration backup/restore
- ✓ User Quota control
- ✓ Environmental monitoring of system/CPU temperature, fan speed and CPU voltages
- ✓ Run-time event logs
- ✓ E-mail notification
- ✓ SNMP management (MIB II)
- ✓ System buzzer alerts
- ✓ Upgradeable firmware
- ✓ Data Snapshots

### Security Management

- ✓ File/Folder/Share-level security
- ✓ User/Group permissions
- ✓ Supports Access Control Lists
- ✓ User disk quota control
- ✓ Secure Socket layer (SSL) 128-bit encryption
- ✓ Built-in Trend Micro anti-virus software

## Specifications

### Directory Services Support

- ✓ Microsoft Active Directory Service
- ✓ Unix Network Information Service (NIS)

### System Availability

- ✓ Dual NICs with fail-over and load-balancing features
- ✓ System configuration backup/restore
- ✓ Dual redundant hot-swap power supplies\*
- ✓ Supports UPS with smart signaling

### SmartSync Disaster Recovery

- ✓ Easy to use and configure via a web GUI
- ✓ Provides scheduled or manual synchronization between NASStorage servers
- ✓ Instant access to synchronized data
- ✓ Synchronization points can be any volumes or folders
- ✓ Only transfers the differences in updated files, providing efficient network utilization
- ✓ Optional compressed data link
- ✓ SSL (secure shell) data encryption prevents risks of being eavesdropped
- ✓ The administrator can view the synchronization progress and interrupt a task at any time
- ✓ Security information (ACL) can also be synchronized
- ✓ Provides bandwidth control for each synchronization task
- ✓ Revision control for tapeless backup
- ✓ One-to-many distribution

### Multilingual Support

- ✓ Localized web-pages: English, Traditional Chinese, Simplified Chinese, Korean, Japanese, French, German, Italian, Spanish
- ✓ Code-pages: English and western European, CJK DBCS, Unicode

### Bundled Software

- ✓ NASTart™ software for server discovery, quick setup, and system configuration backup/restore
- ✓ eMulateCD™ software for emulation of network folders on DakotaRAID-LP as native CD/DVD titles on your workstation
- ✓ eContent™ software for CD/DVD library management

\*Available on certain models (see model chart)

## Model Specifications

	DL4100CR DL4100PR	DL8100PR	DL1700CR DL1700PR	DL4500PR	DL8200PR
Form	1U Rack	2U Rack	4U Rack	4U Rack	4U Rack
CPU	CR : Celeron CM550 PR : Pentium T7500	Pentium T7500	CR : Celeron CM550 PR : Pentium T7500	Pentium T7500	Pentium T7500
Memory	1 GB	2 GB	1 GB	1 GB	1 GB
Network	2 - GbE	2 - GbE	2 - GbE	2 - GbE	2 - GbE
Serial Port for UPS	Yes	Yes	Yes	Yes	Yes
LCD Configuration Panel	Yes	Yes	Yes	Yes	Yes
Max # of Hard Drives	4 - SATA	8 - SATA	1 - SATA	4 - SATA	8 - SATA
Hot Swap Drives	Yes	Yes	No	Yes	Yes
Max # of Optical/Tape Drives	1	1	7	5	2
SmartSync Support	Yes	Yes	Yes	Yes	Yes
CD/DVD Server Support	Yes	Yes	Yes	Yes	Yes
Max # of CD/DVD Volumes	4096	4096	4096	4096	4096
Anti-Virus Support	Yes	Yes	Yes	Yes	Yes
Snapshot Support	Optional	Yes	Optional	Optional	Optional
SmartExtend Target Support	Yes	Yes	Yes	Yes	Yes
SmartExtend Initiator Support	Optional	Optional	Optional	Optional	Optional
iSCSI Target	Yes	Yes	Yes	Yes	Yes
Second Copy Backup Software	Included	Included	Included	Included	Included
Tape Backup Support	Optional SCSI	Optional SCSI	SCSI	SCSI	SCSI
Tape Library Support	Optional	Optional	Optional	Optional	Optional
Redundant Hot Swap Power Supplies	No	Yes	No	Yes	Yes
Power Watts	250 W	350 W	300 W	300 W	300 W
Power Input Voltage	90-260 V	90-260 V	90-260 V	90-260 V	90-260 V
Operating Temperature	0 – 40 C	0 – 40 C	0 – 40 C	0 – 40 C	0 – 40 C
Operating Humidity	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing
Dimensions H x W x D (in)	1.75 x 17.5 x 28	3.5 x 17.5 x 28	7.5 x 10.625 x 17.25	7.5 x 10.625 x 17.25	7.5 x 10.625 x 17.25



## Tower Models

	<b>DL1300CT DL1300PT</b>	<b>DL1300CT DL1300PT</b>	<b>DL1700CT DL1700PT</b>	<b>DL4500PT</b>	<b>DL8200PT</b>
Form	5 Bay Tower	5 Bay Tower	9 Bay Tower	9 Bay Tower	10 Bay Tower
CPU	CT : Celeron CM550 PT : Pentium T7500	CT : Celeron CM550 PT : Pentium T7500	CT : Celeron CM550 PT: Pentium T7500	Pentium T7500	Pentium T7500
Memory	1 GB	1 GB	1 GB	1 GB	1 GB
Network	2 - GbE	2 - GbE	2 - GbE	2 - GbE	2 - GbE
Serial Port for UPS	Yes	Yes	Yes	Yes	Yes
LCD Configuration Panel	Yes	Yes	Yes	Yes	Yes
Max # of Hard Drives	1 - SATA	4 - SATA	1 - SATA	4 - SATA	8 - SATA
Hot Swap Drives	No	Yes	No	Yes	Yes
Max # of Optical Drives	3	1	7	5	2
SmartSync Support	Yes	Yes	Yes	Yes	Yes
CD/DVD Server Support	Yes	Yes	Yes	Yes	Yes
Max # of CD/DVD Volumes	4096	4096	4096	4096	4096
Anti-Virus Support	Yes	Yes	Yes	Yes	Yes
Snapshot Support	Optional	Optional	Optional	Optional	Optional
SmartExtend Target Support	Yes	Yes	Yes	Yes	Yes
SmartExtend Initiator Support	Optional	Optional	Optional	Optional	Optional
iSCSI Target	Yes	Yes	Yes	Yes	Yes
Second Copy Backup Software	Included	Included	Included	Included	Included
Tape Backup Support	SCSI	SCSI	SCSI	SCSI	SCSI
Tape Library Support	Optional	Optional	Optional	Optional	Optional
Redundant Hot Swap Power Supplies	No	No	No	No	No
Power Watts	300 W	300 W	320 W	300 W	300 W
Power Input Voltage	90-260 V	90-260 V	90-260 V	90-260 V	90-260 V
Operating Temperature	0 - 40 C	0 - 40 C	0 - 40 C	0 - 40 C	0 - 40 C
Operating Humidity	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing	10 - 80% non-condensing
Dimensions H x W x D (in)	10.625 x 7.5 x 17.25	10.625 x 7.5 x 17.25	17.5 x 7.5 x 18	10.625 x 7.5 x 17.25	10.625 x 7.5 x 17.25

## Warranty & Support

DakotaRAID-LP ships with:

- ✓ 3 year hardware warranty with advanced replacement for defective field replaceable components
- ✓ 3 year, 9 x 5 toll-free technical hardware support

Hardware warranty uplifts are available for:

- ✓ 24 x 7 x NBD Onsite with 24 x 7 Call Center

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