

 TULSIENT



CDH

CDH is a dual-function NAS server that performs both CD Mirror and File server applications. It is the first NAS server available in the market for cross-platform storing and sharing all sorts of data files and CD/DVD information.

NAS Innovation

- Performs both CD Mirror and File Server Functions
- Cross-Platform File Sharing, Support Multiple Protocols
- Plug & Play, Set-up in minutes
- Easy-to-use Web-based Management Interface





First NAS Server Performing both CD/DVD Mirror and File Server Functions

:: Unrivaled Storage Power

Equipped with four independent ATA-100 IDE channels, the CDH carries out extraordinarily high efficiency of data processing. The powerful channels enable the CDH controller to hook up with eight ATA-100 HDD or CD/DVD devices, depending on your task requirements.

CDH provides the flexibility you need for sharing CD information. Empowered by super high speed CD caching and CD mirroring functions, you can enjoy yourself with smooth and immediate CD sharing. CDH supports almost all CD formats such as music CD, CDR, VCD and DVD. Attached with CD-R/RW devices, CDH not only shares CDs but also creates them. Now you can archive your data as CD images on the CDH's hard drives and whenever necessary, put them onto CD-R/RW discs. It is also not a problem to make copies. The CDH extends seamlessly its sharing capabilities to CD recording devices.

Utilizing the CDH to store data files is a pleasant experience, just like using a quality file server. The CDH provides you with full function file management, such as file opening, duplicating and backup.

Plus, don't worry about the storage capacity. The CDH gives you hundreds of GB space with 1,000-volume storage capacity, enabling a managed co-existence of CD/DVD information and data files.

:: Invulnerable Data Safety and Security

The CDH features of a shutdown protection circuit coordinating the ATX power system to protect your data. Upon receiving your shutdown command, the CDH automatically secures the data system and then turns off the power with all files safe and sound. In addition to the advanced power management function, the CDH is equipped with share and user level security control to prevent unauthorized access of data.

That is not all. The CDH uniquely provides you operating information and issues warning messages about the system status with LCD displays. To keep the server from being over-heated, the CDH reminds you of the server temperature, collected with a built-in thermal sensing circuit.

:: Easy But Universal Utilization

Fitting in a variety of network environments is always the focus of the Tulsient product families. The CDH functions perfectly under most network environments such as Microsoft Windows, Novell NetWare, Apple Macintosh, UNIX and Web browsers.

Set-up minutes, the CDH features all convenience and utilization the NAS server contains. Imagine how easy the server can be ready, you just connect the CDH onto the network, turn on the power and input the IP address directly on the LCD panel of the controller.

Boost your CDH with eMulateCD and eConsole

:: eMulateCD

eMulateCD is a utility, which emulates the network folders, located in either the CDH server or other workstations in your LAN to become a native CD-ROM drive at your own workstation. It solves the problem of some CD titles needing to be in local CD-ROM drives for execution and which cannot be run across the network. You can also use eMulateCD to map several network drives at the same time. It is far more powerful than the built-in "Map Network Drive" function in the Windows system.

- ❑ Emulates Network Folders as Local CD-ROM Drives
- ❑ Accesses some CD titles which are not designed not network accessing
- ❑ Maps multiple network drives and performs as a central management window to all the mapped drives
- ❑ Saves the up-to-the-minute mapping status to a profile and retrieves it whenever needed.

:: eConsole

eConsole is a powerful utility for CDH's administration. It provides two major functions: managing CDH servers and remotely loading CD/DVD images into the CDH. You can either duplicate a whole CD or build an image from a bunch of files. It also supports the CD-R functions of the CDH. Sharing and publishing data has never been so easy.

- ❑ **Remote Creation of CD Images**
 - Remotely loads CD images from a local CD-ROM drive into the CDH.
 - Collects and duplicates files into the CDH as a single CD image.
 - Allows users to assign 6 different destination servers when building CD images.
 - Fully integrates the CD-R functions of the CDH.
 - Supports up to 16 different tasks.
- ❑ **User Interface**
 - Explorer-like user interface together with user-friendly wizards.
 - The Task Manager monitors all on-going and scheduled tasks.
- ❑ **Server Management**
 - Finds and manages all CDH servers on a LAN.
 - Configures the CDH server for the first time setup or quick setup.
 - Performs administration functions to all CDH servers attached to the LAN.
 - Initializes the CDH hard disk drives.
 - Deletes any volumes in the CDH server.
 - Shuts down or resets the CDH server.

Technical Specifications for CDH

:: Hardware

Controller

- 300 Mhz Pentium class CPU with 16 KB L1 cache.
- On-board 32MB SDRAM one DIMM slot for 64/128/256MB SDRAM; 4.5MB flash-ROM Auto-sensing 10baseT, 100baseTX Fast Ethernet.
- 4 independent ATA-100 EIDE channels.

- Back-lit LCD display with 3 push-buttons for IP setting and system status/event indication.
- Built-in buzzer to show system status and warning event.
- Built-in thermal sensor for server temperature monitoring.
- Dual-color LEDs to show power / Fault, LAN activity and LAN link / speed, device activity.
- Built-in ATX power control and server management circuit.
- Real Time Clock for scheduling power on and shutdown.

IDE Devices

- CD-ROM, DVD-ROM drive
- CD-R, CD-R/W drive
- ATA compliant hard drive, support ATA-100
- ATA compliant tape drive for data backup and restore

:: Network Environments

Microsoft Windows

- **Network systems:** Windows 95/98/NT/ME/2000
- **Protocols:** NetBEUI, NetBIOS over TCP/IP
- **Security:** Share Level Security, User Level Security
- **Data Access:** MS Explorer
- **Additional TCP/IP protocol suites:** WINS, DHCP, BOOTP, RARP and SMTP

Novell NetWare

- **Network systems:** NetWare 3.1x, 4.x and 5.x
- **Protocols:** NCP over IPX
- **Security:** Authentication by local user database, NetWare Bindery server
- **Data Access:** Standard tools provided by NetWare client

Apple Macintosh

- **Network systems:** MacOS 7.x, 8.x, 9.x, 10.x
- **Protocols:** AppleTalk, TCP/IP
- **Security:** Share Level Security, User Level Security
- **Data Access:** AppleShare or AppleShare IP

UNIX / Linux

- **Network Clients:** UNIX NFS Clients
- **Protocols:** NFS version 2
- **Security:** Host IP, UID, GID
- **Data Access:** UNIX or Windows-based NFS clients

Web Browsers

- **Browsers compliant:** Netscape 4.x, Internet Explorer 4.x or above: HTML 2.0 or above
- **Security:** Share Level Security, User Level Security
- Allows the user to download data from the server via standard Internet browser
- Allows the system administrator to manage the server via a standard Internet browser

FTP*

- **Protocols:** TCP/IP
- **Security:** Share Level Security, User Level Security
- Allows the user to download / upload data via most of FTP utilities

:: Volumes and Shares

- The types of "volumes" hosted by server include CD/DVD titles, CD/DVD cached / mirrored images and file partitions
- Up to 1000 volumes can be hosted by one server and 255 shares can be exposed to network
- Each network share can be a "virtual share" which can host up to 1000 volumes
- Support DVD-9, DVD-18 title/image

:: Data Redundancy

- Compliant to approved IDE-to-IDE RAID 1 hot-swappable controller
- Built in option for RAID 0,1,5
- Data in the file volume can be backed-up / restored using popular backup software
- Tape device supporting mirror and file volume backup and restore
- CD-R, R/W device support DAO (disk at once) to burn CD

:: Security & Account Management

- Share-basis security: Each share can be set up with its own security setting.
- Hosts up to 512 accounts including local group / user account and global group / user account (existing at other servers, such as NT and NetWare).

:: Media Format & File System

CD/DVD formats & file systems

- CD-ROM, CD-R, CD-DA (Audio CD, Video CD, Photo CD, Multi-session and DVD)
- ISO9660 level 1,2,3 (including Romeo, Joliet and Rock-Ridge Extension), High Sierra, HFS, UDF and Hybrid

Cross-platform file system

The internal file system is compliant to different networks file sharing protocols, such as Windows (SMB), NetWare (NCP), Macintosh (AFP), UNIX (NFS). It allows different network OS to read / write data from / to the same network share simultaneously.

:: CD / DVD Archiving

- CD / DVD caching / mirroring
- A CD / DVD image can also be created through the network via bundled software (eConsole) from a CD / DVD or a collection of files
- Mirror tasks can be executed according to a predefined schedule
- More than one mirror task can be performed at the same time
- A CD / DVD image can be written into CD-R / RW via built-in tools and a collection of files can be written into the CD-R / RW via bundled software (eConsole)

:: Multi-lingual Support

- **Web Page:** English, French, German, Italian, Japanese, Traditional Chinese, Simple Chinese
- **Code Page:** CP437, CP850, Mac Roman, CP950, GB-2312-80, CP932, CP949

:: Power Management

- Provision of a Safe Shutdown function via a power button and the Web browser in order to maintain the Integrity of the file system.
- Schedule power on and shutdown.

:: Power Supply

- An ATX power supply is required to connecting controller, 5V(DC)/3A, 12V(DC)/0.5A

:: F/W Upgrade

- Firmware can be upgraded remotely via a standard Internet Browser (HTTP)

:: Approvals

- CRU, RU
- FCC Class B, TUV, CE

:: Warranty

- One Year

:: Target Applications

- Data Warehouse
- Imaging & Graphics
- Education & Library
- Pre-press Environment
- ISP & ASP
- Government, Bank, Hospital



TULSIENT
Solutions for the Information Age

www.tulsient.com

info@tulsient.com

Mumbai: 1, Timmy Arcade C.T.S., 778/B, Makwana Road, Marol, Andheri (E).
Mumbai 400059. **Tel.:** 28515955 **Fax:** 28518363

New Delhi: 3rd Floor, Sandhyadeep, 15, Community center, East of Kailash,
New Delhi 110065. **Tel.:** 26236436/37 **Fax:** 26284085

Bangalore: No.44, 19th Main, 8th Cross, 1st Stage, 1st Phase, BTM Layout,
Bangalore 560029. **Tel.:** 26687600/26681655

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