

## Network-Ready CD Mirror Server

Hosts up to  
640 CD images

Sustains over 20  
Video Playbacks



**CD™** means Massive:

- Hosts up to 640 CD images
- Supports single CD image of up to 4 GB

**CD™** means Multimedia:

- Sustains over 20 MPEG-I video playback without gaps and jitters
- Supports multimedia file formats like DVD Video, Audio CD, and Video CD

**CD™** means Mighty:

- Pumps over 7MB per second to network, 3 to 5 times faster than competitors

**CD™** means Manageable:

- Identifies duplicate CD images automatically
- All administration jobs are done via WWW browsers

***TULSIENT CDM is the latest breakthrough in the CD/DVD networking and NAS (Network Attached Storage) technology from TULSIENT Server family. It provides fast network access of a large number of CD/DVD titles with complete multimedia support. It is a cost-effective and robust data storage solution for libraries, enterprises, educational institutions and government users.***

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## **Outperforms Jukeboxes**

TULSIENT CDM stores up to 80 CD/DVD titles per hard drive or 640 titles per server, providing the largest capacity for CD networking solutions. It replaces high-priced mechanical CD jukeboxes. Installation could not be easier: take it out of the box, hook it up to the network and turn it on. There is no need to set up another PC or server for administration or install any drivers or software on either servers or clients. Management through web browsers is a breeze for network administrators and allows them to manage the unit wherever they are. TULSIENT CDM is simply the best solution for CD networking in libraries and data warehousing.

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## **Designed for Multimedia**

TULSIENT CDM is the only CD/DVD server in the market that is specially designed for sharing multimedia over the network. The Elevator-Seeking algorithm reduces the average access time, and the unique Connection-based Predictive Caching Mechanism allows users to play multimedia titles smoothly. Up to 20 people can view a multimedia title simultaneously from a hard drive without gaps and jitters. It is the best choice for multimedia applications such as CAI (Computer-Aided Instruction) and distance education.



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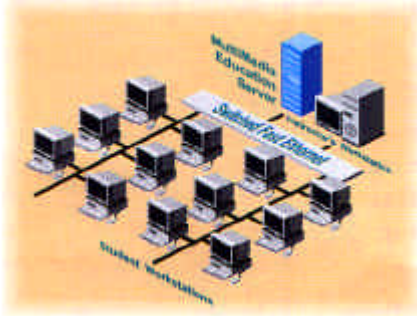
## **Remotely browse and manage CD servers**

With the remote management utility Mirror Manager, you can browse and manage CD images on all CD servers on the network. Mirror Manager can load a CD from a local CD-ROM drive into the HD of a remote CD Server. You can also use it to find CD servers on LAN and browse easily. It saves you a lot of efforts by allowing central management of CD servers.

## Applications

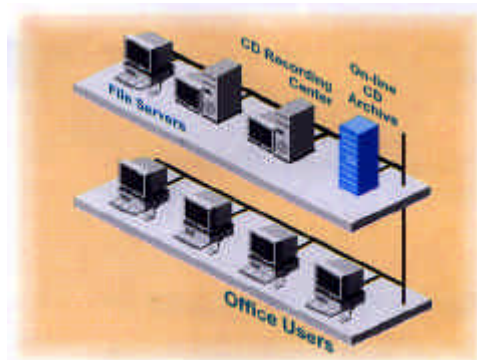
### ***Interactive Multimedia Education Server***

Once you connect TULSIENT CDM to a LAN in a classroom, you don't have to install any CD-ROM drives in the student's workstations. The school administrators no longer need to worry that the original CDs get lost, copied or damaged. Duplication of original CDs becomes unnecessary. Teachers can arbitrarily switch between different CDs and programs without the need to re-distribute CDs during the lesson. Students can choose whichever programs they want to use. TULSIENT CDM makes it possible to deliver interactive multimedia instruction to any or all of your students.



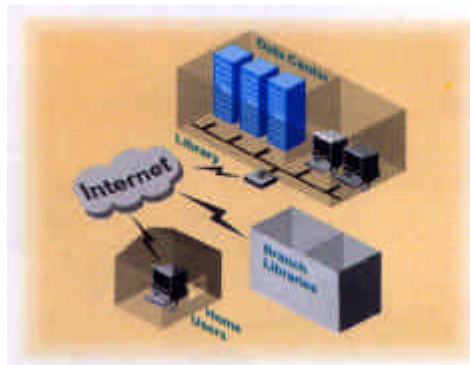
### ***High-performance, Real-time Data Storage Center***

The establishment of quality control systems, such as ISO 9000 brings enterprises precision and efficiency. However, it generates huge amounts of documents. If these documents are not well-organized and managed, employees may spend up to ¼ of their working time searching for the data they need. For MIS departments it means larger on-line storage, more backups, heavier server loading and more administrative headaches.



TULSIENT CDM helps you manage the explosion of on-line information. You can offload less frequently used files from file servers to CD-R/RWs and share that data with network users via TULSIENT CDM. This offers an online, real-time data center that stores all information in a reliable, non-changeable format. It satisfies the need for processing large amounts of data and is suitable for law offices, accounting and architect firms, hospitals and medical archives (such as X-ray and MRI image files), banks, airlines and transportation companies.

### ***High Speed Digitized CD Library***

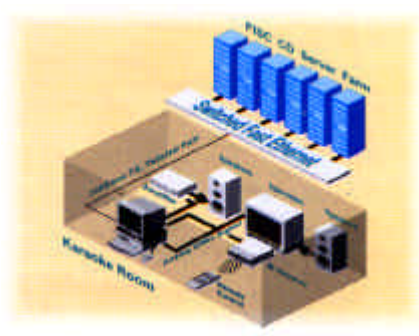


Connected to computers in a library and the Internet, TULSIENT CDM provides access to a library's existing CDs. By digitizing books, newspapers, magazines and other kinds of paper-based publications unto CDs, you can establish a high-speed digitized library. Many of the publishing houses now offer libraries the option to receive the publications in either paper or CD format. TULSIENT CDM is ideal for storing and managing this information.

Once converted into digital form on CD, the information is now stored in a low-cost and reliable format that lasts for years. Breaking time and physical barrier, a digitized library offers access to hundreds of users through LANs or remotely via the Internet. Integration of a catalog lookup system and a full-text search engine makes it easy for all users to retrieve information.

### **Automatic Video-on-demand System**

Do you wish that you would not have to wait so long for your song to play in Karaoke after you make your selection? Does it always end up with the wrong one? Now you don't have to wait any longer. TULSIENT CDM-based automatic video-on-demand solutions deliver the experience everyone wants in Karaoke fast access and always the correct song.



TULSIENT CDM allows several users to play a movie or song selection simultaneously. Only one PC per room is required to handle all the jobs of selecting, queuing and playing songs. It also eliminates the large investment required in the master control room for both equipment and operators. TULSIENT CDM-based Karaoke Video-On-Demand solutions are the simplest and the most inexpensive systems available. Other applications for Automatic Video-On-Demand systems can be utilized in hotels, airlines, buses, ships and CD trial systems in retail rental stores.

## **Technical Specifications**

<b>Product Description</b>	Network-ready CD-ROM server with standard half-height form factor that is installable in any 5.25" drive bay, supporting EIDE HD, ATAPI CD-ROM and 10/100Mbps Ethernet & Fast Ethernet
<b>File Systems And Protocols:</b>	Simultaneous operation under the following network file systems and protocols
<b>Microsoft Network, OS/2:</b>	SMB/CIFS/DFS over TCP/IP and NetBEUI
<b>Novell NetWare:</b>	NCP over IPX (Bindery server emulation)
<b>UNIX/Linux:</b>	NFS over UDP/IP
<b>WWW:</b>	HTTP over TCP/IP
<b>TCP/IP Suite:</b>	RARP, BOOTP, DHCP, ICMP, WINS
<b>CD-ROM Format:</b>	CD-DA (Audio CD), CD-ROM, CD-R, Video CD, CD-Extra, Photo CD, DVD-ROM, DVD Video
<b>CD-ROM File System:</b>	ISO 9660 level 1 & 2 (including Romeo, Joliet and Rock-Ridge Extension), High Sierra (HSF), Multi-session
<b>Installation:</b>	Any or all CDs can be mounted under one drive letter. Automatically becomes Browse Master in Microsoft network environment for easy set-up <b>Windows:</b> Shows up as an NT server, supporting WINS and DHCP <b>NetWare:</b> Shows up as a NetWare Bindery File Server <b>WWW/UNIX:</b> Set IP address via ARP, RARP, DHCP

	or BOOTP
<b>Network Management:</b>	Platform-independent configuration and status monitoring via a Web browser
<b>Firmware Update:</b>	Flash Memory allows central and remote software updates over the network via HTTP
<b>Share Level Security:</b>	Access is controlled by passwords assigned respectively to each network volume
<b>User Lever Security:</b>	<p><b>User Database:</b> A local user database holds account information of upto 1,400 users / groups. The database can be created manually, or copied from either Windows NT domain controllers or NetWare bindery servers</p> <p><b>Windows/NetWare:</b> Passwords are checked by Windows NT/NetWare servers; users can be authenticated via multiple domains in Windows NT environment</p> <p><b>UNIX/LINUX:</b> Supports IP-based security control for NFS clients, plus optional UID/GID check</p> <p><b>WWW:</b> Security check for HTTP service is performed by an NT domain controller</p>
<b>Web Hosting:</b>	Supports up to 8 IP addresses, each with respective custom home page
<b>Network Performance:</b>	RJ-45 connector (Cat 3/Cat 5 UTP cable) for 10baseT or 100baseTX Fast Ethernet
<b>Storage Interface &amp; Capacity:</b>	<p>Four bus mastering enhanced IDE channels via standard 40-pin connectors support upto 8 EIDE devices</p> <p><b>CD-ROM:</b> Supports ATAPI CD-ROM drives or CD Changers. Holds upto 40 CD titles (8 units / 5 platters per unit) if using mini CD Changers</p> <p><b>HD:</b> Supports ATA-2 HD drives of any size. Each HD can hold 80 CD/DVD images at maximum; one server can hold 640 images at maximum</p>
<b>CD Image Handling:</b>	<p><b>Mirror Performance:</b> Mirroring speed is over 3 MB per second. A 600MB CD can be mirrored in less than 4 minutes. Concurrently mirrors upto 6 CDs. Users can still access the CDs that are being mirrored.</p> <p><b>Job Scheduling:</b> Upto 6 CDs can be mirrored concurrently. Mirror jobs can be initiated immediately or scheduled to off-peak hours.</p> <p><b>CD Image Identification:</b> A checksum will be generated before the mirror job starts, which will be used, alter to check if there exists a duplicate image. Then system administrator can choose how to handle the mirror job for a duplicate title: skip the title, create a duplicate image automatically, or create an image on a designated location for load balancing.</p> <p><b>Corruption Resistant:</b> Abnormal shutdown or power events will not affect system integrity or damage other CD images. System deletes unfinished image files automatically during reboot.</p>
<b>HD Maintenance:</b>	<p><b>HD Initialization:</b> Automatically done during boot up</p> <p><b>No More Routine Maintenance:</b> Specially designed HD file system requires no routine maintenance such as integrity check or defragmentation.</p>
<b>Hardware:</b>	<b>CPU:</b> Cyrix MediaGx 180MHz

	<b>Level 1 Cache:</b> 16KB <b>Flash Memory:</b> 1MB <b>DRAM:</b> 8MB on board, upgradeable to 24/40/72MB by adding two standard EDO DRAM SIMM modules <b>Network Controller:</b> Digital 21143
<b>Power Rating:</b>	Input: 5V DC; 12V DC for fan
<b>Dimension &amp; Weight:</b>	<b>Size:</b> 170x464x474mm <b>Weight:</b> 9.50Kg
<b>Operating Environment:</b>	<b>Temperature:</b> 0-40°C (32-104°F) <b>Humidity:</b> 10-80% (RHS, non-condensing)
<b>Regulatory:</b>	<b>Safety:</b> CSA, UL, CE: EN60950 <b>EMC:</b> FCC Class B, CE: EN 55022/A1 Class B, EN50082-1
<b>Warranty:</b>	1 year



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