



TULSIENT

Solutions for the Information Age

XS



XS

**The Most
Trusted
NAS Server
World-wide!**

TULSIENT



Product Overview-----



Following innovative products like CDM and CDH, TIS presents **Tulsient XS**: the best in NAS organizational solutions. **Tulsient XS** is evidently the easiest way to attach scaleable hard drive storage to your network. Let us show you how.

With **Tulsient XS**, you can add more than 1,000 GB without disturbing your network or file servers. It is ideal for local databases, centralized data management, backup of workstation data, etc. Besides being economical, it provides equal access to the storage devices from workstations and servers.

This network attached storage server is a totally integrated network appliance and is available with SCSI or EIDE hard drives. As a fast, powerful Thin Server system, it allows for quick and safe installation, without impacting the network server. **XS** is a high-performance appliance that runs independently, therefore it will function even if the network server is 'down' and provides excellent service to all the users.

Complete Network Support: The **XS** comes network ready and is truly plug-and-play. It networks and manages hard disks on NetWare, Windows NT, Apple and UNIX networks concurrently. It simultaneously supports multiple protocols.

Easy to Install and Manage: A Quick installation wizard and a Web Browser are used to configure the X-Server. It supports security by individual and group.

RAID Data Protection: **Tulsient XS** simultaneously supports RAID 0 (Striping), RAID 1 (Mirroring) and RAID 5.

Tape Backup Support: The XS Supports EIDE and SCSI local tape backup.

The **XS** operates with unmatched simplicity, appears in the network neighborhood and can be mapped to a single drive letter. The **XS** appears as a Windows NT and/or a NetWare server on the network, and can be accessed by all the network users simultaneously with unmatched ease and simplicity.

The **XS** is an independent network appliance; its operations neither affect nor are impacted by the network file server.

Applications

Engineering / Manufacturing Segment:

In large Engineering / Manufacturing organizations, the company needs an efficient way to centralize its applications software, such as CAD/CAM Packages and a host of proprietary programs, the rate for tracking and maintenance along with their core production applications. Tulsient XS organizational



productivity appliance can be an effective solution for the organization. This solution can even replace some of the servers for server/ storage consolidation.



One of the problems faced by any System Administrator is managing a large amount of complex data generated by 100 + users from various departments such as Engineering / R &D. This department /group normally generates graphical data, Engineering design information, Product related Data and information from many sales offices. A lot of this data is used for modeling and interpolation and has a big impact on critical business decisions.

The company, which uses the Microsoft NT operating system for desktops, laptops and servers, is challenged not only on how to store such large amounts of data, but also on how to give users fast access to stored data. They try to back up all their data on tape on a daily basis. That simply is not acceptable for any organization, which needs this mission-critical data up-front The XS Server can be configured with 2-4 EIDE/ SCSI drives on the same network initially, and scaled easily to 8~15 device depending on data storage needs. It also depends on company plans of expansion for its systems to mission critical data in the future. The XS supports RAID 0/ RAID 1/ RAID 5 for redundancy and to back up servers online, making data that's been stored available immediately for recall. Then the company can backup all data to tape for redundancy on a weekly basis.

For the System/Network administrator and his team, manageability is a key issue. The XS Server has a browser-based management feature, which is simple to use and requires no special tools. The administrator can access a browser on the system and can manage it from anywhere. This means that the administrator can check on problems remotely from anywhere on the network. Compared to the typical NT server, XS Server has proven high reliability in the field. Uptime is critical for such organizations, and one can have 99 % uptime with XS Server.

Ease of installation is another factor on any company's checklist of "must-haves". Organizations can install the XS Server and have them running in the company's networks very quickly, and the data is copied to them.

The company can run XS Server initially in parallel with the other servers that originally stored the data, but after seeing the XS Server in action, some servers can be taken out of operation and transferred to other uses.

Another benefit of the XS Server-based installation is security. Sections of storage can be assigned to departments such as engineering, accounting and customer service. Users from the various departments have rights to access only their secured stored data.

ASP, IDC, Data centers, Government organizations segment:

As a super Capacity Storage server.

Benefits:

- A system with high stability and high reliability, offering customers 24x7 instant service. A complete solution in line with the storage of enormous files and data from optical disks.
- Support of hard drives with EIDE specifications and SCSI, expandable up to fifteen devices.
- Centralized data management and security backup, thus reducing overall scaling-up costs for storage equipment.
- File server load reduction in the network, thus increasing performance of data saving and retrieving speed in the network.
- Compliance with common backup software, sending data to a back-end backup server for centralized backup.





Problems of insufficient storage capacity and backup usually arise with increasing data. Tulsient XS Server can help IT staff with effective planning and allocation regarding routine backup.

It offers advantages of instant backup, high speed and high compatibility with various high-capacity hard drives. It complies with common backup software (e.g. ARCserve IT, Microsoft Backup, etc.) with inbuilt Veritas agent and after collecting the data, sends it to a back-end backup server for centralized backup.

Therefore, for any large-scale data center, due to the features of online instant backup, high speed and high capacity, the XS Server can temporarily store all data from front-end application servers and perform centralized backup at any time without interrupting the normal operation of the intranet.

Applications

- Local tape backup
- Acts as a DHCP server
- Supports RAID 0, 1 and 5
- Up to 15 SCSI and 4 IDE devices
- Monitors and reports hard disk space consumption and usage statistics
- Supports and automatically detects 10 Mbps and 100 Mbps Ethernet networks
- Takes full advantage of NDS, NetWare bindery and NT domain authentication services, simplifying user access authentication
- Installs easily and requires no additional client software. No network downtime is necessary
- Provides Web browser access to administration tools

Technical Specifications

Server Operating Environment	Simultaneous operation in the following network environments
Microsoft Windows	<p>Supported systems: Windows for Workgroups, Windows 95, 98, NT & 2000</p> <p>Supported protocols: SMB over TCP/IP, WINS/NBNS</p> <p>Installation: Shows up as an NT server (user level) or Win95 server (share level), supporting WINS and DHCP. Parameters set in the intuitive Web-based Wizard.</p> <p>Security: User-level or share-level access control</p> <p>Time synchronization: NTP</p> <p>Accessing discs: Use Explorer, File Manager or standard OS/2 tools.</p> <p>All hard disks can be mapped to one drive letter, individual hard disks and top level folders can be mapped to a drive letter.</p>
UNIX	<p>Supported systems: Supports all UNIX through NFS over UDP/IP on TCP/IP Networks.</p> <p>Supported protocols: NFS over UDP/IP, TCP, PCNFSD, ARP, RARP, BOOTP, DHCP, SNMP, and FTP.</p> <p>Installation: Set IP address via ARP, RARP, or BOOTP</p> <p>Security: NFS version 2, User ID, Group ID, PCNFSD authentication via file server.</p> <p>Time synchronization: NTP</p> <p>Accessing discs: Use standard mount</p>
Novell NetWare	<p>Supported systems: NetWare 3.11, 3.12, 4.10, 4.11 and 5.00</p>



Supported protocols: NDS, NCP (IPX and NetWare/IP)

Installation: Shows up as a NetWare NDS

NDS: Simple installation by setting a few parameters in the intuitive Web-based Wizard. The unit will then install itself in the NDS tree within a few seconds.

Bindery: No configuration required.

Security: Encrypted passwords. Authorization via file server, including NDS. All security setup handled by standard NetWare tools such as NW Admin when installed in the NDS tree. Authentication via file server when in Bindery mode.

Time synchronization: NDS

Accessing discs: Use standard NetWare clients.

All hard disks can be mapped to one drive letter and individual hard disks can be mapped to a drive letter.

Apple	Supported systems: AppleTalk on TCP/IP networks
Web Browser	Supported systems: Internet/intranet over HTTP 1.0 and HTML 2.0 compatible browsers Supported protocols: HTTP 1.0 over TCP/IP Installation: Set IP address via ARP, RARP, or BOOTP Security: Password. Individual passwords for each disc Time synchronization: NTP Accessing discs: Use standard browsers, e.g. Netscape Navigator or Microsoft Internet Explorer
Clients Supported	Windows 3.x, Windows 95, 98, Windows NT, Windows 2000, DOS
Network Management	SNMP MIB-II Platform independent configuration and management via standard Web browser e-mail (SMTP) support used for notification of system events. Event log and statistics.
Network Interface	Fast Ethernet: RJ-45 connector (Category 5 unshielded twisted pair cable) for 10baseT or 100baseTX Fast Ethernet. Optional: Gigabit 1000 base TX. Auto sensing.
Logical Connection	Ethernet: IEEE802.2, IEEE802.3, SNAP, DIX and Ethernet II frame types simultaneously.
General Security Features	Can set user limit per hard drive.
File System	Universal Disk Format (UDF).
Administration	Quick installation wizards. Web Browser used to configure, and set up security by individual and group.
CPU	K6III-E+/450 MHz.
Performance	Network throughput over 4000 KB/sec
Software Updates	Flash memory allows central and remote updation.
RAM	64 MB expandable to 512 MB cache using one PC100 SD RAM module.
Devices Supported	CD-ROM, DVD-ROM, Hard Disk Drive & Tape Drive (SCSI / EIDE)



Approvals

EMC: CE; EN 55022/1994, EN50082-1/1992 FCC Subpart B Class A

Safety: EN 60950, UL, CSA, approved power supply for all countries



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