



# USS 2.0



## Unified Storage Server

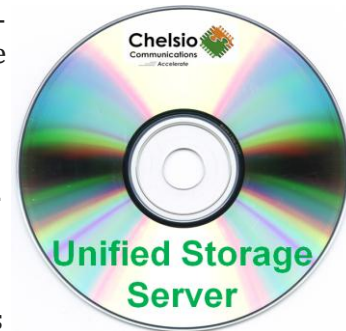
**10GbE/1GbE enterprise-ready high-performance iSCSI SAN, NAS, and RDMA Storage Solution**

**All software necessary to instantly convert any 64-bit Intel or AMD based system into a Unified Storage target.**

**Runs on most Ethernet NICs but runs faster and turns on iSCSI data integrity and RDMA offload on Chelsio NICs.**

Chelsio's Unified Storage Server is a powerful turn-key solution for creating high-performance storage systems. It is an integrated solution that is best-of-breed in the market, and provides an easy integration path for VARs and OEMs, and offers state-of-the-art performance and ease-of-use for end users.

Chelsio's Unified Storage Server includes a wide array of features that simplify file serving and the backup and replication of valuable data that makes it the choice for dependable, reliable, and scalable storage



### Highlights

- **Simplified** - A plug-and-play, easy to deploy, centralized managed SAN/NAS integrated flexible solution.
- **Virtualization Ready** - 10Gbps block storage to host and virtual servers. Supports all VM's boot from USS storage pool.
- **Runs as Virtual Machine** - USS can work on a VMware virtual machine. Other VMs in the same host are able to access storage exported by the USS running on the VM.
- **High Performance** - 10Gbps performance with Chelsio Unified Wire 10GbE adapter.
- **Easy Management** - A single-point management supports configuration, updated, monitoring with web and CLI interface.

### Key Features and Benefits

**Deploy storage systems in minutes** - The first-time setup wizard makes it simple to connect to the network, define local workgroups, add users, create shares, and select file sharing protocols.

**Plug-and-play** - Integrates easily into VAR/OEM's hardware platform, ensuring smooth storage system integration. Comes as a bootable flash memory or loadable software. Fully compatible with most AMD64/EM64T multi-processor systems

**Ease-of-use** - in deploying and reconfiguring of the storage array - Unified Storage Server has an intuitive web-based management interface, which is accessible in any compatible web browser, over an encrypted secure connection, providing ease-of-use and requiring minimum training.

**Lower ownership cost** - Consolidating multiple file servers and iSCSI SAN onto a single device reduces server management overhead and associated IT staff costs. Network storage can be remotely managed using a Web-based user interface, simplifying maintenance and providing centralized control of processes like backups, restores, and upgrades.

**Feature rich** - All storage needs over 1/10Gbps and supports NFS, CIFS, NAS, iSCSI Offload, TCP Offload, FTP, NFSiWARP, LustreiWARP, Remote Mirroring, iSNS, Backup, Easy Management features.

**New features** - USS 2.0 now supports HTTP file sharing, Thin provisioning volumes, Volume cloning, Redirect-on-write snapshots, Instant restore from snapshots, Volume Encryption, and Replication compression.

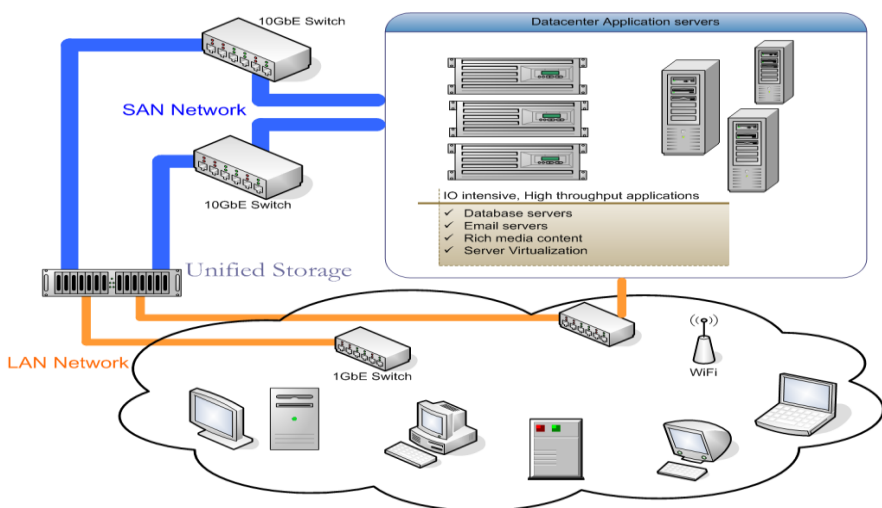
Flexible branding capability feature for OEMs.

## Software Implementation

- Easy-to-implement Chelsio iSCSI Target Protocol Stack on any Ethernet NIC – Full offload with Chelsio 10Gb Ethernet adapters, capable of 900K IOPs and 18Gbps throughput. For further details, please refer to iSCSI Target Software product brief.
- Simultaneous offload for iSCSI and NAS traffic on Chelsio S-series 10Gb Ethernet adapters.
- Support for low-latency, high-workload random transactions, ideal for databases, mail servers, and file servers.
- Storage management – Includes dynamic storage allocation, redundancy, and snapshots for convenient and quick backup and restoration of data.
- Hardware RAID controllers from many vendors are supported, for redundancy and performance.
- Support for common file-sharing protocols – CIFS, NFS, and FTP.
- Addresses the storage consolidation requirements of block storage and file serving, or SAN and NAS.
- Replication – Unified Storage Server allows you to increase data availability and provide disaster recovery for your network storage by creating a copy of data on a remote peer over local area networks (LANs) or wide area networks (WANs) with high-latency, low-bandwidth links.
- NAS features for different needs, NFS for UNIX, Linux networks, CIFS for Windows, and FTP for legacy applications.
- Authentication support using NIS for UNIX clients, and Active Directory for Windows clients.
- Backup and restore – integrated backup and restore feature, with backup from snapshot, eliminating backup downtime.
- Online update of system OS image – update takes effect after reboot.
- Greater than 2TB disk size support and caching for streaming data, delivering breakthrough performance for video/multimedia applications.
- Capable of serving shared storage for Microsoft Windows 2003/2008 Cluster nodes.

## Ordering info

### Unified Storage Server - USS 2.0



## Specifications

### NAS Features

- CIFS
- NFS
- FTP

### iSCSI Features

- MPIO
- ACLs
- iSNS
- CHAP authentication
- LUN masking
- High-performance target stack with 900K IOPs and 18Gbps throughput on Chelsio T3 ASIC-based Storage Accelerator HBAs
- Greater than 2TBytes per LUN support
- Support for Microsoft Cluster Nodes with iSCSI shared storage
- iSCSI boot initiator DHCP management
- iSCSI boot LUN cloning

### Storage Management

- Performance monitoring
- Asynchronous replication
- Snapshots of iSCSI LUNs/Shared file systems
- Backup and restore to disk and tape drives
- Thin provisioning and Volume cloning
- Software RAID and Hardware RAID
- Hardware management
  - RAID controller management support
  - Fibre Channel initiator HBA management support
  - SSD storage support

### Redundancy/HA Features

- Remote Mirroring

### Additional Features

- Chelsio TCP/IP offload + iSCSI offload
- High Availability clustering for maximum uptime
- NFSoRDMA for low latency NAS
- Lustre for HPC storage

### System Requirements

- AMD64/EM64T 64-bit processor
- 2GB RAM without Lustre, 4GB RAM with Lustre
- HDD (SDD, SAS, SATA, SCSI), RAID, or Fibre Channel
- Ethernet NIC (protocol offload requires Chelsio card)
- USB port (2.0 recommended)

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