



# USS 2.2

## Unified Storage Server

Unified SAN + NAS Solution

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

### Applications

- SAN Storage Arrays
- NAS Targets
- NAS/SAN Integration
- Remote Mirroring
- Virtualization Applications
- Data Warehousing
- Video Storage
- High performance computing
- Databases
- Archiving

Chelsio's Unified Storage Server is a powerful turnkey 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 back up and replication of valuable data that makes it the choice for dependable, reliable, and scalable storage.

### 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, NFS-iWARP, Lustre-iWARP, Remote Mirroring, iSNS, Backup, Easy Management features.

**New features** - USS 2.2 now supports iSCSI Scaling, High Availability features with Live Migration and Nested RAID, Lustre over RDMA and extensive self-test, stress test and remote test capabilities.

Flexible branding capability feature for OEMs.

## Software Implementation

- Chelsio iSCSI Target Protocol Stack using Chelsio 10Gb or 1Gb Ethernet adapters, capable of up to 1.1M IOPS and 3GB/s full-duplex throughput on a single Chelsio card
- Simultaneous offload of iSCSI and NAS traffic on Chelsio 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.
- iSCSI Scaling enables Petabytes of storage capacity with multiple iSCSI arrays.
- High Availability (HA) clustering including dual-head support, remote mirroring and live migration.
- Live migration allows a server administrator to move a running virtual machine or application between different physical machines, or swap-out hard disks, without disconnecting the client or application.
- Hardware RAID controllers from many vendors are supported, for redundancy and performance.
- Nested RAID provides higher level of redundancy than regular storage arrays.
- Support for common file-sharing protocols – CIFS, NFS, and FTP.
- Addresses the storage consolidation requirements of block storage and file serving, i.e. 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.
- Online update of system OS image – update takes effect after reboot.
- Greater than 2TB disk size support for streaming data, delivering breakthrough performance for video/multimedia applications.
- Capable of serving shared storage for Microsoft Windows 2003/2008 Cluster nodes.
- Enables “Secure iSCSI™” to protect all storage data with a 32-bit CRC. The dual iSCSI/Ethernet CRC provides more data protection than Fibre Channel.

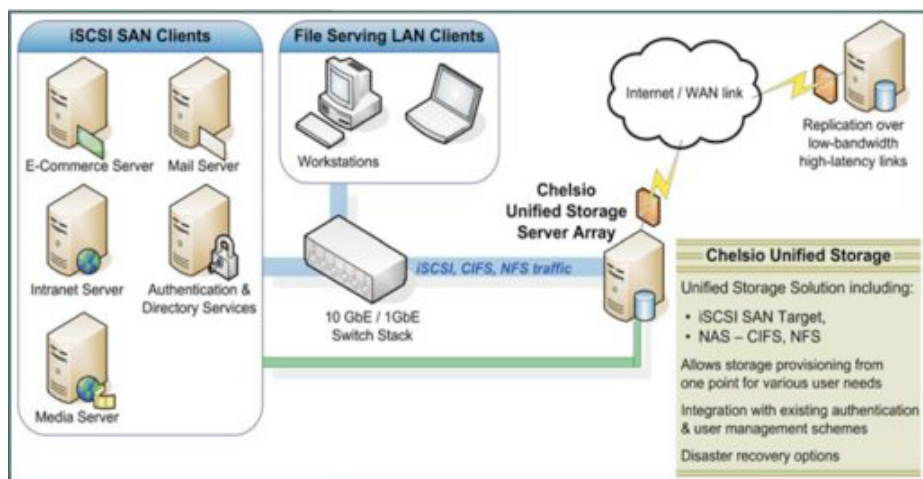
## Ordering info

USS 2.2 – BNDL-M - All Features – Maximum Capacity 48 TB

USS 2.2 – BNDL-L – All Features – Maximum Capacity 96 TB

USS 2.2 – BNDL-XL – All Features – Unlimited Capacity

MAINT1 - Annual Software Maintenance



## Specifications

### NAS Features

- CIFS
- NFS
- FTP

### iSCSI Features

- MPIO
- ACLs
- iSNS
- CHAP authentication
- LUN masking
- High-performance target stack with 1.1M IOPs and 3GB/s throughput on a single Chelsio card (more with more cards) T4 ASIC-based 10GbE HBAs
- Greater than 2TB LUN support
- Support for Microsoft Cluster Nodes with iSCSI shared storage
- iSCSI boot initiator DHCP management
- iSCSI boot LUN cloning
- iSCSI Scaling up to Petabytes

### 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

- Clustering
- Remote Mirroring
- Nested RAID
- Live Migration

### Additional Features

- Chelsio TCP/IP offload + iSCSI offload
- NFSoRDMA for low latency NAS
- Lustre for HPC storage

### System Requirements

- AMD64/EM64T 64-bit processor
- 8 GB RAM
- HDD (SSD, SAS, SATA, SCSI)
- Chelsio Adapter

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