

## NAS X8



CEG NAS X8 is a convergence of File based storage (NAS) and Block based storage (IP SAN) appliance device, also known as [Unified Storage](#). It equipped with hardware RAID array with RAID level 5, 6 over SAS/SATA II disks. It is the best storage/data protection solution in the world. It is File & Block base, up to 8TB capacity (with 1TB disks), support single or multiple Volume/LUN. Utilizes pure Web based GUI for management, easy to use, and no need to know any thing about the operating system, tailored to average SMB users.

### Fastest NAS / iSCSI system in the world

CEG NAS X-class is such a model that is specifically designed, developed, and manufactured for high performance sharing data between local and remote offices NAS. Internal hardware RAID with hot swappable SATA II (or SAS) disk, protected by RAID 6, CEG NAS X-class provides large capacity to all clients in the network. The embedded free NAS-2-NAS Replication supports Differential-Replication and Full-Replication, with replication bandwidth control, network productivity and usability are all maximized.

### Feature Highlights:

- Non-Windows NAS OS provides optimized performance for NFS, CIFS, AFP, and FTP file transfer
- Each Volume can be configured as Reiser FS or XFS for best suitable applications
- Provides Dual Gigabit NICs, supports Teaming, Load Balancing, and Failover; supports 10Gb NIC as well (optional add-on)
- Protected by hardware RAID with RAID 5, 6, supports up to 8 Hot Swap SATA II disks (optional SAS 3Gb)
- Support Large Volume size ( >2TB, up to 16TB per volume )
- Utilizes DOM (Disk-On-Module) or CF (Compact Flash), or Two mirrored Hard Disks for OS
- NAS-to-NAS Folder Replications: Real-Time-Async, Scheduled Differential and Scheduled Full Copy with Compression & Bandwidth Control. It can 1-to-1, 1-to-Many, Many-to-1, and Many-to-Many
- iSCSI volume is also supported by NAS Snapshot
- Support on-line Capacity Expansion, capacity scale-up via external RAID boxes (NAS G Series)
- Support Multiple Volume Snapshots, Schedule-based or Snapshot-on-demand
- Include iSCSI target & iSCSI initiator functions, easily scale-up on capacity via iSCSI network, and support spanning/ Pooling/Linear RAID to form a large size NAS volume
- Support user and group quota, user level/folder level/ file level security
- Remote Monitoring and Remote Email Notifications
- Support optional NAS-to-NAS Mirroring with Automatic Failover
- Optional SCSI port to support direct attached tape drive/autoloader/library, and as well as the 3<sup>rd</sup> party backup software to be loaded into the X8 NAS

## System OS

- Non-Windows based NAS Kernel. Journaling File System, Each volume can be configured with XFS or Reiser FS file system
- NAS OS in DOM ( disk on module ) or Compact Flash without the mechanical wear and tear. Also support Mirroring 2 hard disks for OS
- Dual Gigabit NICs support Teaming, Fail-Over, and Load-Balancing. Up to 8 NIC ports is supported
- Aggregation is supported by one of the 7 bonding modes
- Based on user defined events, email alert can be sent automatically
- Support Direct-Attached Tape Drive/Autoloader /Library with 3<sup>rd</sup> party backup applications

## Protocol / Services

- Supported Client OS: SMB, CIFS, NFS, AFP, Novell NetWare V2/V3, and FTP
- Supported Client Protocol: TCP/IP, AppleTalk, SNMP, NTP, DHCP, HTTP/HTTPS, SSL Service
- Supported Services: WINS, DHCP, NIS, NTP, SNMP, ...
- Support ADS/PDC, and NIS
- Both iSCSI Initiator and iSCSI Target is included

## User Account Information / Authentication

- Support up to 60,000 user accounts
- Support up to 31 characters for user name and 128 characters password
- Support AFP 3.0 : 225 character for file name (including path name)
- Support NAS local user account
- Support Windows ADS/PDC/Domain/Workgroup
- Support ACL: Access Control List
- Support LDAP 2.2: Lightweight Directory Access Protocol
- Support UID for Unix User
- Support NIS: Unix/Linux Network Information Services
- User level security, Folder level security, and File level security.
- Support Host (IP) filtering
- Support SFTP

## Data Protection / Backup

- [NAS-Replication](#) -

## Storage / Volume Management

### Large Capacity

- Internal hardware RAID 0, 1, 0+1, 5, 6. Builds protected storage over 8 x hot swappable SATA II disks (Up to 8TB raw capacity with 1TB disk)
- When any disk error occurs, besides audible alarm, the NAS will auto send out alert email to the predefined personnel
- RAID 6 supports two-disk-failure without affecting data integrity and data access
- Support capacity scale up by its Gateway function. By utilizing external RAID boxes, capacity is virtually unlimited

### High Availability – CDP class

- Optional “NAS-2-NAS Mirroring/Failover” can create a virtual IP from two set of Sol NAS in the same LAN for clients accessing, and mirror the data from the primary NAS to the secondary NAS at the backend in real time. When the primary NAS fails for whatever reason, the secondary NAS will automatically take over, the failover process is automatic and transparent to users. Client access is uninterrupted.

### Quota Assignment

- User level or group level quota
- Auto alert when a quota is approaching full

## Volume Management

### Capacity Scalable

- Supports On-line capacity expansion, supports external RAID boxes include remote iSCSI target

### Volume Snapshot

- Schedulable Multiple Volume-Snapshot, or Snapshot-on-Demand, provides “point-in-time” data image for the data volume against accidental file deletion and/or file corruption due to any virus-attack.
- iSCSI volume is also supported

### Multiple Volumes

- Each NAS supports up to 80 volumes, and each LUN (PV) can be divided up to 33 volumes.
- Each volume can be flexibly partitioned as iSCSI Target volume or NAS volume
- Up to 16TB single volume size is supported

Replicates data between local and remote NAS units via LAN/WAN/VPN/Internet for data redundancy and Disaster Recovery

- **Replication** - can be scheduled or replicate-on-demand. It is File-Based/Block-Level either in differential replication or full-replication with versioning and bandwidth control
- **Volume Snapshot** - administrator can build multiple scheduling for multiple snapshots. it also supports Snapshot-on-demand
- **System Configuration Backup & Restore** - NAS configurations: includes volume configuration and user account settings. Such configuration can be saved in the administrator's computer or elsewhere. In case hardware is replaced due to hardware failure, the administrator can restore the previously saved configuration back to the new NAS and have it up and running in minutes
- **Local Tape Backup** - Support direct-attached SCSI tape drive and tape library
- **3<sup>rd</sup> Party Backup Agent Support** - allows the installation of 3<sup>rd</sup> party backup software agents, such as CA BrightStor ARCserve Linux agent, NetVault Linux agent, to support customers' backup server in the network
- **User Data Backup** - multiple methods to provide data redundancy:
  - Install 3<sup>rd</sup> party backup agent and use Backup Server in the network.
  - Utilizes NAS-to-NAS Replication to copy data to remote NAS
  - Utilizes Volume Snapshot
  - Select Option of NAS-2-NAS Mirroring
- **Anti-Virus** -
  - Due to its non-Windows nature, CEG NAS X series provides better virus resistance, because most of viruses are Windows oriented
  - Support installation of 3<sup>rd</sup> party Anti-Virus program

## Hardware Specification

- Industrial standard 19" 2U with slide rail
- Up to two Multi-core Intel Xeon Processors: Quad-Core Xeon 5300, Dual-Core Xeon 5000 and 5100 are supported.
- 1GB FBDIMM (Fully Buffered DIMM) ECC or non-ECC main memory, up to 8GB is supported
- Two Gigabit Ethernet ports, supports Failover, and Load balance
- Optional Gigabit Ethernet ports, and 10Gb high speed Ethernet add-on is also supported
- 8 x Hot swap SATA II HDD, support hardware based RAID 0, 1, 3, 5, 6, 0+1 and Hot Spare
- Optional 3Gb SAS Hardware RAID and SAS HD
- 2GB OS disk, in DOM, CF, or hard drive
- System FAN Speed Monitor capable
- Expansion slots
  - X8i: 2 PCI-e (X4), 2 PCI-X 64bit 133Mhz
- Optional key lock on the HDD tray
- Optional DVD high speed RW
- 500W x 2 Redundant and hot swappable Power Supply, with PFC, and 100~240V AC Input

