



# N12000

The Superior Enterprise Storage Center



### Intel Xeon for Blazing Speed

Harnessing the power of Intel's Xeon X3470 processor and an overwhelming 8GB of cutting-edge DDR3 RAM, the N12000 can handle anything and everything at full speed. There are no bottlenecks or speed bumps.

### Enterprise Size for Enterprise Tasks

With a whopping 36 terabytes of data capacity, you'll never go wanting again. No matter whether you are providing a public server for a massive workforce or compiling a company's worth of HD video, your NAS will always be hungry for more.

### SATA III and SAS 6G for Ultra-Fast Transfer Speeds

The N12000 features support for internal hard drives with SATA III and SAS 6G. This top-of-the-line connection transfers at speeds up to an amazing 6Gbit/s. It is also backwards-compatible with SATA II, so your old disks can be swapped in and out without a hitch.

### High Availability (HA)

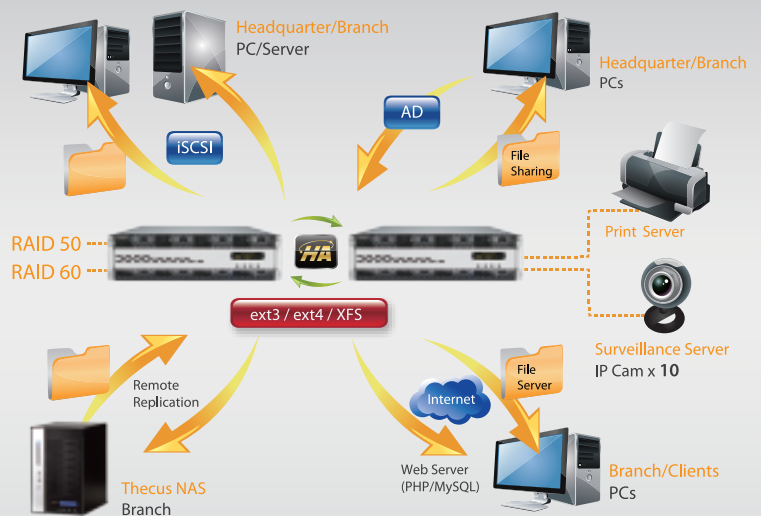
For the first time, your data is completely free of delays in access. Regardless of the situation, HA actively keeps your data on two separate, identical NAS. If one needs maintenance, the other will dutifully rise to the occasion without as much as a blip in service. Whether rain, shine, or Armageddon, your data will always be there.

### Rock-Solid Security

The N12000 safeguards your data with all the RAID modes you could possibly need for an Enterprise server, including RAID 0, 1, 5, 6, 10, 50, 60, and JBOD. Changing damaged hard disks is also a breeze with its built-in hot-swap, hot-spare, online RAID migration and expansion, as well as auto-rebuild capabilities. And if you need even more protection, there is also AES 256bit RAID volume encryption available.

### Block Level Accessibility via iSCSI

Take the speed of iSCSI up a notch with block level access transfers. While most transfer protocols send huge files all in one piece, this function breaks down files in smaller chunks, increasing transfer speeds immensely.



# N12000

## Specifications

### Hardware Platform

#### Processor

- Intel® Xeon® Processor X3470 Processor + Intel 3450 chipset

#### System Memory

- 8GB DDR3 SDRAM

#### LAN Interface (PCI-e)

- RJ-45x3: Intel 82574L 10/100/1000 BASE-TX Auto MDI/MDI-X
- WOL supported

#### USB Interface

- USB 2.0 host port x6 (front x2, back x4) (Type A)
- USB 3.0 host port x2 (back x2)

#### LED Indicator

- Power: (blue)
- System Busy: (yellow)
- System Alert: Redundant power or system fan failure (red)
- HDD 1-12 Activity/Fail (green/red)

#### OLED

- Displays system status and information (Multilingual)

#### SAS/SATA controller (HBA), PCI-e (8-lane)

- LSI 2008 HBA card supports 6G SAS/SATA(x8)

#### Disk Interface

- 12 x SATA for internal
- 1 x eSATA for external

#### Power Supply

- Redundant power supply 700W or more (80plus)

#### PCI-e Slots

- 8-lane (x3), One is used by SAS HBA
- 4-lane (x1)
- 1-lane (x1) used by CU30N (USB 3.0)

#### Thermal/Fan Control

- Thermal sensor on processor temperature
- CPU fan control
- System fan control

#### System Fan

- Hot swappable (x4)

#### Buttons

- Power button(Front, shutdown controlled by user interface)
- LCM button (ENT, ESC, UP, DOWN)
- System reset button
- Locator button

#### RS232

- 1 (For UPS)

#### Environment

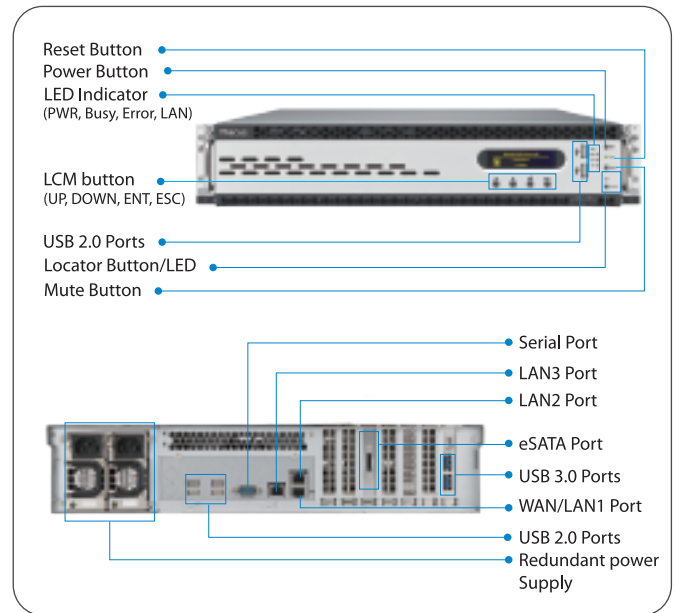
- Temperature: 5°C to 40°C
- Humidity: 0 ~ 80 % R.H. (Non-condensing)

#### Chassis

- 2U Rack mount

#### Dimensions (HxWxD)

- 89 x 440 x 662 (mm)



### Software Functions

#### RAID

- RAID Modes: RAID 0, 1, 5, 6, 10, 50, 60 and JBOD
- Auto-rebuild: Supported
- Hot-swap: Supported
- Dedicated Hot Spare: Supported
- Global Hot Spare: Supported
- Online RAID Migration: Supported
- Online RAID Expansion: Supported
- RAID Volume Encryption: AES256bit

#### Disk

- Power Management: Available spin-down while idle setting
- Bad Block Scanning: Supported
- SMART Info: Supported
- SMART Test: Supported
- Disk Roaming: Supports volume-based roaming to other N12000

#### Network

- Configuration: Fixed IP Address, dynamic IP Address
- IP sharing mode: Can be enable/disabled
- Transport Protocols: TCP/IP/AppleTalk
- File Protocols: SMB/CIFS, HTTP/HTTPS, FTP, NFS v3, AFP
- Link Aggregation: Load balance, Failover, 802.3ad, Balance-XOR, Balance-TLB, Balance-ALB
- 10GbE NIC: Supported

#### Data Access

- Client OS support: Windows 2000/XP/2003/Vista/7 UNIX/Linux Mac OS 9/X
- FTP: Build-in FTP Server with bandwidth control
- Secure FTP: Build-in secure FTP server with bandwidth control
- Download Manager: HTTP/FTP/BitTorrent/eMule (via module)
- Printer server (IPP):
  - Supports USB printers
  - Supports a wide range of IPP printers
  - Client can manage print tasks (list/delete) via web user interface

#### Data Backup

- Client Incremental Data Backup: Acronis Backup and Recovery Server OEM for Windows (license x5)
- Client System Disaster Recovery: Acronis Backup and Recovery Server OEM for Windows (license x5)
- Single Volume Remote Replication: Incremental or synchronized
- USB device copy to N12000: Controlled through LCM
- Bi-directional USB copy: Supported (via module)

#### Block Level Access

- iSCSI Target/Initiator: Supports Microsoft/Mac OS X/Linux initiators and Thcus NAS targets
- iSCSI Thin Provisioning: Configurable to virtual size 16TB
- MPIO: Supported
- MCS: Supported
- Clustering: Supported
- SCSI3 persistent group reservation: Supported

#### Power management

- Scheduled Power On/Off: Supported

#### Volume management

- Multiple RAID: Supported
- Multiple File System Selectable: EXT3/EXT4/XFS

#### Multimedia Support

- iTunes Server: Supports AAC, MP3 w/ID3 tag and WAV
- Photo Web Server:
  - Supports GIF, JPG (JPEG), BMP and PNG
  - Supports EXIF display
  - Supports slide shows

#### User Authentication

- Local User: Supports built-in user accounts
- Local Group: Supports built-in user groups
- Windows ADS: Supported

#### File System

- Type: Journaling File System
- Capacity: 36TB (XFS)/16TB (EXT4)/8TB (EXT3) per volume
- Language Support: Unicode Support
- Authorization (ACL): "Read", "write", or "deny" privileges to individual users or groups in folders and sub-folders
- User Quota: Supported

#### Administration

- User Interface: Web-based user interface supports English, Traditional Chinese, Simplified Chinese, Japanese, Korean, French, German, Italian, Spanish, Russian, Polish and Portuguese
- Utility Program: MS Windows Setup Wizard, Supports Windows 2000/XP/2003/Vista/7 Mac OS X Setup Wizard
- Email Notifications: Sends system messages via e-mail to the system administrator
- SNMP Trap: System information trap out

#### Mobile Applications (iOS/Android)

- Thecus Dashboard: Mobile monitoring and administration
- ThecusShare™: Uploading, downloading, and streaming multimedia

#### Others

- Dual DOM: Supported
- Web Disk: Supported
- Recycling Bin: Supported
- Web Server (module): Supported
- ISO mount: Supported
- User module: Supported
- IP Cam Surveillance (module): Supports up to 10 IP cams
- HA (High Availability): Supported
- USB/eSATA schedule backup (module): Supported



Note:  
1. FCoE will be supported in Q3 2011.  
2. Design and specifications are subject to change without prior notice.

**Thecus®** Thecus® Creator in Storage  
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