

# N16000PRO

## The Ultimate Large Business NAS



High-end data centers often need a level of speed that today's average Internet cannot provide. This Thecus NAS is 10Gb Ethernet ready to satisfy the toughest needs of today and tomorrow.



Data Guard backup solution is the ultimate software as it provides both local and remote parts. Currently, data is backed up across RAID volumes, external USB drives, and eSATA. In addition, Data Guard uses innovative technology to sync data across the network to other NAS and servers. More importantly, Thecus® Data Guard is the total backup solution which makes managing NAS user-friendly and convenient.



The next generation of connectivity is here with speeds 10x faster than USB 2.0. Whether connecting digital cameras and smart phones, backing up large external hard drives, or extending the capacity of your NAS, USB 3.0 will make sure it's done in no time at up to 5 Gbit/s. Backwards compatibility adds the connectivity of a world full of USB 2.0 and USB 1.1 devices to get the best combination of speed and universal access.



Thecus' innovative hardware helps prevent failures. But sometimes you have to protect the NAS against itself. Adding an antivirus to the already comprehensive software bundle will provide the necessary software protection by scanning the files on your NAS and defending it against possible threats. McAfee is the world's largest dedicated security technology company and shares Thecus' spirit of dedication and quality. By establishing a strong partnership with them, Thecus will allow users the benefit of McAfee's powerful software on their NAS entirely for free.



Link aggregation can sustain multiple network connections and provide redundancy in case one of the links fails. Thecus NAS supports 7 modes which provide Load Balance, Failover, 802.3ad, Balance-XOR, Balance-TLB, and Balance-ALB, Broadcast.



NAS data can now be burned directly to CD, DVD, and Blu-ray discs with Data Burn, this hassle-free module makes burning data to a disk effortless. In addition, burning ISO image file is also supported. Whether you're managing audio, media or essential files; Data Burn copies information fast while significantly reducing waiting time. The process of burning file to disk is now easy and smooth with Data Burn module.



Get the most out of your storage space with the extreme speed of iSCSI and the efficiency of iSCSI thin provisioning. Connect through iSCSI for the fastest data transfer speeds available and make wasted disk space a thing of the past with thin provisioning's flexible storage functionality.



When it comes to data management, Thecus NAS truly let you have it your way. Create multiple RAID volumes each supporting different RAID modes including RAID 0, 1, 5, 6, 10,50, 60 and JBOD for your own balance of performance and data protection. Should a hard drive malfunction occur, changing one is simple thanks to online RAID migration and expansion, hot spare, and auto rebuild.

### Add-on apps

- Thecus Dashboard
- T-OnTheGo
- Photo Server
- Mail Server
- Media Server
- Transmission (BT Client)
- MySQL
- Web Server
- USB/eSATA Backup
- RAID Volume Replication
- Simple Surveillance
- NZBGet

# N16000PRO

## Specifications

### Hardware Platform

#### Processor

- Intel® Xeon® E3-1275 3.4GHz

#### 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)

#### OLED

- Displays system status and information (Multilingual)

#### HDMI Output

- HDMI port (back x1)

#### Audio

- MIC input, Line input, Audio output

#### Disk Interface

- 16 x SATA/SAS for internal
- 2 x eSATA for external

#### Power Supply

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

#### 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

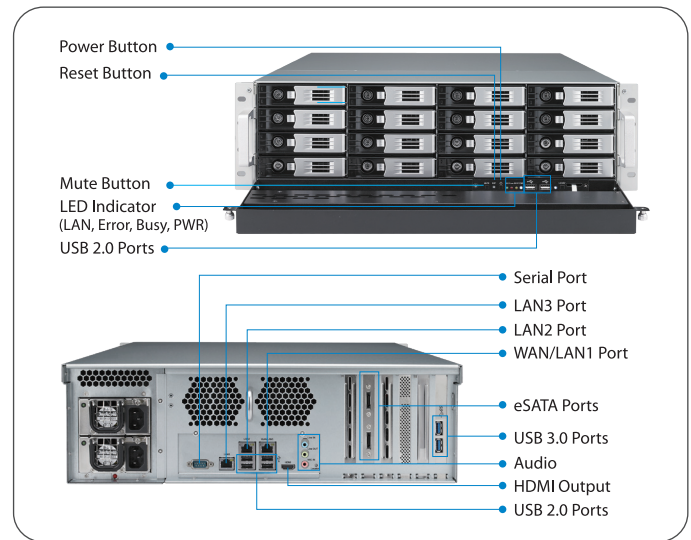
- 3U Rack mount

#### Dimensions (HxWxD)

- 133 x 440 x 662 (mm)

#### Certificates

- CE/FCC/IC-Tick/VCCI/BSMI
- RoHS
- WEEE
- VMware, Citrix



### 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
- RAID Level Migration: Supported
- RAID Level Expansion: Supported
- RAID Volume Encryption: AES256bit

#### Disk

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

#### Network

- Configuration: Fixed IP address, dynamic IP address
- Transport Protocols: TCP/IP/AppleTalk
- File Protocols: SMB/CIFS, HTTP/HTTPS, FTP, NFS v4, AFP
- Link Aggregation: Load balance, Failover, 802.3ad, Balance-XOR, Balance-TLB, Balance-ALB, Broadcast
- TCP/IP: IPV6 & IPV4
- DDNS: Supported
- SSH: Supported
- UPnP: Supported
- UPnP Port forwarding: Supported

#### System Status

- System Monitor: Monitoring CPU, memory, network utilization and protocols access user count
- Syslog Management:
  1. Send syslog to assigned location
  2. Act as syslog server to receive log info from other systems

#### Data Access

- Client OS Support:
  - Windows XP and after
  - Windows Server 2003 and after
  - UNIX/Linux
  - Mac OS X
- FTP: Built-in FTP server with bandwidth control
- Secure FTP: Built-in secure FTP server with bandwidth control
- Download Manager:
  - BT download (via Transmission Module)
  - NZB download (via NZB Module)
- Printer Server (IPP):
  1. Supports USB printers
  2. Supports a wide range of IPP printers
  3. Client can manage print tasks (list/delete) via web user interface

#### Data Backup

- Client Incremental Data Backup:
  - Acronis True Image (OEM version)
- Client System Disaster Recovery:
  - Acronis True Image (OEM version)
- Client Side Backup Software:
  - Thecus Backup Utility (Windows/Mac OS X)
- Data Burn:
  1. Create files to ISO image and burn to optical disc
  2. Create files to ISO image
  3. Read ISO image from optical disc and write to NAS
- Mac OS X Time Machine: Supported
- Data Guard: Remote Backup/Local Backup

#### Block Level Access

- iSCSI Target/Initiator: Supports Microsoft/Mac OS X/Linux initiators and Thecus NAS targets
- iSCSI Thin Provisioning: Supported
- 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
- Piczza!™ Photo Server (via module):
  1. Supports GIF, JPG (JPEG), BMP and PNG
  2. Supports EXIF display
  3. Supports slide show
- Media Server: Supports uPNP AV streaming protocol (via Twonkymedia module)

#### User Authentication

- Local User: Supports built-in user accounts
- Local Group: Supports built-in user groups
- Windows ADS: Supported
- LDAP: Supported
- Access Guard: Supports Black & White list/IP Filter

#### Cloud Backup

- DropBox: Supported (via module)
- ElephantDriver: Supported (via module)
- Amazon S3: Supported

#### File System

- Type: Journaling File System
- 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, Portuguese, Turkish and Czech
- Utility Program:
  - MS Windows Setup Wizard
  - Supports Windows XP and after
  - Windows Server 2003 and after
  - Mac OS X Setup Wizard
- Email Notifications: Sends system messages via email to the system administrator
- SNMP Trap: System information trap out

#### Mobile Applications (iOS/Android)

- Thecus Dashboard: Mobile monitoring and administration (via module)
- T-OnTheGo™ (iOS): Upload, download and stream multimedia

#### Data Security

- Virus Scan: Supports McAfee® (via module)

#### Capacity Expansion

- Stackable: Can extend for 5 additional iSCSI volumes from other Thecus NAS
- Volume Expansion:
  - Support dynamic Volume expansion via 10G interface
- JBOD Expansion: Support Capacity expansion via Thecus D16000 JBOD device

#### System Redundancy

- High Availability: Support system level redundancy

#### Others

- Dual DOM Supported
- Recycling Bin: Supported
- Web Disk: Supported (via module)
- Web Server: Supported (via module)
- ISO Mount: Supported
- IP Cam Surveillance:
  - Supports up to 10 IP cameras (via module)
- Auto Module Installation: Thecus' module server automatically provides the latest modules and updates through the user interface
- Local Display: X-Window via HDMI output

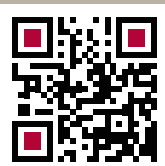
#### Retail/Reseller Information



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\*Design and specifications are subject to change without prior notice.

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