An Exceptional All-Around Multimedia Entertainment Storage Solution

AS3104T

The AS3104T provides home users with a storage solution featuring optimal value, comprehensive functionality and multimedia entertainment. The 4 disk-bays provide high capacity storage, allows users to store and preserve their most valued digital assets in original high definition versions.
ASUSTOR AS3104T

- Powered by the latest Intel Celeron dual-core processors

AS3104 is powered by Intel Celeron Braswell dual-core processors, equipped with 2GB of dual-channel memory, and feature read speeds of over 112 MB/s and write speeds of over 112 MB/s under RAID 5 configurations.

*Performance results may differ depending on the testing environment.

- Dual-channel power

The AS31 models support dual-channel memory, be able to smoothly playback 4K video. Furthermore, AS31 series devices are not only energy efficient, but offer a combination of performance and price that is unmatched in its class. Get ready to enjoy brilliant ultra high-definition 4K video from the comfort of your own home!
Supercharge your multimedia experience

You no longer need to worry about running into resolution compatibility issues when playing videos on your phone, tablet or computer. Media Converter utilizes a quick and simple conversion method, allowing you to execute conversion tasks in the background.

The exclusive built-in Hyper-Transcoding technology was expertly crafted by ASUSTOR. This technology utilizes the Intel CPU hardware acceleration function to make video file conversions faster and simpler than ever before. Using Hyper-Transcoding to convert video files can reduce the normal conversion time by at least 10 times.

Toolless installation

The AS31 series' sliding outer cover design allows it to be conveniently removed when needed. The inner hard disk rails and outer cover all use hand screws allowing for the simple installation of hard disks without any extra tools.

Hardware encryption engine

Protecting your data is ASUSTOR's top priority. The AS31 series devices feature Intel AES-NI encryption engines, allowing data to be completely protected from the moment it is first stored on the NAS. This means that you never have to worry about your confidential data falling into the wrong hands even if your hard disks become lost or stolen. The built-in hardware encryption engine also features read speeds of over 112 MB/s and write speeds of over 71 MB/s for encrypted data providing an optimal combination of file security and system performance.

Add modern flair to your favorite space

The AS31 series devices redefine the aesthetics of a NAS. The stylish diamond-plate finished cover makes it an elegant addition to any space, no matter if it is a family room, living room or office.
A Surge in Data Transfer Performance

ADM supports SMB 2/3 which reduces the burden of network traffic on the NAS while simultaneously providing greater data transfer capacity. In the ASUSTOR testing environment, SMB 2/3 was found to increase Windows networking performance by 30%-50%*. SMB 2/3 also significantly increases the number of concurrent Windows client connections and simultaneously open files, making ADM even more suitable for large-scale Microsoft network environments.

* Actual performance may vary due to differences in the installation environment. SMB 2/3 is supported in Windows Vista and later versions of the Microsoft Windows operating system.

Seamless Cross-Platform File Sharing

ASUSTOR NAS devices provide seamless cross-platform file sharing, allowing you to easily connect to your NAS device no matter if you are using Windows, Mac OS, or Unix-like operating systems. The transfer protocols that you may use to connect to an ASUSTOR NAS device are as follows:

Windows: CIFS/SMB, FTP and WebDAV
Mac OS X: AFP, SMB, NFS, FTP and WebDAV
Linux: NFS, SMB, FTP and WebDAV

Enhanced Recycle Bin mechanism

The Network Recycle Bin mechanism is now based on individual shared folders rather than storage volumes. According to their needs, users can decide whether or not to enable a Network Recycle Bin for each individual shared folder, enjoying added configuration flexibility. Files that are moved to the Recycle Bin maintain their original directory structure, allowing added convenience should users need to search for already deleted files. The simple one-click restore function will restore selected files to their original directory path while conveniently maintaining all properties and permissions settings.

Ultimate data protection

ASUSTOR NAS makes use of RAID storage technology to provide protection for your data. RAID mainly revolves around the core concept of combining your disks to protect the data inside. ASUSTOR offers a number of different RAID level configurations that you can choose from when creating storage volumes. Each RAID level offers a differing degree of data protection, system performance and storage space. ASUSTOR’s supported RAID levels are summarized in the chart below:
The ultimate tool for remote backup

Rsync is an application originally developed for UNIX that is usually used for backup and sync between two computers. By providing block level replication, Rsync is able to offer incremental backup. Incremental backup allows for successive backup jobs (after your first backup job) to only copy data that has changed since your last backup job. Rsync is suitable for use with files and data that are always changing. It lets you cut down on backup time while significantly reducing bandwidth usage.

A rich and flexible backup solution

ASUSTOR's Rsync Backup function supports two-way data transfers, incremental backup, encrypted backup and also the scheduling of your NAS to perform regular backup jobs. It effectively simplifies data backup while also substantially reducing the burden on IT staff. ASUSTOR's Rsync backup function may be used to complete tasks such as:

- The transfer or backup of data from your NAS to an Rsync compatible server
- Initiating downloads of the data from an Rsync compatible server to your NAS

Online Capacity Expansion

Insufficient storage space forcing you to consider upgrading your NAS to one with more disk bays? ASUSTOR NAS supports online capacity expansion¹ which means that you can easily swap out all your old disks for higher capacity ones without turning off your NAS. Now you can increase the storage capacity of your NAS without worrying about getting an entire new system.

During the capacity expansion process, while your data is being transferred over to the new disks, you will still be able to access everything on the NAS. Online capacity expansion does not require any advanced IT skills to execute and helps you to eliminate cumbersome backup and migration procedures. When it's time to upgrade your NAS's capacity, ASUSTOR simply gets the job done for you without missing a beat.

¹ You must use RAID 1, 5, 6, or 10

Minimum number of disks

<table>
<thead>
<tr>
<th></th>
<th>Single</th>
<th>JBOD</th>
<th>RAID 0</th>
<th>RAID 1</th>
<th>RAID 5</th>
<th>RAID 6</th>
<th>RAID 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faulty Disks Tolerated</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Increased System performance</td>
<td>X</td>
<td>X</td>
<td>V</td>
<td>X</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>Maximum use of Storage space</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

The External backup function supports two-way data transfers, incremental backups and also the scheduling of your NAS to perform regular backup jobs. It may be used to complete tasks such as:

- The transfer or backup of the data from your NAS to an external device.
- Initializing the copying of data from an external device to your NAS.

Regular backups of your vital data

The External backup function supports two-way data transfers, incremental backups and also the scheduling of your NAS to perform regular backup jobs. It may be used to complete tasks such as:

- The transfer or backup of the data from your NAS to an external device.
- Initializing the copying of data from an external device to your NAS.
**Windows Backup**

ASUSTOR’s Backup Plan software for Windows provides you with worry-free backup. Simply schedule a regular backup job of your PC to your NAS, then let Backup Plan take care of the rest. Backup Plan will work in the background to ensure that your PC is always backed up.

Any data that is lost between scheduled backups is unprotected. Backup Plan lets you configure real time file synchronization for those important and ever-changing file folders. Any changes that you make to your protected files and folder will be updated in real time. Now you can rest assured knowing that your critical files are always protected and up to date.

**Mission Mode**

Never again worry about your critical backup jobs stopping or failing to complete because your ASUSTOR NAS won’t stop until it’s “mission complete”. Sometimes backup jobs may be stopped because of various connection problems with a busy server on the other end. For Rsync, FTP, external and cloud backups, ASUSTOR’s Mission Mode allows you to configure the number of connection attempts and time interval for connection attempts, ensuring for the successful completion of your backup mission. This also gives IT administrators a significant amount of flexibility when configuring backup jobs.

**Time Machine Backup**

Mac lovers rejoice! You can use your Mac’s built-in backup, Time Machine, to easily back up your Mac to an ASUSTOR NAS. All ASUSTOR NAS devices have been optimized for use with Time Machine, providing Mac lovers with a familiar and easy to use backup solution.

Different Mac users can now safely backup their computers to the same NAS device. Unlike other NAS devices, ASUSTOR NAS does not just use one group account to carry out backup jobs for all Mac users, storing all their jobs under the same directory. With ASUSTOR NAS each Mac user is able to use an independent account and backup location thereby guaranteeing privacy for all.

**A cost-effective and efficient mail service solution**

The ability to send and receive email is fundamental to all businesses. However, expensive implementation costs and complicated management create barriers for most small and medium sized businesses. ASUSTOR’s Mail Server offers a comprehensive and cost-effective solution that allows any business to easily maintain their own dedicated mail server.

**System Notifications**

Always checking up on your NAS? Worried about your data and other digital assets? ASUSTOR NAS features real-time system event notifications allowing you to enjoy peace of mind knowing that you’ll be notified about any major system events. Notifications can be sent via Email, SMS or push notification giving you a variety of ways to instantly stay on top of the latest developments.
Your own FTP server

FTP is one of the most widely used and popular transfer protocols in the world. Every ASUSTOR NAS has a built-in FTP server feature that allows you to create a personal FTP server in just a matter of seconds. Hosting your own FTP server will instantly give you the power to share and exchange files over the internet.

With FTP server, you will be able to access your NAS via FTP from almost anywhere in the world. No matter if you are on a business trip or vacation, or wish to share files with family and friends, all that's needed is a device with internet access and the data on your NAS can be accessed in no time.

Firewall

Use ADM Defender’s firewall to control access to your NAS. Ensure the security of your system by deciding who has access to your NAS and who doesn’t.

Secure connections – VPN

ASUSTOR NAS supports VPN connections giving you secure access and flexible deployment options. Your NAS is able to act as a VPN client which can then connect to VPN servers via PPTP or OpenVPN protocols, allowing you to gain access to different virtual private networks. ASUSTOR NAS also supports the creation of multiple VPN connection profiles allowing you to easily switch connections between different VPN networks.

Network Defender

ADM Defender’s Network Defender function protects you from malicious attacks and prevents hackers from trying to access your NAS. Any client IP addresses with too many unsuccessful login attempts to your NAS within a specified time period will be blocked by Network Defender.

In addition to the existing automatic black list function, a trusted list is now provided. The trusted list can prevent trusted IP addresses from being automatically blocked in the event of too many inadvertent login failures. Furthermore, when manually defining the black and white lists, users can now specify the IP country of origin or area via the Geo IP expansion module in addition to specifying the IP address or segment, providing added flexibility.

Effectively simplifying network management

Syslog Server supports standard Syslog protocols and can centrally aggregate system logs that are spread out over various network devices for storage and management. Furthermore, Syslog Server integrates with the NAS’s Instant Notification function, allowing administrators to receive e-mails or SMS notifications when specified events occur, in order to quickly employ appropriate measures.
- **Folder-based AES 256-bit Encryption**

Your most important data deserves the best security. ASUSTOR NAS offers folder-based military grade AES 256-bit encryption, giving you the type of security and privacy that you require for your most confidential data. All data stored in encrypted folders will be automatically encrypted and secured to the highest of standards. Should you ever lose your NAS or hard disks, you still needn’t worry about your sensitive data falling into the wrong hands.

Unlike other NAS devices, ASUSTOR NAS gives you the flexibility to select the individual folders that you want to encrypt. Other NAS devices encrypt entire storage volumes which significantly slows down the system. Any encrypted portions of storage volumes will be subject to a decrease in performance. However, with ASUSTOR NAS you are free to encrypt only your most confidential data while leaving other data unencrypted, creating a perfect balance between performance and security.

- **Virtual Drive**

Still wasting money and time burning CDs or DVDs every time you need to install some software? ASUSTOR NAS supports the mounting of ISO files which provides you with a cost-effective and environmentally friendly solution that effectively lowers CD and DVD waste.

- **External Optical Drive Support**

After connecting an external optical drive (CD, DVD, Blu-ray) to your NAS via USB, you can use File Explorer to directly access any files that you have backed up to optical media and even transfer files from your optical media to your NAS via drag and drop for future access.

Note:
- This function only provides data access and does not support the audio and video playback of optical media.
- Certain optical drives will require additional power in order to operate properly. If you find that your optical drive is not spinning or reading correctly, please use a USB Y-cable to add additional power.
App Central

The applications that come pre-installed with each ASUSTOR NAS device are just the beginning. At your convenience, you can browse through and download any applications that peak your interest from App Central. App Central allows you to explore the unlimited potential of ASUSTOR NAS devices while creating a personalized NAS device for yourself.

High capacity cloud storage for all your digital assets

The AS3104 provides a large capacity NAS for home users at an affordable price. Users can install four 8 TB hard disks to immediately create a high capacity storage space of up to 32 TB. When taking photos or recording videos of family vacations, gatherings and other cherished memories, users no longer need to be confined to the limited storage on memory cards. With high capacity AS3104, users can save all of their videos and photos in high quality resolution, preserving them perfectly. Additionally, RAID 5 and 6 storage volume setting provide comprehensive protection for all digital assets stored on the NAS, minimizing the risk of data loss due to hard disk failure or accidents.

Virtualization

iSCSI and NFS are primary datastore solutions for virtual environments and are also important in spreading the use of virtualization as a whole. When compared with other storage mediums, ASUSTOR NAS can offer an optimal price/performance ratio and value which is of particular importance to small and medium businesses.

ASUSTOR understand that stable and high performing shared storage is a must for virtual environments. iSCSI and NFS support on the ASUSTOR NAS allows you to seamlessly integrate with any existing IT environments. All ASUSTOR NAS devices are verified as VMware, Citrix and Hyper-V ready, providing you with a flexible and cost-efficient virtual storage solution.

iSCSI LUN Snapshots

ASUSTOR’s snapshot technology provides almost instantaneous creation of snapshots. It saves a significant amount of time and storage capacity when compared with traditional LUN backups. Should files become damaged or corrupted, the simple and intuitive interface allows administrators to quickly restore data, completing disaster recovery in the fastest time possible and providing uninterrupted service.
Video Surveillance

Worried about leaving your home unattended? Keep an eye on the most important things with Surveillance Center. Surveillance Center’s fully optimized interface allows you to simultaneously view live feeds from multiple IP cameras, take snapshots and control the pan tilt and zoom functions of all cameras giving you complete peace of mind.

Recording & Playback

ASUSTOR’s Surveillance Center comes with 4 license free channels letting you to setup 4 different network IP cameras. This significantly lowers startup costs for your surveillance system. No matter if you prefer to use Microsoft Internet Explorer, Mozilla Firefox or Google Chrome, Surveillance Center’s easy-to-use browser based interface and quick start wizard will allow you to create a security surveillance system in a snap.

Surveillance Center offers you a variety of recording options. No matter if you need scheduled continuous recording or recording only when certain events occur, Surveillance Center is sure to satisfy your needs. Surveillance Center’s various recording modes are listed below:

- Manual Recording: While viewing a live feed, you can click on the record button at any time to begin or stop recording. In the event that you do not stop your recording, Surveillance Center will record until your designated recording quota has been reached.
- Continuous or Scheduled Recording: Whether you require 24/7 continuous recording or recording only during a specific time, Surveillance Center can get the job done ensuring that you never miss any critical moments.
- Motion Trigger Recording: In the event that any motion is detected in the surveilled environment, Surveillance Center will immediately begin recording, allowing you to save significant space on your hard disks and ensuring that you never miss any critical moments.
- Alarm Trigger Recording: Triggering recording via a camera’s alarm mechanism allows you to precisely record all critical events. Not only does this save space on your hard disks but also lowers the amount of reading and writing on your hard disks, prolonging their life.
- Motion Trigger and Alarm Trigger Recording: This mode combines motion trigger and alarm trigger recording. If either mode is triggered, recording will begin immediately. This is a comprehensive recording mode that ensures you will never miss any critical moments.

Surveillance Center comes with 4 free IP camera channel licenses, which is higher than the industry standard. Users can also purchase add-on camera licenses to flexibly add new camera channels.

Two different camera license packages are offered: single channel and 4 channels. Currently, AS31 series can be expanded up to a maximum of 16 channels.

The maximum number of cameras is based on the test results for each channel using 720P (1280x720), 30 FPS and H.264. Actual performance may vary due to camera settings and NAS load.
The NAS That’s Always With You

ASUSTOR offers multiple mobile apps that give you convenient access to your NAS while on the go.

Bring you the smoothest mobile video viewing experience around: AiVideos

AiVideos brings you the smoothest mobile video viewing experience around. Browse through the video collection on your NAS without needing to wait for long downloads. Enjoy high-definition 1080p streaming video with just one click. You can even select multilingual subtitles and different audio channels to enjoy films in different languages, bringing the movie theatre to your mobile device.

You can even view videos offline! Download videos from your NAS to your phone in a just a few taps without needing to connect an external USB cable. Sometimes you may encounter unstable Wi-Fi reception causing long wait times for your downloads. At this time you can switch to a more stable Wi-Fi signal and AiVideos will resume your downloads from where they were interrupted. With this convenient feature, you no longer need to worry about half-downloaded files!

Stream videos from your NAS to Chromecast with ease and share the video collection on your NAS with your family and friends on a big screen TV. Furthermore, AiVideos allows your mobile device to become a remote control. Pause, fast-forward, adjust the volume and even configure subtitles at the touch of a finger.

Stay Connected to Everything You Care About: AiSecure

The AiSecure dedicated mobile app allows you to easily keep an eye on everything that is happening at home. In addition to monitoring live views of particular locations, AiSecure also features instant push notifications that can be sent to your mobile device when specified events occur, allowing you to grasp all the latest developments in the palm of your hand.

AiSecure dramatically simplifies the connection process to your surveillance feeds. After enabling Cloud Connect on your NAS, you will be able to use your dedicated Cloud ID to connect to Surveillance Center, allowing you to easily monitor all the important things in your life from any corner of the world.
● Cloud data access from anywhere: AiData

Get access to your data in the cloud and on your NAS from the convenience of your mobile device with ASUSTOR’s AiData mobile app. With its intuitive interface and incorporation of well-known cloud storage services, AiData allows you to manage all the files on your NAS and across the cloud.

AiData features a host of convenient features to enrich your digital lifestyle. Use your mobile device to rename, copy, move or delete data on your NAS. Save items as favorites for quick offline browsing while on the go or upload your photos directly from your phone to your NAS. Have a file on your NAS that you want to share? Instantly email download links to your friends and family. AiData’s features truly let you take advantage of your personal cloud.

You can download data from your NAS to any folder on your Android device or upload files from folders on your Android device to your NAS. Now, data on your NAS and the rich variety of apps on your mobile devices can be more closely integrated than ever before.

When browsing through the substantial amount of data on your NAS, you can choose to list files in ascending or descending order according to filename, size or date modified, giving you better organization when managing files.

Worried about losing your phone and accidentally giving someone full access to all the data on your NAS? Passcode protection is your first line of defense. When using passcode protection, you will need to enter a correct passcode before being able to use an ASUSTOR mobile app. This significantly enhances mobile privacy while ensuring that you won’t have to worry about accidentally giving someone access to your NAS.

● One stop searching and downloading: AiDownload

Imagine the convenience of searching and downloading while on the go and then having your downloads ready on your NAS as soon as you get home. With ASUSTOR’s AiDownload app, all this is possible and more. AiDownload is a mobile app that interfaces with ASUSTOR’s Download Center to provide you with mobile download management. No matter if it’s searching, downloading, configuring settings or monitoring, you can do it all with AiDownload.

AiDownload includes a push notification feature that alerts you when downloads have been completed. Now you are free to concentrate on your more important tasks knowing that downloads have been completed. Now you are free on the go.

● The most intuitive way to browse through your photos: AiFoto

AiFoto presents each photo using refined thumbnail previews. Effortlessly browse through all your favorite memories stored on your NAS with just the swipe of a finger.

The automatic camera roll upload function ensures that you will never have to worry about how to backup your photos. Let AiFoto automatically take care of your backup needs! You can also open an online album and take photos that will be automatically uploaded to the album, giving you easy organization of your photos.

People will always be curious. Protect your privacy with password encrypted offline albums to create a private space that belongs to you and you alone.

● Terabytes of music in the palm of your hand: AiMusic

AiMusic allows you to stream music from your NAS to your mobile device, letting you enjoy your entire music collection while on the go.

Play music from playlists that you create yourself for an optimal listening experience. Like listening to random songs? AiMusic’s Random songs play mode is your best friend! You need only select it once to create a random playlist from your entire music collection, allowing you to enjoy a new listening experience each and every time.

AiMusic also allows you to download songs from your NAS to your mobile device for offline listening. No matter if it is a single song, an album or an entire playlist, all can be easily downloaded to your mobile device for convenient listening.

● Stay up to date with your NAS: AiMaster

AiMaster’s exclusive initialization function makes it easy set up your NAS. Now you can instantly configure and initialize your NAS from the convenience of your mobile device. No matter if it is adding new users, installing exciting new NAS apps, upgrading your firmware or checking the real-time status of your system, AiMaster can help you get it done with ease.

AiMaster features real-time system event notifications allowing you to monitor your system status from the convenience of your mobile device. When certain events occur, notifications are sent to your mobile device in the form of push notifications helping you stay abreast of all the latest developments.

With AiMaster you are never far from your NAS. Manage all your services, applications, and backup jobs at any time and from any place. Execute one touch backup jobs and monitor all users and system status. Even use the Find Me function to locate your NAS among many. All this is possible and more with AiMaster.

● Your NAS multimedia player remote: AiRemote

What would a home entertainment center be without a remote control? AiRemote is a mobile app that turns your mobile device into a remote control for Boxee on ASUSTOR NAS. Now you can operate Boxee wirelessly and access all the media content on your NAS from the comfort of your couch. All that’s left to do is to sit back, relax and enjoy the show.
**Hardware Specification**

**AS3104T**

- **Processor**: Intel Celeron 1.6GHz Dual-Core (burst up to 2.08~2.48GHz)
- **Memory**: 2GB DDR3L (Not Expandable)
- **Internal Disk**: 4 x 3.5" SATA
- **External Device Interface**: 3 x USB 3.0
- **Dimensions (HxWxD)**: 165 x 164 x 218 mm
- **Weight**: 1.6 kg / 3.53 lb
- **Power**: 90W
- **Operation**: 24.5 W
- **Disk Hibernation**: 11.1 W
- **Sleep Mode (S3)**: 0.69 W
- **HD Display**: 1 x HDMI 1.4b

*Test HDD: WD Red 3 TB HDD*

**Software & Features**

- **Operating System**
  - ADM 2.5 Onwards
  - Supports Online Firmware Updates
- **Supported OS**
  - Mac OS 10.6 Onwards
  - UNIX, Linux, and BSD
- **Supported Languages**
  - Deutsch, English, Français, Italiano, Nederlands, Русский, 日本語, 한국어, 简体中文, 繁體中文, Česká, Polski, Svenska, Dansk, Norsk, Suomi, Português, Türkçe, Español, Magyar
- **Supported Browsers**
  - Internet Explorer 9 Onwards
  - Firefox
  - Chrome
  - Safari
- **Network Protocols**
  - CIFS / SMB, SMB 2.0, AFP, NFS, FTP (Unicode Supported), TFTP, WebDAV, Rsync, SSH, SFTP, iSCSI, HTTP, HTTPS, Proxy, SNMP, Syslog
- **File System**
  - Internal Disk: EXT4
  - External Disk: FAT32, NTFS, EXT3, EXT4, HFS+
- **Storage Management**
  - Support Multiple Volumes with Spare Disks
  - Volume Type: Single disk, JBOD, RAID 0, RAID 1
  - Support for Online RAID Level Migration
  - Support for Online RAID Capacity Expansion
- **iSCSI**
  - Maximum Targets: 256
  - Maximum LUNs: 256
  - Maximum Snapshot Versions of a Single LUN: 256
  - Target Masking
  - LUN Mapping
  - ISO File Mounting
  - Supports MCS
  - Persistent (iSCSI-3) Reservations
- **Customized Sign In Page**
  - 2 Different Template Choices
  - Customizable Title, Image, and Background
  - Image Import Function
- **Disk Management**
  - Scheduled Bad Block Scans
  - Scheduled S.M.A.R.T Scans
- **Network**
  - TCP/IP (IPv4 & IPv6)
  - Jumbo Frame (MTU)
  - VLAN
  - Cloud Connect
  - Wireless Network
  - DDNS and EZ-Router
  - Supports Wake-on-LAN (WOL)
- **Backup Solutions**
  - Rsync (Remote Sync) Backup
  - Cloud Backup
  - FTP Backup
  - External Backup
  - Internal Backup
- **System Administration**
  - Log Type: System Log, Connection Log, File Access Log
  - Real-time Online User Monitor
  - Real-time System Monitor
  - Network Recycle Bin
  - User Quota
  - Virtual Drive (ISO Mounting, Maximum 16)
  - UPS Support
- **Network Recycle Bin**
  - Share folder-based
  - Maintains original directory structure and file
  - On-click restore
  - Supports scheduled emptying
  - Filtering rules
  - File size
  - File extension
- **Energy Control**
  - Configurable Disk Hibernation Wait Time
  - Configurable Time Period for Sleep Mode Activation
  - Automatic Sleep
- **Access Control**
  - Maximum Number of Users: 4096
  - Maximum Number of Groups: 512
  - Maximum Number of Shared Folders: 512
  - Maximum Number of Concurrent Connections: 512
  - Supports Windows Active Directory
- **ACL**
  - Provides both Windows ACL and Linux ACL permission configuration methods
  - Can enable Windows ACL for specific shared folders
  - Comprehensive support for Windows' 13 types of advanced permission settings
  - Can view Windows ACL permission settings from within ADM
  - Supports local users and groups
  - Exclusive permission reset function allows users to quickly restore default permissions
- **Security**
  - AES 256-Bit Folder Encryption
  - Firewall: Prevent Unauthorized Access
  - Alert Notifications: E-mail, SMS
  - Encrypted Connections: HTTPS, FTP over SSL/TLS, SSH, SFTP Rsync over SSH
  - Built-in Hardware Encryption Engine
- **Network Defender**
  - Auto black list
  - Trusted list
  - Black/White list
  - Supports IP/IP range/geo location
- **External Devices**
  - Supports USB External Storage Devices
  - USB Wi-Fi Dongle Support
  - Bluetooth Dongle/ Speaker Support
  - USB Printer Support
  - USB DAC/IR Receiver/Keyboard/Mouse Support
  - CD ROM Drive/DVD ROM Drive/Blu-Ray ROM
- **VirtualBox**
  - Supports multiple virtual machines concurrently
  - Supports USB, Ethernet, and Audio connections
  - Supports Audio and Video playback
  - Supports Pass-through disks
- **Antivirus**
  - Scheduled Scans
  - Automatic Virus Definition Updates
  - Quarantine Infected Files
- **KODI**
  - Kodi 14.2
  - Play All Media Content Stored on NAS
  - Video Output via HDMI
  - TV Shows, Movies, Apps and More
  - Supports SBS 3D Playback (Side By Side)
  - Max resolution: 2160p (4K)
- **DataSync for Microsoft OneDrive**
  - Each ADM account is able to individually log into a OneDrive account
  - Supports file filter and bandwidth limitation
  - Supports backup methods:
    - Sync
    - Directly upload files to OneDrive from NAS
    - Directly download files from OneDrive to NAS
- **VirtualBox**
  - Virtual Machines are able to run the following Operating Systems: Windows, Linux, Solaris, Mac OS X
  - Virtual Machine Import Format: OVF
**Photo Gallery**
- Supported Image Formats: JPG, JPEG, GIF, PNG, BMP, TIF, RAW, ARW, CR2, CRW, DNG, DCR, ERF, KDC, MEF, MONG, MRW, NEF, NRW, ORF, PEF, PPM, RAF, RW2, SR2, SRF
- Image Library Import
- Album Access Control
- Supports video playback
- Unique Pinterest Style Photo Album with 5 Photos on Cover
- Supported Image Format: .JPG, .PNG, .GIF, .Raw

**SoundsGood**
- Import Personal/Public Music Collection
- Personal/Public Music Collection Permission Control
- Supports TCP and UDP
- Selectable the Video Type and Quality
- Automatic Downloads with YouTube Subscriptions
- Preview Downloads in Progress
- Online Playback

**UoP Media Server**
- Supports PS3 and other Digital Media Player Capable Devices
- Supports On-The-Fly Transcoding for Most Raw Audio(Ogg, FLAC)
- Supported Image Formats: BMP, GIF, ICO, JPG, PNG, PSD, TIF, RAW Image2 (3FR, ARW, AIFC, CR2, DCR, DNG, ERF, KDC, MEF, MONG, MRW, NEF, NRW, ORF, PEF, RAF, RAW, RW2, SR2, X3F)
- Supported Audio Formats: 3GP, AAC, AC3, AIFC, AIFF, AMR, APE, AU, AXML, FLAC1, M4A, M4R, MP2, MP3, OGG Vorbis1, PCMA, WAV, WMA
- Supported Video Formats: 3GP, 3G2, ASF, AVI, DAT, DIVX, ISO, M1T, M2T, MTS, M4V, MP4/MKV, MP4v, PEG1, PEG2, MPEG4, MTS, MOV, QT, SWF, TF, TRP, TS, VOB, WMV, RMVB, VDR, MPE

**VPN Client**
- Supports VPN Protocols: PPTP, OpenVPN
- Transmission Package Monitor
- PPTP Authentication: PAP, CHAP, MS CHAP, MS CHAP2
- PPTP Encryption: No MPPE, MPPE (40, 128 bit), Maximum MPPE (128 bit)
- OpenVPN Port Control
- OpenVPN Link Compression

**VPN Server**
- Supports PPTP and OpenVPN Protocols
- View Current Connections & Ability to Disconnect Suspicious Connections
- Comprehensive Connection Log

**SNMP Server**
- Supports SNMP v1, v2c, v3 and trap
- ASUSTOR NAS MIB provided

**Syslog server**
- Supports standard syslog protocol
- Graphical log monitoring by time and device
- Supports TCP and UDP
- Auto log archiving
- User-defined email notification

**File Explorer**
- Web-based File Management
- ISO File Mounting
- Share Links
- Task Monitor
- Browse Files on Local PC
- Automatic Downloads with YouTube Subscriptions
- Supports video playback

**FTP Explorer**
- Directory Structure View with Drag & Drop Transfers
- Task Monitor
- Stopping of Transmission Task & Resumption of Connection
- Encrypted Connections: Explicit over TLS, Implicit over TLS
- FTP Site Manager
- Bandwidth Control
- Maximum Simultaneous Transfer Control

**DropBox**
- Each ADM Account is able to individually log in to one Dropbox account
- Supported Backup Methods:
  - Sync
  - Directly Upload Files to Google Drive from NAS
  - Directly Download Files from Google Drive to NAS

**HiDrive**
- Each ADM Account is able to individually log in to one HiDrive account
- Supported Backup Methods:
  - Sync
  - Directly Upload Files to HiDrive from NAS
  - Directly Download Files from HiDrive to NAS

**Google Drive**
- Supports NAS Drive
- Directly Upload Files to Google Drive from NAS
- Directly Download Files from Google Drive to NAS

**HiDrive**
- Supports NAS Drive
- Directly Upload Files to HiDrive from NAS
- Directly Download Files from HiDrive to NAS

**Download Center**
- Supports BT(Torrent & Magnet Link), HTTP and FTP Downloads
- Torrent Search
- Choose Files before a BT Task Starts
- Customizable Download Schedule
- Bandwidth Control
- RSS Subscription and Automatic Downloading (Broadcatching)
- ASUSTOR Download Assistant for Windows & Mac
- Airdownload for iOS & Android
- Airdownload for iOS & Android with Push Notification
- Smart Download Function

**iTunes Server**
- For iTunes on Mac & Windows
- Supports AirPlay
- Supports iOS Remote Pairing
- Supports Audio Formats: AIFF, M4A (AAC & Apple Lossless), MP4, MP3, WAV
- Supported Video Formats: MOV, MP4
- Supported Playlist Formats: M3U, WPL

**Mail Server**
- Each ADM account can become an independent email account
- Email Activity Monitor (Over 1 Week, 1/3/6 Months)
- Provides SMTP, IMAP and POP3 Mail Protocols
- Supports SMTP Relay and Verification
- SMTP-SSL Secure Connections
- Spam Filter and Black List Settings
- Email Alias Creation and Mapping
- Monitoring of Mail Queue
- Mail Service Activity Log
- Exclusive Email Backup Mechanism
- Auto-Forwarding and Auto-Response Protocols

**Surveillance Center**
- Up to 24 channels in 720p on single live view display(4 Free Channels)
- On-screen camera controls including camera PTZ, manual recordings, take snapshots, configure camera settings and open Maps
- Up to 4 channels of synchronous and non-synchronous playback with audio
- Intelligent video analytics including motion detection and foreign object detection
- Supports Browsers: Windows Internet Explorer, Firefox, Mac Safari, Mac Firefox
- Event notification supports SMS, E-mail, and mobile push notification
- Automated event action rules
- Role-based access control
- RTSP streaming server (video and audio)
- A Secure mobile app for iOS and Android with Push notification
- ONVIF™ 2.4, Profile S certified
- Two different camera license packages are offered: single channel and 4 channels. Maximum IP Cam (4 Free Licenses; Additional Licenses to be Purchased)

---

**Note:**
1. Metadata (e.g. title) may not be able to be displayed in iTunes.
2. You must first enable real time transcoding for these files in order to play them.

---

**ASUSTOR Inc.**
3F, No. 135, Dahe Rd., Beitou Dist., Taipei City 112, Taiwan
Tel: +886 2 7737 0888
www.asustor.com

Designs and specifications are subject to change without notice.
© 2014 ASUSTOR Inc. ASUSTOR and all other ASUSTOR product names are trademarks or registered trademarks of ASUSTOR Inc. All other product and company names mentioned herein are the trademarks of their respective owners.