

User's Guide



TRENDNET[®]



2-Bay NAS Media Server Enclosure

TN-200 / TN-200T1

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Product Overview



TN-200 / TN-200T1

Package Contents

TN-200	TN-200T1
<ul style="list-style-type: none"> - TN-200 - Multi-Language Quick Installation Guide - CD-ROM (User's Guide) - Network Cable (1.5m / 5ft.) - Power adapter (12V DC, 3A) 	<ul style="list-style-type: none"> - TN-200 - 1 x 1TB SATA Hard Drive - Multi-Language Quick Installation Guide - CD-ROM (User's Guide) - Network Cable (1.5m / 5ft.) - Power adapter (12V DC, 3A)

If any package contents are missing or damaged, please contact the retail store, online retailer, or reseller/distributor from which the product was purchased.

Features

TRENDnet's 2-Bay NAS Media Server Enclosure, model TN-200 / TN-200T1, is the entertainment and storage hub of a digital network. DLNA certified Smart TVs, media players, and game consoles can automatically find and play multiple HD videos and music simultaneously. An iTunes server provides the ability to share a massive iTunes library across your network.

The NAS accepts two 3.5" SATA I / II hard drives (sold separately) for a total storage capacity of up to 8 Terabytes. Additional storage can be added using the convenient USB share port. A Gigabit Ethernet port maintains a high speed connection to the network. An intuitive setup wizard gets the TN-200 / TN-200T1 up and running quickly. Consume and manage your digital content from anywhere with TRENDnet's TN-200 / TN-200T1.

DLNA Certified

DLNA technology seamlessly brings your HD movies and music to your Smart TVs, media players, and game consoles. Use a DLNA app on your tablet or smart phone to stream movies and music. The TN-200 / TN-200T1 support simultaneous HD streams to different devices.

Remote Access

Safely share content over the internet using the FTP server or create login profiles with restricted remote access. Supported Dynamic DNS service providers include dyndns.com, freedns.afraid.org, zoneedit.com, and no-ip.com.

Advanced Management

Quickly create restricted user access profiles. Set your hard drives to JBOD (combines drives to appear as one large hard drive), RAID0 (increases drive performance), or RAID1 (zero-loss architecture mirrors all data from drive 1 to drive 2). Perform a S.M.A.R.T. test (Self-Monitoring, Analysis, and Reporting Technology) to verify hard drive performance and health attributes. The Scan Disk feature scans for data errors. Setup SMS notifications when downloads are complete or key settings are changed.

Backup Center

The Backup Center provides easy local, remote, and cloud backup options to safeguard your valuable content. Program backup to a local NAS device, using Apple Time Machine, or to a connected USB storage device. Setup remote backup to a remote NAS, remote server, or the Amazon cloud service.

Download Center

Program scheduled downloads from a website, BitTorrent, an FTP site, or peer to peer. Monitor downloads in real time and setup SMS download alerts.

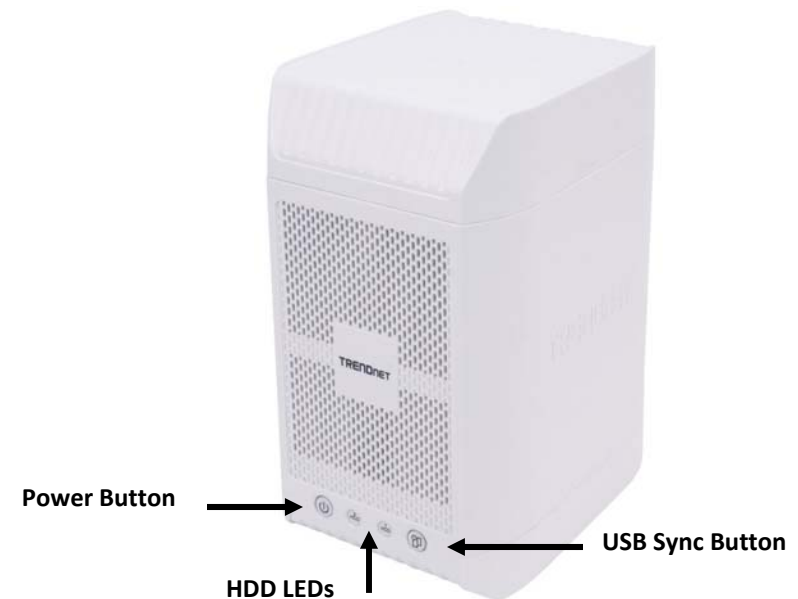
Energy Savings

Program the device to hibernate when idle. Create a weekly schedule to automatically turn off the TN-200 / TN-200T1 for specific times such as when at work or asleep.

- Share documents, videos and more at Gigabit speeds
- 2 Serial ATA I/II 3.5" hard drives (up to 4TB each) of your choice (HD not included)
- 1 x 1 TB SATA hard drive included (TN-200T1 only)
- Quickly expand your storage or download media with the external USB port
- Manage your data from any Internet connection
- Control content and user access with the feature rich management interface
- Schedule data backups via FTP and HTTP servers without turning on your PC
- Ensure complete mirrored backup with RAID 1 and improve performance with RAID 0 technology
- Use JBOD management features to make two hard drives act as one
- Provides USB one-click backup, to copy USB contents to HD just by pressing a button
- Supports file-level backup, speed up the file transfer by transferring only the difference between remote and local files
- Supports Digital media server compatible with DLNA certified digital media players, iTunes server
- Manage quotas for up to 256 user accounts and 32 groups
- Manage users in groups with user quota and group quota limitations
- Power management feature conserves energy and turns off hard drives not in use
- Receive notification via email for critical errors and full hard drives
- Mac users friendly with AFP, Time Machine and Safari support
- Intuitive installation with Plug and Play support
- Smart FAN support
- 2-year limited warranty

Product Hardware Features

Front View



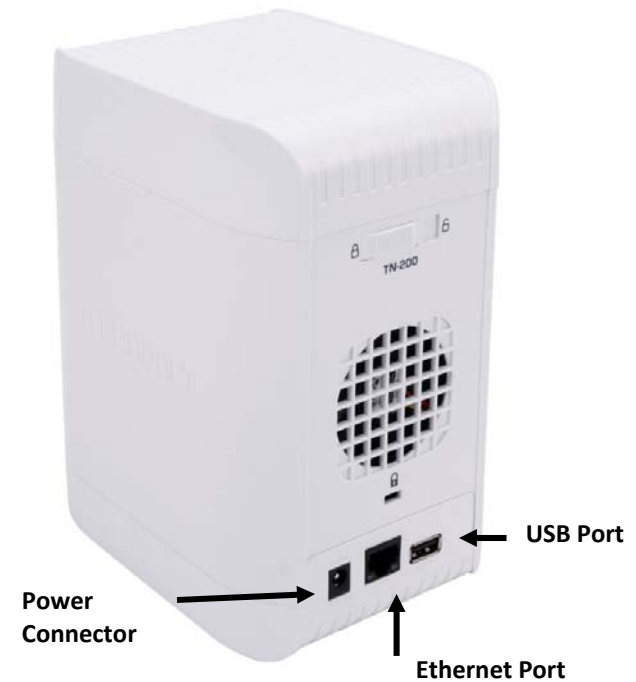
Power Button – Press this button to power on the NAS.

HDD LEDs – Blinks when the hard drives are active

Indicator	Light	Description	Description
Power LED	Green	Solid Light	Power is on, device is ready.
		Blinking Green	Booting / Restarting
		Light Off	Device is in hibernation
USB Sync LED	Green	Solid Light	USB Storage connected
		Blinking	Transfer data by pressing USB Sync Button/ USB device is being installed / Device is being un-mounted
		Light off	USB Storage un-mounted, not connected, or power is off
	Red	Solid Light	USB storage is installed but failed to mount
HDD1 LED	Green	Solid Light	HDD is active
		Blinking	HDD is reading/writing
		Light off	Power is off, or no hard drive inserted
	Red	Solid Orange	Hard drive is installed but failed
HDD2 LED	Green	Solid Light	HDD is active
		Blinking	HDD is reading/writing
		Light off	Power is off, or no hard drive inserted
	Red	Solid Orange	Hard drive is installed but failed

USB Sync Button – copy data from a USB Flash drive to the NAS.

Rear View

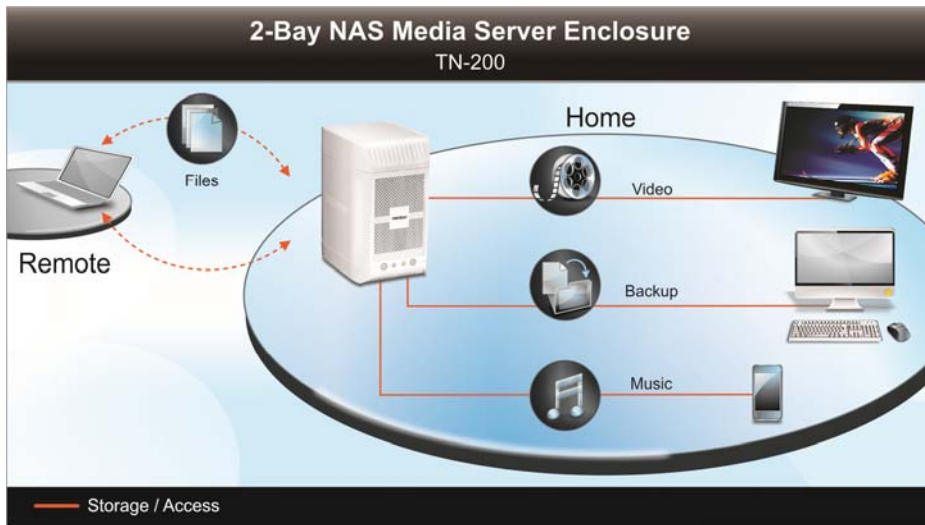


Power Connector – Plug in the power cord

Ethernet Port – Connect the Ethernet cable to this port

USB Port – Plug in a USB flash drive to import/export files on the USB flash drive.

Application Diagram



Installing Hard Drive(s)

1. Slide and hold the lock and push the top cover towards the back to open the top cover.

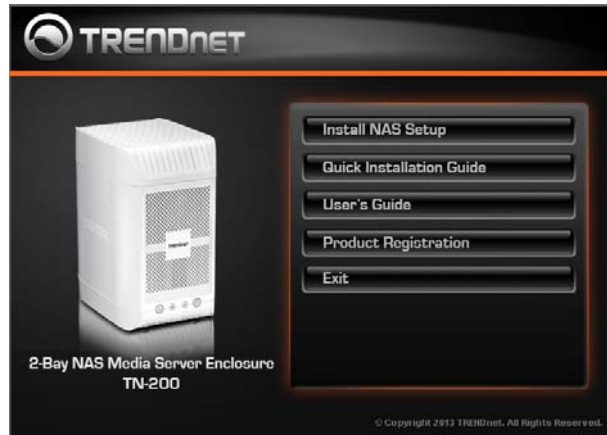


2. Insert SATA hard drive(s) and make sure the hard drive is firmly placed into the SATA slots.

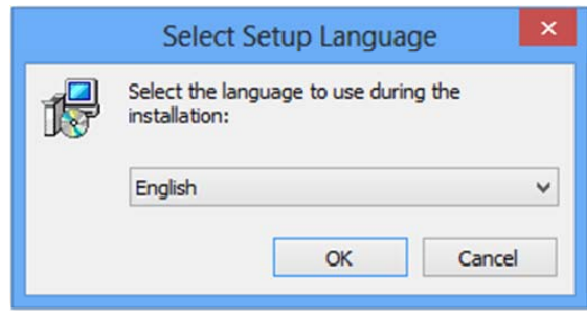


Install NAS Setup Utility

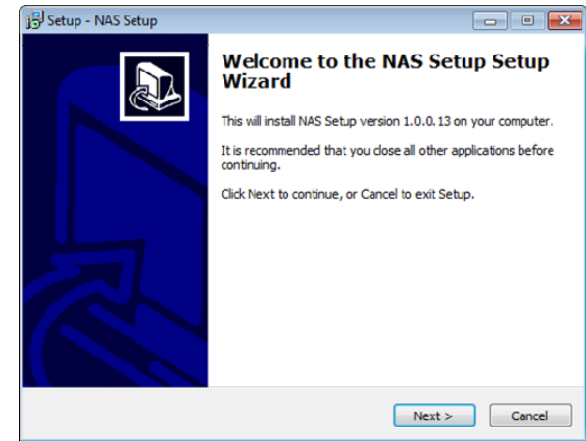
1. Insert the CD-ROM and click **Install NAS Setup**.



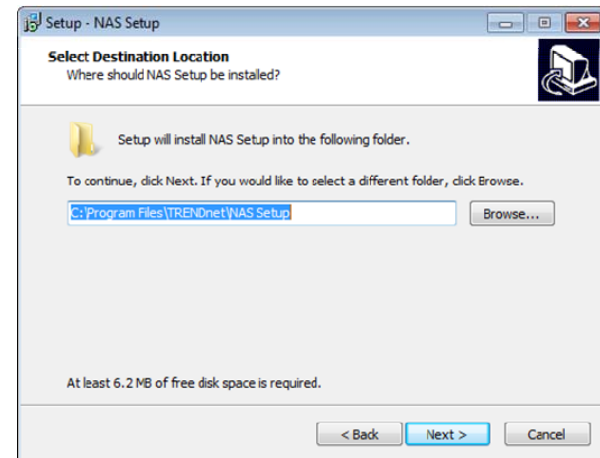
2. Select your preferred **language** from the drop-down list



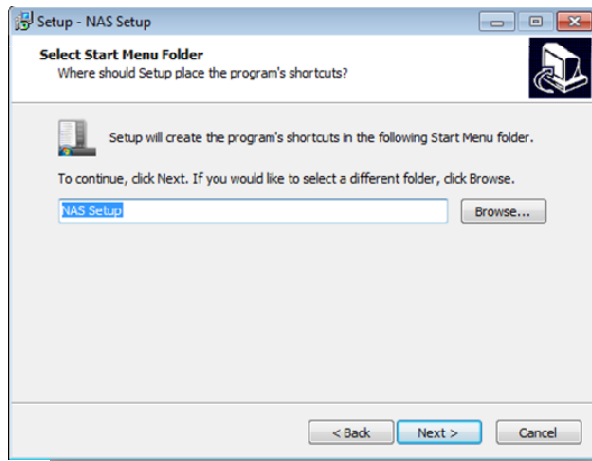
3. The **NAS Setup Wizard** window will now appear. Click **Next** to continue.



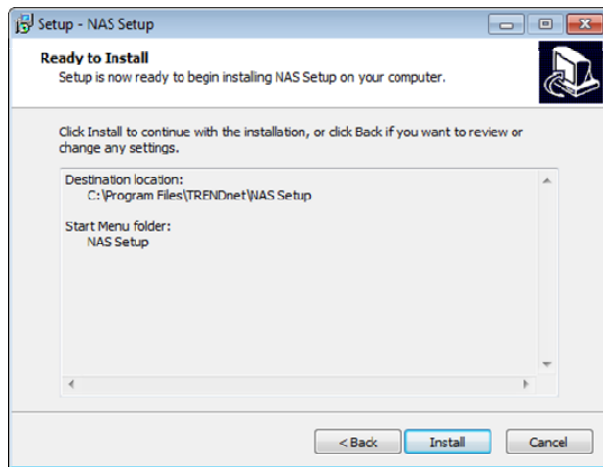
4. Click **Next** to store the files and proceed



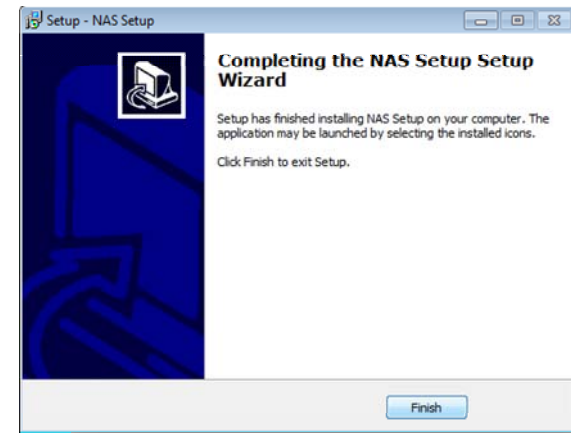
5. Select the **Start Menu** folder location.



6. Click **Install** to install the utility



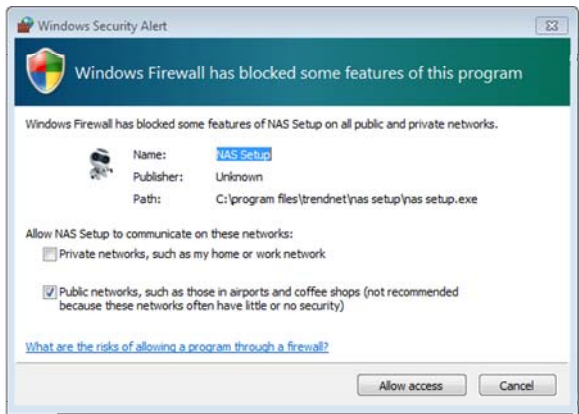
7. Click **Finish** to complete the installation.



8. The **NAS Setup** icon will now appear on your Desktop.



9. Windows Firewall might prompt a permission request to access the **NAS Setup** utility.



Click **Refresh** to detect the TRENDnet TN-200 / TN-200T1. Once the NAS is detected, the main window will appear on the screen.

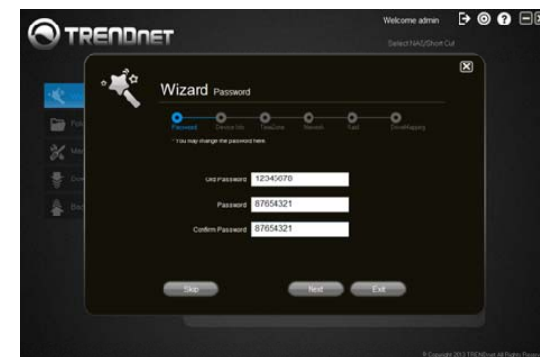


Configuring with the NAS Setup Utility

1. The login screen will prompt you to enter a **User Name** and **Password**. Click the **Remember Me** checkbox for the software to remember your details. The default **User Name** and **Password** is admin / admin.



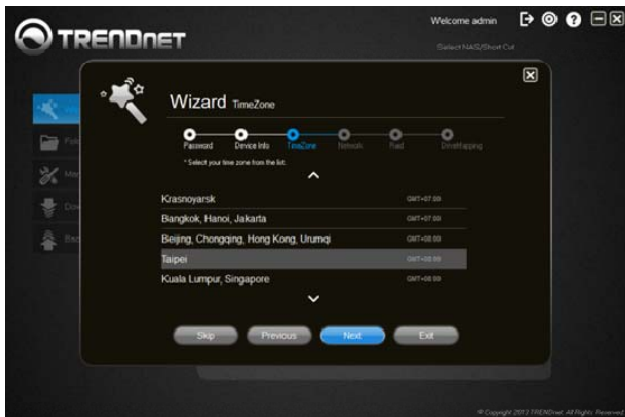
2. For first-time setup, it's recommended that you go through the Wizard to configure all of the basic settings for the TN-200 / TN-200T1. Update the password when prompted. Password length must be 8-16 characters; special characters such as @, : , / , \ , % , \$, and space keys are not valid.



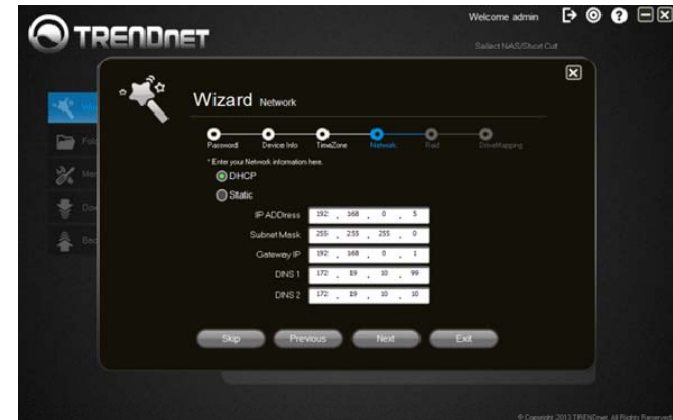
3. The **Wizard** automatically generates a **Workgroup** name, a **Name**, and a **Description**. You can edit these fields accordingly. Click **Skip** to move on to the next step.



4. Select a **Time Zone** from the drop-down list. Click **Next** to continue.



5. Select either a **DHCP** or a **Static Network**. With **DHCP**, your router automatically generates an IP address for the TN-200 / TN-200T1. With **Static IP**, you must enter the IP address details.



When selecting **Static IP**, click the radio button. Enter the **IP Address**, **Subnet Mask**, **Gateway IP**, **DNS 1** and **DNS 2**. Click **Next** to continue.



6. The Wizard allows four RAID options, **Stand-Alone**, **JBOD**, **RAID 0**, and **RAID 1**.



Stand-Alone - Creates two separate volumes from the two hard drives.

JBOD RAID - Makes the disks appear to be a single storage disk

RAID 0 - Striped RAID improves performance and provides more storage but without fault tolerance. Two drives are required for this option.

RAID 1 - Mirrored RAID, data is written identically on two drives. Two drives are required for this option.

If you have data stored in the hard drive(s), it's recommended that you back up your data before placing the hard drive(s) in TN-200 / TN-200T1.

Stand-Alone is used as an example in the user's guide. Once you select **Stand-Alone**, a warning message will appear to warn you that all data will be lost and the disk will be reformatted. Click **OK** to continue.

Note: If there is data on your hard drive, please make sure the data is backed up first before proceeding.

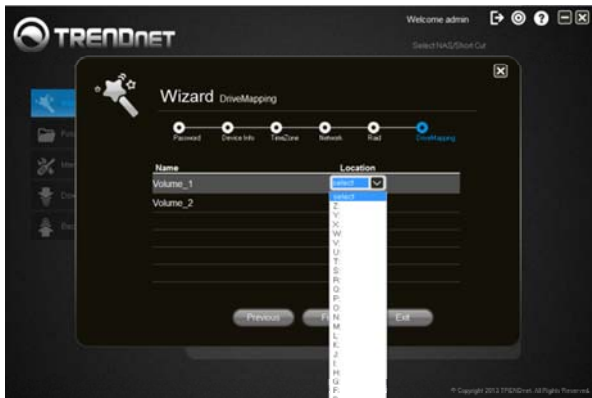
7. The software will begin formatting the drives.



8. The formatting process is now complete. Click **OK** to continue.

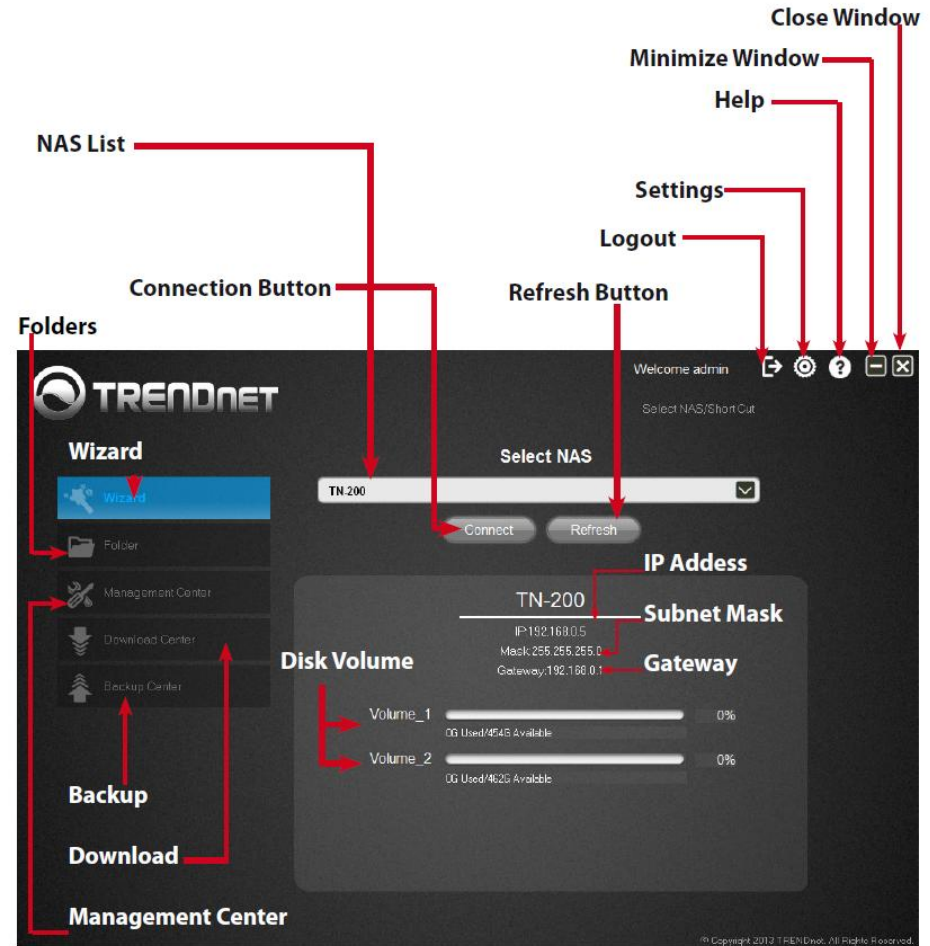


9. In the **Drive Mapping** setup window, click the “select” field and choose a letter for the drive from the drop-down list. The Volume label is pre-configured for you. Drive Mapping enables the user to access data as if the NAS were a local drive.



Click **Finish** to save settings and exit the wizard or click **Exit** to exit the wizard without saving settings.

Interface



NAS List – displays a list of NAS devices found on the network

Connect Button – click to connect to the selected NAS

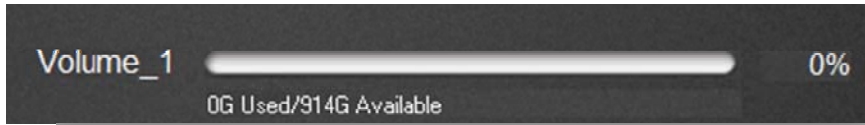
Refresh Button – click to refresh the NAS List

IP Address – shows the IP address of the connected NAS

Subnet – shows the subnet mask of the connected NAS

Gateway – shows the network gateway of the connected NAS

Disk Volume – shows the capacity and usage of the hard drive (s)



Logout – click this button to logout of the current NAS

Settings – click this button to set logout intervals



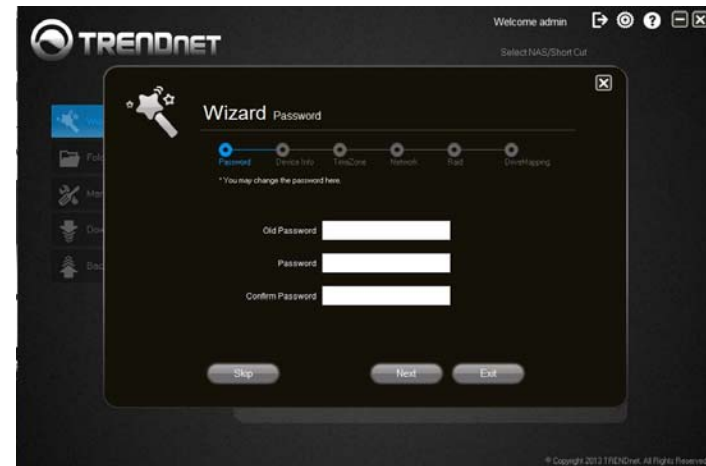
Help – displays the current version of the NAS Setup utility

Minimize – click to minimize the window

Close – click to close the utility

Panel Features

1. Wizard – use the setup wizard to configure your NAS



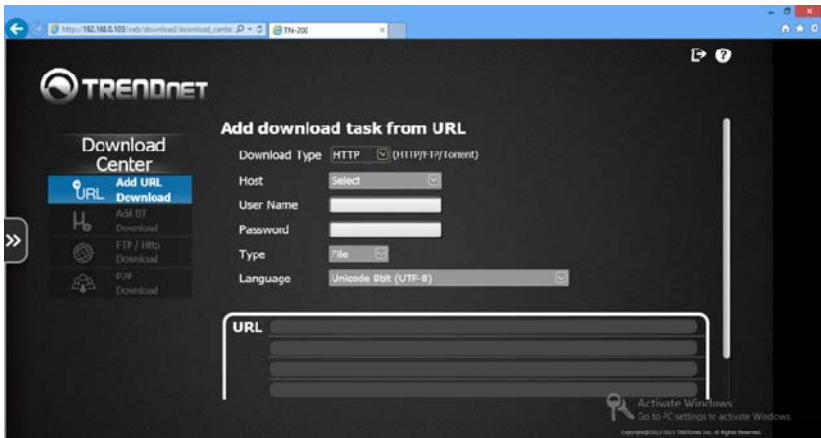
2. Folder – displays the available disks and current volume(s), double-click on one of the hard drives to open the file explorer for easy file access.



3. Management Center (Web browser)—manage users, hard drives, and system and network information here



4. Download Center (Web browser) - allows users to download files from URLs, FTP servers, and BitTorrent



5. Backup Center (Web browser) - allows users to backup data to local, remote, or cloud based storage



Configuring with a Web Browser

Open a web browser and type in <http://TN-200> or the IP address of the TN-200 / TN-200T1 in the address field and press Enter.

This opens the TN-200 / TN-200T1 Home Screen in the browser.



Click **Login** at the top right-hand corner.



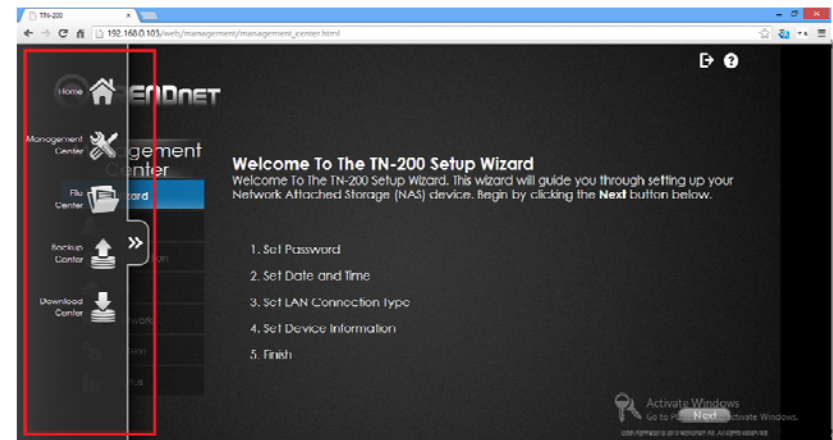
The Main Screen

The Main Screen consists of four tiles (**Management Center**, **File Center**, **Backup Center**, and **Download Center**) for you to manage your NAS. When you scroll over a tile, it turns blue to indicate you have highlighted it. Click on a tile to manage its contents.



Sidebar

The sidebar provides access to **Home**, **Management Center**, **File Center**, **Backup Center**, and the **Download Center**. Click on an icon to access its contents.



Management Center

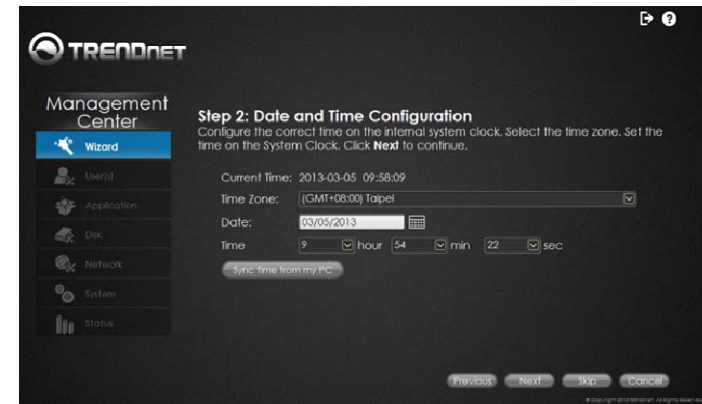
Wizard

The browser-based Management Center features the same configuration options as the NAS Setup. If you have gone through the setup process with the NAS Setup utility, please skip this part. As for the Wizard, there are 5 steps to work through to configure the system. The introductory window provides the process. Click the **Next** button to continue.

Step 1 – To change your password, enter the Old Password; enter a New Password; and re-enter the same Password to confirm the change. Click **Next** to continue.



Step 2 – To set the **Date** and **Time**, select a **Time Zone** from the drop-down list; select a date by clicking the **Calendar** icon and setting the date; and click the **Sync time from my PC** to sync the time with your computer.



Step 3 – To set the **LAN Connection Type**, select the **DHCP** or **Static Client** option. With DHCP, the router designates an IP Address for the NAS. With Static IP, you must set an IP Address manually. Select your preferred option and click **Next**.



DHCP Settings

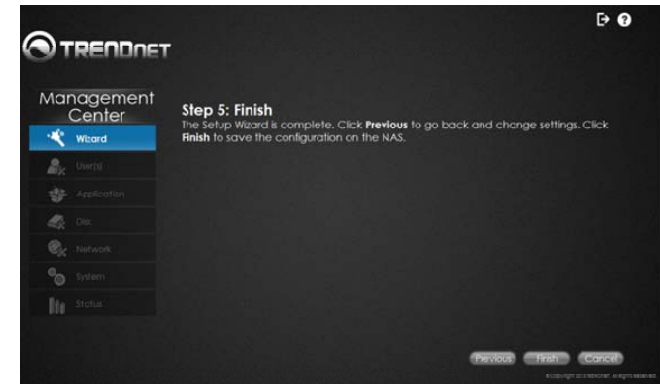


Static Settings

Step 4 – To **Set Device Information**, enter a **Workgroup** name; a **Name** for the device; and a **Description**. Click **Next** to continue.



Step 5 – Wizard setup is now complete. Click the **Finish** button.



User

The **User(s) Window** is divided into 5 sections - **User List**, **Group List**, **Share List**, **ISO Mount**, and **Quota**.

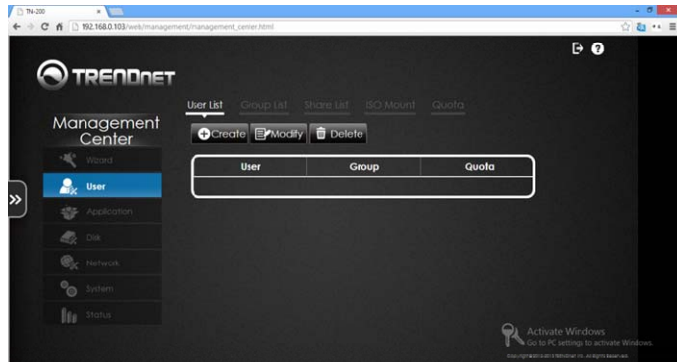
User List

You can create, modify, and delete a user under this section.

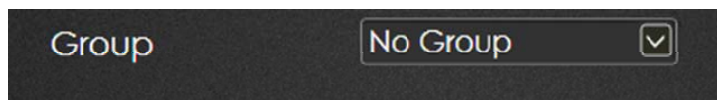
To create a user, click **Create**; enter the User Name; Password; Confirm Password; Group; Permissions; and Quota settings.

To modify a user, select the user from the list and click on **Modify**.

To delete a user, select the user from the list and click on **Delete**.



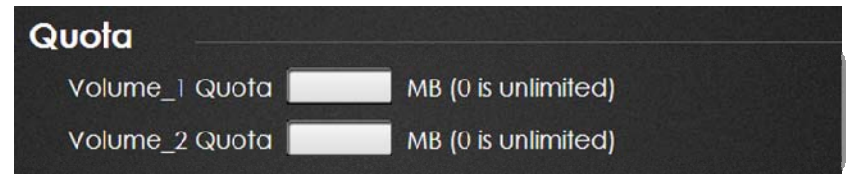
From the drop-down list select the **Group** you want this User to belong to. However, if you haven't previously setup **Groups** this field will be blank.



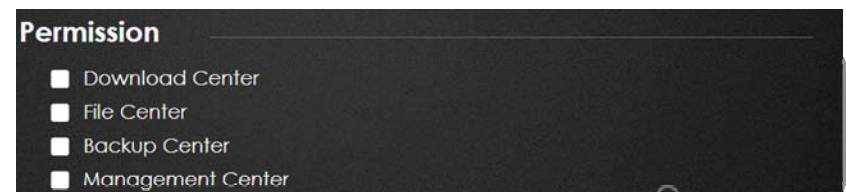
Under **Share**, select the Volume you want the account to fall under and then select "Read Only", "Read/Write", or Deny Access" permissions.

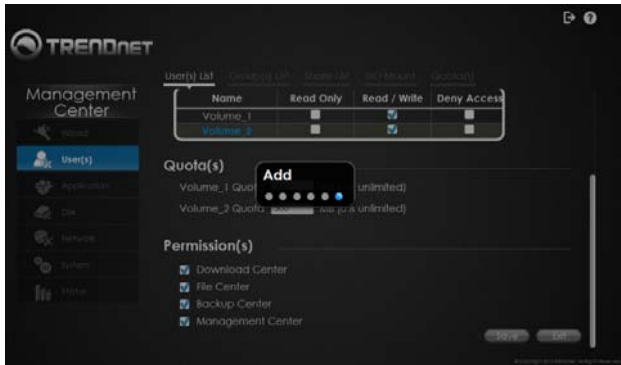


For **Quota**, enter how much data (in MB) you wish to assign the user(s). Remember, if the user is a part of a **Group**, the **User** account size cannot be bigger than the **Group Quota** size. Enter 0 for unlimited User account size. User quotas will only be managed if the Quota feature is enabled under the **Quota** section.



Permissions has five permission levels. Each user can be assigned administrative rights to these permissions. They give access to: Download Center, File Center, Backup Center, Management Center, and Surveillance Center. Click **Save** to create the user account.





Click the **OK** button when finished.



The user is added and saved to the **User List**.

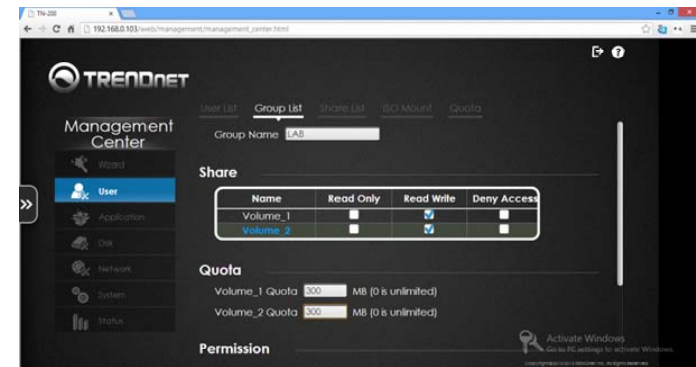


Group List

Groups are used to add one or more users to an aggregation. To create a **Group**, click **Group List** from the **User Main Menu** and click **Create**.



Creating a **Group List** is similar to a **User List**. Enter a **Group Name** in the field provided. Set the **Share** permissions (**Read**, **Read/Write**). Enter the **Quota** amount for the account (take into consideration that the **Group** size must be larger than the User size) and select which **Authority** permissions you want the **Group** to have access to. Click **Save** to finish the **Group Account** setup. Group quotas will only be managed if the Quota feature is enabled under the **Quota** section.



The new **Group** appears under the **Group List Table**.



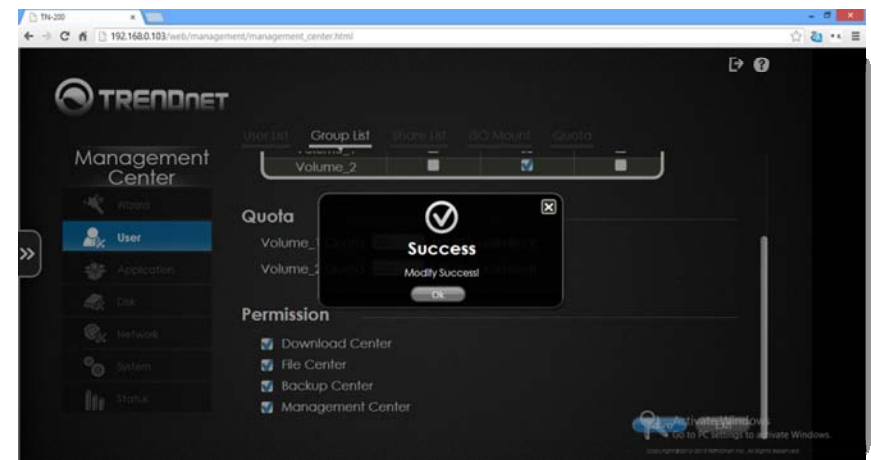
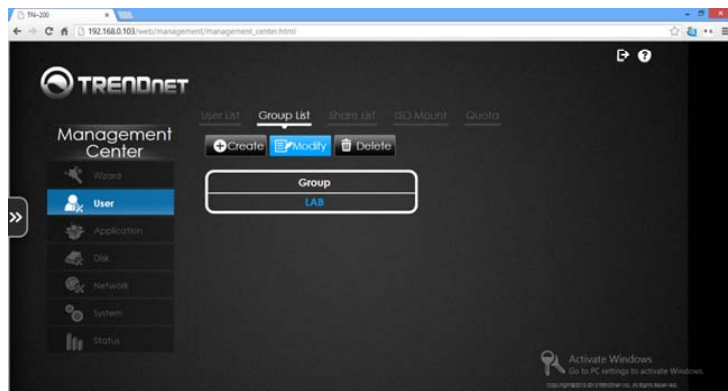
The system will update with the modifications.



Modifying a User/Group

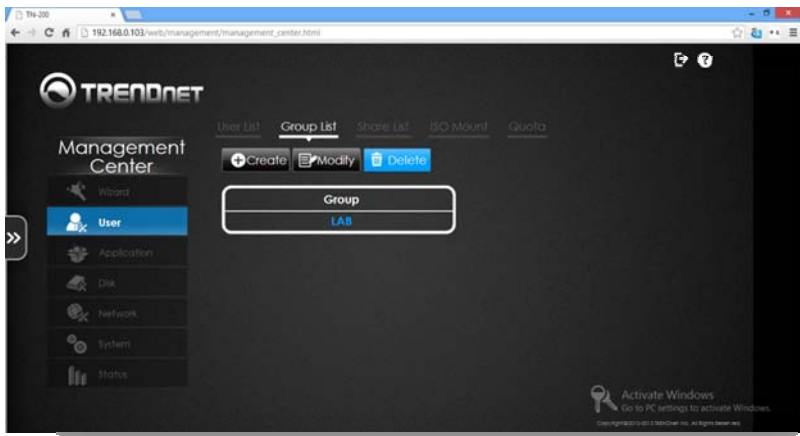
Under the **User/Group List**, select the **User/Group** you want to modify. The **User/Group** changes to a bright blue. Click the **Modify** button. You will be redirected back to the **User/Group List** main panel. Edit the **User/Group** privileges and click **Save** to finish.

Once the **Success** pop-up window appears, click **OK**. The modifications will be made and you will be returned to the **User/Group List Table**.

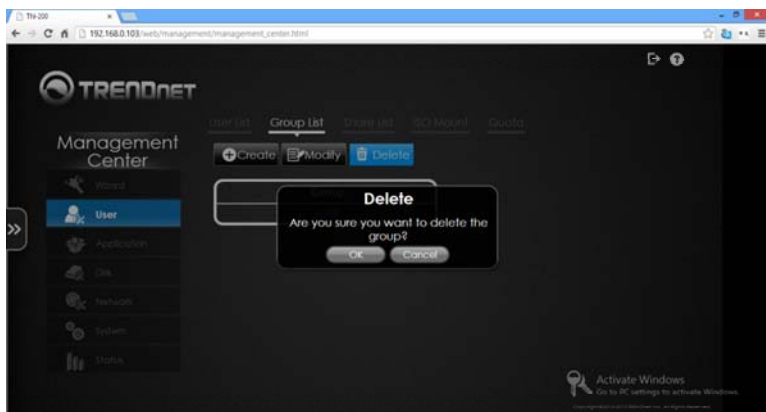


Deleting a User/Group

Under the **User/Group List**, select the **User/Group** you want to delete. The **User/Group** will change color. Click the **Delete** button. You will be prompted to verify your selection. Click **OK** to continue or **Cancel** to exit without saving changes.



The **User/Group Profiles** have been deleted. Check the **User/Group List Table** for the updated **User/Group List**.



Share List

The **Share List** is created by default and is organized by Volume. Example: **Volume_1**. A Share List consists of a Share Name (usually the Volume), a Path (the directory where it resides), and its permissions (CIFS/FTP/NFS/WebDAV). To create a new **Share List**, click the **Create** button.



Once you have clicked the **Create** button, select a **Share** from the pane on the left. Select one of the **Public Access** options (**Read**, **Read/Write**, or **Deny**) and select an **Access Method** (**CIFS**, **AFP**, **FTP**, **NFS**, **WebDAV**). Under **Network Share Settings**, Add a new **Nickname** for the share. Click the checkbox for **Oplocks**, **Map Archive**, and **Recycle**. Click **Save** to continue. Click **Exit** to cancel any changes.

Under **Network Share Settings**, Add a new **Nickname** for the share. Changing the Nickname is not mandatory. Click the checkbox for **Oplocks**, **Map Archive**, and **Recycle**. Click **Save** to continue. Click **Exit** to cancel any changes. See the Glossary for a definitions list for Oplocks, Map Archive, and Recycle.



Note: Clicking the **FTP** brings up further options (**None**, **Read Only**, and **Read/Write**). Select the option that best suites you.

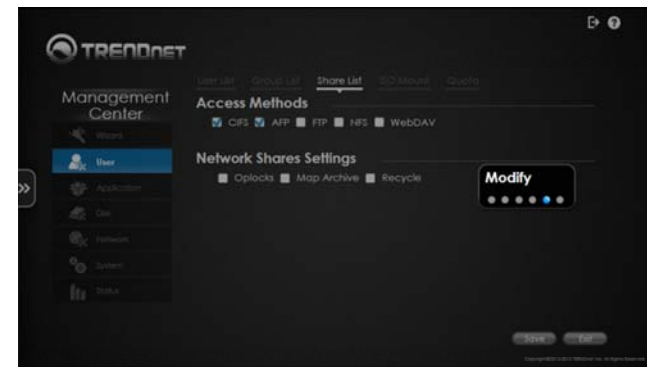


Note: Clicking **NFS** brings up further options (**A Host name**, **Root Squash**, **Write**). Select the option that best suites you. You will be prompted to enter data for the fields provided; failure to do so will prompt a warning window.



The system will update with the modifications.

To **Modify** a share, select the **Volume** and click the **Modify** button.



Under the **Modification List**, you have three optional changes: **FTP**, **NFS**, and **WebDAV**. Unfortunately, **CIFS** and **AFP** are not configurable. Under **Network Share Settings**, there are three optional changes: **Oplocks**, **Map Archive**, and **Recycle**. Click **Save** to continue. Click **Exit** to cancel any changes.

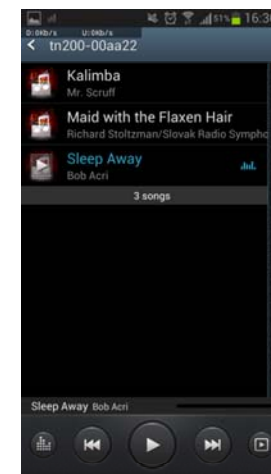
By default, the TN-200 / TN-200T1 has CIFS enabled. CIFS is the name of a new samba standard. CIFS allows you to access files from any device on the network. Let's attempt to access data from the TN-200 / TN-200T1 using a mobile phone. Using an Android-based system, go to the Music Player.



Scroll through the menu bar at the top of the screen until you come across Nearby Devices. Select Nearby Devices and you should find the NAS on the network.

Note: A Samsung Android device is used for the example shown. Devices and operating systems will vary.

Click the TN-200 / TN-200T1 to reveal the music files stored on the NAS.

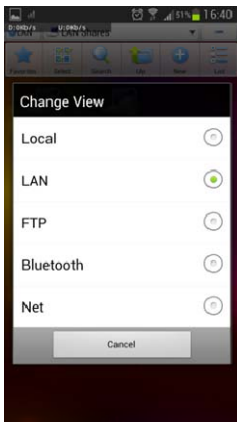


Alternatively, you may use one of the many file manager apps available from the Google Play store. In this example, we are using the ES File Explorer app.

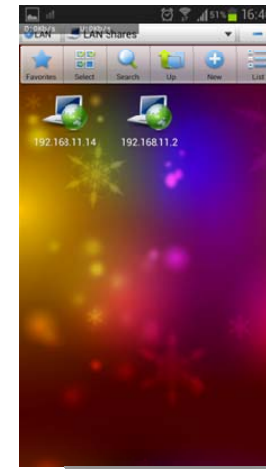
Open the app.



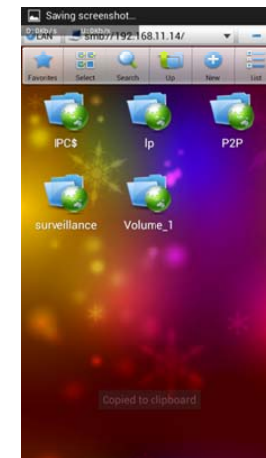
At the top left-hand corner, select the View option to change the view.



Select LAN from the View options. The devices on your LAN will now be displayed, including your TN-200 / TN-200T1.



Tap on the TN-200 / TN-200T1's IP address and open the desired Volume to find your data.

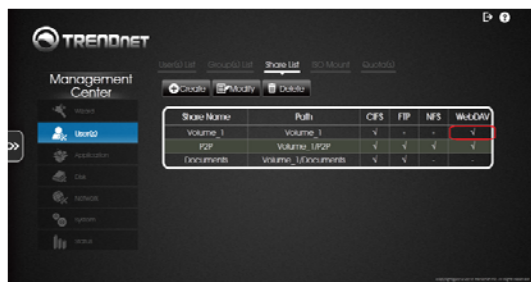


In the Volume you initially created, you can find the same folders; documents; movies; music; and photos. To open a folder, tap on the icon (in this case, we selected Photo).



Another method is to use WebDAV. The app used in this example is WebDAV Nav Lite. You can download this app from the Google Play store.

Make sure the WebDAV feature is enabled.



Open the app and if the screen comes up empty, you need to locate and setup the server once again. Enter the details accordingly; however, be sure to follow the exact layout of the network address in order to connect to it.



Enter NAS name – TN-200 / TN-200T1 (in the example).

Enter the Server URL to the exact location.

For example, if you want to access Volume_1 and the NAS IP is 192.168.11.14. The URL will be http://192.168.11.14/webdav/Volume_1/

To access WebDAV remotely using the internet, set a port forwarding rule on the router.

Internal port: public port (eg. 80:801)

The format used to access the volume remotely is:

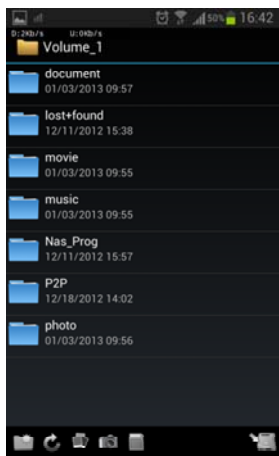
http://routerip:publicport/webdav/SHARE_NAME/

(For example, http://172.18.73.45:801/webdav/Volume_1/)

Enter a User Name – the one you use to access the NAS.

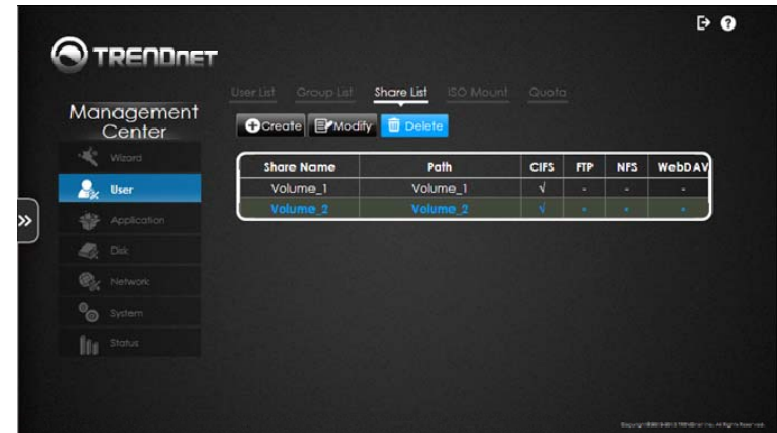
Enter a Password – the one you use to access the NAS.

Once you have entered all the details correctly, tap the folder that you wish to access.



Deleting a Share

To delete a **Share**, select the **Volume** and click the **Delete** button.



A pop-up screen prompts you to confirm your choice. Click **Ok** to confirm, click **Cancel** to exit.



ISO Mount

To use the **ISO Mount** feature, click **ISO Mount** on the top panel.



Select the **ISO** file(s) from one of the **Volumes**. For **Public Access**, select between **Read Only** and **Deny Access**. Select an **Access Method** from **CIFS**, **AFP**, **FTP**, **NFS**, or **WebDAV**. Click **Save** to continue. Click **Exit** to cancel any changes.



Note: Clicking **FTP** brings up further options (**None**, **Read Only**, and **Read/Write**). Select the option that best suites you.

Note: Clicking **NFS** brings up further options (**A Host name**, **Root Squash**, **Write**). Select the option that best suites you. You will be prompted to enter data into the fields provided; failure to do so will prompt a warning window. If you are unsure of what the fields mean, please see the glossary at the end of the user's guide.



The ISO Mount directory will be populated with the .iso information.



Modify the ISO Mount

To **Modify** the mount, select the **Volume** and click the **Modify** button.



Under **Public Access**, select **Read Only** or **Deny Access** for the **Volume** you want. For the **Access Method**, select any of the three options: **FTP**, **NFS**, or **WebDAV**. Remember that **CIFS** and **AFP** are there by default and cannot be disabled.

When you click the **FTP** option, the **FTP Anonymous Access** profile will appear. Select either **None** or **Ready Only** access. Likewise, if you select **NFS**, the **NFS Settings Host** field will appear. Fill in the relevant information in the **Host** field.



Deleting an ISO File

To delete an **ISO File**, select the **.iso file** and click the **Delete** button. The **ISO** file will turn blue.

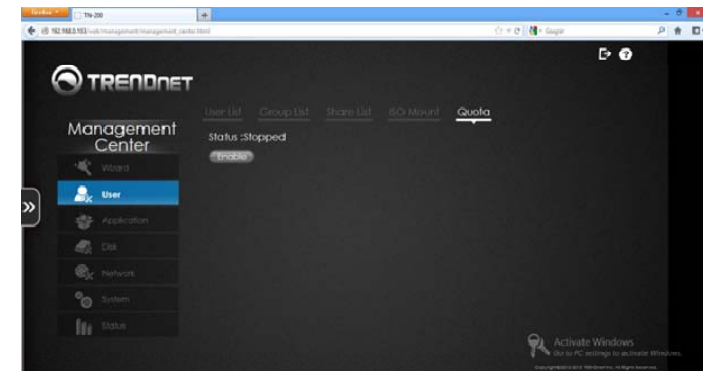


Next, click **YES** to accept the deletion or **NO** to return to the menu.



Quota

Click the **Quota** icon under the Toolbar to **Enable/Disable Quota**. User or Group quotas settings will only take affect if the Quota feature is enabled here. This allows you to enable/disable Quota settings all at once instead of individual user or group account. If no limit is preferred for the user or group quota, please leave 0 under user or group settings.

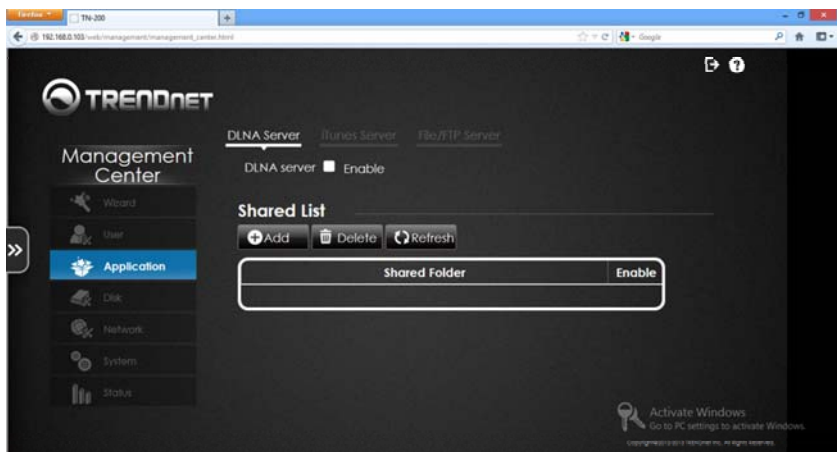


Application

Under **Application** there are three main parameters: **DLNA Server**, **iTunes Server**, and **File/FTP Server**.

DLNA Server

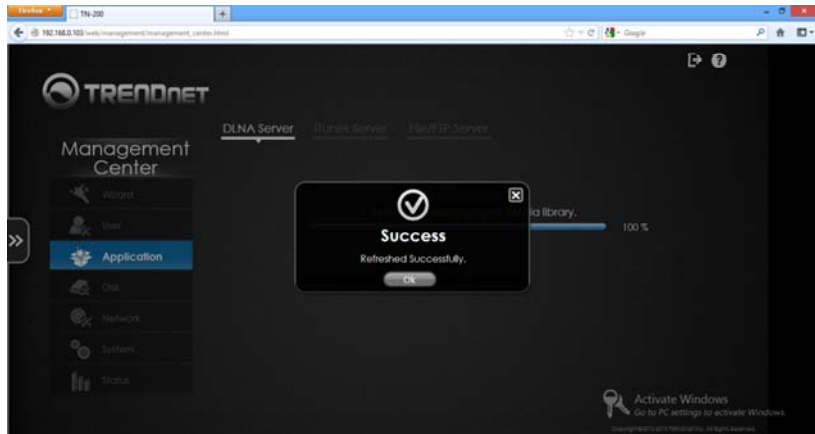
DLNA Server is a media server that works with **MAC**, **Windows**, and **Linux** Operating Systems. It enables your NAS to stream your media files (music, video, or images) in your home using the power of UPnP. Once **Enabled**, the NAS uses this function to connect with all your devices, such as mobile phones; TVs; tablets; and game consoles that are DLNA compliant. To enable it, click the checkbox next to **DLNA server**.



To add devices (or shared **Volumes/Folders/Files**) to the **DLNA Server**, under **Shared List**, click **Add**. A pop-up window of your main **Volume** on the NAS will appear. Click the checkbox to highlight the entire **Volume** or click the **“plus”** sign next to the **Volume** to create a new **Share**. Click **Apply** to enable the **Share**.



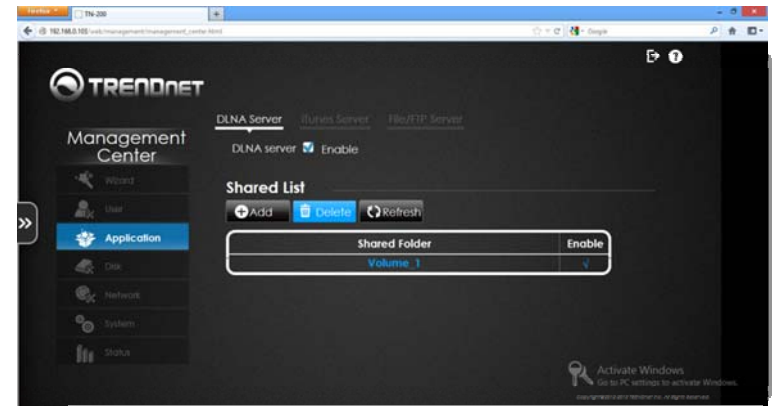
The system will initialize and save your settings.



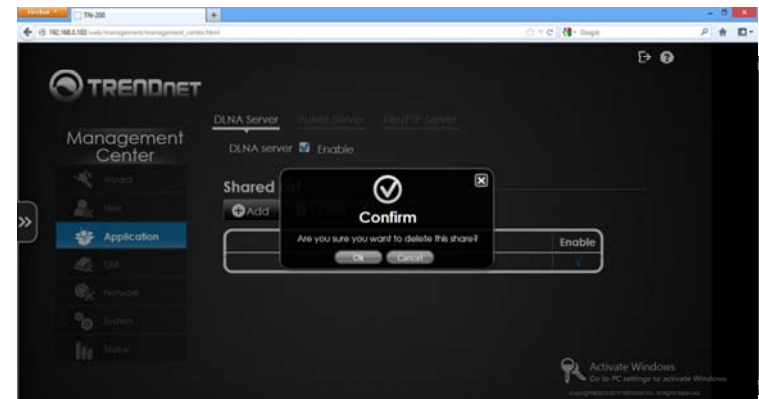
Click **OK** to exit. The Shared Volume will now appear in the **Shared Folder List** as seen below with the **Green** light (check sign) enabled to indicate it is working.



To delete a **Shared Folder** from the DLNA Server, select it (it turns **blue**) and click the **Delete** button at the top. A pop-up window will appear for you to confirm the deletion. Click **OK** to confirm.

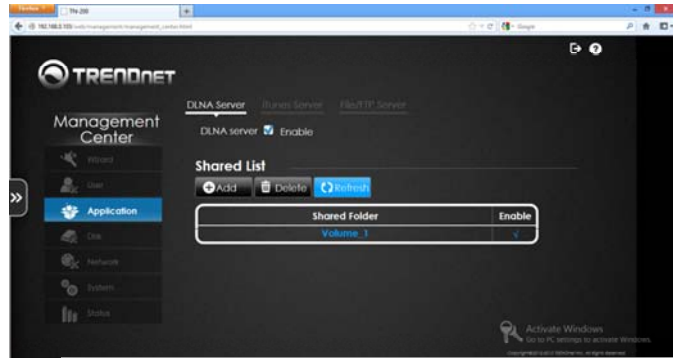


Deleting the **Shared Folder** in the DLNA Server

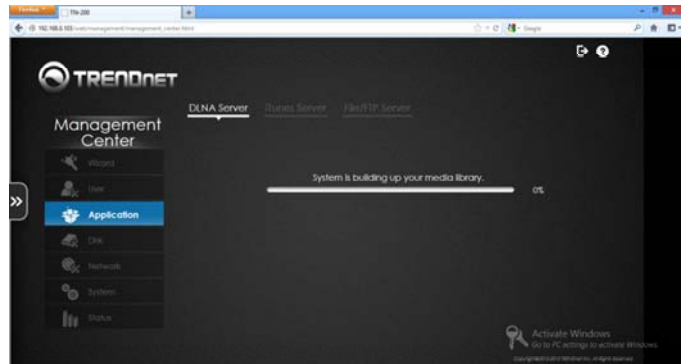


Click **OK** to **Delete**

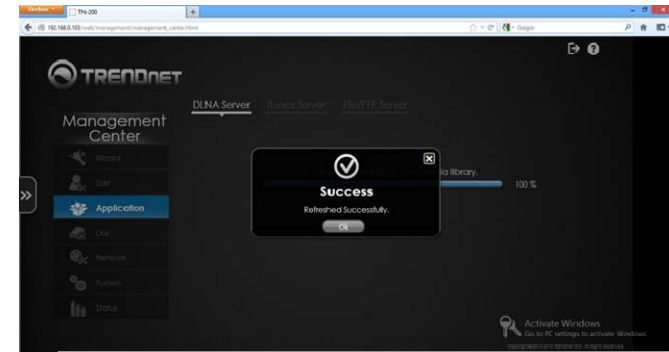
To **Refresh** the **Shared List**, click the **Refresh** button. Items in the **Share Folder** are refreshed.



Click **Refresh**



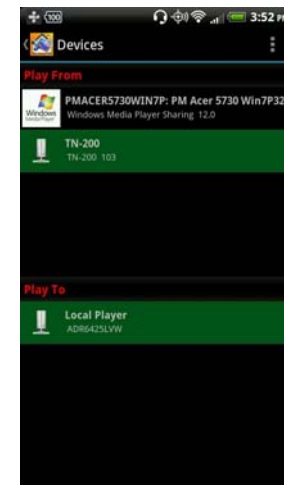
The **Media Library** is built



DLNA Server is working

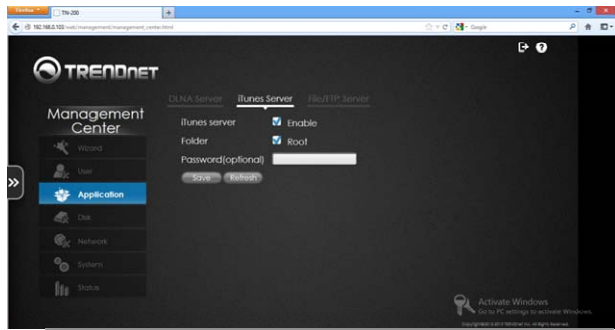
Accessing NAS data using a DLNA player

Once the DLNA server is activated on your NAS, you will be able to see your NAS from a DLNA compliant device and access data from it. Make sure your phone and NAS are under the same network.



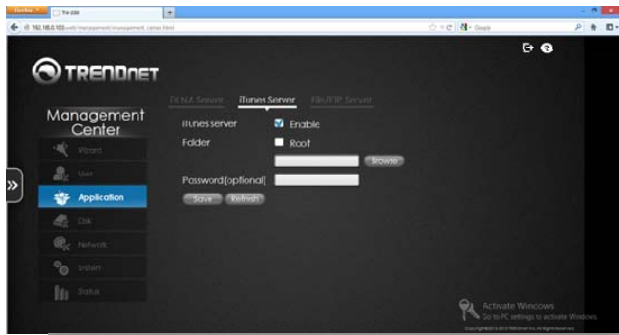
iTunes Server

The **iTunes Server** application allows you to integrate the **NAS** with iTunes. This allows you to add your **iTunes Playlist** to the **TN-200 / TN-200T1**. Click the **iTunes Server** checkbox to enable it.



Click **Save** to continue.

If you do not want to use the **ROOT** folder, deselect the **ROOT** checkbox and click **Browse**.



Select the **Volume** you wish to use for this application and click **Apply**.

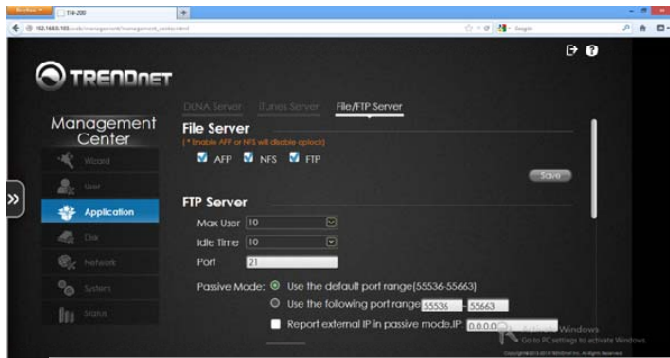


The **Volume** will now appear in the **Folder** option list. Click **Save** to continue and **OK** to exit.

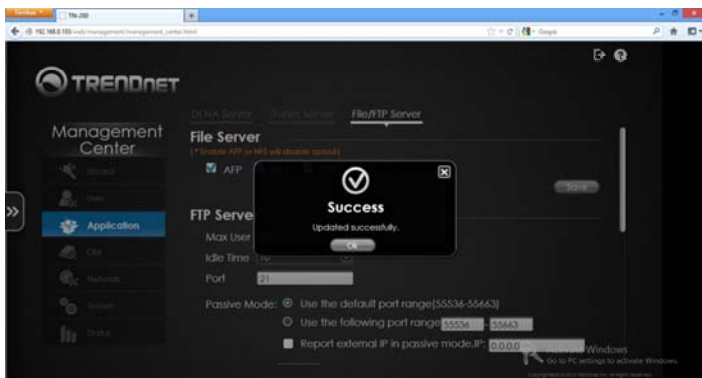


File/FTP Server

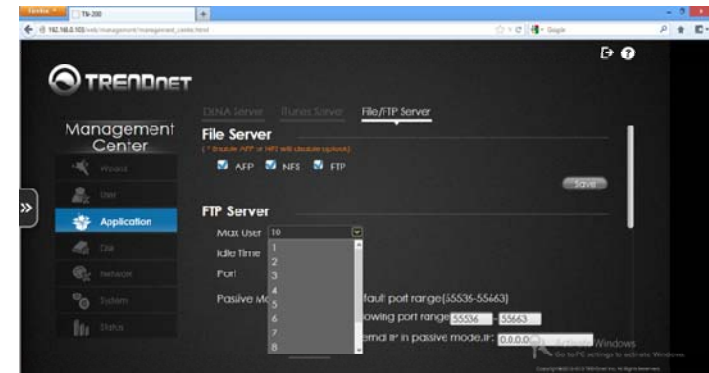
The TN-200 / TN-200T1 becomes a **File Server** with one click. Go to **Applications** → **File/FTP Server**. Enable one of the three protocols: **AFP**, **NFS**, and/or **FTP**. Select one or all of them, depending on your needs. There is a warning message that reads, "Enable AFP or NFS will disable Oplocks". Please pay attention to this message if it applies to you.



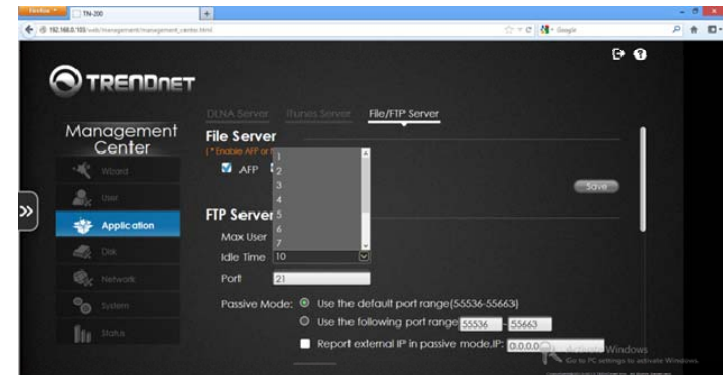
Click **Save** to continue and **OK** to exit.



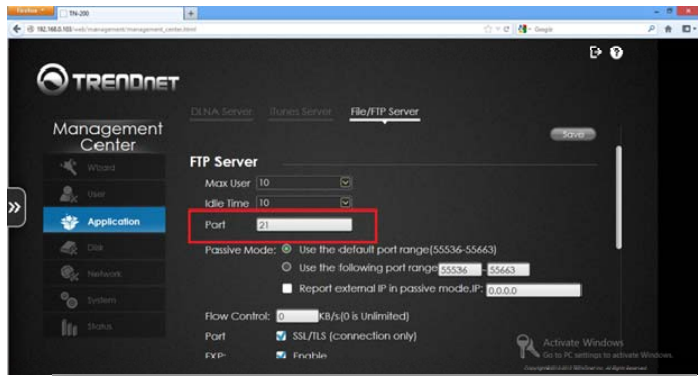
The **FTP server** has many parameters for you to configure. You can limit the amount of users by clicking the **Max User** drop-down list. Select from **1-10**, based on your needs.



Select an **Idle Time** from the drop-down list.



The default **port** is **21**. Click on the corresponding field to change the port number.



Listed below are settings for **Passive mode**. **Passive** mode allows you to change the port range. The **default port range** is **55536-55663**. You can also change this by selecting the second option and entering your own range. The third option is entering a specific IP address that adheres to **Passive Mode** restrictions.



Client Language – select the client language from the drop-down list. English is listed as the default language (ISO-8859-1)

Flow Control – set the flow control in Kilobits per second value or enter 0, which is the default Unlimited value.

SSL/TLS – set the security level

FXP – click the checkbox to enable this function

Click **Save** to continue

Note: If you are unsure of what these commands do, please see the Glossary for Help

Block IP – to block an **IP address** for a specified period, click the **Add** button.



The TN-200 / TN-200T1 supports **IPv4** and **IPv6**. Once you click the **Add** button, the **FTP Server** allows you to block both IPv4 and IPv6 IP addresses. Select the **Protocol** and enter the **IP address** details in the field provided. Make the **Block Duration Permanent** or **Temporary**. Using the drop-down list, select the Block IP time limit (**5/30 minutes, 1 hour, 1 day**).



Temporary Block IP settings



Permanent Block IP settings

Click **Apply**. The settings are configured. A pop-up screen will display the updates.



The Blocked IP is will be now displayed under the Block IP table.



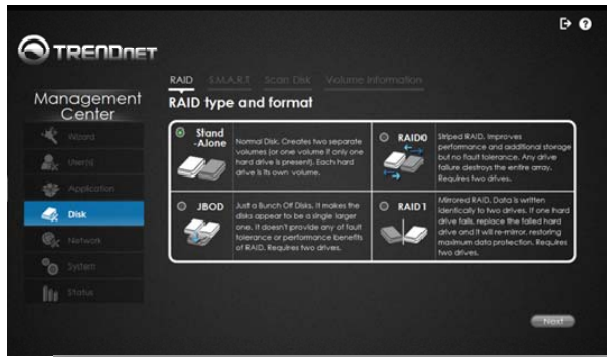
To **Delete** the **Blocked IP**, select it and it turns blue. Click the **Delete** button. Confirm the deletion of the **Blocked IP**.



Disk

The TN-200 / TN-200T1 has four RAID types to select from – Stand-Alone, JBOD, RAID 0, and RAID 1. For details on each RAID type, read the short description on each type.

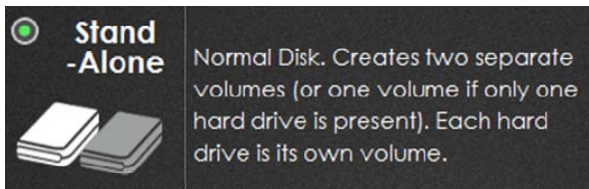
Note: If the HDD isn't new, please back up your files before performing any of the following actions.



RAID

Stand-Alone

Use eSATA drives to create separate volumes. Each hard drive is its own Volume.



Click **Next** to continue.

Select one or more disks to create the **Stand-Alone** configuration. Click **Next** to continue.



Check the **Volumes** and click **Format** to continue.



The Wizard will build or rebuild the Stand-Alone RAID.



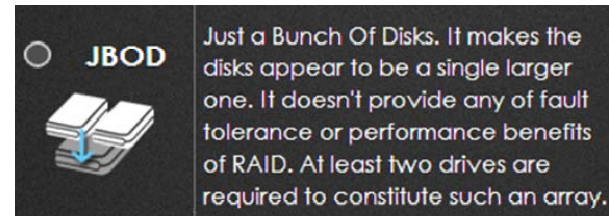
The formatting process will begin.



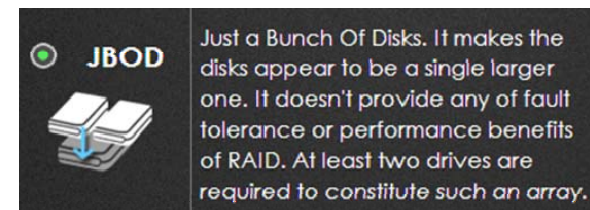
Stand-Alone RAID is complete. The table is visible under Volume Info.

JBOD

JBOD makes disks appear as a single drive, no fault tolerance.



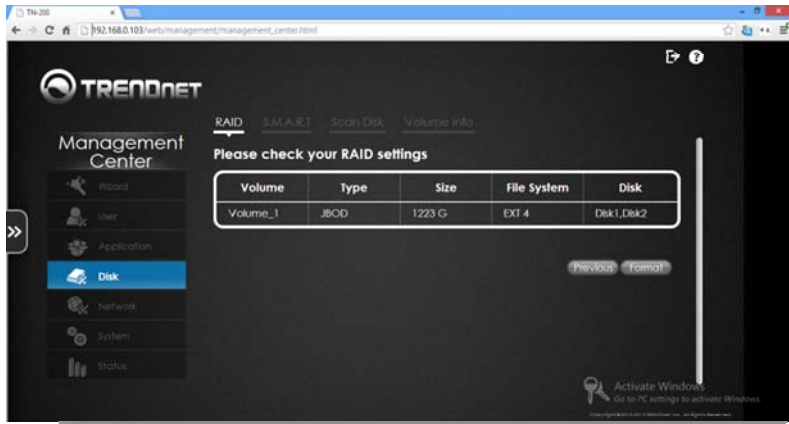
Click the radio button next to JBOD and click Next to continue.



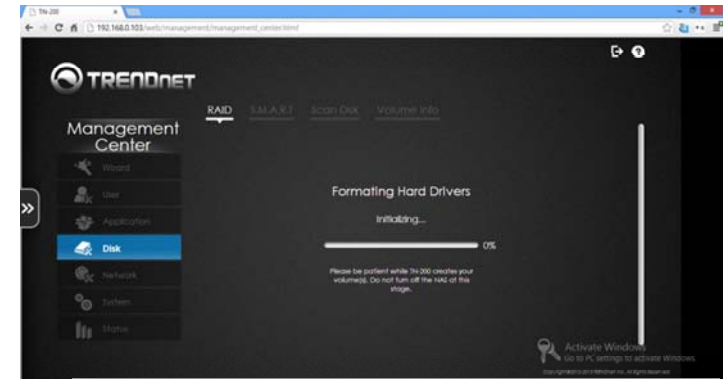
The hard disk drive details are displayed. Click Next to continue.



The **RAID Settings** are displayed. Click **Format** to continue.



The drives are **Formatted**, initialization will begin.



The rebuild warning asks you to verify your choice. Click **OK** to continue.

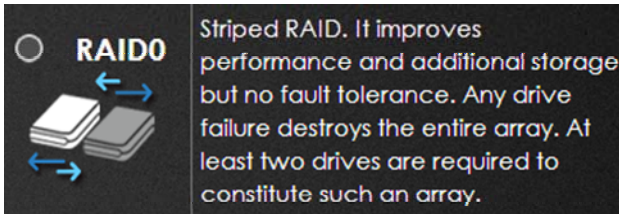


Once **JBOD** is configured, it will be displayed under **Volume Info**.

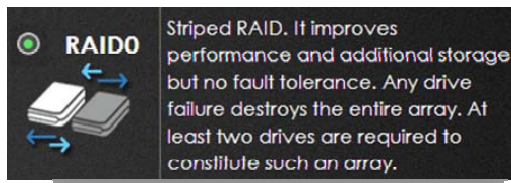


RAID 0

RAID 0 improves performance and additional storage but no fault tolerance.



Click the **radio button** next to **RAID 0** and click **Next** to continue.



The hard disk drive details will be displayed. Click **Next** to continue.



The **RAID Settings** will be displayed. Click **Format** to continue.



The rebuild warning will ask you to verify your choice. Click **OK** to continue.

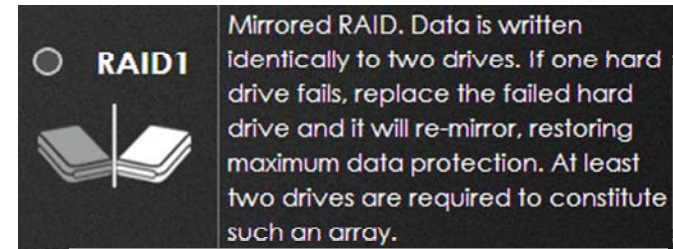


Once **RAID 0** is configured, it will be displayed under **Volume Info**.



RAID 1

RAID 1, data is written identically to two separate drives.



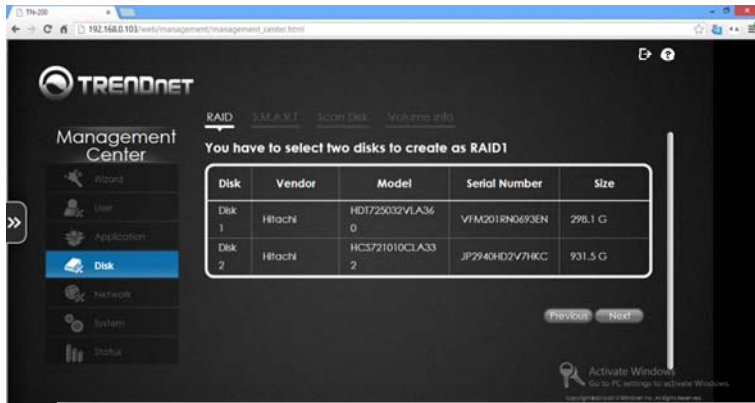
Click the **radio button** next to **RAID 1** and click **Next** to continue.

Select one of the three options - create a New RAID, Migrate to RAID 1, or Add to an Existing RAID. For demonstrational purposes, we are going to use the first option.



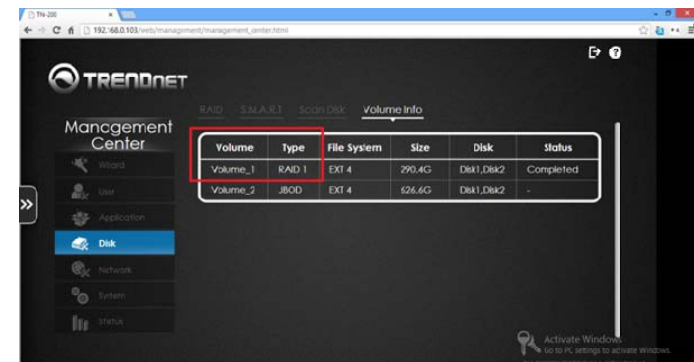
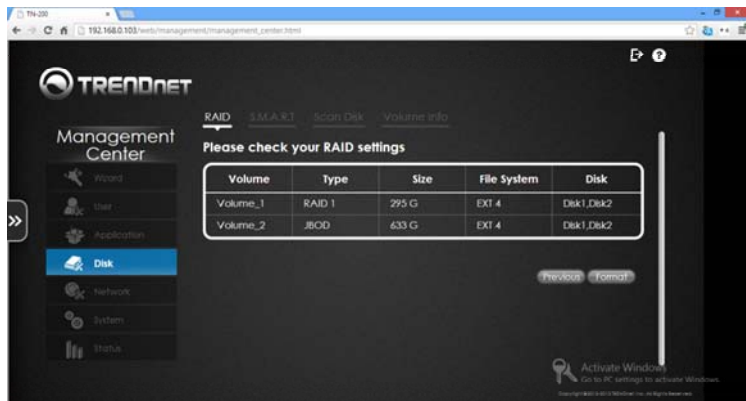
The disks are displayed for RAID 1. Click **Next** to continue.

The rebuild warning will ask you to verify your choice. Click **OK** to continue.



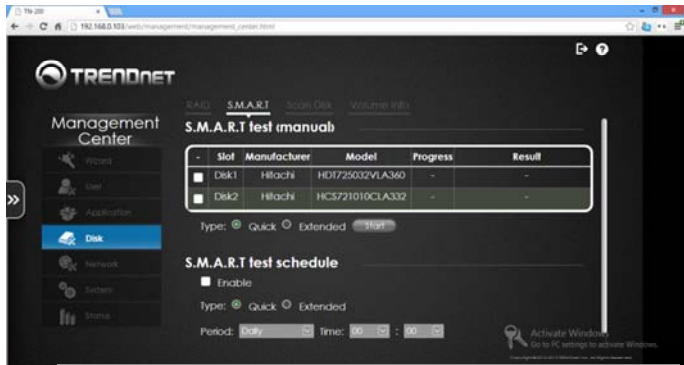
Check the RAID settings to confirm. Click **Format** to continue.

Once **RAID 1** is configured, it will be displayed under **Volume Info**.

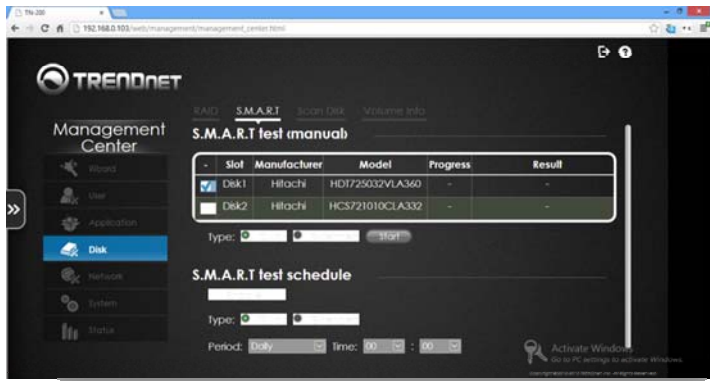


S.M.A.R.T.

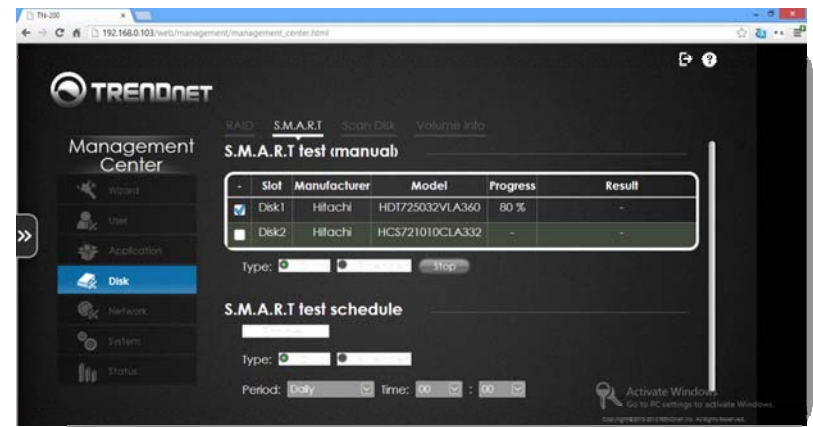
S.M.A.R.T. allows a user to test the functionality of the NAS. Go to the **Management Center > Disk > S.M.A.R.T.**



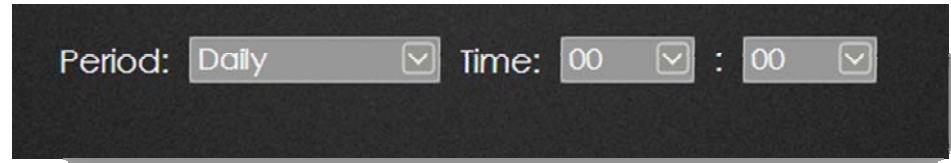
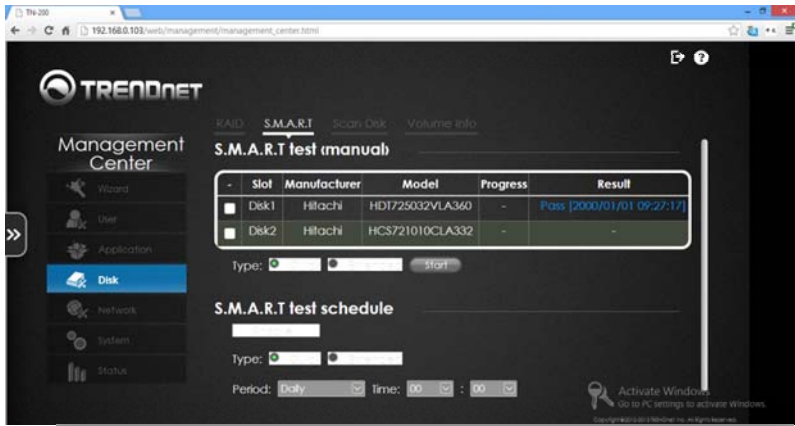
Click on the disk you wish to **test**. Select whether you want a **Quick test** or an **Extended test** and click the **Start** button.



During the test period, you are able to monitor the progress. The **Progress** column shows the progress made.

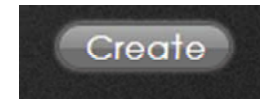


Once the test is completed the result is shown in the **Results** column.

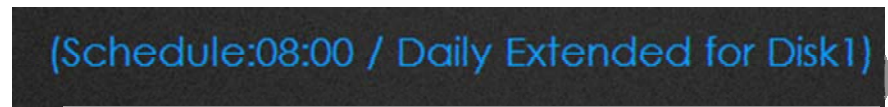


Select a Time and Period

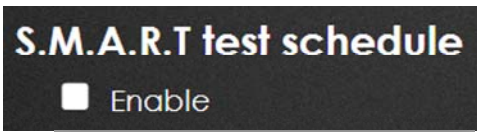
Click the **Create** button to create a schedule.



The schedule will now be highlighted in blue.



Under the **S.M.A.R.T. Test Schedule**, click the checkbox to **Enable** it. Select either a **Quick** or **Extended** test. If you have selected **Extended**, select a **Period** of **Daily**, **Weekly**, or **Monthly** and select the **time** frame.



Enable S.M.A.R.T. testing

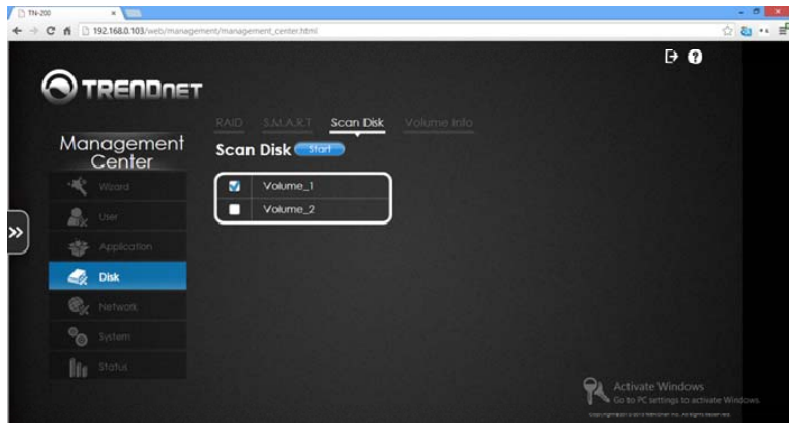


Quick or Extended

Scan Disk

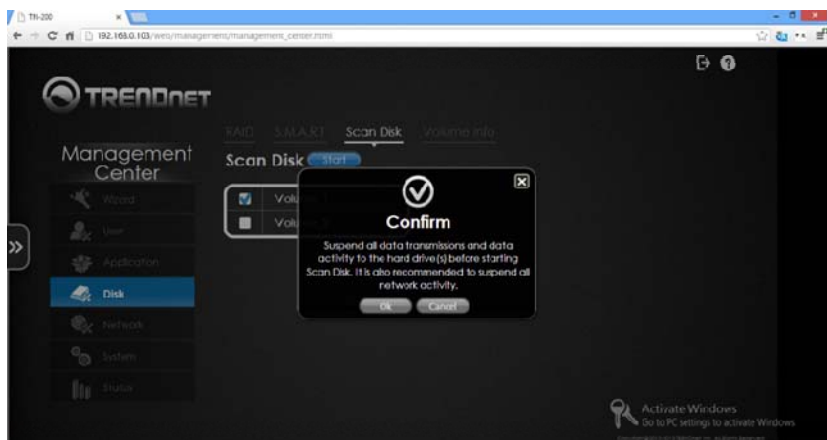
Scan Disk allows the user to scan the disk for any errors. Go to **Management Center > Disk > Scan Disk**. Select the **Volume** you wish to scan and click **Start**.

Scan Disk will be initialized.

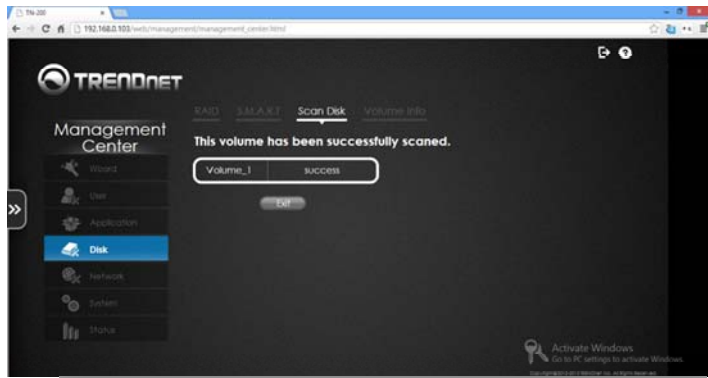


Scanning the **Volume** for errors only takes a few minutes, depending on your system. The procedure shows the scanning status.

Scan Disk requires that you stop all NAS activity. Suspend all **data storage** and **network activity**. Click **OK** to continue.



Once the scan is complete, the results are shown in a tabulated format. Click **Exit** to continue.



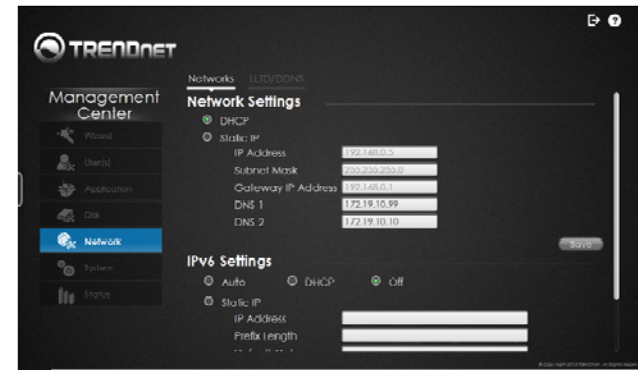
Volume Information

To view the **Volume Information**, go to **Management Center > Disk > Volume Info**. The **Volume Info** panel shows each **Volume** and further information on the **Disk Type**, **File System**, **Size of Disk**, **Disk** configuration, and **Status** level.



Network

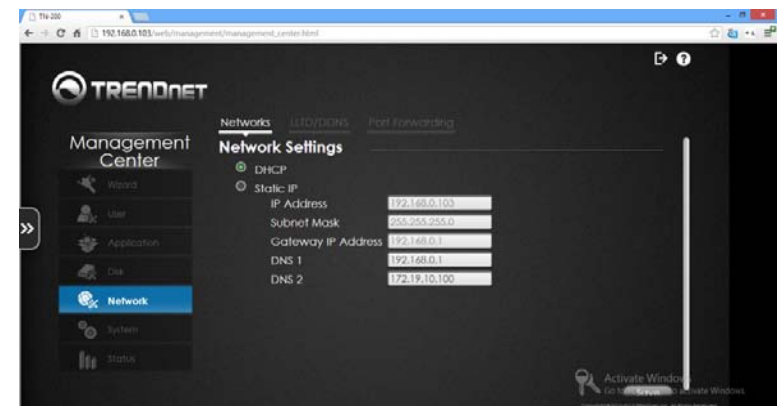
There are two types of **Network Settings**, **DHCP** and **Static IP**.



Network Settings

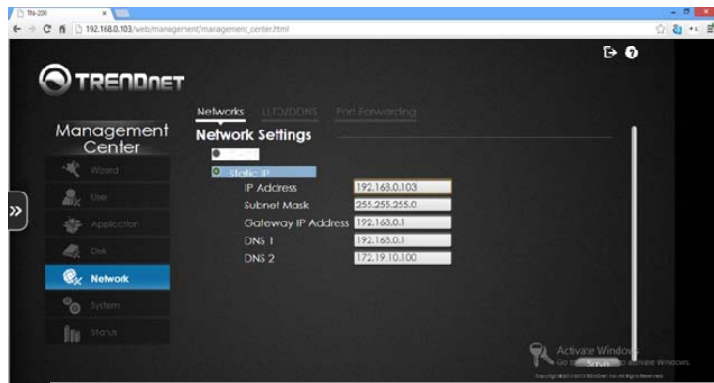
DHCP

DHCP allows your network router to automatically set the IP address of the NAS. The NAS communicates with the router to provide it with an **IP Address**, **Subnet Mask**, **Gateway IP Address**, **DNS 1**, and **DNS 2** address. These fields are greyed out so you cannot change the parameters on the NAS. However, you can change these configuration options on your router. If you do not know how to perform these operations, contact your network administrator for details. Once checked, click **Save** to verify.



Static IP

Click the **Static IP** radio button to configure this field. **Static IP** must be configured at the router before you can use this function. **Static IP** allows you to edit the following IP parameters: **IP Address**, **Subnet Mask**, **Gateway IP Address**, **DNS1** and **DNS 2**. Check to see if your IP address configuration matches the IP set on your router before clicking **Save**.



IPv6

IPv6 is the upgrade to IPv4. It is designed to allow the internet to grow in the number of hosts connected and the total amount of data traffic transmitted.

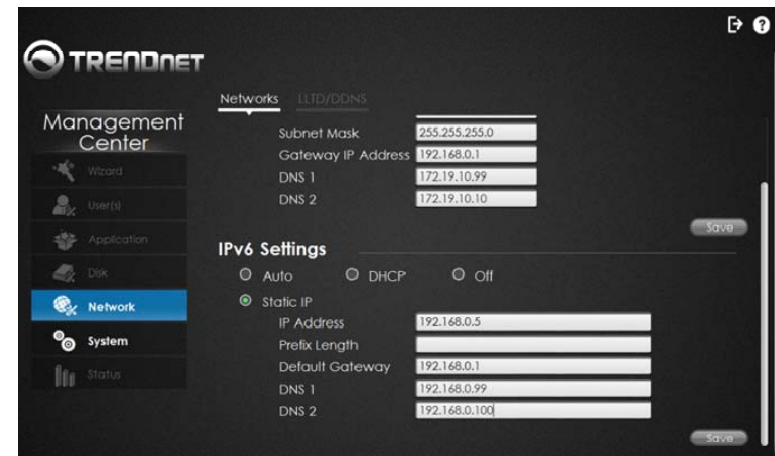
The IPv6 Settings provides 4 main options: **Auto**, **DHCP**, **Off**, and **Static IP**. **Auto** means the system detects how to provide the system with an IP address. If manual or DHCP settings aren't configured, Auto determines the best IP for the NAS.



Select **DHCP** to allow the router to determine an IP address for you.



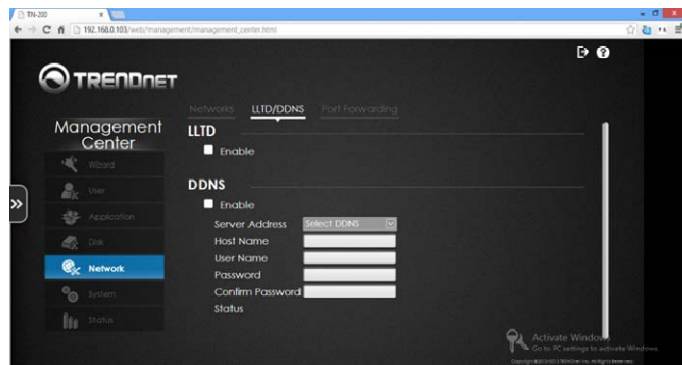
Select **Static IP** to enter the IP details manually. Enter an **IP Address**, **Prefix Length**, **Default Gateway**, **DNS1**, or **DNS2**.



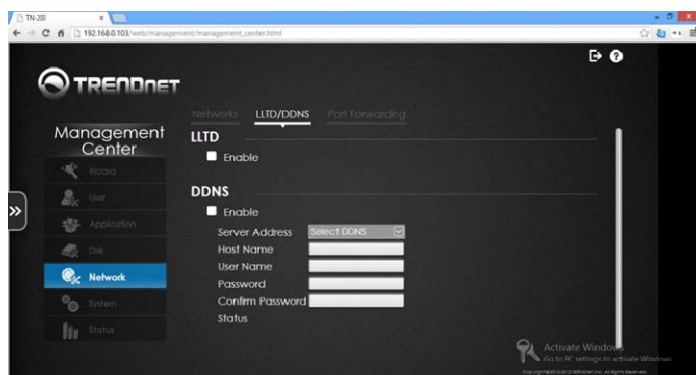
Click **Save** to complete the **IPv6** setup.

LLTD/DDNS

The TN-200 / TN-200T1 supports LLTD (**Link Layer Topology Discovery**) and is used by the **Network Application** that is included in **Windows 7 & 8**. To enable it, click the **checkbox** next to **LLTD**.



DDNS allows the user to host a server (Web, FTP, Game Server, etc....) using a domain name that has been purchased (www.yourname.com) with your dynamic assigned IP address. Most broadband Internet Service Providers assign dynamic IP addresses. Using a DDNS service provider, people can enter a domain name to connect to your server regardless of your IP address.

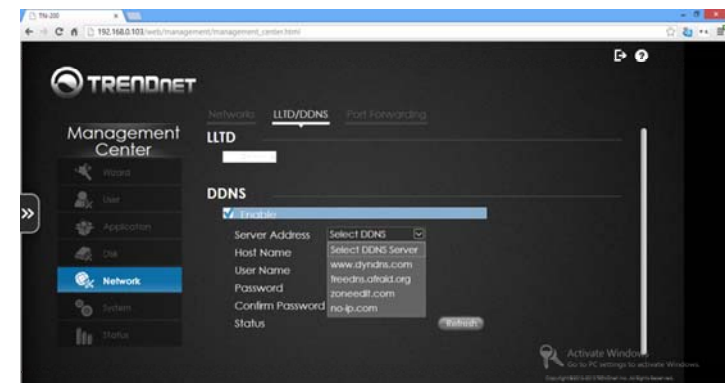


To activate DDNS sign up for one of the many DDNS accounts available on the web – dyndns, freedns, zoneedit, and no-ip. Before you can use DDNS on the NAS, you need to sign up for one of these accounts.

Under **DDNS**, click the checkbox to **Enable** this function.



Select the **Server Address** from a **DDNS** service provider that you're registered with.



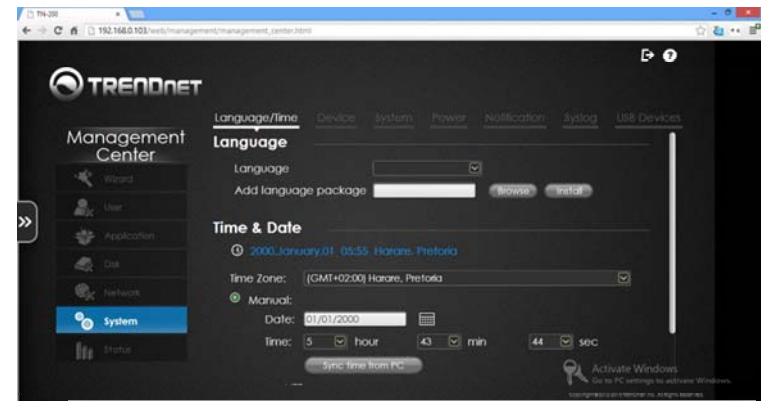
Enter the **Hostname**, **Username**, **Password**, and **Confirmed Password** for your **DDNS Service Provider** and click **Save**.



The NAS communicates with the DDNS Service Provider to access your records.

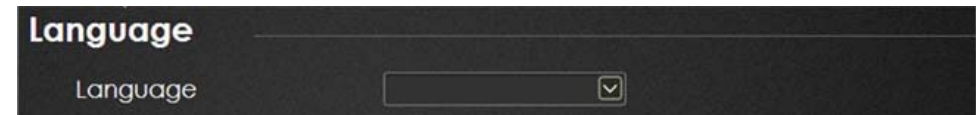
System

System contains six main feature sets: Language/Time, Device, System, Power, Notification, Syslog, and USB Devices. All of these features handle the main operational functions of the NAS.

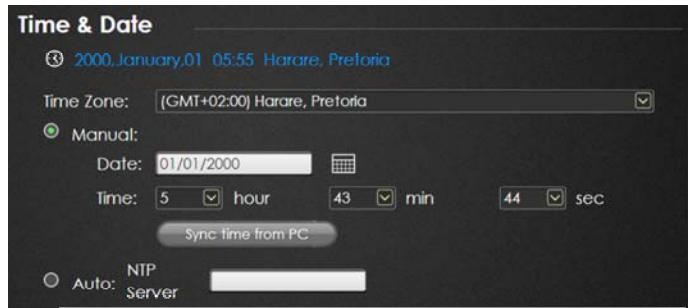


Language/Time

Select a language from one of the language drop-down menu and click **Save** to accept the changes.

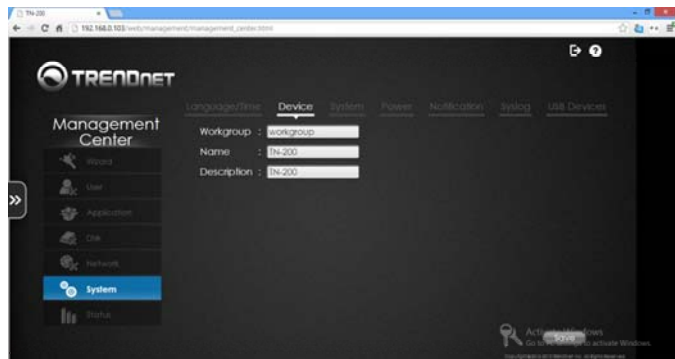


For the **Time and Date**, select a time zone from the drop-down list. You can also set the date using the calendar icon and set the time from the drop-down menus. Alternatively, you can click the **Sync time from PC** button to have it automatically sync with your PC time. There is also an option to set the time using the **NTP server**. Click **Save** to continue.



Device

Set the **Workgroup**, **NAS Name** and **NAS Description**. Click **Save** to continue.

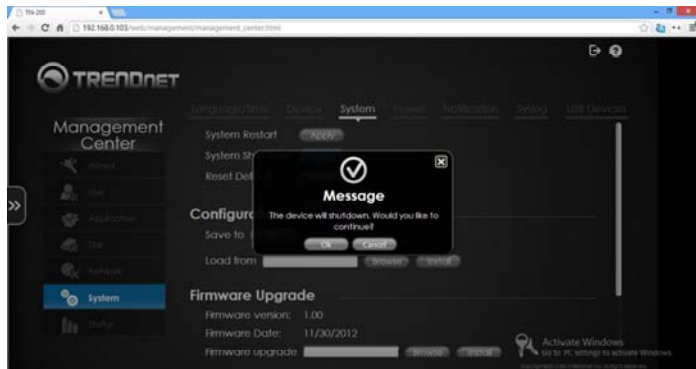


System

System handles all hardware and software functions of the NAS. If you have configured options on the NAS and you wish to restart the device, click the **Apply** button next to **System Restart**. A pop-up window will prompt you to confirm your decision. Click **OK** to confirm or **Cancel** to exit.



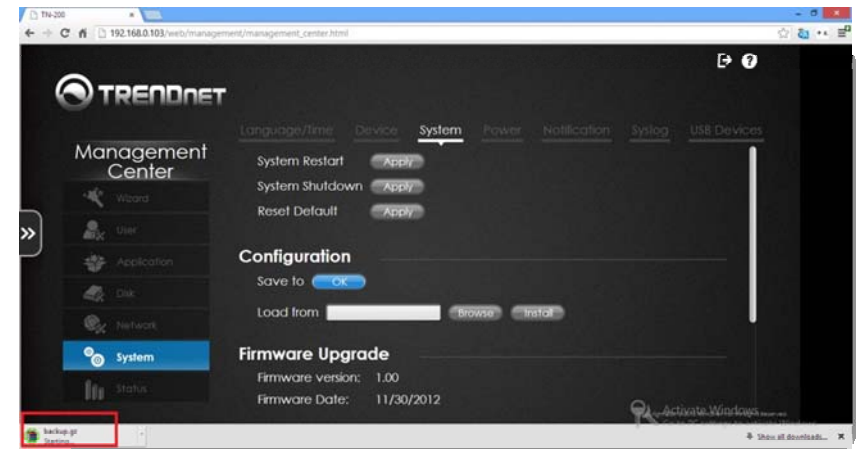
System Shutdown allows you to shut down the system within the **Management Center Panel**. This is safer and more secure than pressing the **Power** button. Click **Apply**. A pop-up window appears to confirm your request. Click **OK** to accept or **Cancel** to exit.



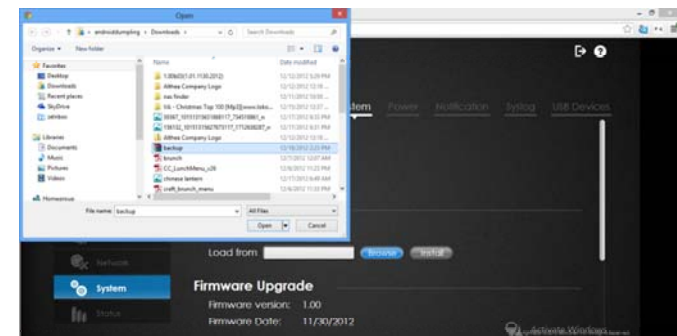
Reset Default is the software version of the hardware **Reset** button. Click **Apply** to reset the system to its default settings. A pop-up window will appear asking you to verify your selection. Click **OK** to verify or **Cancel** to exit without making any changes.

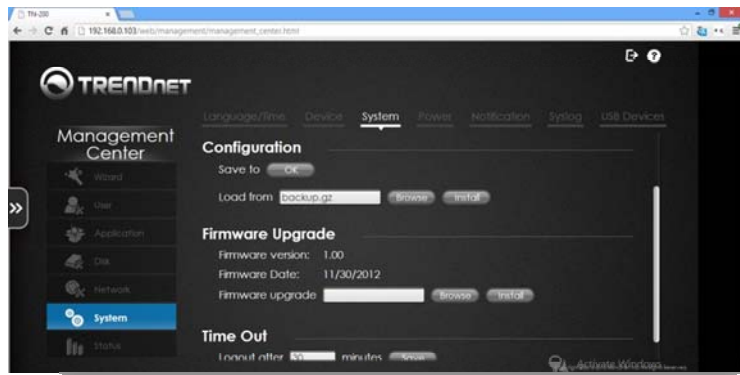


Configuration allows you to backup data on the NAS or elsewhere. It also allows you to retrieve any saved backup files from a PC or elsewhere. To backup data, click the **OK** button next to the **Save to** field under the **Configuration** tab. You will be prompted to save a file to your local hard drive. Click **OK** to confirm the location.

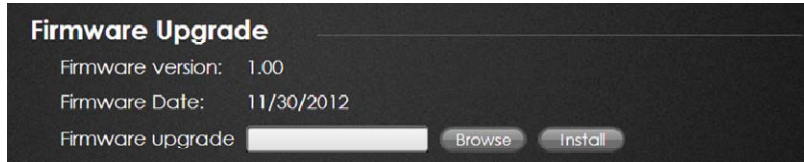


To load a previous **backup file**, click the **Browse** button next to the **Load from** field. **Browse** to the location of the saved file, click **OK** and click the **Install** button. This will load the backup file and you will have the option to view previous settings and data.

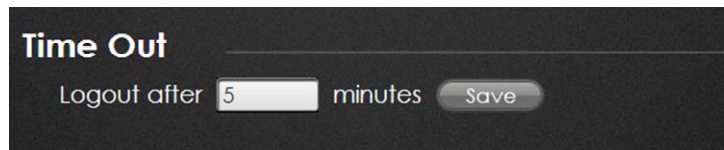




Firmware Upgrade allows you to upgrade the firmware. Under this subheading, you can see the **Firmware version number**, the Firmware date, and a field in which you can install the **Firmware upgrade** files. Click **Browse** to locate the new **firmware**. Select the **firmware** and click **OK**. Then click the **Install** button to install the new firmware.



The **Time Out** function allows the NAS to remain idle for a specific **period of time**. You can configure the NAS to remain active for the duration of the **Time Out** feature. Enter the **duration** (in minutes) and click **Save** to continue. The NAS will remain active for the duration of your settings.



Power

Configure the **Disk Hibernation**, **Fan Control**, **Power Recovery**, and **Power On/Off Schedule** from this location.

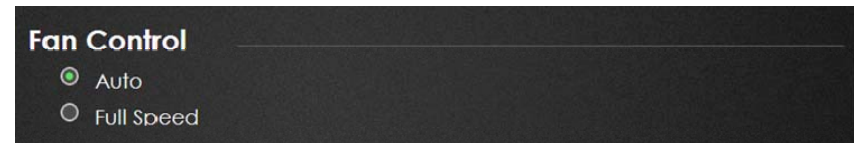
Disk Hibernation

Click the checkbox to **Enable Disk Hibernation**. **Disk Hibernation** turns off the hard drive(s) according to the settings you make in this field.



Fan Control

Use this feature to select **Auto** Fan Control or **Full Speed** (Note: speeding up your fans will not improve the overall speed of the NAS). Click the radio button next to the option that you prefer.



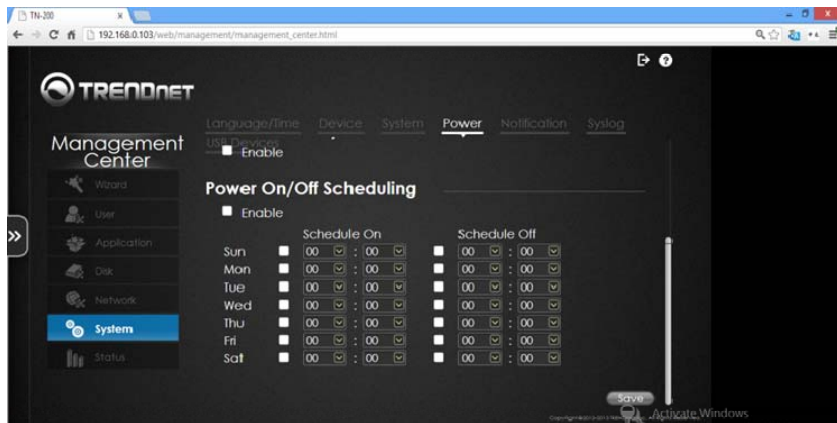
Power Recovery

Should the TN-200 / TN-200T1 fail for any reason, this feature allows it to recover some power. Click the checkbox next to **Enable** to activate Power Recovery.



Power On/Off Scheduling

Click the checkbox to **Enable** this feature. Then click the checkboxes for the day(s) that you wish to use Power On/Off Scheduling and use the drop-down time menus to set the time. Click **Save** to continue.

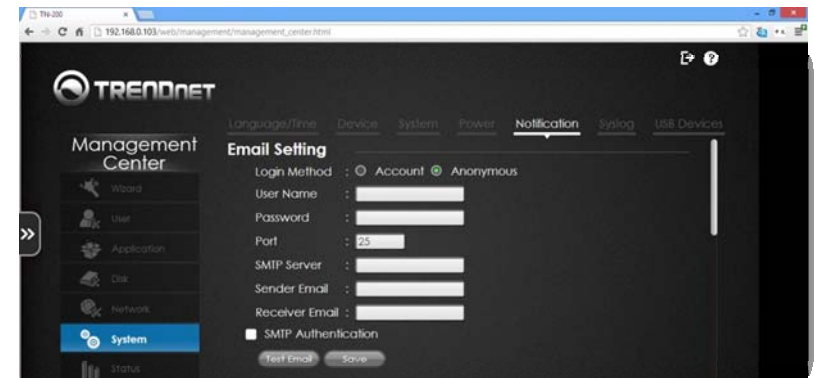


Notifications

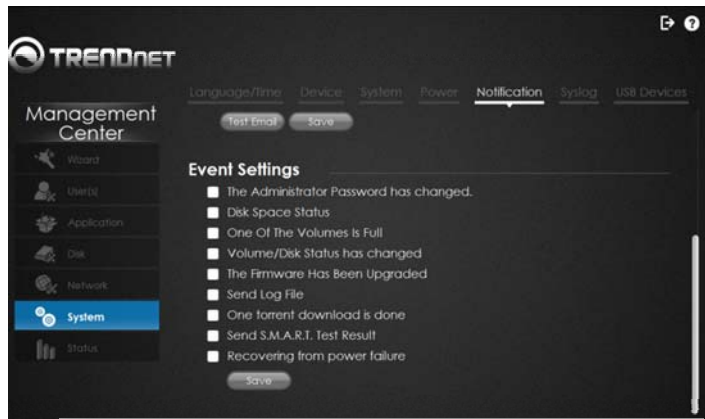
To receive notifications, go to **Management Center, System, and Notification**.

Under **Email Settings** next to **Login Method**, select either **Account** or **Anonymous**. Choosing Anonymous does not require a **User Name** and **Password**.

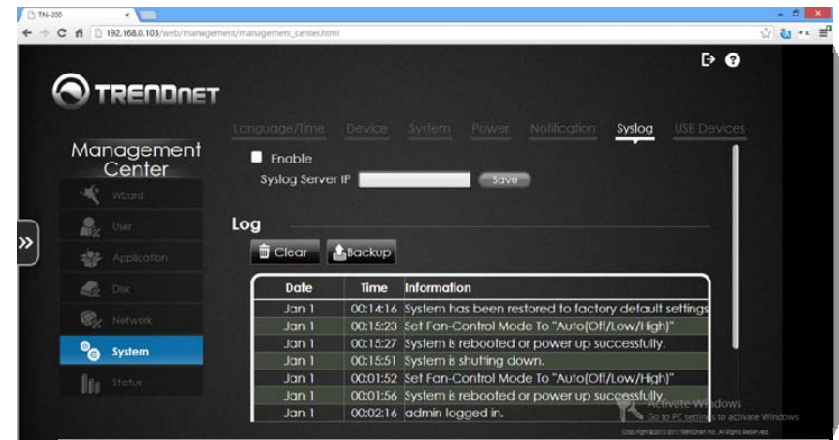
If you have decided to use **Account**, enter a **User Name** and **Password** in the fields provided. Select a **Port** number. If you do not enter a port number, the default port will be used (**25**). For the **SMTP Server**, enter the **IP address** or domain name of your outgoing mail server. If you are unsure of this field, please contact your email provider. In the field next to **Sender Email**, enter the "from" email address. This field does not require a valid email address. However, if your email client is filtering spam, make sure you allow emails from this address to be received. For the **Receiver Email**, enter the email address you want to send the alert to. This address must correspond with the **SMTP server** configured earlier. Click the checkbox next to **SMTP Authentication** if this service is a priority for you. To **Test** the email service, click the **Test Email** button. Once you have completed all the settings, click **Save**.



Under **Event Settings**, there are nine options to get notifications. Click the checkbox to enable one of these settings: **The Administrator password has changed, Disk Space status, One of the Volumes is full, Volume/Disk Status has changed, The Firmware has been upgraded, Send Log File, One Torrent download is done, Send S.M.A.R.T. Test Result, and Recovering from Power Failure.** Once you have selected the options you want to monitor, click **Save**.



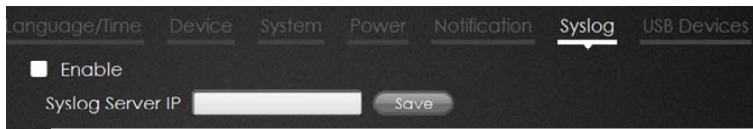
Click the **Enable** checkbox to activate the **SysLog** service. Enter a **Syslog Server IP** address in the field provided and click **Save**.



The Log table below shows a detailed mapping of the log services. To back up the Log File, click the **Backup** button. This will download a text file of the log.

Syslog

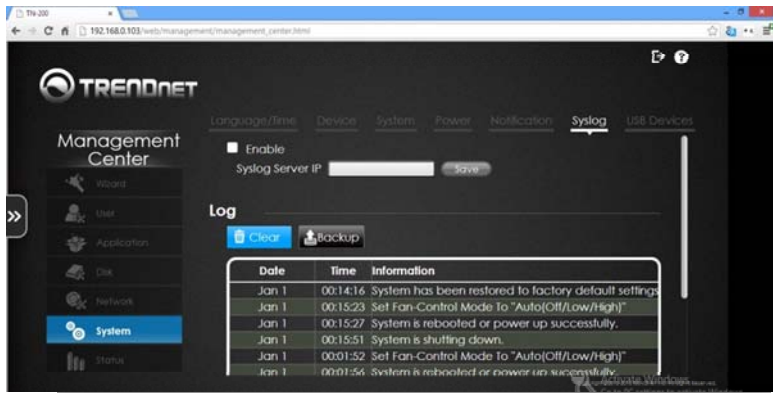
Under **Syslog**, click the **Enable** checkbox and enter the **Syslog Server IP**. Click **Save** to continue.



Within the logs menu, you can setup the TN-200 / TN-200T1 to receive Log Events from other NAS devices or send event logs to another TN-200 / TN-200T1 or **SysLog Server**.



To clear the **Log**, click the **Clear** button.



UPS Devices

To activate **UPS Settings**, go to **Management Center, System**, and click on **USB Devices**. Network UPS is a system management feature which uses a local UPS to protect the NAS from an abnormal shutdown. This can be due to a power failure or faulty technology. To enable Network UPS, click the checkbox next to Network UPS. Enter the IP address of the Network UPS Master and click **Save** to receive the critical power status from the network UPS master. The UPS Status will display the current status of the UPS.

Note: Make sure the TN-200 / TN-200T1 is on the same network as the network UPS master. If the UPS device is connected to the USB port on the NAS, select either Stand-Alone or Master Mode. You will have to enter the IP address(es) of the network UPS slaves to notify them in the event of a power failure.



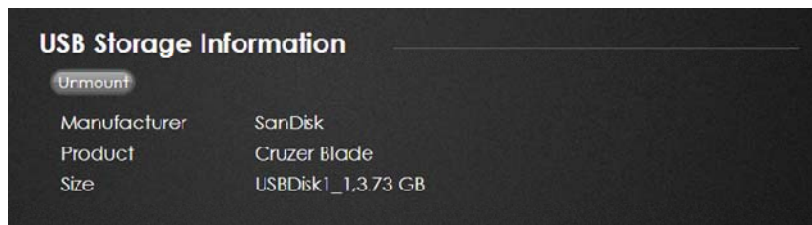
USB Storage Information: By default, the software shows the USB driver as being unmounted. Ignore this as it changes once you have inserted a USB drive.

USB Storage Information

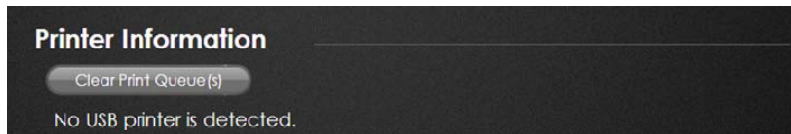
Unmount

No USB storage device is detected.

To detect a **USB storage** device, insert a **USB flash drive** in the USB port in the back of the TN-200 / TN-200T1. The drive will be automatically discovered and the data will be displayed in the field. The drive can be used as a temporary storage device or to update the firmware.



Printer information: Attach a printer to the TN-200 / TN-200T1 so users on your network can print directly from the NAS and other devices on the network. By default, no printer is attached. Therefore, no printer is detected in the queue. However, when a printer is attached and users concurrently want to print, the printer can be managed from here to free up queued printer jobs. Click the **Clear Print Queue** button to free up some print jobs.



Status

System Status

To view **Status information**, go to the **Management Center** and click **Status**. The **System Status** window will provide information on the **Firmware version number**, the **Firmware date**, **System Time**, the **Time Zone**, the **System Up time**, the **Protocol supported**, and the **Peripheral Devices**.



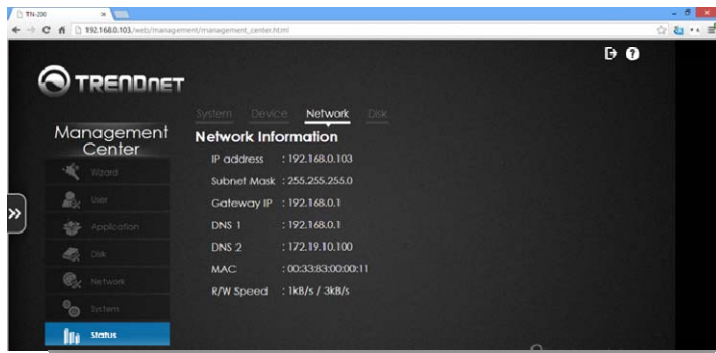
Device

To view device information, click the **Device Information** tab. Here, you can view the **Model Name**, **Workgroup**, device **Name**, device **Description**, **CPU** usage, **RAM** usage, and **Temperature** (in Celsius and Fahrenheit).



Network

The **Network Information** tab provides information on the TN-200 / TN-200T1's **IP Address, Subnet Mask, Gateway IP, DNS 1** and **DNS 2** settings, the **MAC address**, and the **Read/Write Speeds**.



Disk

The **Disk Status** table provides information on the **Volume Name, RAID Type, Capacity** (it shows the used and free space available) and **Status**. During the configuration process there is also a detailed detection of the **Disk ID, Disk Model number, Temperature, Disk Size, and Status** of the drive.



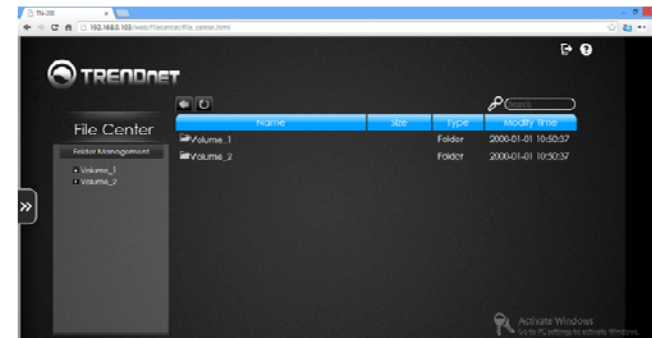
File Center

The File Center is the main control hub for viewing and accessing files from the TN-200 / TN-200T1. Click the File Center icon in the main window to access files and folders.



Folder Management

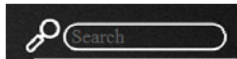
The Folder Management browser view has two window panes. On the left-hand side, there are Volume sections with plus icons that provide drop-down features of each folder, similar to Windows Explorer. On the right-hand side, there are Volume icons that represent a different view but the same accessibility. The window is managed by **Name, Size, Type, and Modified Time**.



The browser view can be navigated by using the Back button or the Refresh button.



The browser panel also has a search function. Enter the search details in the field provided.



To view data inside each Volume, just click the folder icon. Right-click on a file under any of the Volumes and you will be presented with the following options: Download, Upload, Copy, Move, Delete, Rename, Content, and Add Folder

Download – Download the selected file to another location or directory. For example:

download the file from the NAS to a PC

Upload – Upload the selected file to another location or directory. For example: upload

a file from the PC to a NAS.

Copy – Copy this file to another location or directory.

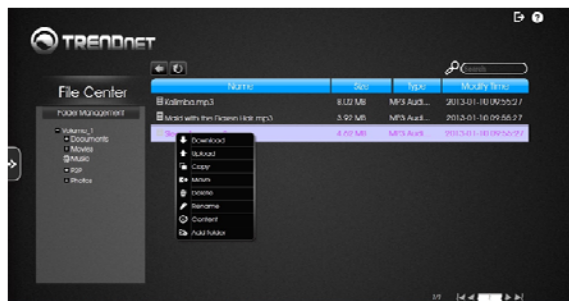
Move – Move this file to another location or directory.

Delete – Delete the file.

Rename – Rename the selected file.

Content – Get the property contents of the file.

Add Folder – Add a new folder at the current level.



Backup Center

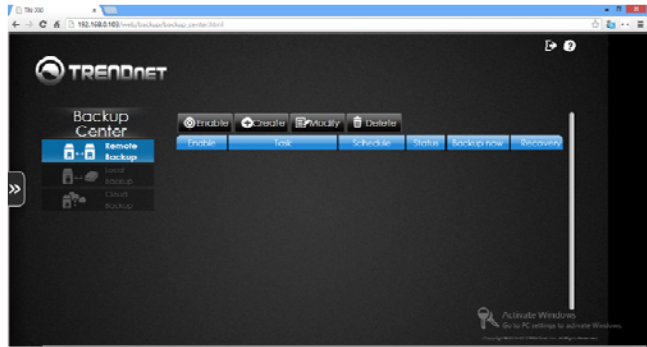
Backup Center allows users to back up data to local, remote, or cloud based backup storage. The TN-200 / TN-200T1 provides all these services in one easy user interface – the Backup Center. Click the tile on the Home screen to continue. The tile turns blue when you click it.



The next screen is the Backup interface panel. It consists of three main sections: Remote Backup, Local Backup, and Cloud Backup.

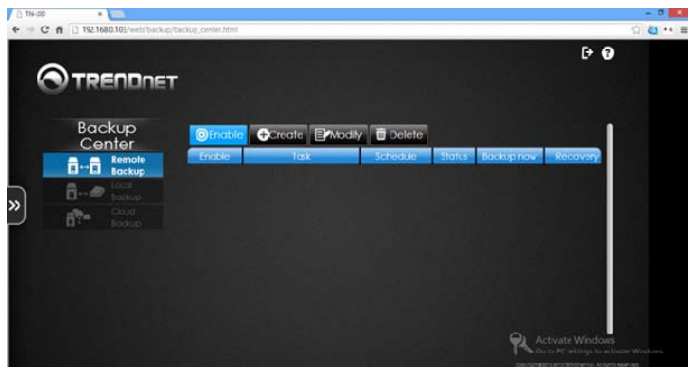
Remote Backup

Backup data to another NAS

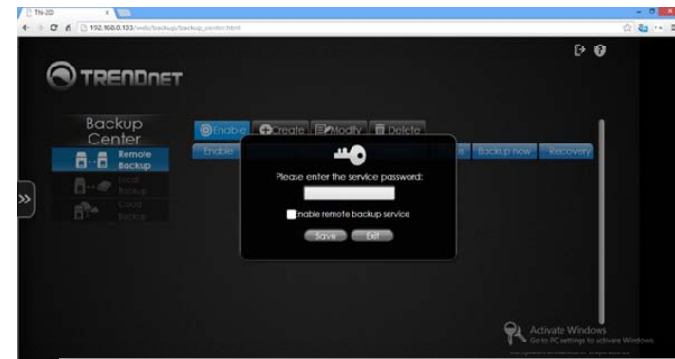


- Enable** – Click this button to enable Remote Backup
- Create** – Click this button to create a new Remote Backup configuration
- Modify** – Click this button to modify a current Remote Backup configuration
- Delete** – Click this button to delete a Remote Backup

Enable
Click the **Enable** button to activate



Click the checkbox next to **Enable the remote backup service** and then enter a **service password**.



The configuration will be saved.

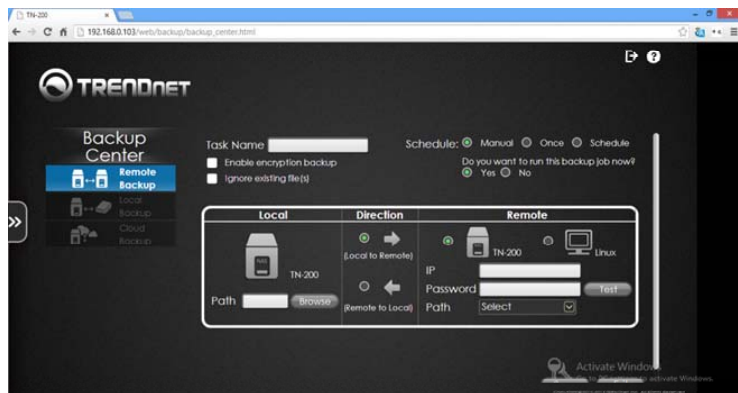


Create

Create a Remote Backup setting, click the **Create** button



The **Remote** backup configuration window gives you many options. Let's take a look at them.



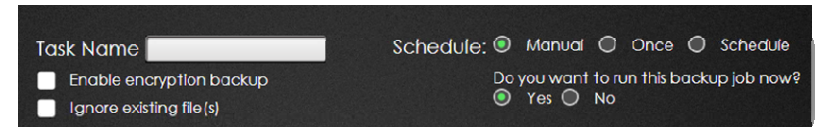
Task Name – Enter a backup name in the field provided

Schedule – Select from one of the radio buttons: Manual (setup the configuration yourself), Once (a single configuration), or Schedule (set a time and date accordingly).

Enable encryption backup – Click this checkbox if you wish to encrypt the backup file so users cannot access or read the backup files

Ignore existing files – Click this checkbox if you wish not to include current files from the backup

Do you want to run this backup job now? – Select **Yes** to begin as soon as you've completed the configuration process or select **No** to do it later.



The next part of the configuration is to setup the location.

Local – Click the **Browse** button to select a location to store the files

Direction – Select **Local to Remote** or **Remote to Local**

Remote – The TN-200 / TN-200T1 only backs up to Linux operating systems. It cannot back up to

Windows and Mac systems. However, you can back up to another TN-200 / TN-200T1 or NAS at a remote location. Select whether to back up to another TN-200 / TN-200T1, NAS, or a Linux device. Enter the IP address of the remote machine. Enter a password, if necessary, (this password is the remote backup password on the remote side) and select a path on the remote device. Click the **Test** button to see if the configuration works. Click **Save** to continue. If the TN-200 / TN-200T1 is on the remote side, then keep the root username.

Remote Backup Precautions:

1. When carrying out NAS to NAS remote backup (ie. TN-200 / TN-200T1 to NAS), the TN-200 / TN-200T1 uses the user "root" as the default user, and you are advised to enter the root password.
2. When performing NAS to Linux remote backup, you need to enter the user name and password.
3. When backing up data, the source or destination NAS doesn't have to be a TN-200 / TN-200T1.



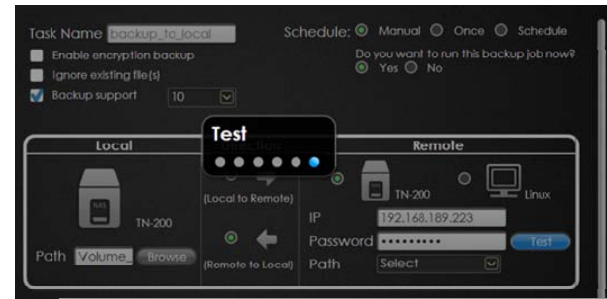
Click the **Browse** button to select the path



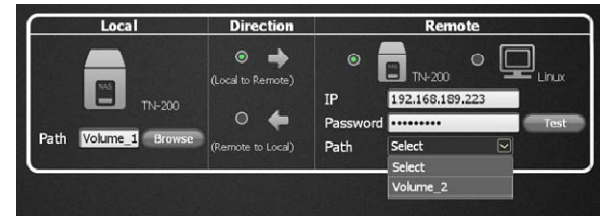
Select the configuration that best suits your requirements and click **Next**.



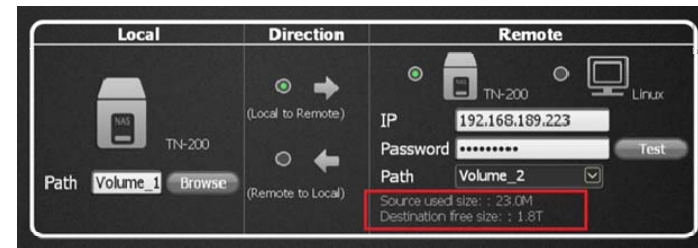
Click the **Test** button to verify the remote path; only do this to establish a backup task.



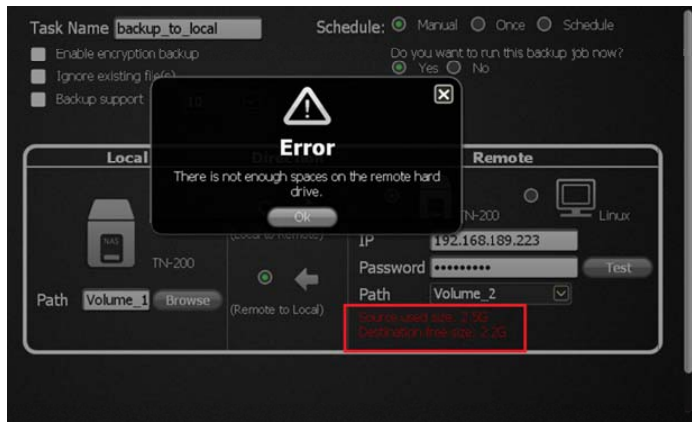
Once the path is confirmed, you can setup the other configuration parameters.



After setting up the final configurable options; just under the Path settings, is a notification of the amount of space used at the source and the amount of free space available at the destination drive.

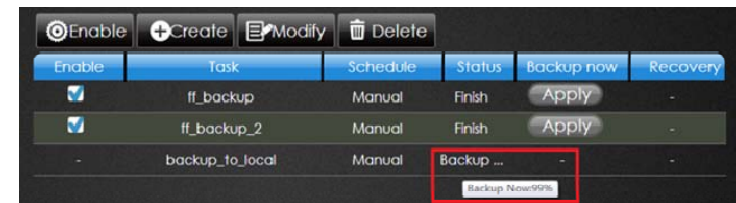


An error message will appear if the existing free space on the source Path exceeds the capacity on the target device.



Moving the mouse over an ongoing backup process displays the current percentage amount backed up.

After all configurations are completed and you have saved your data, all backup information will be shown in the **Remote Backup** table. The table will show the backup service as being **Enabled**, the **Task**, the **Schedule**, its **Status**, and when to backup. Click the **Apply** button. For recovery, click the **Recovery** button.



If the backup is not enabled, the backup device will show the Status as being Disabled. The Backup and Recovery tasks will be empty as well.

Recovery – Click on the backed up title and click the **Recovery** button. Recovery shows a complete list of backed up information.



If you select none of the backup items but you click the Modify or Delete buttons, then an error message will prompt you to select the correct information.



Modify Remote Backup

To modify a remote backup, select it (it turns blue) and click the **Modify** button.



Select the settings you want to modify and click **Save**.

Delete Remote Backup

To delete a Remote Backup, select it (the selection turns blue) and click the **Delete** button.



The settings will be saved and the Backup will be deleted.

Local Backup

Local Backup

Backup data to another section of the NAS



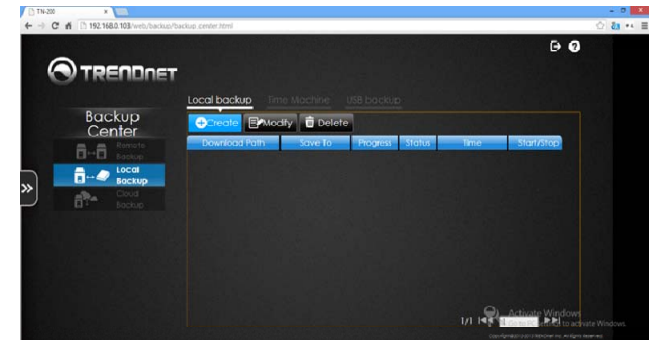
Create – Click this button to create a new Remote Backup configuration

Modify – Click this button to modify a current Remote Backup configuration

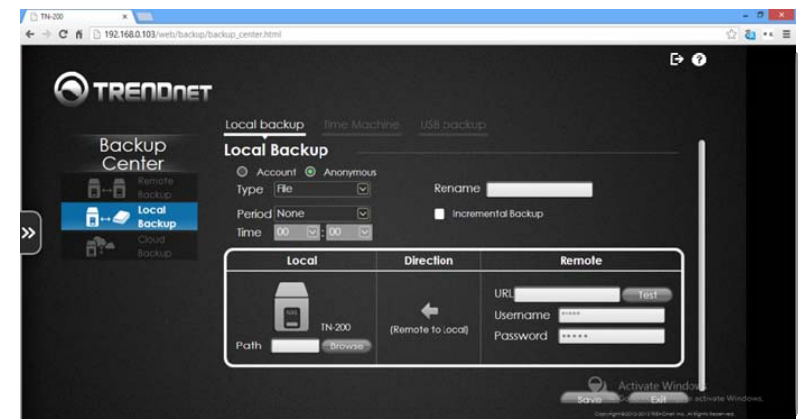
Delete – Click this button to delete a Remote Backup

Create a Local Backup

Click the **Create** button



The **Local** backup configuration window gives you many options. Let's take a look at them.



Local Backup consists of two types, Account and Anonymous. Let's take a look at Anonymous as it is the easier of the two.

Type – Select **Folder** or **File** from the drop-down list.

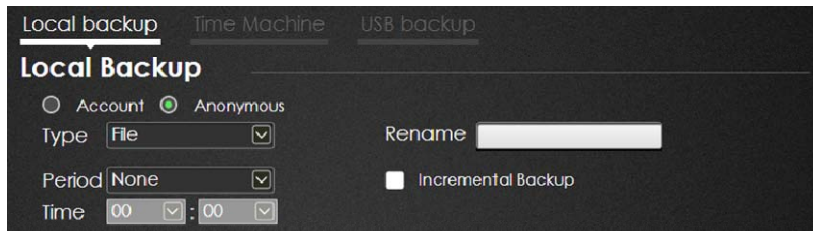
Rename – Enter a name for the backup

Period – Select Daily, Weekly or Monthly

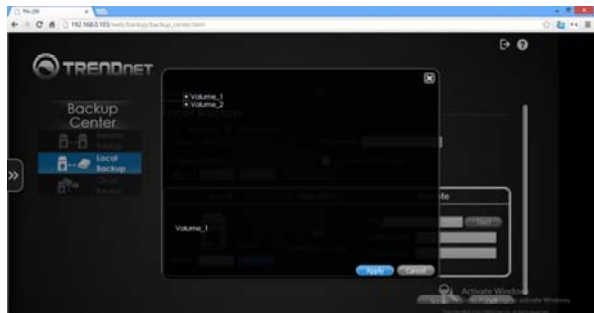
Time – Enter a time from the drop-down list

Incremental Backup – Click the checkbox to include incremental backups. Incremental

backups backup data automatically as new data is made. This saves time and storage space.



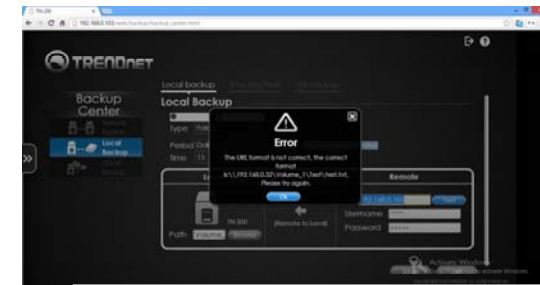
Local – Click the **Browse** button to locate the backup path. Select the **Volume** and click **Apply**.



Direction – This cannot be configured as it is configured **Local to Remote** by default.

Remote – Enter a **URL** (click the **Test** button if you need to do a test), **User Name** and **Password**, (this is for Account settings) and click **Save** to continue. If you are storing locally, enter a valid URL with a local IP address. Example: [\\192.168.10.103](http://192.168.10.103) the volume name)\(folder name).

Entering the wrong URL data will bring up a pop-up window to guide you with the right URL. Click **OK** to continue and enter the correct details.

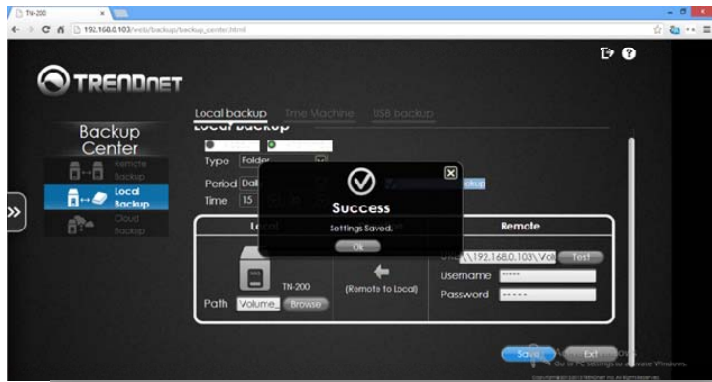


Once you have inserted the correct URL, another pop-up screen will appear and show the valid URL address.



Click **Close** to continue.

Click **Save** to continue. The settings will be saved.



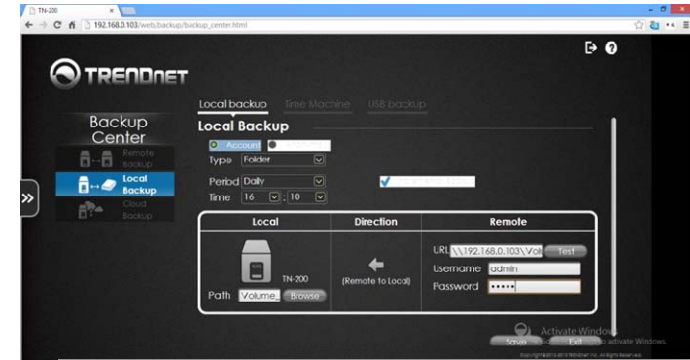
The successful configuration is now saved in the **Local Backup** table.

Modify the Local Backup

To modify the Local Backup configuration, click the **Modify** button.



This returns you to the **Local Backup** configuration area. In this second example, we are going to change the settings from **Anonymous** to **Account**. When you want to change to **Account** settings, you can change the **Type**, **Period**, and **Time** settings. You must also change the **User Name** and **Password** settings.



Click **Save** to continue. The settings will be saved. Click **OK** to continue.



Delete Local Backup

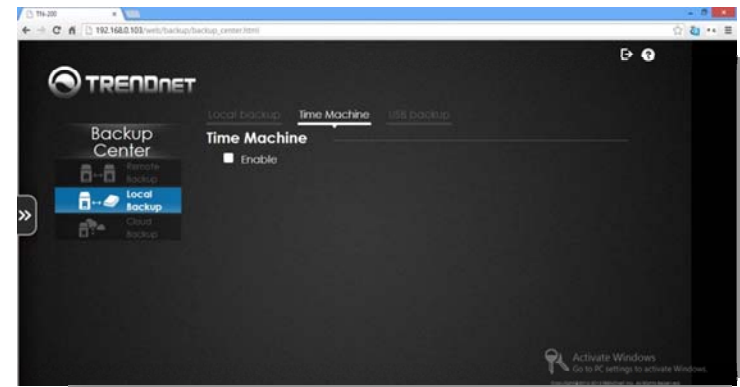
To delete a Local Backup, click the **Delete** button.



Confirm the delete process and click **OK** to continue.

Time Machine

Time Machine is a backup utility created by Apple. It is used on most Apple Macintosh computers to back up data to USB or NAS devices. Click the tab to access Time Machine backup on your TN-200 / TN-200T1.



Enable the check box to start the service.



Click the **Create** button.



Select a **Volume** to back up data to. Click **Next** to continue.



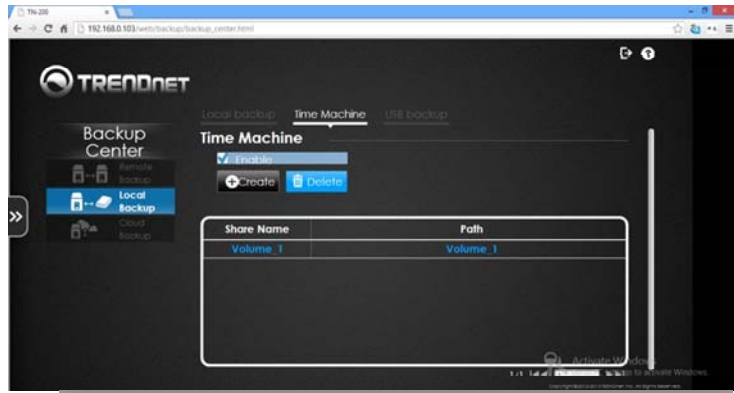
The setting appears in the **Time Machine** table.



A success message will indicate that the **Time Machine** back up configuration was successful.

Delete Time Machine

Highlight the **Volume** or **Share Name** then click the **Delete** button.



Alternatively, deselect this setting and select **Copy** or **Synchronize** from the **Type** drop-down menu.

USB Backup

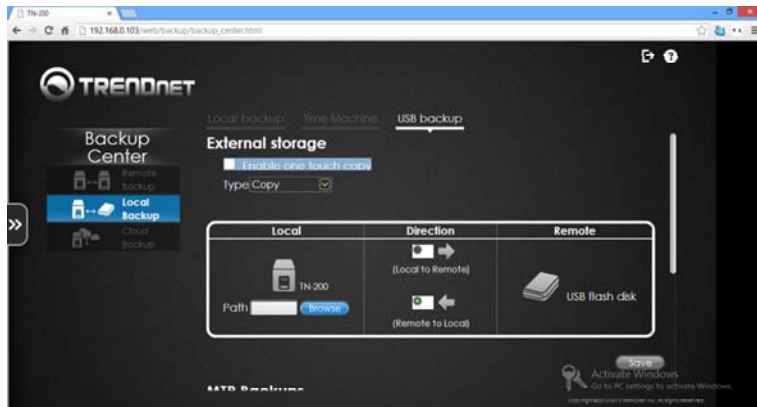
Click the **USB Backup** tab.



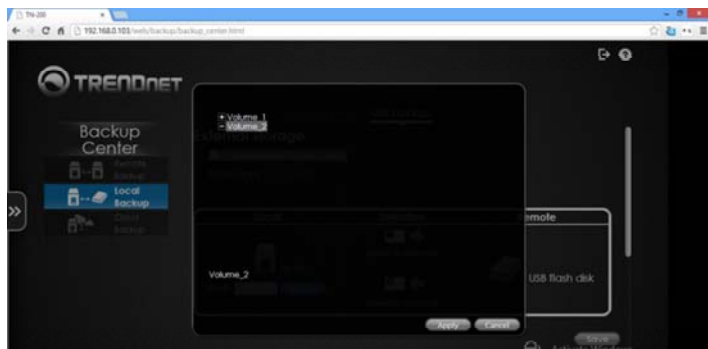
Click the checkbox next to **Enable one touch copy** if you would like to enable this feature.



Click the **Browse** button to locate the path where you want to copy the data to.



Locate the **Volume, Folder, or File** where you want the **Path** to reside and click **Apply**.



Select the direction of the **Copy** or **Synchronization** and click **Save** to continue. In this configuration, you can select to copy **Local to Remote** or **Remote to Local**.



MTP Backups – Media Transfer Protocol backs up digital media content from MTP compatible USB devices such as digital cameras, MP3 players, and smartphones. USB backups allow you to back up data from a USB storage device to the TN-200 / TN-200T1 or from the TN-200 / TN-200T1 to a USB storage device.

Click the checkbox next to **Enable MTP Backups**. Under Local, click the **Browse** button and select the **Path** you want to use.



Cloud Backup

Cloud backup is another method to store data remotely. Let's take a closer look at how cloud storage integrates with the TN-200 / TN-200T1. The cloud backup only supports Amazon storage services. Please see <http://aws.amazon.com/s3/> for services details, additional changes apply.

Create – Click this button to create a new Cloud Backup configuration

Modify – Click this button to modify a current Cloud Backup configuration

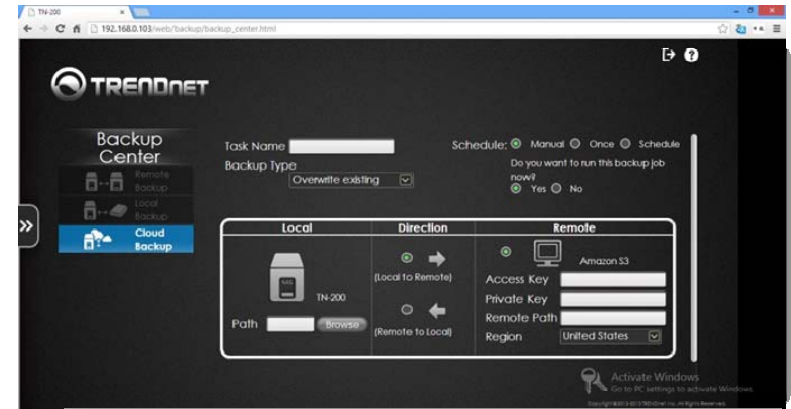
Delete – Click this button to delete a Cloud Backup configuration

Create a Cloud Backup configuration

Click the **Create** button.



The **Cloud** backup configuration window gives you many options. Let's take a look at them.

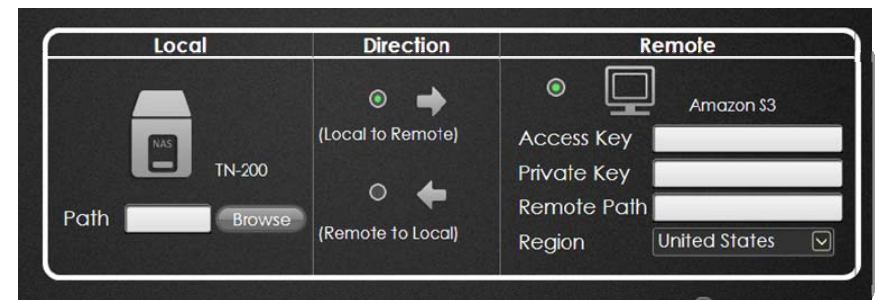


Task Name – Enter a name in the provided field.

Schedule – Select between Manual, Once, or a Scheduled-timed table

Backup Type – Select between Overwrite existing file(s), Full Backups, and Incremental backups from the drop-down menu

Time – Select between Yes or No



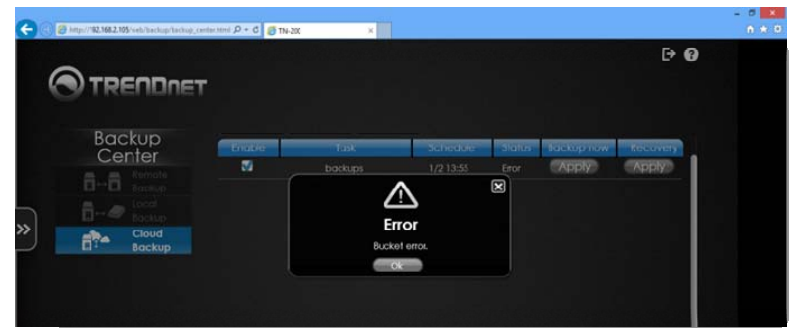
To configure the next step, click the **Browse** button to locate the **Path**. The path depends on any Volume you have on your NAS.



Select the **Direction (Local to Remote or Remote to Local)**, and finally use **Amazon S3** (Amazon Web Services / S3) cloud service to setup the **Cloud** service. Make sure you are in a region that supports **Amazon Cloud Services**. Also, make sure you have the Access Key details from Amazon.



If the configuration settings were incorrect, the following screen would indicate an error.



For **Amazon's Access Key / Private Key**, you can find these information under your Account/Console → Security Credentials page.

For **Remote Path**, please use the bucket name created under Amazon S3 service.

Click **Save** to continue. The software "Adds" the configuration to your settings.

Alternatively, the cloud backup will be enabled and you can save your data to the cloud service provided.



Click **OK** to continue.

Modify Cloud Backup

To modify the Local Backup configuration, select the file(s) you want modify and then click the **Modify** button.



Select the target **Cloud Storage** you want to modify and click **Modify**. The settings are the same when first configuring **Cloud** storage.



Delete Cloud Storage

To delete the Cloud storage utility, click **Delete**.



You are prompted to confirm you want to delete the **Cloud** storage service. Click **OK** to continue.



Download Center

The Download Center consists of four main areas – Add URL Download, Add BT Download, FTP/HTTP Download, and P2P Download. Let's take a closer look at them.

Add URL Download

This section opens up with Add download task from URL.

Select a Download Type – select HTTP, FTP, or Torrent from the drop-down list

Host – select the Host name from the drop-down list. There will be no name if you previously haven't set it up

Username – Enter a username for the account

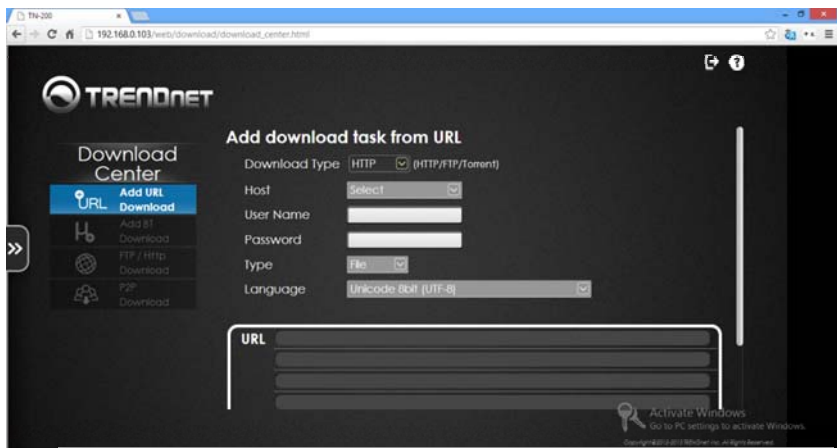
Password – Enter a password for the account

Type – Select the Type or Folder from the drop-down list

Language – Select a language from the drop-down list

URL – Enter the URL in the list provided

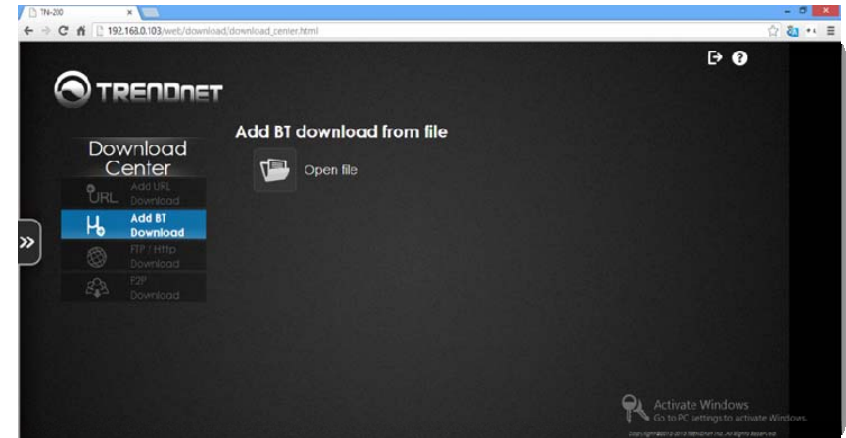
Click **Save**.



Add BT Download

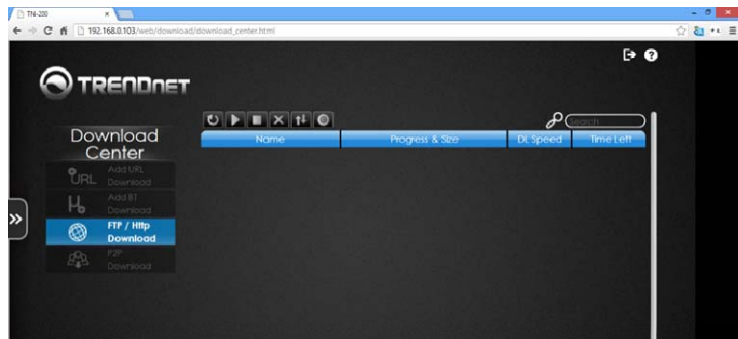
This is a Torrent application which integrates into your NAS. If you want to download Torrents directly to your NAS use this application.

Click the **Open File** to download the file directly to the NAS. Program the Torrent application to download to this location as well.



FTP/HTTP Download

Use this tool to download FTP and HTTP files from various locations. Go to Download center and click FTP /HTTP Download.



The Interface

The FTP/HTTP interface has a few navigational icons and one setup icon. Let's take a closer look.



- Click to Refresh the screen



- Click to Start the download process.



- Click to Stop the download process



- Click to Delete the download task from the list, the file remains on the Volume



- Click to Sort all the downloads



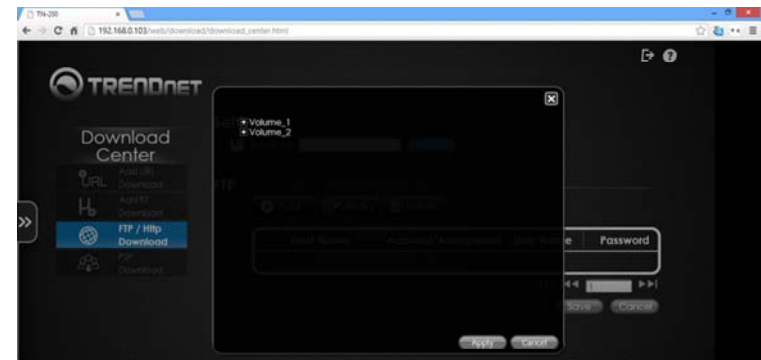
- Click to setup the FTP/HTTP download process

Setup icon

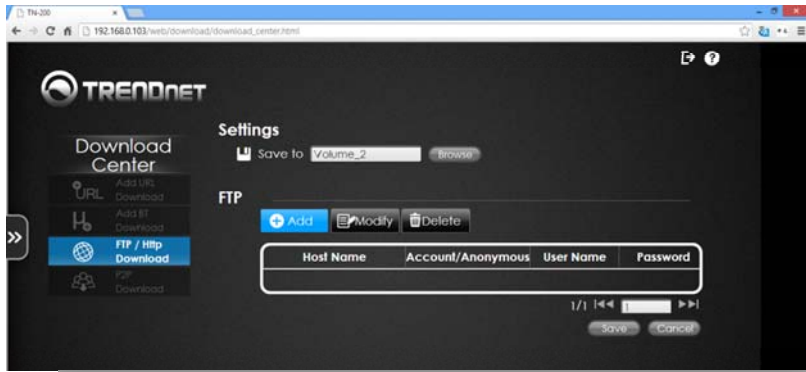
Click this icon to setup the downloads



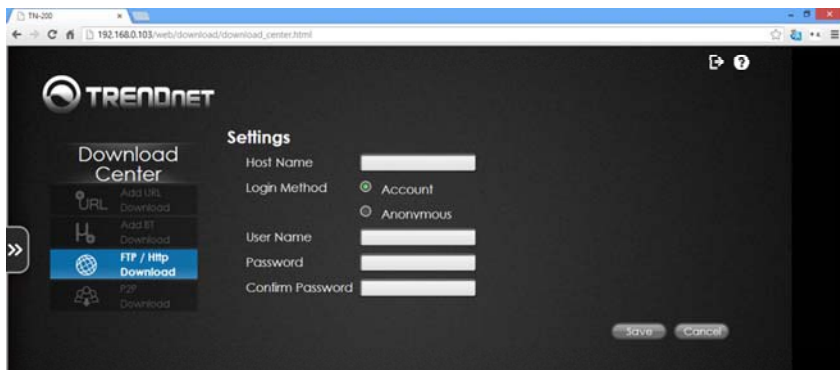
Settings – Save to – Click the **Browse** button to locate the Volume or Folder. Select it and click **Apply**.



Under **FTP**, click **Add**.



These are the FTP settings.



Host name – enter the FTP hostname

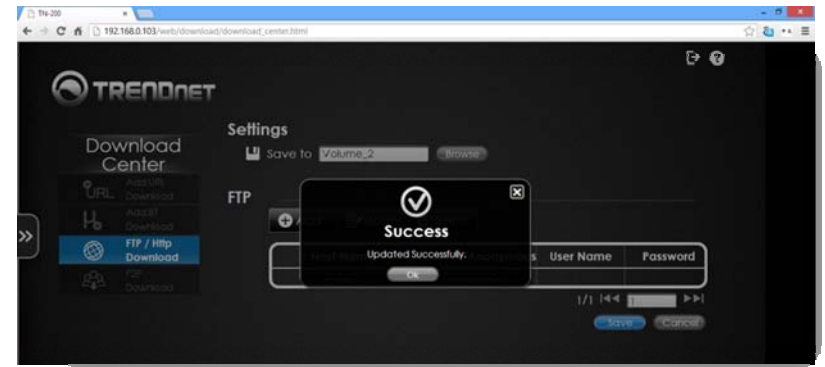
Login Method – select between Account and Anonymous

Username – If you are using Account, enter a User Name

Password – If you are using Account, enter a Password

Confirm Password – Re-enter the Password

Click **Save**. The file is saved



The Host appears in the table.



Modify the Host

Click the **Host** you want to modify (it will turn blue) and then click **Modify**.



Upon returning back to the Settings file, make the changes you want and click **Save**.

Delete a Host

To delete a **Host**, click it (it will turn blue) and then click the **Delete** button.



Click **OK** when the confirmation message appears.



P2P Download

P2P Download enables the TN-200 / TN-200T1 to act as a client or server for other computers on the network. It thereby allows shared access to various resources such as files, peripherals, and sensors without the need for a centralized server.

The Interface



The P2P interface has a few navigational icons and one setup icon. Let's take a closer look.



- Click to Refresh the screen



- Click to Start the P2P download process.



- Click to Stop the P2P download process



- Click to Delete the P2P task from the list, the file remains on the Volume



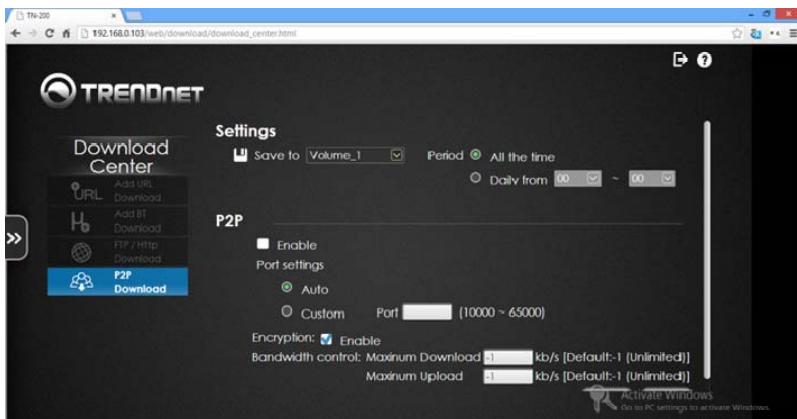
- Click to Sort all the P2P downloads



- Click to setup the P2P download process

Setup icon

Click this icon to setup P2P



Go to **Download Center**. Select **P2P Download** and click on the setup icon. The default settings are:

Saved to – Configured in your default Volume

Period – Select between “**All the time**” or set a “**Daily**” time frame from the drop-down menu

To enable **P2P**, click the checkbox next to **Enable**

Port Settings – Click the **Auto** radio button or select **Custom** and enter the custom **Port** number

Encryption – click the checkbox next to **Enable** to activate this service

Bandwidth Control – Select a **Maximum Download** speed (-1 = unlimited) and enter a value under **Maximum Uploads**.

Save – Click the **Save** button to complete the setup.

Cancel – Click the **Cancel** button to end the setup without saving.



The configuration is successfully saved and enabled. Click **OK** to continue.

Glossary

Username – a name you select as your identity

Password – a value you enter that you can easily remember (best of practice: make it upper and lower case, add letters and numbers) or use a phrase you can easily remember

Time Zone – the region you are located in

Sync – automatically have data copied over as soon as you write it

DHCP – Dynamic Host Configuration Protocol – used to assign IP addresses to devices

Static IP – Manual IP entry – configure your own IP address table

Subnet Mask – the network you reside on

Gateway – the central network traffic terminus

DNS – Domain Name System – a naming system for computers

Workgroup – the name of the network you join

Name – a name for the TN-200 / TN-200T1

Description – a description for the TN-200 / TN-200T1 that the network can recognize

User – a single user on the network

Group – a group of users

Share List – a list of users/group sharing files or folders

ISO Mount – a file format to save data

Quota – set a size or space limitation

DLNA Server – Digital Living Network Alliance – multimedia accessibility on your device

iTunes – an Apple Multimedia program to store music, videos, and photos

File/FTP Server – file transfer for larger files

RAID – A Redundant Array of Independent Disks

JBOD – Just a Bunch of Disks – a group of disks put together to make a storage space

RAID 0 – Stripes all of the drives

RAID 1 – Mirrors all the drives

S.M.A.R.T. – A System Management of Alert Responsive Tasks

Scan Disk – check to see the availability, and errors of disks

Volume – a label given to a RAIDED disk

LLTD – Link Layer Topology Discovery – a network topology discovery and of quality of service diagnostics

DDNS – A method of updating a Domain Name Service to point to a changing IP address

UPnP Router – Universal Plug n Play – an application can automatically forward a port on your router

NTP Server – a dedicated Network Time Protocol

Firmware – a combination of persistent memory and program code

Disk Hibernation – give hard drives a rest

SMTP Server – Simple Mail Transfer Protocol – the engine for your mail

SMS – a text messaging service for mobile devices

Syslog – keeping records of the TN-200 / TN-200T1's actions

UPS – Uninterrupted Power Supply – a backup battery solution

USB – an electronic method of communication

NFS – Network File System – allowing a user on a client computer to access files over the network

AFP – Apple File Protocol – allows a Mac user to access files from other computers on the same network

SMB – Server Message Block – adds shared access to files, printers, and serial ports

R – Read accessibility

R/W – Read and Write accessibility

Time Machine – a Mac backup utility to work with the TN-200 / TN-200T1

MTP – Media Transfer Protocol – is a protocol used to transfer media files

Amazon S3 – An amazon cloud storage service. (needs registration)

URL – is a unique address for a file that is accessible on the internet

Bittorrent – the peer-to-peer file sharing way of distributing large amounts of data over the internet

Technical Specifications

Hardware	
Standards	IEEE 802.3 / IEEE 802.3u / IEEE 802.3ab
Interface	1 x 10/100/1000 Mbps Auto-MDIX RJ-45 Port 1 x USB 2.0 Port (Storage device not included) 2 x 3.5" SATA I/II Bay (up to 4 TB each bay) **TN-200T1 includes 1 x 1TB hard drive
USB port	Support external storage device UPS monitoring MTP/PTP
Management Interface	Internet Explorer 7 or above Firefox 3 or above Safari 4 or above Chrome 3 or above
To Run NAS Finder Utility	Windows 8, 7, Vista, & XP
LED	Power, USB, HDD1, HDD2
Power Consumption	Max 26 watts
Power	Input: 100~240V AC, 1A, 50~60Hz Output: 12V DC, 3A
Dimensions	152 x 105 x 185 mm (6 x 4 x 7.2 in)
Weight	0.65 kg (1.4 lbs)
Temperature	Operation: 0°C ~ 40°C (32°F ~ 104°F) Storage: -20°C ~ 70°C (-4°F ~ 158°F)
Humidity	90% (non-condensing)
Certification	CE, FCC

Software	
Network File Protocols	HTTP / HTTPS NFS, AFP / Time Machine CIFS / SMB
Network Service Protocols	DHCP, SMTP, DDNS, NTP Client FTP, HTTP/HTTPS, LLTD, UPnP DLNA 1.5, Bonjour, IPv4 / IPv6
File System Type	Internal HD: EXT4 External HD: FAT32, NTFS
File Management	Max 256 user accounts Max 32 groups Max 128 shared folders (without P2P) Max 64 concurrent samba connections Max 10 concurrent FTP connections
Disk Management	Single, RAID 0, RAID 1, JBOD RAID1 auto rebuild RAID level migration: Normal to RAID 1 Disk Status Monitoring (S.M.A.R.T) HDD S.M.A.R.T Test Advanced Format HDD Scan Disk
Device Management	Web browser management Windows based utility Email notifications
Power Management	Hard Drive hibernation Auto power recovery Smart FAN control Power on / off scheduling

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This products acts as a storage sever for client devices to access at any time, any place. Therefore, it doesn't have a standby mode or use a power management mode."



The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

RoHS

This product is RoHS compliant.



Europe – EU Declaration of Conformity

This device complies with the essential requirements of the Directive 2004/108/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the Directive 2004/108/EC:

- EN 55022 : 2010 Class B
- EN 61000-3-2 : 2006 + A2 : 2009 Class A
- EN 61000-3-3 : 2008
- EN 55024 : 2010



Note: This device offers EU compliant Standby mode functionality. To turn off the device, unplug it from the power outlet.

Limited Warranty

TRENDnet warrants its products against defects in material and workmanship, under normal use and service, for the following lengths of time from the date of purchase.

TN-200 / TN-200T1 – 2 Years Warranty

AC/DC Power Adapter, Cooling Fan, and Power Supply carry 1 year warranty.

For hard drive(s), please refer to hard drive manufacturer warranty information.

If a product does not operate as warranted during the applicable warranty period, TRENDnet shall reserve the right, at its expense, to repair or replace the defective product or part and deliver an equivalent product or part to the customer. The repair/replacement unit's warranty continues from the original date of purchase. All products that are replaced become the property of TRENDnet. Replacement products may be new or reconditioned. TRENDnet does not issue refunds or credit. Please contact the point-of-purchase for their return policies.

TRENDnet shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to TRENDnet pursuant to any warranty.

There are no user serviceable parts inside the product. Do not remove or attempt to service the product by any unauthorized service center. This warranty is voided if (i) the product has been modified or repaired by any unauthorized service center, (ii) the product was subject to accident, abuse, or improper use (iii) the product was subject to conditions more severe than those specified in the manual.

Warranty service may be obtained by contacting TRENDnet within the applicable warranty period and providing a copy of the dated proof of the purchase. Upon proper submission of required documentation a Return Material Authorization (RMA) number will be issued. An RMA number is required in order to initiate warranty service support for all TRENDnet products. Products that are sent to TRENDnet for RMA service must have the RMA number marked on the outside of return packages and sent to TRENDnet prepaid, insured and packaged appropriately for safe shipment. Customers shipping from outside of the USA and Canada are responsible for return shipping fees. Customers shipping from outside of the USA are responsible for custom charges, including but not limited to, duty, tax, and other fees.

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Go to <http://www.trendnet.com/gpl> or <http://www.trendnet.com> Download section and look for the desired TRENDnet product to access to the GPL Code or LGPL Code. These codes are distributed WITHOUT WARRANTY and are subject to the copyrights of the developers. TRENDnet does not provide technical support for these codes. Please go to <http://www.gnu.org/licenses/gpl.txt> or <http://www.gnu.org/licenses/lgpl.txt> for specific terms of each license.

2013/4/22



Product Warranty Registration

Please take a moment to register your product online.
Go to TRENDnet's website at <http://www.trendnet.com/register>

TRENDnet
20675 Manhattan Place
Torrance, CA 90501. USA