



NEXCOM International Co., Ltd.

Network and Communication Solutions

Atlas User Manual for Industrial Storage

NEXCOM International Co., Ltd.

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PREFACE

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Acknowledgements

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Declaration of Conformity

CE

The product(s) described in this manual complies with all applicable European Union (CE) directives if it has a CE marking. For computer systems to remain CE compliant, only CE-compliant parts may be used. Maintaining CE compliance also requires proper cable and cabling techniques.

RoHS Compliance



NEXCOM RoHS Environmental Policy and Status Update

NEXCOM is a global citizen for building the digital infrastructure. We are committed to providing green products and services, which are compliant with European Union RoHS (Restriction on Use of Hazardous Substance in Electronic Equipment) directive 2011/65/EU, to be your trusted green partner and to protect our environment. RoHS restricts the use of Lead (Pb) < 0.1% or 1,000ppm, Mercury (Hg) < 0.1% or 1,000ppm, Cadmium (Cd) < 0.01% or 100ppm, Hexavalent Chromium (Cr6+) < 0.1% or 1,000ppm, Polybrominated biphenyls (PBB) < 0.1% or 1,000ppm, and Polybrominateddiphenyl Ethers (PBDE) < 0.1% or 1,000ppm. In order to meet the RoHS compliant directives, NEXCOM has established an engineering and manufacturing task force to implement the introduction of green products. The task force will ensure that we follow the standard NEXCOM development procedure and that all the new RoHS components and new manufacturing processes maintain the highest industry quality levels for which NEXCOM are renowned.

The model selection criteria will be based on market demand. Vendors and suppliers will ensure that all designed components will be RoHS compliant.

How to recognize NEXCOM RoHS Products?

For existing products where there are non-RoHS and RoHS versions, the suffix "(LF)" will be added to the compliant product name. All new product models launched after January 2013 will be RoHS compliant. They will use the usual NEXCOM naming convention.

CHAPTER 1: FIRST TIME SETUP

1.1 Accessing the NEXCOM Atlas OS

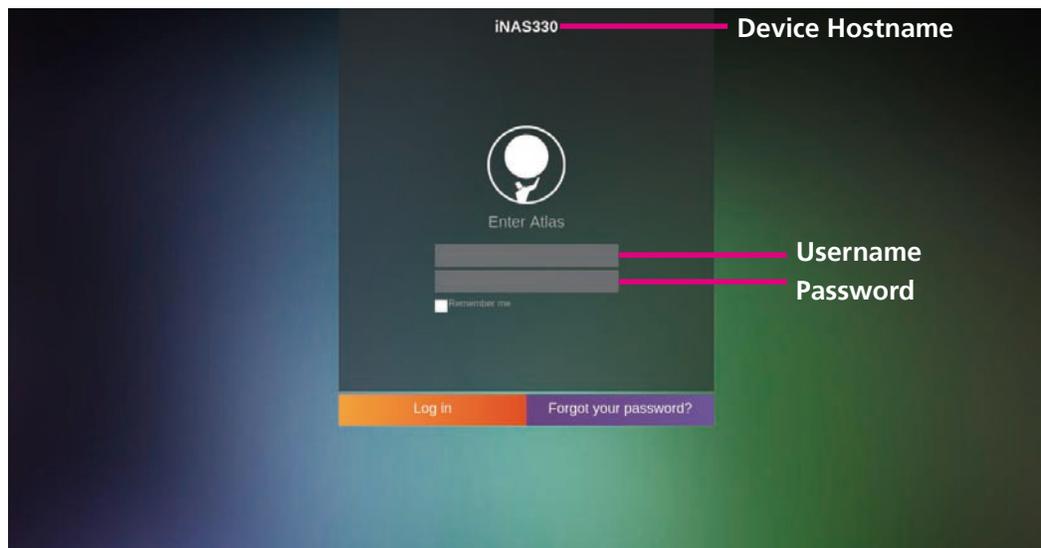
The NEXCOM Atlas OS is a user-friendly web-based graphical user interface to manage and monitor the NAS system. The user interface can be accessed through the Management (MGT) port on the front panel of the NAS system using the following default IP address and login credentials:

- **Management Port IP Address:** 192.168.100.1
- **Default login username:** *admin*
- **Default login password:** *admin*

Using a web browser, type the IP address “**192.168.100.1**” into the address bar to enter the login screen.

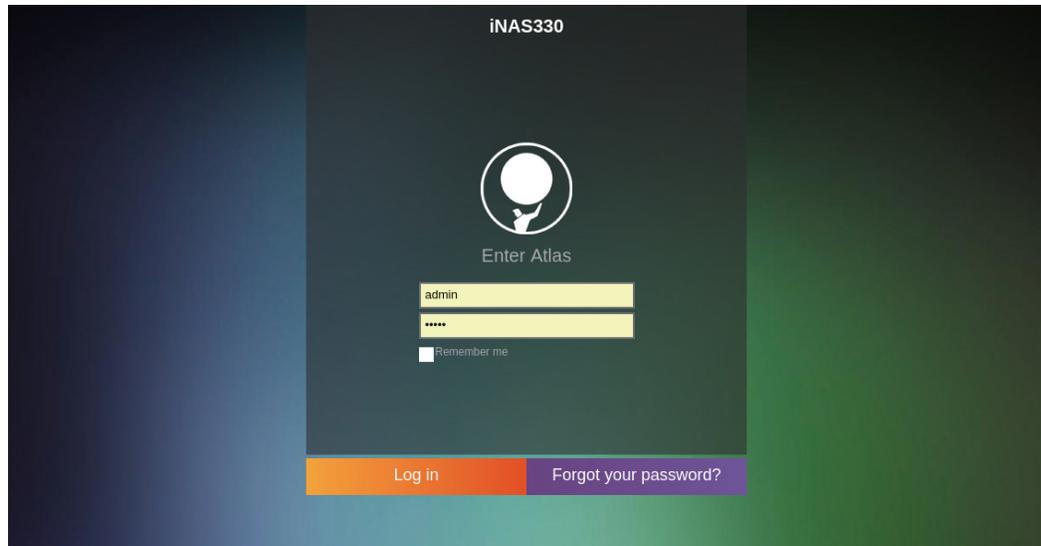


1.2 Login Screen

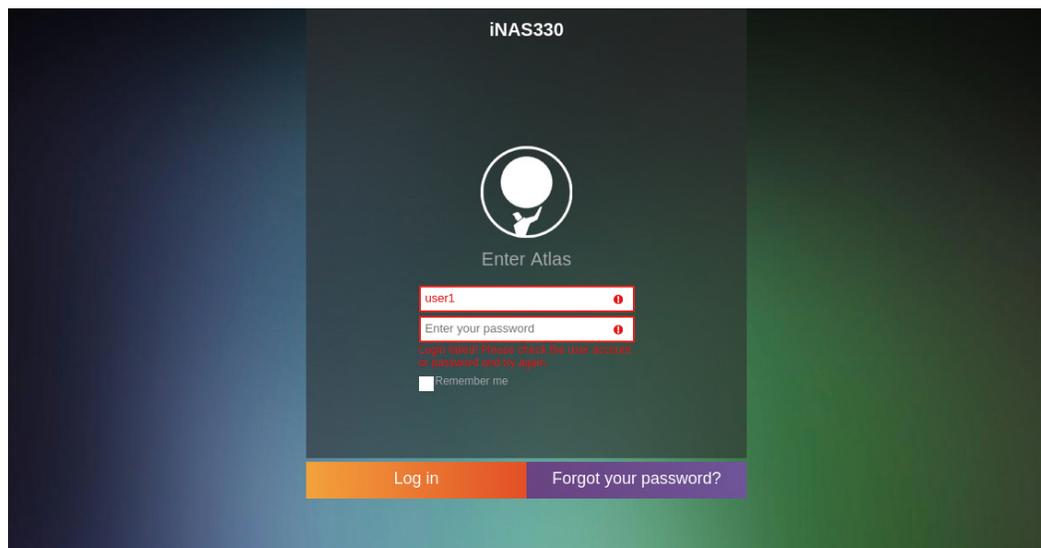


Enter Login Credentials

Use the username and password to sign into the system. The password will be masked by asterisks.



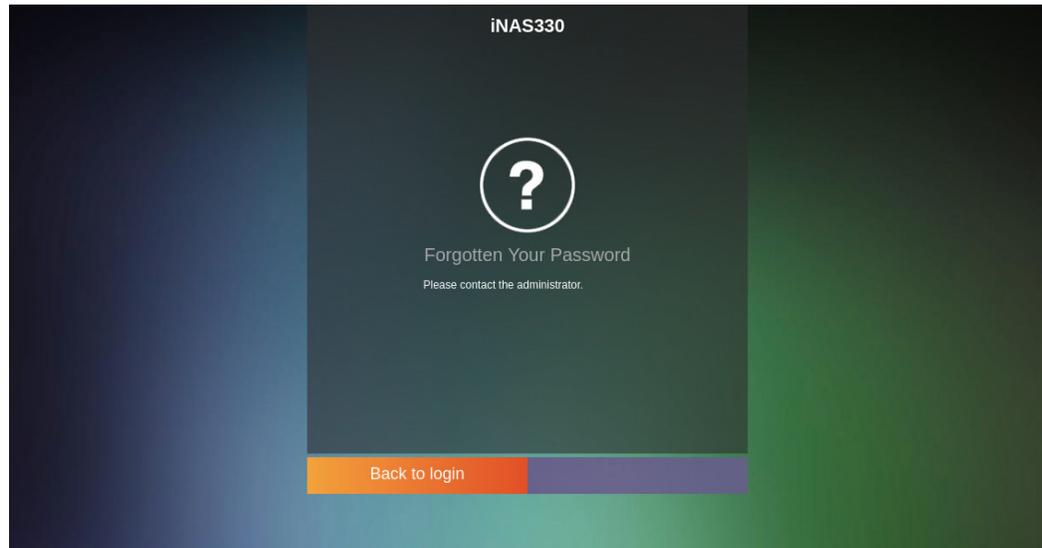
Note: If the login credentials are incorrect or the password is forgotten, the following screen will be displayed.



Please contact your administrator to assist you with recovering forgotten/lost password.

Restoring Factory Settings to Reset Password (For Administrators)

In the event that the password cannot be retrieved, administrators can restore the password and system settings to default by pressing and holding the front panel reset button for 4 seconds.

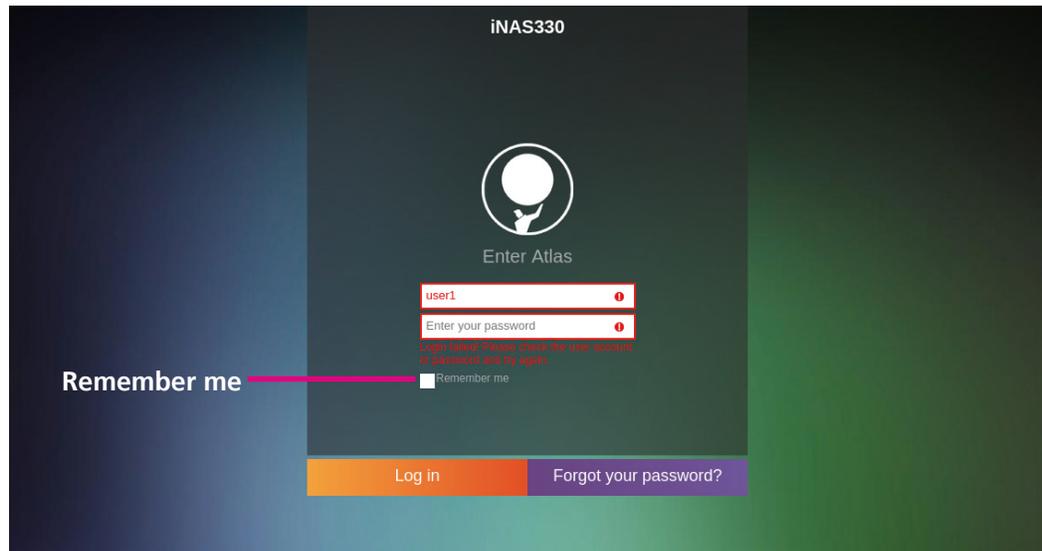


Note: The reset button is a waterproof button. Please use a thin object like a pin to press the button.

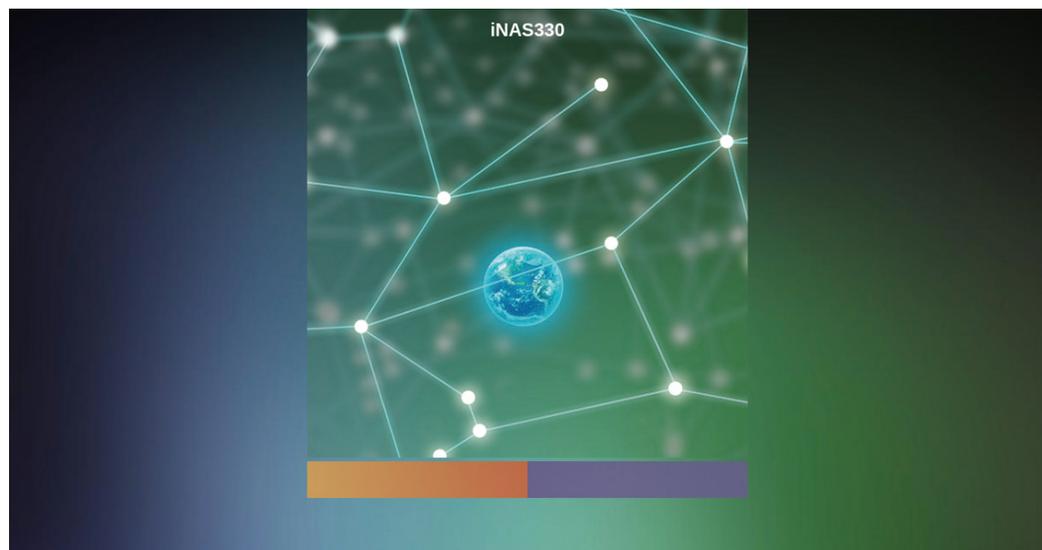
Please note that performing this procedure will clear all the settings previously configured and restore the system to default settings, including IP address of the management port. Please use the default IP address to log into the system.

Save Login Credentials

To configure the login screen to remember your login username for future logins, select the **Remember me** check box. If the web browser is configured to store the password, the password will also be remembered.

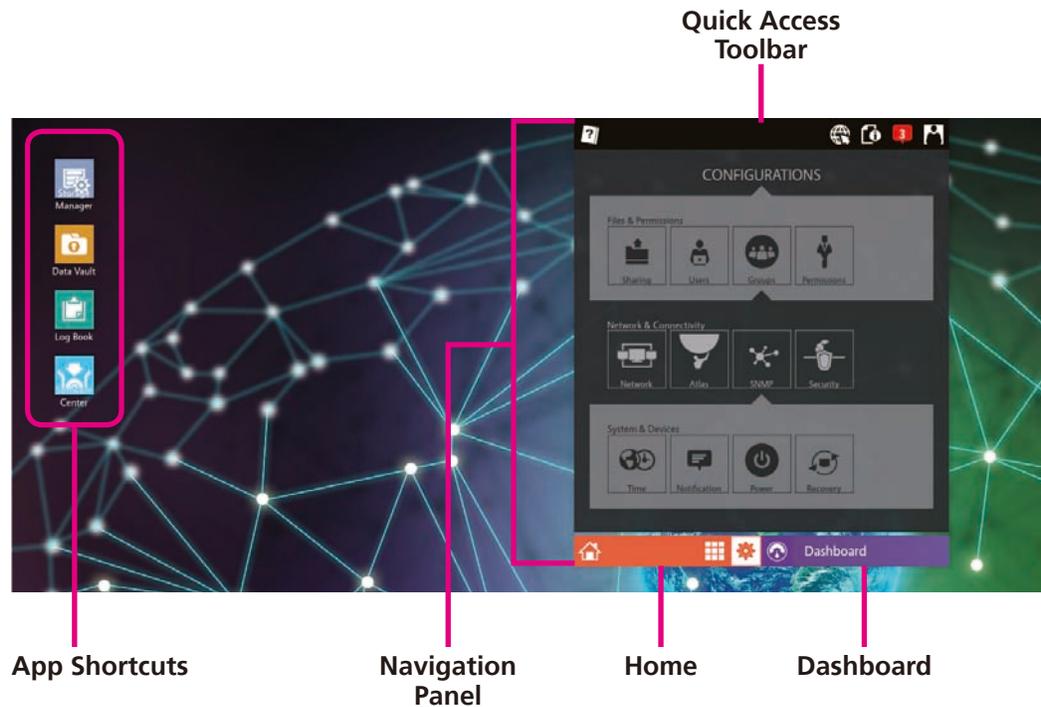


After successful login, a loading transition screen with pulsing background colors will be displayed briefly.



1.3 Introduction to the Atlas OS Main Desktop Screen

After logging in, you will be redirected to the main desktop screen of the NAS web management interface (Atlas OS).

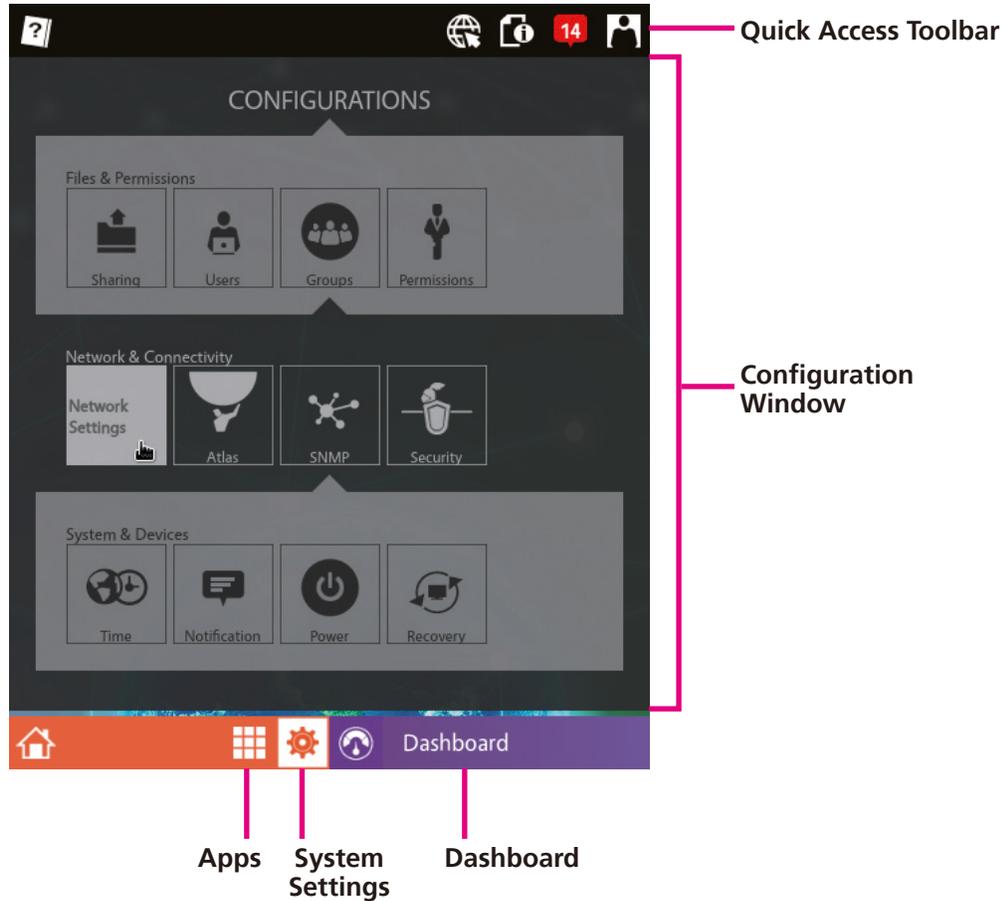


The desktop includes shortcuts to **Applications** and the **Navigation Panel**, which contains the **Quick Access Toolbar**, **Home** (orange) and **Dashboard** (purple) menu bars. Clicking the **Home** menu bar will minimize the configuration window and provide more desktop space to customize shortcuts for apps and widgets.



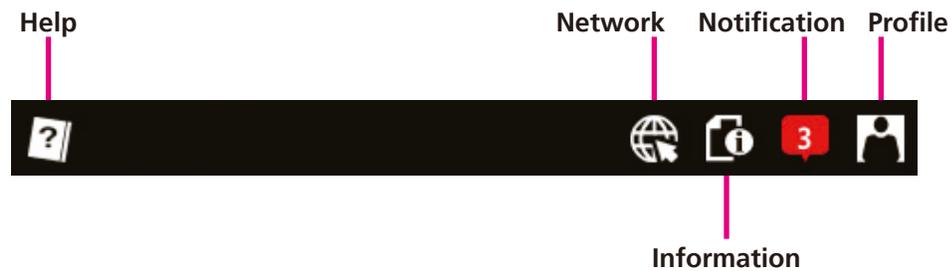
1.3.2 Navigation Panel

The Navigation Panel offers a configuration window for system settings, application access and dashboard monitoring/configuration.



1.3.2.1 Quick Access Toolbar

The Quick Access Toolbar provides notification information and quick access to commonly used settings.



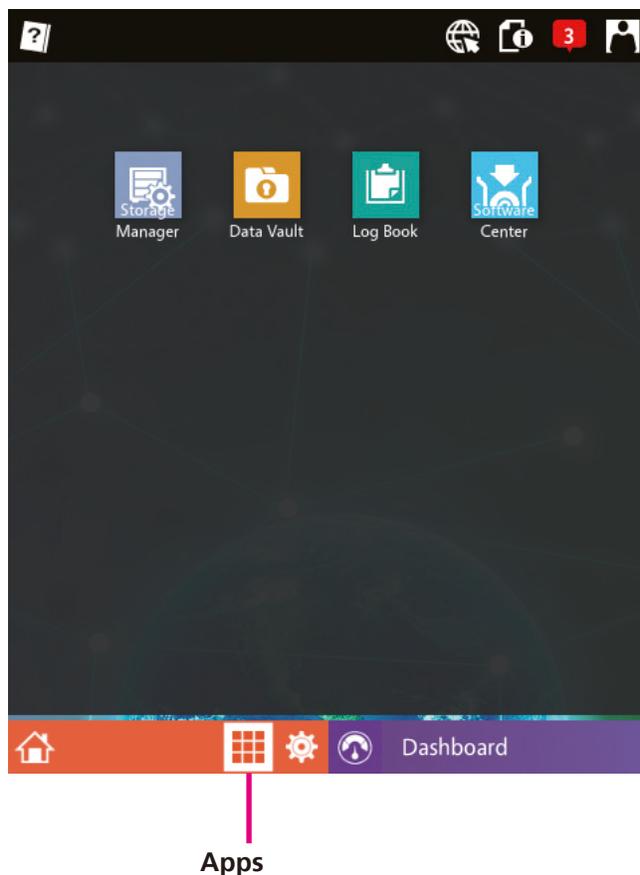
The following items are available:

- **Help:** Provides access to user manual information.
- **Network:** Displays current network information and settings.
- **Information:** Displays general system information and software version.
- **Notification:** Displays a record of recent event logs.
- **Profile:** Provides options to reboot, shutdown and logout the system, as well as options to change login password and display language.

For more information on the Quick Access Toolbar, please refer to Chapter 2.

1.3.2.2 Applications

The Applications page displays all the apps available on the system.



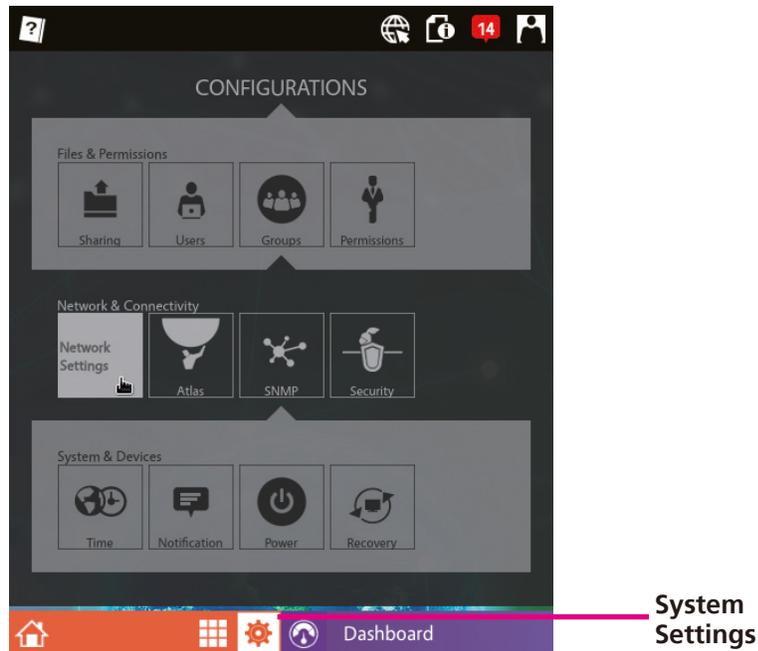
The following apps can be accessed:

- **Storage Manager:** Disk management app for creating and managing RAID volumes.
- **Data Vault:** File manager app for managing files and folders on the storage drives.
- **Log Book:** Event log app for accessing system log records.
- **Software Center:** Device management app for installing firmware and software packages.

For more information on using the applications, please refer to Chapter 4.

1.3.2.3 System Settings

The System Settings page provides a variety of options to configure the NAS system. To see the full name of a menu item, move the mouse over the icon.



▪ Files & Permissions

- **File Sharing Services:** Windows and FTP file sharing configurations.
- **Users:** Manage user accounts on the NAS system.
- **Groups:** Manage user groups on the NAS system.
- **Permissions:** Options for setting permission rights.

▪ Network & Connectivity

- **Network Settings:** Hostname description, DNS server 1 and 2 settings, IP address settings for Management, LAN1 and LAN2 ports, as well as NIC bonding settings for LAN1 and LAN2.
- **Atlas Settings:** Port number configuration for HTTP and HTTPS.
- **SNMP:** SNMP configuration for SNMPv1, SNMPv2 and SNMPv3.
- **Security:** Security configuration for uploading digital certificates.

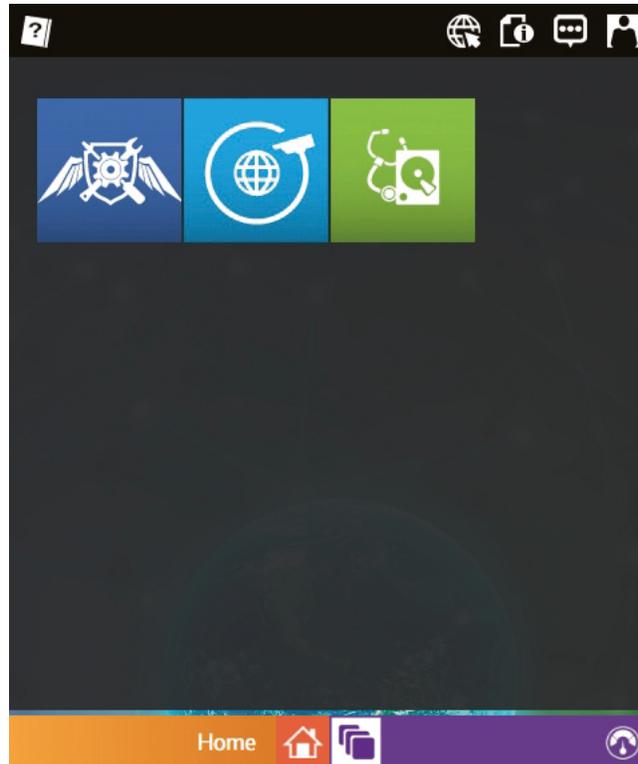
▪ System & Devices

- **Locale Date/Time:** Automatic or manual configuration of locale date and time.
- **Notification:** Email notification of log events.
- **Power Management:** LAN1 and LAN2 Wake-on-LAN configuration and time-based scheduler for system power on/off.
- **System Recovery:** Restore factory default settings.

For more information on configuring system settings, please refer to Chapter 3.

1.3.2.4 Dashboard

The Dashboard page displays all the widgets currently configured for display on the desktop.



Widget Panel

Click Widget Panel to see the list of widgets. The following widgets are available:

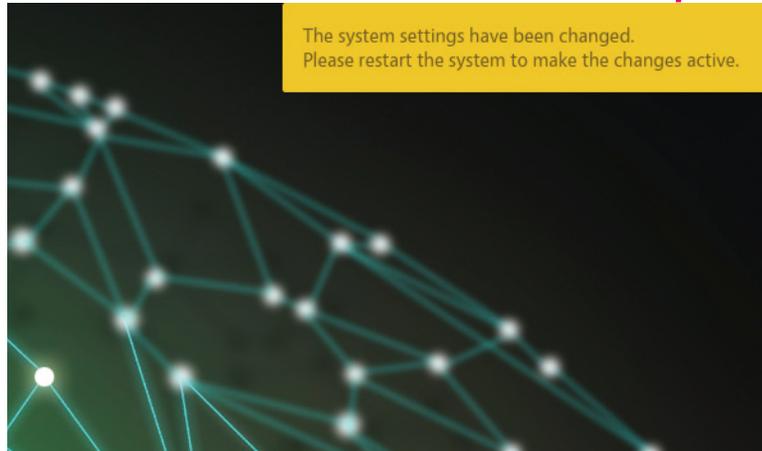
- **System Guardian:** Widget for displaying hardware-related information.
- **Network Surveillance:** Widget for displaying network-related information.
- **Storage Care:** Widget for displaying storage-related information.

For more information on using the widgets, please refer to Chapter 5.



Note: When making changes to network-related settings or updating firmware, a yellow pop-up notification will appear on the upper-right corner of the desktop to notify the user to restart the system for the changes to take effect.

Pop-up Notification



CHAPTER 2: QUICK ACCESS TOOLBAR

2.1 Getting Familiar with the Quick Access Toolbar

The Quick Access Toolbar includes the following menus: Network, Information, Notification and Profile.



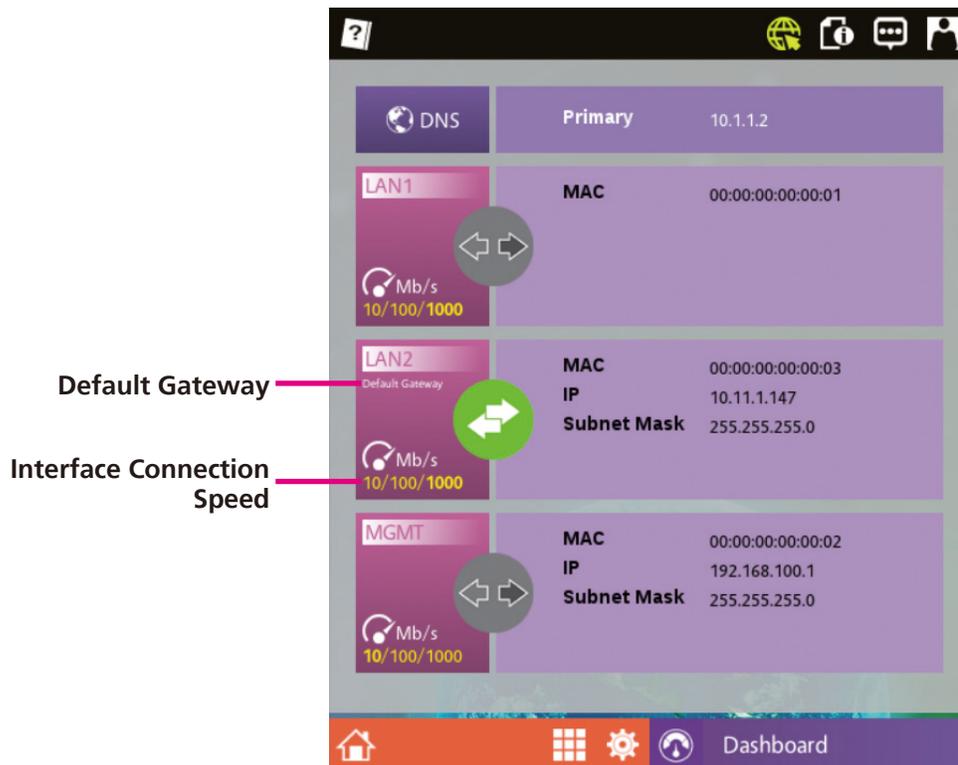
2.1.1 Network: View Network Settings of the NAS System

Click to see the connection information and status of the network interfaces. The following information can be viewed on this page: IP address, MAC address, connection speed and status of the network interface.



Interface Connection Speed and Default Gateway

The current interface connection speed, such as 10/100/1000, is shown below the interface name on the left. The interface with default gateway configured is shown under the interface name.



Network Status Icons

There are three types of network status, which are presented in graphical icon format as follows:



Network interface is connected.



Network interface is establishing a connection.



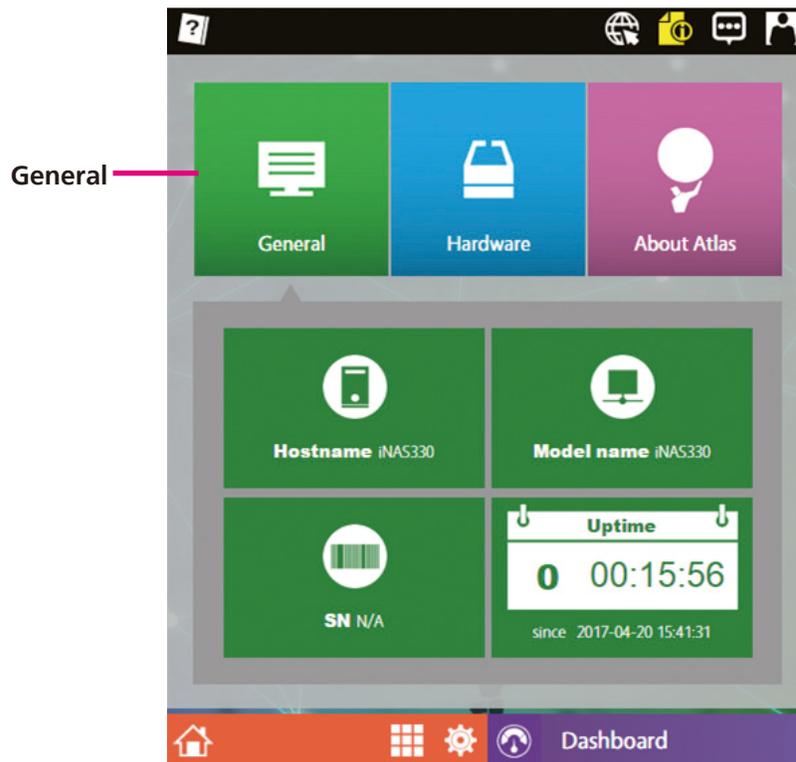
Network interface is not connected.

2.1.2 Information: View the NAS System Information

Click  to view the system information. The system information page is categorized in the following 3 sections: General, Hardware and About Atlas.

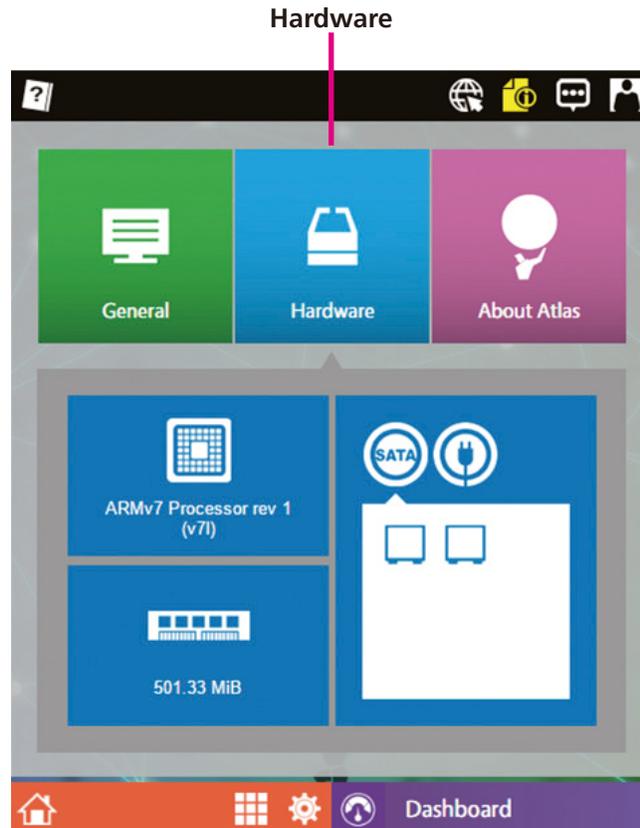
2.1.2.1 General

The General page displays the hostname, model name, serial number and uptime of the NAS system.

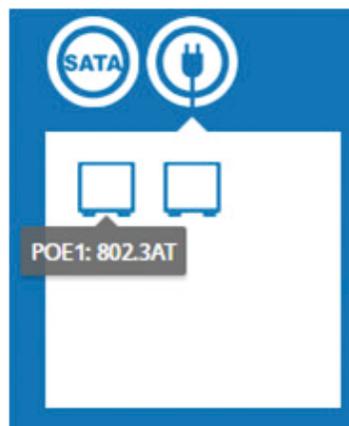


2.1.2.2 Hardware

The Hardware page displays hardware-related information such as CPU, memory, devices connected to the SATA interfaces and the type of powered devices (PD) connected to the PoE ports.

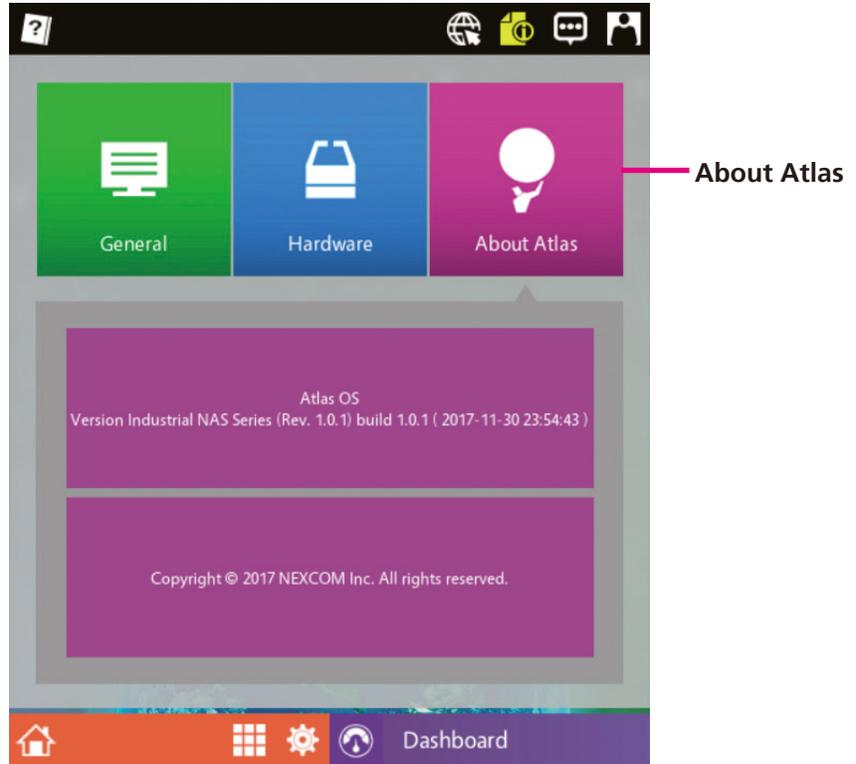


Hover the mouse over the icons to view the name of the device.



2.1.2.3 About Atlas

The About Atlas page displays the information of the Atlas OS firmware version and copyright owner.

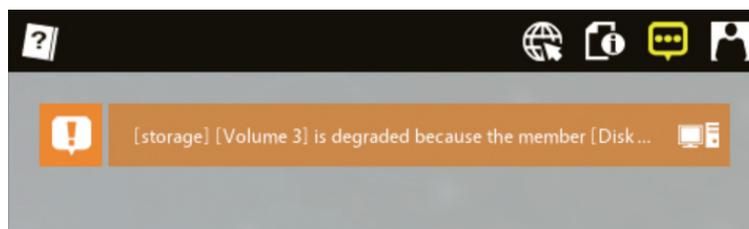
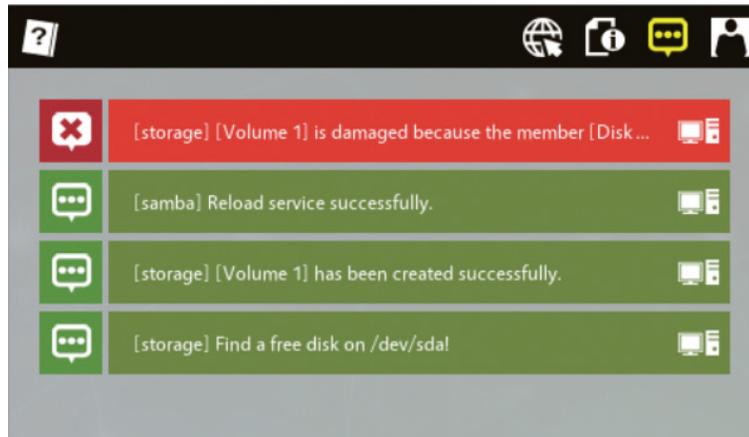


2.1.3 Notification: View System Generated Events

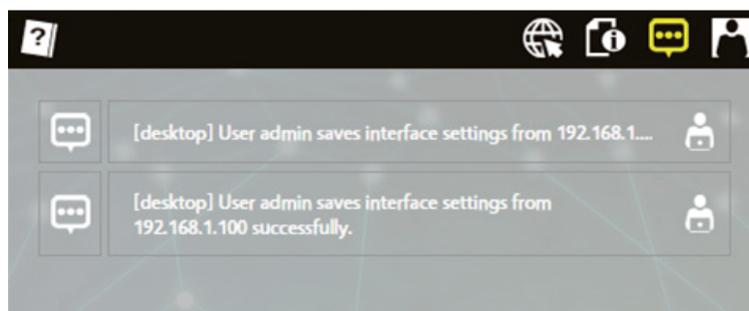
Click to open the Notification page, which displays information of system generated events beginning from the time of initial login. During this time, each new event with a classification level higher than warning (warning and error) will be labeled numerically in ascending order. Normal events with lower classification will not be counted and labeled numerically. For example, if there is a newly occurred event classified as warning or error, the icon will show , as shown below:



Events that have not been viewed will be highlighted in green. Error and warning events will be highlighted in red and orange respectively.



Events that have been viewed will be highlighted in gray.



2.1.4 Profile: Perform Administrative and Basic System Tasks

Click  to access the Profile page. The Profile page allows admin users to perform administrative tasks and guest users to perform basic tasks. It is categorized into the following 5 sections: Account, Language, Reboot, Shutdown and Logout.

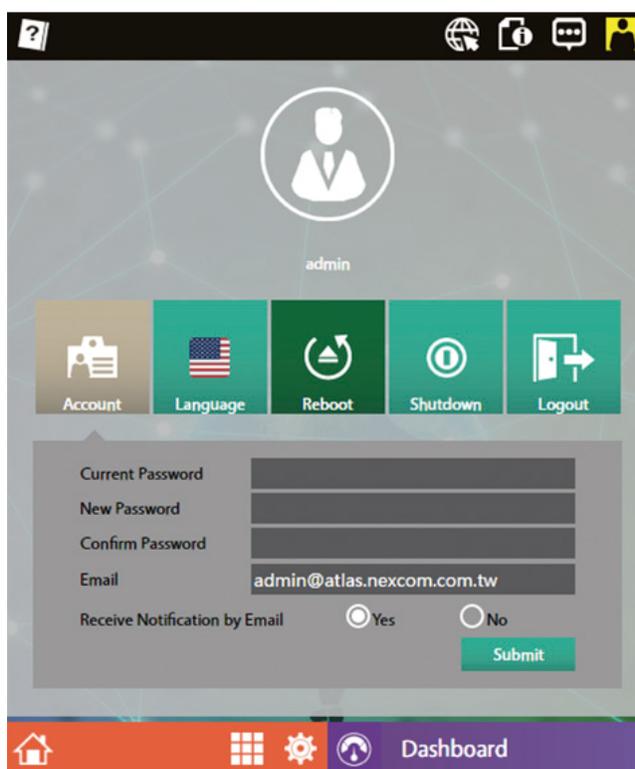
Certain menu sections may not be available depending on the type of account used to log into the NAS system, as listed below:

Admin User Account: Account, Language, Reboot, Shutdown and Logout.

Guest User Account: Account, Language and Logout.

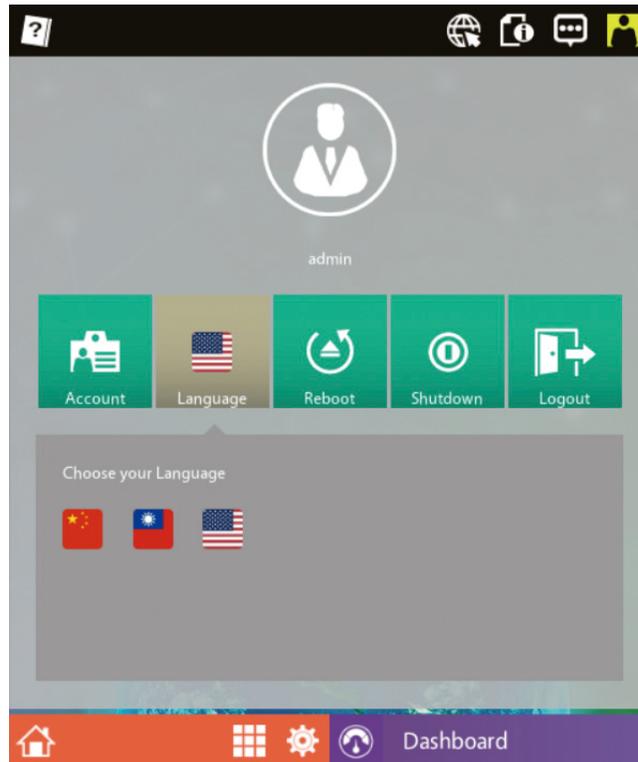
2.1.4.1 Account

The Account page provides options to reconfigure the login password.



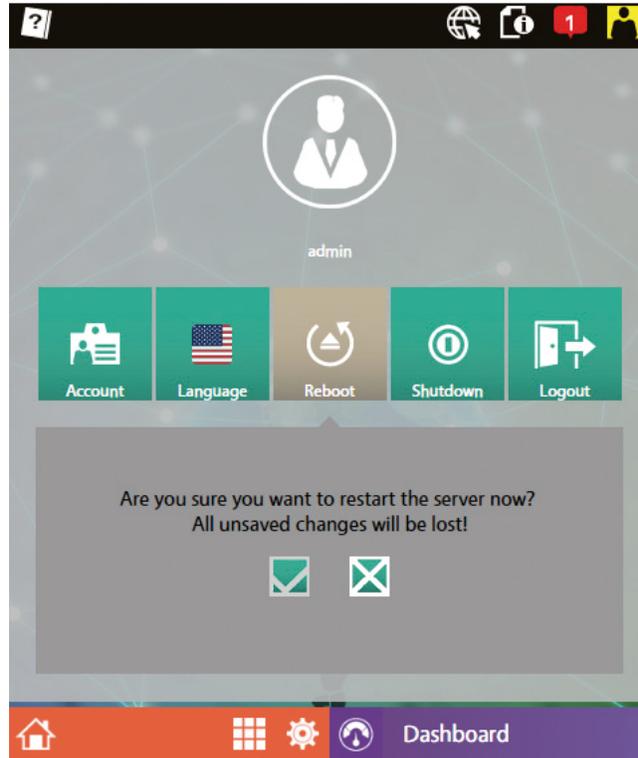
2.1.4.2 Language

The Language page provides the option to change the display language of the NAS web management interface. The languages currently supported are English, Traditional Chinese and Simplified Chinese.



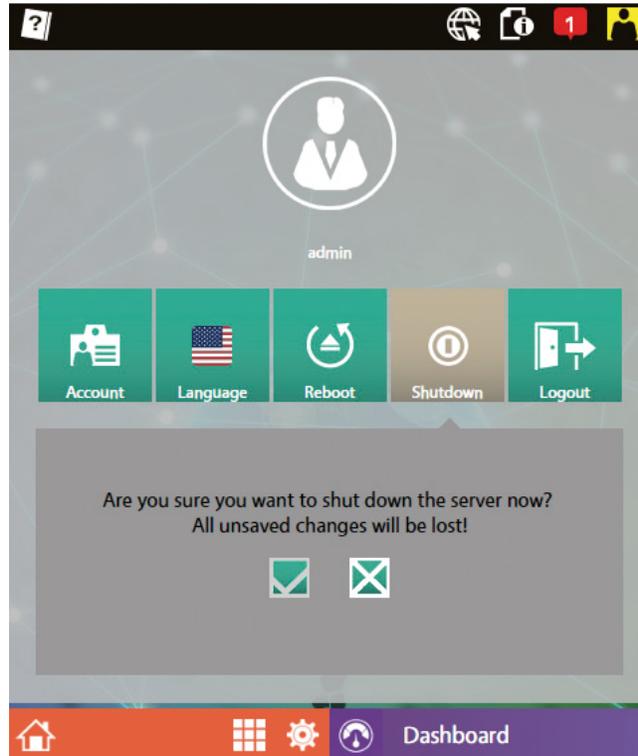
2.1.4.3 Reboot

The Reboot page allows administrators to reboot the system. Settings made to the system will take effect after rebooting.



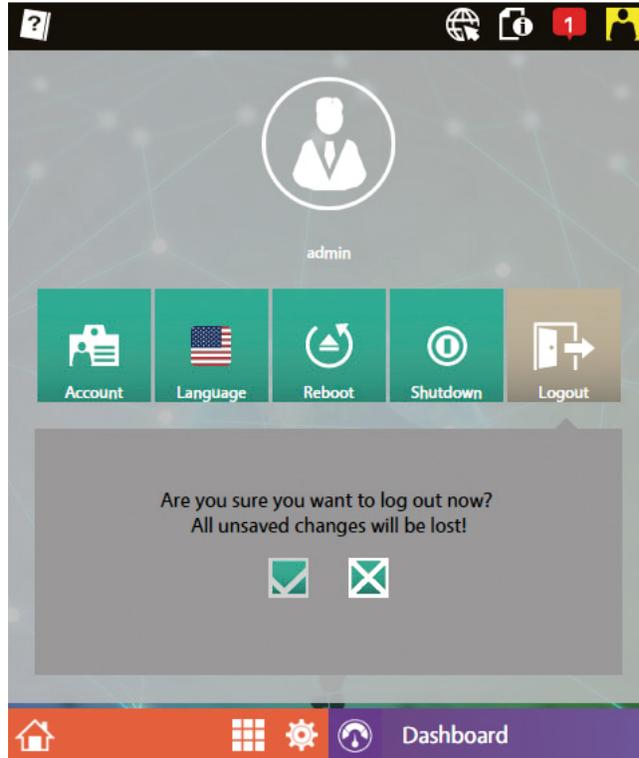
2.1.4.4 Shutdown

The Shutdown page allows administrators to shut down the system.



2.1.5 Logout

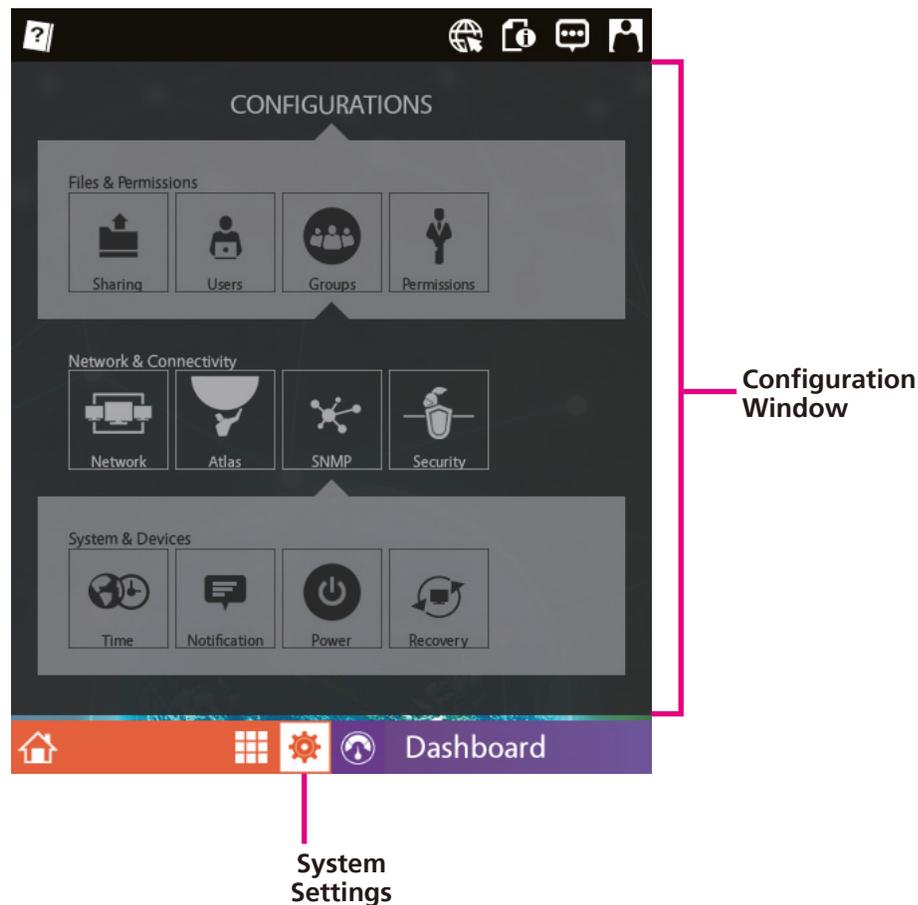
The Logout page allows users to log out from the current account.



CHAPTER 3: SYSTEM CONFIGURATION

3.1 Configuration Window for System Settings

The Configuration Window for System Settings provides options for modifying configurations such as network settings, system time and system recovery.



The System Settings menu is categorized into 3 main groups:

- **Files & Permissions:** Set up file sharing between NAS and client devices.
- **Network & Connectivity:** Configure network and security settings of the NAS system.
- **System & Devices:** Configure system time settings, power management schedule as well as option to perform system recovery.

3.2 Files & Permissions

3.2.1 Enable File Sharing Services for Windows



Set up Windows File Sharing for Network Neighborhood

Go to the **File Sharing Services > Windows** tab and select the **Enable** option. The following options can be configured:

- **Enable:** When selected, computers connected to the same network and workgroup as the NAS system are able to view the NAS system in the Windows network. If the hostname of the NAS system is already known (for example, iNAS330), users can access the NAS system through file browsers by entering \\iNAS330\ in the address field. When deselected, the file sharing service will be disabled and file browsers will not be able to search the NAS system in the network.
- **Workgroup:** Specify the workgroup name. The default name is WORKGROUP. After applying the settings, the SAMBA server can be viewed from file browsers on systems that are in the workgroup name specified in this field. (The workgroup name shown will be the hostname of the NAS system, which can be configured in **Network & Connectivity > Network Settings**.)

3.2.2 Enable File Sharing Services for FTP

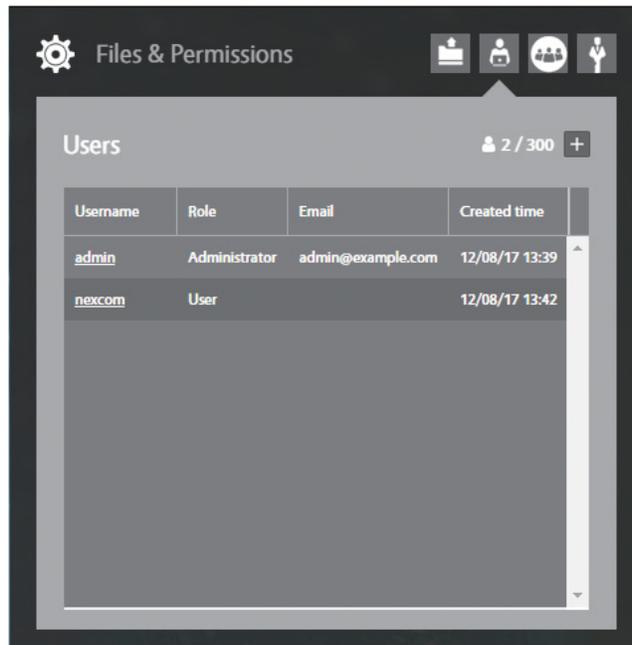


Set up File Sharing for FTP Server

Go to the **File Sharing Services > FTP** tab and select the **Enable** option. The following options can be configured:

- **Enable:** Enables or disables the FTP server.
- **Port number:** Configure the port number used by the FTP service for file transfers.
- **Enable Secure FTP:** When selected, the FTP server will use TLS encryption for file transfers. (This setting uses the default certificate installed on the system. The certificate can be replaced in **Configuration > Security**.)

3.2.3 Manage User Accounts



View User Accounts on the NAS System

Go to the **Users** menu to view all the available accounts on the NAS system.

- The label **2 / 300** on the upper-right shows the total number of accounts on the NAS system. The maximum number of allowed user accounts is 300.
- Click **+** to switch to the **Add User** page.
- The user list table can be sorted by column headings. The **Email** column cannot be used for sorting.

Username ▾	Role	Email	Created time
<u>nexcom</u>	User		12/08/17 13:42
<u>admin</u>	Administrator	admin@example.com	12/08/17 13:39

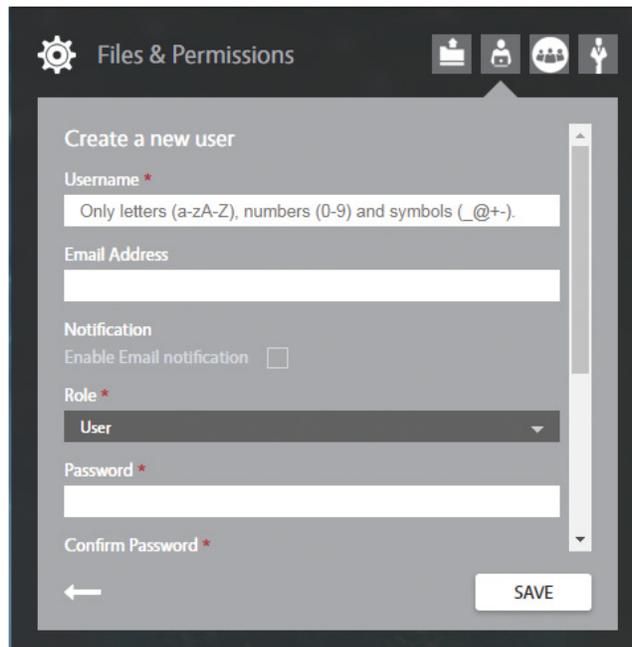
- Click on the username account (the account is underlined, e.g., admin) to switch to the **Edit User** page.



Note: The NAS system comes with a default admin account with the username "admin" and password "admin".

Add User Accounts to the NAS System

1. Click  to go to the **Add User** page.



Files & Permissions

Create a new user

Username *
Only letters (a-zA-Z), numbers (0-9) and symbols (_@+-).

Email Address

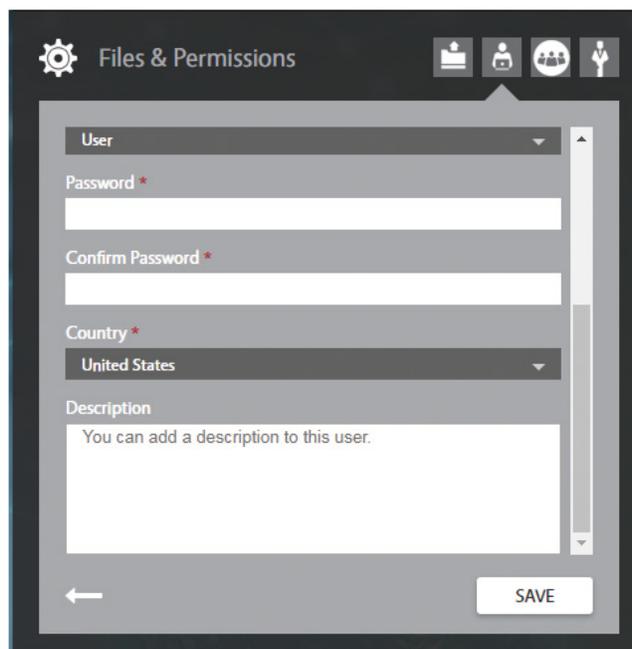
Notification
Enable Email notification

Role *
User

Password *

Confirm Password *

← SAVE



Files & Permissions

User

Password *

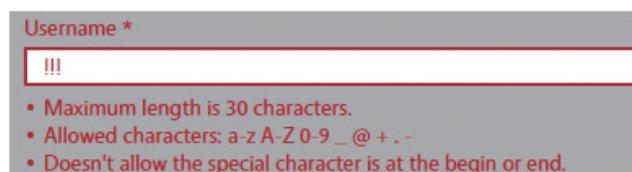
Confirm Password *

Country *
United States

Description
You can add a description to this user.

← SAVE

2. Fill in the required fields (marked by asterisks *) and press the  button. An error message will be displayed if invalid characters are entered.



Username *

!!!

- Maximum length is 30 characters.
- Allowed characters: a-z A-Z 0-9 _ @ + . -
- Does't allow the special character is at the begin or end.

Restrictions for the Username Field

- Up to a maximum of 30 characters.
- The only characters allowed are letters (a-z, A-Z), numbers (0-9), underscores (_), at sign (@), plus sign (+), periods and hyphens (-).
- The symbols mentioned above cannot be used as the first and last character for the field.
- Uppercase characters will be converted to their lowercase forms (username only contains lowercase letters).

Restrictions for the Email Field

- This field can be left blank.
- If an email is entered, the field will check whether or not the entered format is valid.



The screenshot shows a form field labeled "Email Address" containing the text "aaa". Below the field, a red error message reads "Please enter a valid email address." The field is outlined in red, and the error message is also in red text.

Enable Email Notification of Log Events

Select the **Enable Email notification** check box to allow the NAS system to automatically send log information related to the user through email.

- This option is only available when a valid email address is entered.

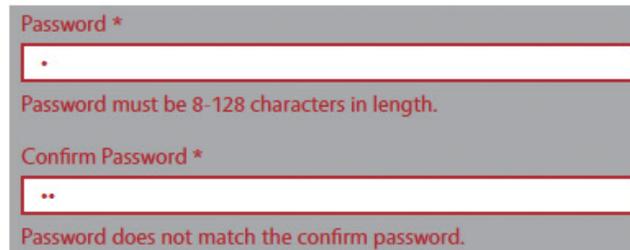
Set the User Role

Select the access role of the user account in the drop-down list. The following access roles are available:

- **User:** User account with guest privileges.
- **Administrator:** User account with administrator privileges.

Configure User Password

Enter the user password in the **Password** and **Confirm Password** fields.



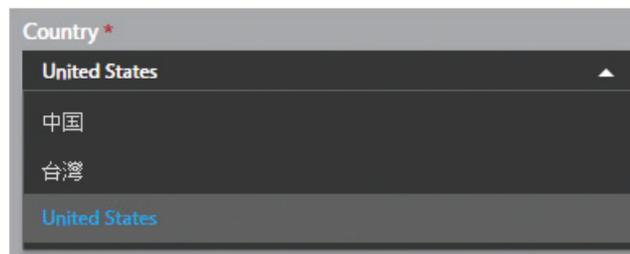
The screenshot shows two input fields on a grey background. The first field is labeled "Password *" and contains a single dot. Below it is a red error message: "Password must be 8-128 characters in length." The second field is labeled "Confirm Password *" and contains two dots. Below it is a red error message: "Password does not match the confirm password."

- The password must be 8-128 characters in length.
- There are no particular restrictions on the characters allowed.
- **Confirm Password** must be the same as **Password**.

Set the GUI Display Language for Users

The display language of the NAS web management interface can be configured differently for different users. Select the display language that will be used for the user in the drop-down list. The following languages are available:

- **中国**: Simplified Chinese
- **台灣**: Traditional Chinese
- **United States**: English



The screenshot shows a dropdown menu titled "Country *". The menu is open, showing three options: "United States" (selected), "中国", and "台灣". Below the menu, the text "United States" is displayed in blue.



Note: Only accounts with administrator privileges can log into the NAS system and access the web management interface.

Edit User Accounts

To edit details of a user account, click on the underlined username account to go to the **Edit User** page.

Username	Role	Email	Created time
<u>nexcom</u>	User		12/08/17 13:42
admin	Administrator	admin@example.com	12/08/17 13:39

Files & Permissions

Edit user

Username
aaaa

Created time
2017/12/11 16:49:13

Last login time
2017/12/11 16:50:14

REMOVE THIS USER

Email Address
aaaa@nexcom.com.tw

← SAVE

Notification
Enable Email notification

Role *
Administrator

CHANGE PASSWORD

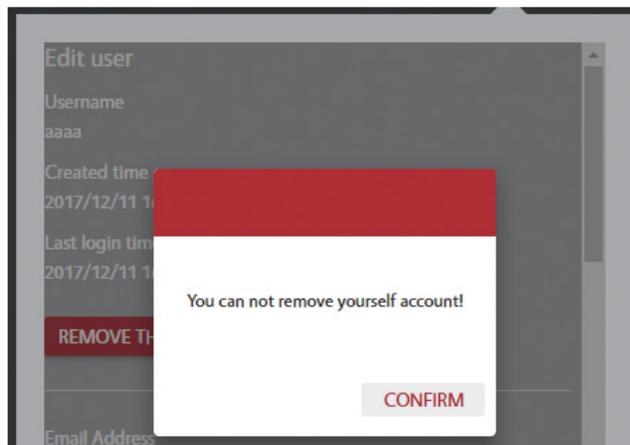
Country *
United States

Description
abc

← SAVE

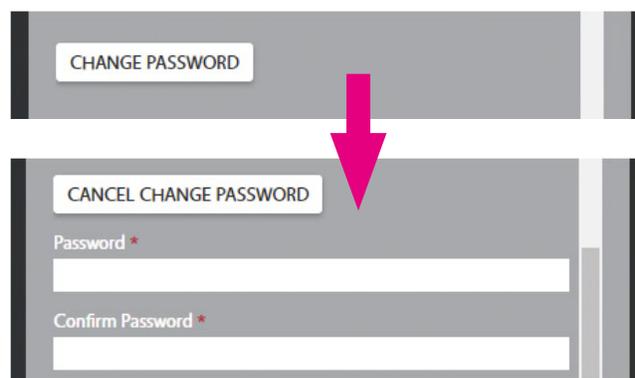
The Edit User Interface

- The username cannot be modified.
- The time the account was created will be displayed.
- The last login session to the web management interface will be displayed. If the user has never logged into the web management interface before, **N/A** will be displayed.
- The account can be removed by clicking the **REMOVE THIS USER** button. Only users with administrator privileges are able to remove user accounts.
 - Users are not allowed to remove their own accounts.



Change User Password

Press the **CHANGE PASSWORD** button to access the input fields for assigning a new password.



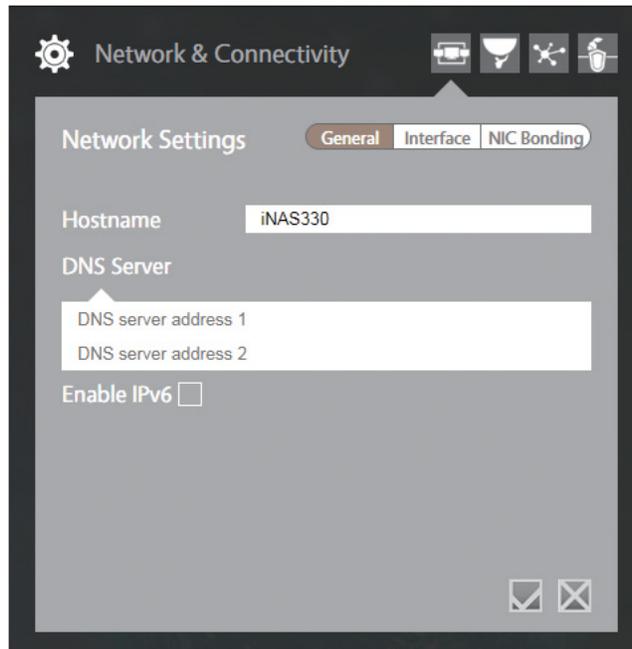
To cancel assigning a new password, click the **CANCEL CHANGE PASSWORD** button to close the input fields for assigning a new password.



Note: After the user account is successfully removed, the folder associated with the user in the `<primary volume>/home` directory will not be removed in order to allow the administrator to recover data.

3.3 Network & Connectivity

3.3.1 Configure General Network Settings



Specify Hostname and DNS Server

The **General** tab page provides the following options:

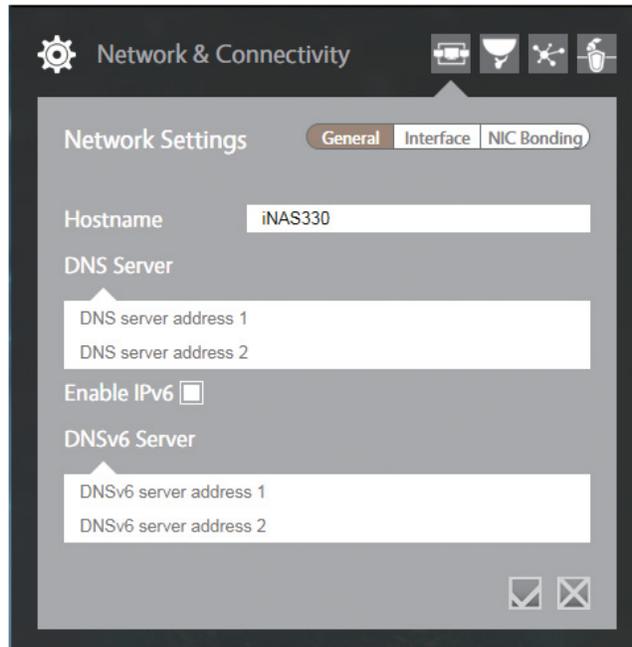
- **Hostname:** Configure the hostname of the NAS system. The hostname is used as a name-IP address mapping.
- **DNS Server:** Configure the DNS server for resolving domain names of devices in the network (e.g., the address 8.8.8.8 is one of Google's DNS servers.).



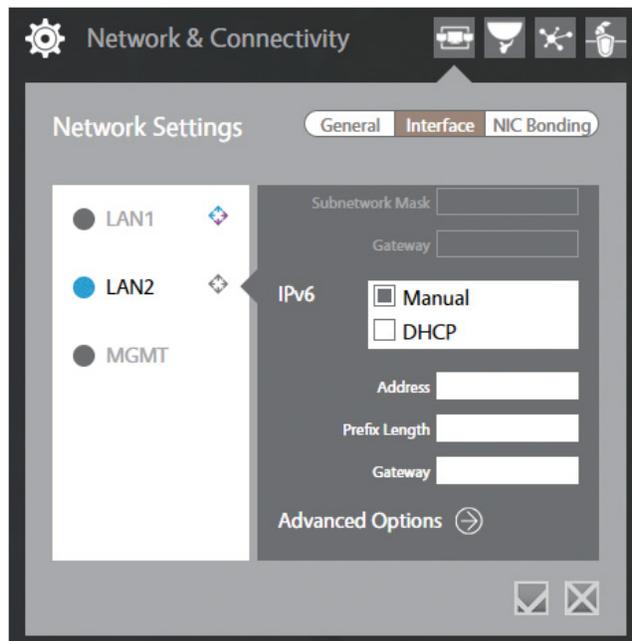
Note: Configurations made in this section require a system restart for the changes to take effect. After saving the changes, the restart notification will appear on the upper-right corner of the desktop screen.

The system settings have been changed.
Please restart the system to make the changes active.

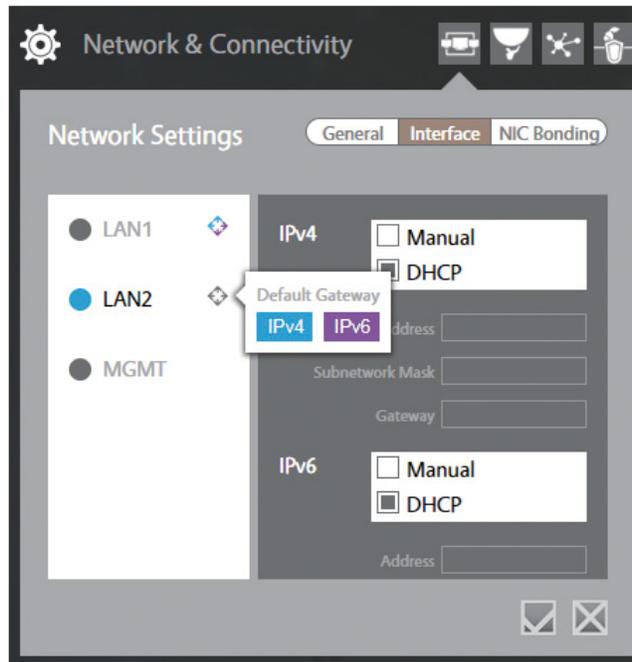
- **Enable IPv6:** Enable IPv6 support for DNS server.



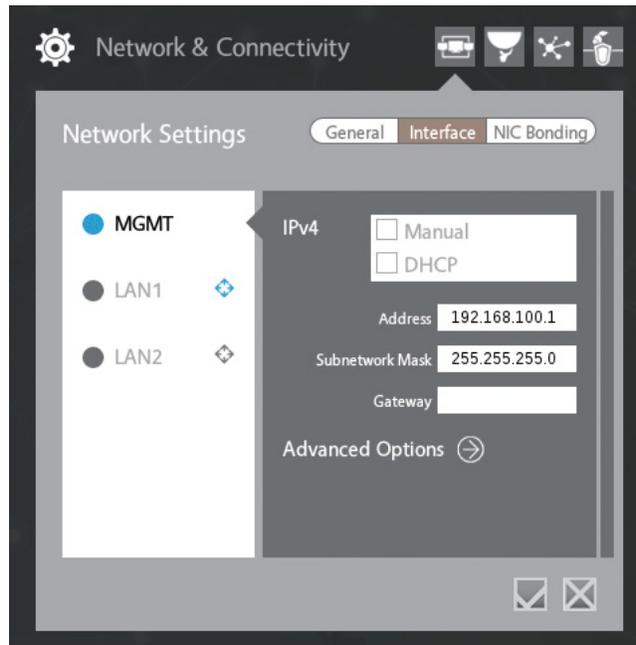
When IPv6 is enabled, the **Interface** tab will include additional IPv6 settings for DHCP/Manual Mode, IPv6 Address, Prefix Length and IPv6 Gateway.



- **IPv6 Default Gateway:** The Default Gateway option can also be configured in the **Interface** tab when IPv6 is enabled.



3.3.2 Configure Network Interface Settings



Configure the MGMT, LAN1 and LAN2 Interfaces

Go to the **Network Settings** > **Interface** tab and select the interface to configure (**MGMT**, **LAN1** or **LAN2**). The following options can be configured:

- **Manual:** Select this option to configure a static IP address for the network interface selected.



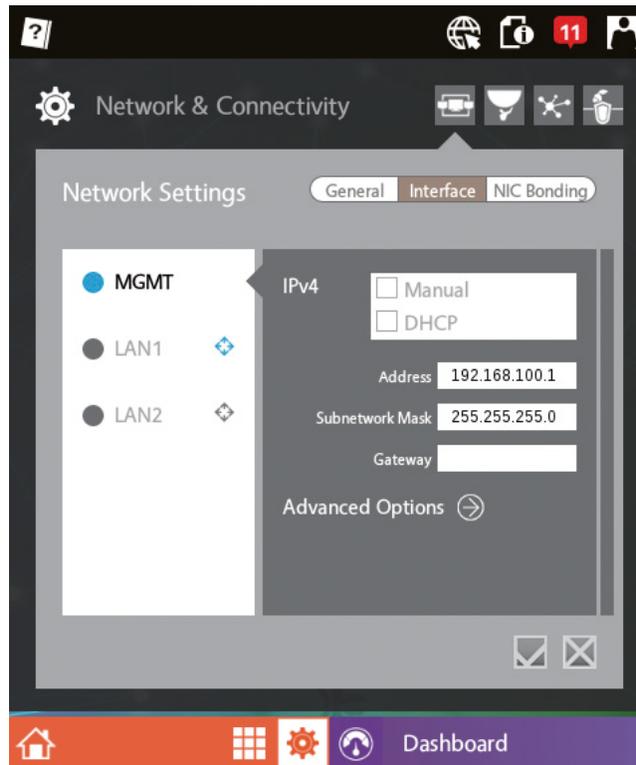
Note: The MGMT interface is used to manage the NAS system. This interface only accepts a static IP address, DHCP cannot be used to retrieve an IP address.

- **DHCP:** Enable DHCP for automatic IP address retrieval. When enabled, the IP address, subnet mask and network gateway information will be assigned by the DHCP server. These fields will be grayed out and cannot be modified when DHCP is selected. To view the newly assigned DHCP address, please go to the **Quick Access Toolbar** > **Network** page.
- **Address:** The IP address of this interface. When Manual is selected, a static IP address can be configured here (e.g., 192.168.0.50).



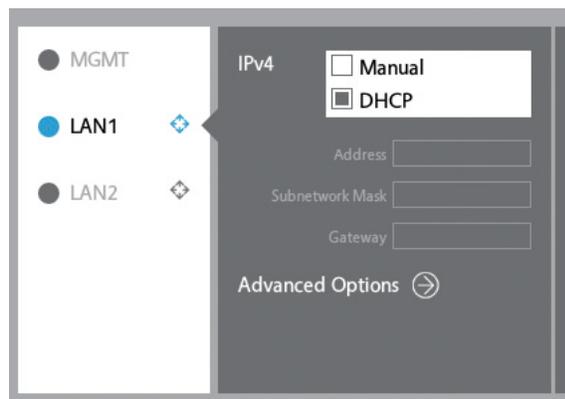
Note: Configurations made in the **Interface** tab are applied immediately. System restart is not required for the changes to take effect.

3.3.3 Configure Network Interface Settings Cont.

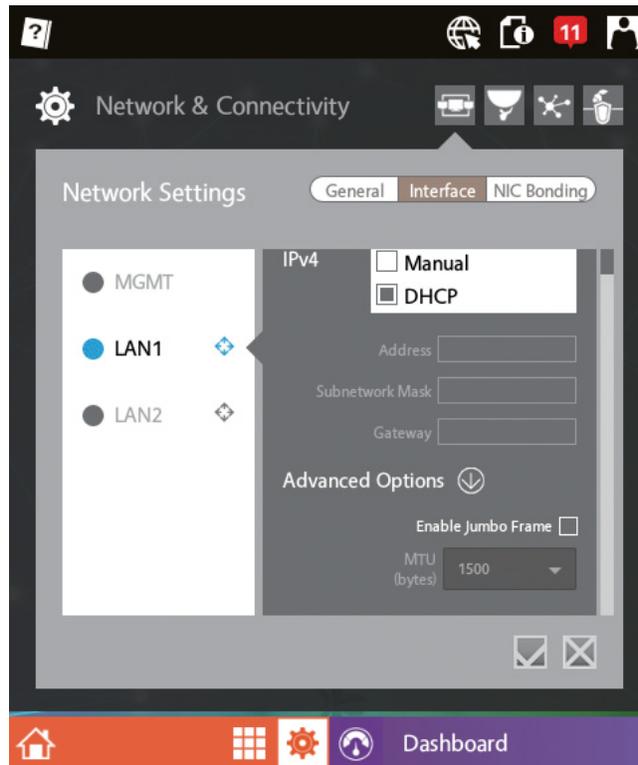


- **Subnetwork Mask:** The subnet mask address of this interface. When Manual is selected, a subnet mask address can be configured here. (For example, 255.255.255.0.)
- **Gateway:** The network gateway address of this interface. When Manual is selected, a network gateway address can be configured here. (For example, 255.255.255.0.)

When DHCP is enabled, the Address, Subnetwork Mask and Gateway fields will be disabled and grayed out.



3.3.3.1 Configure Advanced Interface Settings



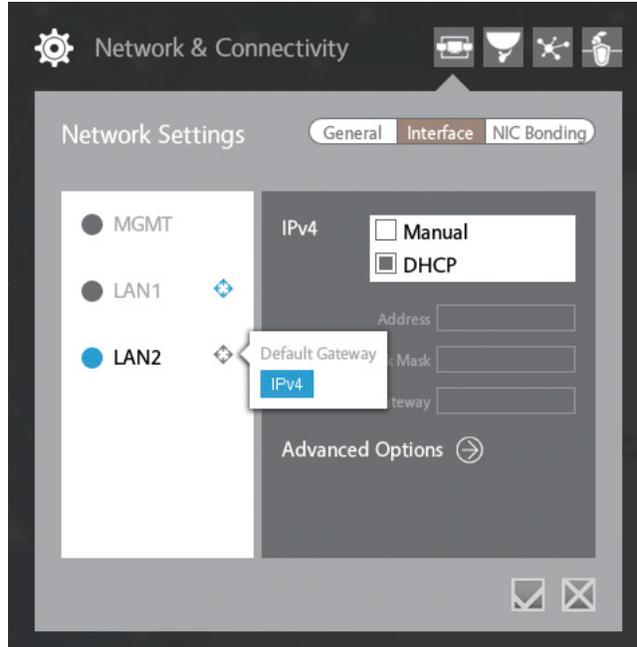
Enable Jumbo Frame Support in Advanced Options

Go to the **Network Settings > Interface** tab and select the **Advanced Options** menu. The following options can be configured:

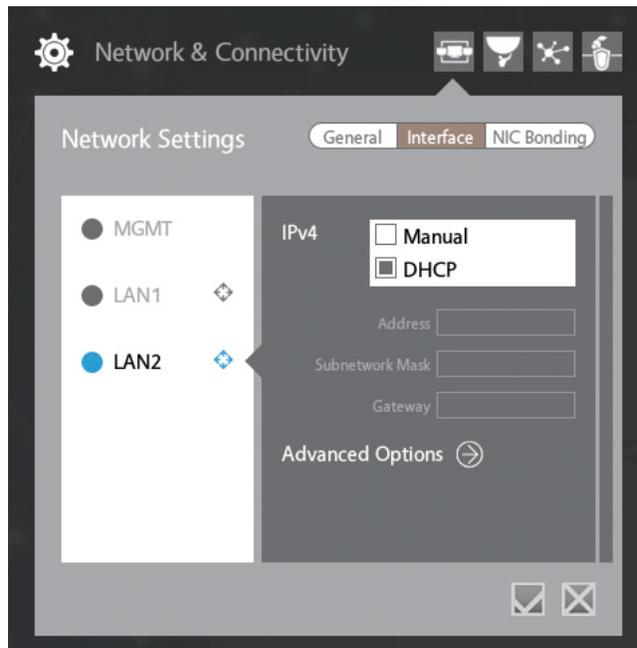
- **Enable Jumbo Frame:** Enable jumbo frame support. This option is disabled by default and enabling it may improve the transmission performance of large files. (This feature requires the network interface card on the receiving/sending end to have jumbo frame function enabled, otherwise the feature will not work.)
- **MTU (bytes):** Default is 1500 bytes. This maximum value can be increased when jumbo frame is enabled.

3.3.3.2 Set Default Gateway

Hover the mouse over the diamond shaped icon next to the interface and select **IPv4** to set the default gateway.



Once the setting is applied successfully, the diamond shaped icon will turn blue.

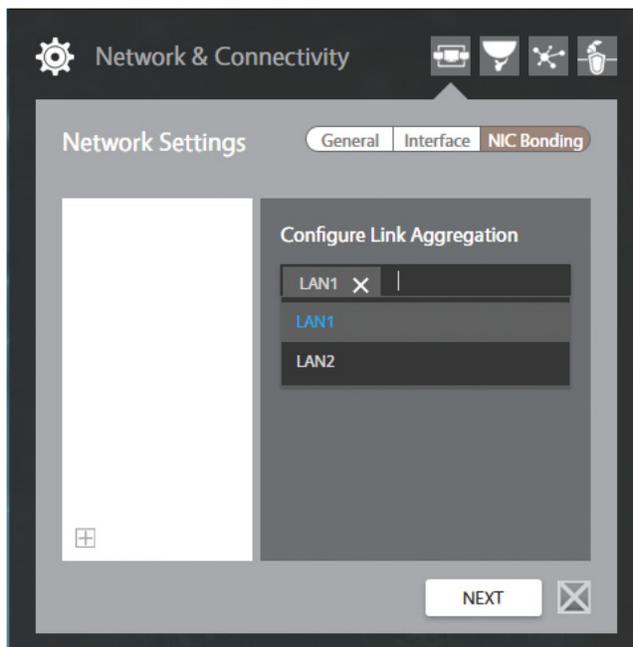


3.3.4 Configure Interfaces for NIC Bonding

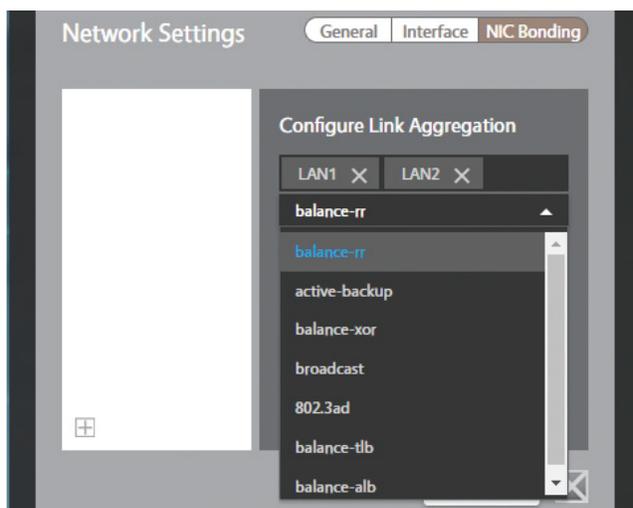
The **NIC Bonding** tab is used to configure the network interfaces for link aggregation. Depending on the link aggregation modes selected, aggregating links can provide fault tolerance or increase network bandwidth.

Creating Bond Interface

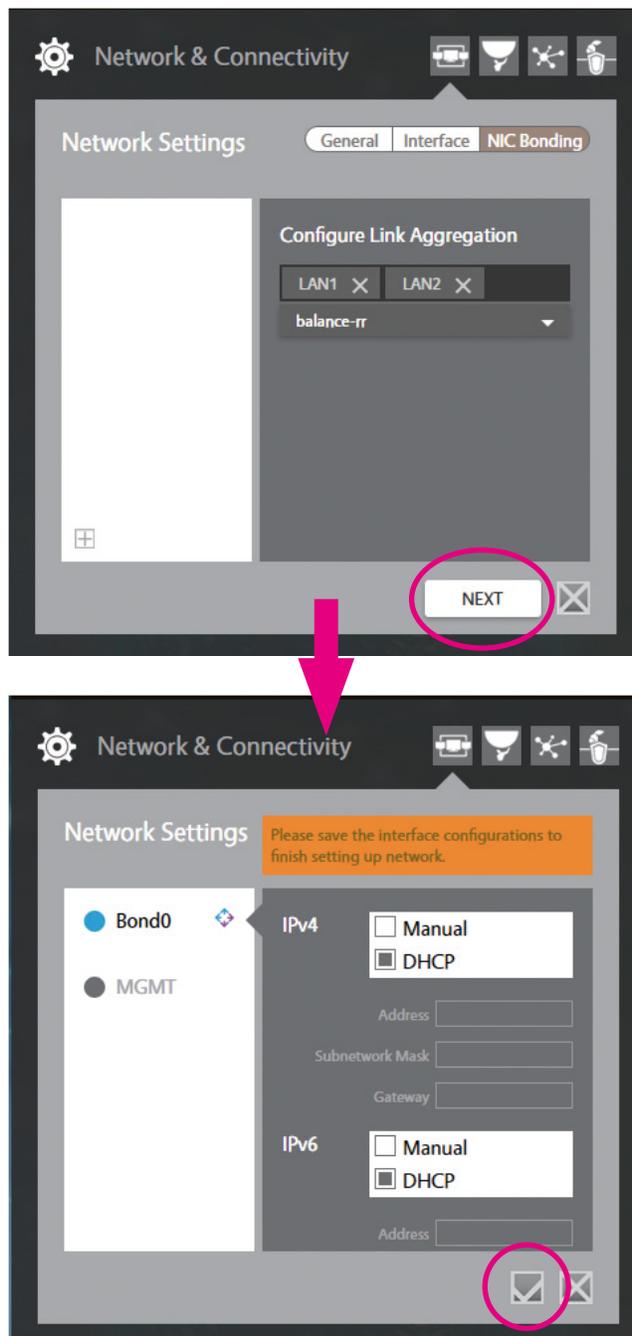
1. Select the two interfaces that will be used for link aggregation.



2. Select the link aggregation mode.



3. Confirm the selection and settings for NIC Bonding, and click the button. The current page will switch to the **Interface** tab page, prompting the user to confirm the Bond0 settings before finishing the configuration.

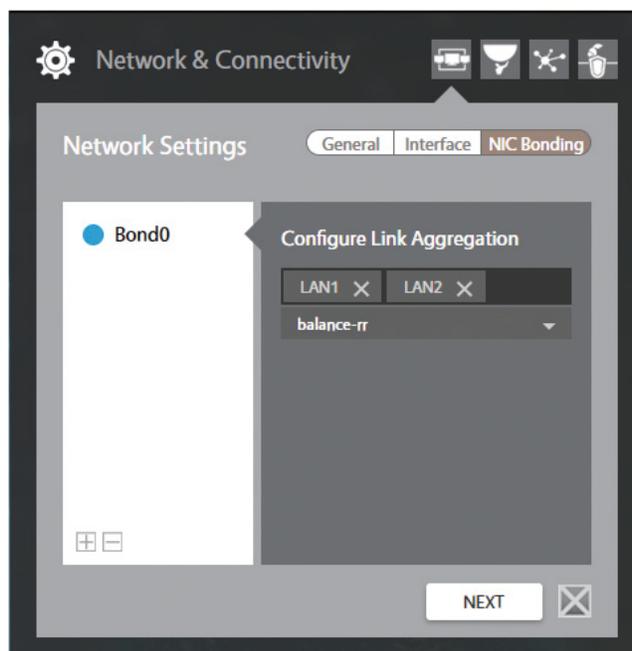


4. After confirming the **Interface** settings, click the icon to complete the NIC Bonding configuration.

**Note:**

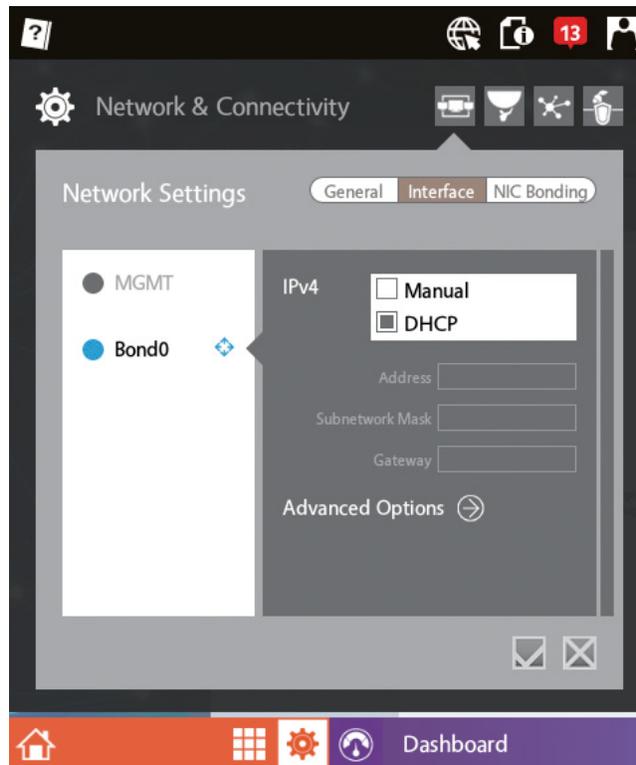
- The default network setting for Bonding is **DHCP IPv4**, as well as **DHCP IPv6** if IPv6 Enabled is selected.
- The settings in this page can be left unmodified, but users need to confirm the settings by clicking the  icon in order to continue.
- If the user does not confirm the settings and continue without clicking the  icon, the user will be directed to this page when re-entering the Network Settings page. (The original page with General, Interface and NIC Bonding tabs will not be accessible.)

5. The newly created bond interface will be shown on the left panel.



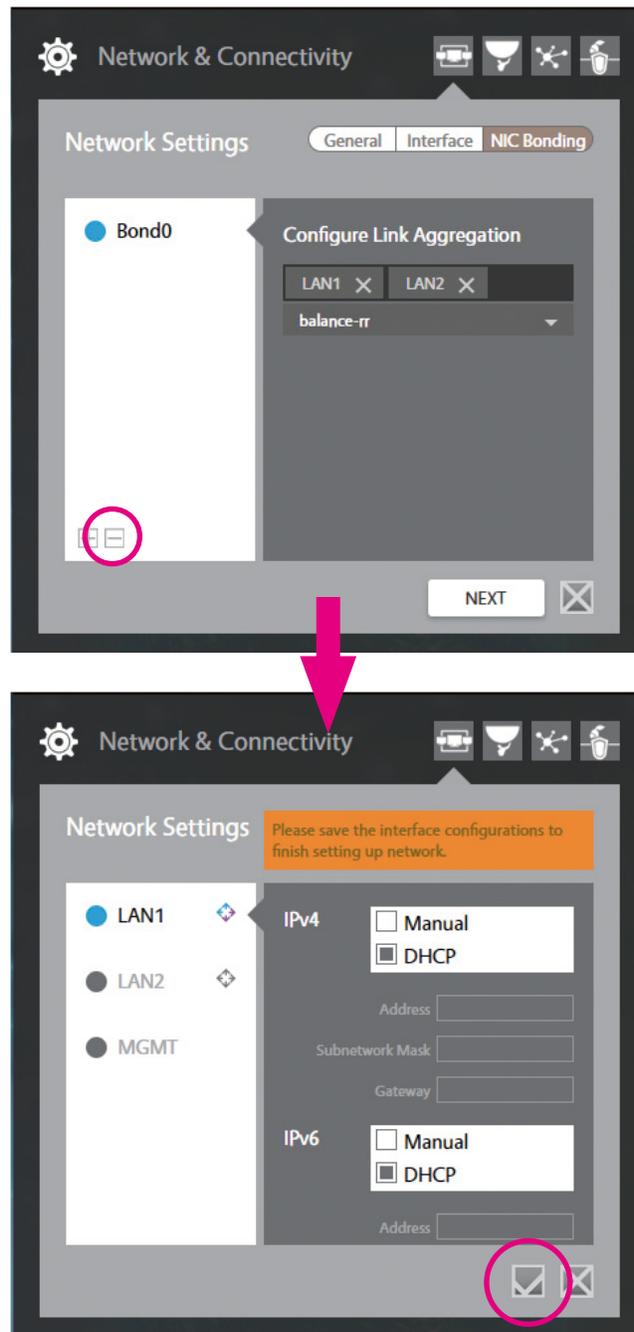
Configure the Aggregated Interface (Bond0)

After creating the bond interface, the network interfaces selected for link aggregation will no longer be viewable in the **Interface** tab. The newly created bond interface will be shown instead. To configure the network settings for the bond interface, follow the same procedures used for configuring network interfaces.



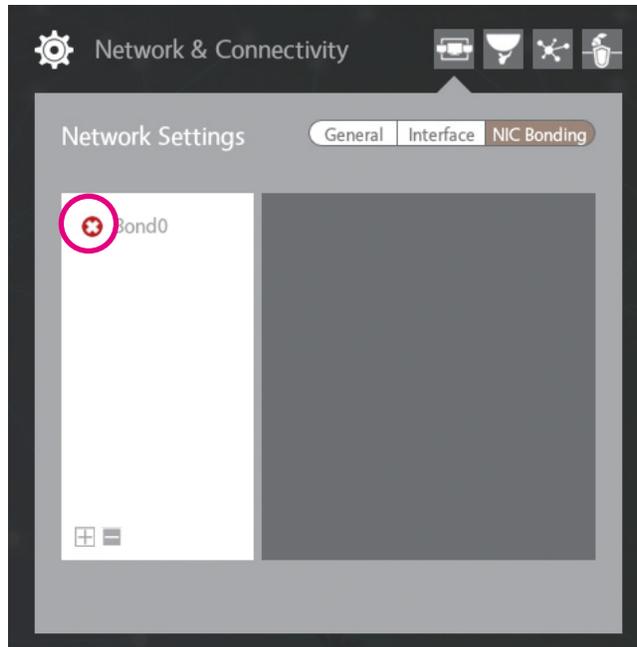
Deleting Bond Interface

1. Press the  icon on the lower-left corner. Similar to configuring NIC Bonding, the current page will switch to the **Interface** tab page, prompting the user to confirm any of the LAN1 or LAN2 settings before proceeding.

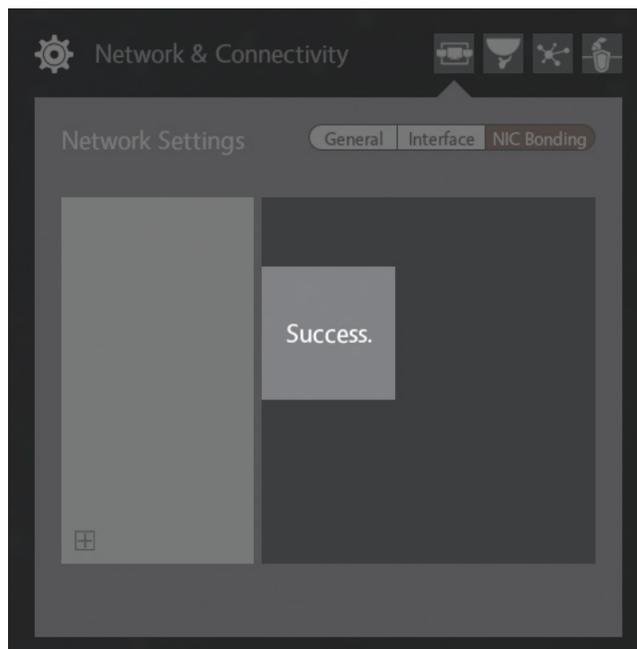


2. After confirming the **Interface** settings, click the  icon to continue.

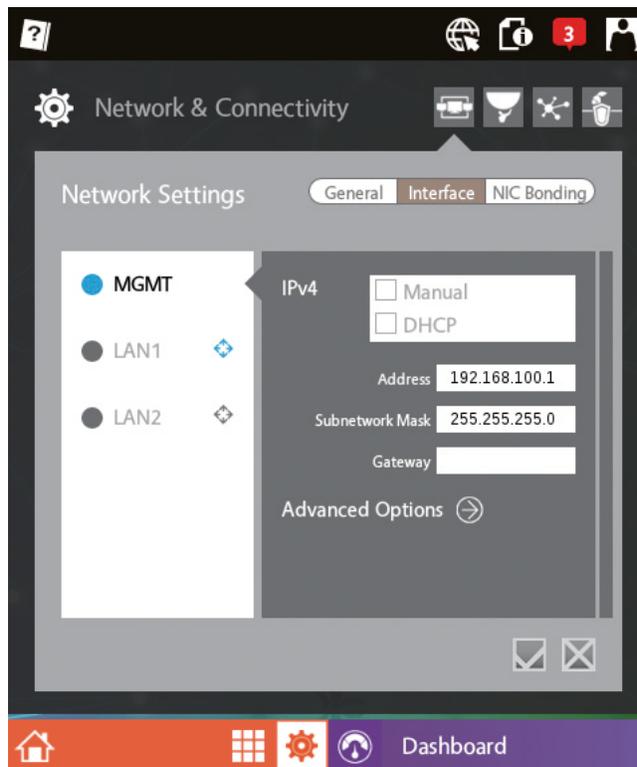
3. Select the bond interface to delete by pressing the  icon on the front of the interface.



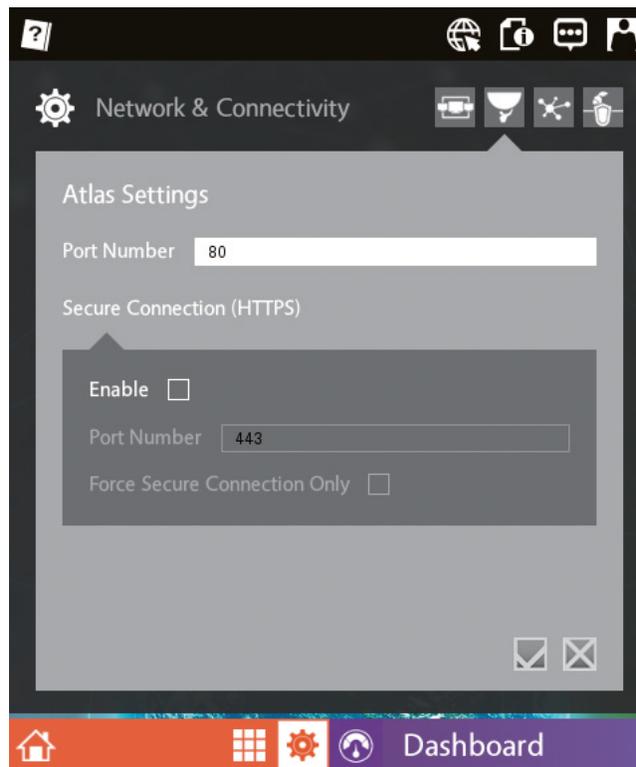
4. After pressing the  icon the bond interface will be deleted.



The LAN1 and LAN2 interfaces originally configured for bond0 will be viewable again in the Interface tab.



3.3.5 Configure the Atlas Web Connection Settings



Configure the HTTP Port

HTTP is enabled by default. Go to **Atlas Settings** to configure the HTTP port. The following options can be configured:

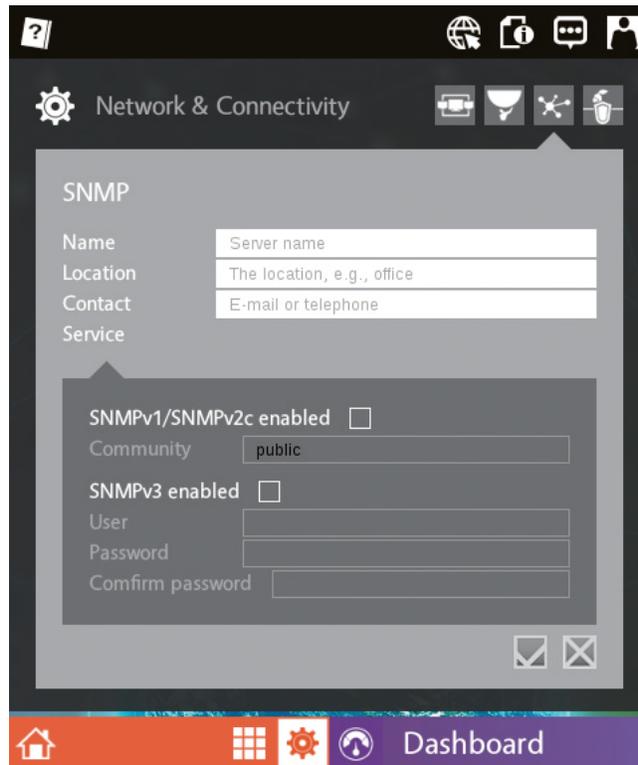
- **Enable:** Enables or disables the HTTP protocol.
- **Port Number (HTTP):** Configures the port number of HTTP.

Enable HTTPS Protocol

Users can enable or disable secure connection, configure port number and force HTTPS. The following options can be configured:

- **Enable:** Select the check box to enable HTTPS.
- **Port Number:** Configures the port number of HTTPS.
- **Force Secure Connection Only:** Enables or disables force secure connection option (HTTP will automatically redirect to HTTPS).

3.3.6 Configure SNMP



Set up SNMPv1/SNMPv2c and SNMPv3

SNMP is disabled by default. Go to **SNMP** to configure SNMP. The following options can be configured:

- **Name:** Enter a server name (optional but recommended).
- **Location:** Enter a description of the location (optional but recommended).
- **Contact:** Fill in contact information such as email or telephone number (optional but recommended).

For SNMPv1 and SNMPv2c

- **SNMPv1/SNMPv2c enabled:** Enables or disables SNMPv1/SNMPv2c.
- **Community:** After enabling SNMPv1/SNMPv2c, specify a community name here. Default is public.

For SNMPv3

- **SNMPv3 enabled:** Enables or disables SNMPv3.
- **User:** Enter the SNMPv3 username (required field).
- **Password and Confirm Password:** Enter the SNMPv3 password (required fields).

3.3.7 Install Security Certificates



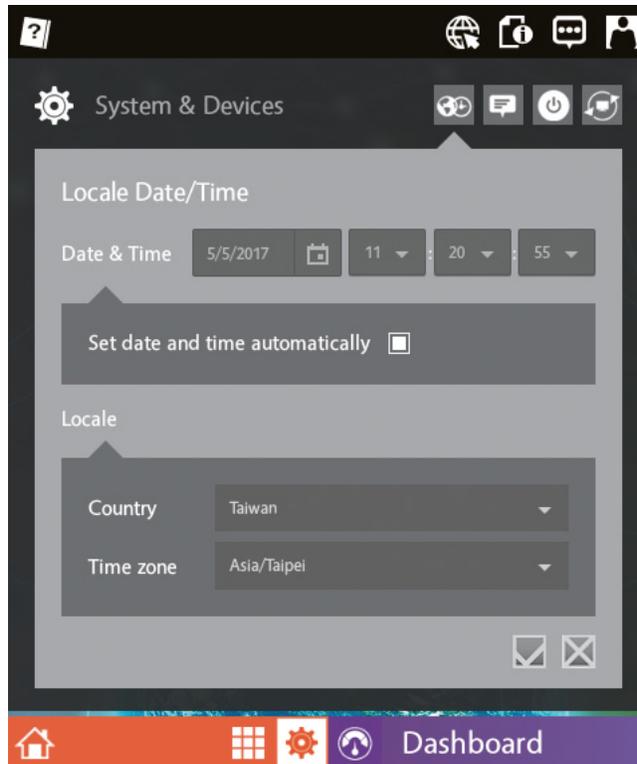
Upload a New Security Certificate

Go to **Security** to install a new certificate. The system comes with a default security certificate. Users can also upload a new security certificate and replace the default one. The following options are available:

- **Private key:** Allows users to upload private key.
- **Certificate:** Allows users to upload security certificate.
- **CA Bundle (Optional):** Allows users to upload CA bundle.

3.4 System & Devices

3.4.1 Locale Date/Time



Configure the Date & Time of the System

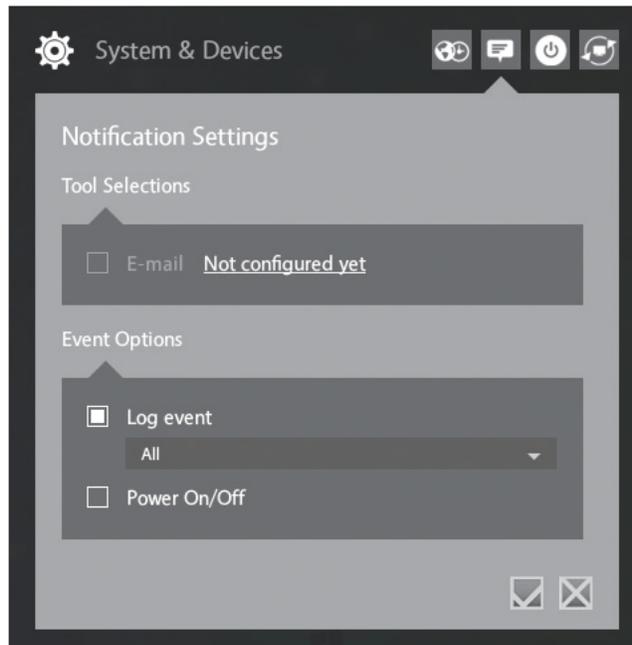
Go to **System & Devices > Locale Date/Time** to see the list of system date and time options. The following options are available:

- **Manual Date & Time:** Allows users to set the date and time manually.
- **Set date and time automatically:** Enables or disables automatic time synchronization with NTP server.

Locale Settings

- **Country:** Allows users to select the country region.
- **Time Zone:** Allows users to select the time zone.

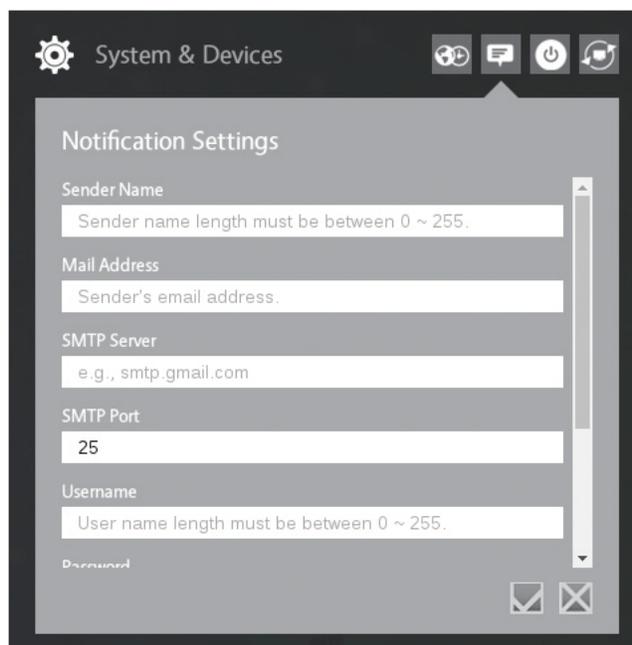
3.4.2 Email Notifications of Events



Set up Email Notifications of Events

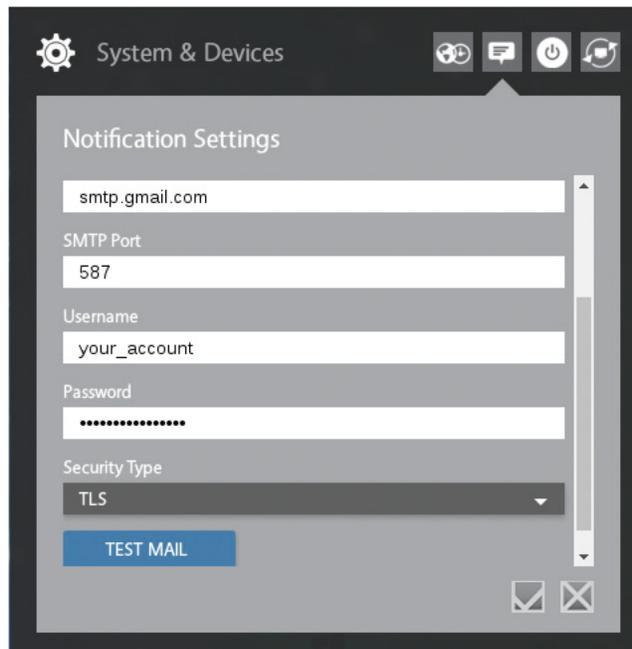
Go to **System & Devices** > **Notification Settings** and click the **Not configured yet** text to open the configuration page for setting up email.

The email configuration page is used to set up an external mail server, which requires an SMTP server.

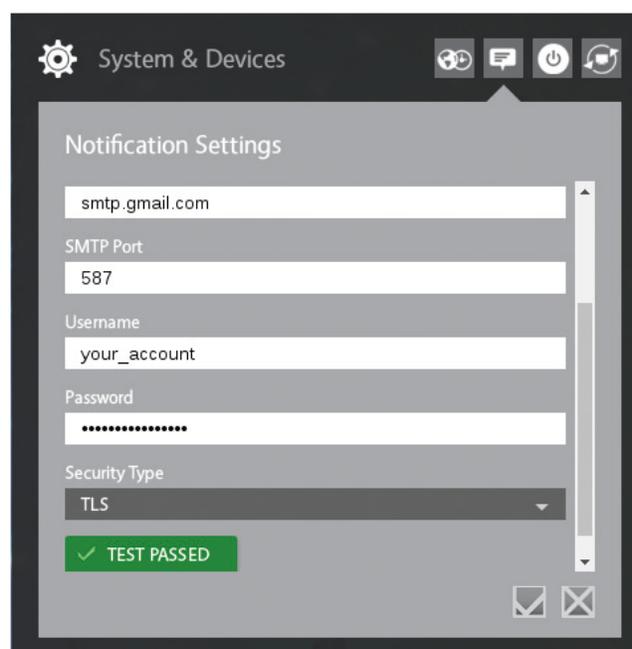


Using Gmail as an example, please refer to the information in <https://support.google.com/a/answer/176600?hl=en> to fill out the SMTP settings required for sending email notifications.

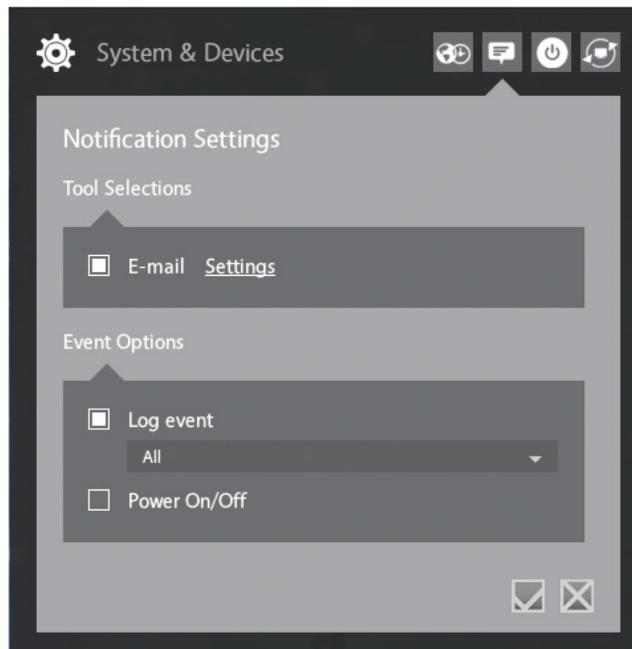
The image below uses TLS secure connection with the port number 587 as an example.



After completing the email setup, click **TEST MAIL** to test the email connection. If the email setup was successful, **✓ TEST PASSED** will be shown.



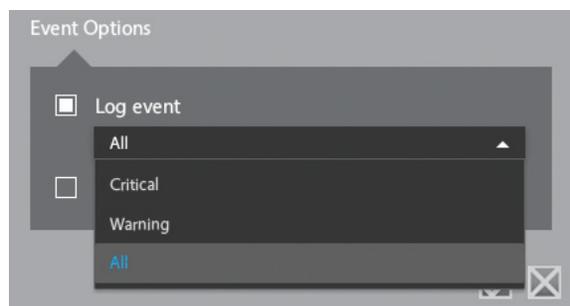
The **E-mail** check box can be selected after completing the email setup.



Specify the Type of Log Events for Notifications

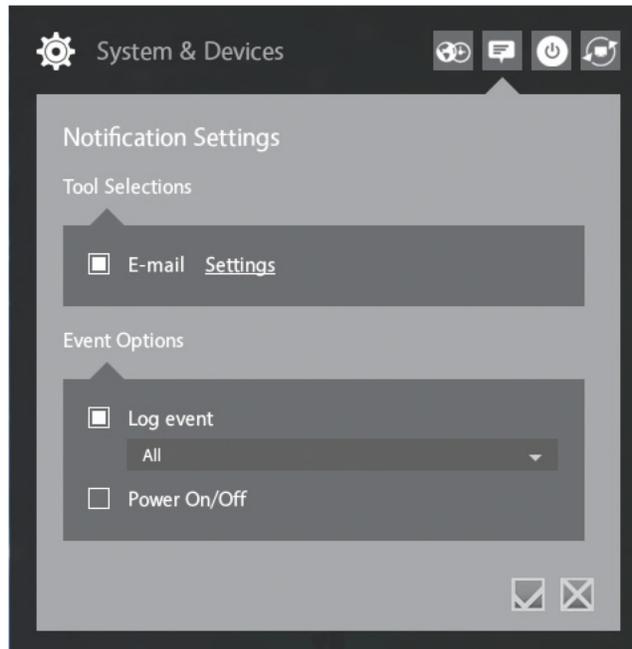
The type of log events that will be notified through email can be selected under the **Log event** drop-down list. The log events are classified as follows:

- **Critical:** The highest classification level of log information.
- **Warning:** Includes log information from **Critical**.
- **All:** Includes all log information of every event. (Default setting)



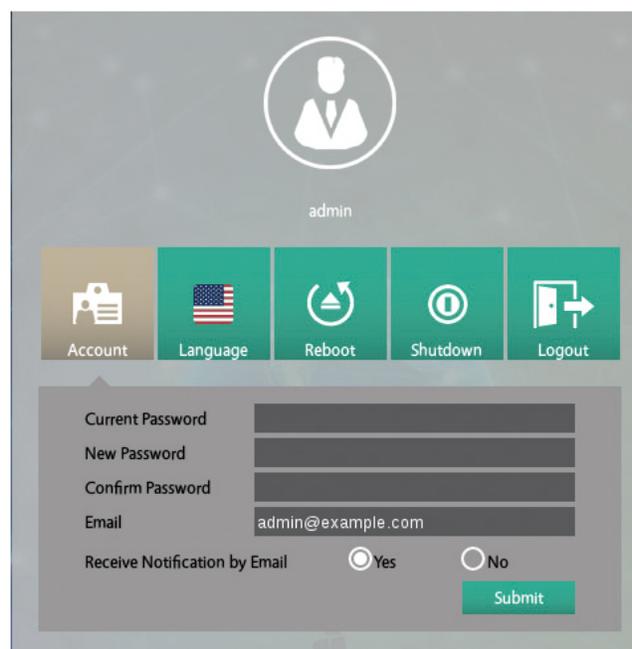
Include or Exclude Notification of System Power On/Off Event

Select the **Power On/Off** check box to allow the NAS system to send email notifications of system power on/off events.

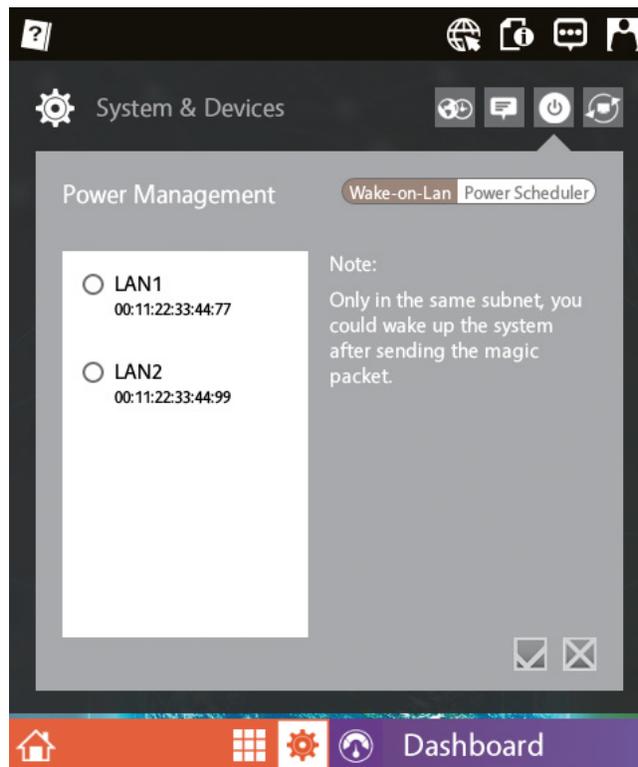


Enable the Notification by Email Option for the User Account

After completing the settings for notification, each user needs to go to **Profile > Account** to select whether or not they would like to receive notification by email.



3.4.3 Configure Wake-on-LAN



Enable Wake-on-LAN Function on the Network Interfaces

Go to the **Power Management > Wake-on-LAN** tab and select the LAN port to enable the Wake-on-LAN function. The enabled port can receive Wake-on-LAN magic packets from devices within the same network subnet.



Note: The Management (MGMT) port does not support Wake-on-LAN function.

3.4.4 Set Startup and Shutdown Time with Power Scheduler



Configure the Time and Day To Start and Shutdown the System

Go to the **Power Management > Power Scheduler** tab to enable scheduled system startup and shutdown. The power scheduler page provides a time slot for system startup and system shutdown. The following options can be configured:

- **Startup:** Configures the day and time to power on the system. The day can be set to daily or a particular day of the week.
- **Shutdown:** Configures the day and time to power off the system. The day can be set to daily or a particular day of the week.

3.4.5 Restore Default Settings



Use System Recovery to Restore Factory Default Settings

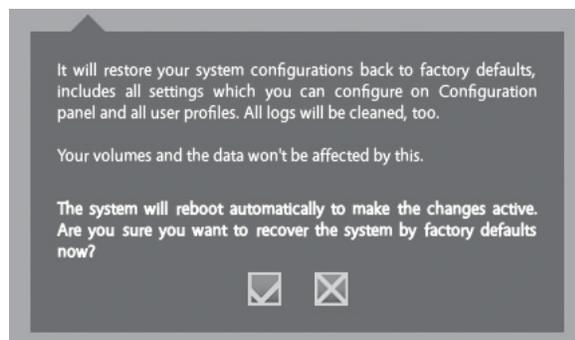
Go to **System Recovery** and select **Factory default**. The **Factory default** option will restore all the system settings to factory defaults. The system will reboot after restoring to default settings.



Note: Volumes created and data stored in the hard drives will not be erased.

System Recovery Confirmation Message

A warning message, notifying users that all settings will be reverted to factory defaults, will be displayed before the factory restore takes place. Please be certain before proceeding.



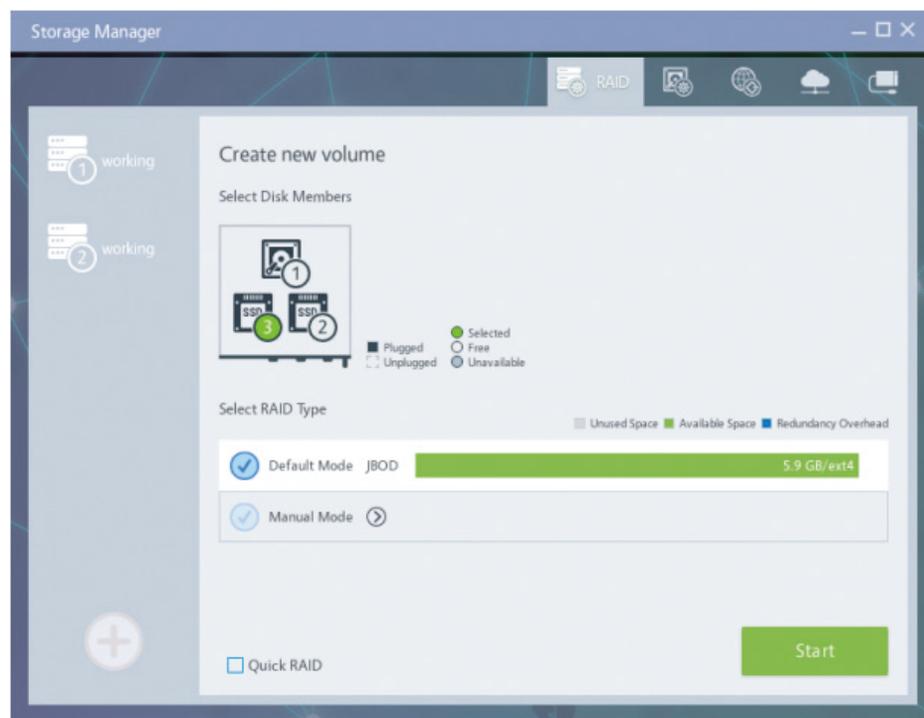
CHAPTER 4: MANAGE NAS WITH BUILT-IN APPLICATIONS

4.1 Using Storage Manager for Disk Management

Storage Manager is a built-in disk management application. With the application, users can manage disk drives as well as create and manage RAID volumes. The following information in this section provides detailed explanation of each menu page in the application.

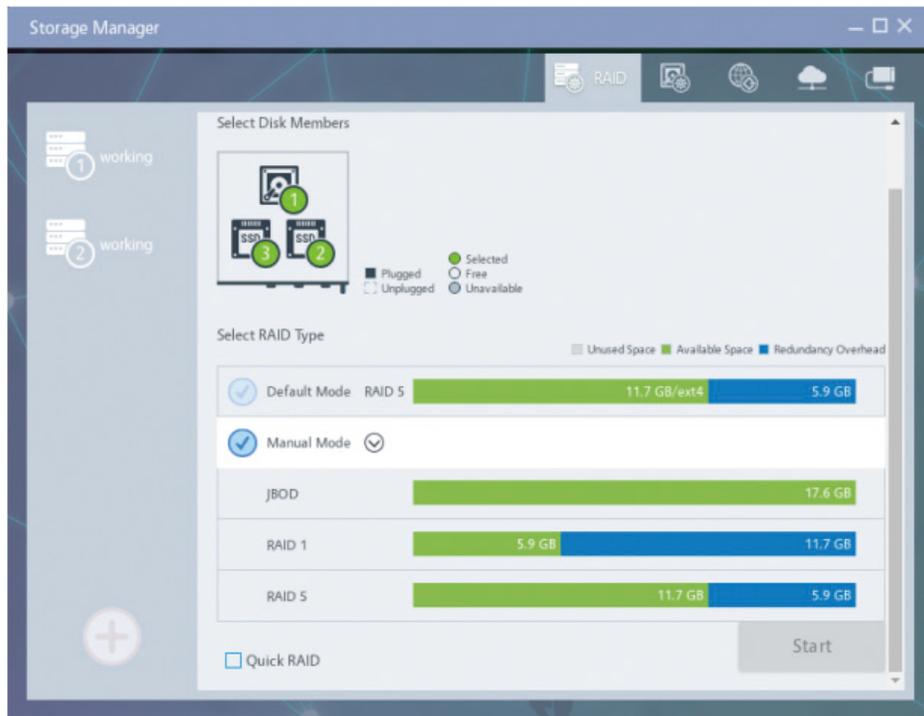
4.1.1 How to Create RAID Volumes

Go to the **RAID** information page and select any unused disk drives for creating RAID volume.



- **Select Disk Members:** The disk drives installed on the NAS system will be graphically represented here. Users can select which disk drives will be members for configuration.
- **Select RAID Type:** Users can choose the type of RAID. There are two modes that can be selected: **Default** and **Manual**.
 - **Default Mode:** The system will automatically determine the optimal setting based on the number of disks selected by the user.

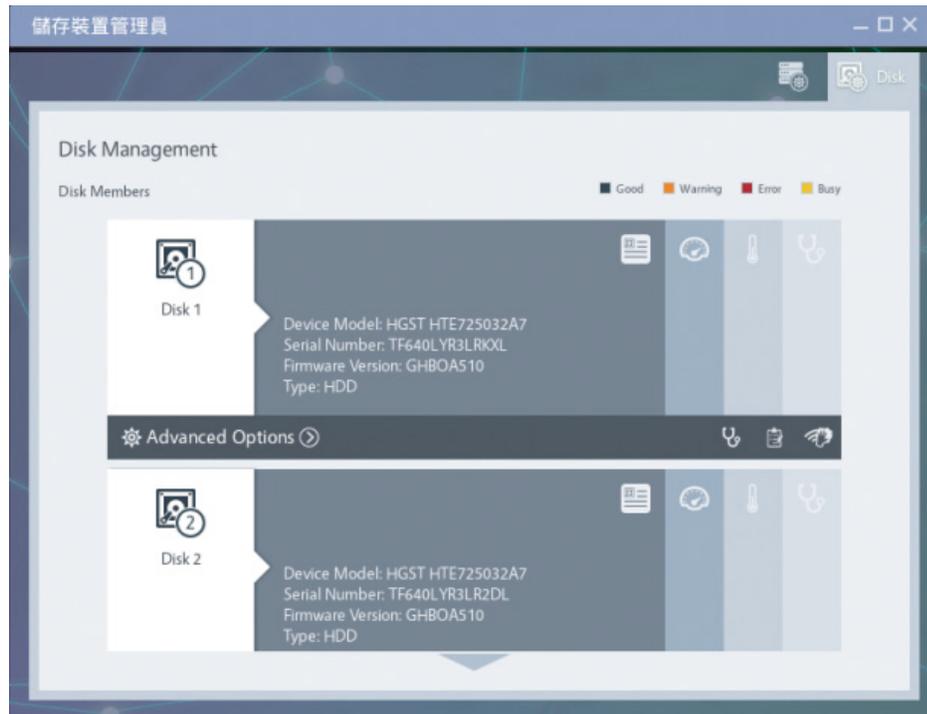
- **Manual Mode:** Users can manually configure their preferred RAID level and file system setup.



- **Quick RAID:** Users can select this option to increase the RAID creation speed. After completing the settings shown above, click **Start** to begin the RAID creation.

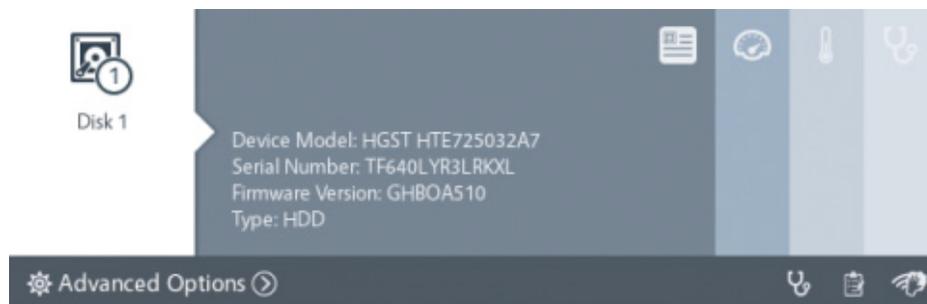
4.1.2 View and Manage Disk Drives

The **Disk Information** page provides configuration options and information of all the disk drives installed on the NAS system. In addition, each disk drive displayed here has various menu tabs for displaying basic information, performing quick diagnostics and configuring advanced settings.



Profile Tab

Displays the device model, serial number, firmware version and type of disk drive.



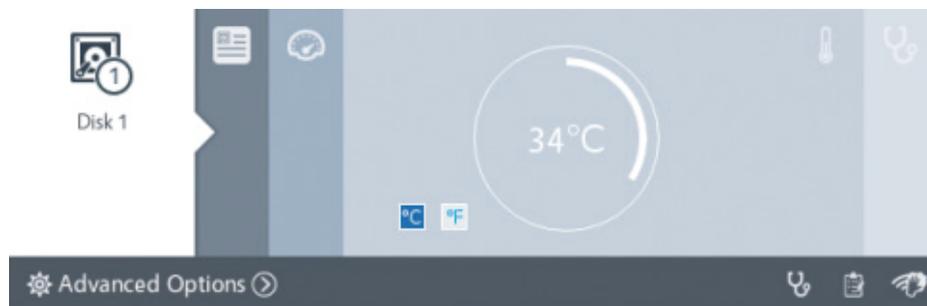
Measurement

Displays the capacity, sector size, rotation speed and SATA version of the disk drive.



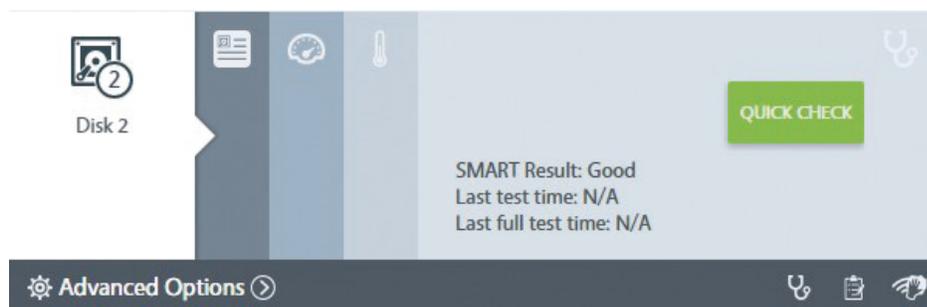
Temperature

Displays the current temperature of the disk drive. Celsius or Fahrenheit display format can be selected.



Quick Test

Performs a quick diagnostic test on the disk and displays the result.

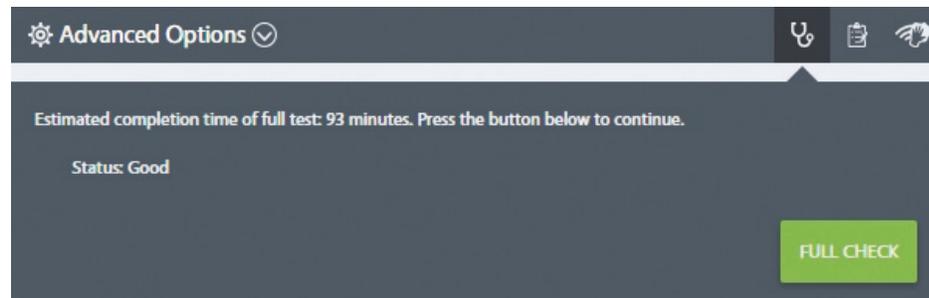


4.1.3 Advanced Disk Drive Settings

Advanced disk drive settings can be accessed in the **Advanced Option** menu. The following advanced settings are available:

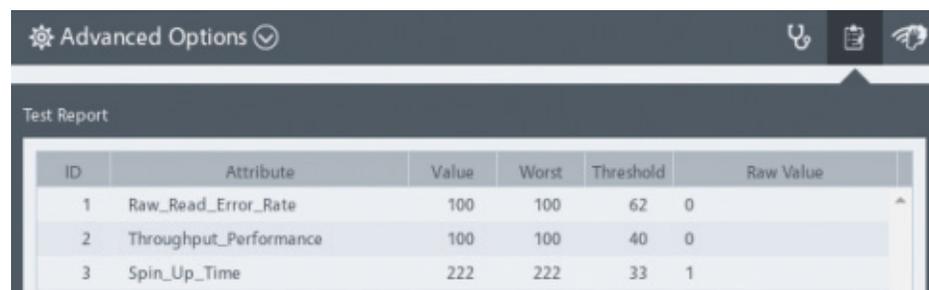
Full Test

Performs a full diagnostic test on the disk drive and displays the result. This full diagnostic test can check for bad sectors or abnormal errors.



Test Report

Detailed test report of the full diagnostic test result.



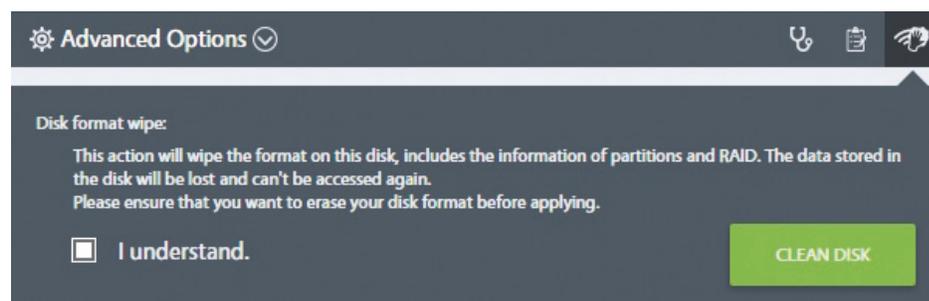
Advanced Options

Test Report

ID	Attribute	Value	Worst	Threshold	Raw Value
1	Raw_Read_Error_Rate	100	100	62	0
2	Throughput_Performance	100	100	40	0
3	Spin_Up_Time	222	222	33	1

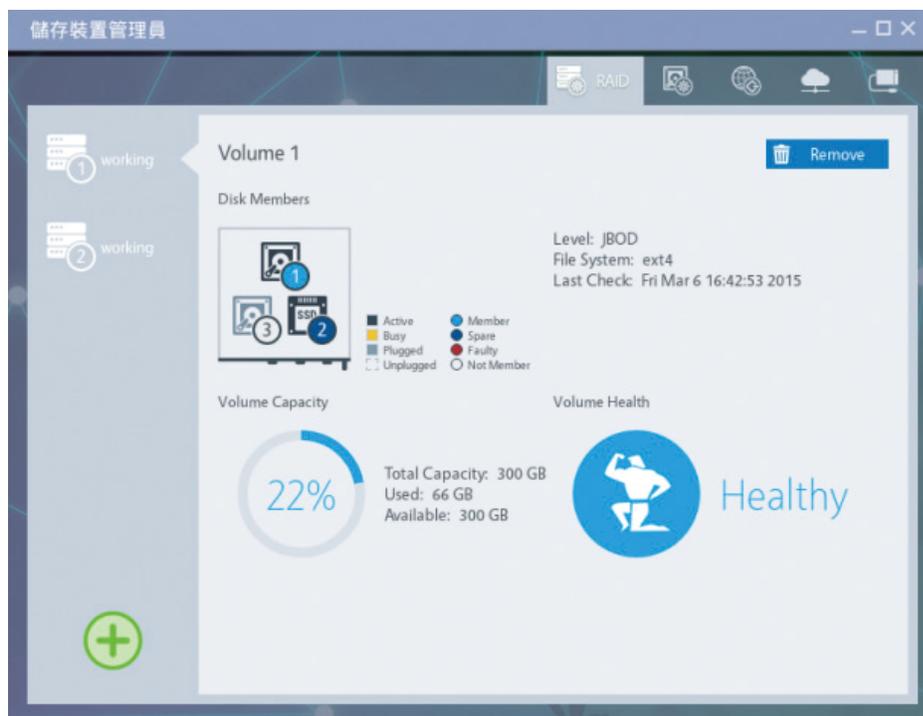
Disk Wipe

Formats the disk drive. All data contents will be erased. Please proceed with caution.



4.1.4 View RAID Information

After creating the RAID volume, the **RAID** information page will show RAID information such as volume capacity and volume health.



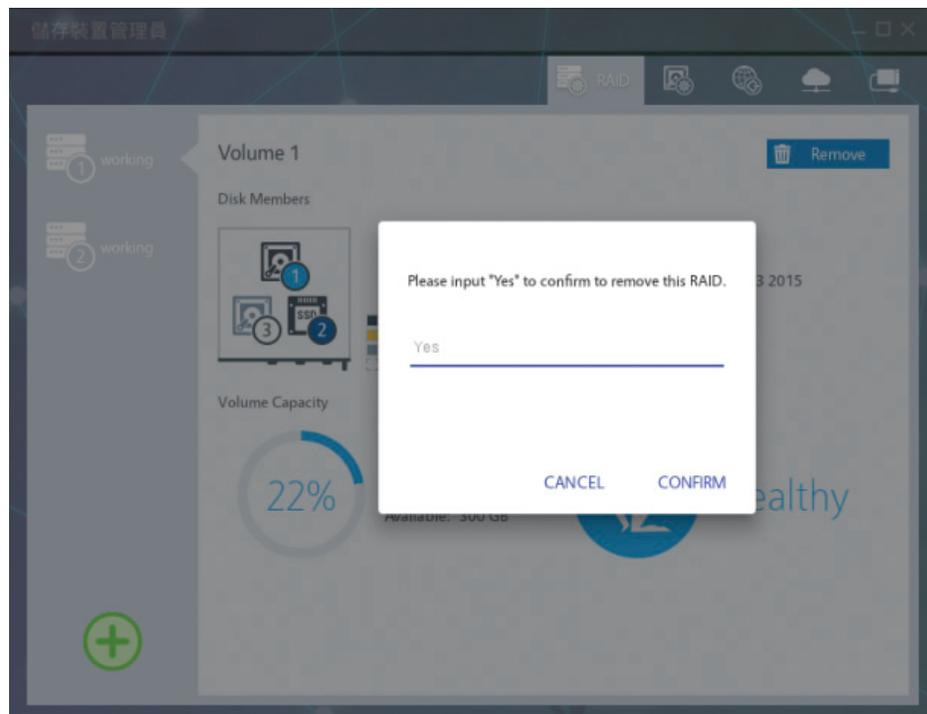
In addition, this page displays all the RAID lists currently available and their corresponding information, which includes the following:

- **Volume Name:** Name of the RAID volume.
- **Disk Members:** A graphical image displaying which disk drives are used for the RAID volume.
- **Level:** The type of configuration currently used for the RAID volume, such as JBOD, RAID1 and RAID5.
- **File System:** The file system of the RAID volume supports ext4.
- **Last Check:** The last time that the file system of RAID volume was checked.
- **Volume Capacity:** The total capacity of the RAID volume and the current used space.
- **Volume Health:** The current health status of the RAID volume. The following states are available:
 - **Healthy:** The RAID volume is in healthy condition. No abnormal errors are detected.

- **Degraded:** The RAID volume is degraded. This indicates that there may be an abnormal condition or a failed disk drive. It is recommended that the abnormal disk drive should be replaced and the RAID volume should be rebuilt to avoid any potential data loss.
- **Recovering:** The RAID volume is currently being repaired. Please wait for the repair process to complete before proceeding with other operations.
- **Damaged:** The RAID volume is damaged and can no longer read or write to the volume. Please contact your administrator for assistance.

4.1.5 How to Remove a RAID Volume

Click the **Remove** button on the upper-right corner of the window. A pop-up confirmation window will appear asking the user to enter **Yes** (case sensitive) to confirm removal. After entering **Yes**, click the **Confirm** button to remove the RAID volume.



4.2 Using the Data Vault File Manager App

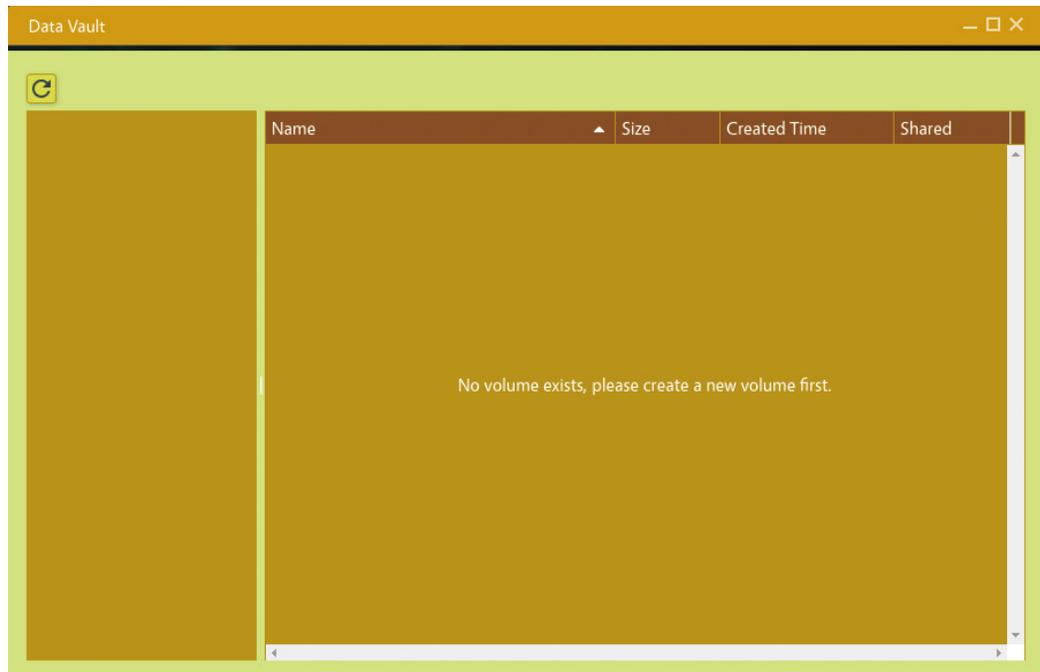
Data Vault is a built-in file manager application that allows users to manage files on the NAS directly in the NAS web management interface.



Item	Description
Refresh	Refreshes the page to show the most recent content.
Volume List	Displays the volumes on the NAS in hierarchical tree structure.
Content Pane	The following information may be displayed, depending on the user's actions: <ul style="list-style-type: none"> ▪ The content of the current selected folder. ▪ The menu screen for creating new folders. ▪ The menu screen for editing folders. ▪ The preview screen for photos and videos.

4.2.1 View Volume List

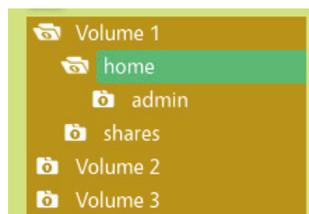
If no volumes exist in the NAS, the content pane will display the following notification message: No volume exists, please create a new volume first.



The content pane displays files within a selected folder and provides file viewing. However, only certain file formats are supported for file viewing.

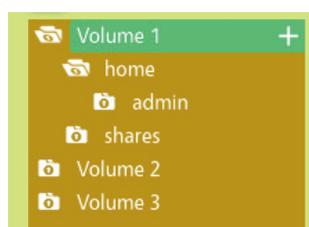
Expand & Collapse Folder

Click the folder icon to expand or collapse the folder.



Add Folder in Root Directory

Moving the mouse over the volume name will show the add "+" option. (The root Volume folder cannot be removed.)



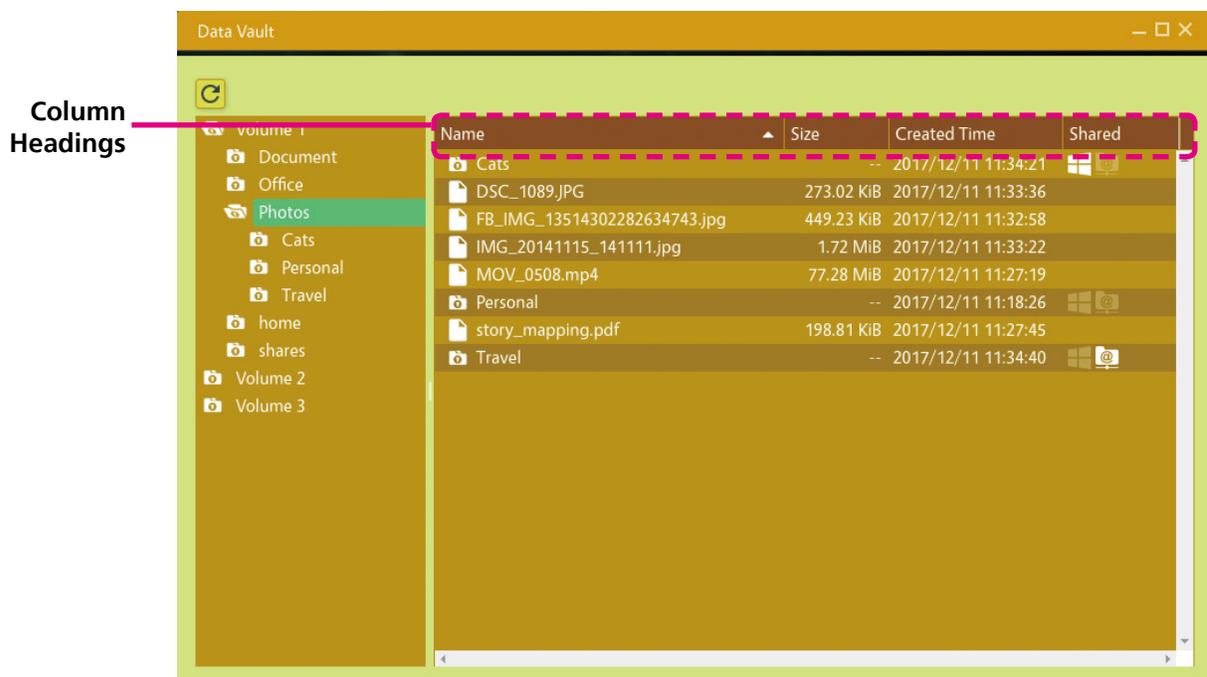
Add & Remove Subfolder Options

Moving the mouse over the subfolder name will show the add “+” and remove “-” options.



4.2.2 Edit/Create/Delete Files & Folders in the Content Pane

The content pane will display all the files of the current selected folder (does not include hidden files).



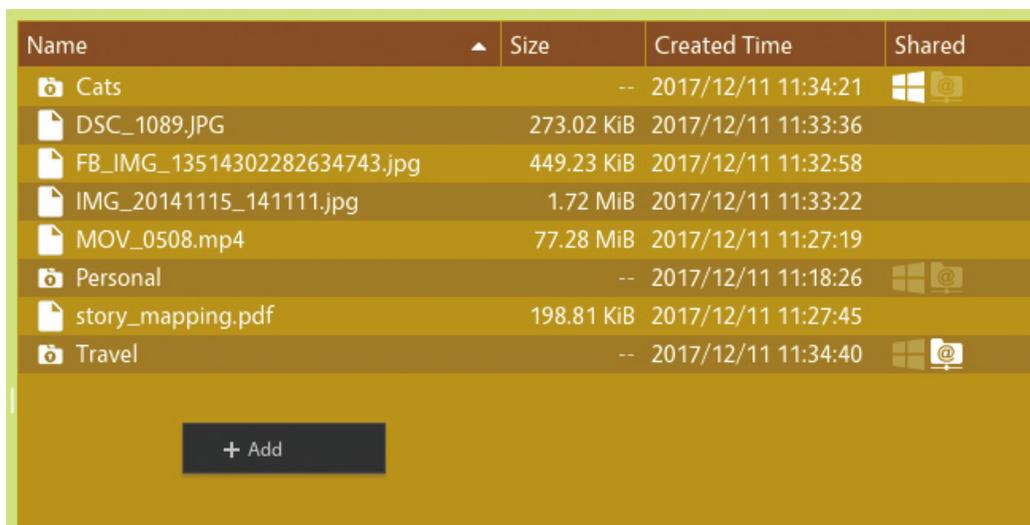
Column Headings

The column headings include the following: Name, Size, Created Time and Shared.

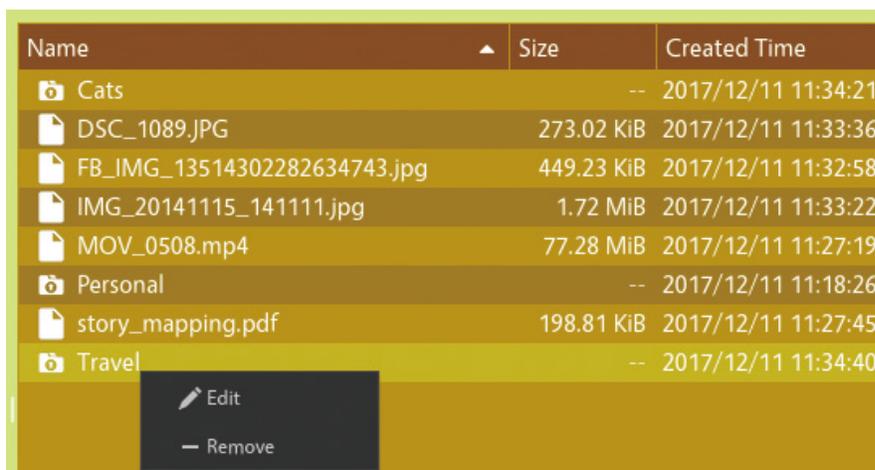
Click the heading to sort the contents based on that heading. Please note that the **Size** and **Shared** column are not available for files and folders respectively.

The **Shared** column will display a Windows icon or FTP icon to show whether the folder has enabled or disabled Windows or FTP file sharing. Grayed out icons show that Windows and FTP file sharing are disabled for that folder.

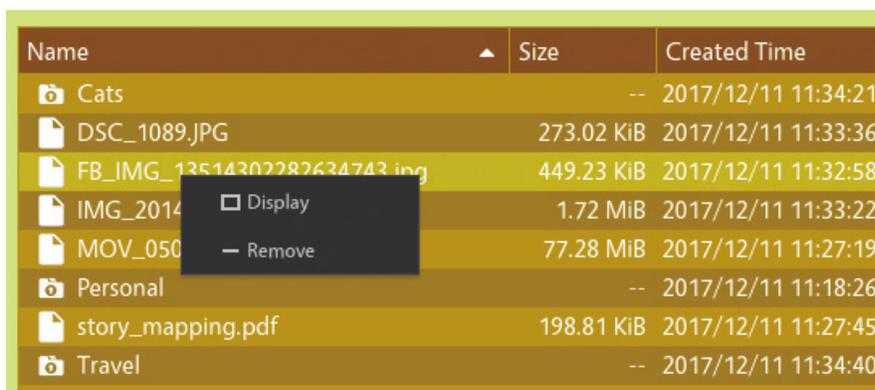
Right-click on the empty area of the content pane to bring up the **Add** new folder option.



Right-click on a folder to bring up the **Edit** and **Remove** folder options.

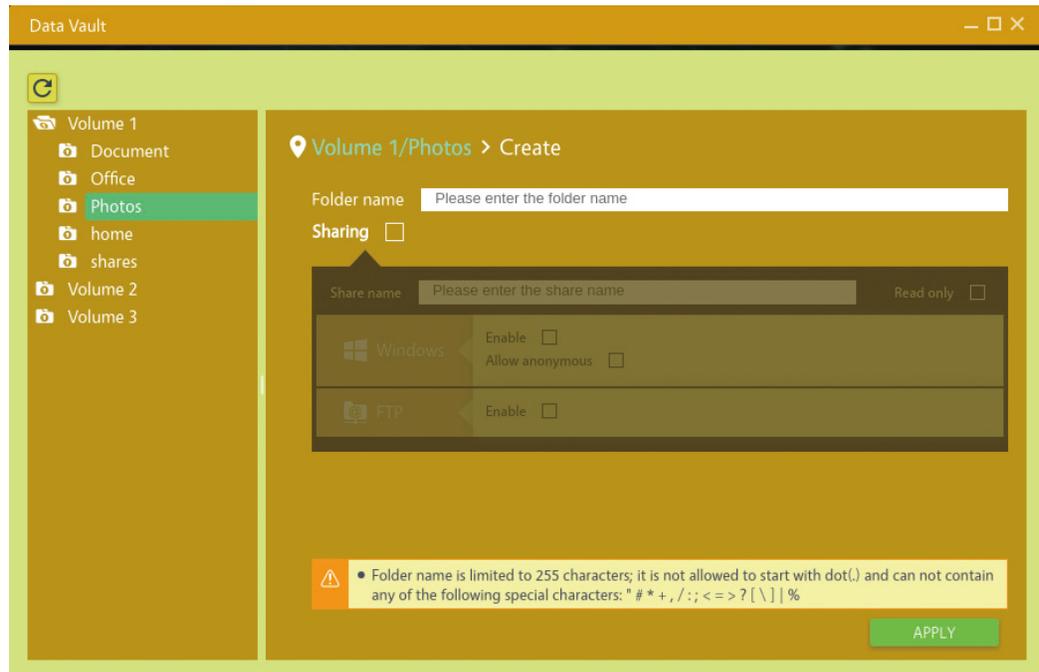


Right-click on a file to bring up the **Display** and **Remove** file options.
(Some file formats may not be supported for viewing.)

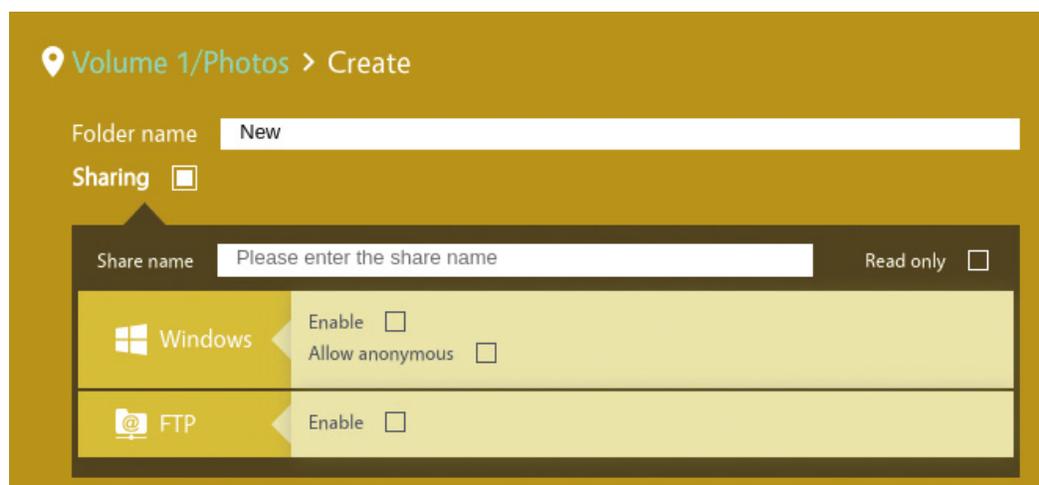


4.2.3 Creating a New Folder

Enter a folder name for the new folder (required field). Please note that the folder name is limited to 255 characters; it is not allowed to start with a dot (.) and cannot contain any of the following special characters: " # * + , / : ; < = > ? [\] | %.



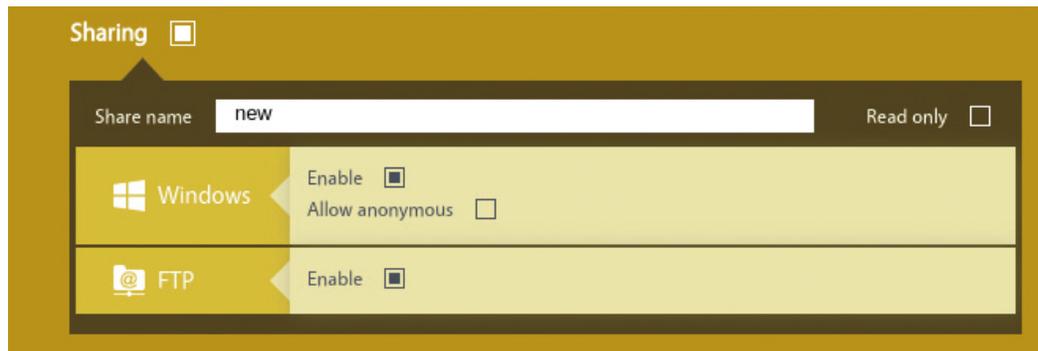
Select the **Sharing** check box to enable the file sharing options for Windows and FTP.



When **Sharing** is selected, enter a share name for the shared folder (required field when **Sharing** is enabled). Share name is case insensitive and limited to 80 characters; it is not allowed to start with a dot (.) and cannot contain any of the following special characters: " # * + , / : ; < = > ? [\] | %.

Select the **Read only** check box to only allow read access (applies to both Windows and FTP file sharing).

The Windows and FTP file sharing options can be separately or simultaneously enabled by selecting their respective check boxes.



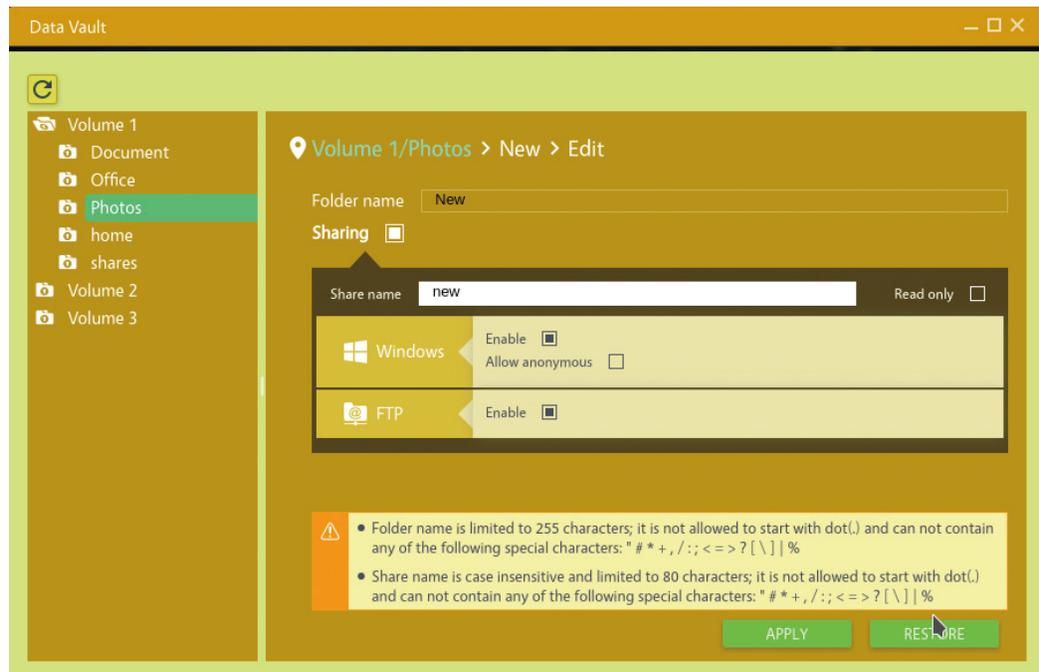
For Windows file sharing, the **Allow anonymous** check box can be selected to allow users to access public shared folders without the need to provide login username and password. Clearing this check box will require users to input login username and password when accessing public shared folders.

Click the path name in green to return to the content pane of the folder one level up.



4.2.4 Editing Folders

The file sharing options and **Share name** of a folder can be edited in the edit folder page. However, the folder name cannot be changed. For details on how to set up file sharing and share name, please refer to section 4.2.3.



Click **RESTORE** to reset the folder settings back to default.

4.2.5 Deleting Files and Folders

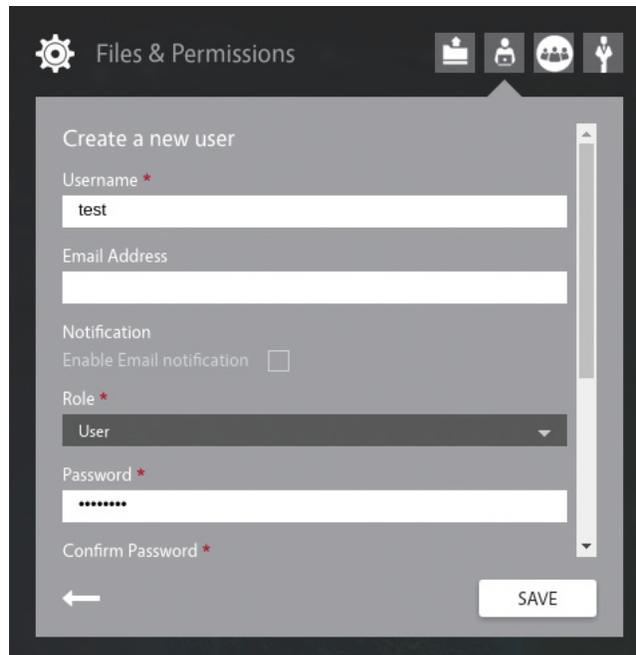
To delete a file or folder, right-click the file or folder in the Volume List and select **Remove**.

Name	Size	Created Time
Cats	--	2017/12/11 11:34:21
DSC_1089.JPG	273.02 KiB	2017/12/11 11:33:36
FB_IMG_13514302282634743.jpg	449.23 KiB	2017/12/11 11:32:58
IMG_20141115_141111.jpg	1.72 MiB	2017/12/11 11:33:22
MOV_0508.mp4	77.28 MiB	2017/12/11 11:27:19
New	--	2017/12/11 11:48:45
Personal	--	2017/12/11 11:18:26
story_mapping.pdf	198.81 KiB	2017/12/11 11:27:45
Travel	--	2017/12/11 11:34:40

Edit
Remove

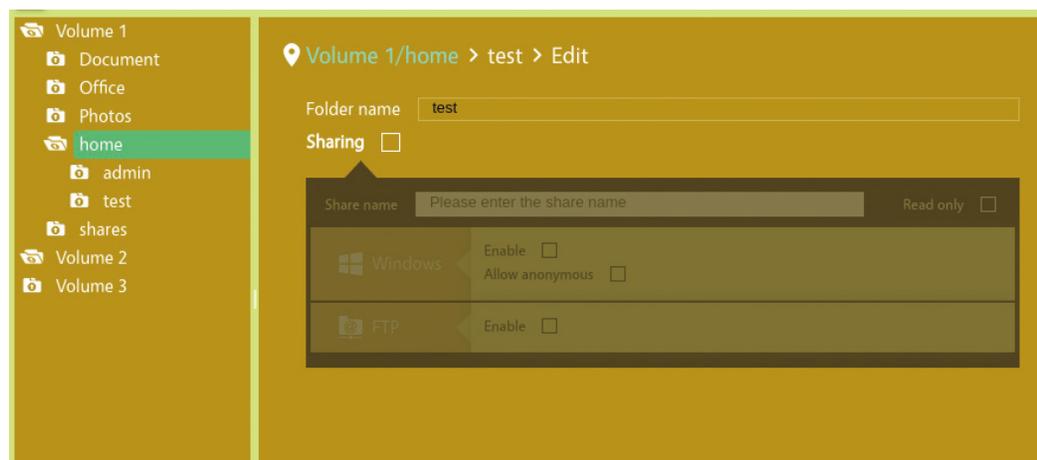
4.2.6 Access Rights of Users' Home Directory

Each user account created by the administrator will also create a folder with the same name as the username in the *<primary volume>/home* directory by default. In the example below, the user **"test"** has a folder named test with the following pathname: *Volume 1/home/test*. (Refer to section 3.2.3 for more details on user account setup.)



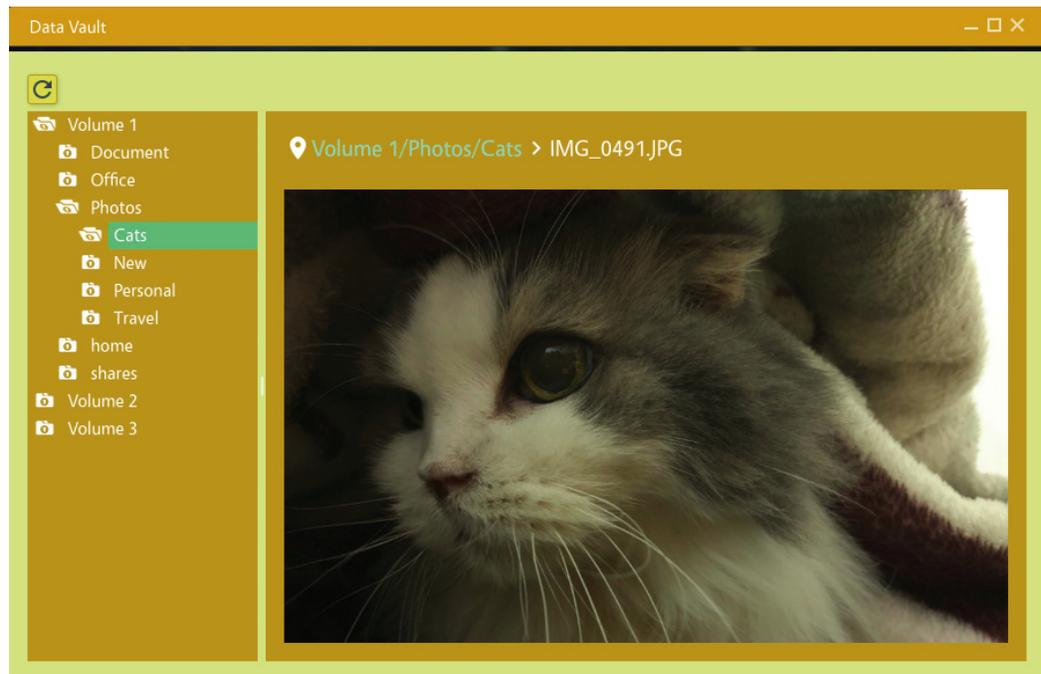
This is a special folder in which file sharing is enabled for its associated user, the owner of the folder. Users can access their home directory through FTP or Samba, no additional file sharing setup is needed.

If the user wishes to share the folder to other users, please refer to section 4.2.4 for instructions.



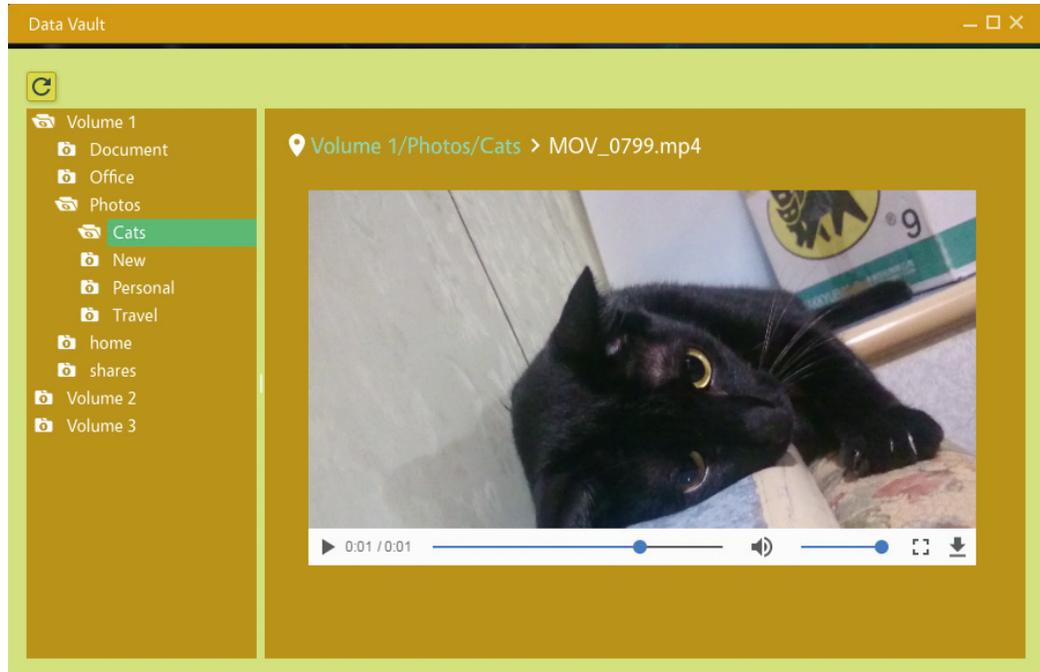
4.2.7 Previewing Images

Right-click on an image file in the Volume List and select **Display** to preview the image. The image formats currently supported are BMP, JFIF, JPEG, GIF, PNG and SVG.

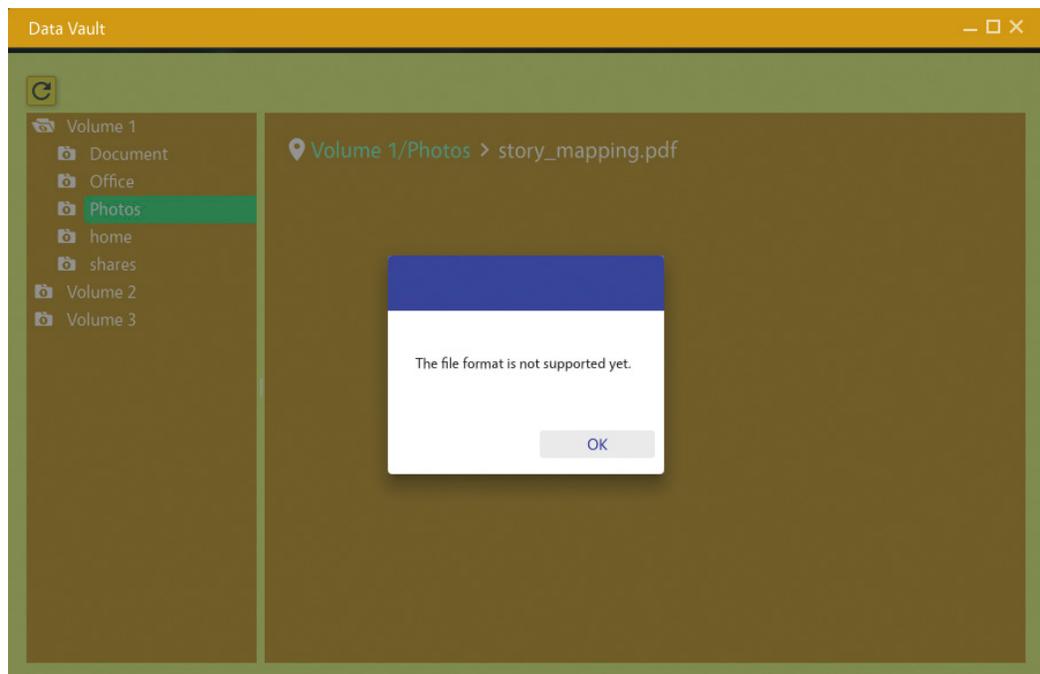


4.2.8 Previewing Videos

Right-click on a video file in the Volume List and select **Display** to preview the video. The video format currently supported is MPEG4.



If the format of the image or video file selected is not supported, the following message will be displayed: The file format is not supported yet.





4.2.9 Limitations for Folder Name and Share Name



Note: When naming the folder name and share name, please take note of the following limitations:

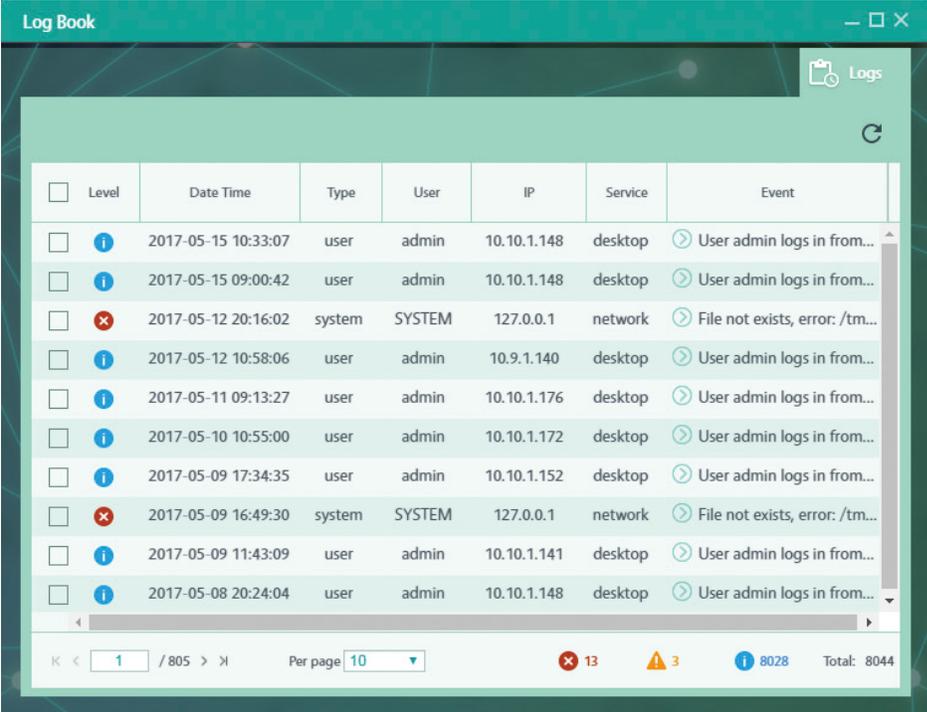
- Folders within the same directory level cannot share the same folder name (lowercase and uppercase differences are allowed). However, subfolders located in different directory levels can share the same folder name.
- Two or more folders cannot have the same share name, even if they are located in different directory levels (lowercase and uppercase differences are allowed).

4.3 Using Log Book to View Logged Events

The Log Book application is used to examine records in the log list of the NAS system.

4.3.1 How to View the Log Record

Open the the Log Book app. The Logs page of the app allows users to browse through all the log records. The toolbar on top of the Logs page shows the available functions that can be executed. Pressing the Refresh button  will refresh the log information.



The screenshot shows the Log Book application window with a table of log records. The table has the following columns: Level, Date Time, Type, User, IP, Service, and Event. The records are sorted by date and time, showing various user and system events. A toolbar at the top right includes a Refresh button. At the bottom, there is a pagination bar showing 1 / 805 records, a 'Per page' dropdown set to 10, and summary statistics: 13 errors, 3 warnings, and 8028 information messages, totaling 8044 records.

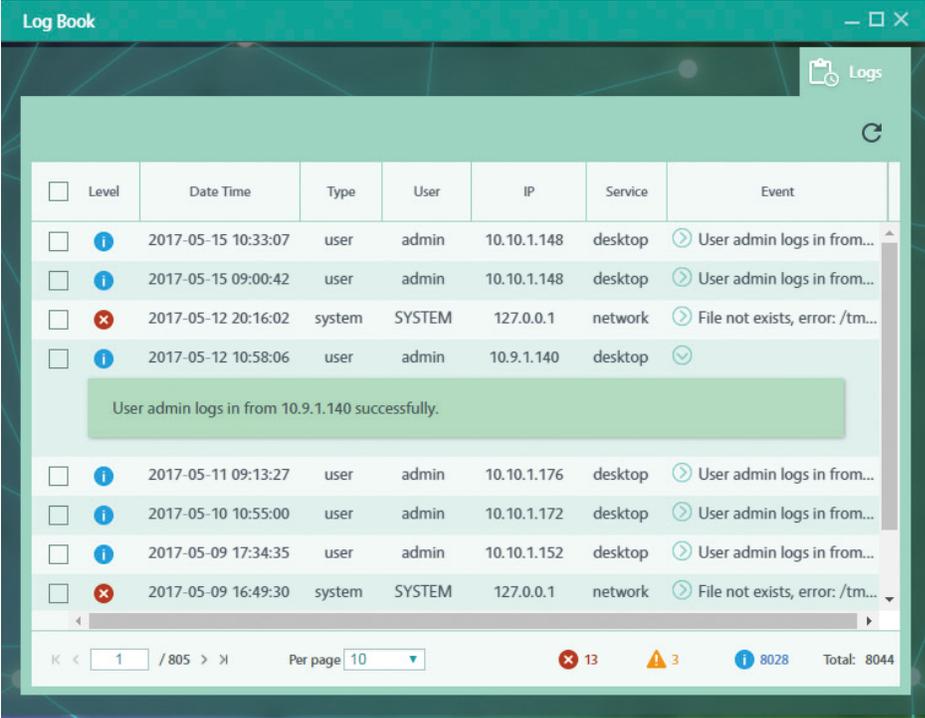
<input type="checkbox"/>	Level	Date Time	Type	User	IP	Service	Event
<input type="checkbox"/>		2017-05-15 10:33:07	user	admin	10.10.1.148	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-15 09:00:42	user	admin	10.10.1.148	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-12 20:16:02	system	SYSTEM	127.0.0.1	network	 File not exists, error: /tm...
<input type="checkbox"/>		2017-05-12 10:58:06	user	admin	10.9.1.140	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-11 09:13:27	user	admin	10.10.1.176	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-10 10:55:00	user	admin	10.10.1.172	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-09 17:34:35	user	admin	10.10.1.152	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-09 16:49:30	system	SYSTEM	127.0.0.1	network	 File not exists, error: /tm...
<input type="checkbox"/>		2017-05-09 11:43:09	user	admin	10.10.1.141	desktop	 User admin logs in from...
<input type="checkbox"/>		2017-05-08 20:24:04	user	admin	10.10.1.148	desktop	 User admin logs in from...

Column Headings

The log table provides the following column headings:

- **Level:** Severity level of the event. Classified into the following 3 categories:
 -  Information,  Warning and  Error.
- **Date Time:** The date and time of the log event.
- **Type:** The classification of the event. The classifications include user type and system type.
 - **User Type:** Log event triggered by users, includes both admin and guest users.
 - **System Type:** Log event triggered by the NAS system.

- **User:** Displays the type of user, which can include admin or guest users. If the log event is triggered by the system, the label “**system**” will be shown here.
- **IP:** If the log event is user type, this column will display the source IP address of the user. If the log event is system type, this column will display the IP address 127.0.0.1 (indicating that it originated from the NAS system itself).
- **Service:** Indicates the type of service this log event originated from. (Desktop, Network, Samba, etc.)
- **Event:** Detailed description of the log event.
 - Click the arrow icon to expand and view the complete description, or to collapse and hide the information.



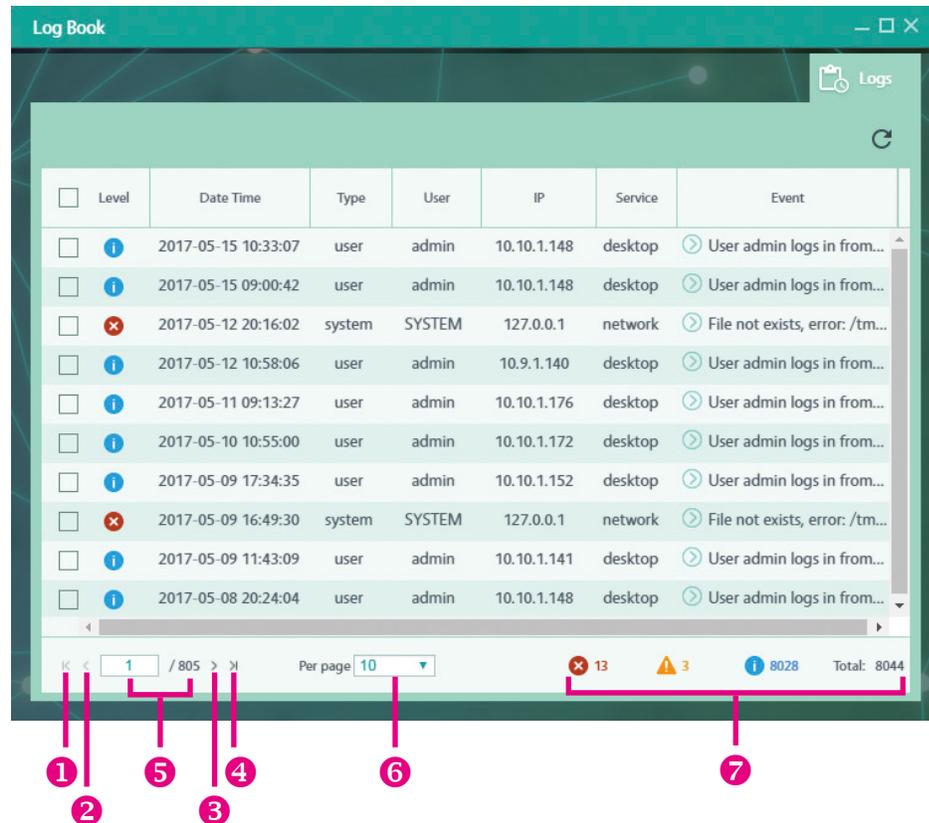
The screenshot shows the 'Log Book' application window. It features a table with columns for Level, Date Time, Type, User, IP, Service, and Event. The table contains several rows of log entries, including user logins and system errors. A green notification box is visible, stating 'User admin logs in from 10.9.1.140 successfully.' The interface also includes a search bar, a refresh button, and a footer with pagination and summary statistics.

Level	Date Time	Type	User	IP	Service	Event
<input type="checkbox"/>	2017-05-15 10:33:07	user	admin	10.10.1.148	desktop	User admin logs in from...
<input type="checkbox"/>	2017-05-15 09:00:42	user	admin	10.10.1.148	desktop	User admin logs in from...
<input type="checkbox"/>	2017-05-12 20:16:02	system	SYSTEM	127.0.0.1	network	File not exists, error: /tm...
<input type="checkbox"/>	2017-05-12 10:58:06	user	admin	10.9.1.140	desktop	User admin logs in from 10.9.1.140 successfully.
<input type="checkbox"/>	2017-05-11 09:13:27	user	admin	10.10.1.176	desktop	User admin logs in from...
<input type="checkbox"/>	2017-05-10 10:55:00	user	admin	10.10.1.172	desktop	User admin logs in from...
<input type="checkbox"/>	2017-05-09 17:34:35	user	admin	10.10.1.152	desktop	User admin logs in from...
<input type="checkbox"/>	2017-05-09 16:49:30	system	SYSTEM	127.0.0.1	network	File not exists, error: /tm...

Summary: 13 errors, 3 warnings, 8028 info, Total: 8044

4.3.2 Using the Toolbar and Status Bar

The toolbar on the lower-left corner of the Logs page lists the display options for browsing the log.



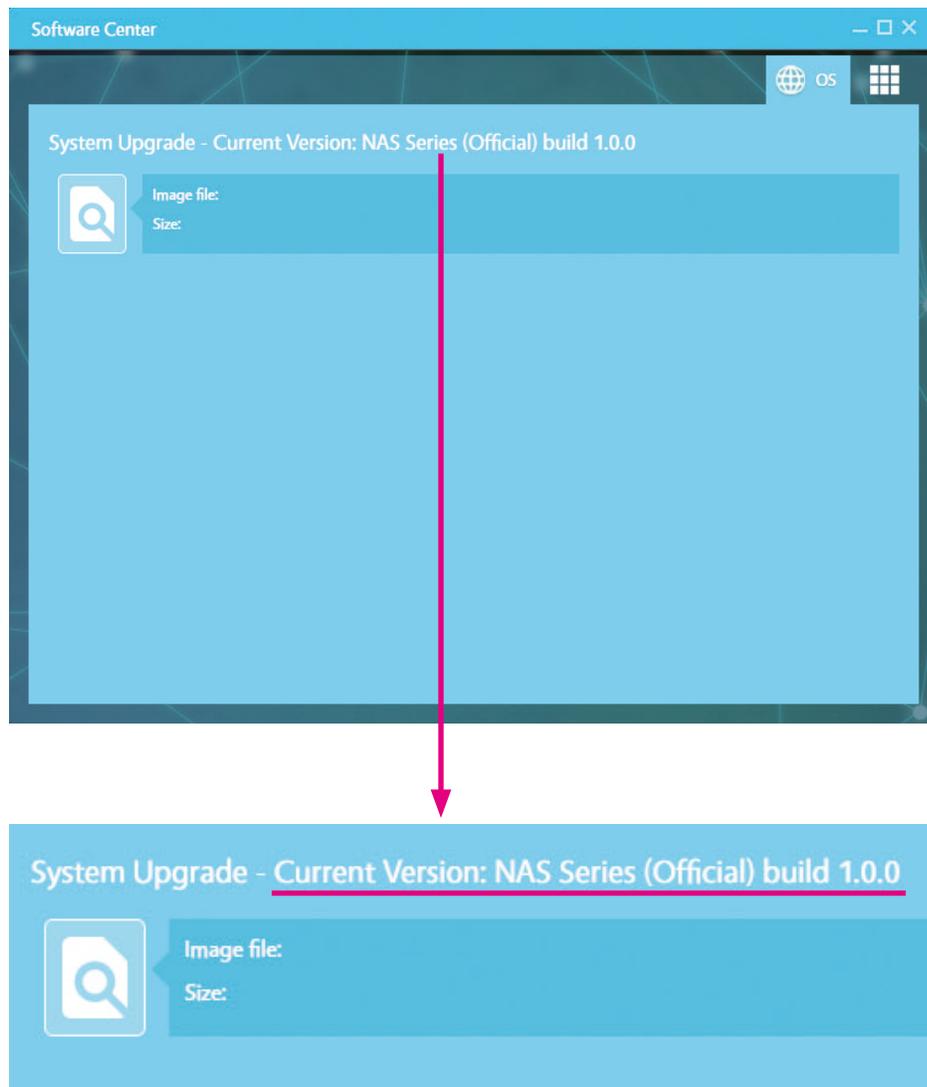
Item	Description
1	Go to the first page.
2	Go to the previous page.
3	Go to the next page.
4	Go to the last page.
5	Displays the current page and total number of pages. Enter the page number in the current page field to navigate to that page.
6	Drop-down list to select how many log entries will be shown in one page. 10 or 20 entries can be selected.
7	The status bar on the lower-right corner of the Logs page lists the sum of Error, Warning and Information logs, as well as the total number of logs.

4.4 Using Software Center to Manage System Firmware and Software

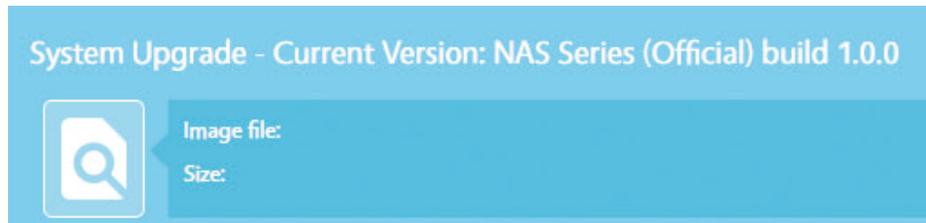
The Software Center application allows users to update firmware for the Atlas OS and install additional add-on packages. Depending on the type of environment where the NAS system is implemented, add-on packages can be installed through Software Center to enable additional functions.

4.4.1 How to Update the Atlas Firmware

1. Before updating the firmware, go to the **OS** page and check the current firmware installed on the NAS system. The version is displayed as the title text as shown below:



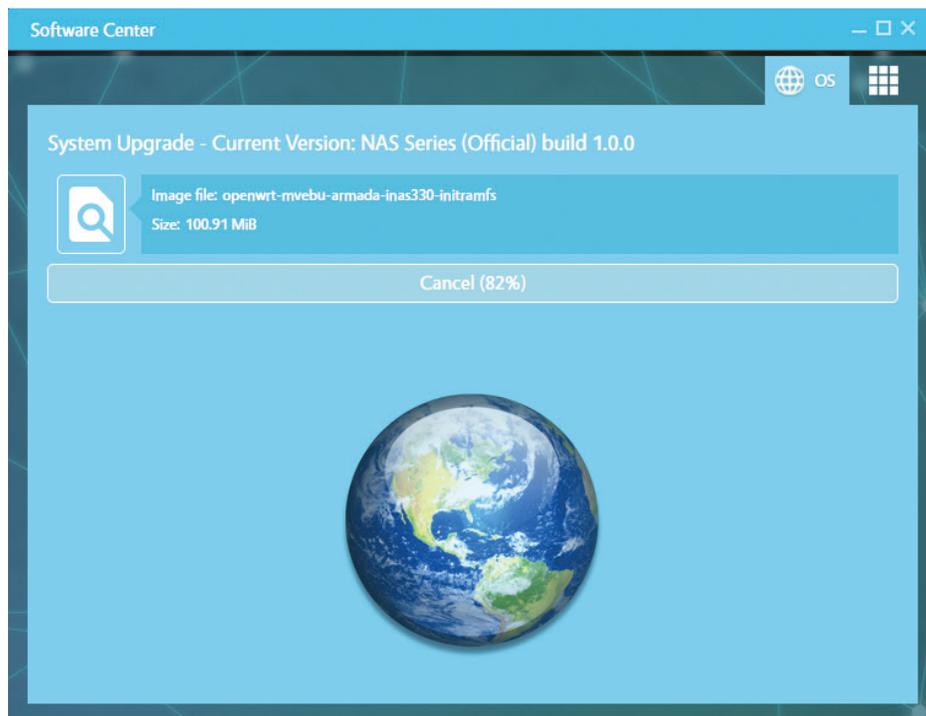
- Click the  button on the left and select the Atlas OS firmware file to be uploaded to the NAS system.



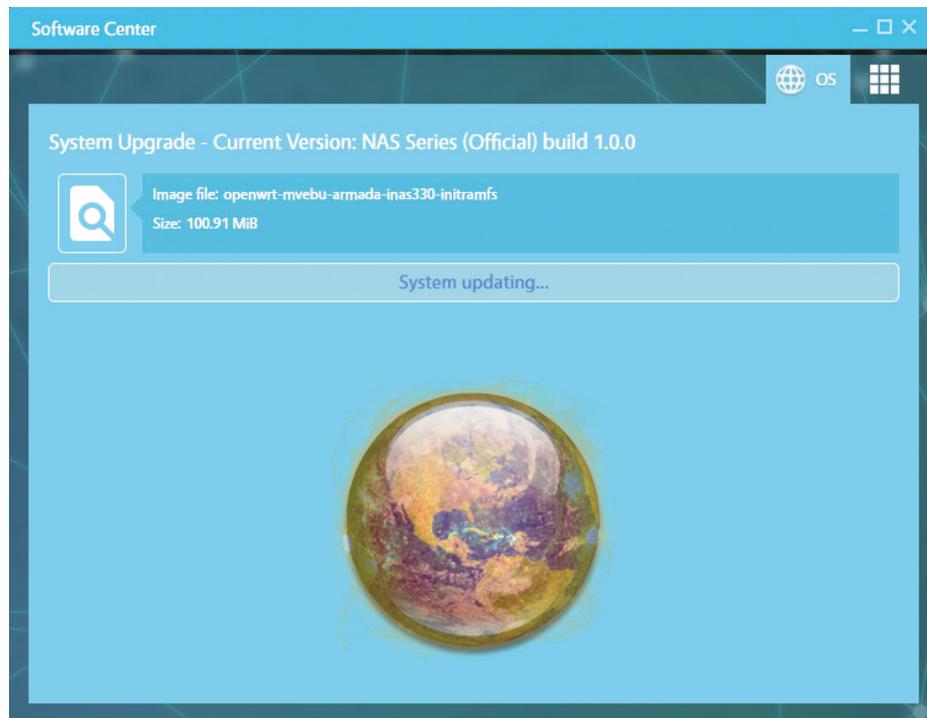
- After the firmware file has been selected, the filename and file size will be displayed in the text box on the right.



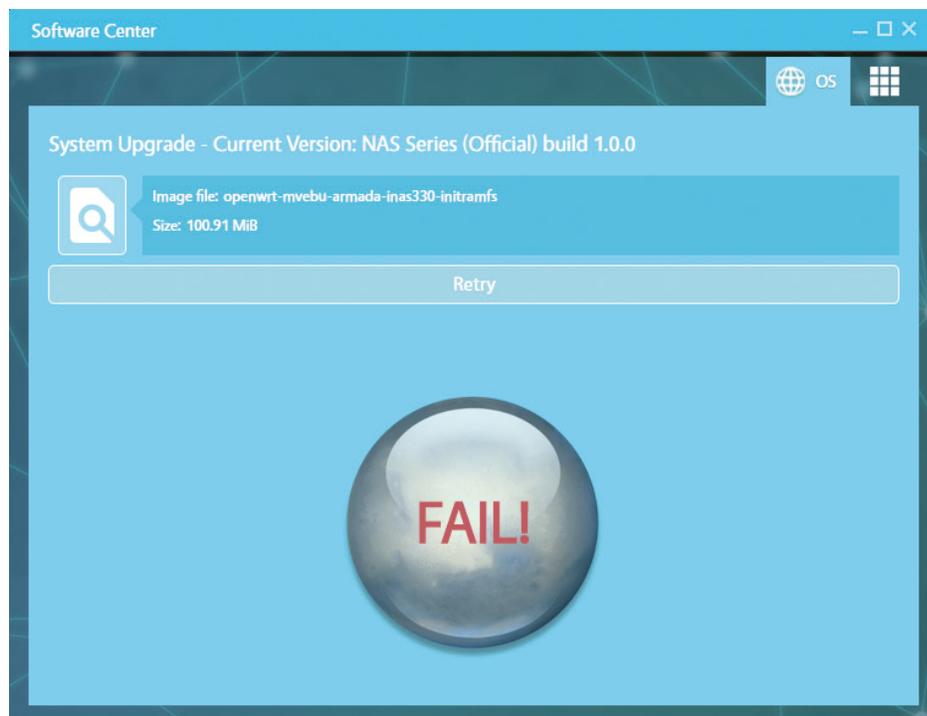
- Press the **Start** button to begin uploading the file to the server. A progress bar will display the upload status in percentage.



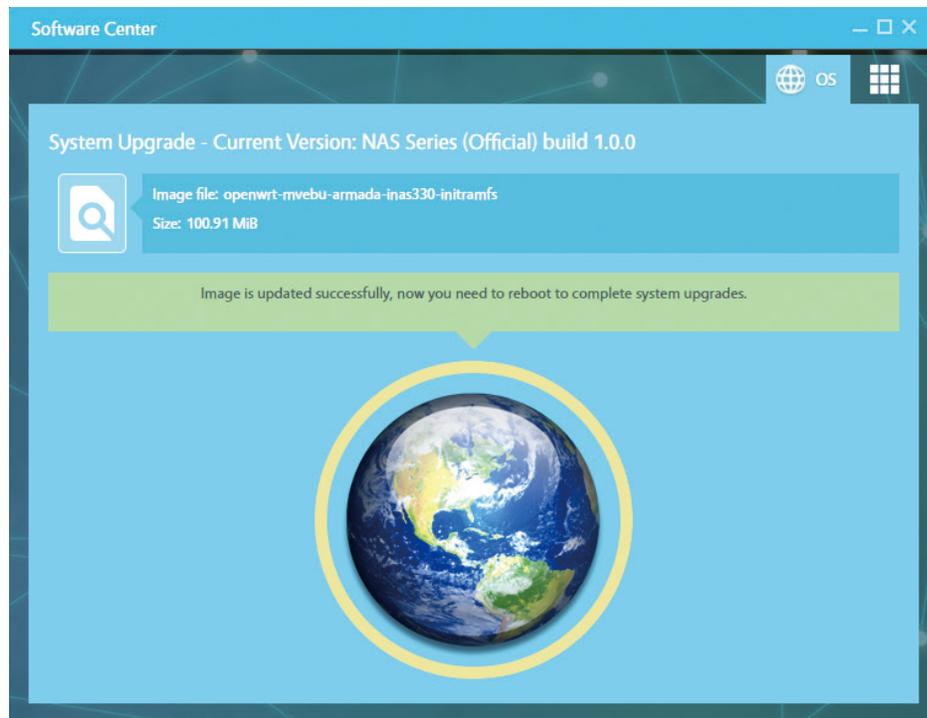
5. Once the upload completes the NAS system will verify if the file is valid and then automatically begin the update process.



If the upload fails or the format of the file is incorrect, a failure message will be shown.

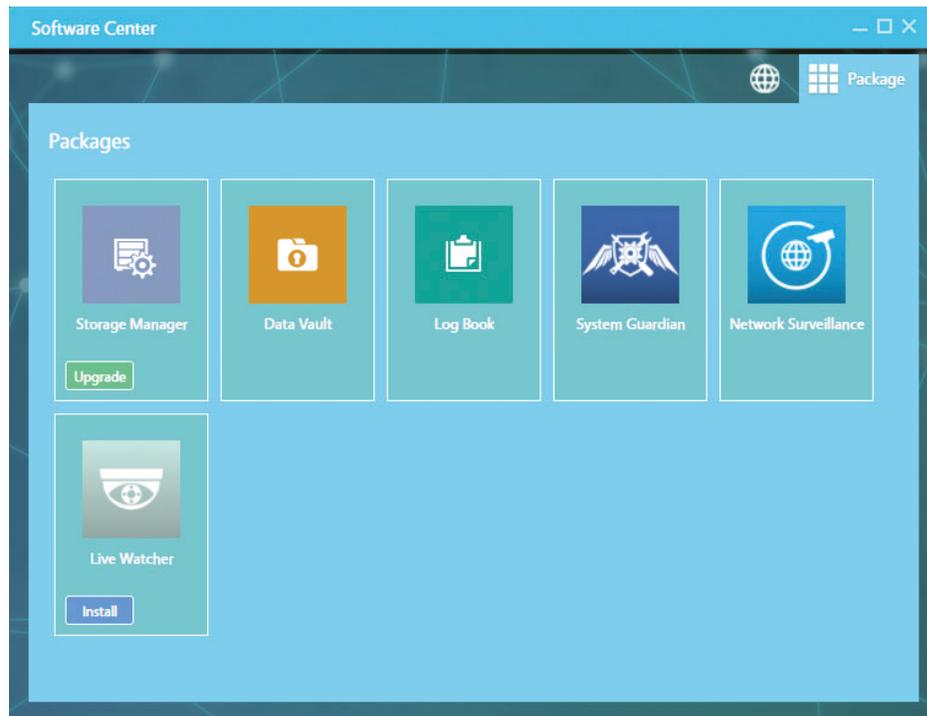


If the update is successful, a message will be shown to notify users to reboot the NAS system to complete the update process.



4.4.2 How to Install and Remove Software Packages

The **Package** page displays the packages installed on the system and packages that have been uploaded but have not been installed yet. Users can install or remove software packages in this page.



Types of Packages

Packages are currently classified into 2 categories:

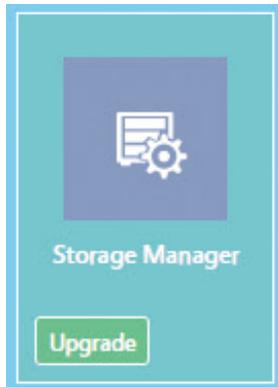
- **Built-in Packages:** These are pre-installed in the system by default and cannot be removed. Therefore no uninstallation option is available (e.g., Storage Manager, Data Vault, Log Book, etc.).
- **Custom Packages:** Custom packages based on the users' requirements can be uploaded and installed (e.g., Live Watcher).

4.4.3 Examples of Different Package Types

Different types of packages provide different types of allowable operations.

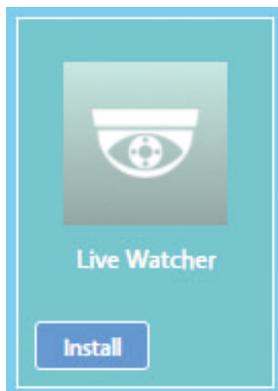
Built-in Packages

Built-in packages that can be updated to newer versions but cannot be removed.



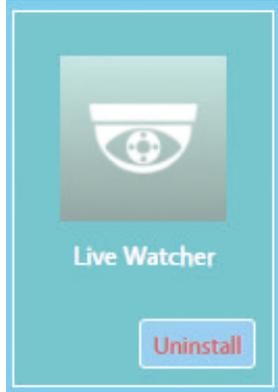
Uploaded Custom Packages

Packages that have been uploaded but have not been installed yet.



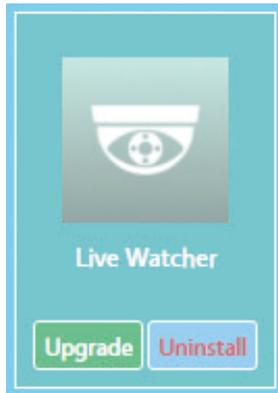
Installed Custom Packages

Additional packages that have been installed. These can be removed from the system.



Installed Custom Packages with Available Updates

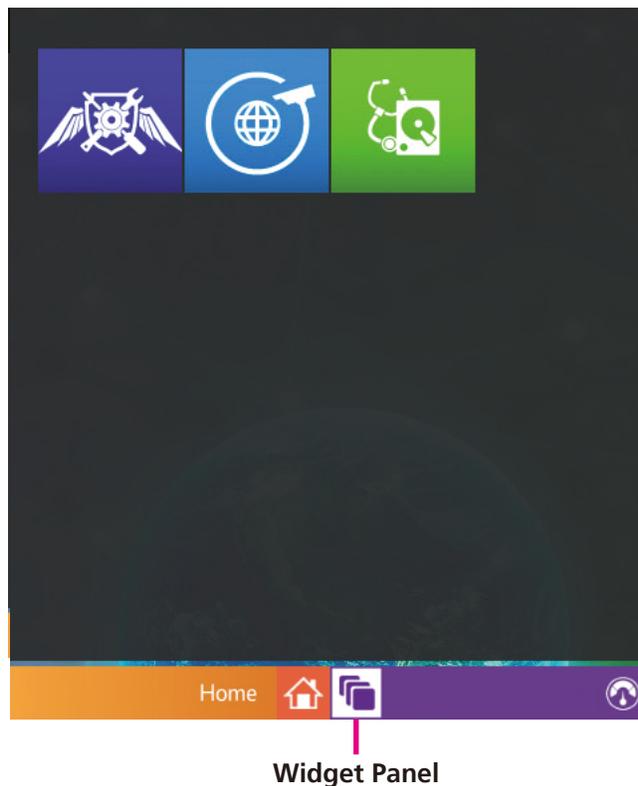
Installed packages with available updates. These can be removed from the system.



CHAPTER 5: HOW TO USE WIDGETS

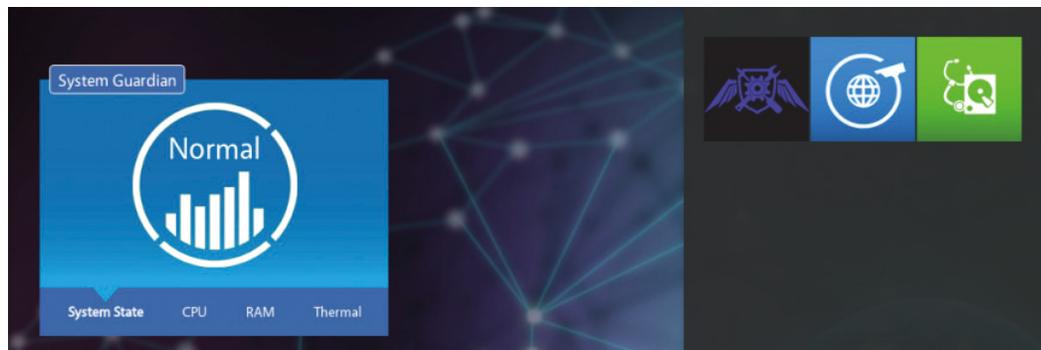
5.1 Dashboard Widget Panel

In the Dashboard Widget panel, there are three built-in widgets: System Guardian, Network Surveillance and Storage Care.

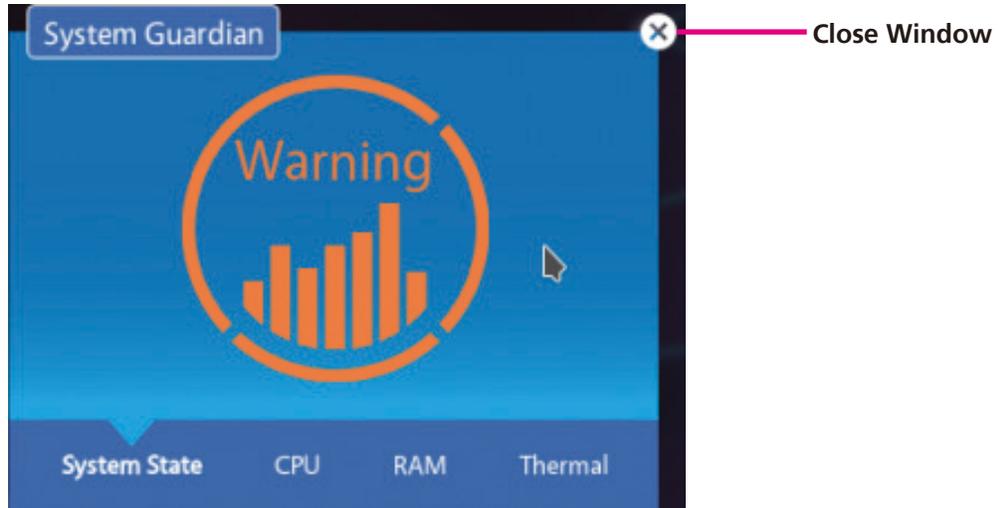


Enable and Disable Widgets on the Desktop Screen

Moving the mouse over the widgets will display their names and clicking the widgets will toggle them on and off from the desktop.



Users can also hover the mouse over the widget and click the  button to close the window.

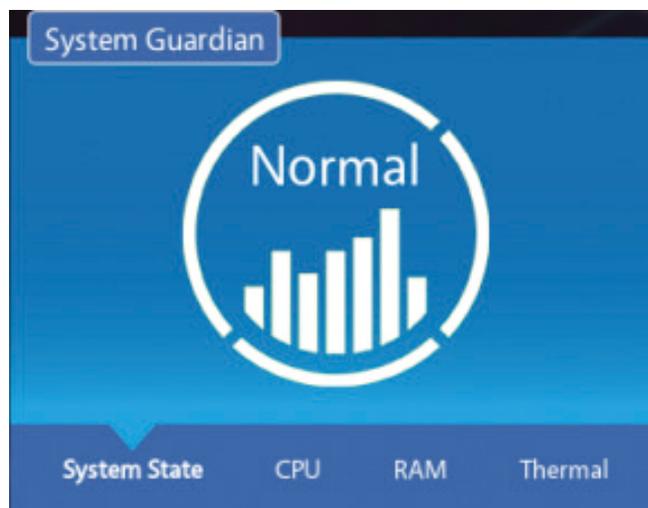


5.2 Monitor Hardware with System Guardian Widget

The System Guardian widget displays an overview of the hardware status of the NAS system. The widget provides four categories of monitoring: System State, CPU, RAM and Thermal. (Information in this widget is refreshed every few seconds.)

5.2.1 System State Page

The System State page is the default page when System Guardian is opened. It displays the current health status of the NAS system, based on the conditions of the CPU, RAM and system thermals.

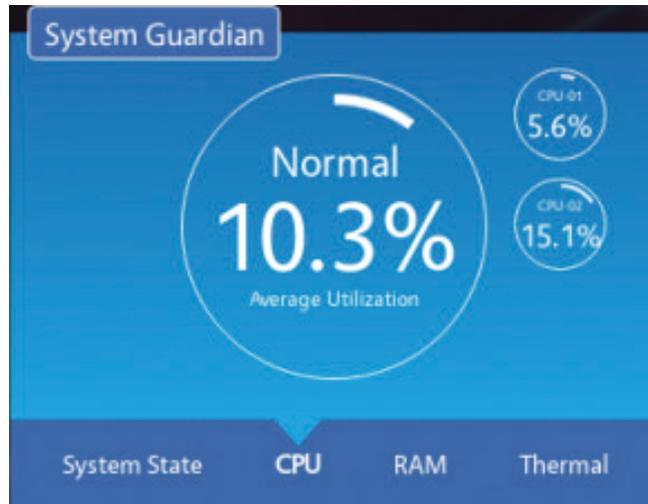


The health status is indicated by the following levels:

- **Good:** The system is in good condition. (The system is operating within normal temperature range with low CPU and RAM usage. This is a possible indication that the system is idle and currently not being used.)
- **Normal:** The system is in normal condition. (All the system health parameters are within normal range. This is a possible indication that the system is in normal use.)
- **Warning:** The system is in busy state. (The system is operating slightly above the temperature range with high CPU and RAM usage. This is a possible indication that the system is under heavy load.)
- **Bad:** The system is in critical condition. (The system is overheating excessively and experiencing OOM (Out of Memory) errors with the CPU usage reaching close to 100%. When this occurs, the system may not continue to function properly. It is recommended that the system should be restarted or inspected for repairs.)

5.2.2 CPU Page

The CPU page displays information on the utilization of processor cores.



Average Processor Utilization

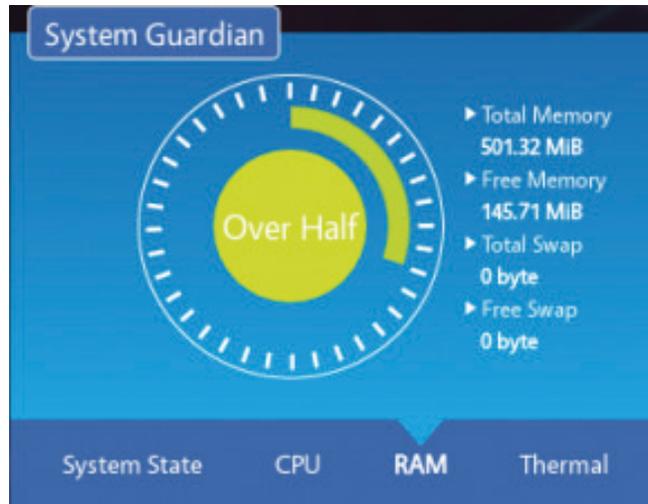
The icon in the center displays average utilization across the processor cores.

Individual Processor Core Utilization

The icons on the right display the utilization of each processor core, while the arrows can be used to scroll down or up to see additional processor cores.

5.2.3 RAM Page

The RAM page contains two display areas for RAM information.



RAM Status and Average Utilization

Information on the left displays the following:

- The length of the circular bar around the icon indicates the average utilization of system memory and system swap file in percentage.
- The text in the center of the circle icon describes the RAM usage status. The following descriptions are available: Good, Over Half, Full and OOM.

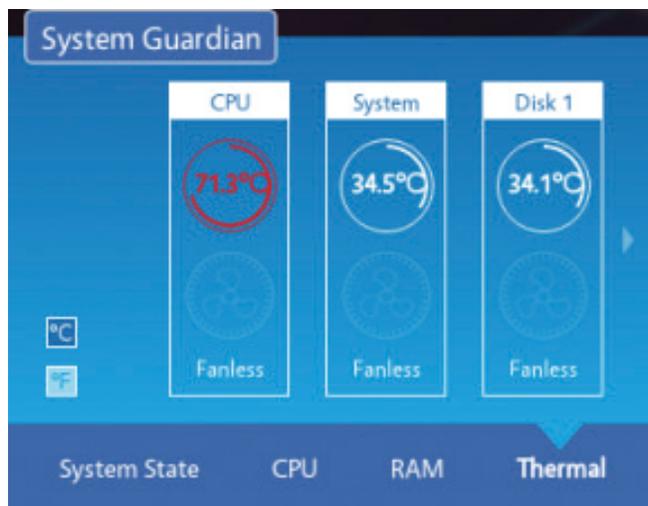
Detailed Information of System Memory and System Swap Usage

Information on the right displays the following:

- **Total Memory:** Total amount of physical memory in the system.
- **Free Memory:** Total amount of free physical memory.
- **Total Swap:** Total size of the system swap.
- **Free Swap:** Total size of the available system swap.

5.2.4 Thermal Page

The Thermal page provides temperature monitoring of system hardware.



CPU, System and HDD Monitoring

The types of information monitored include the following:

- CPU, System and HDD temperature readings.
- Each item features a circular bar showing current temperature and a fan icon showing current fan status. ("Fanless" will be displayed if the NAS system is a fanless model.)
- The arrows can be used to scroll left or right to see other monitored items.
- The fan status includes the following: Normal, Slow, Fast, Error, Broken and Fanless.
- The  and  icons allow switching between Celsius and Fahrenheit temperature readings.

5.3 Monitor Network Traffic with Network Surveillance

The Network Surveillance widget is a tool used to monitor the network traffic between the NAS system and network devices. The widget contains three types of network statistics: Quality Analysis, Upload/Download and Connections. (Information in this widget is refreshed every few seconds.)

5.3.1 Quality Analysis Page

The Quality Analysis page provides information on the connection status and network packets. This is the default page when the widget is opened.

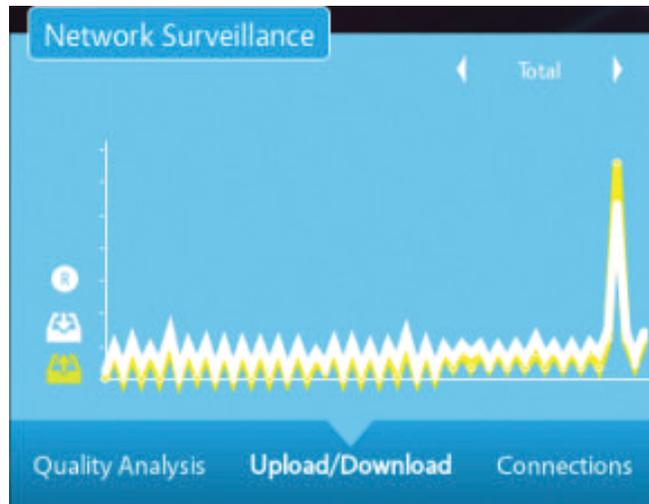


Connection Status and Packet Statistics

- Information on the right includes network statistics of dropped packets and CRC error packets.
- Information on the upper-right corner displays 4 different levels of warning messages, based on the network statistics obtained. The 4 levels of warning messages include Good, Warning, Bad and Error.

5.3.2 Upload/Download Page

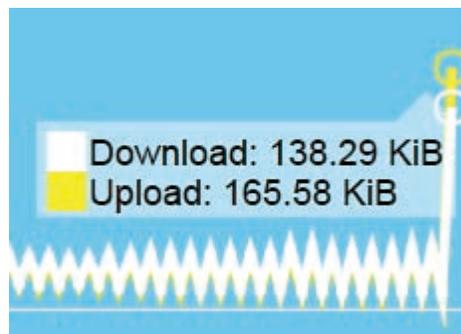
The Upload/Download page provides a network traffic graph that displays the upload and download speeds.



Navigating the Graph

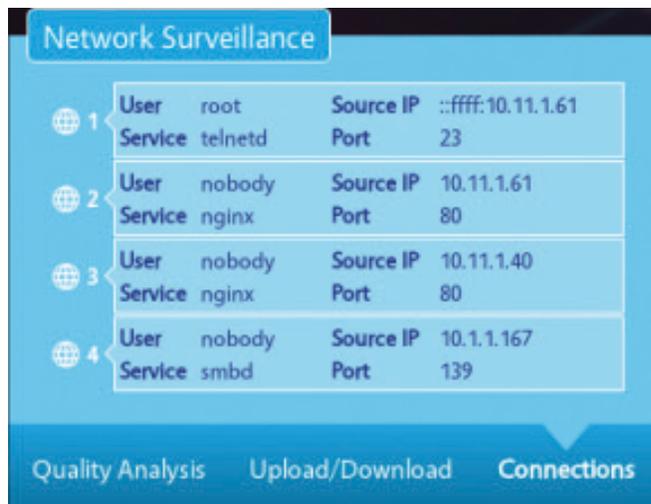
- The left and right arrow buttons on the upper-right corner allow users to switch between different types of connections including LAN, WAN and Total (the total sum of all connections).
- The  button on the left indicates that the information displayed here is in real-time and refreshed every 5 seconds.
- The white line indicates the download (write) speed, which is also equivalent to the upload speed of users sending data (write) to the NAS system.
- The yellow line indicates the upload (read) speed, which is also equivalent to the download speed of users accessing data (read) from the NAS system.

Moving the mouse over the line in the graph will show the download and upload speed at that time (x axis).



5.3.3 Connections Page

The Connections page displays details of all the current client connections to the NAS system.



The screenshot shows a 'Network Surveillance' interface with a 'Connections' tab selected. It displays a table of active client connections with the following data:

Connection ID	User	Service	Source IP	Port
1	root	telnetd	::ffff:10.11.1.61	23
2	nobody	nginx	10.11.1.61	80
3	nobody	nginx	10.11.1.40	80
4	nobody	smbd	10.1.1.167	139

View Details of Client Connections

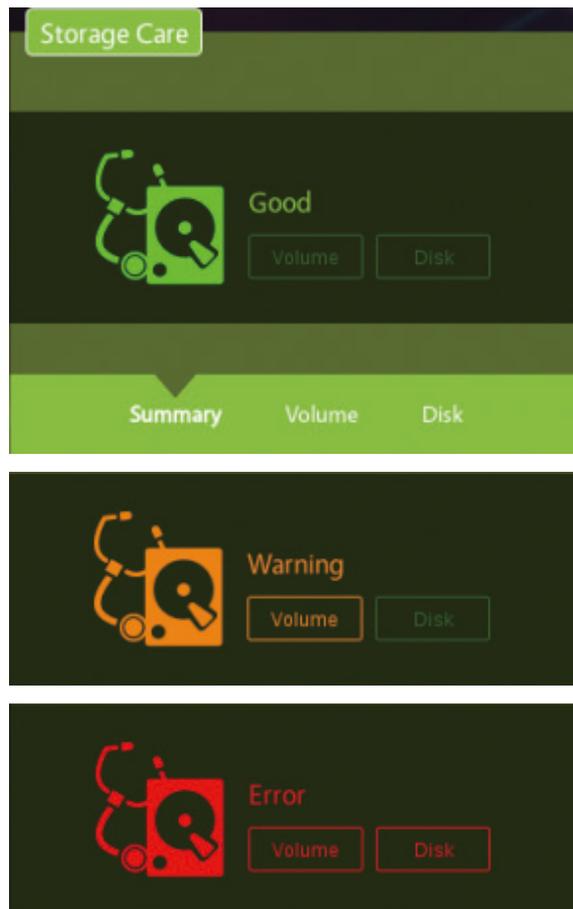
- Four types of information are shown for each connection: User, Service, Source IP and Port.
- If an anonymous user is logged into the system with no user account, "nobody" will be shown.

5.4 Monitor Storage Devices with Storage Care

The Storage Care widget monitors and displays storage information and health status of the storage devices in the NAS system. The widget provides three categories of monitoring: Summary, Volume and Disk.

5.4.1 Summary Page

The Summary page shows the current volume status and disk status of the storage devices.



The volume status and disk status are indicated by the following levels:

- **Good:** All the volumes and disk drives are in good condition.
- **Warning:** One of the volumes or disk drives is in warning state but not in any of the error states.
- **Error:** One of the volumes or disk drives is in error state.

When a volume or disk drive is in warning or error state, the corresponding button will light up orange or red respectively. Users can click the button to go to the respective page.

5.4.2 Volume Page

The Volume page displays information on the volume usage and status.



Volume Information and Volume Status

The volume information and volume status contain the following details:

- Total storage capacity and the percentage of used storage space.
- The size of the used storage space.
- The current volume status. The volume status includes the following: Healthy, Degraded, Damaged and Recovering.
- The volume name.
- The RAID level.

5.4.3 Disk Page

The Disk page provides status information of the disk drives in the system.



Disk Status and Time of Last File System Check

The disk information includes the following details:

- The current disk status. The disk status includes the following: Good, Warning, Error and Busy.
- The tray number of where the storage drive is installed in the NAS system.
- The date and time of last file system check.