XInsight
Software Manual

Applicable Models:
XCubeFAS Series
XCubeNAS Series
XCubeSAN Series

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Preface

About This Manual

This manual provides technical guidance for designing and implementing QSAN XInsight system, and it is intended for use by system administrators, storage consultants, or anyone who has purchased these products and is familiar with servers and computer networks, network administration, storage system installation and configuration, storage area network management, and relevant protocols.

Related Documents

There are related documents which can be downloaded from the website.

- All XInsight Documents
- XCubeFAS XEVO Software Manual
- XCubeNAS QSM Software Manual
- XCubeSAN SANOS Software Manual

Technical Support

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- Via the Web: https://www.qsan.com/technical_support
- Via Telephone: +886-2-77206355
  (Service hours: 09:30 - 18:00, Monday - Friday, UTC+8)
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  (Service hours: 09:30 - 02:00, Monday - Friday, UTC+8, Summer time: 09:30 - 01:00)
- Via Email: support@qsan.com

Information, Tip and Caution

This manual uses the following symbols to draw attention to important safety and operational information.

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INFORMATION:
INFORMATION provides useful knowledge, definition, or terminology for reference.

TIP:
TIP provides helpful suggestions for performing tasks more effectively.

CAUTION:
CAUTION indicates that failure to take a specified action could result in damage to the system.

Conventions

The following table describes the typographic conventions used in this manual.

Conventions	Description
Bold	Indicates text on a window, other than the window title, including menus, menu options, buttons, fields, and labels. Example: Click the **OK** button.
<*Italic*>	Indicates a variable, which is a placeholder for actual text provided by the user or system. Example: copy <*source-file*> <*target-file*>.
[ ] square brackets	Indicates optional values. Example: [a | b] indicates that you can choose a, b, or nothing.
{ } braces	Indicates required or expected values. Example: { a | b } indicates that you must choose either a or b.
| vertical bar	Indicates that you have a choice between two or more options or arguments.
/ Slash	Indicates all options or arguments.
underline	Indicates the default value. Example: [a | b]

1. XInsight Overview

The XInsight is a central management system for all QSAN products. It provides QSAN products to be centralized management and remote control solution for IT administrator in every industry for storage devices. It is a single point solution to discover, map, monitor, easy deployment, and manage devices in user's network. User can easily monitor, analyze and troubleshoot storage environment from anywhere.

1.1. Introduction to XInsight

The XInsight is composed of client and agent. The following diagram shows the XInsight system architecture.

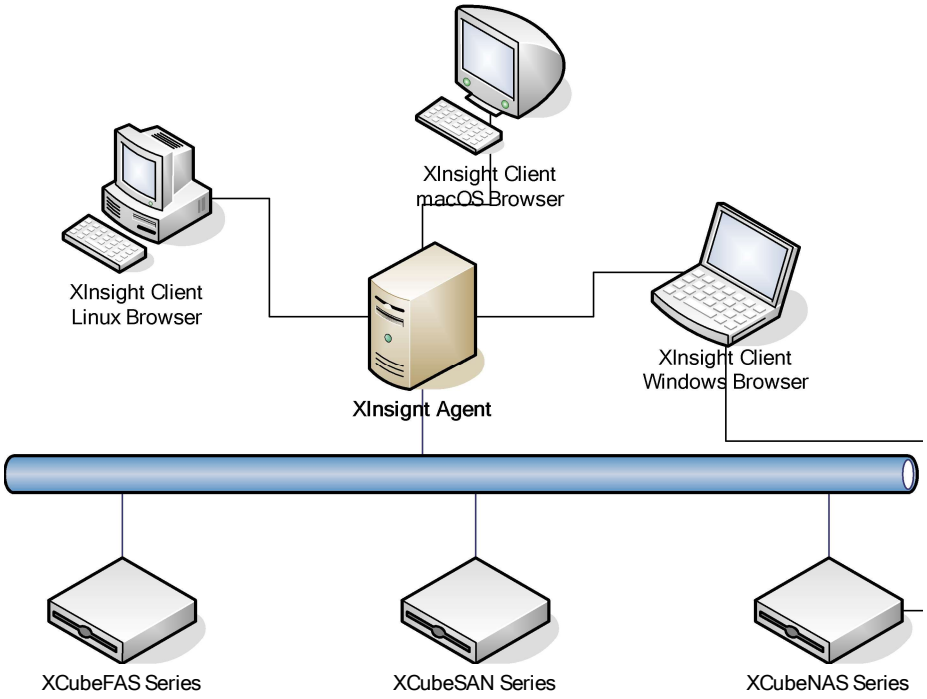

Figure 1-1 XInsight System Architecture Diagram

XInsight Client

The XInsight client supports most common browsers in popular operation systems.

XInsight Agent

The XInsight agent is a Windows based program and is installed on the servers / PCs which are connected to all QSAN storage products. The XInsight agent software plays the agent role. It receives the HTTP command from the browser and communicates with the all QSAN storage products via RESTful API, and then replies to the XInsight client.

1.2. XInsight 1.1 Functionality List

XInsight 1.1 provides the following functionality for administrator management.

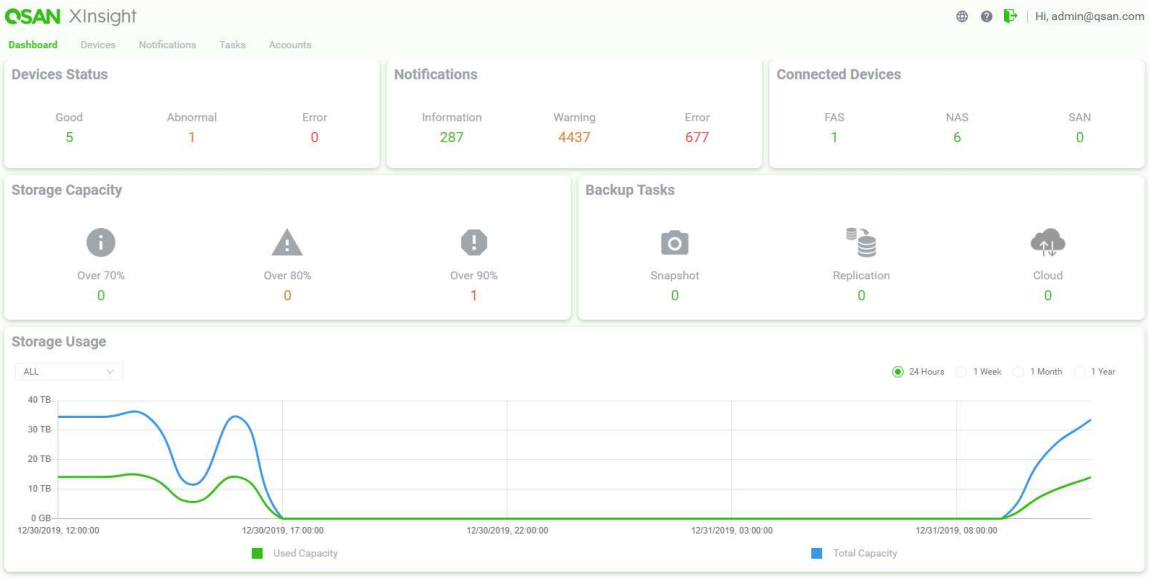

Figure 1-2 XInsight 1.1 Dashboard Panel

Dashboard

- Provide connected devices, device status, and notifications of QSAN FAS, NAS, and SAN, storage systems.
- Display storage capacity information and backup tasks.
- Monitor storage usage in a period of time.

Devices

- Graphically display the device status of each connected device.
- Also provide bar display the device status.

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- Including CPU, memory, storage usage, hardware monitoring, and so on.

Notifications

- Collect all notifications of every connected device.
- Filter event level for information, warning, and error.
- Search all messages by keyword.

Tasks

- Collect all tasks of every connected device.
- List snapshots, replications, and cloud backup.
- Search system name by keyword.

Accounts

- Add, edit, and delete account.
- Manage users' permissions for monitoring devices.

2. Getting Started

This chapter provides a description of where to download the XInsight software and how to start using XInsight to manage the QSAN storage systems.

2.1. Download XInsight Software

The latest XInsight software can be downloaded at the website.

https://www.qsan.com/download_center

After downloading the XInsight software, unzip the file.

- **XInsight_installer_X.X.X.msi**: XInsight agent, Windows version.

2.2. Install XInsight Agent

The following table lists most of the Windows operating systems supported by XInsight agent. The recommended memory is 16GB or higher.

Table 2-1 Operation System Compatibility

Mode	Operation System
XInsight Agent	Microsoft Windows Server 2008 Microsoft Windows Server 2012 Microsoft Windows Server 2016 Microsoft Windows Server 2019 Microsoft Windows 7 Microsoft Windows 8 Microsoft Windows 10

The following is the installation steps.

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1. Run XInsight_installer_X.X.X.msi , click the **Next** button.

Figure 2-1 XInsight Setup Wizard Step 1

2. Check the License Agreement, and then click the **Next** button.

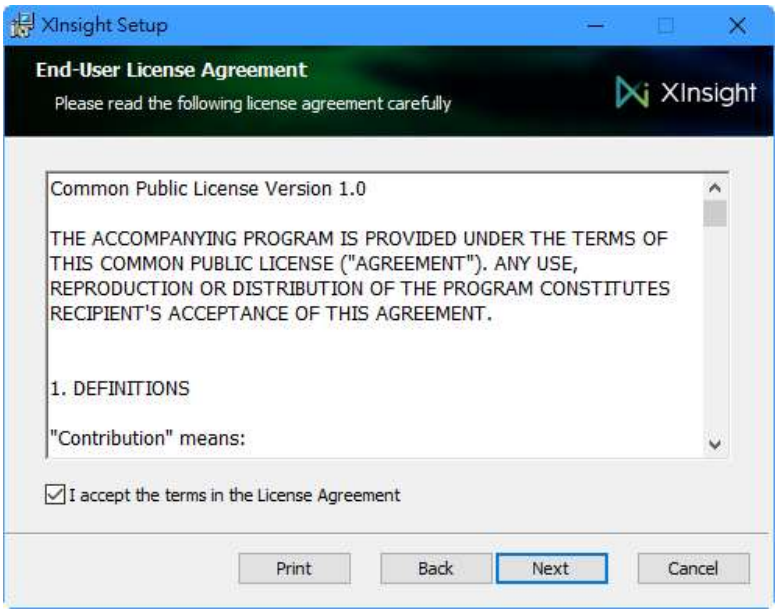

Figure 2-2 XInsight Setup Wizard Step 2

3. Change the location if needed, and then click the **Next** button.

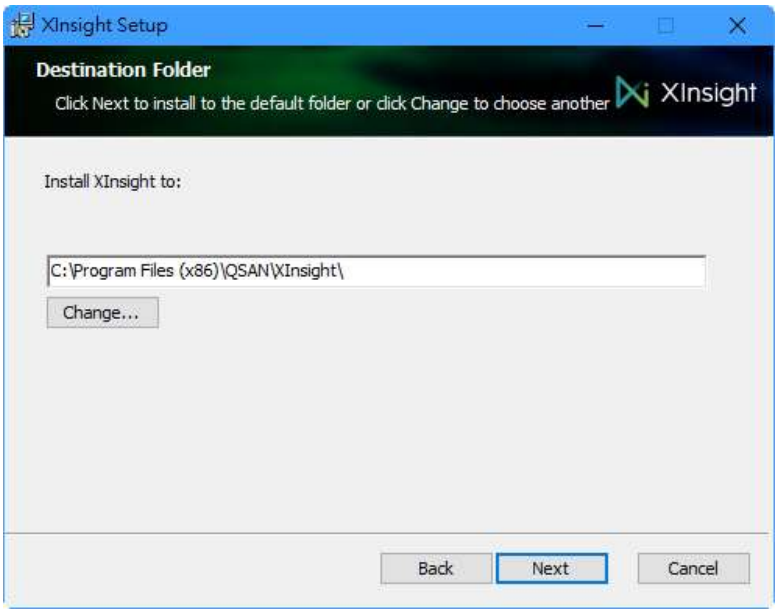

Figure 2-3 XInsight Setup Wizard Step 3

4. Click the **Install** button.

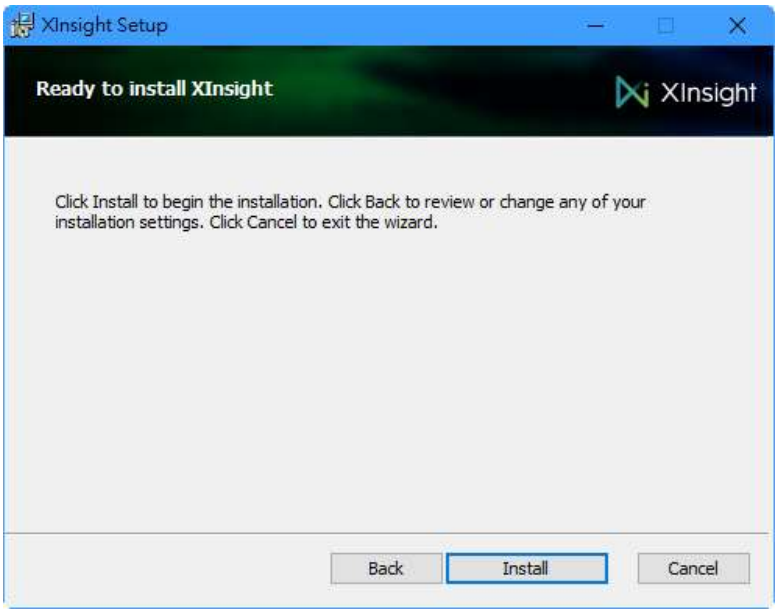

Figure 2-4 XInsight Setup Wizard Step 4

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5. Done, click the **Finish** button.

Figure 2-5 XInsight Setup Wizard Step 5

The XInsight contains the following items:

XInsight: It's a Windows based program.

Uninstall: Uninstall the XInsight program.

2.3. Starting XInsight Agent

Double click the icon to run the XInsight agent, and you will see the overview page.

Figure 2-6 XInsight Icon

2.3.1. Overview Function Menu

Select the **Overview** function menu to show summary of server status, connections and logs.

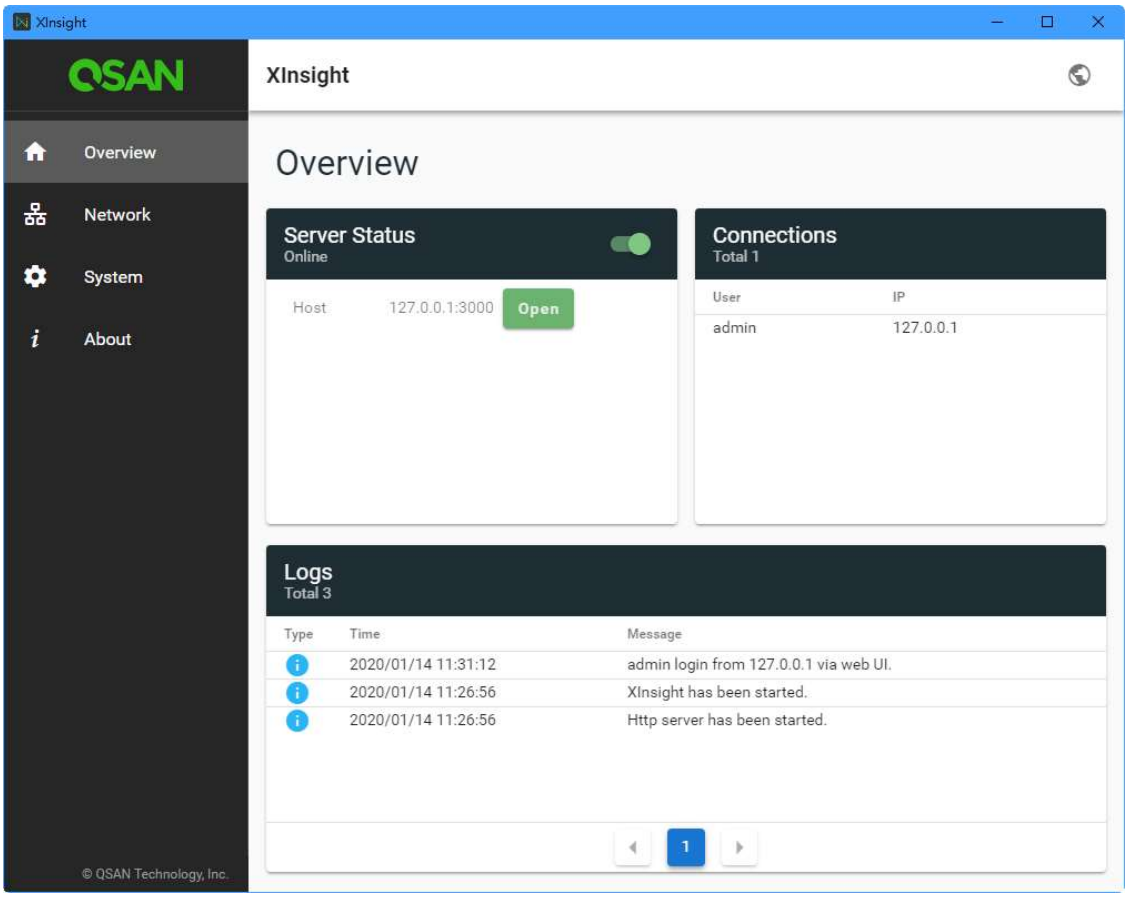

Figure 2-7 XInsight Overview

Server Status

XInsight builds in a web server. Click the switch to turn ON (Online) the web server or OFF (Offline). When the web server is online, you can click the **Open** button to open a browser and link the host IP to enter the XInsight client.

Connections

The block displays the users who log in to the XInsight agent and their IPs.

Logs

The block shows the XInsight event logs.

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2.3.2. Network Function Menu

Select the **Network** function menu to show the general setting of the network.

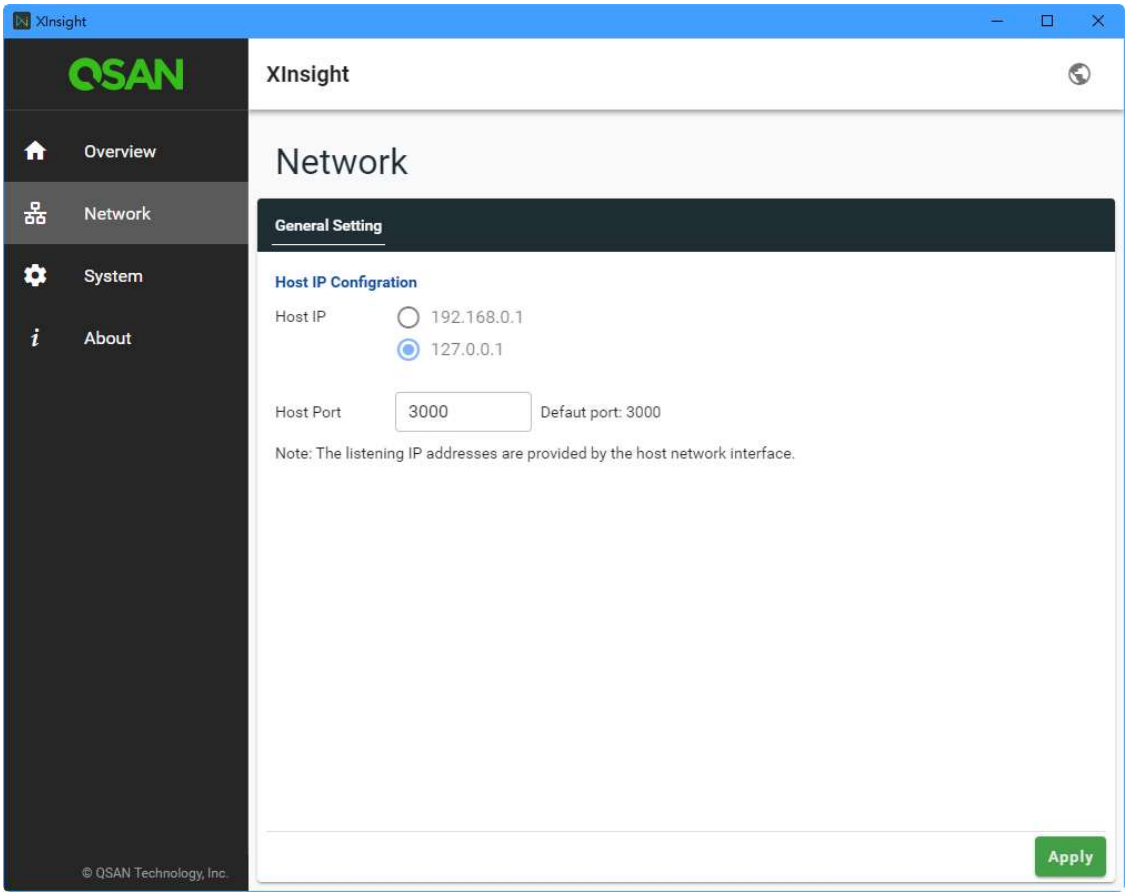

Figure 2-8 XInsight Network

Host IP Configurations

The listing IP addresses are provided by the host network interface. You can select a **Host IP** to be the web server IP address. You can also change the **Host Port** of the web server. The default port is 3000. After change the settings, click the **Apply** button to take effect.

2.3.3. System Function Menu

Select the **System** function menu to import or export the configuration file.

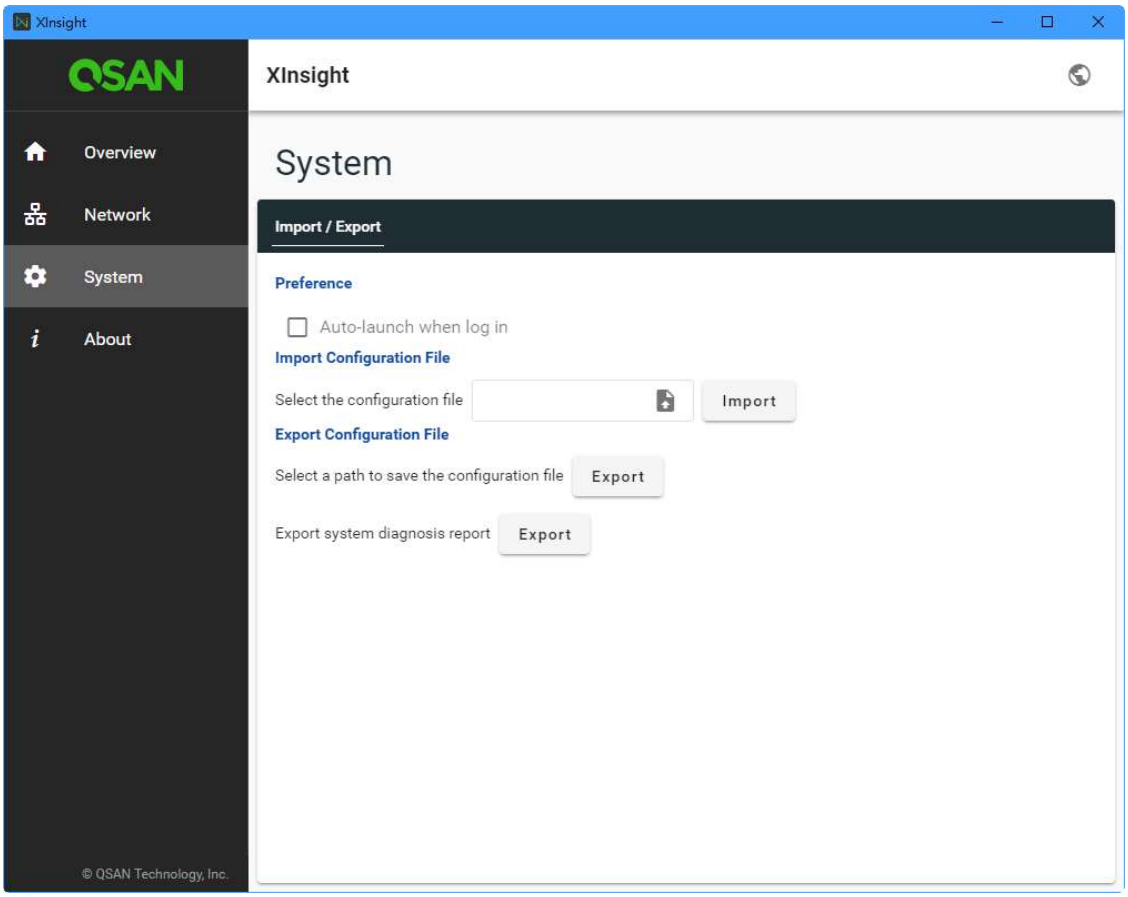

Figure 2-9 XInsight System

Preference

Check the **Auto-launch when log in** checkbox to launch all systems when the user logs in.

Import Configurtion File

Select the configuration file and clicke the **Import** button to import.

Export Configurtion File

Clicke the first **Export** button and select a path to save the configuration file. Click the second **Export** button to export the system diagnosis report.

2.3.4. About Function Menu

Select the **About** function menu to show the software information.

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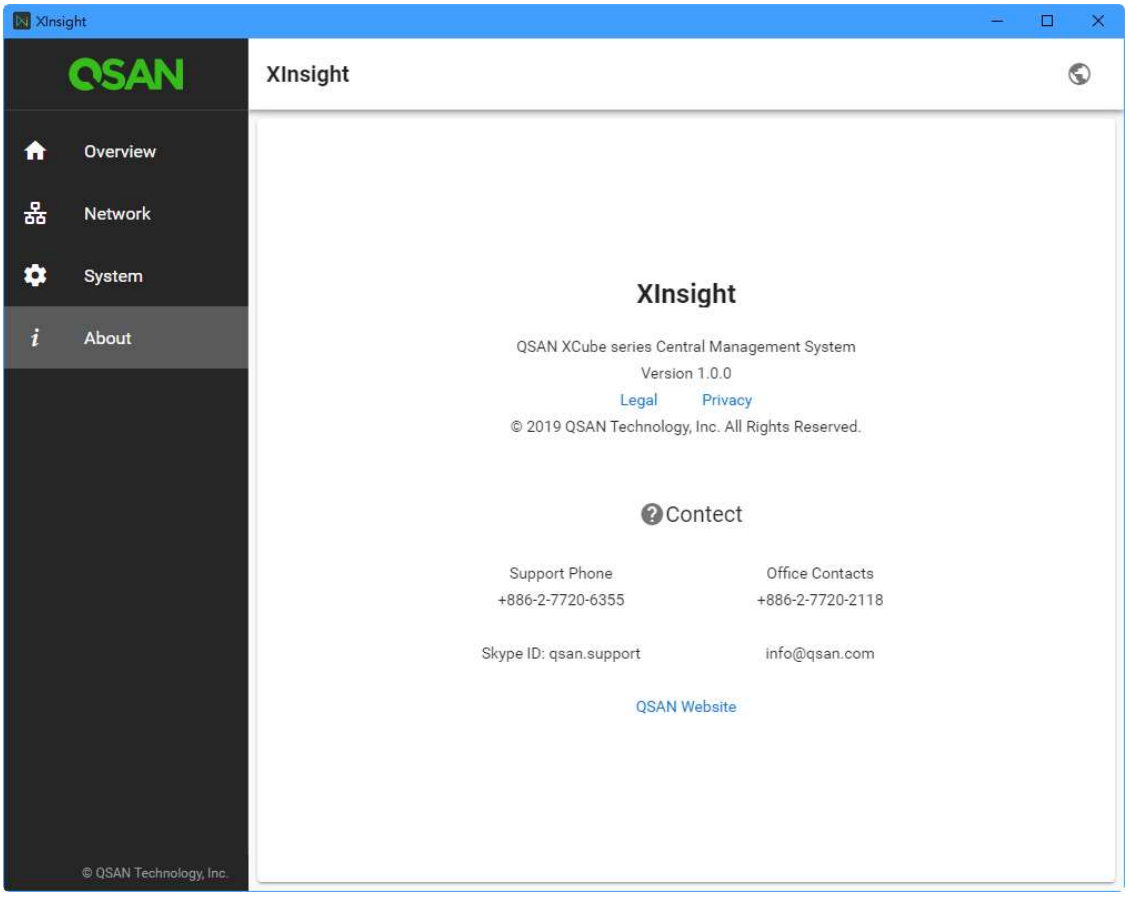

Figure 2-10 XInsight About

3. Management and Monitoring

This chapter will instruct user how to manage and monitor the QSAN storage system. Before starting, at least one QSAN storage system must be online.

3.1. Accessing XInsight Client Web UI

To access the XInsight web user interface, open a supported web browser and enter the XInsight IP address and host port which are configured in XInsight agent. The login panel is displayed in the following.

http://<*XInsight IP address*>:<*host port*>

e.g.: http:://127.0.0.1:3000

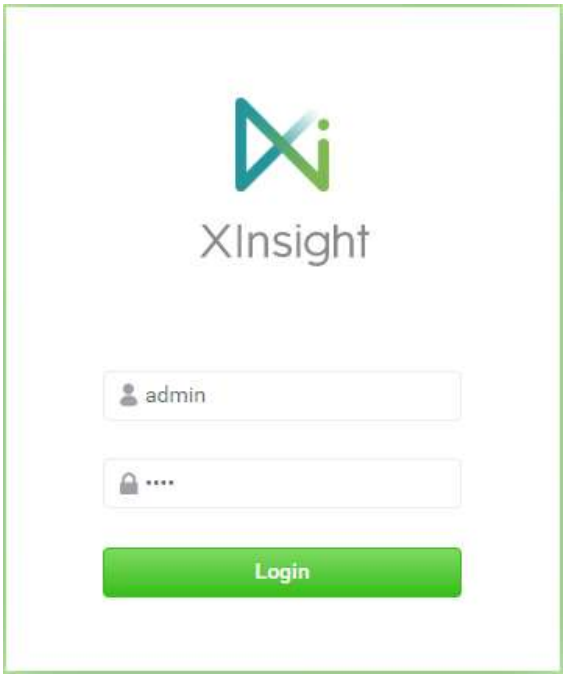

Figure 3-1 Login Page of XInsight

To access the web user interface, you have to enter a username and password.

- **Username**: <*Login Account*>, default administrator account is **admin**.

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- **Password**: <*Your Password*>, default administrator password is **1234**.

INFORMATION:
Supported web browsers:

- Google Chrome 45 or later.
- Mozilla Firefox 45 or later.
- Microsoft Internet Explorer 10 or later.
- Apple Safari 8 or later.

3.2. XInsight Client Web UI Overview

When the password has been verified, the dashboard is displayed as shown in the following.

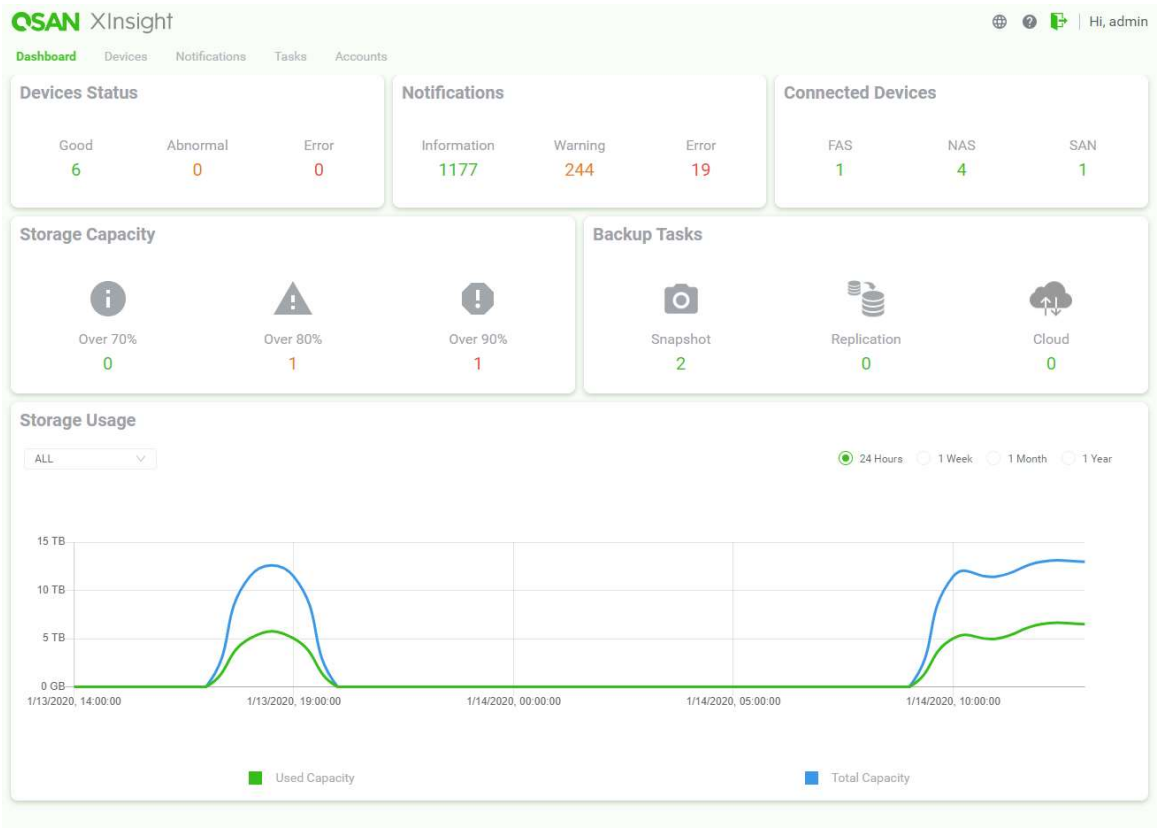

Figure 3-2 XInsight Dashboard

The XInsight client web UI contains the following tabs:

Dashboard

The **Dashboard** function tab represents an overview of all managed storage systems, including device status, notifications, connected devices, storage capacity, backup tasks, and storage usage. For more information, please refer to chapter 4, Dashboard Tab.

Devices

The **Devices** function tab represents a graphical overview of each managed storage systems, including CPU usage, memory usage, hardware monitoring, storage usage, summary of notifications and tasks. For more information, please refer to chapter 5, Devices Tab.

Notifications

The **Notifications** function tab displays all event messages of all managed storage systems. For more information, please refer to chapter 6, Notifications Tab.

Tasks

The **Tasks** function tab displays the summary and details of the storage tasks. For more information, please refer to chapter 7, Tasks Tab.

Accounts

The **Accounts** function tab can add, edit, or delete the accounts, and also configured account's monitor devices. For more information, please refer to chapter 8, Accounts Tab.

3.2.1. XInsight Client Web UI Navigation

The XInsight client web UI includes several tools to help you navigate around the interface efficiently. At the top right corner, there are three icons and one login name.

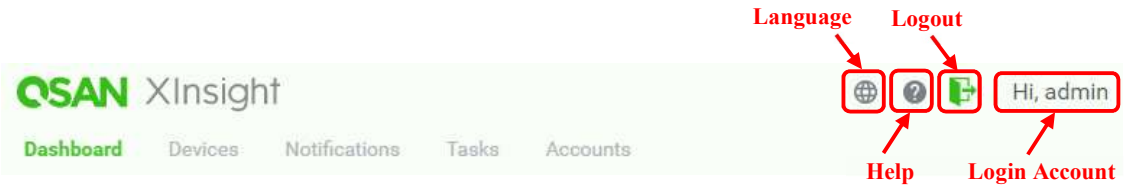

Figure 3-3 Upper Right Corner Icons

The options are available in these icons.

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Language
Click the icon at the upper right corner to list the drop down options to change the language in the web UI.

Help
Click the icon at the upper right corner to popup the help information.

Logout
Click the icon at the upper right corner to log out.

Login Account - Hi, <Username>
Display the current login account at the upper right corner.

4. Dashboard Tab

The **Dashboard** tab represents an overview of all managed storage systems, including device status, notifications, connected devices, storage capacity, backup tasks, and storage usage.

4.1. Dashboard Overview

Select the **Dashboard** tab to show a summary of the overall system. It's divided into six blocks in the details pane. There are device status, notifications, connected devices, storage capacity, backup tasks, and storage usage.

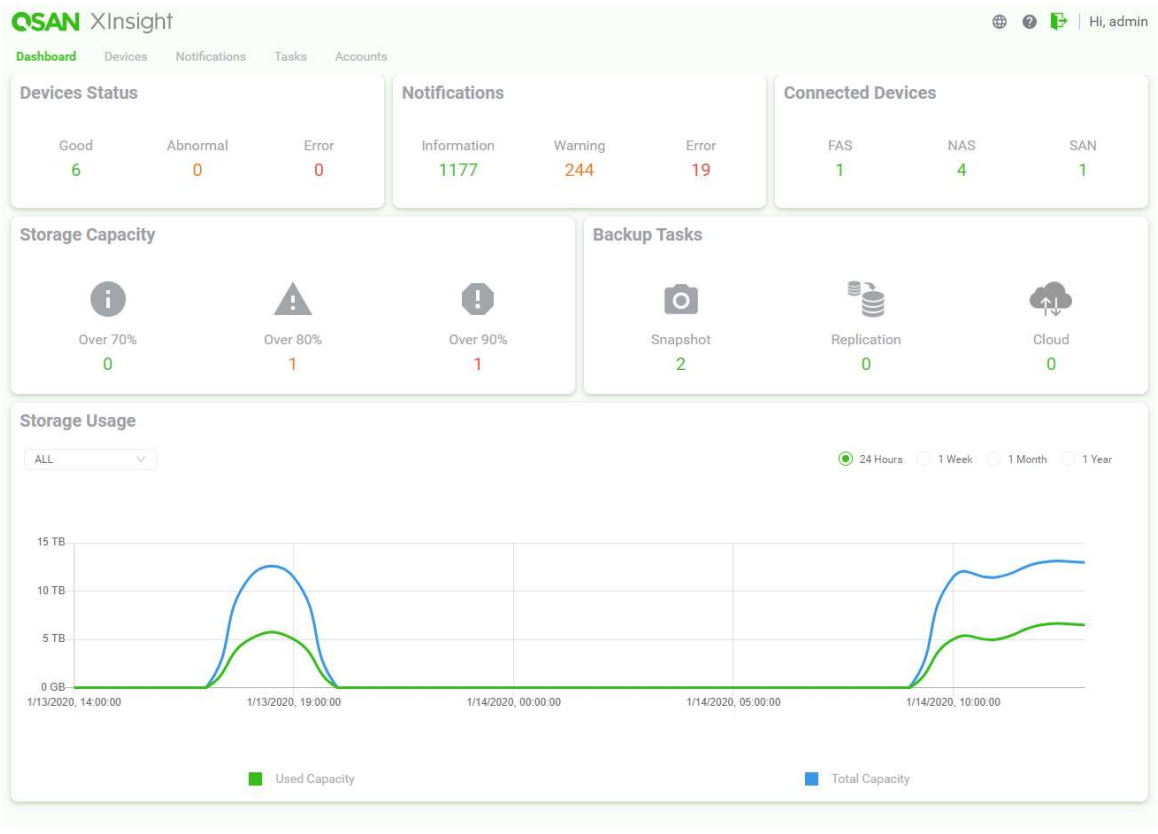

Figure 4-1 Dashboard

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4.1.1. Device Status

The **Device Status** pane displays a summary of the health of all managed systems. There are three types of status: **Good**, **Abnormal**, and **Error**. Clicking on the link will jump into the details.

4.1.2. Notifications

The **Notifications** pane displays a summary of the event logs of all managed systems. There are three types of notifications: **Information**, **Warning**, and **Error**. Clicking on the link will jump into the details.

4.1.3. Connected Devices

The **Connected Devices** pane displays a summary of the product series of all managed systems. There are three series: **FAS** (XCubeFAS), **NAS** (XCubeNAS), and **SAN** (XCubeSAN). Clicking on the link will jump into the details.

4.1.4. Storage Capacity

The **Storage Capacity** pane displays a summary of the storage usage of all managed systems. There are three kinds of usages: **Over 90%**, **Over 80%**, and **Over 70%**. Clicking on the link will jump into the details.

4.1.5. Backup Tasks

The **Backup Tasks** pane displays a summary of the back tasks of all managed systems. There are three types of tasks: **Snapshot**, **Replication**, and **Cloud**. Clicking on the link will jump into the details.

4.1.6. Storage Usage

The **Storage Usage** pane displays the total storage usage charts in real time. Click the ALL drop-down arrow at the upper left corner of the pane to select FAS, NAS, or SAN series. Select the time period at the upper right corner of the pane to view metrics from as recent as 24 hours to as far back as 1 year.

5. Devices Tab

The **Devices** tab represents a graphical overview of each managed storage systems, including CPU usage, memory usage, hardware monitoring, storage usage, summary of notifications and tasks.

5.1. Devices Overview

Select the **Devices** tab to show the details of each system. There are two display methods, one is graphical mode and the other is listed by row. They can be changed by clicking the icon at the upper right corner to switch to the row mode. And click the icon to switch back to the graphical mode.

Figure 5-1 Devices in Graphical Mode

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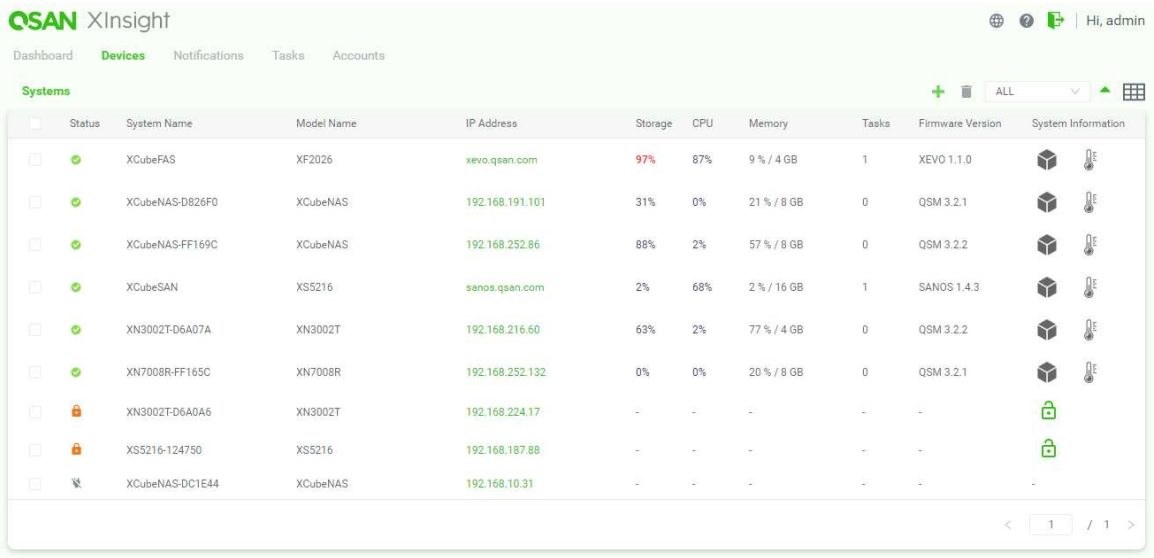

Figure 5-2 Devices in Row Mode

Click the ALL drop-down arrow at the upper right corner to view ALL, FAS, NAS, SAN, not support, or not authentication devices.

5.2. View Devices

Except the storage usage, CPU, memory information, total quantity of notifications, you can also click the icon to view the system information and click the icon to view the thermal information.

And by clicking the control panel, you can view all the storage and performance information of the selected device.

5.3. Shut Down & Restart Device

Click icon to shut down and restart device, after click bottom just wait for the process.

To turn on your system after shut down, click icon and wait for the process.

INFORMATION:
Make sure you have the WOL(wake-on-LAN) function on before you try to turn on your device with XInsight.

5.4. Control Panel

Click control panel, you can see all the storage and performance information of the selected device.

The showing content is different between NAS / SAN /FAS, due to the block device and file system are different architecture.

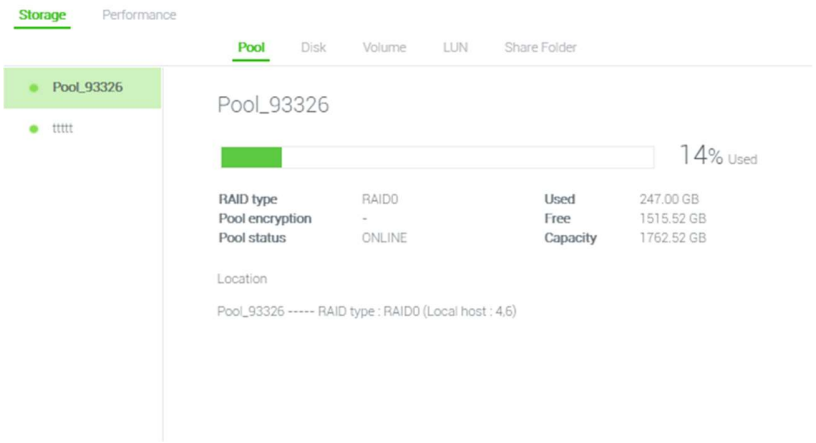

Figure 5-3 Control Panel (NAS)

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Figure 5-3 Performance monitor (NAS)

5.4.1. Storage

Click control storage, you can see all the storage information of the selected device.

5.4.2. Performance

Click control storage, you can see all the performance information of the selected device.

5.4.3. Network

Click Network, you can see all the performance information and change the configuration of the selected device.

Host

You can see all the host information of selected device (only FAS).

Data Port

You can see all the iSCSI and Fibre Channel information of selected device (Only SAN&FAS).

You can also setup your data port config here, just click icon and follow the rest of the process.

iSCSI Target

You can see all the iSCSI Target information of selected device (only SAN).

Interface

You can see all network information of selected device (Only NAS&NXT).

You can also setup your data port config here, just click icon and follow the rest of the process.

5.4.4. System

Maintenance

You can also setup your configuration backup and Firmware upgrade here, just click chose one you want to setup and follow the process.

Power

You can also setup your bot management here including auto shotdown, wake-on-LAN and wake-on-SAS, just click the on or off bottom and click apply.

INFORMATION:
Wake-on-SAS only works on XCubeSAN and XCubeFAS.

5.5. Configure Devices

The options are available in this tab.

5.5.1. Add a Device

Here is an example of adding a device.

1. Click the + icon in the **Devices** tab to pop up a wizard.
2. Select Discover systems or Enter IP address to join.
3. Click the **Next** button to continue.
4. Select a device to join or enter the managed IP address to join.
5. Click the **Next** button to continue.
6. Click the **Register** button to register the device.

5.5.2. Register the Device

If the device is not register yet, click the icon to register the device.

5.5.3. Delete the Device

Click the icon to delete the device.

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6. Notifications Tab

The **Notifications** function tab displays all event messages of all managed storage systems.

6.1. Notifications Overview

Select the **Notifications** tab to show event messages.

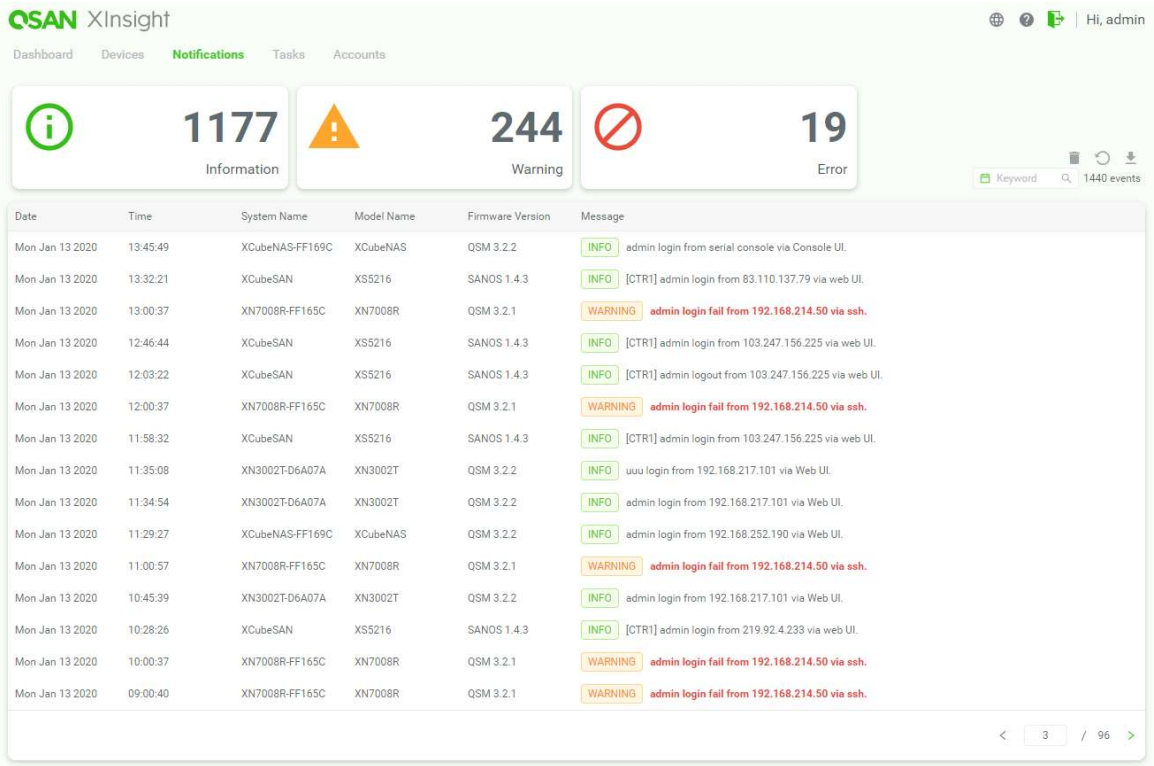

Figure 6-1 Notifications

The upper panes show the quantity of three-level event messages. There are some options available in this tab.

Clear All

Select the Clear All button to cleaf all messages.

Refresh

Select the Refresh button to refresh all messages.

Export

Select the Export button to export messages to a file.

6.2. Search Messages

Enter a keyword in the keyword box to quickly filter the messages by keyword. To do an advanced search, you can click the icon. It will pop up a dialog box where you can enter the combined conditions including system, IP address, start date, and end date, etc.

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7. Tasks Tab

The **Tasks** function tab displays the summary and details of the storage tasks.

7.1. Tasks Overview

Select the **Tasks** tab to show storage tasks.

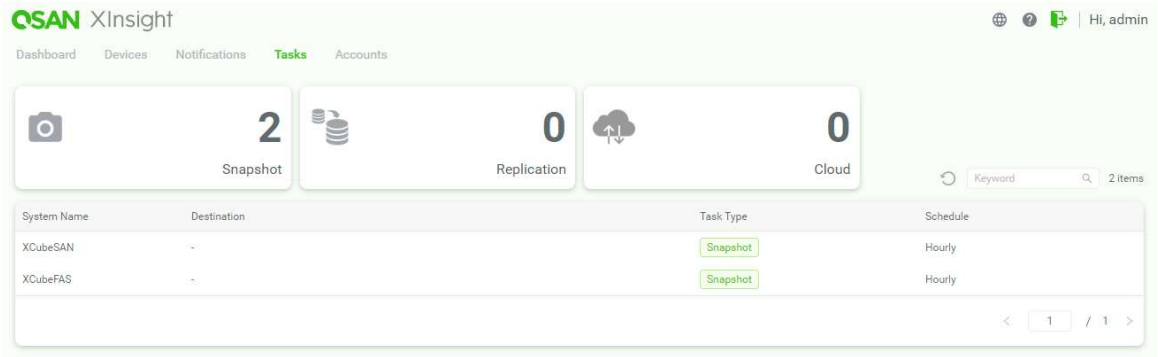

Figure 7-1 Tasks

The upper panes show the quantity of snapshots, replications, and cloud backup tasks. There is an option available in this tab.

Refresh

Select the Refresh button to refresh all tasks.

7.2. Search Tasks

Enter a keyword in the keyword box to quickly filter the tasks by keyword.

8. Accounts Tab

The **Accounts** function tab can add, edit, or delete the accounts, and also configured account's monitor devices.

8.1. Accounts Overview

Select the **Tasks** tab to manage the user accounts.

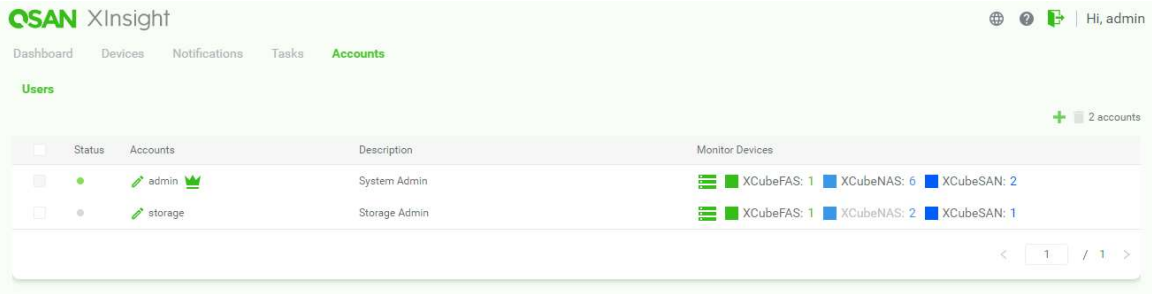

Figure 8-1 Accounts

8.2. Configure Accounts

The options are available in this tab.

8.2.1. Add a User

Here is an example of adding a user.

1. Click the + icon in the **Accounts** tab to pop up a wizard.
2. Enter an account **Name**.
3. Enter a **Password**, and reconfirm in **Confirm Password**.
4. If necessary, enter a **Description** to identify the account.
5. Check **Assign Admin** if you want to the account as an administrator.
6. Click the **Select Devices** button to assign the managed devices to the user. When selected, click the **OK** button.
7. Click the **Apply** button to take effect.

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8.2.2. List the Users

If the icon appears after the account, it means that the account is a root and cannot be deleted.
Click the icon to view the monitor derives.

8.2.3. Edit the User

Click the icon before the account to edit the user. You can change **Name**, **Password**, **Description**, **Assign Admin**, and **Permission.**

TIP:
The root's account name cannot be changed.

8.2.4. Delete the User

Check the users which you want to delete, and then the click the icon to delete.

9. Support and Other Resources

9.1. Getting Technical Support

After installing your device, locate the serial number on the sticker located on the side of the chassis and use it to register your product at https://www.qsan.com/business_partnership. We recommend registering your product in QSAN partner website for firmware updates, document download, and latest news in eDM. To contact QSAN Support, please use the following information.

- Via the Web: https://www.qsan.com/technical_support
- Via Telephone: +886-2-77206355
  (Service hours: 09:30 - 18:00, Monday - Friday, UTC+8)
- Via Skype Chat, Skype ID: qsan.support
  (Service hours: 09:30 - 02:00, Monday - Friday, UTC+8, Summer time: 09:30 - 01:00)
- Via Email: support@qsan.com

Information to Collect

- Product name, model or version, and serial number
- Operating system name and version
- Firmware version
- Error messages or capture screenshots
- Product-specific reports and logs
- Add-on products or components installed
- Third-party products or components installed

9.2. Accessing Product Updates

To download product updates, please visit QSAN website:

https://www.qsan.com/download_center

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9.3. Documentation Feedback

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Appendix

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