



# XMirror

QSAN Technology, Inc.  
[www.QSAN.com](http://www.QSAN.com)

© Copyright 2019 QSAN Technology, Inc. All rights reserved. No part of this document may be reproduced or transmitted without written permission from QSAN Technology, Inc.

Edition 1.0 (February 2019)



This edition applies to QSM storage systems. QSAN believes the information in this publication is accurate as of its publication date. The information is subject to change without notice.

## **Trademarks**

QSAN, the QSAN logo, and QSAN.com are trademarks or registered trademarks of QSAN Technology, Inc.

Intel, Xeon, Pentium, Core, Celeron and Intel Inside logo are trademarks of Intel Corporation in the United States and other countries.

Other trademarks and trade names used in this document to refer to either the entities claiming the marks and names or their products are the property of their respective owners.

## Notices

---

The information contained in this document has been reviewed for accuracy. But it could include typographical errors or technical inaccuracies. Changes are made to the document periodically. These changes will be incorporated in new editions of the publication. QSAN may make improvements or changes in the products. All features, functionality, and product specifications are subject to change without prior notice or obligation. All statements, information, and recommendations in this document do not constitute a warranty of any kind, express or implied.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products.

All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

# Table of Contents

---

Notices .....	i
Preface.....	3
About This Guide.....	3
Technical Support .....	3
Information, Tip and Caution.....	4
XMirror .....	5
Audience .....	5
Introduction.....	5
Theory of operation.....	6
Best practice .....	13
Conclusion .....	13
Apply to.....	13
Support and Other Resources.....	14
1.1. Getting Technical Support .....	14
1.2. Documentation Feedback.....	15
Appendix .....	16
End-User License Agreement (EULA).....	16

# Preface

---

## About This Guide

This guide would help the QSM user can backup and sync data to different NAS with XMirror. We will introduce how to configure XMirror in the following chapter.

**CAUTION:**

Do NOT attempt to service, change, disassemble or upgrade the equipment's components by yourself. Doing so may violate your warranty and expose you to electric shock. Refer all servicing to authorized service personnel. Please always follow the instructions in this owner's manual.

---

## Technical Support

Do you have any questions or need help troubleshooting a problem? Please contact QSAN Support, we will reply to you as soon as possible.

- Via the Web: [http://www.qsan.com/en/contact\\_support.php](http://www.qsan.com/en/contact_support.php)
- Via Telephone: +886-2-7720-2118 extension 136  
(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, Summertime: 09:30 - 01:00)
- Via Email: [support@qsan.com](mailto:support@qsan.com)

## Information, Tip and Caution

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



**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.

---

# XMirror

## Audience

This document is applicable to QSAN customers and partners who are interested in learning about XMirror. It assumes the reader is familiar with QSAN products and has general IT experience, including knowledge as a system or network administrator. If there is any question, please refer to the user manuals of products, or contact QSAN support for further assistance.

## Introduction

Along with increasing in demand of the backup in recent year, we notice the traditional snapshot replication and remote replication which is well known as Rsync are not enough for the customer's diverse environment. So we provide the new backup feature – XMirror which is QSAN's unique feature. It provides the customer more convenient with backup/restore, and more security of backup transferring.



**INFORMATION:**

The XMirror backup process will be triggered when the data is in the idle status which means if the user keeps accessing and editing the data, the data won't sync to other NAS.

---

## Theory of operation

We will introduce the XMirror concept and operation, please refer below.

### Zone

The concept of XMirror is based on the “Zone”, XMirror can create a zone which involves multiple NAS folder (Max:8). Then XMirror will keep syncing the data in this backup zone automatically, make sure all the folder have stored the same data. Please refer below about more XMirror operation.

### 1-way zone & 2-way zone

First, in the zone, there is a folder is called – local folder. If you set the zone as 1-way sync zone, any changes from this NAS local folder of this zone will sync to other folders, but any changes from other folders will not sync to this NAS local folder of this zone.

But if you set this zone as 2-way sync zone, any changes from each folder will be sync with each other together of this zone.

### Version rollback

Sometimes user might edit the file by mistake, we provide the version rollback which will help the user to rollback the file to the specific version. The default number of versions is “1”, and the maximum number of versions is “64”. A version will be generated each time of synchronization.



#### INFORMATION:

Please aware the version rollback of local folder can only be operated in 2-way sync zone because the version rollback functions help the user to restore the file which was deleted by XMirror.

And in 1-way sync zone, only the data which in the remote folder might be deleted by XMirror. Let’s take the example here, if user deletes the data-A from local folder, then XMirror will make sure the data consistency with remote folders, so the data-A in remote folders will also be deleted by XMirror.

---

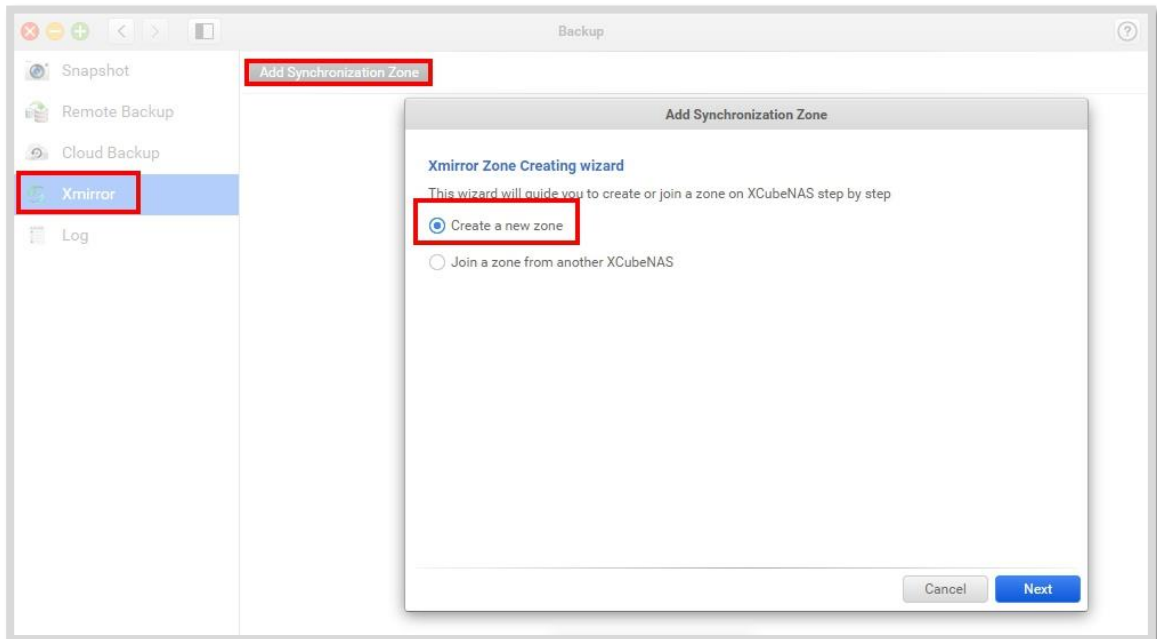


## Configure XMirror

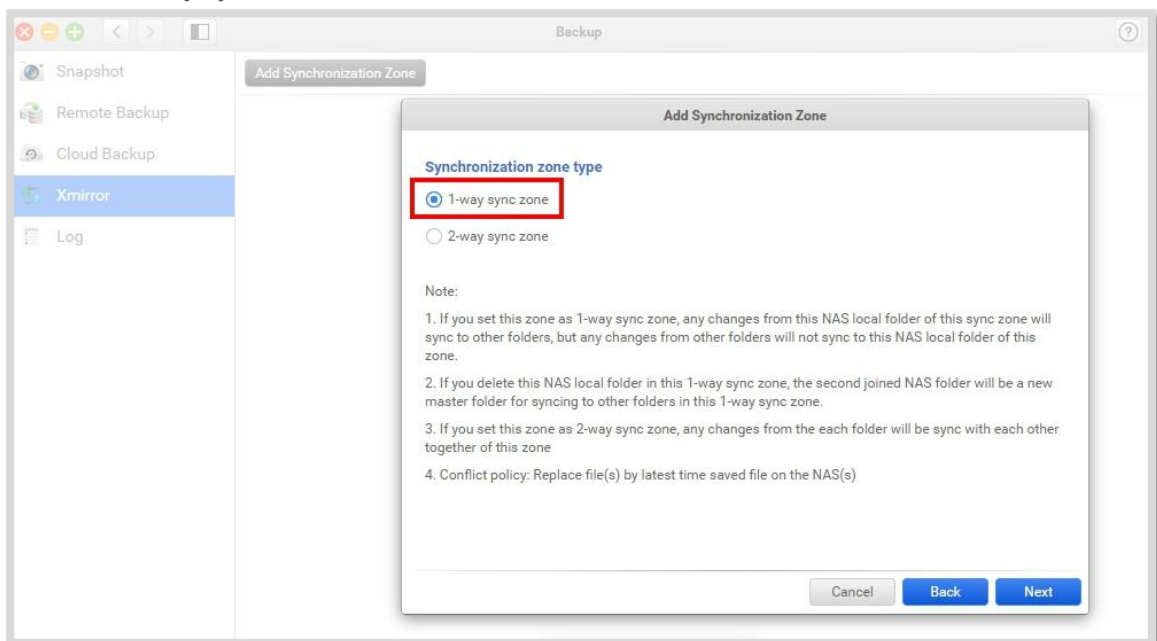
Here is an example of creating 1-way sync & 2-way sync zone with two XCube NAS units.

### Setup 1-way sync

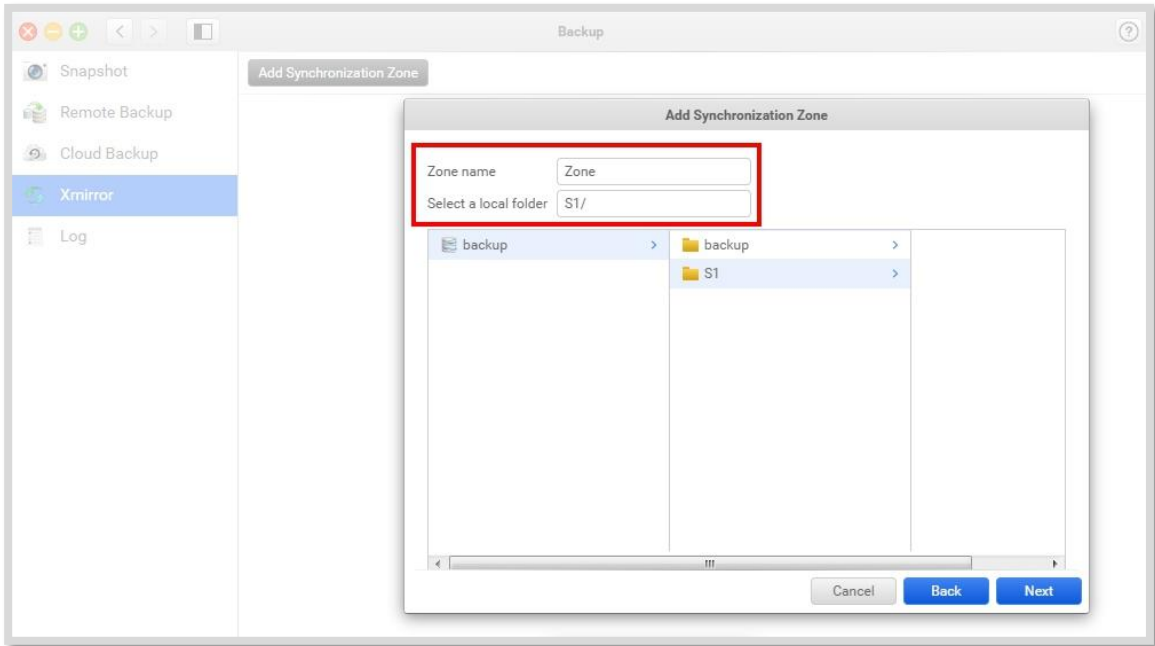
1. In the Backup app->XMirror, and add Synchronization Zone



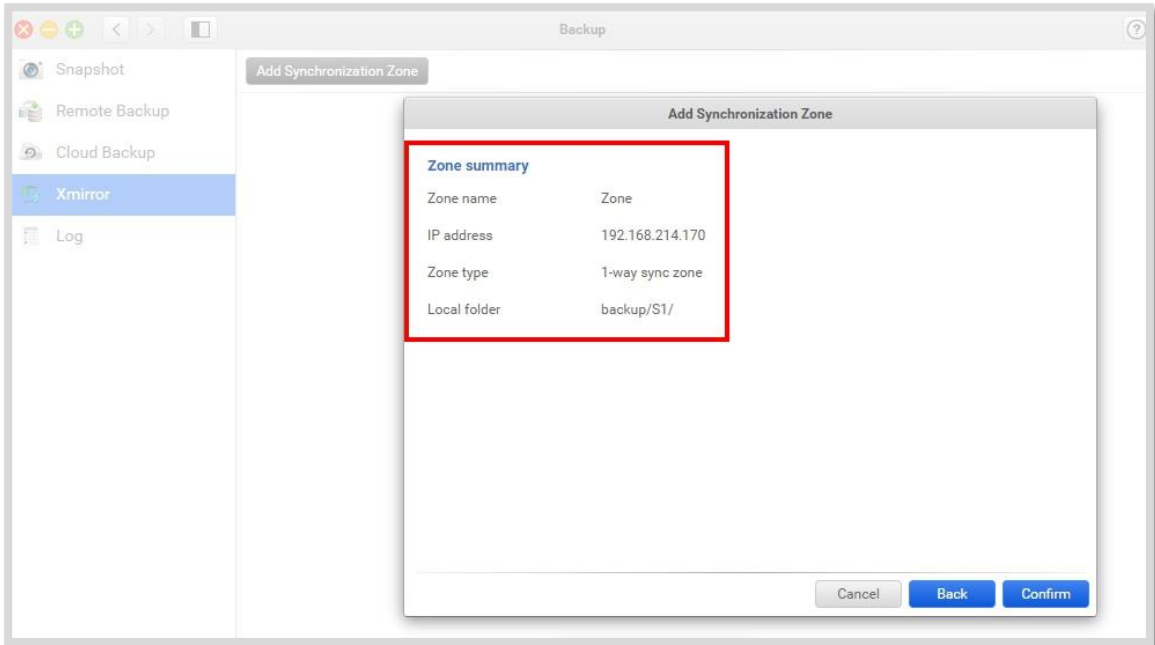
2. Select 1-way sync zone



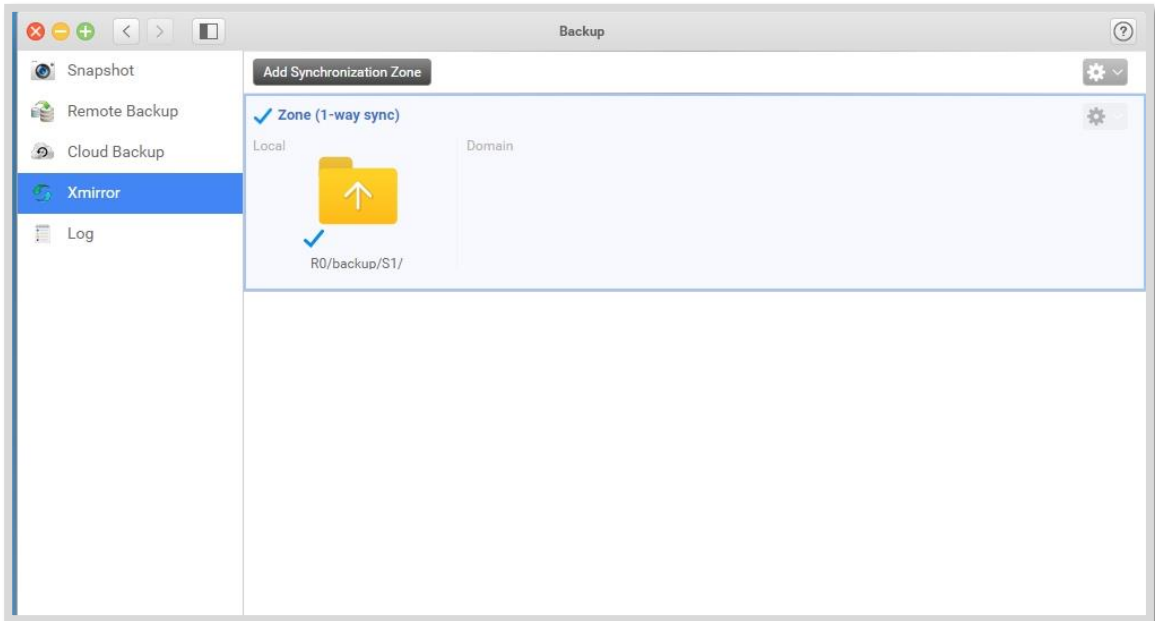
### 3. Enter the zone name and also select a local folder



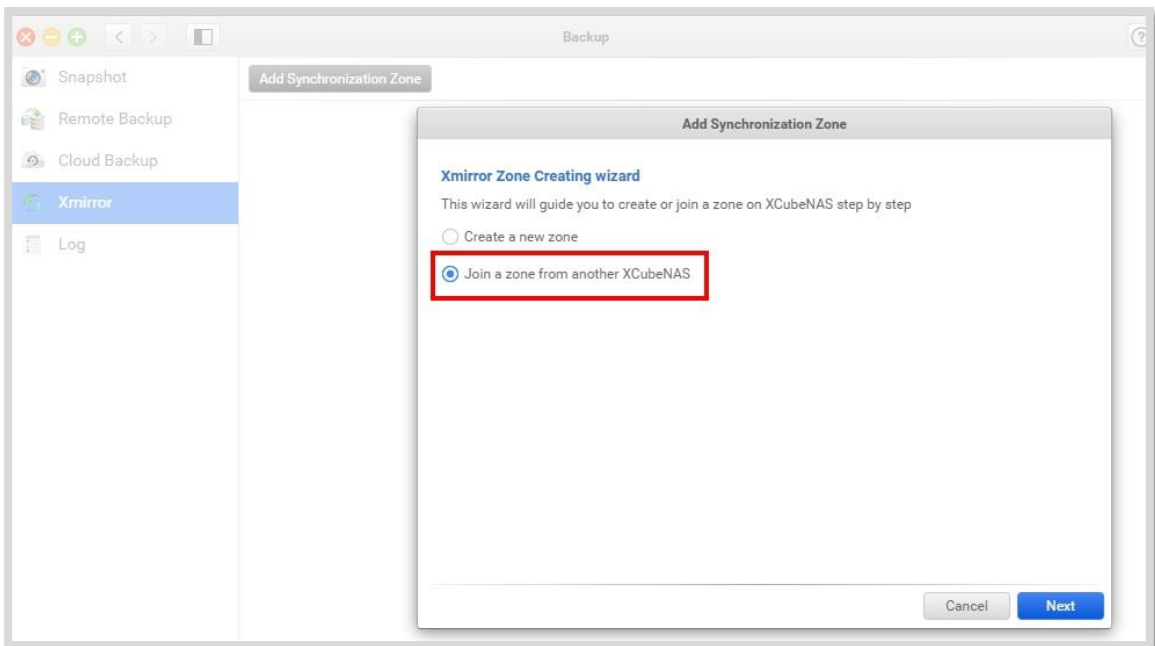
### 4. Check the Zone summary



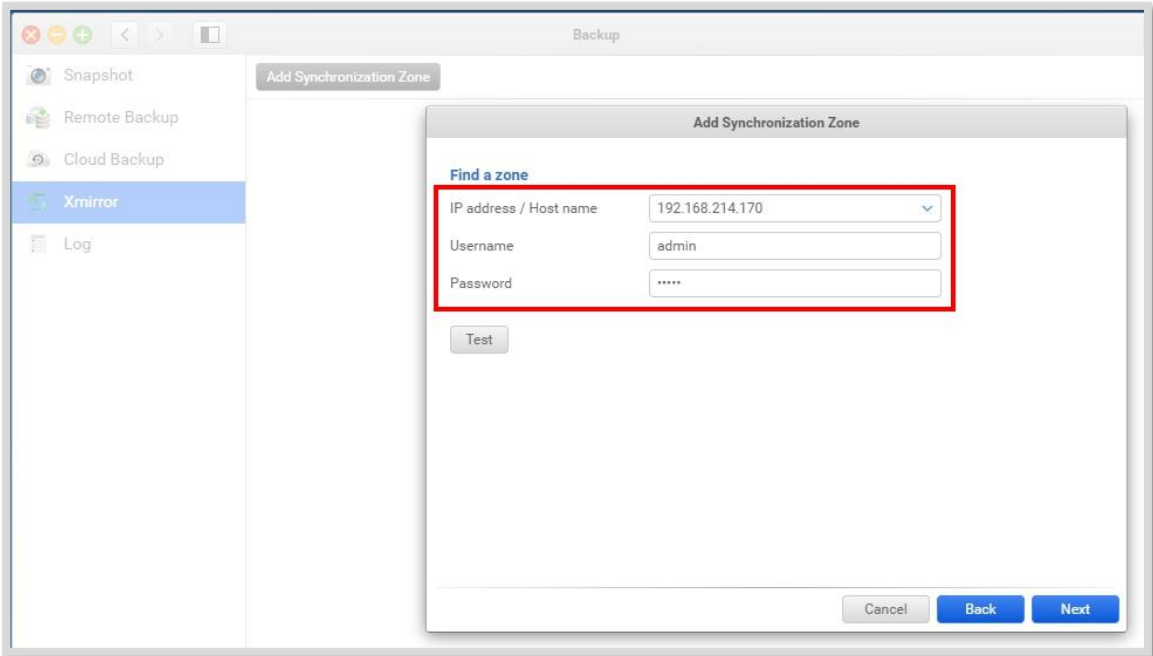
5. Here can see the zone has been created, then we will also need to join another NAS to this zone



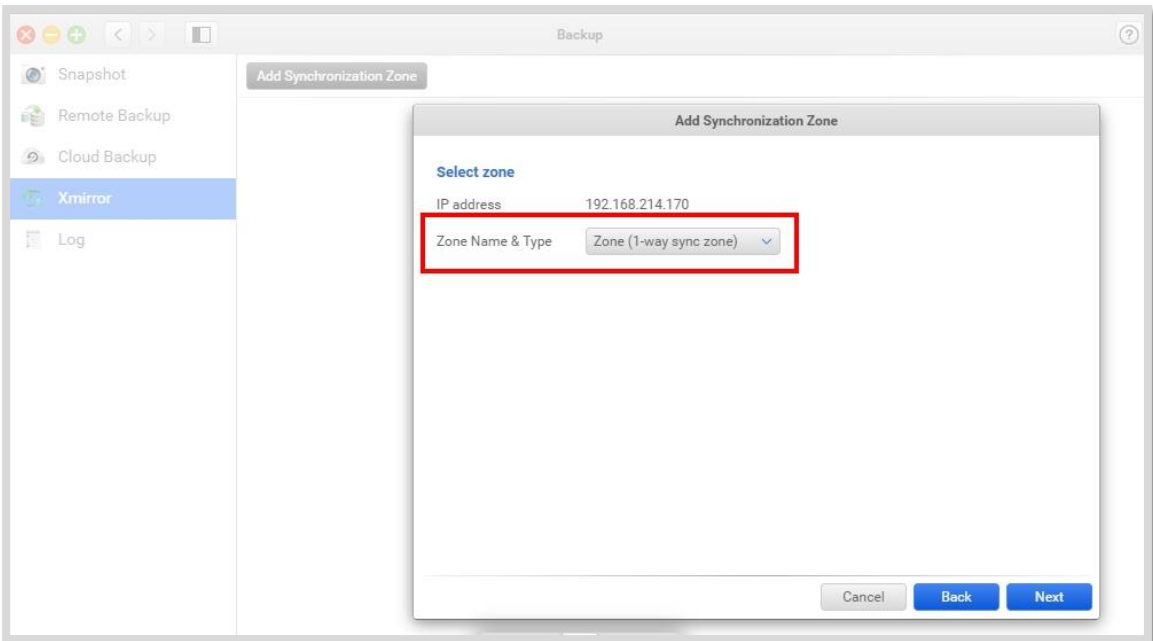
6. Switch to another NAS, and select join a zone in the Backup app -> XMirror



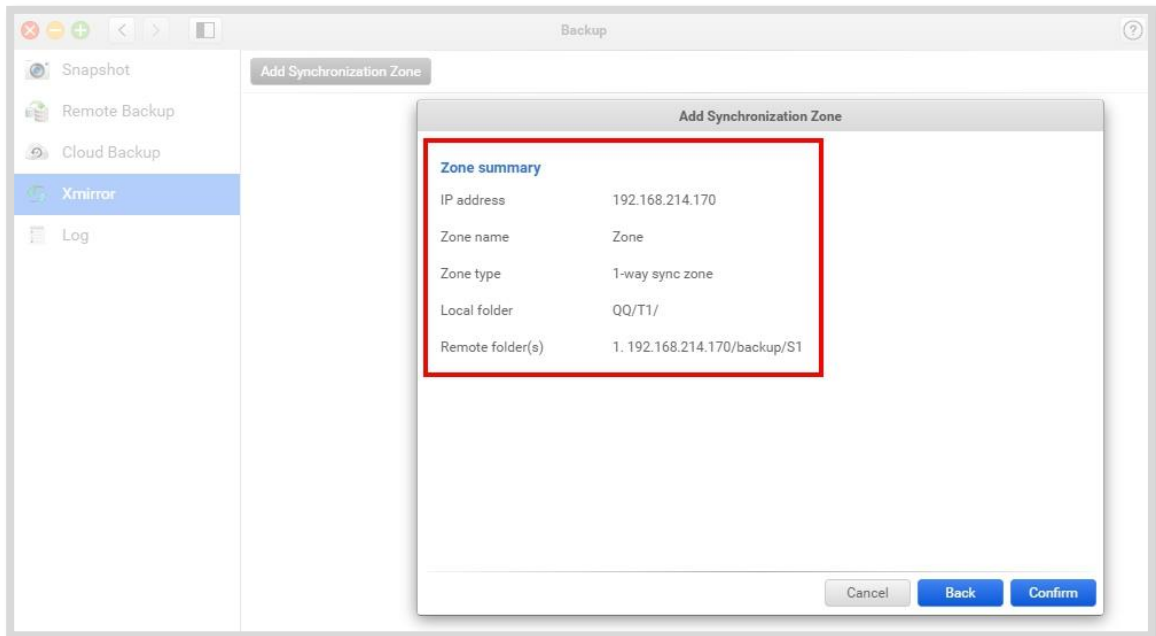
7. Type the IP, username and password of the NAS which we created the zone



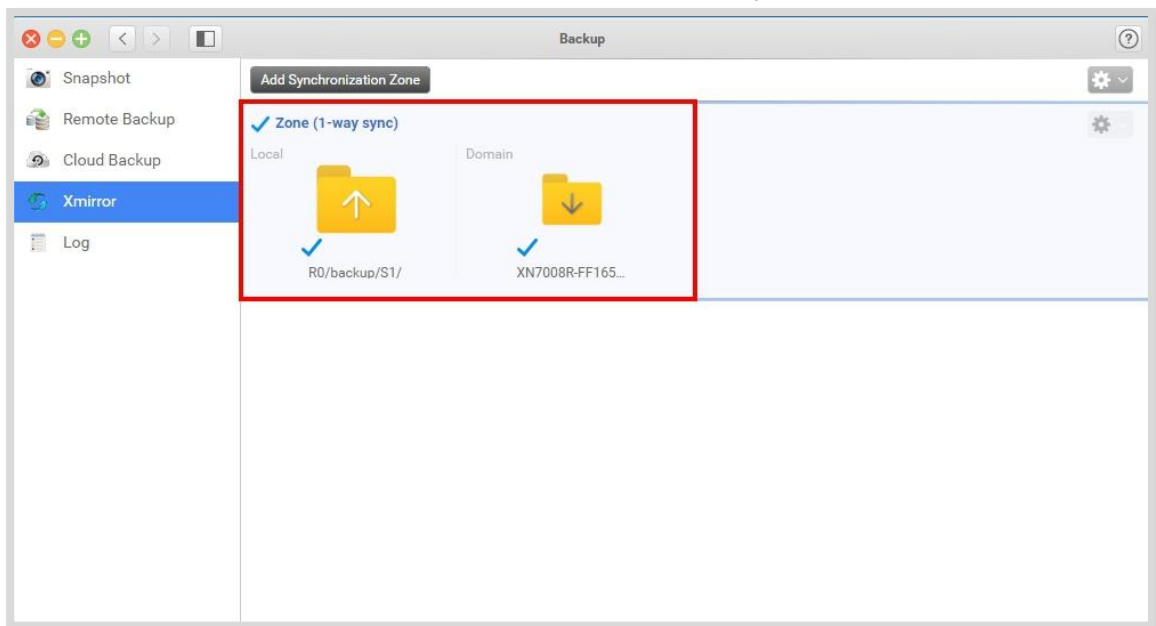
8. Select the Zone



9. Check the Zone summary again

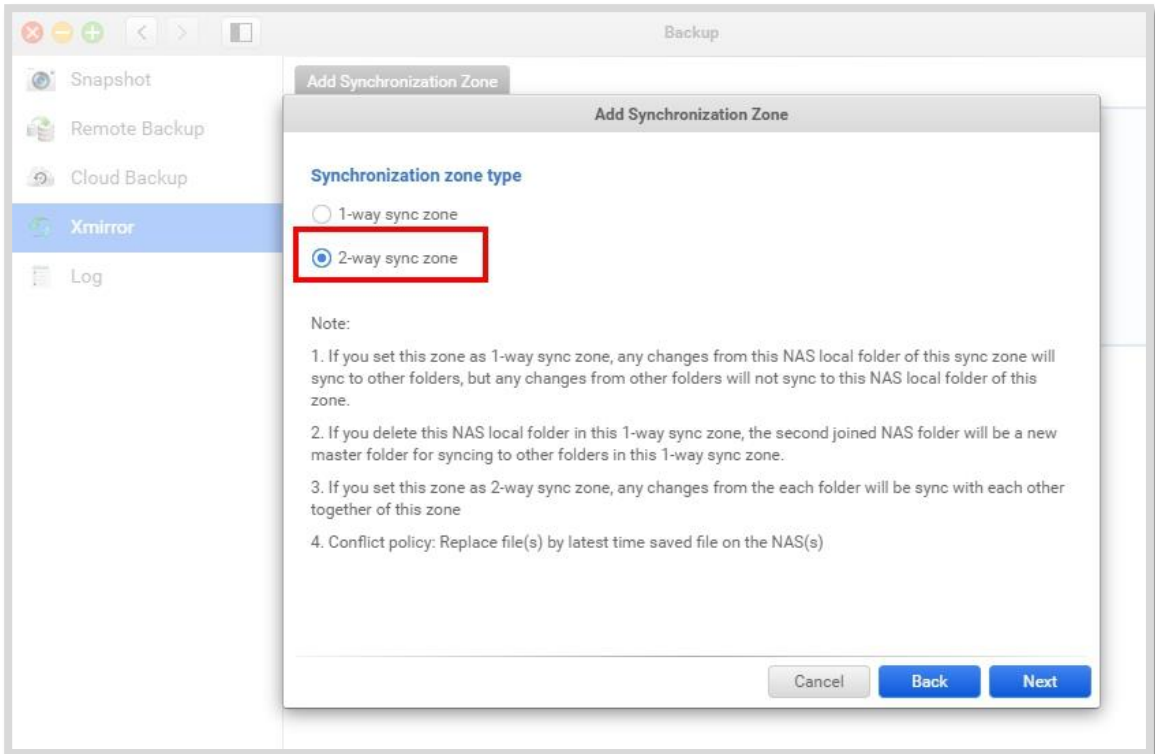


10. Then we will see both NAS are in the same zone successfully



## Setup 2-way sync

The only different procedure is in the step2. of **Setup 1-way sync**, please select 2-way sync zone as below.



## Best practice

### Case : 1-way sync vs. 2-way sync

The advantage of 1-way mirror is that it will keep data syncing to multiple remote folders automatically, and if one of the remote folders occurs data losing issue or hacking issue, it won't affect the data in the local folder or others remote folders.

However, if the local folder has any data corrupted which cause the data loss issue, we can easily get back with the version rollback function on the remote folder. This can satisfy most of the user who has high demand for data security and importance.

But for the 2-way sync, we can easily make all the folders in this zone to have the same data automatically, when data was modified will sync to others folder. This will help some co-work team which needs to sync the same data in their environment. Then 2-way sync can drastically decrease their time-consuming to improve the work efficiency.

## Conclusion

XMirror provides 1-way sync, 2-way sync, and version rollback functions. The user can depend on their demand to configure the XMirror zone in their environment. And also rollback to the previous version to restore the data back. The synchronization zone concept makes XMirror can satisfy most of the users of backup demand.

## Apply to

QSM FW 1.0.0 and alter

## Support and Other Resources

---

### 1.1. Getting Technical Support

After installing your device, locate the serial number on the sticker located on the side of the chassis and register your product at [partner.qsan.com/](http://partner.qsan.com/) (End-User Registration). 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.

1. Via the Web: [http://www.qsan.com/en/contact\\_support.php](http://www.qsan.com/en/contact_support.php)
2. Via Telephone: +886-2-77
3. -2118 extension 136  
(Service hours: 09:30 - 18:00, Monday - Friday, UTC+8)
4. Via Skype Chat, Skype ID: qsan.support  
(Service hours: 09:30 - 02:00, Monday - Friday, UTC+8, Summertime: 09:30 - 01:00)
5. Via Email: [support@qsan.com](mailto:support@qsan.com)

#### **Collect Information for Analysis**

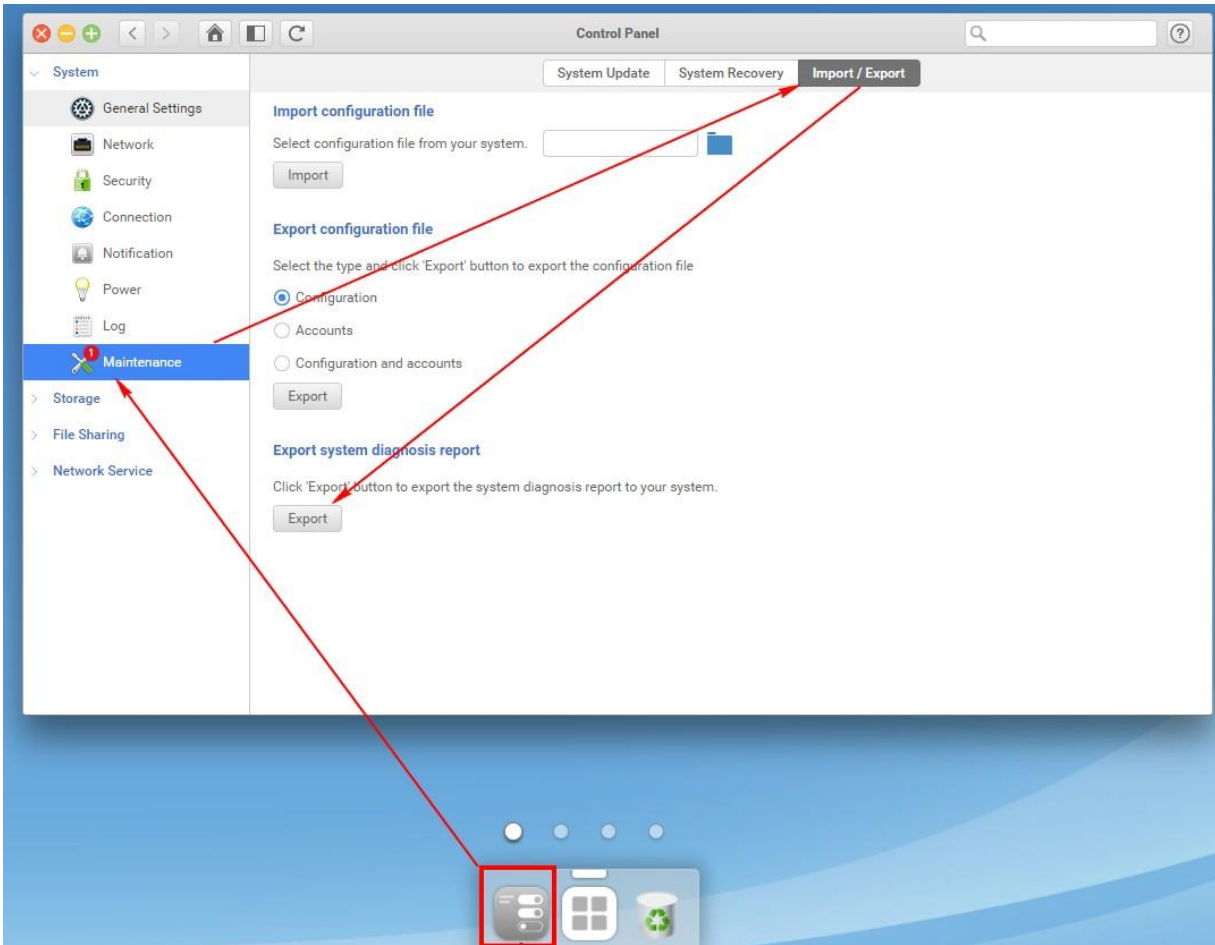
1. Product name, model or version, and serial number
2. Firmware version
3. Error messages or screenshot images
4. Product-specific reports and logs
5. Add-on products or components installed
6. Third-party products or components installed

#### **Information for Technical Support**

The following system information is necessary for technical support, please refer to following for what and where to get the information of your XN3002T model.

If the technical support requests you to download the service log, please navigate to the QSM UI → **Control Panel** → **System** → **Maintenance** → **Import/Export** → **Export system diagnosis report**, and then click the **Export** button.





## 1.2. Documentation Feedback

QSAN is committed to providing documentation that meets and exceeds your expectations. To help us improve the documentation, email any errors, suggestions, or comments to [docsfeedback@qsan.com](mailto:docsfeedback@qsan.com).

When submitting your feedback, including the document title, part number, revision, and publication date located on the front cover of the document.

## Appendix

---

### End-User License Agreement (EULA)

Please read this document carefully before you use our product or open the package containing our product.

YOU AGREE TO ACCEPT TERMS OF THIS EULA BY USING OUR PRODUCT, OPENING THE PACKAGE CONTAINING OUR PRODUCT OR INSTALLING THE SOFTWARE INTO OUR PRODUCT. IF YOU DO NOT AGREE TO TERMS OF THIS EULA, YOU MAY RETURN THE PRODUCT TO THE RESELLER WHERE YOU PURCHASED IT FOR A REFUND IN ACCORDANCE WITH THE RESELLER'S APPLICABLE RETURN POLICY.

#### **General**

QSAN Technology, Inc. ("QSAN") is willing to grant you ("User") a license of software, firmware and/or other product sold, manufactured or offered by QSAN ("the Product") pursuant to this EULA.

#### **License Grant**

QSAN grants to User a personal, non-exclusive, non-transferable, non-distributable, non-assignable, non-sub-licensable license to install and use the Product pursuant to the terms of this EULA. Any right beyond this EULA will not be granted.

#### **Intellectual Property Right**

Intellectual property rights relative to the Product are the property of QSAN or its licensor(s). User will not acquire any intellectual property by this EULA.

#### **License Limitations**

The user may not, and may not authorize or permit any third party to (a) use the Product for any purpose other than in connection with the Product or in a manner inconsistent with the design or documentations of the Product; (b) license, distribute, lease, rent, lend, transfer, assign or otherwise dispose of the Product or use the Product in any commercial hosted or service bureau environment; (c) reverse engineer, decompile, disassemble or attempt to discover the source code for or any trade

secrets related to the Product, except and only to the extent that such activity is expressly permitted by applicable law notwithstanding this limitation; (d) adapt, modify, alter, translate or create any derivative works of the Licensed Software; (e) remove, alter or obscure any copyright notice or other proprietary rights notice on the Product; or (f) circumvent or attempt to circumvent any methods employed by QSAN to control access to the components, features or functions of the Product.

### **Disclaimer**

QSAN DISCLAIMS ALL WARRANTIES OF PRODUCT, INCLUDING BUT NOT LIMITED TO ANY MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, WORKMANLIKE EFFORT, TITLE, AND NON-INFRINGEMENT. ALL PRODUCTS ARE PROVIDED “AS IS” WITHOUT WARRANTY OF ANY KIND. QSAN MAKES NO WARRANTY THAT THE PRODUCT WILL BE FREE OF BUGS, ERRORS, VIRUSES OR OTHER DEFECTS.

IN NO EVENT WILL QSAN BE LIABLE FOR THE COST OF COVER OR FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, INCIDENTAL, CONSEQUENTIAL OR SIMILAR DAMAGES OR LIABILITIES WHATSOEVER (INCLUDING, BUT NOT LIMITED TO LOSS OF DATA, INFORMATION, REVENUE, PROFIT OR BUSINESS) ARISING OUT OF OR RELATING TO THE USE OR INABILITY TO USE THE PRODUCT OR OTHERWISE UNDER OR IN CONNECTION WITH THIS EULA OR THE PRODUCT, WHETHER BASED ON CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHER THEORY EVEN IF QSAN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### **Limitation of Liability**

IN ANY CASE, QSAN’S LIABILITY ARISING OUT OF OR IN CONNECTION WITH THIS EULA OR THE PRODUCT WILL BE LIMITED TO THE TOTAL AMOUNT ACTUALLY AND ORIGINALLY PAID BY CUSTOMER FOR THE PRODUCT. The foregoing Disclaimer and Limitation of Liability will apply to the maximum extent permitted by applicable law. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the exclusions and limitations set forth above may not apply.

### **Termination**

If User breaches any of its obligations under this EULA, QSAN may terminate this EULA and take remedies available to QSAN immediately.

### **Miscellaneous**

- QSAN reserves the right to modify this EULA.
- QSAN reserves the right to renew the software or firmware anytime.
- QSAN may assign its rights and obligations under this EULA to any third party without condition.
- This EULA will be binding upon and will inure to User's successors and permitted assigns.
- This EULA shall be governed by and constructed according to the laws of R.O.C. Any disputes arising from or in connection with this EULA, User agree to submit to the jurisdiction of Taiwan Shilin district court as first instance trial.