

# Connect to Seagate® Exos™ E 4U106 Guide

## Application Note

August 2023

# ANNOUNCEMENT

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# NOTICES

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# PREFACE

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## Executive Summary

This application note provides technical guidance for connecting to Seagate Exos E 4U106 JBOD building block, which is a fully redundant 4U JBOD disk enclosure, as expansion solutions of QSAN XCubeSAN series storage. The new expansion solutions expand the capacity of QSAN storage with high density.

## Audience

This document is applicable for QSAN customers and partners who are interested in purchasing Seagate Exos E 4U106 as the expansion unit of XCubeSAN series. 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.

## Technical Support

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

- Via the Web: [https://www.qsan.com/technical\\_support](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](mailto:support@qsan.com)

# Information, Tip, and Caution

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



## INFORMATION

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

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## TIP

TIP provides helpful suggestions for performing tasks more effectively.

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## CAUTION

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

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# 1. GUIDELINES

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In response to the arrival of the 5G era, data will grow very rapidly. Our partnership with long-standing partner Seagate enables our joint enterprise customers to provide high density storage platforms with unprecedented low TCO. Seagate Exos E 4U106 is the datasphere's largest building block delivering industry-first capacity and density without sacrificing data access speed. Increase the amount of data that fits in a 4U rack by leveraging up to 106 of our high-capacity hard drives in a single enclosure that holds up to an unprecedented 1.7PB of business intelligence. With an overall maximum bandwidth of 36GB/s, you can access mission-critical and archival data with lightning speed.

## 1.1. Seagate Exos E 4U106 Installation Guide

Please refer to the Seagate Exos E 4U106 installation and maintenance guide which provides information about initial hardware installation and setup, as well as removal and installation of customer-replaceable units (FRUs) for the Seagate Exos E 4U106 enclosure.



### INFORMATION

Document information:

- [Seagate Exos E 4U106 Hardware Installation and Maintenance Guide.](#)
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## 1.2. Expansion Topology and Deployment

The following images illustrate some examples of deployment types for dual controller XCubeSAN series plus Seagate Exos E 4U106 expansion units. MPIO (MultiPath I/O) configurations are designed to provide HA (High Availability) data connections to ensure data consistency in the rare event of a failure in the host connectivity from a single path.



### One XCubeSAN / One Seagate Exos E 4U106 / Dual Path

The following figure shows an example of an XCubeSAN series connected to a Seagate Exos E 4U106 using mini SAS HD to mini SAS HD cable (SAS 12G expansion cable, SFF-8644 to SFF-8644).

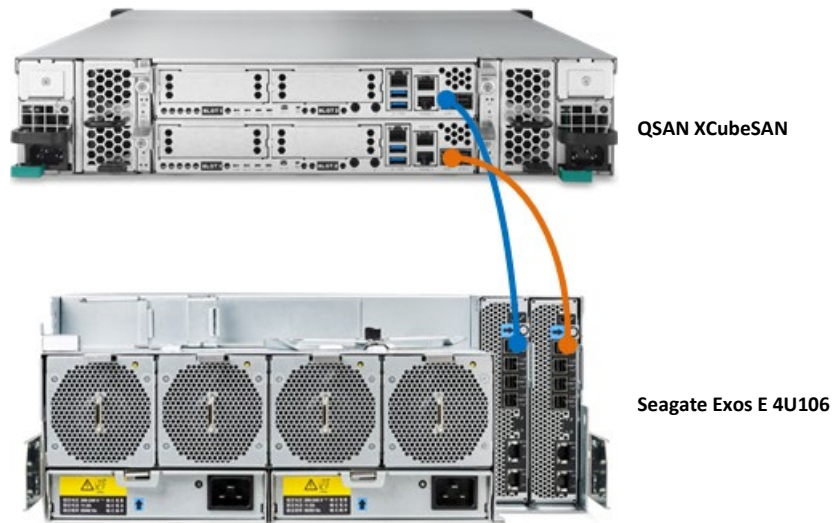


Figure 1-1 One XCubeSAN / One Seagate Exos E 4U106 / Dual Path



### CAUTION

Seagate Exos E 4U106 does not support SAS 12G expansion cable with Wake-on-SAS.

### One XCubeSAN / Two Seagate Exos E 4U106 / Dual Path

The following figure shows an example of an XCubeSAN series connected to a Seagate Exos E 4U106 using mini SAS HD to mini SAS HD cable (SAS 12G expansion cable, SFF-8644 to SFF-8644) which is in turn connected to the second Seagate Exos E 4U106 using mini SAS HD to mini SAS HD cable (SAS 12G expansion cable, SFF-8644 to SFF-8644).

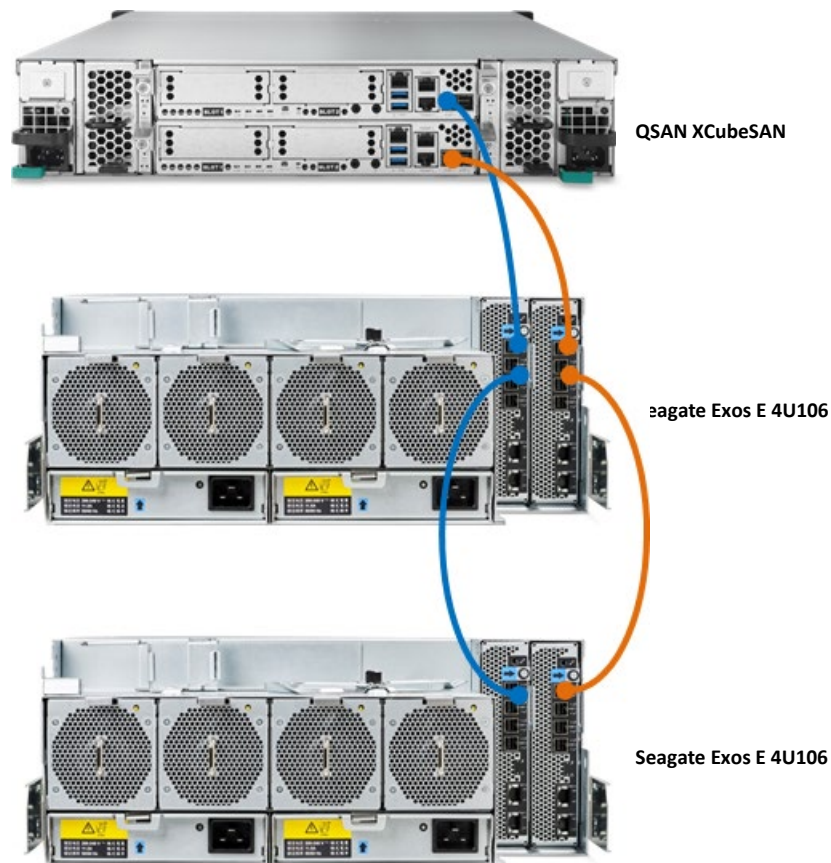


Figure 1-2 One XCubeSAN / Two Seagate Exos E 4U106 / Dual Path

### One XCubeSAN / One XCubeDAS / One Seagate Exos E 4U106 / Dual Path

The following figure shows an example of an XCubeSAN series connected to an XCubeDAS XD5300 series which is in turn connected to the second Seagate Exos E 4U106 using mini SAS HD to mini SAS HD cable (SAS 12G expansion cable, SFF-8644 to SFF-8644).

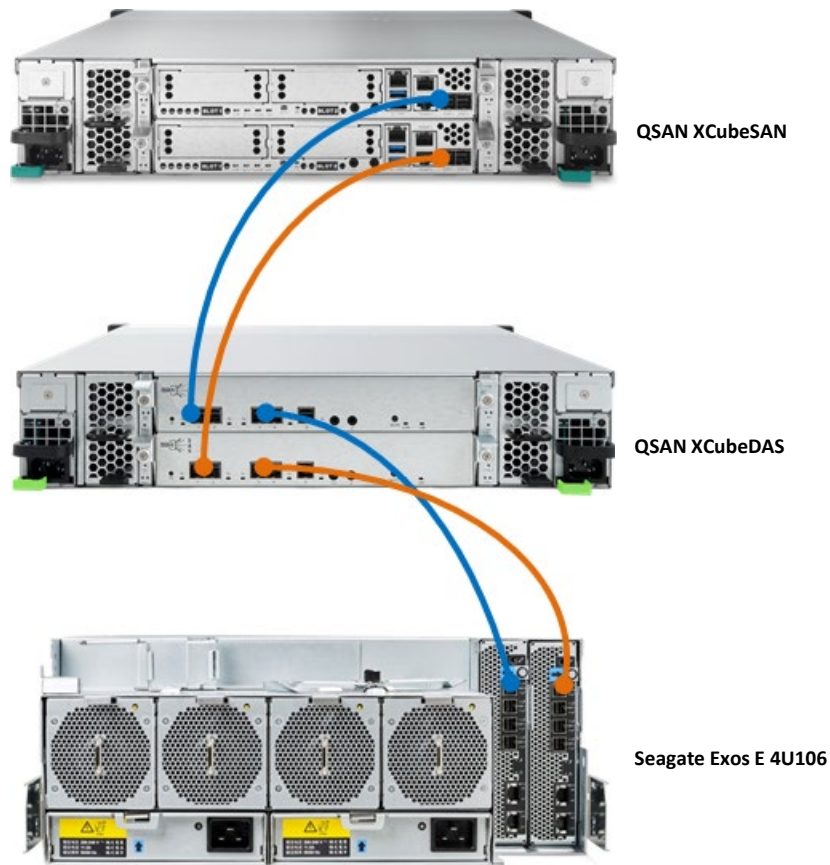


Figure 1-3 One XCubeSAN / One XCubeDAS / One Seagate Exos E 4U106 / Dual Path



#### TIP

If you have multiple XCubeDAS and Seagate Exos E 4U106 as the expansion units of XCubeSAN series, connect XCubeDAS series models before Seagate Exos E 4U106.

## 1.3. Cautions and Limitations

List the following cautions and limitations. You should be aware of the purchase and installation of Seagate Exos E 4U106.

1. QSAN storage does not support firmware update for Seagate Exos E 4U106.
2. Seagate Exos E 4U106 does not support SAS 12G expansion cable with Wake-on-SAS.
3. If you have multiple XCubeDAS and Seagate Exos E 4U106 as the expansion units of XCubeSAN series, connect XCubeDAS series models before Seagate Exos E 4U106.
4. In order to obtain the best stability and performance, it is recommended to use the firmware version in the [Appendix](#), and 1M to 3M cables are qualified.

## 2. APPENDIX

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### 2.1. Apply To

- XEVO firmware 2.2.0 and above.

### 2.2. Reference

Seagate Exos E 4U106

- [Seagate Exos E 4U106 Datasheet](#)
- [Seagate Exos E 4U106 Hardware Installation and Maintenance Guide](#)