



IBM BladeCenter S SAS RAID Controller Module

The IBM® BladeCenter® S SAS RAID Controller Module provides fully-integrated RAID Storage Area Network (SAN) functionality inside your IBM BladeCenter S chassis.

Package contents

- One IBM BladeCenter S SAS RAID Controller Module
- One Battery Backup Unit
- Support CD

System requirements

The IBM BladeCenter S SAS RAID Controller Module can be installed individually or in pairs. These modules, along with their accompanying Battery Backup Units, function only within the IBM BladeCenter S chassis.

The following are system requirements:

- One or two IBM BladeCenter S SAS RAID Controller Modules
- One Battery Backup Unit for each IBM BladeCenter S SAS RAID Controller Module
- At least two hard disk drives for RAID configurations 0 and 1, three hard disk drives for RAID 5, and four hard disk drives for RAID 10
- An Advanced Management Module
- Two power supplies per Disk Storage Module (DSM)
- A supported Ethernet switch

Installation and configuration

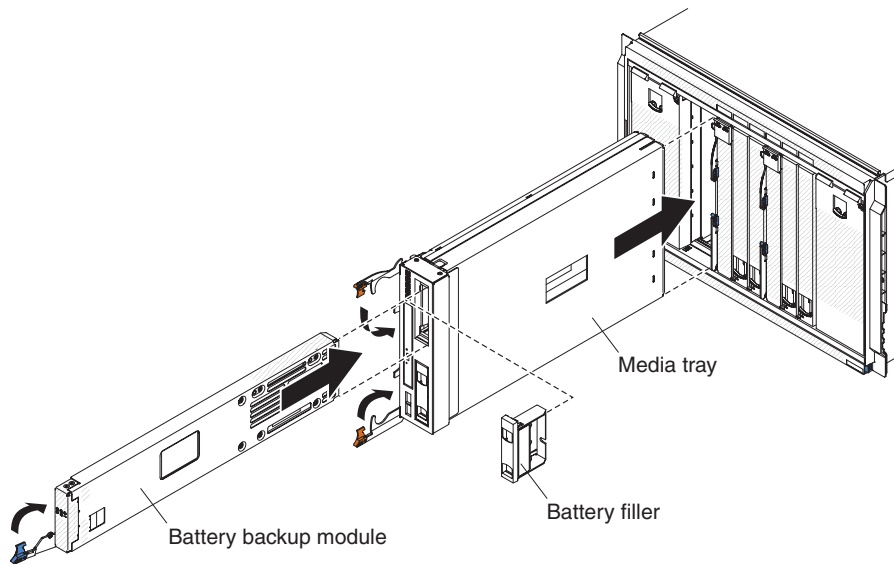
The following elements used for configuring the IBM BladeCenter S SAS RAID Controller Modules are referenced in these instructions:

- Start Now Advisor is a configuration tool that can help you quickly connect to and configure BladeCenter S chassis components.
- The IBM BladeCenter Advanced Management Module provides fundamental management and control features for the BladeCenter chassis.
- IBM Storage Configuration Manager is a system management application that enables you to use a web browser to manage, monitor, and configure the SAS Switch Connectivity Module and SAS RAID Controller Module in your IBM BladeCenter.

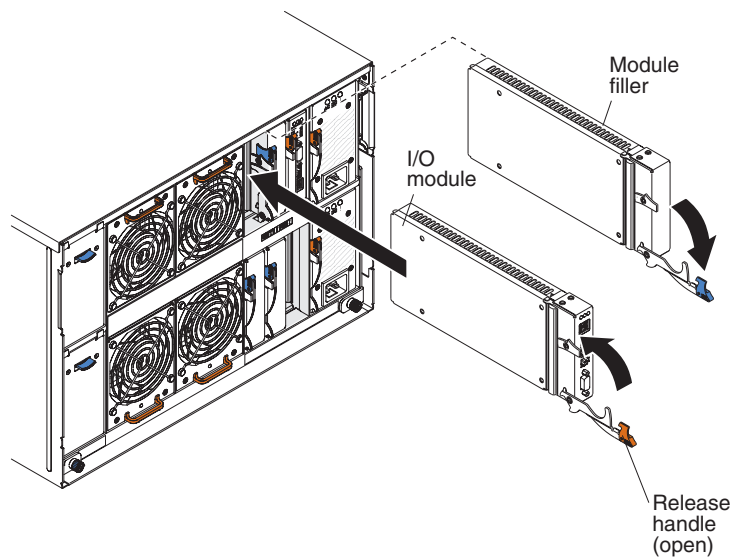
Installing the hardware

Perform the prerequisite steps outlined in the *IBM BladeCenter S SAS RAID Controller Module Installation and User Guide*, ensuring that you follow the safety guidelines for handling static-sensitive devices.

- Install a Battery Backup Unit in bay 1 of the Media Tray. If you have two SAS RAID Controller Modules, install a second Battery Backup Unit in bay 2 of the Media Tray.



- Install the first SAS RAID Controller Module into I/O module bay 3. If you have a second SAS RAID Controller Module, install it in I/O module bay 4.



Setting SAS RAID Module parameters

After you have physically installed the modules, you can choose to configure in one of the two following ways:

Start Now Advisor method

A guided configuration using the Start Now Advisor CD included with your BladeCenter S chassis.

Insert the CD into the laptop or PC you are using for your installation and follow the prompts given.

Advanced Management Module method

A non-guided manual configuration using a direct connection to the Advanced Management Module.

Log into the Advanced Management Module and perform the rest of the setup tasks.

The Start Now Advisor method

You can use the Start Now Advisor to complete the initial setup, including storage configuration using a step-by-step wizard. When you load the Start Now Advisor CD, two paths are available: **Express** and **Launch**. You can take the **Express path** and create your storage pools and provision storage this way, or you can choose the **Launch method** and launch the IBM Storage Configuration Manager install to create your storage pools, provision your storage, and monitor system functions.

To use the Start Now Advisor Express method perform the following steps:

1. Insert the Start Now Advisor CD on a workstation that can communicate with the Advanced Management Module, and follow the instructions in the wizard.

Note: You must have the Advanced Management Module IP address and IP addresses for the RAID Controller and SAS Switch components of each IBM BladeCenter S SAS RAID Controller Module to complete the Start Now Advisor installation.

2. When you are prompted to Create Storage Pools, you can perform a complete storage configuration or you can choose to not create storage pools and finish the configuration without setting up your storage.

The Advanced Management Module method

Log into the Advanced Management Module:

1. Enter the IP address of the Advanced Management Module into the web browser URL field.

Note: The default IP is: 192.168.70.125

2. Enter the username and password.

Note: The default username is USERID and the default password is PASSWORD (the sixth position is a zero)

3. When prompted for the Inactive session timeout value, select a value. If you choose **no timeout**, remember to log out when you have completed your session, otherwise the system shows an error the next time you try to log in.
4. Click **Continue**.
5. From the I/O Module Tasks menu, click **Configuration**.
6. From the I/O Module Configuration section, click **Bay 3**
7. Enter the IP settings for the SAS Switch, and RAID Controller.

Note: Use the Advanced Management Module's IP address for the gateway for each RAID Controller.

8. Save the settings.
 9. If you have a RAID Controller in I/O module bay 4, repeat these steps to configure the IP settings for that RAID Controller as well.
 10. Verify the IP settings are listed before proceeding to the next step.
 11. Enable **Fast POST**.
 - a. From the I/O Module Tasks menu, click **Admin/Power/Restart**.
 - b. Scroll down to the **I/O Module Advanced Setup** section and from the **Select a module menu**, select **I/O module 3**.
 - c. Select **Enabled** from the menu for **Fast POST**.
 - d. Click **Save**.
 12. Repeat these steps to enable **Fast POST** for the RAID Controller installed in **I/O module 4**.
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Configuring storage

If you have not already used the IBM Start Now Advisor to set up your initial configuration, you can configure your integrated shared storage using the following methods:

- IBM Storage Configuration Manager
- IBM SAS RAID Command Line Interface

IBM Storage Configuration Manager

You can use IBM Storage Configuration Manager to set up your initial storage configurations and provide advanced management and monitoring capabilities for BladeCenter S storage. IBM Storage Configuration manager also performs system health monitoring, device user management, and troubleshooting functions. If you would prefer to configure your storage using the Storage Configuration Manager, refer to the *IBM Storage Configuration Manager Planning, Installation and Configuration Guide* for complete installation instructions, and important compatibility notices.

Downloading and installing IBM Storage Configuration Manager

The following is a summary and not meant to be used as primary installation instructions. For complete instructions and important compatibility notices, refer to the *IBM Storage Configuration Manager Planning, Installation and Configuration Guide*.

1. Navigate to <http://www.ibm.com/systems/management/director/downloads.html>.
2. From the **Choose Software** list, select **IBM Storage Configuration Manager** and download the installer file.
3. Download the IBM Storage Configuration Manager installer file you need for your specific installation type (TAR, ZIP, or ISO) at: <http://www.ibm.com/systems/management/director/downloads.html>
4. Unpack the .ZIP or .TAR installation file to a temporary directory or burn the ISO image to a CD.
5. When prompted to choose an install type, select **SCM Full Install for all devices**.
6. After you install the IBM Storage Configuration Manager, you are prompted to restart your workstation. The IBM Storage Configuration Manager service starts automatically upon restart.
7. From the Start menu, launch the IBM Storage Configuration Manager.
8. Log in and select Initial Configuration Wizard and follow the on-screen prompts.

SAS RAID Controller command line interface (CLI)

The RAID Controller command line interface (CLI) is an independent program that you can use to operate the RAID controller. You must log in to a Telnet/ssh session using your user ID and password. The RAID Controller CLI starts automatically, and a <CLI> prompt appears. When you exit from the RAID Controller CLI, the Telnet/ssh session ends simultaneously.

Note: The default username is USERID and the default password is PASSWORD (the sixth position is a zero)

For a listing of the commands used for the RAID Controller CLI, and their command arguments, refer to the *IBM BladeCenter S SAS RAID Controller Module Installation and User's Guide* on your Support CD.

IBM support sites

For additional IBM BladeCenter S SAS RAID Controller Module support and documentation see the following:

- For complete documentation – Information Center for IBM BladeCenter products
- For system support – <http://www.ibm.com/systems/support/>

Contents of the Support CD

- *IBM BladeCenter S SAS RAID Controller Module Installation and User's Guide*
- Supporting firmware and device drivers
- Legal notices
- *IBM BladeCenter S SAS RAID Quick Start Guide*
- *Multilingual Safety Information*

For detailed installation information, see the documentation in the documentation directory on the *Support* CD.

Fourth Edition (May 2011)

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(1P) P/N: 90Y5612

