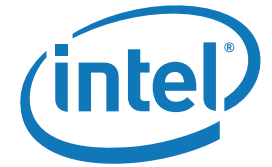


# Intel® RAID Solutions for Your Data Center Storage Applications



Amplify. Optimize. Thrive. Do SAS-2/6G Storage Right.



As the storage ecosystem of today is rapidly evolving, data centers are charged with supporting more users with a greater degree of efficiency and energy footprint, while, trying to capitalize on user demands within a tight IT budget.

## The “More is More” Data Dilemma

In today's data centers there is more focus on lowering Total Cost of Ownership; but without paying more upfront. It's more storage for more users, more power with less energy, more complex requirements with simplified administration, more security measures to safeguard against identity and data theft. This, “more” dilemma, tasks data center applications of all kinds to include cloud computing, web servers, database servers, digital content and archive VTLs.

Although this demand is an exceptional business opportunity for systems builders, solving data center challenges is no easy feat. When architecting a storage solution, user demands for both today and tomorrow need to be considered. Data centers may desire configurable solutions that can be easily modified or upgraded as user demands fluctuate, while trying to avoid accumulating unnecessary capital and operational costs so profitability isn't compromised.

## Intel® RAID Solutions to the Rescue

The new generation of Intel RAID for SAS-2/6G storage offers remarkably higher performance, more data security and better data protection at lower introductory prices than previous generations (SAS-1) of products. Designed to optimize Intel® Server Boards and Intel® Server Systems based on the Intel® Xeon® processor, Intel RAID can easily integrate within existing infrastructure. Customers can support more users with less administrative time, use less energy, and reduce costs. Data centers can generate more I/Os from controller investments, and efficiently utilize servers and storage devices. Additionally, advanced IT administration tools, such as Rapid Recovery Snapshot, help reduce the amount of resources required to backup and recover from unexpected scenarios.

### Amplify.

Supercharge storage with world-class performance, and simplified data protection across all RAID levels.

### Optimize.

Reduces total cost of ownership by shopping Intel for servers and controllers.

### Thrive.

Obtain the best tools, marketing support, and upgrades, such as Premium Features.

Custom training, as well as Intel® service and support, make Intel the one source for customers seeking data protection, increased productivity, and simplified IT. All Intel RAID solutions are validated across multiple platforms with Intel® boards, chassis, and systems.

## Diverse Intel RAID Options for All Your Data Center Needs

System builders can economize data center storage investments by offering Intel SAS-2/6G RAID solutions, powered by LSI MegaRAID. With a range of options to select from, customers can benefit from significant performance improvements for both 3Gb/s and 6Gb/s SATA or SAS-based systems. By upgrading from a SAS-1 to SAS-2 generation product, customers can achieve up to 250% more performance with standard hard drives and even higher with the use of Solid State Drives (SSDs). When architecting storage solutions, system builders can choose from the following:

- **Intel® Embedded Server RAID Technology II:** Host-based RAID that uses the chipset, processors, and memory of the server board to provide basic data protection.
- **Intel® Integrated Server RAID:** Unique system boards that offer intelligent RAID protection for SAS and SATA hard disk drives.
- **Intel® RAID Controllers:** Standard add-in cards designed to provide a wide variety of RAID solutions for Intel® Server boards and systems.
- **Intel® Premium Feature Keys:** Unlock advanced software features to further enhance performance and data protection of mainstream and scalable performance products.

## Consider a Powerful Trio of Performance

Intel® Solid State Drives when combined with Intel RAID controllers and Premium Features offer significant performance advantages including I/O acceleration. Simply add at least one SSD to your array to improve performance, and reduce power consumption per IOP.



1. Intel Solid State Drives provide rugged and reliable storage performance. SSDs can reach up to 45,000 read IOPs compared to the fastest enterprise hard disk drives that can only reach up to 400 IOPs.
2. Intel® RAID Controllers lower total cost of ownership and provide simple, high-performance data protection for Intel® Server Boards and Systems based on the Intel® Xeon® processor.
3. SSD Cache and FastPath I/O, when combined with an SSD and RAID controller, can accelerate I/O and transactional performance of your array. FastPath I/O nearly doubles I/O performance with up to 150,000 I/O reads per second for SSDs.

## TAKE THE NEXT STEP

For more information on architecting a storage solution using Intel® RAID Products, explore [www.intel.com/go/RAID](http://www.intel.com/go/RAID)

To make Intel® RAID Controllers part of your server environment, please contact an Intel® Channel Partner Program Participant.



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