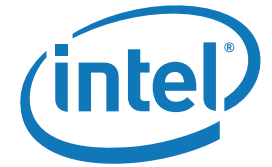


Intel® RAID Solutions for Your Biotech Storage Applications



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



Biotech scientists have a main objective in common - to analyze samples to get to a result quickly and more efficiently. Applications such as genome sequencing, genotyping, gene expression, and biotherapeutics, can demand computing solutions with hardware to process the run, and software that features analytical tools and administrative capabilities.

Increasing and Varying Demands for Storage Solutions

Lab managers and principal investigators strive to locate solutions that best fit their laboratory and budgetary requirements which may encompass:

- **High throughput** - ability to run more experiments concurrently and get to results more quickly.
- **Reliability** - trust that data will be stored for analysis.
- **Scalability** - growth potential of the solution to handle more volume, users or store more data.

System builders are challenged to architect solutions that address varying data processing and data storage requirements. For instance, genome sequencing research applications require an intense level of computer processing power and a massive amount of data storage as a single run can produce terabytes of data as billions of base pairs exist in each human diploid genome and sequencing platform. While, other biotech applications such as genotyping, may require less processing and data storage.

Intel® RAID Offers Scalability and Ease of Use

Intel has enhanced our new SAS-2/6G products to account for the needs of labs to quickly add storage capacity, and frequently archive data, in addition to providing exceptional performance and data protection. With a single Web-based RAID software stack to support all products, system builders can easily integrate and seamlessly deploy customer upgrades as required. Furthermore, Intel RAID products are tested for thousands of hours with Intel® Server Boards and Systems to ensure high reliability.

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 Biotech

System builders can offer biotech customers the paramount value of Intel RAID solutions, powered by LSI MegaRAID, that bring significant performance to both 3Gb/s and 6Gb/s SATA or SAS-based storage 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

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



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