Product Brief

MegaRAID* Release 3.6

Features & Benefits

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MegaRAID* Release 3.6 provides enhanced features and functionality to existing Intel® SAS/SATA RAID controllers. This program bundles elements across four key cornerstones of leadership, including Features and Usability, Data Protection and Availability, Performance, and Green. Focusing on the latest technology trends and customer requirements, these four cornerstones reaffirm Intel's commitment to customer success and market leadership.

Performance

Solid State Drive Support

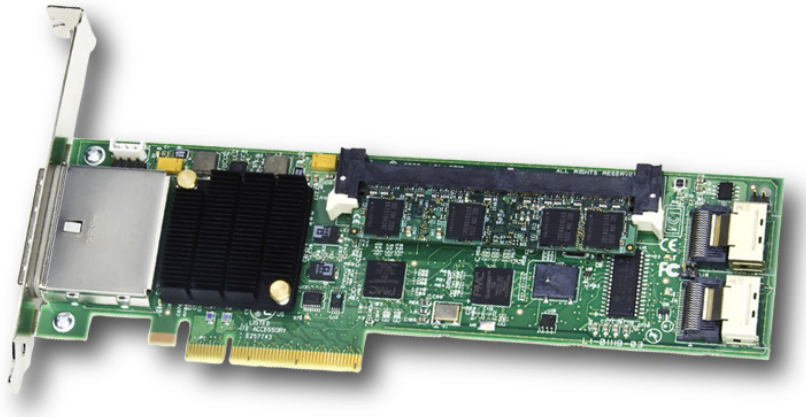
Many Intel® SAS/SATA RAID controllers now support Solid State Drives (SSD), high-performance plug-and-play data storage devices that contain no moving parts. Advantages of using SSDs compared to Hard Disk Drives (HDDs) are faster start-up, extremely low latency, near zero noise pollution, greater temperature range, higher reliability, and faster seek times. SSDs provide performance benefits for applications with primarily random access patterns such as online transaction processing, databases, and web servers.

The new features and functions specifically related to MegaRAID* Release 3.6 include:

- Solid State Drive Support
- SSD Guard™
- Dimmer Switch™
- VMware* ESXi Virtualization Support
- UEFI 2.0 Support for new Intel platforms
- SAS Tape Drive Support
- OS Enhancements to Solaris* X86 and FreeBSD Support

The Intel® RAID controllers that are supported under Release 3.6 are the SRCSASBB8I, SRCSASJV, SRCSASLS4I, SRCSASRB, and SRCSATAWB.

To download the latest release, visit http://support.intel.com



With Release 3.6, MegaRAID management applications are able to identify and manage SSD devices with ease. MegaRAID Storage Manager™ (MSM) is a comprehensive set of management tools with the ability to control and manipulate solid state drives just as is possible with hard drives. MSM monitors for proper usage of SSD devices and allows for any combination of SAS HDDs, SATA HDDs, SAS SSDs, and SATA SSDs to be used in the same system.

The combination of Intel RAID controllers and SSDs are most effective for server applications and server systems where I/O response time is crucial.

Data Protection and Availability

SSD Guard™

Solid State Drives are renowned for their reliability and performance. SSD Guard, unique to MegaRAID, increases the reliability of SSDs by automatically copying data from a drive with potential to fail to a designated spare or newly inserted drive. A predictive failure event notification, or S.M.A.R.T command, automatically initiates this rebuild to preserve the data on an SSD whose health or performance falls below par. This new feature will greatly benefit users employing a RAID 0 configuration due to the added data protection.

Green

Dimmer Switch™

As powering and cooling hard drives becomes a major cost burden in today's data centers, Dimmer Switch promotes ways to reduce the power consumption of an Intel RAID controller's attached devices. With MegaRAID Release 3.6, any unconfigured drive connected to an Intel RAID controller will be spun down after 30 minutes of inactivity in order to reduce its power requirements and more efficiently share resources. Whereas MegaRAID previously supported all drives being spun up 100% of the time, end users will now benefit from up to 50% cost savings just by spinning down these unconfigured drives.

Features and Usability

VMware* ESXi Virtualization Support

MegaRAID Release 3.6 marks LSI's commitment to an evolving marketplace by validating the new VMware ESXi, an embedded version of VMware ESX that allows you to implement production proven server virtualization for free and with a small disk footprint. VMware ESXi does not allow management applications, like MegaRAID Storage Manager, to be installed directly on the server. With MegaRAID Release 3.6, OEMs and system builders can now use MSM to remotely manage MegaRAID adapters installed in ESXi servers, without the need to re-write applications. This makes installing, maintaining and monitoring MegaRAID adapters with VMware easier than ever.

UEFI 2.0 Support

In order to remove the challenges associated with a lack of industry-wide standards, LSI now offers a UEFI 2.0 (Unified Extensible Firmware Interface) driver which supports a cleaner interface between operating systems and the platform hardware at boot time, as well as an architecture-independent mechanism for initializing add-in cards. UEFI 2.0 provides support for the latest Intel platforms based on the x58 chipset.

The MegaRAID UEFI driver, a boot service device driver, handles block IO requests, SCSI pass-through commands (SPT), and the ability to launch pre-boot MegaRAID management applications via driver configuration protocol (DCP). The UEFI driver also supports driver diagnostic protocol, which allows administrators to access pre-boot diagnostics.
This new feature will provide MegaRAID customers with expanded platform support and a hassle-free experience while maximizing the benefits of UEFI 2.0.

Other MegaRAID Release 3.6 Enhancements

Many Intel SAS/SATA RAID controllers now support SAS tape drives, delivering high-end back-up for less. LSI is also committed to supporting a wide variety of operating systems for MegaRAID customers and this extensive list now includes Solaris X86 and FreeBSD operating systems.

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