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Microsemi Adaptec RAID Release Notes dated: November 8, 2016
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These release notes contain the following:

- 1. Description of the Release
- 2. Supported Controllers
- 3. Enhancements and Bugfixes

1. Description of the Release:
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This is the official software release containing the list of software components listed below:

- Series 6 Firmware Version 5.3.0 Build 19198
- Series 8 Firmware Version 7.10.0 Build 33072
- Windows Driver Version 7.5.0.52013
- Linux Driver Version 1.2.1-52011
- VMware Driver Version 1.2.1-52011
- Solaris Version 7.5.0.52025
- FreeBSD Version 7.5.0.52013
- maxView Storage Manager (MSM) Version 2.02 Build 22404

2. Supported Controllers:
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- Microsemi Adaptec RAID 6405
- Microsemi Adaptec RAID 6405E
- Microsemi Adaptec RAID 6405T
- Microsemi Adaptec RAID 6445
- Microsemi Adaptec RAID 6805
- Microsemi Adaptec RAID 6805E
- Microsemi Adaptec RAID 6805T
- Microsemi Adaptec RAID 6805TQ
- Microsemi Adaptec RAID 6805Q
- Microsemi Adaptec RAID 8405
- Microsemi Adaptec RAID 8405E
- Microsemi Adaptec RAID 8805
- Microsemi Adaptec RAID 8805E
- Microsemi Adaptec RAID 8885
- Microsemi Adaptec RAID 8885Q
- Microsemi Adaptec RAID 81605Z
- Microsemi Adaptec RAID 81605ZQ

3. Enhancements and Bug Fixes:
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General:

- Adaptec Series 8 SAS RAID Controllers refresh, including:
  - Support for new Microsemi Adaptec RAID 8E products
  - Support for new operating systems
  - Support for SMR HAL and SMR DM drives for all RAID levels and hot spares (Series 8 only)
  - Storage management utilities update (see the maxView Storage Manager & ARCCONF CLI Readme)

Firmware:

Series 6:

- Resolved an issue where SMART info could not be read correctly.
- Resolved an issue where timeout or unsupported commands sent to a SAS drive on a 6E could cause the drive to be incorrectly marked dead.
- Resolved an issue where a controller ASSERT would occur during a RAID 1 copyback process.

Series 8:

- Resolved a potential issue with previously released firmware build 33067 where the logical drive write cache may be lost if the primary reset handler fails and a reset is initiated by the secondary reset handler, if logical drive write back cache is enabled on the adapter and contains data blocks that have writes committed but are not yet written to the drives media.
- Added support for new ARCCONF UARTLOG command.
- Improved reconfiguration time in large drive configurations.
- Moving a physical drive from one logical drive to another while a secure erase is being performed is no

longer allowed.

- Resolved an issue where the wrong state was displayed in the PBSI interface when a RAID 50 was cleared.
- Resolved an issue where the system would not boot if BBS was disabled with several simple volumes configured on the controller.
- Resolved an issue where RAID creation would fail if attempting to create more than one logical drive on the same set of 512e drives.
- Enhanced error handling to address a controller firmware ASSERT issue.
- Resolved an issue with incorrect LED behavior through an LSI expander.
- Resolved an issue where the controller would timeout in UEFI HII interface.
- Resolved an issue where the controller would not POST, when a RAID 1 was attached, after having been originally created on another controller.
- Resolved an issue where changing the controller mode to HBA mode in UEFI would fail, when an OS was installed on an attached RAW drive.
- Resolved an issue where attempting to un-initialize a drive would hang if the controller was set to auto-volume mode.
- Resolved an issue where some 512e drives would change to RAW after a reboot.
- Resolved an issue where the controller would ASSERT if a drive was removed that was part of four logical drives.
- Resolved an issue where a pooled hot spare would become a dedicated hot spare after being momentarily used to rebuild one of the arrays it was originally protecting.
- Resolved an issue where a physical drive would go offline after a RAID migration had been completed.
- Resolved an issue where the controller would ASSERT after running Sisoftware Sandra.
- Resolved an issue where a cache page allocation failed when cache preservation was disabled, resulting in a controller firmware assertion. If there is only one controller in the system the Arcconf tool may indicate the number of controllers found was zero.

Driver:

-General:

- NUMA support for the RAID controller products. This provides improved performance under NUMA CPU architectures.
- Added command coalescing support for RAID devices for small block sequential I/Os.

- Windows changes:

- Added support for Windows Server 2016
- Resolved an issue where, in a specific scenario, the driver would wait indefinitely after a controller ASSERT and not reset the controller.
- Resolved an issue where the controller time would not be properly set after a Soft Reset Time out.
- Resolved an operating crash issue related to a spinlock dead lock.
- Reduced the IOP RESET recovery time.
- Resolved a timeout issue discovered to be caused by a coalescing request that was not dequeued.

- Linux/VMware changes:

- Added support for Ubuntu 16.04.
- Added support for RHEL 6.8.
- Added support for building DKMS .DEB packages.
- Added support for Ubuntu 14.04.4.
- Added support for SLES 12 SP1.
- Added support for building DKMS packages for Ubuntu kernels.
- Added support for Power KVM 3.1.0.1, 3.1.0.2 and Ubuntu 14.04.3 for Open Power.

- FreeBSD changes:

- Resolved an issue where an IOP\_reset occurred with solaris 10U9 when executing ARCCONF command.
- Resolved a compatibility issue discovered in the previous released version of the Solaris drivers that would cause the drivers to crash.

- Solaris changes:

- Resolved an issue where drives were not detected on Series 6 during a Solaris 10 installation.
- Resolved an issue where a Series 6 controller and drives were not detected after driver update.

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