AutoMAID

AutoMAID is a disk drive power management system. MAID stands for Massive Array of Idle Disks. When disk drives are not in use, AutoMAID puts them into one of several power saving states. Disks are still accessible, however, and are automatically brought back up to full power levels when data needs to be accessed.

Note Not all disk drives support all levels of AutoMAID. Disks that do not support a specific AutoMAID level will stay at a previous, usable level until the system reaches an AutoMAID level that the disk supports (see Configure AutoMAID Settings, page 9-2).

Note If any drives are set to use AutoMAID Level 3 or 4, host timeout values (set for the host HBA either through the HBA BIOS or a management application) should be set to a default of between 120 and 150 seconds to avoid the host requests timing out before the disk drives can power on and spin up to full speed.

AutoMAID Level 1

At AutoMAID level 1, the read/write heads of the disk drives are parked. If access to the disk is requested when it is at AutoMAID level 1, the disk is fully powered and data is accessible in under a second. AutoMAID level 1 provides a 15–20% energy savings.

AutoMAID Level 2

At AutoMAID level 2, the read/write heads of the disk drives remain parked, and disk rotation slows down. If access to the disk is requested when it is at AutoMAID level 2, the disk is fully powered and data is accessible in approximately 15 seconds. AutoMAID level 2 provides a 35–45% energy savings.

AutoMAID Level 3

At AutoMAID level 3, the read/write heads of the disk drives remain parked, and disk rotation stops. If access to the disk is requested when it is at AutoMAID level 3, the disk is fully powered and data is available in approximately 30–45 seconds. AutoMAID level 3 provides a 60–70% energy savings.

AutoMAID Level 4

At AutoMAID level 4, the electronics in the disk are powered off. If access to the disk is requested when it is at AutoMAID level 4, the disk is fully powered and data is available in approximately 45–60 seconds. AutoMAID level 4 provides up to an 87% energy savings.