Intelligent Power Management
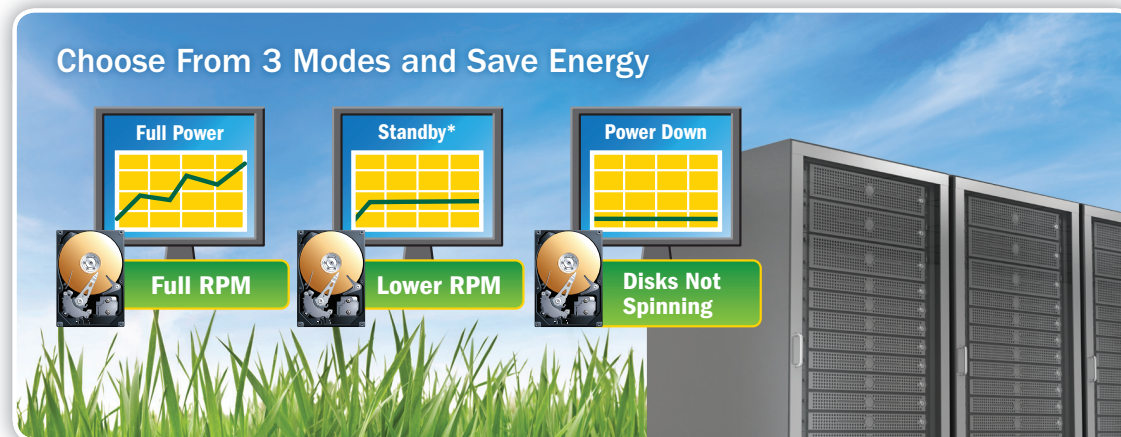
What is Adaptec Intelligent Power Management?

Adaptec Intelligent Power Management (IPM) minimizes the amount of energy used in IT environments by allowing active disks to be spun down to lower revolutions per minute (RPM) or stopped altogether during idle times. Through its use of controller cache, IPM intelligently buffers data to avoid multiple spin-up/down power cycles.

Built into high-performance Adaptec Series 6Q, Series 6, Series 5Z, Series 5, and entry-level Adaptec Series 6E, and Series 2 Unified Serial® RAID controllers for SATA and SAS drives, its unique power modes reduce both the energy required to power the disks and the energy required to cool the disks.

Why Do Your Customers Need It?

Powering and cooling disk drives are among the largest IT costs. In fact, these powering and cooling energy requirements can double the cost of a system. The problem is that traditional systems maintain full power to every disk at all times, even when the disks are inactive. In addition to wasting energy on inactive disks, maintaining full power also increases the heat generated by drives, which significantly increases cooling costs.

Intelligent Power Management can reduce these energy costs by as much as 70%.

Choose From 3 Modes and Save Energy

Full Power — Full RPM

Standby* — Lower RPM

Power Down — Disks Not Spinning

*Must be supported by disk drive

The Larger Your Customers' Systems, The More They Save

As an example, disk-to-disk backup can have up to 80% idle time where disks can be spun down. Here are the savings Intelligent Power Management brings to this scenario.

Number of drives per controller	4	8	16	24	48	96
Power savings/yr	$22	$45	$90	$135	$269	$538
Cooling savings/yr	$16	$31	$63	$94	$188	$377
Savngs 1 system	$38	$76	$152	$229	$457	$915
Savings 50 systems	$1,906	$3,812	$7,625	$11,437	$22,874	$45,748
Savings 250 systems	$9,531	$19,062	$38,124	$57,185	$114,371	$228,741
Savings 500 systems	$19,062	$38,124	$76,247	$114,371	$228,741	$457,482

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Adaptec Intelligent Power Management

How it Works

Until now, attempting to cut costs would have required considering the individual power requirements of each disk purchased, manually adjusting RPM speed, and providing constant care and oversight. Because a controller connects to all the applications, servers and disks in a system, integrating Intelligent Power Management into Adaptec by PMC products makes cost-cutting automatic, no matter what manufacturer or model, and without the time and cost of constant management.

IPM offers flexible scheduling that allows users to define blackout times on an hourly or daily basis and prevent disks from spinning down when faster response times are required.

Ideal Applications:

- File/print servers
- Media ISPs
- Disk-to-disk backup
- Archive and compliance
- WAN-based disaster recovery
- Email archive

Who's Going Green?

Intelligent Power Management not only puts more green in your customers' pockets, it puts more green in the world. With datacenter energy costs expected to hit $10 billion this year, Adaptec joins disk drive, server, and storage system manufacturers in leading the evolution of energy-conscious storage solutions.

www.adaptec.com/greenpartner

GREEN POWER

Grow Your Business with Adaptec

Adaptec innovations like IPM help you meet the evolving needs of modern data centers. By selling Adaptec solutions, you can boost sales, build customer loyalty, and generate long-term growth.

Glossary

Consolidation: A technique for minimizing the number of servers used and reducing costs by combining multiple applications onto larger servers instead of running them on individual smaller servers.

I/O: Input/Output. Any operation that moves information from a disk or another device to a computer.
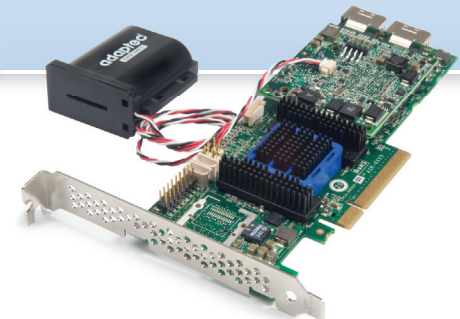
Override: A feature of Intelligent Power Management that allows users to temporarily suspend low-power features on rare occasions that require this.

Spin down: The process of stopping a disk from spinning. Once a disk has been spun down, its data cannot be accessed until it spins up again.

Spin up: The time required for a disk drive that has been stopped, or spun down, to return to an operational state.

RPM: Revolutions per minute. The speed at which a disk turns in the server. Faster RPM speeds mean both higher performance and higher power and cooling costs.

Virtualization: Software that simplifies the management of consolidated applications running together in a server by having them run on their own virtual machines.

For more information:
www.adaptec.com/green-it

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