

Seagate Briefing

Transitioning From the Cheetah 10K.7 Drive

The Seagate Cheetah® 10K.7 hard disk drive has reached its end-of-life (EOL) milestone, concluding a remarkably successful reign as the most popular disk drive family in enterprise storage history. Naturally, you and your customers will now plan an efficient transition to alternative drives. The following Q&A discussion is designed to help you formulate that migration strategy.

What's the easiest way to replace our Cheetah 10K.7 SCSI drives?

The most straightforward solution simply requires plugging in Cheetah 15K.5 SCSI drives in place of your existing Cheetah 10K.7 drives. Significant price reductions on the Cheetah 15K.5 drive now make this a surprisingly affordable approach, and by delivering higher throughput with fewer drives than its 10K-RPM predecessor, the Cheetah 15K.5 drive further enhances its value proposition.

Of course, migrating to Cheetah 15K.5 SCSI drives entails an investment in time and energy to qualify the drives. Given that the projected remaining lifetime of the SCSI interface is limited, forward-looking companies may decide it makes more sense to future-proof their investment by redirecting it into Serial SCSI (SAS), which will be the predominant interface in the enterprise by the middle of 2008.

How can we minimize the cost of migrating to SAS disk drives?

Deploying Cheetah 15K.5 SAS drives delivers the comprehensive benefits of both the Cheetah 15K drive family (industry-leading blend of performance, capacity and reliability) and the SAS interface (point-to-point connectivity, full duplex operation and dual ports), all while retaining the same 3.5-inch form factor used by Cheetah 10K.7 drives.



The Cheetah 15K.5 Drive



The Savvio 10K.2 Drive

This enables you to leverage existing drive enclosures and cabinets, significantly reducing infrastructure expenses when transitioning to SAS. And as noted above, Cheetah 15K.5 drives achieve greater throughput with fewer drives, providing higher net storage system performance from the same number of enclosure/cabinet drive slots.

For applications where reduced power consumption, high capacity and low cost per GB are paramount, the Cheetah NS SAS drive is an ideal choice. Based on the same development platform as the Cheetah 15K.5 drive, this 10K-RPM drive is designed to deliver both enormous capacity and outstanding performance.

Small form factor SAS enterprise drives have already become the leading form factor for enterprise servers. Looking to the future, Savvio 10K.2 drives are the optimal choice when building new servers, blade servers and storage arrays.

The Savvio 10K.2 drive not only enables more drives per system, increasing RAID options and performance per U, it also consumes less power while allowing more airflow to keep powerful processors cool; what's more, its smaller size makes room for more system memory to complement those faster processors.

To Learn More

- For more information about the Seagate Cheetah 15K.5 SCSI, Cheetah 15K.5 SAS and Savvio 10K.2 drives, visit the *Server and Enterprise Storage* section at www.seagate.com. There you'll find a wealth of product overviews, data sheets and white papers to assist your transition from the Cheetah 10K.7 drive.

We're convinced that it's time to migrate to SAS, but how can we ensure the greatest return on our investment?

Getting maximum value from the SAS storage interface entails deploying small form factor (SFF) 2.5-inch enterprise-class drives, which take full advantage of the compact cabling/connectors and enormous scalability of SAS. Seagate Savvio® 10K.2 SAS drives are 70 percent smaller than 3.5-inch drives, enabling integration of more drives into smaller, more space-efficient chassis sizes to deliver higher IOPS/U than conventional 3.5-inch systems.

Moving Forward: Migration Paths for the Cheetah 10K.7 Drive

	Best-Fit Application	Features	Benefits
Good— Cheetah 15K.5 SCSI	SCSI-based servers and storage arrays	Higher throughput with fewer drives than Cheetah 10K.7 SCSI drives	More performance from existing SCSI infrastructure
Better— Cheetah 15K.5 SAS	Mission-critical servers and storage arrays	Peerless 3.5-inch capacity, performance and reliability	Blends 15K-RPM speed with superior SAS architecture
Best— Savvio 10K.2 SAS	High-efficiency mission-critical servers, blade servers, storage arrays	More performance, less power use than Cheetah 10K.7 drives	SFF enables more drives per chassis, higher IOPS/U than 3.5-inch systems