

## Product Overview

# Cheetah NS

**Optimum capacity at the lowest power consumption with superior 10K-RPM performance**

**400 GB and 300 GB • 10K RPM • 4-Gb/sec FC • 3-Gb/sec SAS (400 GB)**

### Key Features and Benefits

- Based on the same development platform as the Seagate® Cheetah® 15K.5 drive, this drive is optimised for capacity rather than performance, using perpendicular recording technology to deliver 400-GB and 300-GB capacities.
- Reducing spin speed from 15K to 10K RPM while maintaining platter size allows a power reduction of more than 33 per cent over previous 10K-RPM products.
- Best-In-Class power profile with 67% improvement in GB/Watt.
- Performance improvements over Cheetah 10K.7 drives include 20 per cent faster access times and a 21 per cent higher sustained transfer rate.
- Faster transactional performance reduces RAID rebuild times, and a 10X improvement over standard 10K products in non-recoverable error rate provides added protection against secondary rebuild errors.
- The Cheetah NS drive delivers best-in-class reliability with 1.4 million hours MTBF and a 0.62 percent AFR.

### Best-Fit Applications

- Network attached storage
- High-capacity, performance and application servers
- Clustered systems
- Medical imaging, CAD, simulation
- Rich media content storage—audio, video, image
- Collaboration—email, messaging
- Infrastructure—web, print, file



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## Product Description

The Cheetah NS enterprise hard drive employs perpendicular recording technology to set new standards for cost-effectiveness in network storage. The drive was developed from the same platform that spawned the Cheetah 15K.5 drive, but the spindle is spun down to 10K RPM in order to optimise the drive for storage capacity while maintaining sequential and transactional performance at more than 20 per cent above standard 10K-RPM levels. In addition to these performance and capacity improvements, the drive offers a ten-fold improvement in non-recoverable errors and a reduction of more than 33 per cent in both idle and operational power requirements. This enables enterprises to meet throughput and capacity requirements with fewer drives and reduced infrastructure support, leading to significant savings in total cost of ownership. The common development platform with the Cheetah 15K.5 drive allows leveraged qualification and faster time to market.

Seagate designed the Cheetah NS drive for maximum reliability in demanding enterprise applications. In addition to the improved non-recoverable error rate, the drive incorporates such Seagate-exclusive features as Idle Read After Write, enhanced error correction code and Background Media Scan to safeguard data integrity in the most demanding environments.

| Specifications                                  |   |
|---|---|
| Capacity (GB)                                   | 400, 300  |
| Seek time, read/write (average, ms)             | 3.9/4.2   |
| Sustained transfer rate (Mb/s)                  | 97  |
| Spin Speed (RPM)                                | 10K   |
| Reliability rating at full 24x7 operation (AFR) | 0.62 percent                                      |
| Non-recoverable read errors per bits read       | One sector per 10E16                              |
| Interface                                       | 4-Gb/s Fibre Channel, 3-Gb/s Serial Attached SCSI |
| Mean Time Between Failures (hours)              | 1.4 million                                       |
| Warranty (years)                                | 5   |

## The Seagate Advantage

- Developed from the fifth-generation Cheetah 15K drive, the 10K-RPM Cheetah NS drive is the highest-capacity drive in the enterprise mission-critical space and offers the highest level of reliability while delivering the lowest TCO.
- The Cheetah NS drive employs perpendicular recording technology to deliver up to 400 GB of capacity with more than 20 per cent higher performance than standard 10K-RPM products while using one-third less power.
- Non-recoverable error rate has been improved by a factor of 10 over standard 10K products, benefiting integrity and reducing risk exposure during RAID rebuilds.

## Capacity, Lowest Power, Performance

- The Seagate Cheetah NS drive is twin to the Cheetah 15K.5 drive, optimised for storage capacity and power consumption but maintaining better performance than standard 10K enterprise products.
- The Cheetah NS drive has been developed for network storage applications, combining the highest available storage capacity and the lowest power consumption to deliver the industry's best £/GB and GB/watt value in enterprise mission-critical storage.
- The Cheetah NS drive complements the Cheetah 15K.5 drive by offering substantial gains in both capacity and power savings while providing best-in-class 10K performance.

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