

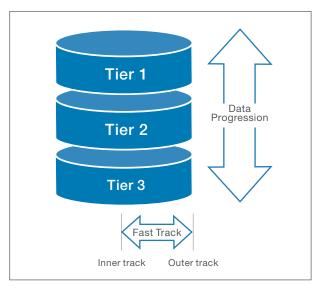
### FAST TRACK

STORAGE CENTER | DATASHEET

#### STORAGE CENTER FAST TRACK

### **Improving Tiered Storage**

Though demand for storage capacity continues to increase, up to 80 percent of all stored data is inactive. Compellent's Automated Tiered Storage, called Data Progression, intelligently manages this inactive data across tiers of storage, cutting overall costs. To continue to meet increasing performance requirements without adding more drives, however, organizations need to extend the power of Automated Tiered Storage to every drive within the system.



Advanced Storage Optimization: Fast Track provides data optimization within each tier, while Data Progression optimizes between tiers.

## Compellent's Fast Track Extends the Benefits of Automated Tiered Storage

Automated Tiered Storage with Fast Track dynamically places the most frequently used data on the fastest, or outer, tracks of each drive. The result is a system that requires fewer drives to manage your data – delivering a big payoff in cost savings and power consumption without sacrificing performance.

**Radically Reduce Costs.** Slash storage costs. Buy fewer drives overall, and efficiently utilize lower cost drives without sacrificing performance.

**Automatically Optimize Data Placement.** Take advantage of the most advanced tiered storage solution in the industry. Automatically place active blocks on the preferred tier and the fastest track of the drive.

**Maximize Performance.** Improve performance based on actual usage patterns, reducing seek times for the most active blocks of data.

# The First SAN to Automate Tiered Storage Within Every Drive

#### **KEY BENEFITS**

- " Use up to 30 percent fewer drives without sacrificing performance
- » Reduce power consumption by decreasing reliance on costly, high-power drives
- » Radically reduce the cost of storage
- » Improve the performance of every drive over time based on actual usage patterns
- » Operates inside the volume to optimize data placement, improve performance and create a dynamic system
- » Leverages thin provisioning technology to write only actual data to the fastest tracks on the drive, further improving disk utilization

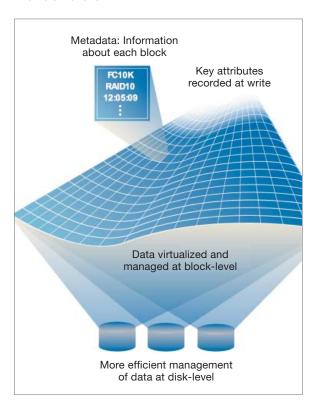
Once created, data is rarely accessed after 30 to 90 days. In fact, storage analysts state that up to 80% of all stored data is inactive.

### **PRODUCT FEATURES**

### **Intelligent Data Movement Inside the Volume**

Compellent built in an intelligent data movement engine that continually analyzes data access patterns and is the industry's first solution to dynamically optimize blocks inside the volume. Operating inside the volume creates a flexible, highly optimized system unavailable anywhere else. This unique architecture records and tracks specific information about blocks of data, called metadata, including time written, time accessed, frequency of access, associated volume, storage tier, RAID level. This comprehensive information allows the Compellent SAN to intelligently assign each block to the appropriate tier of storage and to the appropriate track on a drive.

- » Metadata enables ideal data placement
- Intelligent movement across tiers and within tracks on the drive based on frequency of access
- » System optimization is based on actual usage patterns at the block-level, not set at the volume level



Dynamic Block Architecture: Data Progression utilizes the "metadata" to enable intelligent migration for Fast Track.

### **Automatically Improve the Performance** of Every Drive

With Fast Track and Data Progression, as blocks become used over time, they move out to a faster performing track on the drive. This happens automatically on a daily basis without manual intervention. By continually optimizing data placement on each disk, the combination of Fast Track and Data Progression boosts the performance of every drive and reduces the total number of drives required by up to 30 percent.

- » Automatically maximize system performance without adding drives
- » Improve performance by placing the most active blocks closer together on the fastest tracks of each drive
- Fast Track works on every drive within the system from Fibre Channel down to SATA

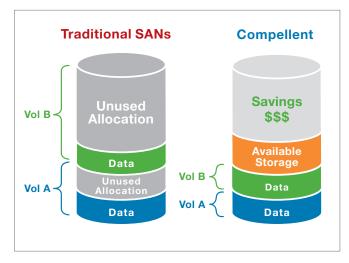


Improve Disk Performance: Automatically place the most frequently accessed data on the fastest tracks of every drive.

### **Efficiently Utilize the Fastest Tracks**

Only Compellent integrates Thin Provisioning with the advanced Automated Tiered Storage capability of Fast Track to deliver the industry's leading storage utilization solution. Unlike competitive solutions, Compellent places only written data on the outer edges of a drive, rather than the allocated but unused space prevalent in other storage systems. Without Compellent's unique combination, there is no advantage to optimizing volume placement on the outer tracks of a disk drive.

- » Eliminate wasted space on the fastest portion of the drive
- » Only active blocks, not an entire volume, are placed on the fastest outside edges of the drive
- >> Improve overall disk utilization



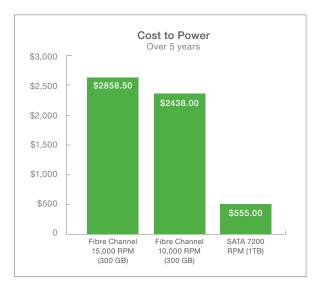
Thin Provisioning: Fast Track only places active, written data on the outer tracks, leaving more capacity for real data.

An independent lab report concluded that Fast Track yields a capability that is "unique in the industry – automated block-based migration to the faster tracks on the outside of a drive, which makes applications run faster over time."

### **Reduce Power Consumption**

Fast Track not only reduces the number of drives required, it allows you to use the ideal mix of disks to create a greener data center. Reduce power consumption and CO2 emissions per usable terabyte and decrease your reliance on high-power drives. Efficiently utilize the highest performing sections of low-cost, energy-efficient drives including SATA.

- » Buy fewer high performance, power-hungry disks
- » Choose higher capacity, energy-efficient disks for inactive data
- » By reducing the number of disk drives and utilizing power-friendly SATA drives, Fast Track automatically reduces power consumption



Reduce the Cost of Inactive Data: Storing inactive data on the inner tracks of lower-cost drives dramatically reduces power consumption.

### The First SAN to Automate Tiered Storage Within Every Drive

Combined, Fast Track and Data Progression create the most advanced tiered storage solution in the industry. Accelerate performance by placing the most important data closer together on the fastest tracks of every drive. By boosting the performance of every drive within the system, Compellent slashes storage costs, reduces overall drive counts and minimizes power consumption.

### **FAST TRACK SPECIFICATIONS**

DATA CLASSIFICATION & MOVEMENT	
Automated Data Movement Across Tracks	Yes, based on frequency of access
Automated Bi-directional Data Movement	Yes
Data Types Migrated	Writeable Data, Replay Data
Snapshots Migrated	Yes, Automatic
Additional Software Required for Data Classification and Movement	Data Progression
Volume Level Control	Yes, Simply Enable Volume for Fast Track
Thin Provisioning	Yes

### COMPELLENT

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SCALING	
Maximum System Size	Unlimited
Maximum Volume Size	Unlimited
Maximum Number of Transitions Between Tiers and Across Drives	Unlimited
Drive Types Supported	Fibre Channel, SATA - All Rotational Speeds

### ABOUT COMPELLENT

Compellent is a leading provider of enterprise-class network storage solutions that are highly scalable, feature-rich and designed to be easy to use and cost effective.