

## Meeting the Capacity Demand

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**THIC Inc.**

The Premier Advanced Recording Technology Forum

**Quantum.**

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## Meeting the Capacity Demand

Mark Eastman – QSD Product Marketing  
THIC Conference  
Boulder, Colorado



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# Agenda

- Market Trends
- DLTtape™ Futures
- Summary

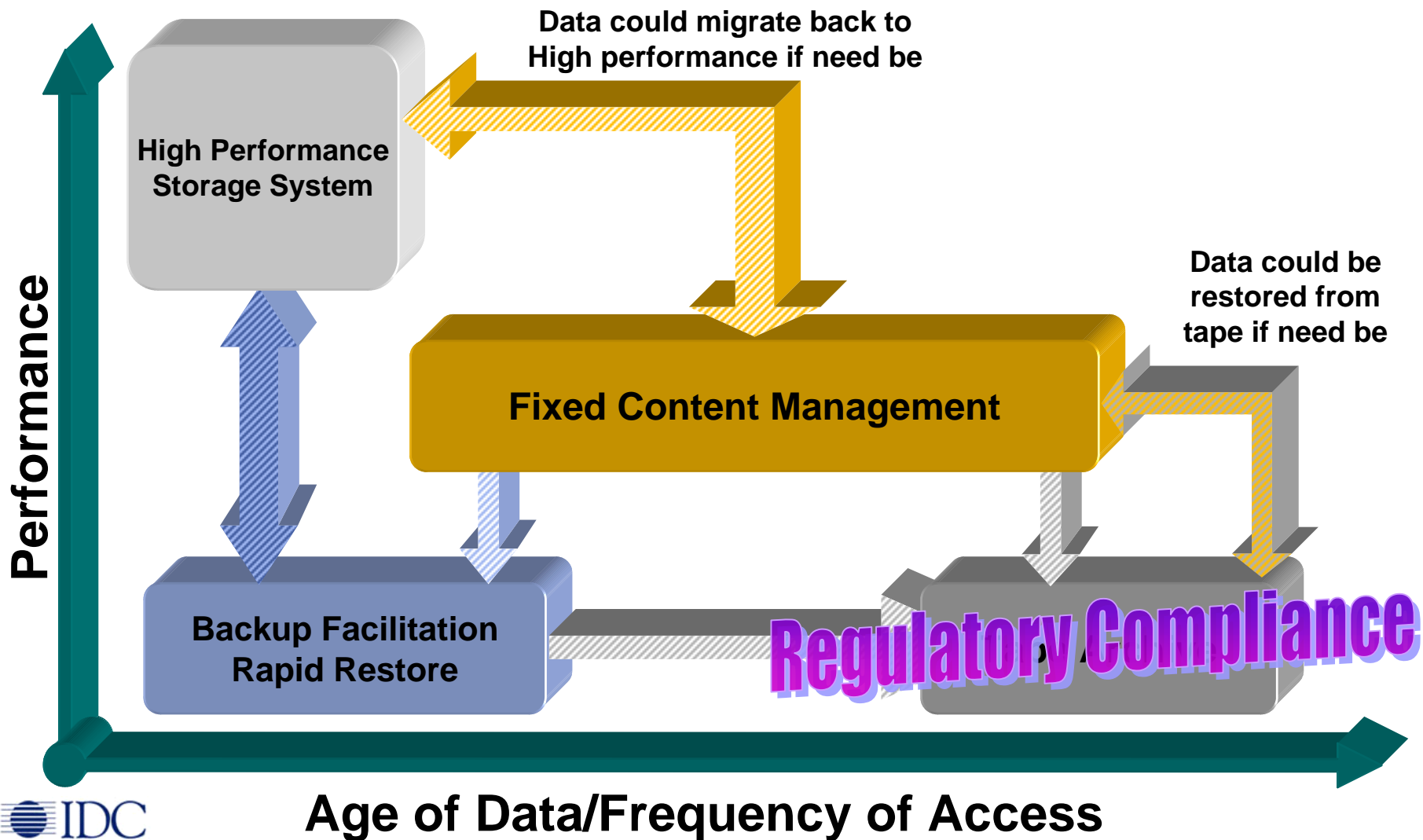


## Market Trends

Market Overview



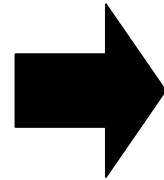
# Data Lifecycle Management and Tiered Hardware



# Quantum Impact...the next five years



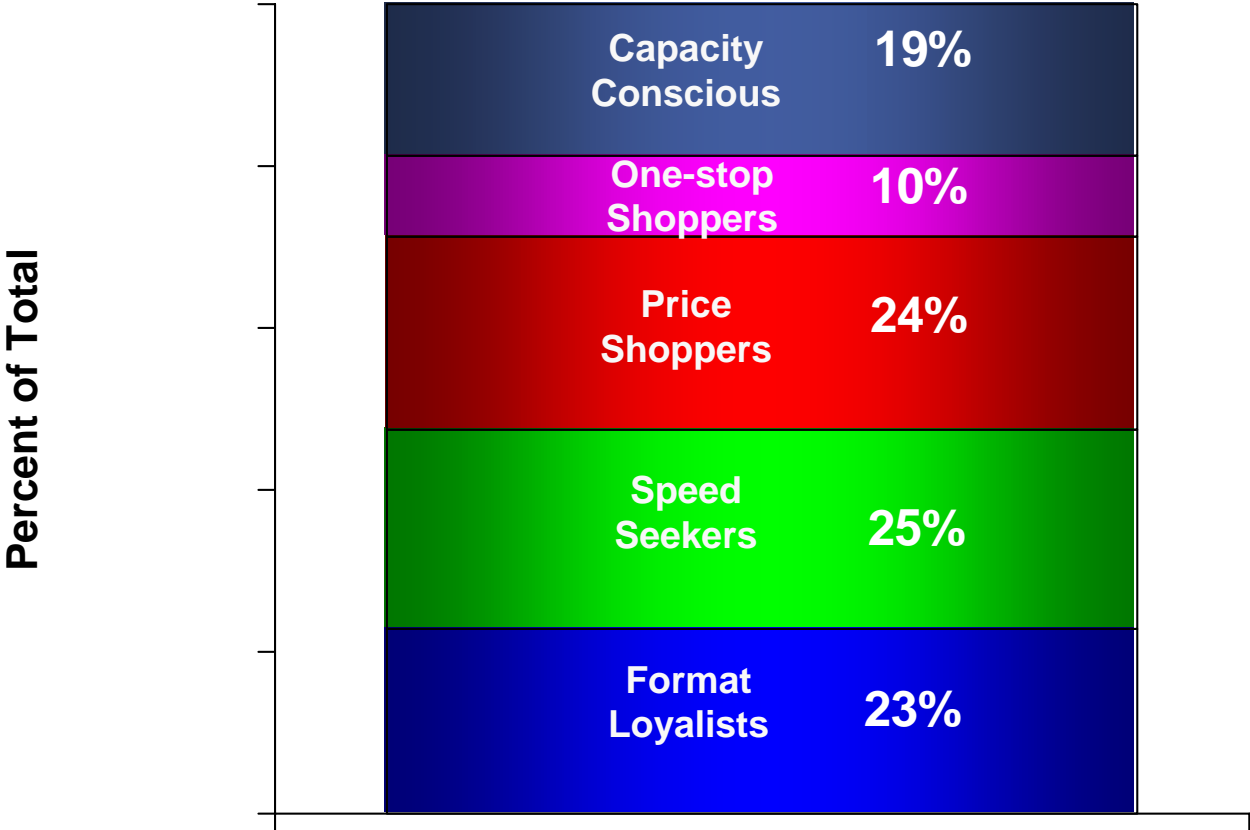
- High Data Availability
- Data Lifecycle Management
- Data Value Management
- Storage Management



***Disk for availability***  
***Tape for archive***  
***Self-managing devices***

**DLT**SAGE  
Quantum.

# Midrange Tape Segment Purchase Criteria



Source: Quantum Conjoint Study 2003

# Quantum Implications

- Speed seekers are the early adopters of D2D
  - Once they implement D2D they become Capacity Hounds
- Capacity conscious will be drawn to inexpensive (\$/GB) high-capacity tape
- DLTtape is leading the industry in both categories
- DLTtape futures will provide even more focus on capacity



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## DLTtape Futures



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# SDLT 600 Key Enablers

- Track Density Increased 43%
  - Digital Signal Processing on Optical Servo
  - Number of tracks increased from 448 to 640
- Head Channels Doubled
  - Higher output read head which allowed for smaller footprint
  - Number of Heads increased from 8 to 16
- New Super DLTtape II Media
  - Uses the media for the next generation drive today
- High Performance Interfaces
  - 2 Gb Fibre Channel
  - Ultra 160 SCSI

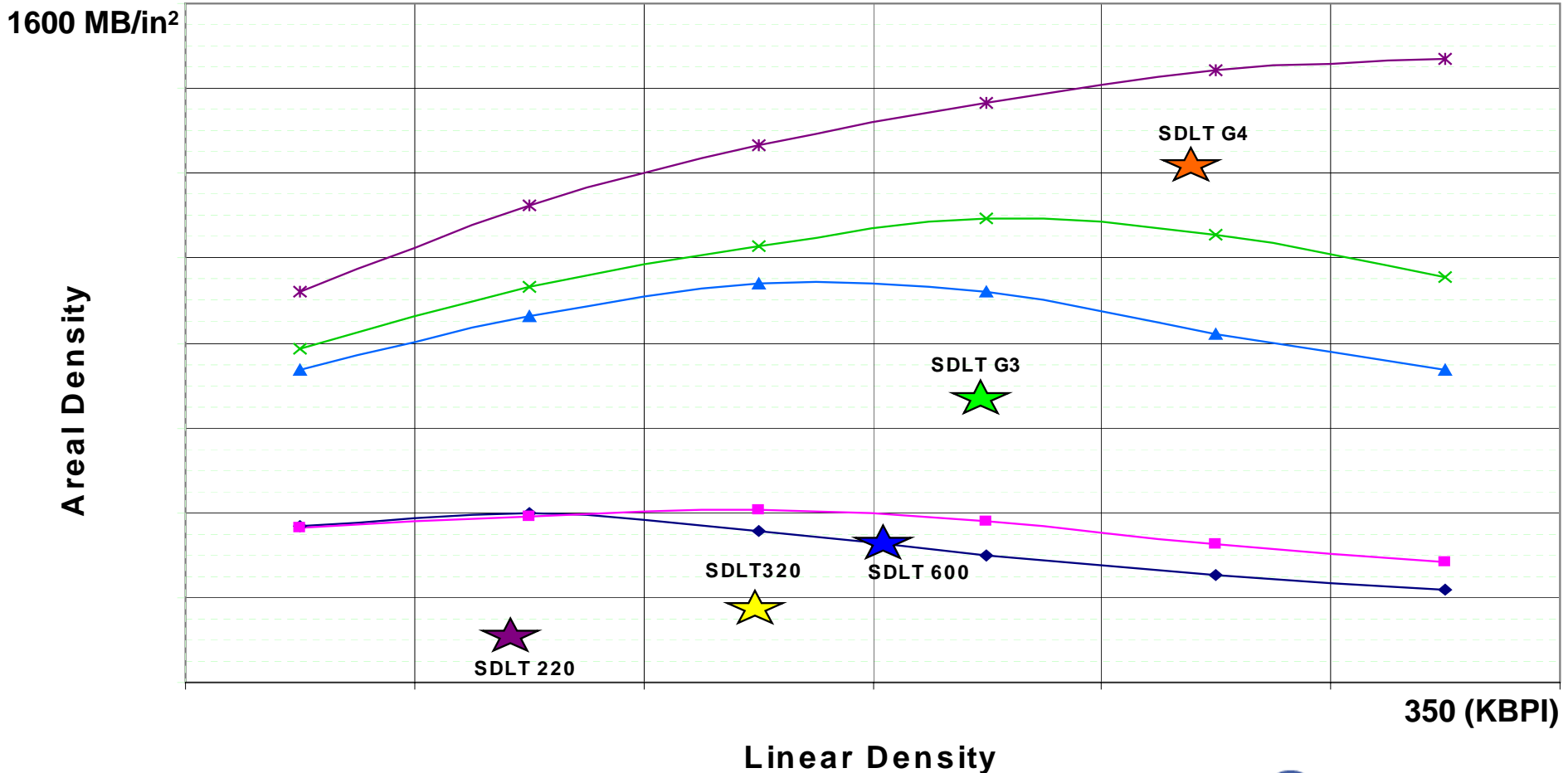


# DLTtape Enabling Capacity

- Improved servo sensing techniques
- Enhanced tape path for thinner media
  - Reduced edge force
- Higher bandwidth actuators
- More robust format
  - ECC improvements
  - Bandwidth to handle larger errors
- Lower SNR for smaller heads and tracks
  - Heavily integrated read channels
  - Deeper Viterbi Trellis

# Super DLTtape Media

Areal Density Comparisons for Various Particle Constructs  
24 dB SNR



# Summary

- D2D is here...but so is Tape
  - System DLM/ILM Strategies
- Data Management and Regulatory Compliance are driving capacity
  - Capacity driving solutions
- Manageability is key
  - DLTSage™
  - ISV Support