



**IBM Storage Systems
Storage Technology Markets**

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Storage Business Concerns

- **Data growth up to 100% yearly**
- **Over 160B gigabytes created last year***
- **Meeting performance SLA's are a challenge**
- **Data archive and disaster recovery are critical**
- **Compliance and data security issues**
- **Managing TCO and energy costs a must**

*“Estimate that for every dollar spent on computer hardware, another 50 cents is spent on energy.”**

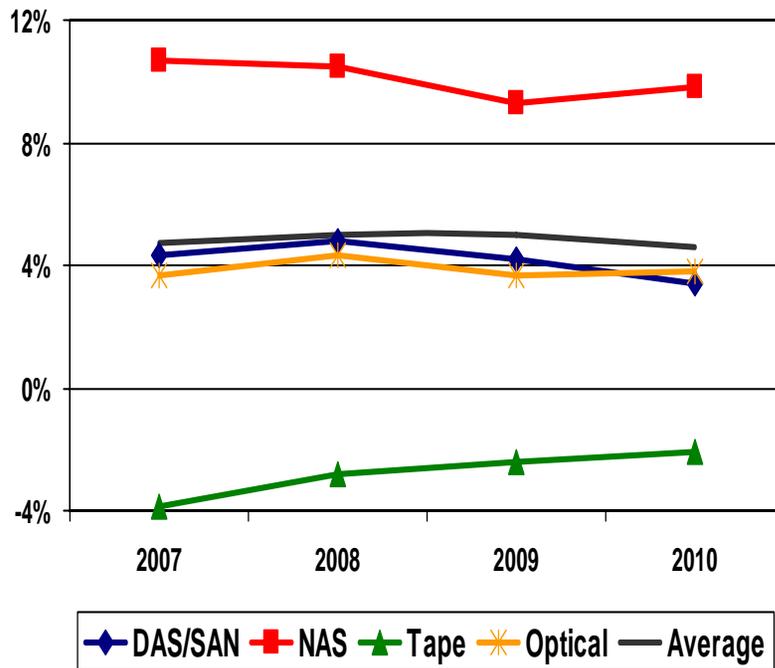


Source: Industry analyst.

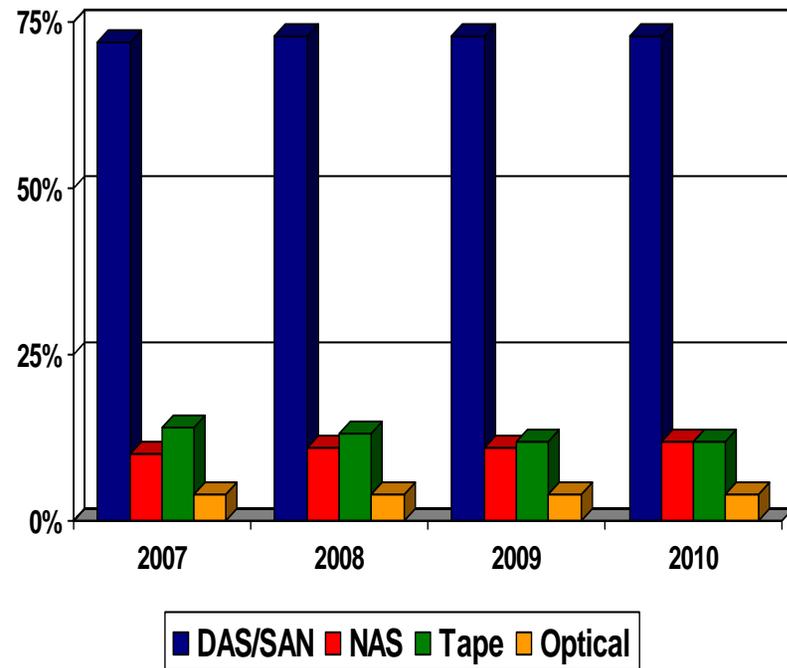
Market Characteristics

- Optical growth rates projected to be slightly below storage market average
- Optical opportunity about 1/3 of next smallest segment

Market Growth Rates

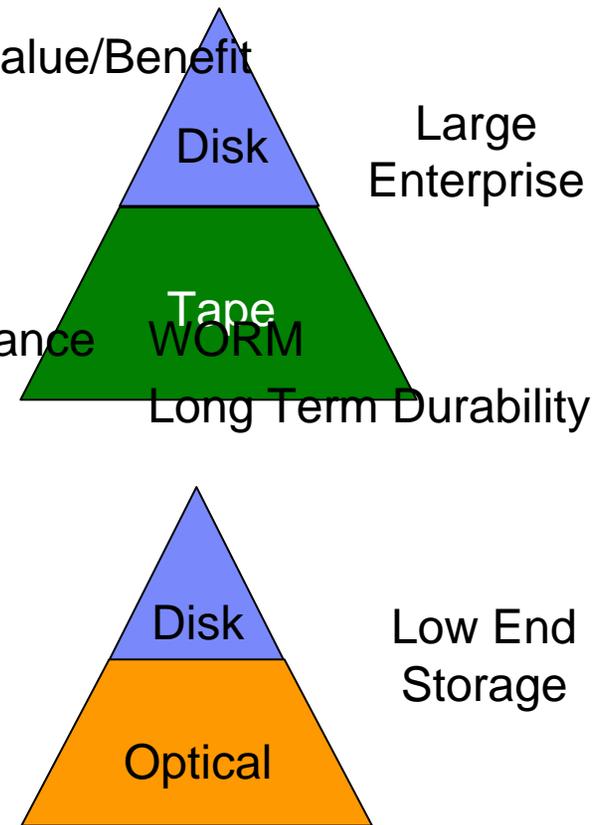
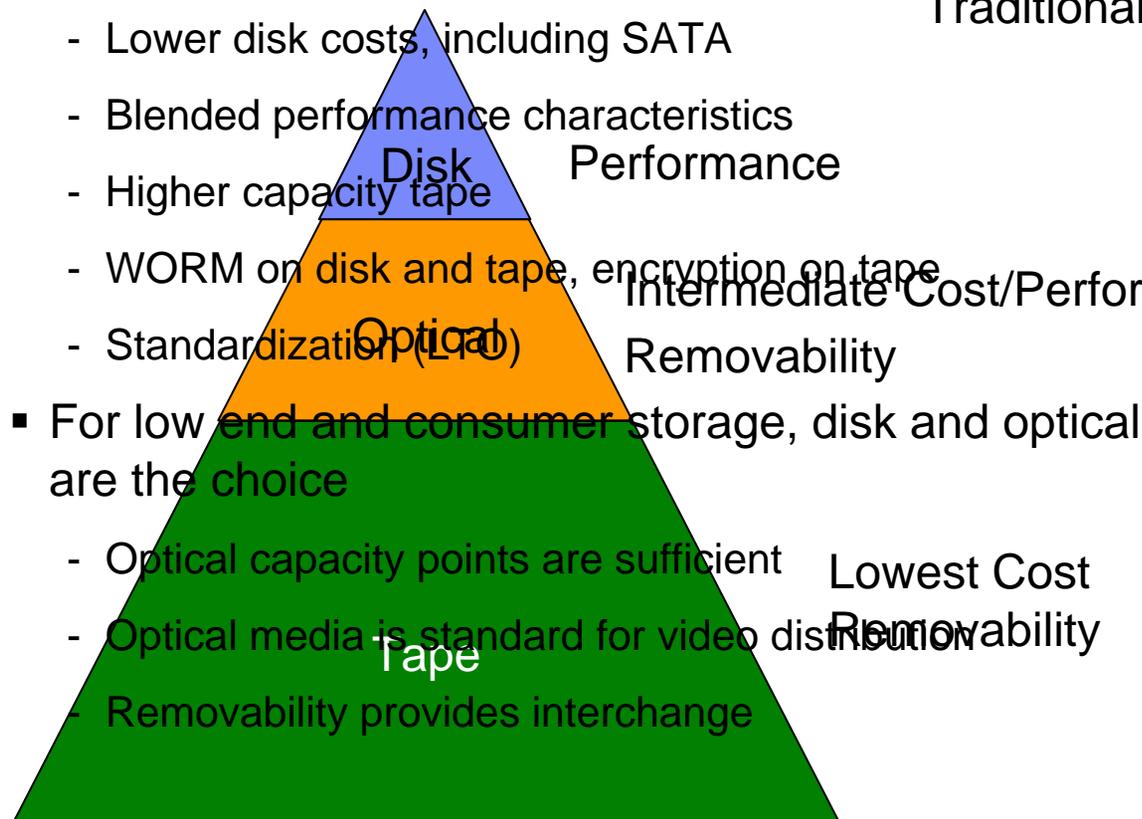


Market Size



Electrical Data Hierarchy

- Disk a performance choice, Tape a cost choice
- Optical a compromise with better cost than disk, and better performance than tape, plus compliance values
- For large enterprise customers and large capacity installations, the solution is combined disk and tape



Information Security is a major emerging need



▪ High performance

- Compress the data then encrypt
- Encryption at tape drive speeds
- Off-loads encryption task from servers

▪ Cost effective

- Leverages existing tape automation infrastructure
- Can eliminate need for encryption appliances

▪ Addresses management of encryption keys

- IBM Encryption Key Manager a component of the Java Platform
 - 2 Key Management Methods (Library, System)
 - Integrates with System z cryptographic security systems
- Tivoli Storage Manager encryption key management

IBM TS1120
Encrypting Tape Drive



Presented by
SearchStorage



IBM TS1120
Enterprise
Tape Drive



IBM LTO 4
Tape Drive

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