STORNEXT

Accelerate your business. Preserve your data.
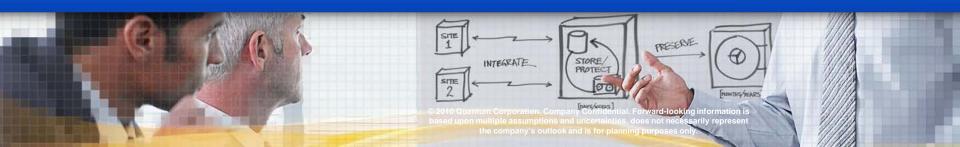
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ARCHIVAL BUSINESS CHALLENGES

Drowning in a sea of data?

Struggling to navigate through a demanding workflow?

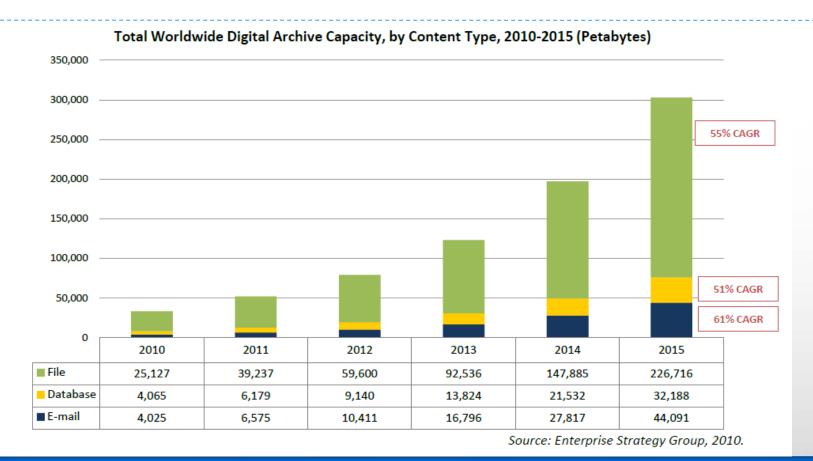# Unstructured FILE Data Growth

- Over committing storage infrastructure & budget
- Management nightmare

Total Worldwide Digital Archive Capacity, by Content Type, 2010-2015 (Petabytes)

	2010	2011	2012	2013	2014	2015
File	25,127	39,237	59,600	92,536	147,885	226,716
Database	4,065	6,179	9,140	13,824	21,532	32,188
E-mail	4,025	6,575	10,411	16,796	27,817	44,091

55% CAGR
51% CAGR
61% CAGR

Source: Enterprise Strategy Group, 2010.

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Demanding Workflows

- Budget constraints

- Long term data retention

- Ballooning storage costs

- Protection of data

- It will only get worse – data will continue to grow !
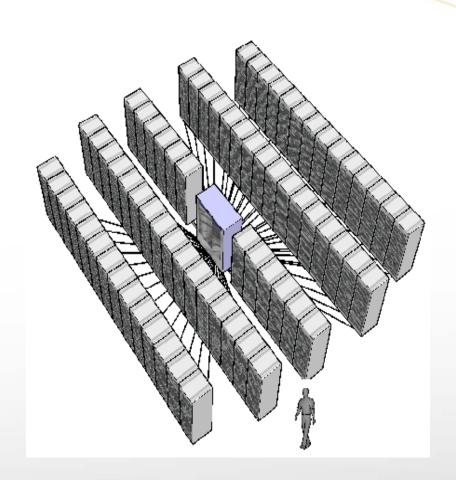
Customer Pain-Points: Archiving

- Data ownership – who owns what and their SLA?

- Data retention – how long to keep it?

- Compliance and regulations – what are my obligations?

- Economical data storage – Storing important data without excessive cost - tangible and intangible

- Data integrity and protection

- Access from disparate teams - Cloud

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Customer Pain Point: Massive Scalability

- **Scalable architecture – unlimited storage capacity, no HW constraints**
  - Archives for years or decades?

- **Vendor agnostic – leverage new technologies and existing investment**

- **Reducing technical refresh and or component replacement = very painful**

Spinning verses Non-Spinning

Disk

- Faster access time
- Comfort
  - User are comfortable with disk interfaces and I/O
- Larger disks = ability to build large storage pools

Tape

- Slower access time
- Less comfort:
  - Removable, requires automation and software
- LTO-5 and LTFS extending the archival range of tape

Cooling and Power

Cooling

- HVAC impacting data centers
- Faster and more processors consuming more cooling
- Larger Storage systems require more HVAC

How to mange data growth without impacting HVAC capacity?

Power

- Large HPC systems consume loads of power
- Large disk storage systems consumes power with or without data I/O

Can reduction in utility costs decreased overall budgets?

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Long term technology refresh

- **Vendor lock-in**

- **Ease of migration from one storage technology to another**

- **Responding to regulatory or internal archival requirements**

- **Difficulty in retiring old storage technology**
  - How to migrate 2PB off disk to new storage?
    - Every 5-7 years

THE STORNEXT SOLUTION

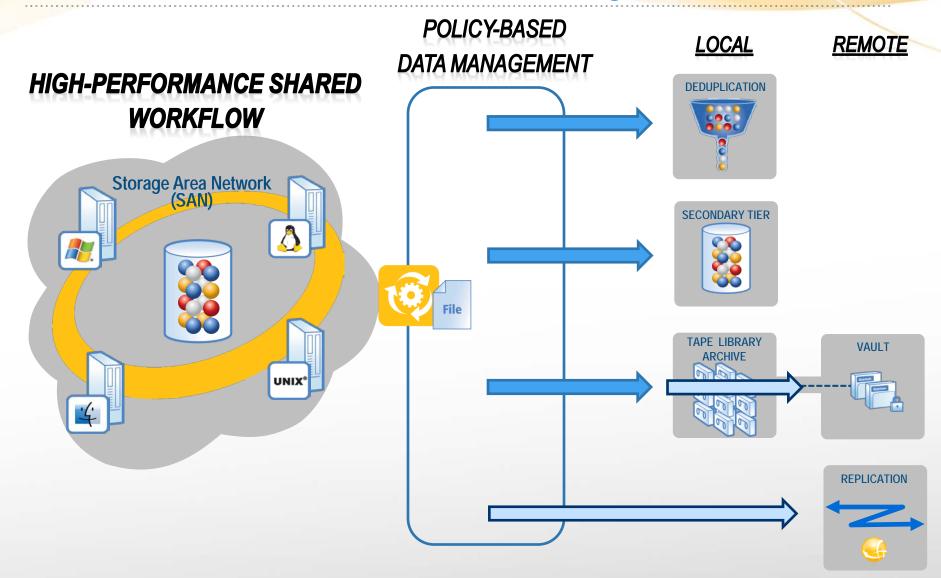*Accelerate your business. Preserve your data.*

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Workflow with Advanced Management

**POLICY-BASED
DATA MANAGEMENT**

LOCAL **REMOTE**

**HIGH-PERFORMANCE SHARED
WORKFLOW**

DEDUPLICATION

Storage Area Network
(SAN)

File

SECONDARY TIER

TAPE LIBRARY
ARCHIVE

VAULT

REPLICATION

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Quantum's Comprehensive Portfolio

Quantum continues to invest and innovate across the portfolio

StorNext Software	DXi-Series	Scalar Series w/iLayer	Vision Storage Management Tools

Professional Services & Global Support

Shared File System	VTL, NAS, iSCSI	Disk	Tape	Key Management

Data deduplication	Replication	Encryption

Tiered Storage Policies	Proactive Diagnostics	Centralized Management

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