



Education

Rethinking Archiving: Exploring the path to improved IT efficiency and maximizing value of archiving solution investments

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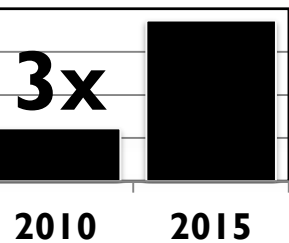
- Archive has traditionally been viewed as a low-priority process of moving historical information to cold storage media. An increased burden on IT from explosive growth in digital information and growing regulatory/compliance mandates have increased the need to revisit archive strategies

- This session will discuss:
 - ◆ Sources and drivers of digital information growth
 - ◆ Information management challenges, symptoms and root causes
 - ◆ Why, What & How framework for narrowing down archive solutions strategies
 - ◆ How cloud-based archiving can help meet your information management requirements
 - ◆ Key considerations when choosing a cloud service provider

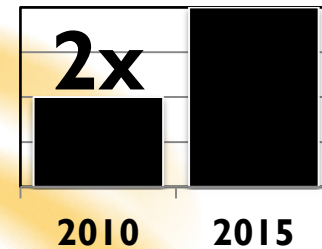
Explosion in Devices and Data Challenges the Datacenter

Data centers are the cornerstone of business...

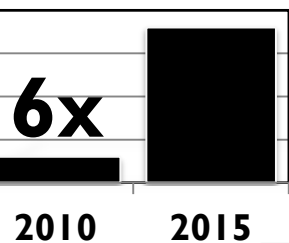
Devices



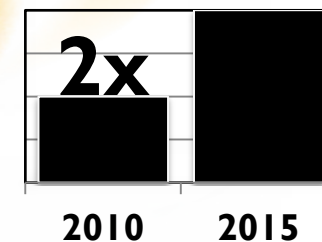
VMs



Data



Users



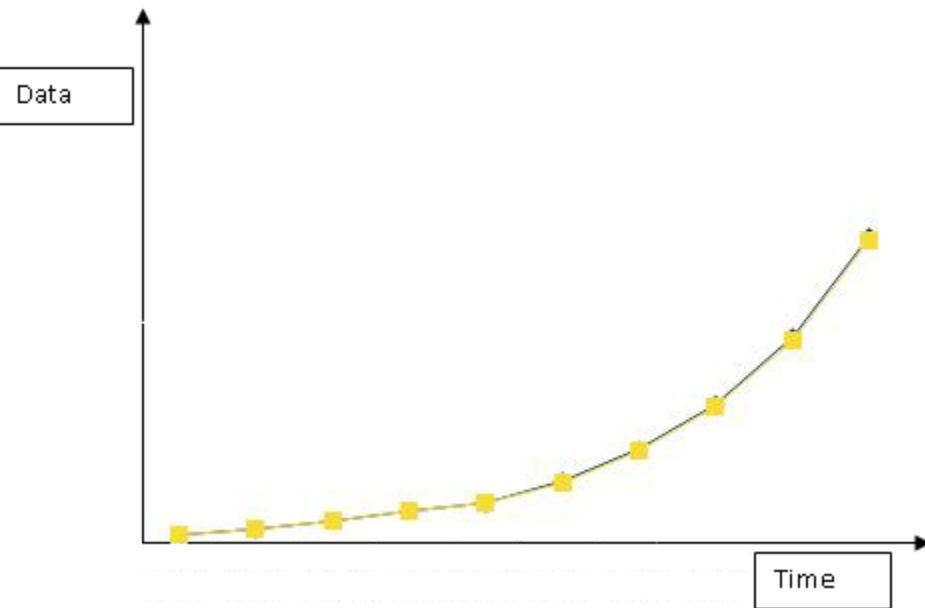
...managing information assets is key datacenter task

Exploding Data & Imploding Budgets

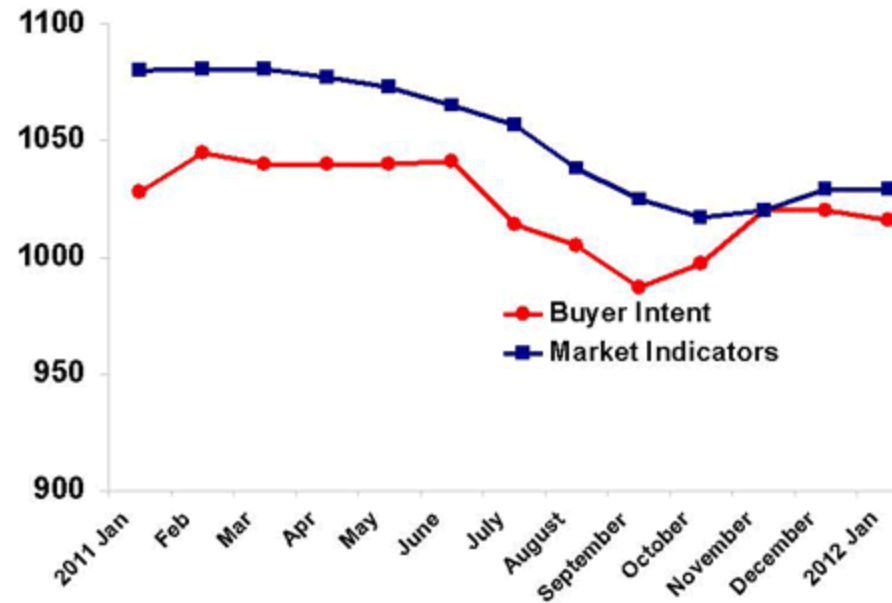
Amount of data created is **doubling** every two years

Digital universe to grow from 1.8 ZB in 2011 to 7.9 ZB in 2015

Data Growth



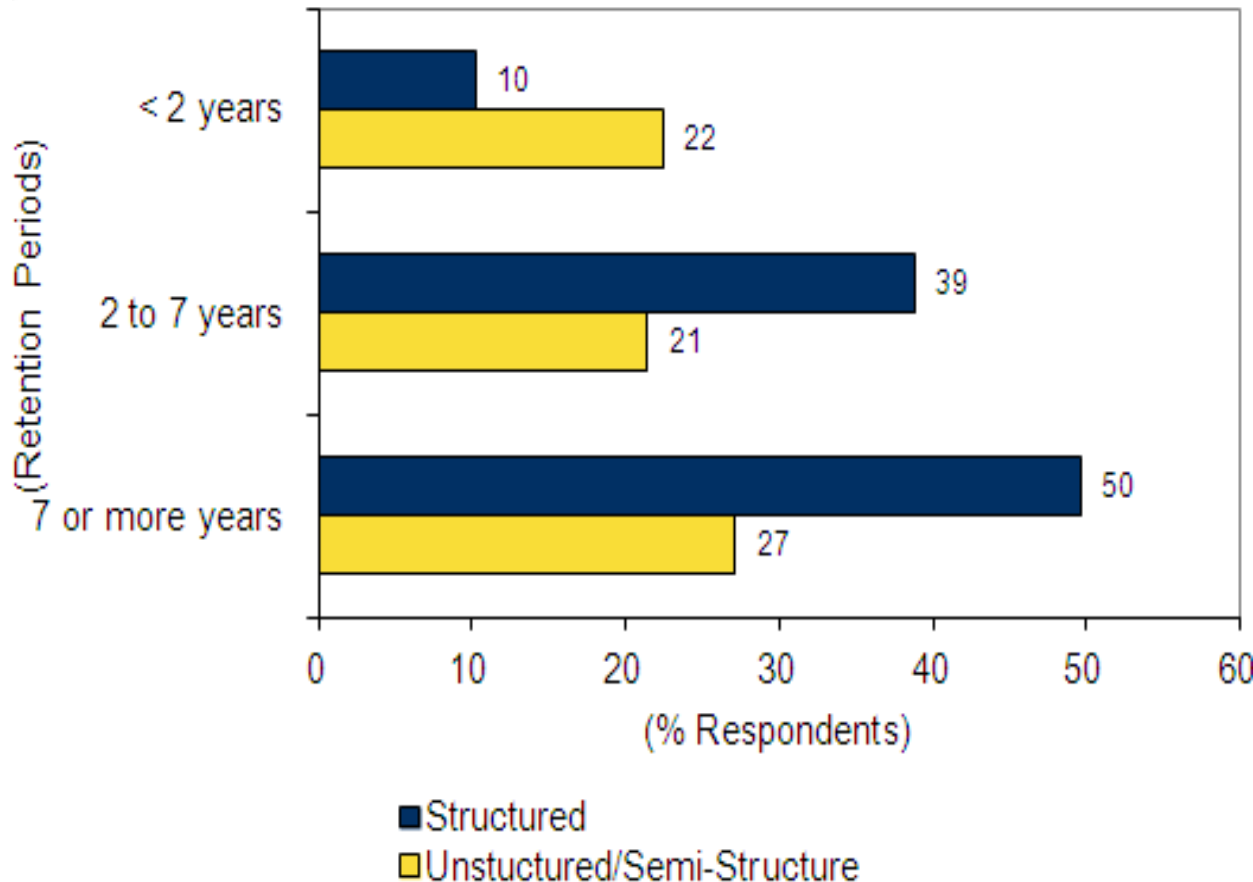
IT Spending



Source: IDC IT FutureScan, January 2012

Data is being retained much longer

Extended Retention Periods



7 or more years:

50% firms retain structured data

27% firms retain unstructured data

*IDC 2011 Quick Poll Survey

Traditional Factors

- Government Regulation and Compliance
- Industry Guidelines and Best Practices
- Legal Hold - Support of eDiscovery

Important Emerging Use Case

- Information reuse
 - Access to historical information
 - Archiving as a business/service
 - Business analytics

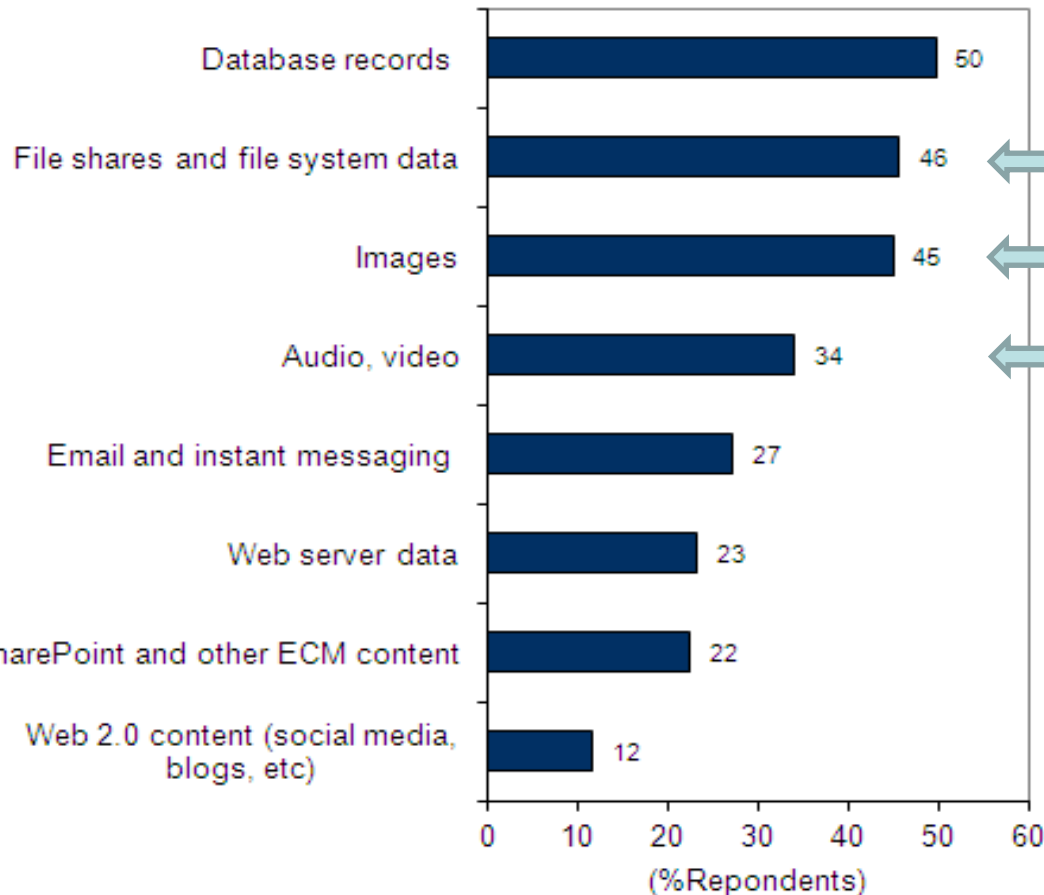


Check out
“Managing Big
Data Hands-On
Lab”

Heavy unstructured contents consumes storage resources

Data Retained > 7 years

More unstructured data is retained longer



Lack of an expiration date and inability to enforce if defined

- 26% firms retain image content indefinitely
- 1 out of 5 firms reported retaining audio and video files indefinitely

Emerging & Future Info Mgmt Challenges to lookout for – SharePoint & Big Data

72%

of organizations use SharePoint

Source: IDC Study, 2010

23%

Storage admins identify proliferation of SharePoint instances as a top file based storage management issue

Source: IDC #228824

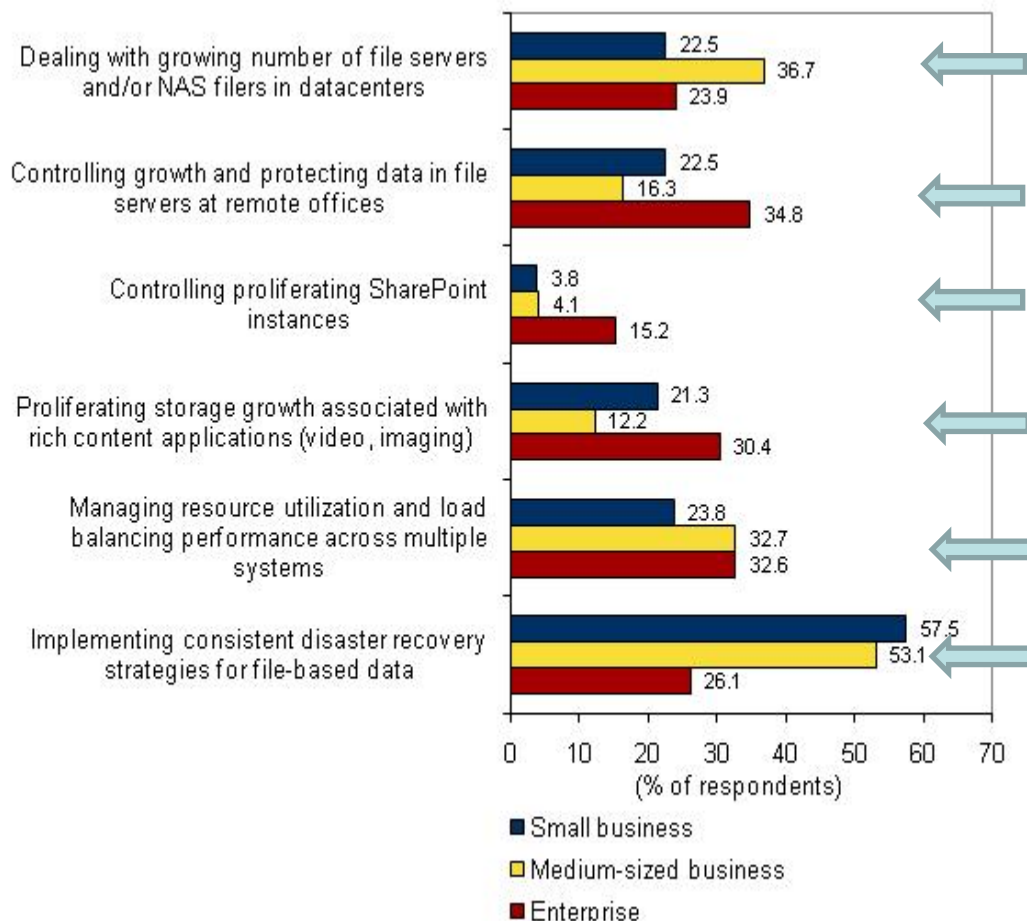
Big Data to grow at **62.6% CAGR** from **2,624 EB** in 2011 to **29,796 EB** 2015



Symptoms to look out for

Top FBS Challenges

Top File-Based Storage Management Challenges by Company Size



Source: IDC's 2011 Trends in File-Based Storage Survey

Storage and IT Infrastructure Cost

Data Protection & Recovery Problems

Performance Penalty

Inefficient Search and expensive eDiscovery

- Retain everything mentality - Even archiving unwanted information is wasteful
- Using **Backup for meeting long-term retention** needs is common (57% according to IDC 2011 Study)
- Many firms do not use any specific solution and the data is **archived in place**
- Longest retention period often gets applied
- Disparate IM tools for managing different data complicates Information management

Choosing your archiving solution



➤ Why this needs to be archived?

- Storage Efficiency
- Performance Optimization
- Compliance
- Legal
- Reuse

➤ What is the content that needs to be archived?

- Email, Instant Messages
- File System
- SharePoint
- Transactional Data/Databases
- MGD

What else?

➤ Alternate & Complementary Use Cases

- ◆ Internal Discovery
- ◆ Email Continuity and Security
- ◆ Work flow optimization
- ◆ Integration with other applications

➤ Information and Risk management

- ◆ Policy alignment with DLP and Email monitoring solutions
- ◆ Support for future information streams
- ◆ Growing Emphasis on Privacy (e.g. right to be forgotten)
- ◆ Enterprise application social media retention and access

Benefits of raising “What Else?” question

- *Turn a mandatory cost center process useful to profit center activities.*
- *Justification from multiple stakeholders and better ROI.*

How? – Some Alternatives

- **Archive In Place: Do Nothing Strategy**
 - ◆ Extremely wasteful of storage assets
 - ◆ No central control and manual process
 - ◆ **Approximately 1 in 5 organizations do this**
- **Backup as Archive: Path Of Least Resistance**
 - ◆ Conflicting priorities
 - ◆ Loss of context (especially in tape)
 - ◆ Inefficient search & retrieval
 - ◆ **Approximately 1 in 2 organizations do this**
- **Application specific: Built-in archiving**
 - ◆ Overhead of siloed information mgmt
 - ◆ Fall short of advanced compliance needs
 - ◆ No single index: redundant search
 - ◆ **Approximately 1 in 10 organizations do this**

When appropriate?

Digital data growth is minimal

Cost of implementing and maintain archive is greater

When appropriate?

Data retained for compliance, not for litigation readiness.

Metadata based indexing satisfies access retrieval criteria

When appropriate?

Only a subset of digital data needs to be retained and accessed.

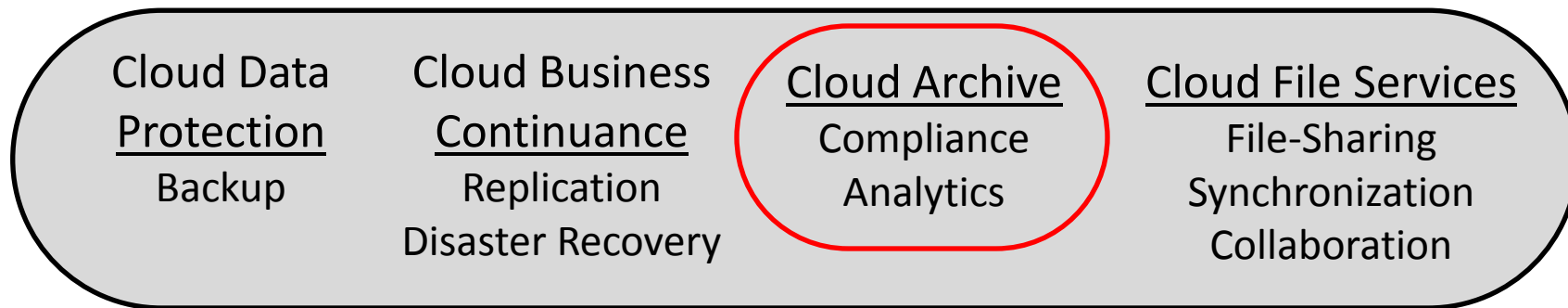
Regulatory, discovery and review requirements minimal

Archiving purely for efficiency reasons

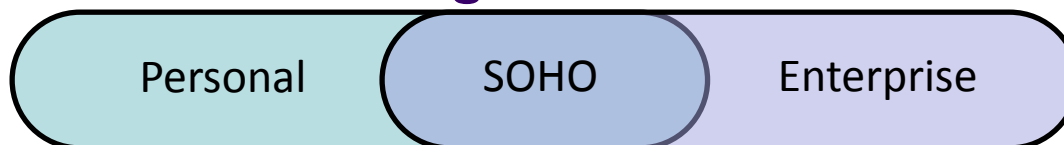
How? – Key Consideration in choosing a purpose built archiving solution

- ◆ **Dedicated Archiving Solutions: Key Capabilities to look for in Archival Storage Systems and Software**
 - ◆ **Scalability:** Lower upfront investment and incremental capacity expansion without expensive and time consuming data migration. In software solutions explore capacity based licensing/pay as you go models.
 - ◆ **Performance:** flexibility to provide throughput for less predictable archival retrievals without conflict.
 - ◆ **Efficiency:** take full advantage of proven efficiency technologies such as deduplication and policy-based tiering for both. Differentiate between active archiving and long-term retention and identify the role of tape in archiving.
 - ◆ **Compliance readiness:** retention enforcement capability for data and tools to aid IT administrators make informed policy decisions.
 - ◆ **Common data management** foundation for backup and archive that provides flexibility in the placement of data
 - ◆ **Don't Forget the Cloud...**

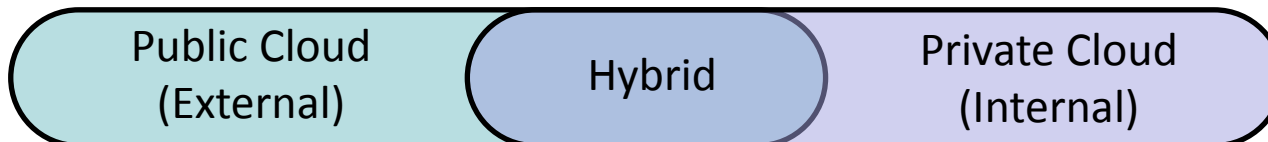
Cloud Information Management



Target Market

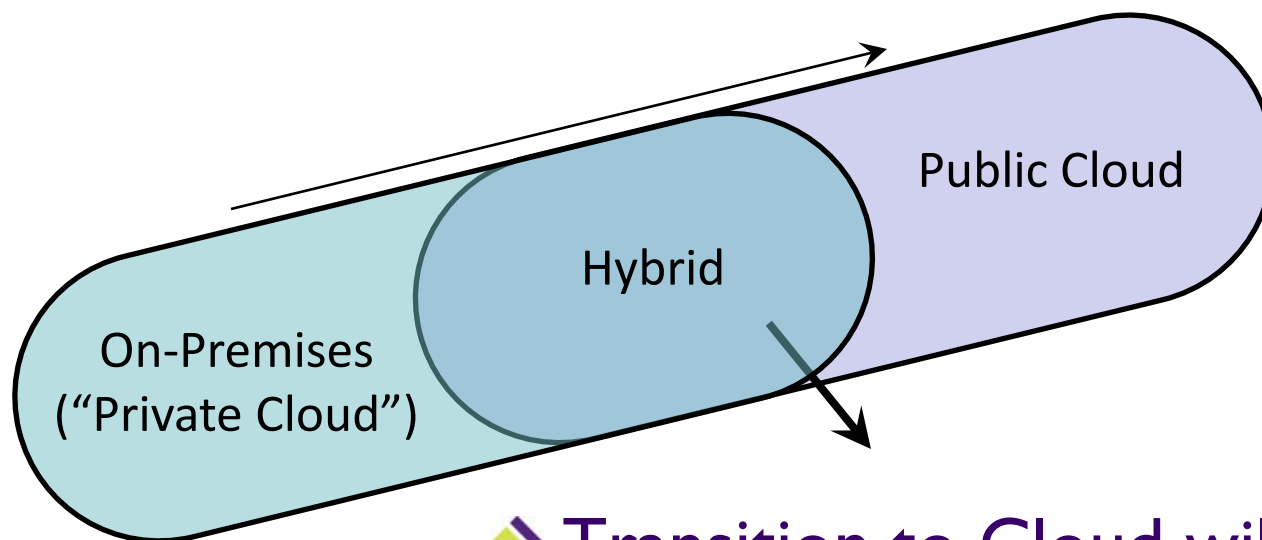


Service Location/Architecture



- Growing requirement within organizations to consolidate “secondary” forms of storage
 - ◆ Backup & Archive on converging path
 - ◆ “Hybrid” environments a long-term transition

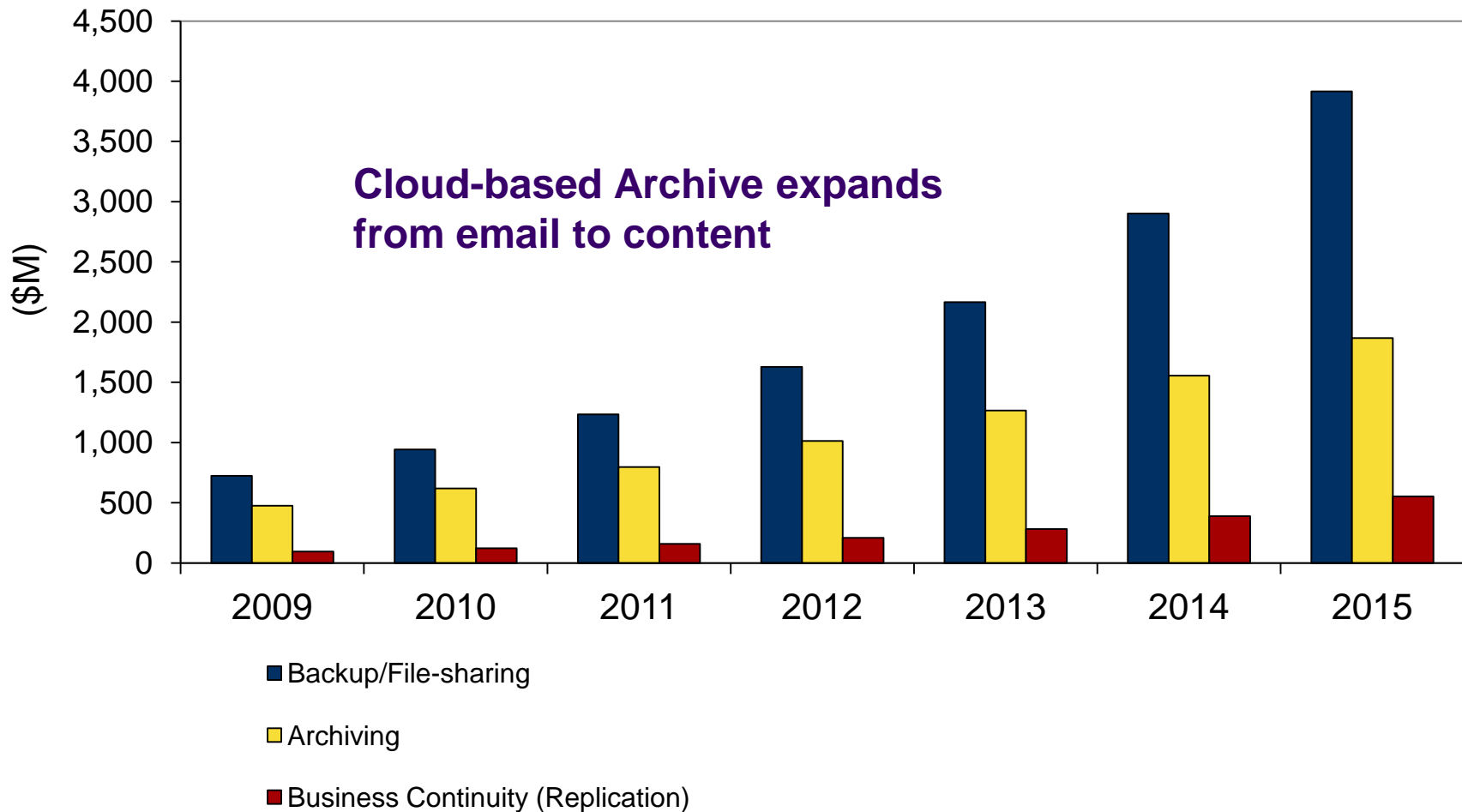
- Verticals Expertise
 - ◆ Regulation will drive expertise in industry-specific compliance
 - ◆ Evolving business initiatives (analytics/Big Data) will drive integration with industry-specific applications



➤ Transition to Cloud will be evolution:

- ◆ Hybrid solutions that span internal & external back-end storage will evolve to address:
 - › Security & Performance concerns
 - › Integrated operations & risk associated with managing multiple locations
 - › Search extensibility
 - › Contracts – SLAs - Liabilities

Cloud-based Advanced Storage Services



Source: IDC, 2011

Cloud Archive: Not without concern

Q. How significant are the following challenges/obstacles in your planned or continued use of a Public Cloud-based Archive Service?



➤ Control

- ◆ Data security
- ◆ Data location
- ◆ Data retrieval

➤ Reliability

- ◆ Performance
- ◆ Availability

➤ Certainty

- ◆ Fragmented
- ◆ Vendor lock in
- ◆ Where to start?

Source: IDC, 2011. Enterprise Cloud Survey, N=138

Closing comments

- ◆ Invest in technologies that help **maximize value of existing investments**
- ◆ Archiving is no more just an insurance – recognize the **reuse and analytics** value of historical information
- ◆ **Not all data is the same** and hence need to be understood and treated differently
- ◆ Get used to the idea of **disposing information** – Conventional “keep it all” mentality is no longer feasible
- ◆ Don't fear the **transition to the cloud** – suppliers recognize the opportunity to enable a long transition period



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Send any questions or comments on this presentation to SNIA: tracktutorials@snia.org