Driving Innovation Through the Information Infrastructure

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Taming the Information Explosion

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Accelerated information growth

Proliferation of Personal Devices

Growth of Email, Collaboration & Social Networking in the Enterprise

- Every user in an enterprise is now an information producer and consumer resulting in:
    - Large cost of storage of information
    - Difficult to access specific information
    - Information access expectations of end users driven by consumer experiences

"Every two days we create as much information as we did from the dawn of civilization up until 2003", Eric Schmidt, Google

Increasing complexity

- Convergence of Physical and Digital Information

- Information is everywhere – on paper and tapes, on edge devices, on-premises servers and now in the cloud

  - 1800 exabytes of new data expected in 2011 (Kahn Consulting 2010)

  - 200+ billion emails per day (Kahn Consulting 2010)

- Information silos
  - Proliferation of media types and formats

- Globalization of business
  - Distributed architectures and organizations
  - Virtualization
  - Business velocity
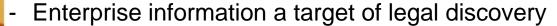 - RTO/RPO expectations are tightening up

Roughly 99% of data older than 6 months is never looked at again

Information is risk

- More intrusive regulations

  - 20,000+ records retention laws

  - Higher expectations to be able to find information - quickly

  - eRecords defined - FRCP Rule 26; ESI & metadata are records

- Enterprise information a target of legal discovery

  - >80% of discovery requests target Email

  - >60+% of discovery requests target electronic work files

  - Spoliation judgments are growing

  - There were more eDiscovery sanction cases in 2009 than in all years prior to 2005 combined (Duke Law report)

  - Defensible capture and destruction to reduce liabilities

NEW information management strategies are <u>required!</u>

Pain Points for organizations

Inconsistent Retention and Disposition

Information leakage
What is a record?

Email management

Failure to recover from failure

Complex backup process

Unprotected Laptops

Poor access controls

Storage sprawl

Expensive to Access Information

CAPX of Disk for Backup

Catastrophic failure response

Ad-hoc tape management

Secure Storage

Over-preservation of information

Inadvertent deletion

High Costs

Unbounded Discovery costs

Service continuity

Unable to extract business value from data

Ad-hoc Discovery

Increasing litigation risks

Weak Chain-of-Custody

Manual Information Access

Inefficient Business Processes

Poor customer service

Information Silos

Some Numbers…

15 MB new sent and received email created each day for each user

500 Users

161 GB of new email volume created each Month

2 TB of new email created each year

80% of the most frequently requested record type in eDiscovery is email

60% of the most frequently requested record type in eDiscovery is work file

62% of executives say eDiscovery is a top driver for information management strategies (IDC survey conducted for Iron Mountain)

- In the face of an ongoing electronic information explosion, information management becomes an imperative. Organizations need to understand how (and why) information flows throughout your organization from creation – to destruction…

• What information does our organization really have?
• What information should you keep?
• What should you dispose of, when?
• Are there laws that specify what information is kept and for how long?
• And, when you need specific information, how can you find it quickly and easily?

Why should your organization care about effective information management?

Reduce the cost of storing your information
Reduce the cost of using your information

Lower the risk of not meeting eDiscovery responsibilities
Lower the risk of not meeting compliance requirements

Raise the security of protected customer and employee data
Raise the protection level of corporate intellectual property

Three key areas of information management

Data Protection

- Back up of custodian edge devices (laptops and desktops)
- Backup of file servers
- Backup of application servers
- Security and DR planning
- Secure storage and intelligent management of physical backup assets

Hardcopy/Digital Archiving

- Proactive digital archiving for:
  - Email content
  - File system content
  - SharePoint Content
  - Medical and other images
  - Custodian controlled content
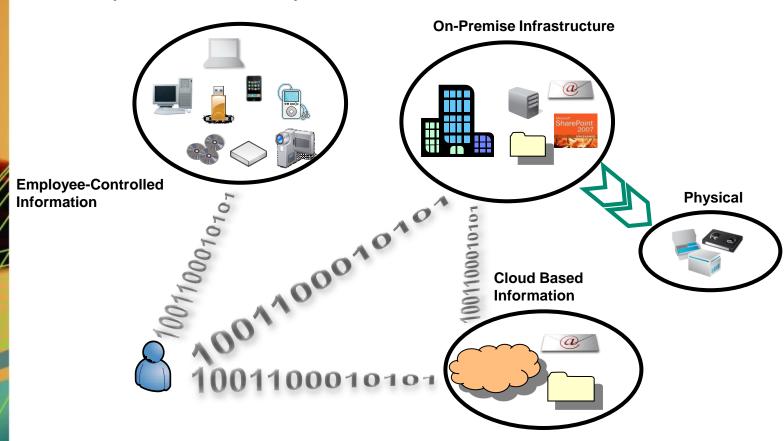 - Document management systems
  - Compliant archiving

eDiscovery and Compliance

- Proactive collection of all Electronically Stored Information
- Legal hold placement - quickly
- Fully audited retention policy management
- Powerful search capability
- Culling and filtering of ESI data sets
- Sophisticated review capability
- Export of ESI in a legally supported format and chain of custody

Information management: Difficult to accomplish

In large corporate infrastructures, information can be anywhere, in many forms, with little or no central control
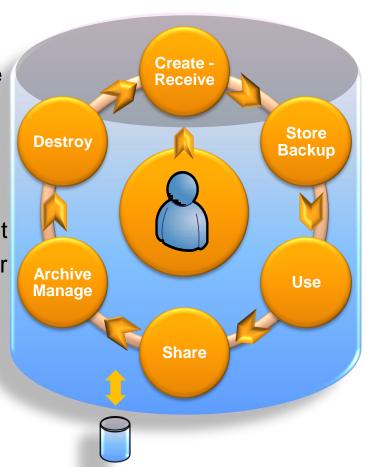
On-Premise Infrastructure

Employee-Controlled Information

Physical

Cloud Based Information

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Employee data is the hardest to manage

1. Receive and create information
2. Information is stored in one or more storage locations
3. Employees use and re-use information
4. Employees send/forward/copy information so others can also use it
5. Information is managed for use later
6. Information is determined to be valueless and is removed from the infrastructure - maybe

Now consider this cycle happens with every single employee…

An example

- Employee has 24GB on local hard disk and removable media
- 22,000 employee world-wide
- 528 TB of employee controlled information, company-wide

  - Is the data your employees hold locally, useful to your organization?

    - Compliance requirements
    - Discovery requirements
    - IP security
    - Storage requirements

What's the true cost of information?

At its most basic, businesses exist to generate and use information to produce revenue and profit…

- Employee fully loaded salaries
- Data infrastructure
- Everything an organization supplies to make the employee useful

The ROI of information

- What is the ROI of information generation?
  - Revenue per employee?
  - Profit per employee?

- The more efficient your organization is in managing and using information, the higher the revenue and hopefully profit per employee will be…

- Companies need to be able to "walk the fence" between not impeding the free flow of information generation and sharing, and having a way for the organization as a whole to be able to find and use that information.
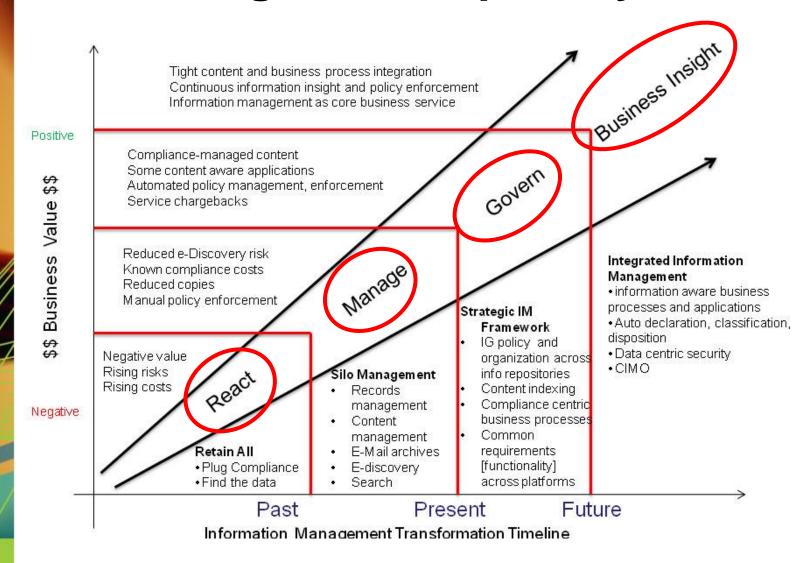
Problem #1: What information do I keep?

- Do you have a *realistic* information retention schedule?

- Who or *what* makes the real-time decision to keep or delete?

- Who or *what* decides how long an item should be kept and where?

- And how do I ensure information I don't want is actually deleted?

These are the most basic questions organizations must be able to answer. If you rely on employees to make these decisions, have you trained them correctly and have you included an audit process to ensure they are following the policies correctly and consistently?

Where are you in information management capability?

Information Management Transformation Timeline

Enterprise information management evolution

Information Governance
Compliant information management, Email archive, Proactive discovery, Cloud services, Services span media /formats

Business Process Effectiveness
Information integration with business process applications, Access optimization

Process Management
Silo'd information management, Secure storage, Reduce copies, Reduce some costs

Reactive Management
Retain it all, access challenges, Negative value, Rising Risks and Costs
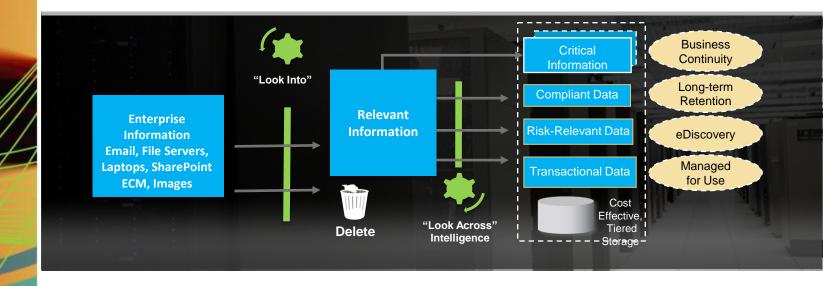
BUSINESS VALUE

Information Management
IS A JOURNEY

RISE MATURITY

Total cost of management of information (TCM)
Total cost of ownership of information

- Reduce the cost of owning / storing information by including intelligence to help with the millions of decisions that must be made daily

- Instead of "keep or delete everything" or "one size fits all"…

Problem #2: Can I find the Information when I need it?

- Can you find a specific piece of information… quickly?
- Can you find all information related to a specific topic?
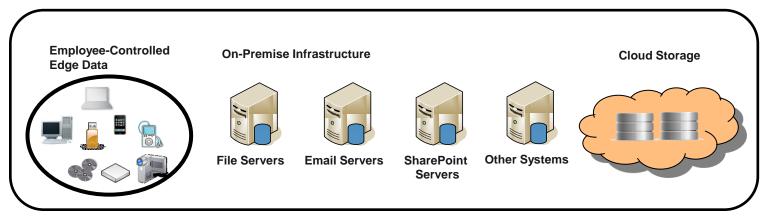- No matter where its stored?

Saving information is easy, finding specific information is very difficult. Retained information you can't find and use when you need to is valueless…

Information Management Possibilities
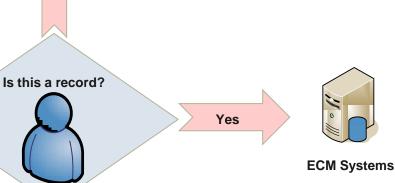
Manage all records in one repository

Employee-Controlled Edge Data

On-Premise Infrastructure

Cloud Storage

File Servers

Email Servers

SharePoint Servers

Other Systems

Advantages:
- All "records" in one place – easy to search
- Efficient storage – probably
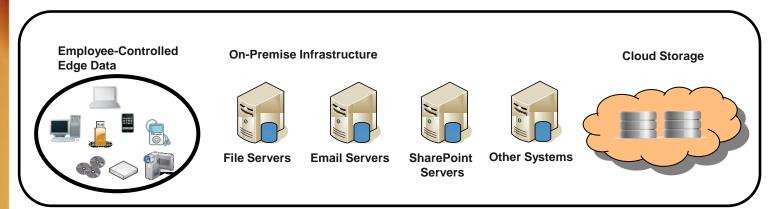- Centralized retention policies

No

Is this a record?

Yes

ECM Systems

Disadvantages:
- What's the definition of a record?
- Relies on the employee to make the decision

Store in place - Index the world

Employee-Controlled Edge Data

On-Premise Infrastructure

Cloud Storage

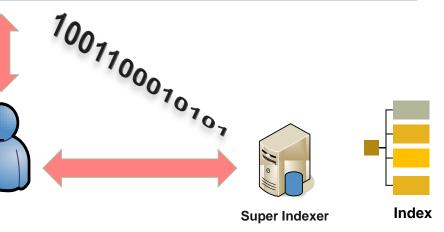File Servers   Email Servers   SharePoint Servers   Other Systems

Advantages:
- Doesn't rely on employees to make decision – sort of
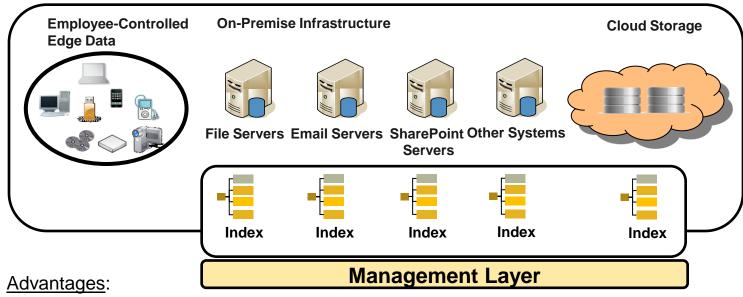- Easy to find stuff

Disadvantages:
- Indexer needs constantly updated APIs to access apps
- No centralized retention policies
- Does rely on the employee to make a decision
- Inefficient storage
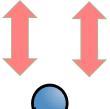- What about edge data?

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Super Indexer

Index

Store and manage in place – Utilize system indexes

Employee-Controlled Edge Data

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Cloud Storage

File Servers   Email Servers   SharePoint Servers   Other Systems

Index   Index   Index   Index   Index

Management Layer

Advantages:
• Doesn't rely on employees to make decision – sort of
• Easy to find stuff
• Centralized retention policies

Disadvantages:
• Management layer needs constantly updated APIs to access and manage apps
• Does rely on the employee to make a decision
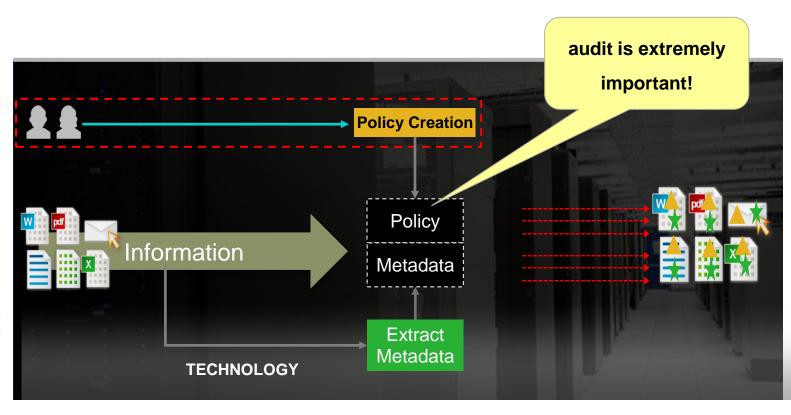• Inefficient storage
• What about edge data?

Intelligent management of enterprise information

- Reduce risk associated with information and enhance compliance
- Reduce the total cost of managing information
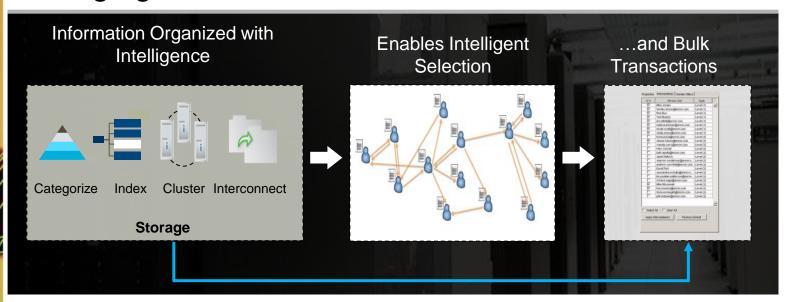- Maximize the business value of the information

audit is extremely important!

Policy Creation

Policy

Information

Metadata

Extract Metadata

TECHNOLOGY

Total cost of management of information (TCM)
Total cost of usage of information

Help improve efficiencies and reduce the cost of managing information

Information Organized with Intelligence

Categorize   Index   Cluster   Interconnect

Storage

Enables Intelligent Selection

…and Bulk Transactions

It costs 20 to 500 times to transact with a document once, than to store it untouched for 20 years

3 – Tier information management architecture

Questions?