Impact of Digital Transformation on the Records Storage Industry

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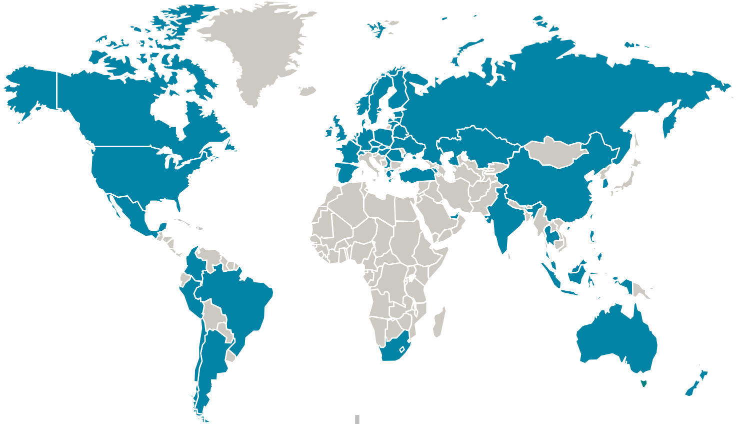
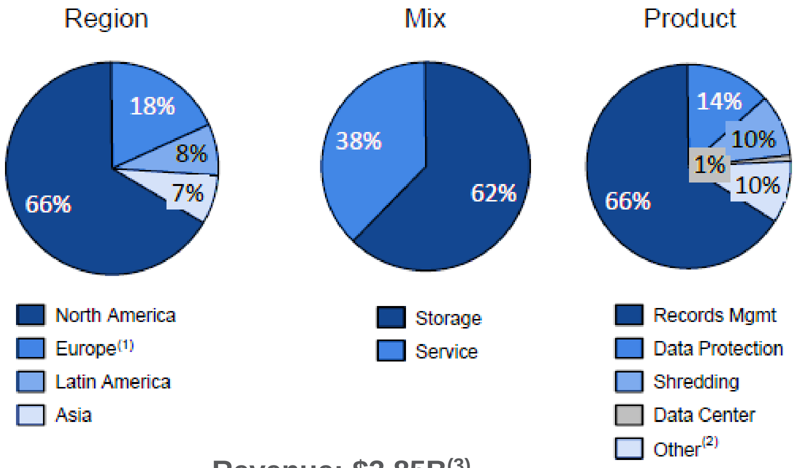
Setting the stage

Global Footprint



53 COUNTRIES | **6 CONTINENTS**

Business Mix



Revenue: $3.85B[3]

225,000+	95%	87MM	1,400+	25,000+
Customers	Fortune 1000 companies	SF of real estate	Facilities	Employees

Note: Statistics based on 2017 Full Year Financial Results:
(1) Includes South Africa and United Arab Emirates
(2) Includes Fulfillment Services, Information Governance and Digital Solutions, Technology Escrow Services, Entertainment Services, Fine Art Storage, Consumer Storage and other ancillary services
(3) Based on 2017 Full Year Financial Results.

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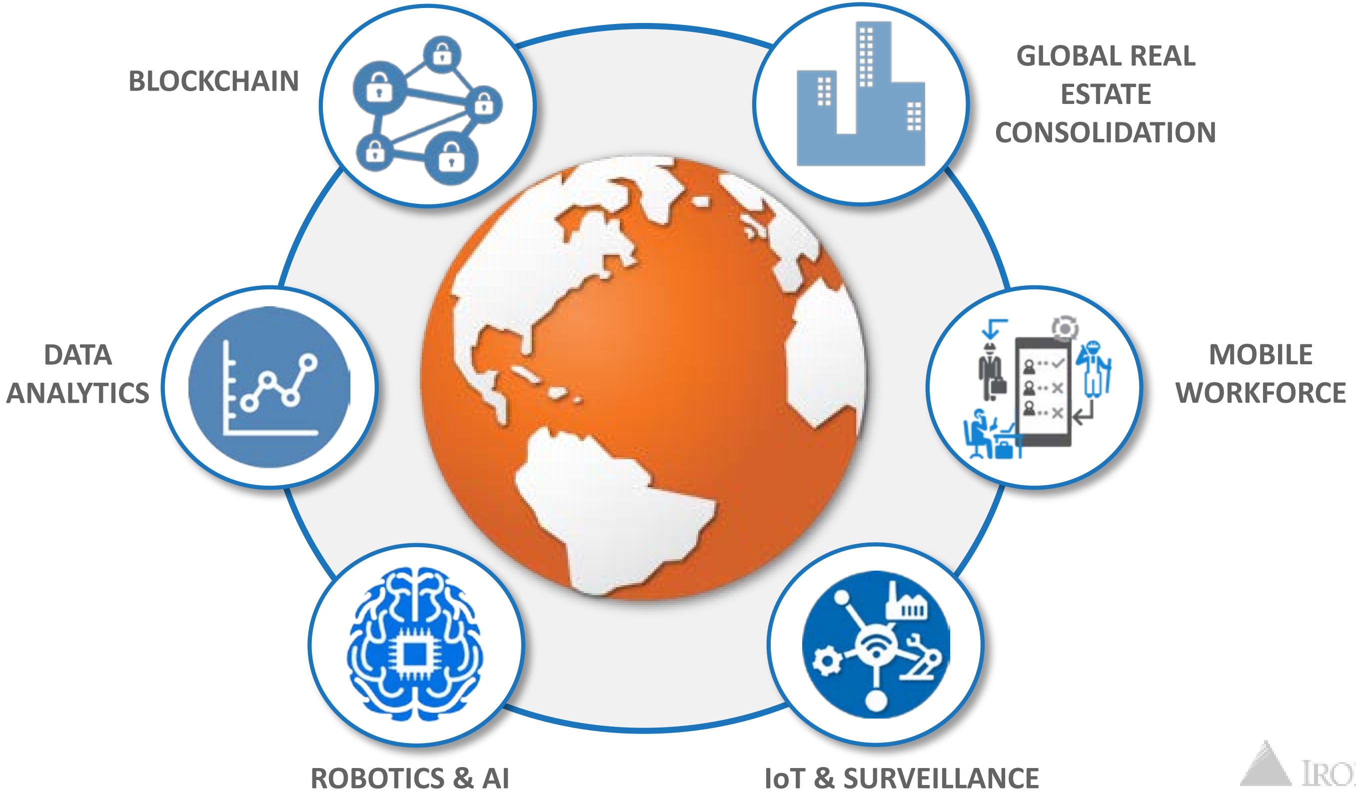
Undisputed evolution…

RIM/IG disruptors



NARA’s vision

We will lead the archival and information professions to ensure archives thrive in a digital world.

Strategic goals for DX

Memorandum M-17-22 Comprehensive Plan for Reforming the Federal Government and Reducing the Federal Civilian Workforce

- Goal 2.4 - By FY 2020, NARA will have policies and processes in place to support Federal agencies' transition to fully-electronic recordkeeping.
- Goal 3.1 - By FY 2019, NARA will conduct inspections of records management practices at 10% of Federal agencies per year.
- Goal 3.2 - By December 31, 2022, NARA will, to the fullest extent possible, accept records only in electronic format and with appropriate metadata.

https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2017/M-17-22.pdf

Records storage impact

- Increase in born digital records
- Imaging temporary and permanent records for ingestion at NARA
- Policy for destruction of paper after scanning
- Metadata standard and method for consistent application
  - Auto-classification?
  - Role-based?

Federal Electronic Records Management Initiative (FERMI) working with GSA to create requirements for vendors

Less paper records created…

Results in less paper stored.

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So what does the future hold?

Protect and preserve what matters most– enabling you to have confidence that your information is securely stored and recoverable

Make peace with paper

On-site vs off-site storage

- Formal programs for storage
  - Vendor
  - Self-managed
- Informal records on-site
  - Managed
  - Unmanaged

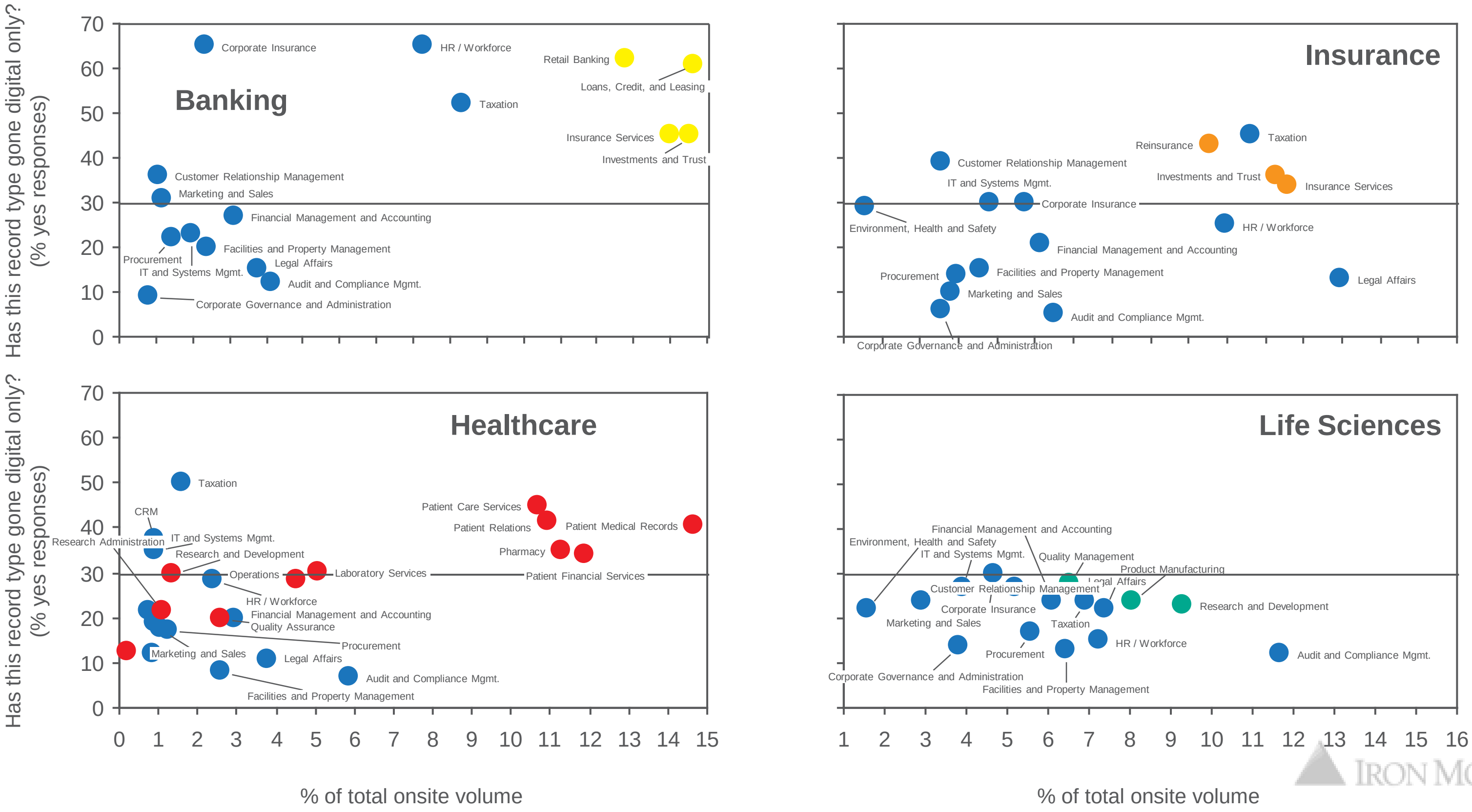
Unvended: records stored in-house

Unvended observations

Multiple data sources point to a substantial addressable market in unvended volume

- More mature RIM/IG organizations are more willing to store records offsite (*and* manage documents digitally)
- Real Estate moves/consolidation and M&A create opportunities to move previously unvended records offsite
- 40% of unvended volume stored in on-site file rooms could be moved off-site for maximum use of real estate

Digital transformation findings



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The information explosion

25%

Average annual rate of growth for active files[1]

And with it comes risk:

67%

Percentage of information loss directly related to user error[1]

12secs

Frequency in which organizations lose a record[1]

4weeks

Amount of time spent searching for, or waiting on, misfiled, mislabeled, untracked, or lost information per year[1]

Bwalya, Kelvin Joseph. Concepts and Advances in Information and Knowledge Management: Studies from Developing and Emerging Economies.

Paper lives on…

Average life of a box in offsite storage = 15 years

- ✓ Retention Schedule rule dictates time
- ✓ Litigation holds routinely reviewed
- ✓ Mergers and acquisitions – temporary storage
- ✓ Secure from hacking/vital records protection
- × Incomplete metadata – no retention rule attached
- × Orphans
- × Co-mingled records
- × Permanent holds
- × Mergers and acquisitions – permanent storage

But with reduced activity

- Mobile work force
- Consolidated office space
- Born digital records
- Fewer transactions
    - Image on demand
    - Aging records
- Millenials’ behavior

Opportunities remain

Improve integrity of box management

- Content classification
  - Assign retention code/rule to boxes
- Identify records with PII
- Apply RFID technology to facilitate audits
- File level management
  - Remove files from boxes for on-shelf ease of access
- Determine archival records
- Consider change from decentralized to centralized management

Barriers to disposition

- ❑Budget considerations
  - Easy to default to year over year amount
  - No budget to remove or destroy cartons
  - Major projects (e.g., indexing, auditing) required to improve RIM program maturity and enable boxes to move to offsite storage
- ❑ROI – finding the right balance of action vs storage
  - Destruction
  - Lifting
  - Imaging
- ❑Prevailing “keep everything culture”
- ❑No authority/accountability for disposition

Going forward

Continued opportunities for paper storage growth

- Emerging markets (China, India, Latin America)
- Continued real estate consolidation
- M&A activity
- Paper free/less offices

What's in the paper?

- Valuable information
  - Data analytics
  - Business intelligence
  - AI
  - Monetization
- Responsive records for Discovery
- PII that needs protection and access per regulation
- Historical/archival records of an organization

Industry is evolving with you!

Key lessons learned in 60+ years

Applicable to paper and electronic records

- Fundamental Program requirements:
  - Records Retention Schedule
  - Policy and Procedures
  - Training and awareness
  - Publication of Program materials, FAQs, contacts
- Metadata management
- Metrics, KPIs and KRIs to measure and monitor compliance, etc.
- Technology will continue to solve and evolve

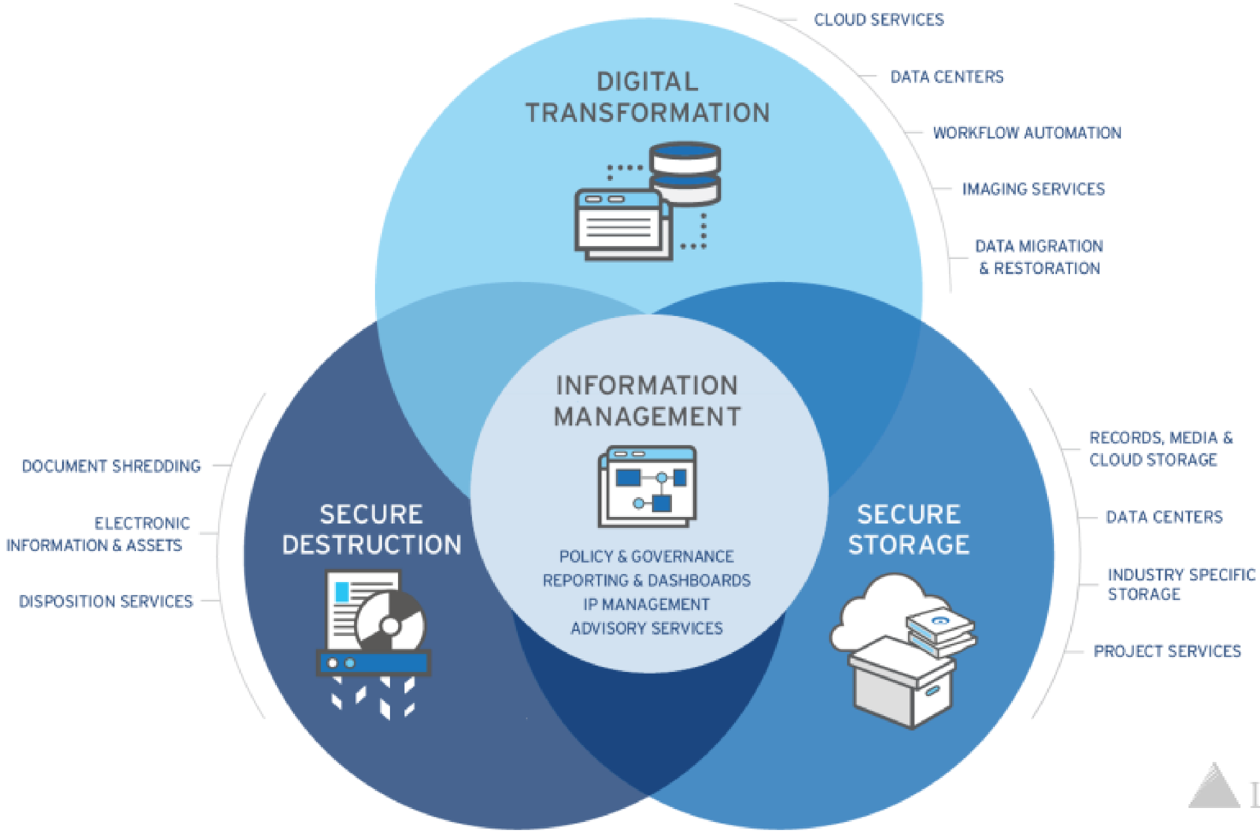
What’s next?

Providing solutions to manage across the information lifecycle – regardless of format

Expanding solution set

- Advisory services
- Retention policy with privacy overlay
- Iron Cloud for compliant info management
  - Video surveillance
  - Isolated recovery
  - Tape to Cloud migration
- Data Centers
- Workflow automation
- Records Management as a Solution
- Blockchain POC

Iron Mountain capabilities



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DX impact on the Info Pro

- Placement of RIM/IG in an organization
  - IT versus Legal/Compliance?
  - Data Officer?
  - Other?
- Knowledge about technology a must
  - Blockchain
  - AI
  - Data analytics
  - Cloud-based storage/solutions
- Behavioral shift
- Certifications – what's next?

THE IRON MOUNTAIN DIFFERENCE:

PASSION TO PROTECT

THANK YOU!

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