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Legacy Data Remediation – and the possible future effect with the use of LTFS

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Brendan Sullivan - Director

About AlixPartners LLP & Brendan Sullivan

AlixPartners LLP

- A 1000 person business advisory consultancy
- Operations in the USA, Europe & Asia
- World leaders in Turnaround & Restructure: GM, Kodak
- Employed when the stakes are highest: Bernard L Madoff Securities, SEC, DOJ

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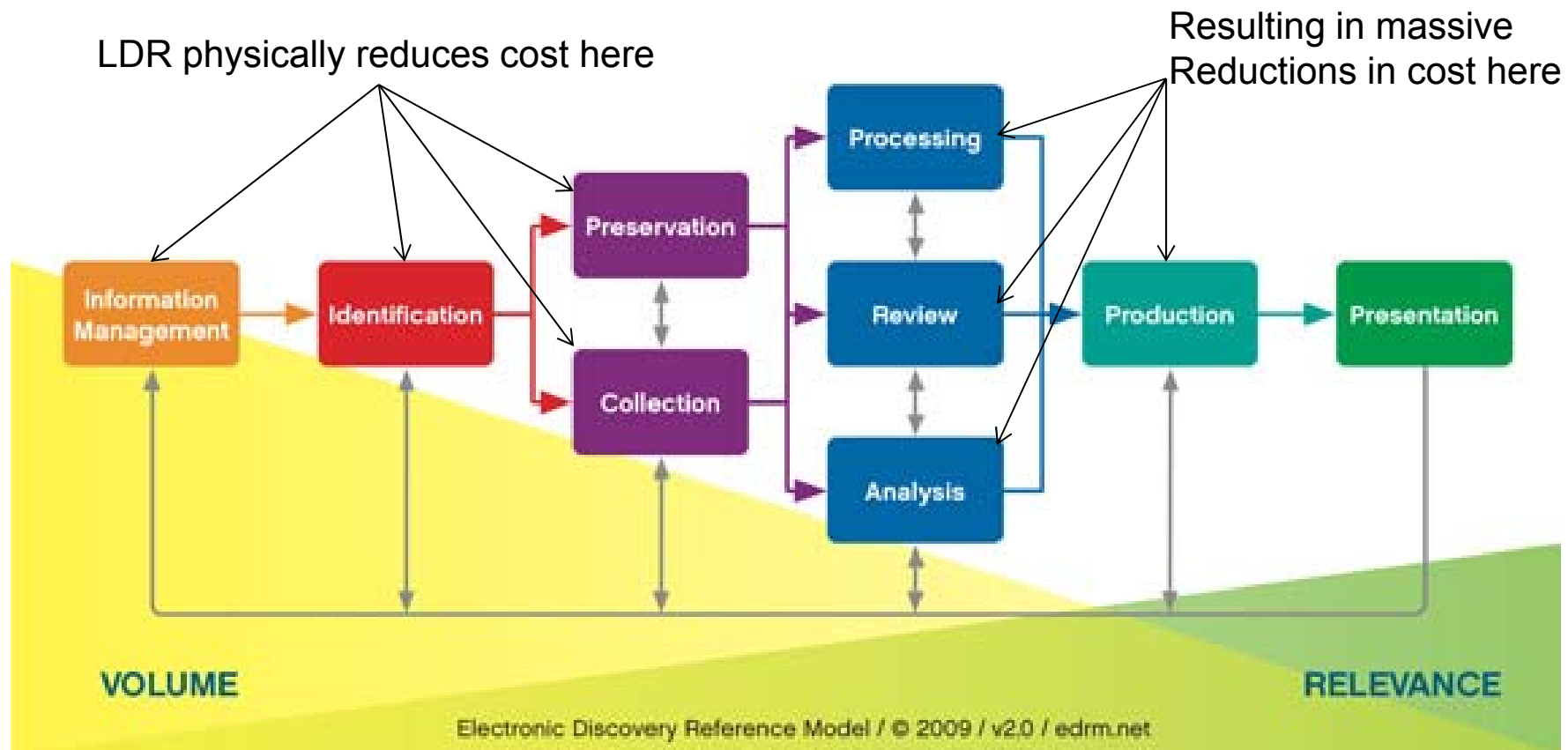
- Industry leading e-Discovery practices; US, UK, Hong Kong, Tokyo
- Full service portfolio; All stages of the EDRM, Litigation Consulting and Data Analytics
- Legacy Data Remediation practice

Brendan Sullivan

- Co leader of the Legacy Data Remediation practice
- 27 years in Tape Technology, from 9 track to LTO, from mainframe to distributed environments, from manufacture to data management
- 9 years as CEO of International e-Discovery company, eMag Solutions LLC.

Overview of e-Discovery Process and LDR fit

Electronic Discovery Reference Model





What is Legacy Data?

- **Legacy Data, Legacy System:** Legacy Data is ESI in which an organization may have invested significant resources, but [which] has been created or stored by the use of software and/or hardware that has become obsolete or replaced (“legacy systems”). Legacy data may be costly to restore or reconstruct when required for investigation or litigation analysis or discovery.
 - Paper
 - Optical media
 - Tape

--The Sedona Conference Glossary (Second Edition)



What is Legacy Data?

- **A more realistic definition:** legacy data includes all information that is “inactive”– data that is stored in physical or electronic format and is not currently understood, used or managed. This includes tremendous volumes of data accumulated in files and data stores originally saved for specific reasons – disaster recovery, business needs, retention and preservation processes – that has since outlived its value.
- Paper
- Optical media
- Tape used for transactional processing
- Tape for DR
- Tape for Archive



How Big Is The Problem In Corporate America?

- 90% of today's data was created in the last two years
- 40% growth per year means 15 PB now will be 39 PB by 2014
- Reductions in cost of storage is not keeping up at only 20% per year
- Approximately 70% of stored data has no business, legal or regulatory value
- At 25 cents per cartridge/month storage costs, and 200,000 tapes that would be \$400,000+ wasted annually and growing. Many large firms have much more tapes than this.

Date from a CGOC study (Compliance, Governance and Oversight Counsel



What is Legacy Data Remediation?

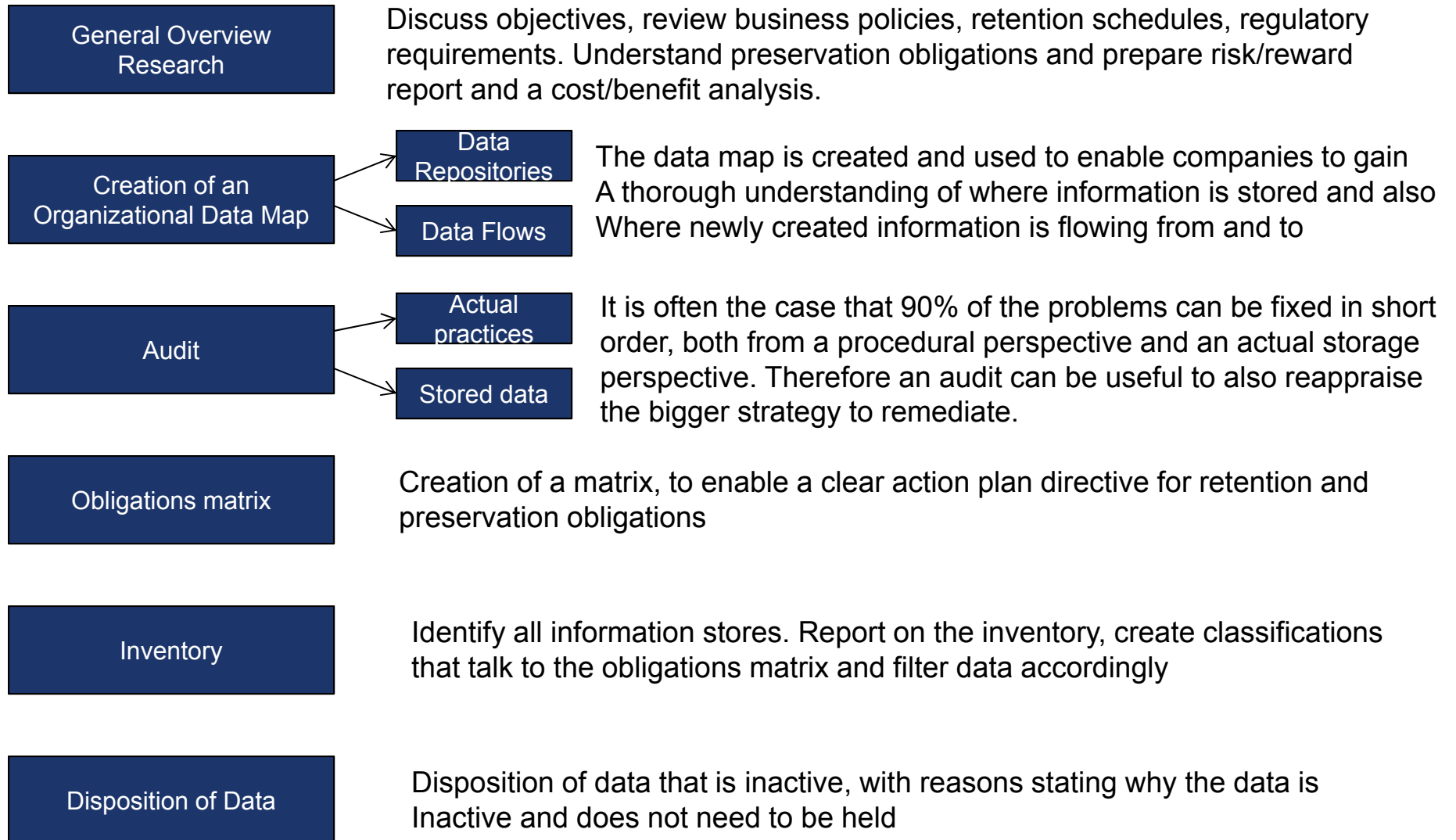
- The disposition of legacy data from within corporations that is or has become “Inactive”
 - Inactive data can be defined as data that
 - Is no longer of business value
 - Is not required for regulatory reasons
 - Is not subject to a legal hold
 - If data is being maintained anywhere in the organization but does not fit into the above three categories then it is
 - A risk to the organization and/or
 - A cost to the organization
 - In which case the prudent thing to do is to delete that data
- The data we are typically concerned with includes
 - Data residing on live servers
 - Data that is kept for Disaster Recovery, perhaps on tape
 - Data that is kept as archives on backup tape
 - Paper records that are archived



How has Legacy Data become a problem?

- Inappropriate Records Retention Schedules
- An ever changing IT infrastructure
- An increase in legal holds that apply to electronically stored information (ESI)
- Lack of an assigned budget to tackle it
- Not doing anything may cost money. Doing it wrong may cost more.
- The slow development in tools and experience to tackle the problem effectively
- The presence of unstructured data can make it tough to tackle the problem.
- Once the data mountain gets to become a certain size, complexity and cost can compound the issues and it is harder and more daunting to start.
- The Media becomes “poisoned” by specific content required to be retained affecting all data on the media.

A Typical Legacy Data Remediation Process





Can Companies Dispose of Legacy Data?

- “[D]ocument retention policies’ which are created in part to keep certain information from getting into the hands of others...are common in business. It is, of course, not wrongful for a manager to instruct his employees to comply with a valid document retention policy under ordinary circumstances”.
- An understanding of the relevant FRCP and best practices is useful
- Knowledge of regulatory requirements is essential
- Knowledge of litigation holds is essential
- [Arthur Andersen LLP v. United States](#), 125 S. Ct. 2129, 2135 (2005)

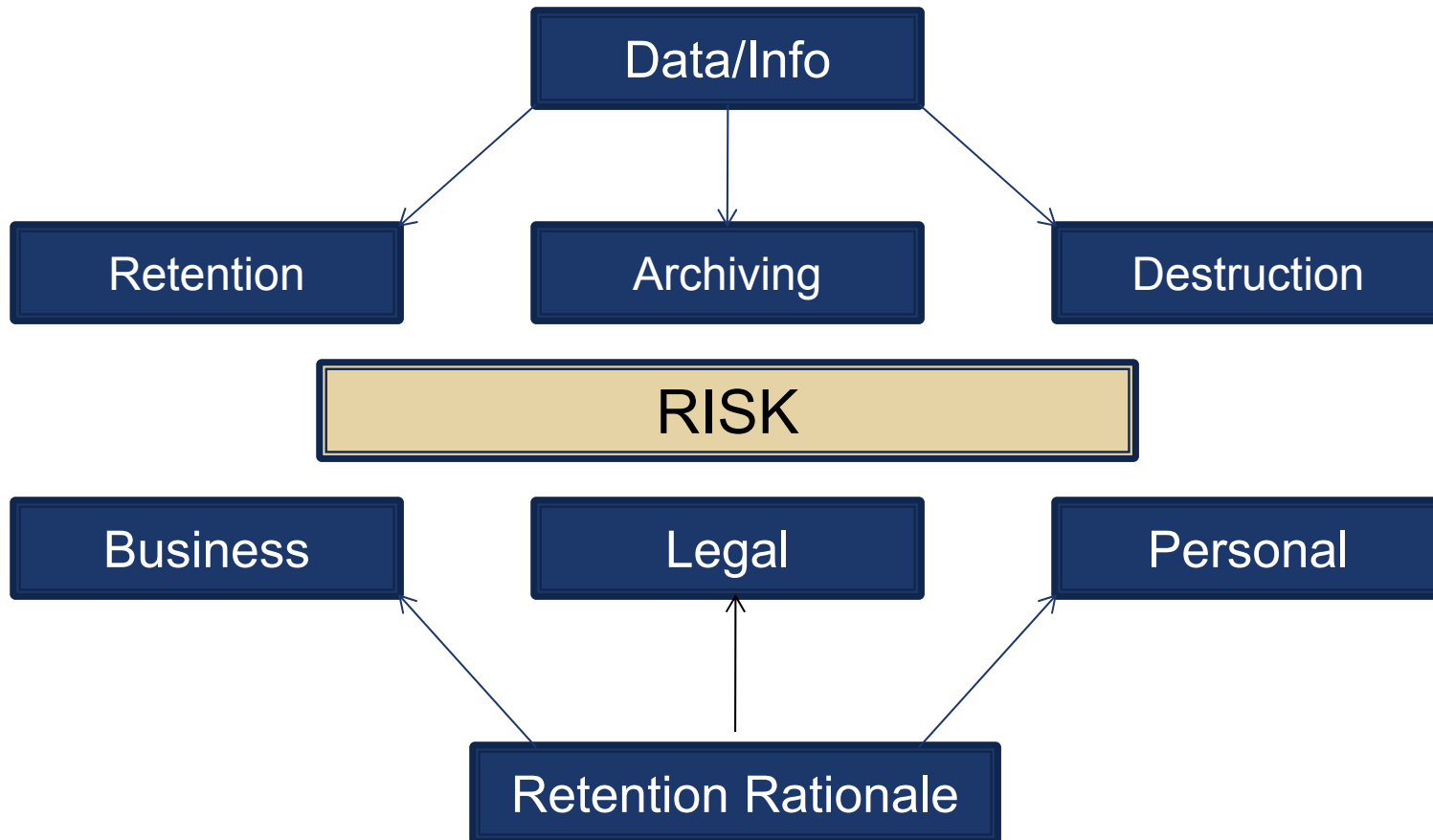


What Makes Destruction of Legacy Data Difficult?

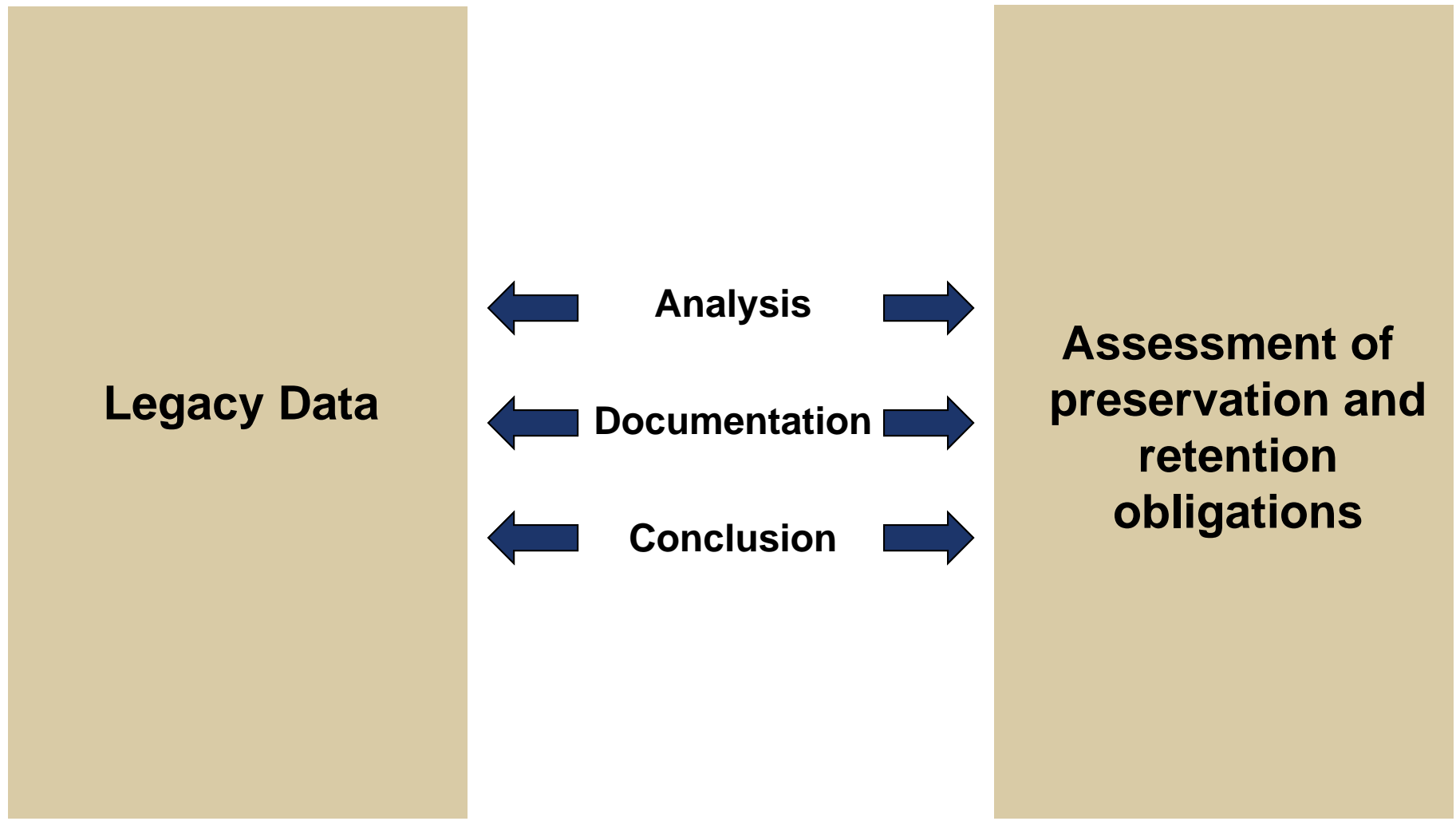
- **If there is a preservation obligation, destruction is not allowed**
- **If proof cannot be demonstrated that data stores were not holding data that should have been preserved then risk of spoliation is increased with subsequent likely sanctions**
- **If it cannot be demonstrated that an implemented retention policy was “reasonable”**
- **If the implemented retention policy could be claimed to be in “bad faith”**
- **If retained data has inadequate information (metadata) relating to information stored (content data)**

836 F.2d 1104 (8thCir. 1988)

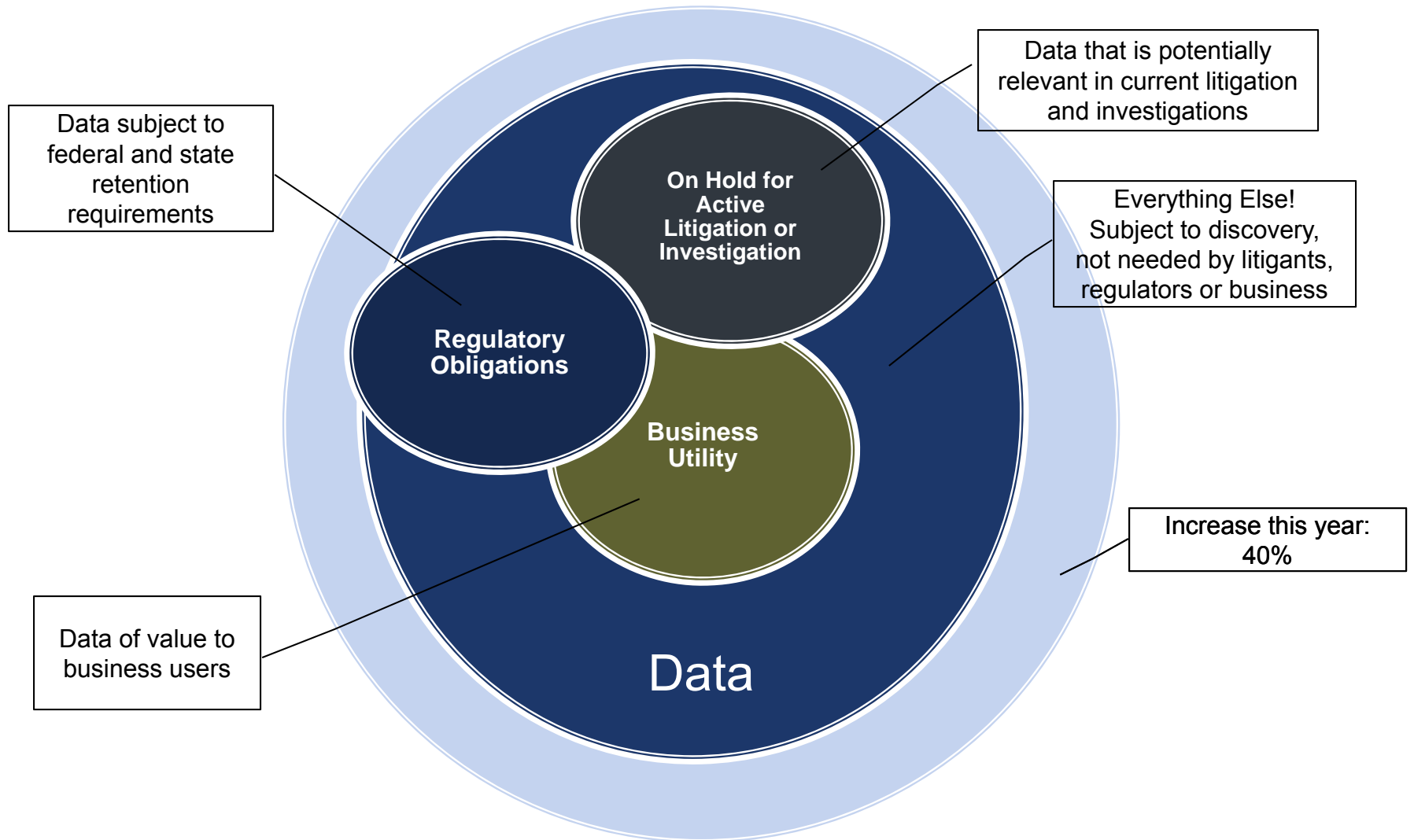
Typical Framework for Control & Risk



Disposition Framework

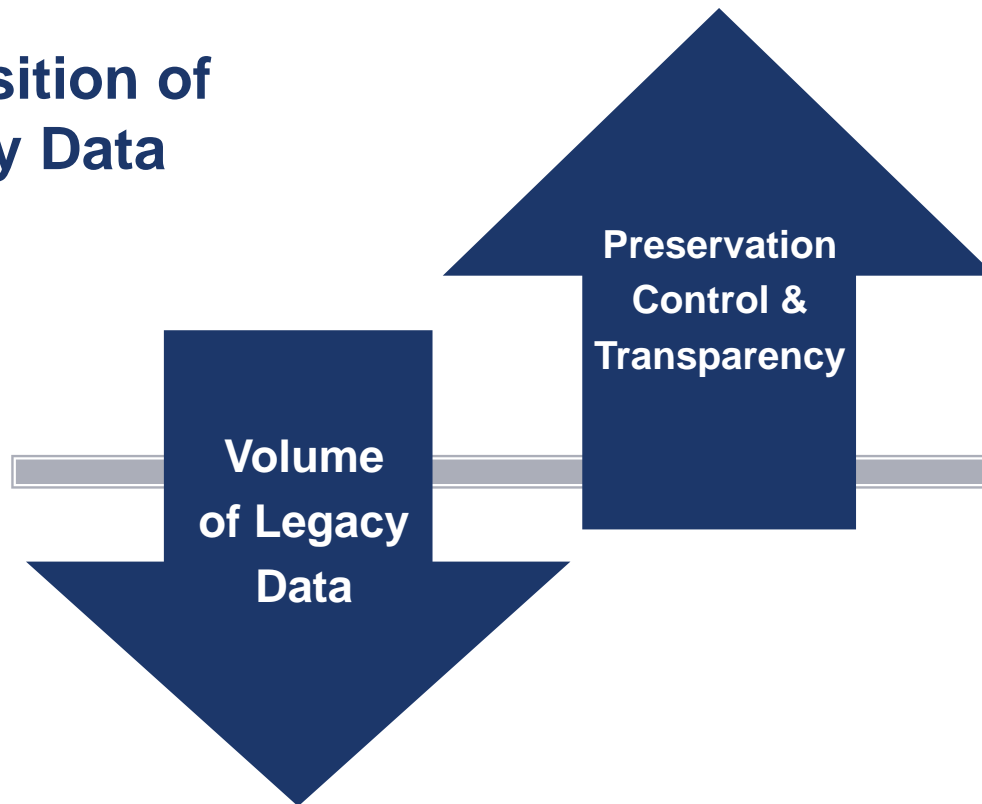


Disposition Framework



Conclusion

Disposition of Legacy Data





How Might The Use of LTFS Technology Affect The Need For Legacy Data Remediation?

- If there are many other tape formats as part of the legacy data pile then the introduction of LTFS technology cannot make a huge difference
- If the pile of Legacy Data has been remediated, and a purging process has been initiated as a routine up to the point of implementing LTFS technology, then Legacy Data Remediation should not be required going forward

How Could LTFS Change The Process of Legacy Data Remediation?

Look at three potential pools of data that “could” be the custodians of data subject to a legal hold

Older Media – DLT?

- Some structured and unstructured data, limited information, older B/U software employed making searching metadata troublesome
- Possibly no access to BU software database
- 80 GB of unknown data requiring rebuild of native environment or other tools
- 100 tapes? \$10,000? Just to find out if data is useful

LTO 3 w/o LTFS

- Mostly structured data, B/U software consistency enabling information about tapes more easy to obtain, but large amounts of data to search
- 800 GB of data to index or file search
- Tape mounting and some investigative work required
- Complete content required if target data found

LTO 5 w LTFS

- 1.5 TB of data
- No tape mounts required
- No access to BU software required
- The server needs to be available



The evolution of the use of tape for e-Discovery

- Circa 2000
 - Tape started to become a source for major case data discoveries, such as UBS vs. Zubulake
- Circa 2003
 - Data extractions from tape are becoming commonplace, though early process involves landing and searching all data and is very expensive
- Circa 2004
 - The largest sanction for failed discovery is made on Morgan Stanley at \$1.2B, a pivotal part of the case was failure to turnover evidence that existed on tape
- Circa 2006
 - Metadata from tape is becoming increasingly used in discoveries to shape cases and reduce the need to land data, dramatically reducing review cost
- Circa 2008
 - Indexing content of tapes is introduced as an alternative means to searching tape content
- Circa 2010
 - File level detail still requires the complete running of a tape, and the industry continues to argue that tape is not reasonably accessible
- Today
 - LTFS has the capability to be used as a fast, cheap means to rule in or rule out tape content



Conclusion

- Legacy Data Is a major problem for most major corporations
 - The problem is getting worse at an accelerated rate
 - The problem will not go away
 - Delay in tackling it makes the problem worse
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- Legacy Data Remediation should be seen as a process implementation, and not a project.
 - LTFS technology can reduce discovery cost from tape upon implementation