



# Beyond Guesswork

## AN APPROACH TO DATA RISK QUANTIFICATION

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# Who's This Guy?



- ▶ 20 + years in Information Governance related roles across multiple sectors
- ▶ Certified Information Governance Professional and US Privacy Professional
- ▶ Currently with Alvarez & Marsal specializing in information risk and governance solutions



# Agenda

- ▶ Introduction and Purpose
- ▶ Client Case Study Overview
- ▶ Identifying Hidden Data Challenges
- ▶ Quantification Framework
- ▶ Real-World Outcomes and Results
- ▶ Key Insights and Takeaways
- ▶ Q&A



# Introduction and Purpose



- ▶ Data drives strategic decisions
- ▶ Risks increase with data value
- ▶ There are clear methods to quantify and manage data risks
- ▶ Review Healthcare Sector Case Study to show one possible strategy that demonstrates actionable insights



# Client Case Study Overview

- ▶ Sector: Healthcare
- ▶ Scope of Analysis
  - ▶ 63 business processes analyzed
  - ▶ 28 information systems evaluated
  - ▶ 11 organizational functions covered
  - ▶ Collaboration with over 50 stakeholders
- ▶ Primary Challenges
  - ▶ Managing sensitive data (PHI, PII, SBI)
  - ▶ Meeting regulatory compliance requirements
  - ▶ Limited visibility into actual risks
- ▶ Motivation: Improve governance and quantify risks clearly to significantly reduce data exposure



# Identifying Hidden Data Challenges

- ▶ Methodology
  - ▶ Stakeholder interviews
  - ▶ Comprehensive process/system mapping
  - ▶ Technology assessment



- ▶ Major Risks Uncovered
  - ▶ Sensitive data stored locally and in unsecured cloud storage
  - ▶ Limited staff awareness of compliance obligations
  - ▶ Lack of defined data disposal procedures
  - ▶ Inconsistent and unmanaged data access



# Quantification Framework

- ▶ Scoring System Overview
  - ▶ Evaluates processes based on:
    - ▶ Data Sensitivity
    - ▶ Degree of Unstructured System Usage
    - ▶ Data Sharing with Third Parties
  - ▶ Risk Score: PHI/PII assigned the highest weight
  - ▶ Total Sensitivity Score = Sum of points from each data type in the process
- ▶ Data Sensitivity
  - ▶ Categorized into:
    - ▶ PHI (High Risk)
    - ▶ PII (High Risk)
    - ▶ SBI (Low Risk)



# Quantification Framework cont.

- ▶ Degree of Unstructured System Usage
  - ▶ Includes hard drives, shared drives, Box, Teams, OneDrive, Email
  - ▶ Risk varies by system type (e.g. Email is riskier than Box)
- ▶ Data Sharing with Third Parties
  - ▶ Assessed in a binary matter



# Real-World Outcomes and Results

- ▶ Substantial Reduction in Data Risk Exposure
- ▶ Significant Improvement in Organizational Compliance
- ▶ Cost Savings from Reduced Redundant Data Storage
- ▶ Enhanced Operational Efficiency
- ▶ Overall sensitive data risk reduction: 62%
- ▶ People Services potential risk reduction: 71%
- ▶ Accounting potential risk reduction: 68%



# Key Insights and Takeaways

- ▶ Clear Definition and Quantification of Data Risks
  - ▶ Underpins effective risk management
- ▶ Essential Steps for Risk Mitigation
  - ▶ Comprehensive data inventory
  - ▶ Structured quantitative risk assessment
  - ▶ Implementation of enforceable governance controls
- ▶ Importance of Ongoing Monitoring
  - ▶ Flexibility in adapting to emerging risks



# Q&A

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