

boldonjames

A QinetiQ Company

The First Choice for the Secure Organisation



Putting Data Classification at the Foundation of Data
Protection

<name> <title>

- Global leader in data classification and secure messaging solutions
- Established in 1985, headquartered in the UK with 60+ employees
- Owned by QinetiQ Plc - \$2bn defence & security technology business
- 30 years experience in delivering complex secure messaging, data security and information management solutions
- Global presence, local expertise – with offices in the UK, US, Australia and Europe. World wide coverage through channel partner network.

Microsoft Partner

Gold Application Development

 **McAfee®**
Security Innovation Alliance

 **Symantec™**

Technology Enabled Partner

websense®
ESSENTIAL INFORMATION PROTECTION™



Air



Maritime



Training



C4ISR



Cyveillance®



Weapons



Australia



Procurement
Advisory Services



Cyber
Security



Space



OptaSense®



IP & New
Technologies



Survivability



Unmanned
Systems



Boldon
James

“This highest level of Partner status, combined with their long standing relationships, provides Boldon James a unique level of access to new Microsoft products, development support, and commercial support.”



Microsoft

“This level of access is not available to other independent software vendors in the messaging sector.”

Client experience

- Over 5 million end users of our technology globally
- Customers across multiple sectors, Financial Services, Law, Oil & Gas, Pharma, Manufacturing, Telcos, Military, Intelligence, Government
- *Global organisations trust us to protect their sensitive data....*



CHRYSLER



FIAT CHRYSLER AUTOMOBILES



A Fiat Group Company



EXPRESS SCRIPTS®



European Bank
for Reconstruction and Development



BG GROUP



MINISTRY OF DEFENCE



BAE SYSTEMS





Why is Data Classification Important Today?

Organisation to Organisation



- Transactional Apps
- Structured Data
- Centralised information
- On-premise infrastructure
- Perimeter-based security

Peer to Peer or Group



- Collaborative Apps and Social Media
- Unstructured data
- Distributed information
- Virtual Infrastructure, BYOD and Cloud
- People are the new perimeter!

Era of continuous breaches

Operational Sophistication

Year of the breach



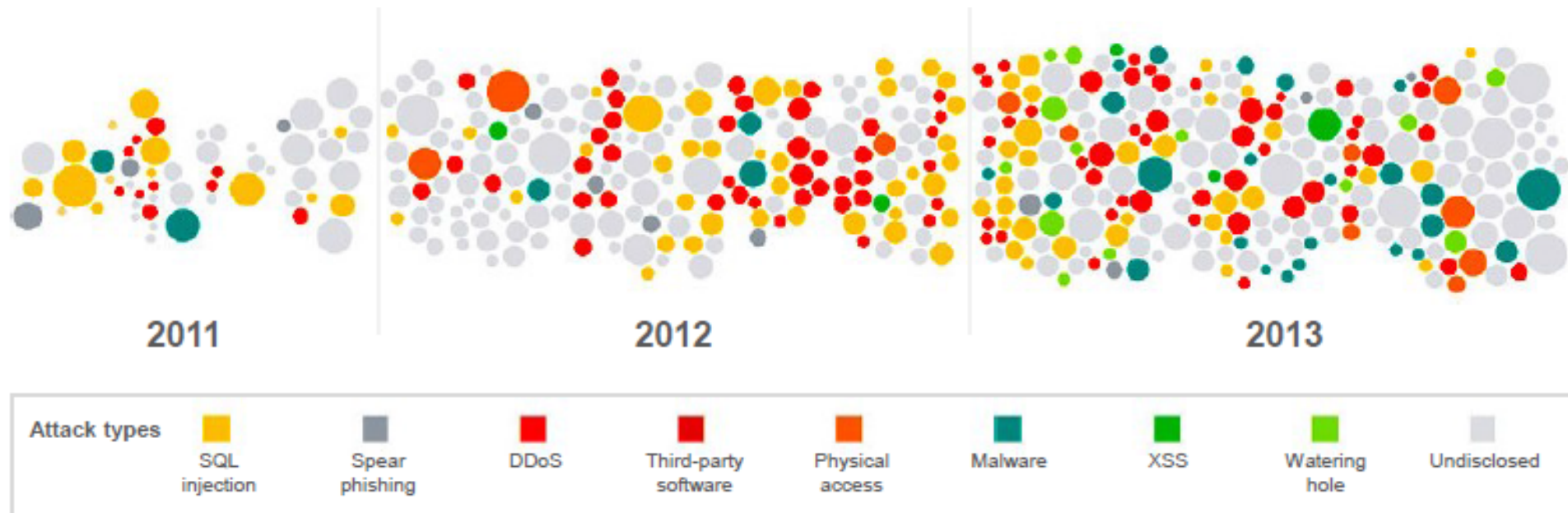
Daily leaks of sensitive data

40% increase in reported breaches



Relentless attacks & breaches

500,000,000+ records leaked



Source: [IBM X-Force Threat Intelligence Quarterly – 1Q 2014](#)

Note: Size of circle estimates relative impact of incident in terms of cost to business.

“worldwide information volumes are growing at in excess of 60%”

“800% growth in unstructured data in next 5 years” (Gartner)

“the substantial growth of data is fast becoming unmanageable”



What data are we
talking about?



What are the
risks?



How do you
know?

- ❑ Data Laws becoming more stringent Disparity in data privacy regulations globally
- ❑ Data Privacy for certain types of data is mandated by law
- ❑ Data must be understood and classified in order to be adequately managed, controlled, and protected
- ❑ Once critical data and systems have been identified, controls must be implemented to achieve the privacy that is required

The crux of the problem...

...because we've all pressed this by mistake!!



Hard truths around data loss



of data breaches
were down to
human error

The Ponemon Institute



of business users said
that the greater threat
to businesses are
employees unintentionally
sending out sensitive
information via email

SilverSky



Inadvertent misuse of
data from insiders is
responsible for **36%**
of data breaches

Forrester



of business users
have sent an email to
the wrong person
by mistake

SilverSky



said the CEO's
confidential data
had been breached
within 12 months

Websense



The ICO believe that
over **50%** of data
breaches are caused
by human error

ICO

- *Data Protection Act*
- *EU Data Protection Laws changing*
- *ICO Fines*



MoJ
Fined £140k
(2013)



Sony
Fined \$416k
(2013)



Zurich
Fined €3.1m
(2008)



What is the
value of a
reputation?

Average cost of a data breach increased in 2013 by

15%

A single lost or stolen data record cost on average

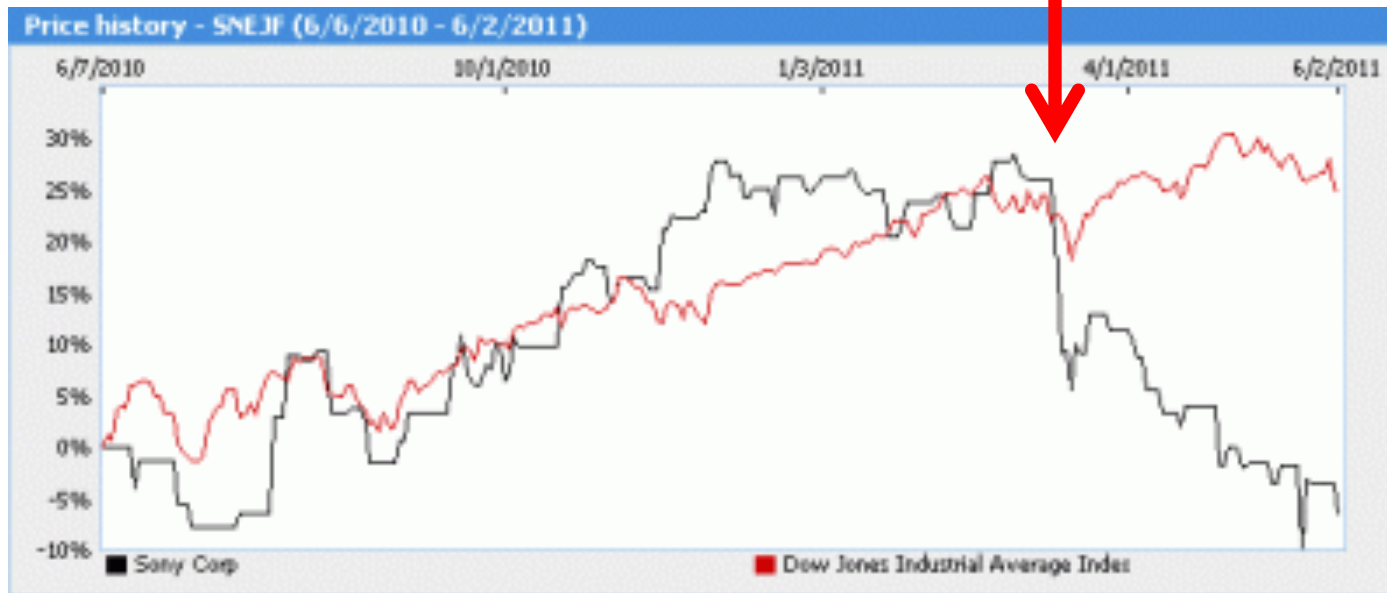
\$145

Average cost of a single sensitive data breach in 2013
(Ponemon Institute)

\$3.5m

“*The cost of data breach is on the rise and affecting customer retention*”

SONY



- \$272m hit on operating profit
- 9% drop in share price
- \$1.25bn lost revenue (est)



- 11% drop in share price after data breach revealed on 19th Dec 2013



CMO

- Brand reputation damage
- Loss of brand trust

CRO

- Financial risk
- Business & legal risk
- Audit failures

CIO

- Loss of data integrity
- Data protection failures

CFO/COO

- Fines
- Criminal charges
- Regulatory failures
- Financial loss

CEO

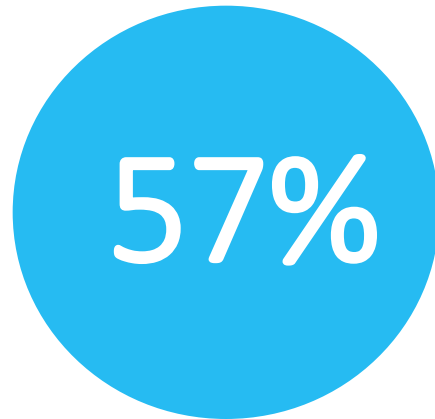
- Loss of market share and reputation
- Legal exposure

CISO's are now being appointed to board room positions

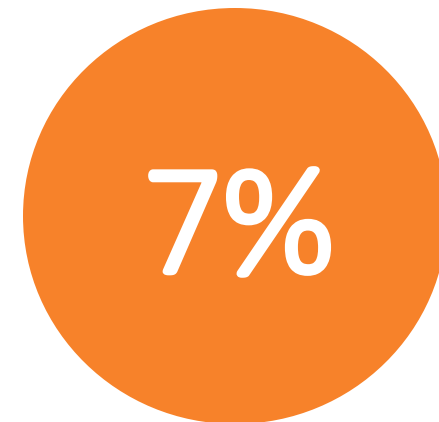


Protecting sensitive data

Not knowing where
sensitive data is



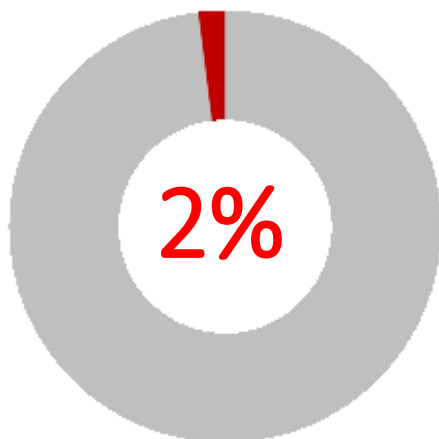
Only 7% know where
Unstructured data resides



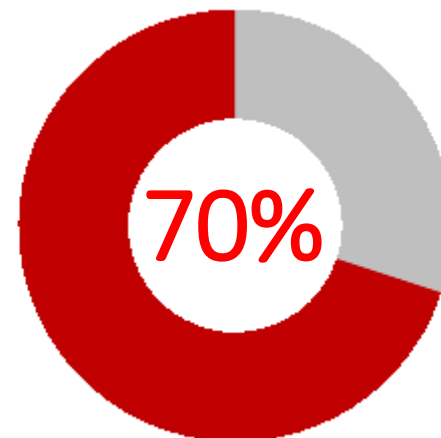
79%

said that not knowing where the organisations
sensitive data is represents a significant security risk

An average organisation's critical data is less than...



Business value that is estimated to be contained in critical data...



Examples of Sensitive Data:

- Mergers & acquisition plans
- Business plans
- R&D plans
- Company results
- Drug formulas
- Manufacturing drawings
- Employee data
- Customer data
- Payment information (PCI)
- Fiscal trading data

Critical data is high value



Value	Business Critical	Critical IP (e.g. design files)		Top secret plans & formulas			
	C-Level	Merger & Acquisition plans		Investment decisions			
	Regulated	PCI-DSS	PII	DPA	HIPAA	GSC	ITAR SOX
	Business Strategic	Business plans	Strategic Partner plans		Company Results	Product roadmap	
	Business Unit Critical	Audit reports	Customer records	Commercial pricing data		Security data	
	Operational	Project plans	Contracts		Employee / HR data	Accounting data	
	Public	Press releases	Partner list		Market intelligence	Official results	

1

Identify – your sensitive data

2

Discover – location and accessibility

3

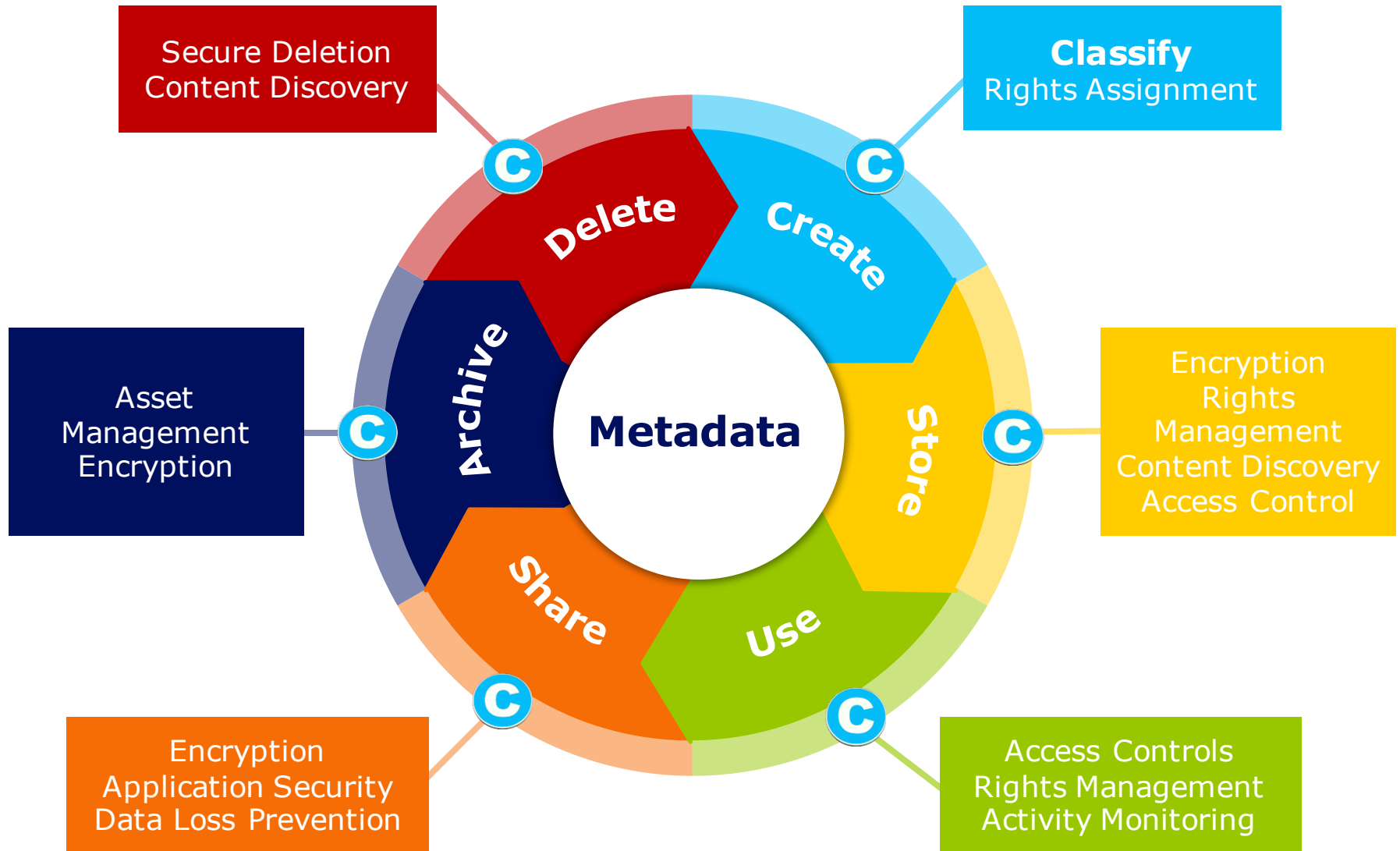
Classify – data according to its value to the organisation

4

Secure – employ security control and protection measures

5

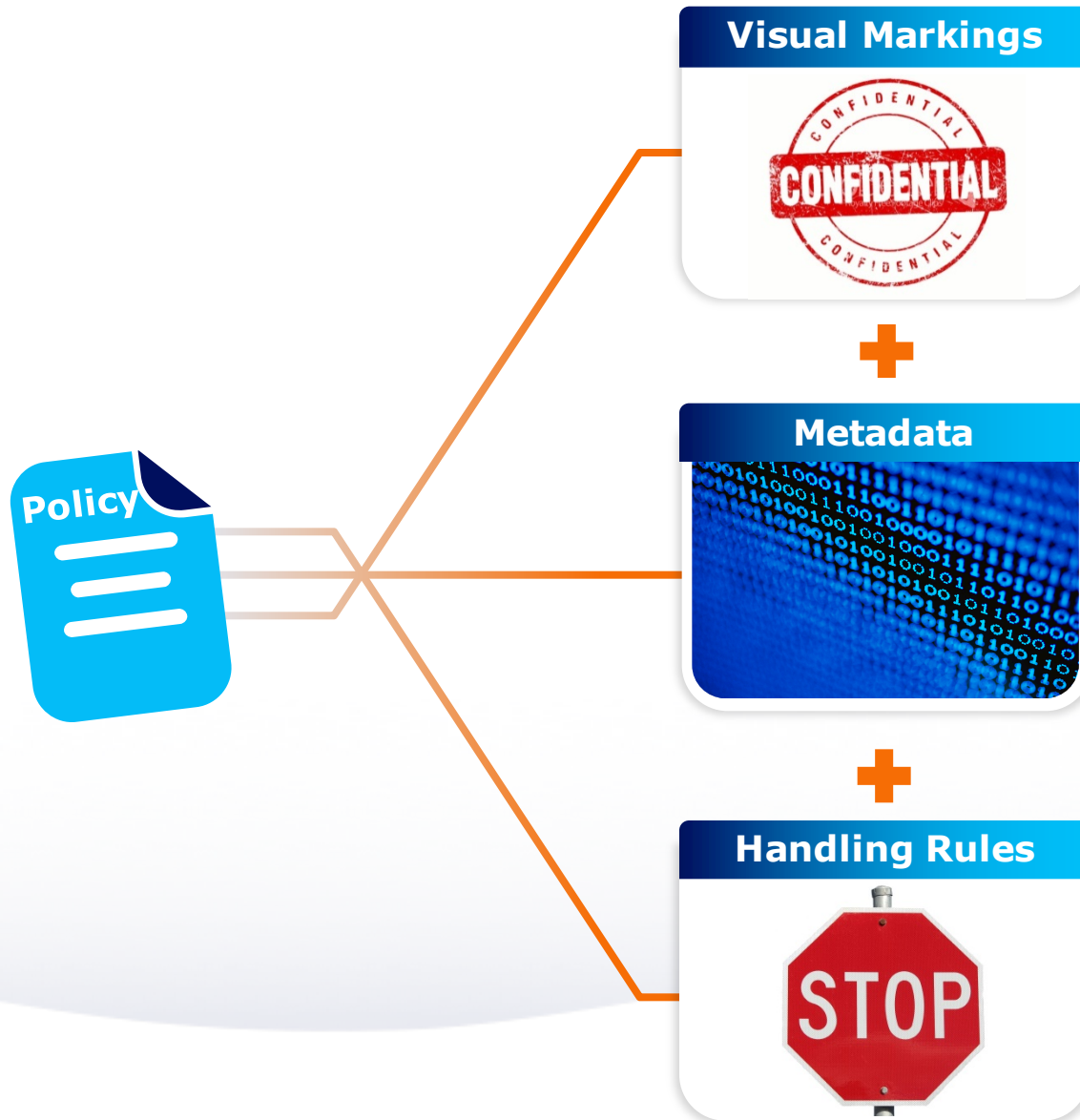
Monitor – measure and evolve security practices





What is Data Classification?

What is Data Classification?



“

Involving the user to place a **key identifier** onto a piece of information to ensure **appropriate handling**

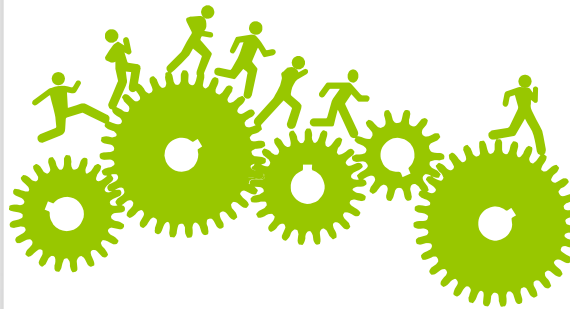
”

Ways to Do Data Classification

User Driven



System Generated



Manual



CONFIDENTIAL

User Driven Data Classification

Dynamic and proactive labelling

Enforce labelling/data classification policy

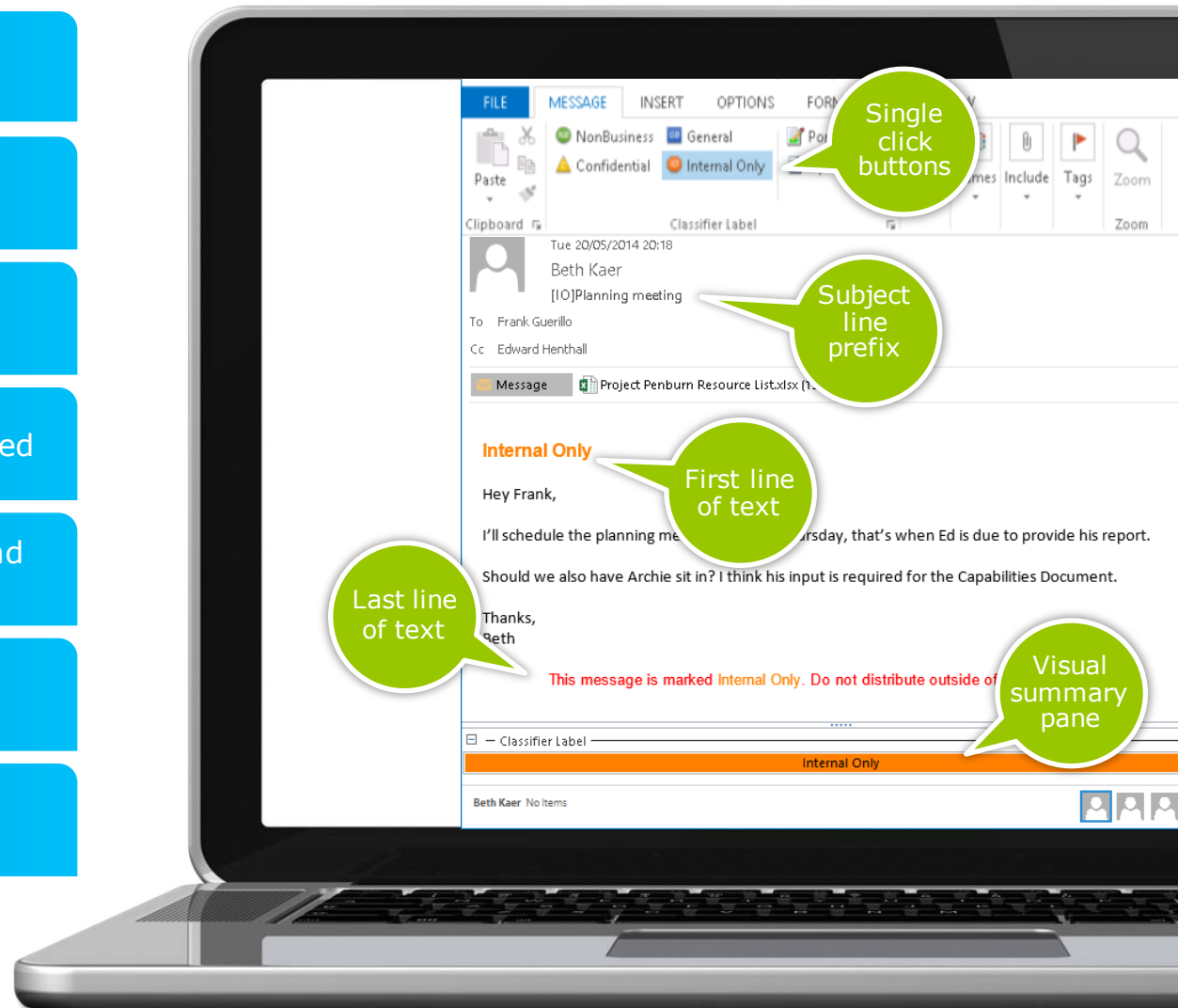
Domain, user & attachment checks

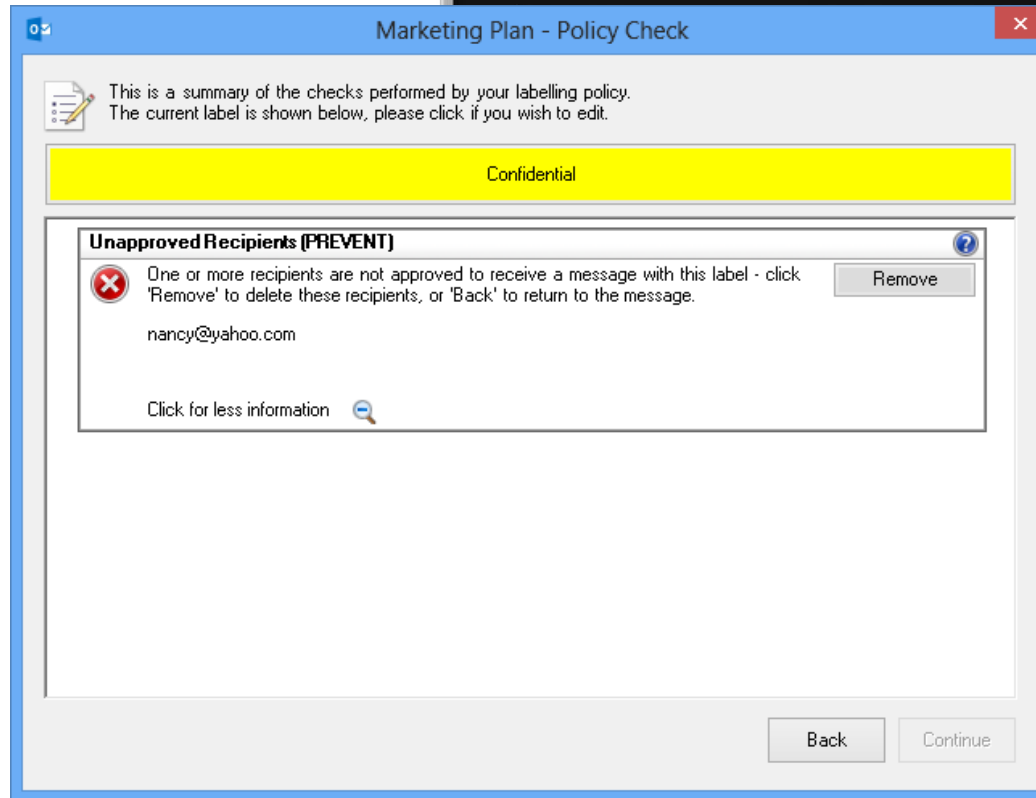
Ensure consistent markings are applied

Fully customisable images, labels and text

Visual labels & metadata

Multiple platforms & file types

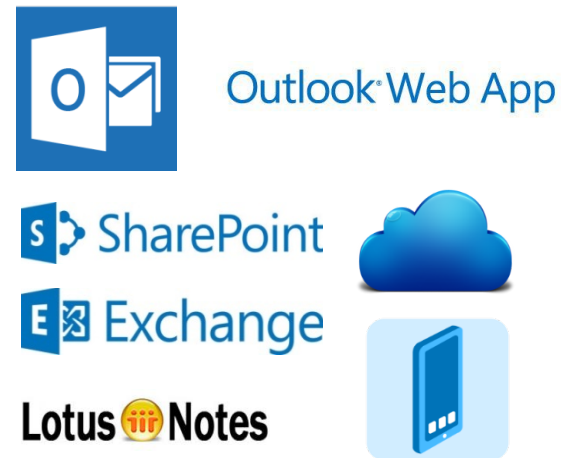




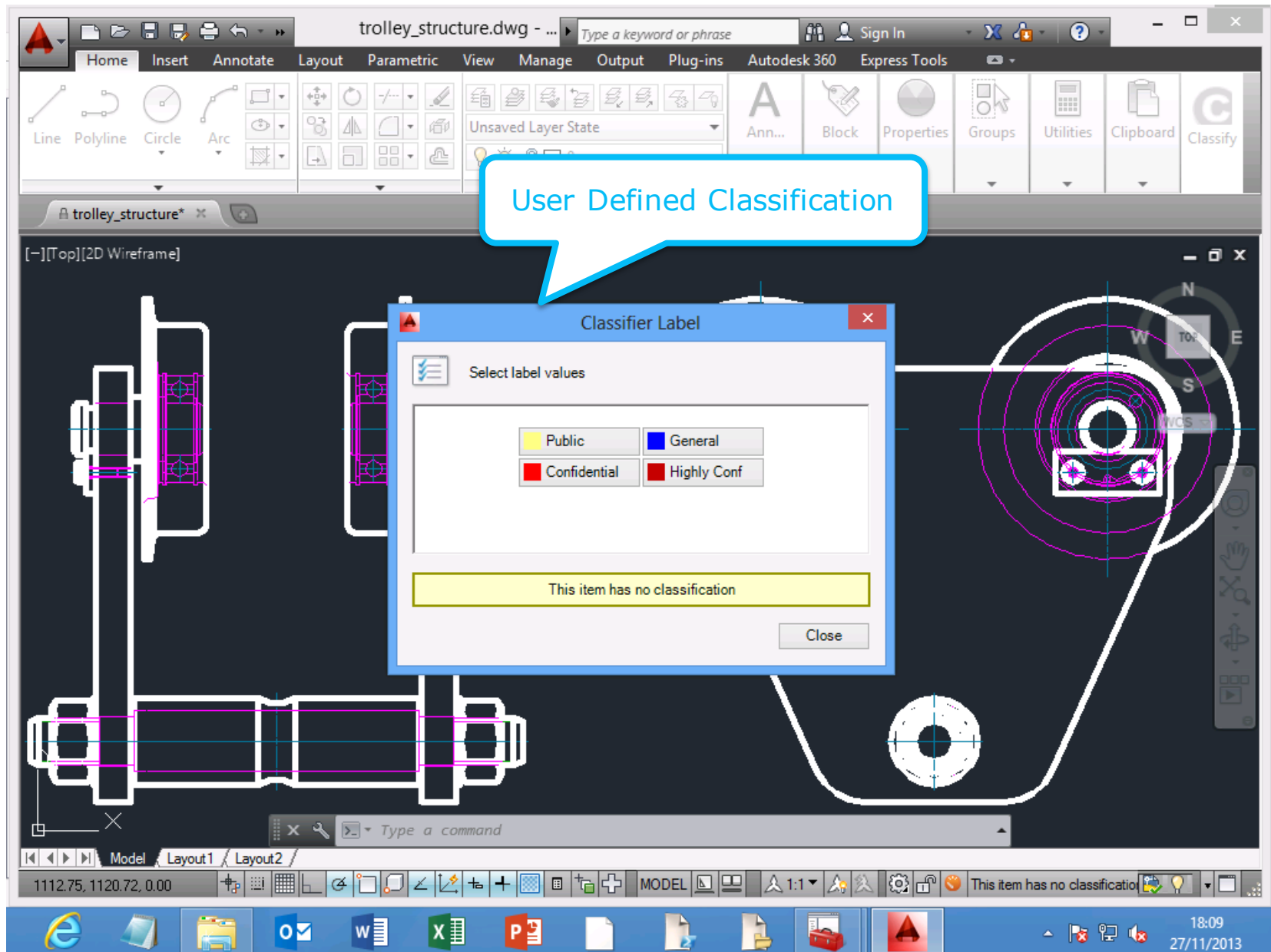
CREATION



SHARING & COLLABORATION



Extending to CAD files...





Classification Solutions

*Classifier extends the capabilities of Microsoft products and other applications to allow users to apply relevant **visual & metadata labels** (protective markings) to **messages, documents and files** in order to enforce information assurance policies, raise user awareness of data value and drive multiple security technologies.*



Easy to install
client software



Adoption of your
information
classification policy.



Seamlessly extends
core MS products



Orchestrate your
security technologies.



Core Features:

- **Engage** the employee
- **Educate** the employee
- Insert **visual markings**
- Raise **awareness and understanding**
- Insert **metadata**
- Control **email distribution**

DATA CREATION AND EXCHANGE

Email Classifier

Email Classification and Release Control for Secure Messaging

Office Classifier

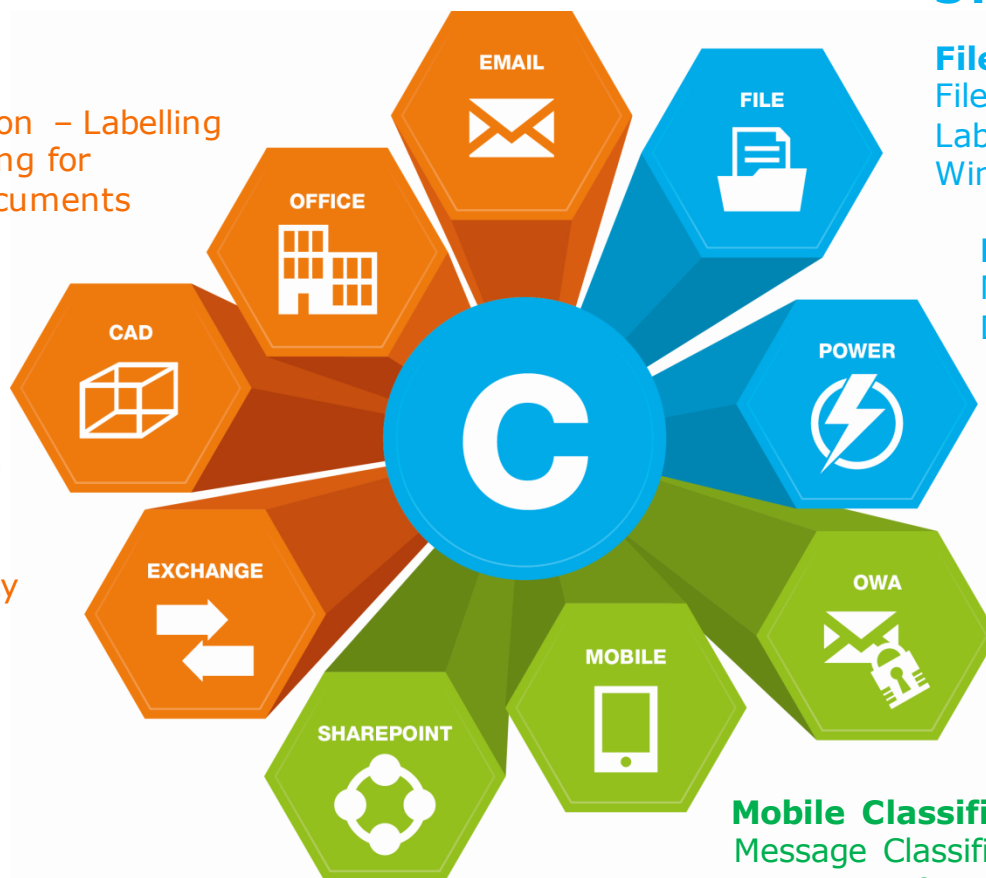
Document Classification – Labelling and Protective Marking for Microsoft® Office Documents

CAD Classifier

Protect Design Documents and CAD Workflow

Exchange Classifier

In-transit Message Classification
- Ensuring Consistency and Improving Collaboration



EXISTING AND STORED DATA

File Classifier

File Classification - Security Labelling for All Types of Windows Files

Power Classifier

Mass Security Labelling for Documents and Files

REMOTE ACCESS AND COLLABORATION

OWA Classifier

Message Classification and Release Control for Microsoft Outlook Web App (OWA)

Mobile Classifier

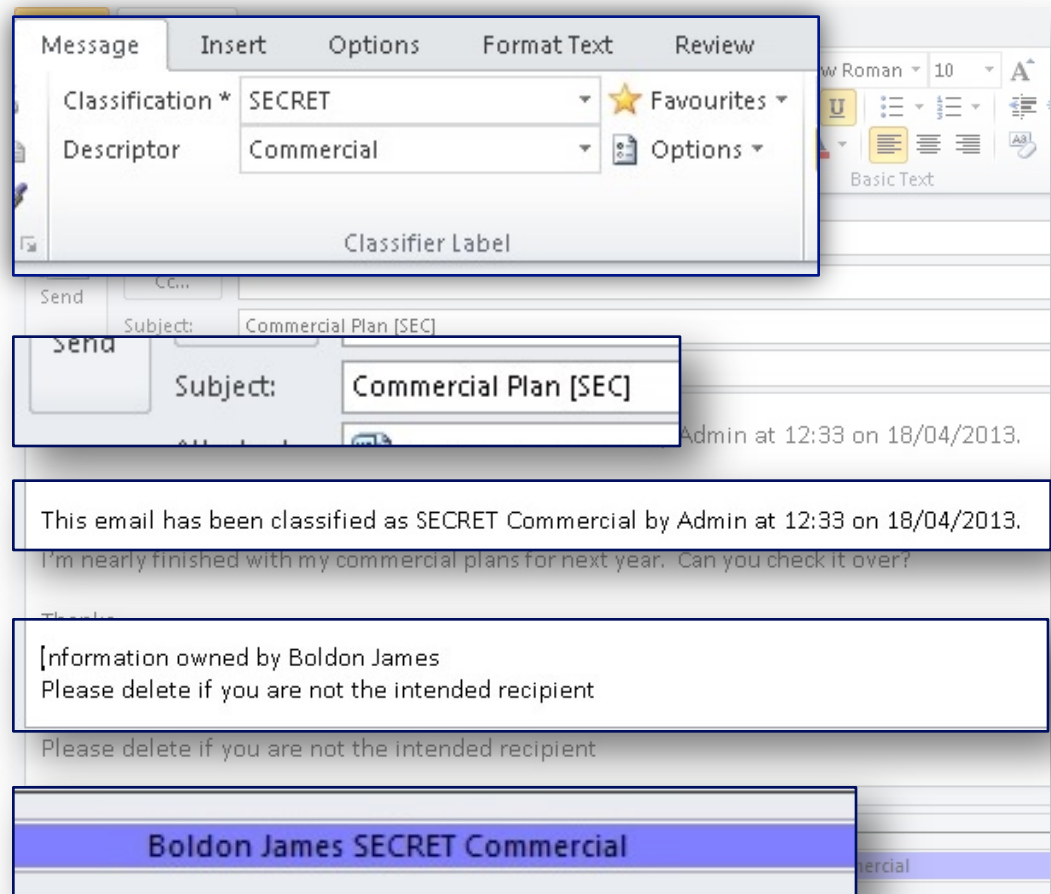
Message Classification and Data Loss Prevention for Mobile Devices

SharePoint Classifier

Security Labelling for Microsoft Document Management

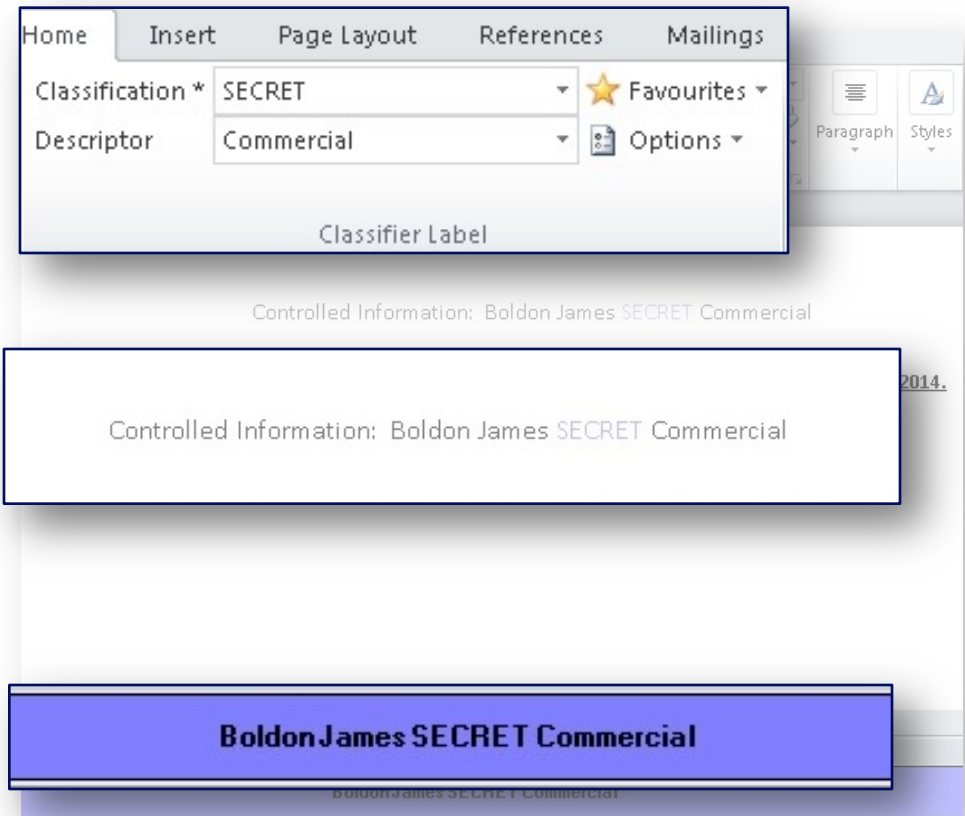
MICROSOFT OUTLOOK (OR LOTUS NOTES)

- **ENFORCE** LABELLING / DATA CLASSIFICATION POLICY
- DOMAIN, USER, AND ATTACHMENT CHECKS **AT THE CLIENT**
- ENSURE **CONSISTENT** MARKINGS ARE APPLIED
- VISUAL AND METADATA MARKINGS



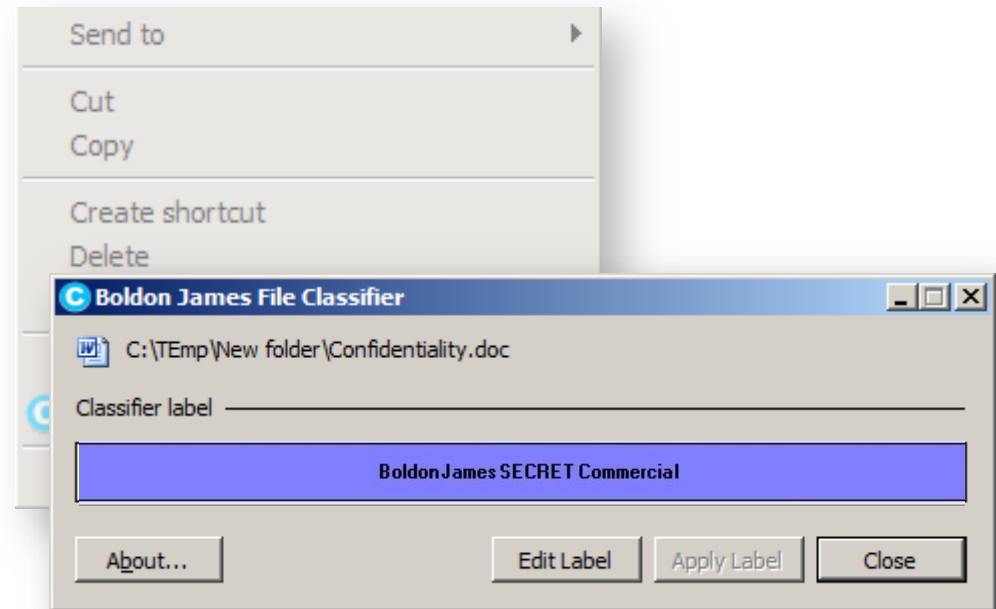
MICROSOFT WORD, EXCEL, POWERPOINT, VISIO & PROJECT

- **ENFORCE** LABELLING /
DATA CLASSIFICATION
POLICY
- ENSURE **CONSISTENT**
MARKINGS ARE APPLIED
- VISUAL AND METADATA
MARKINGS



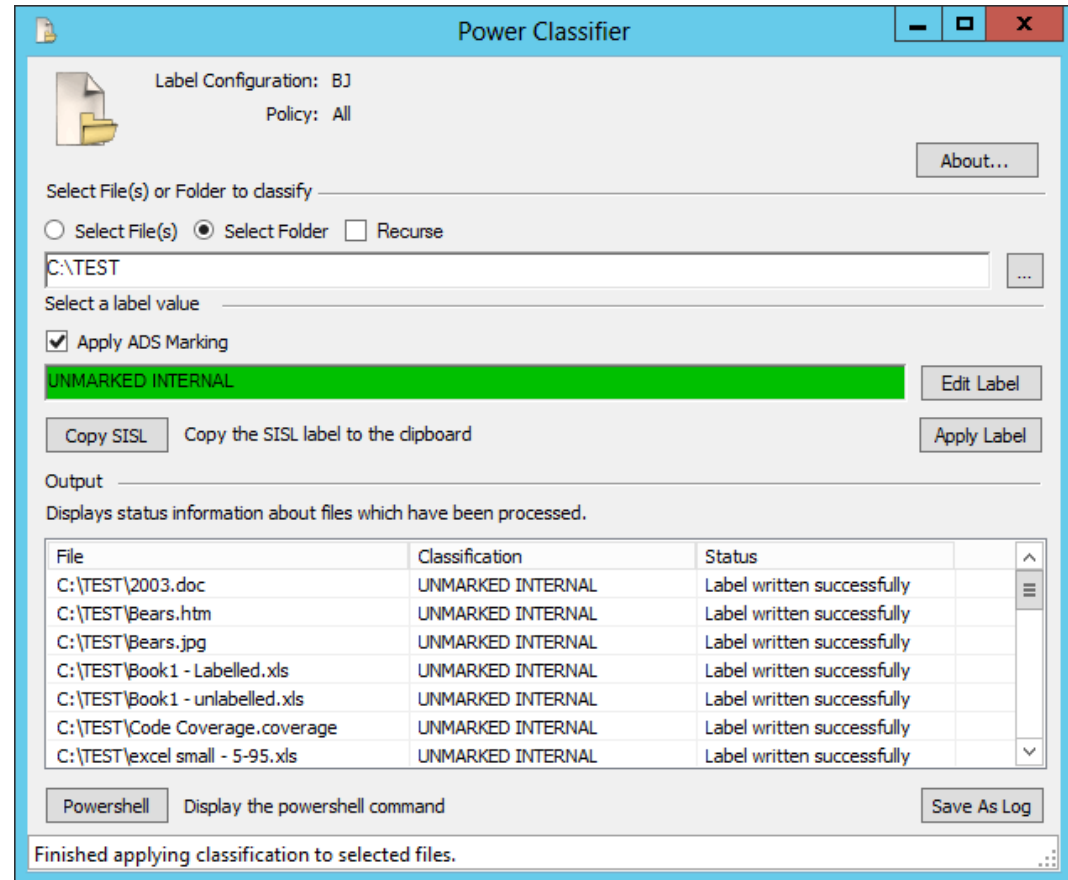
MICROSOFT WINDOWS SHELL EXTENSION

- **ENFORCE** LABELLING /
DATA CLASSIFICATION
POLICY
- SUPPORT FOR **NON-
NATIVE** FILE TYPES
- ENSURE **CONSISTENT**
MARKINGS ARE APPLIED
- APPLY METADATA
MARKINGS



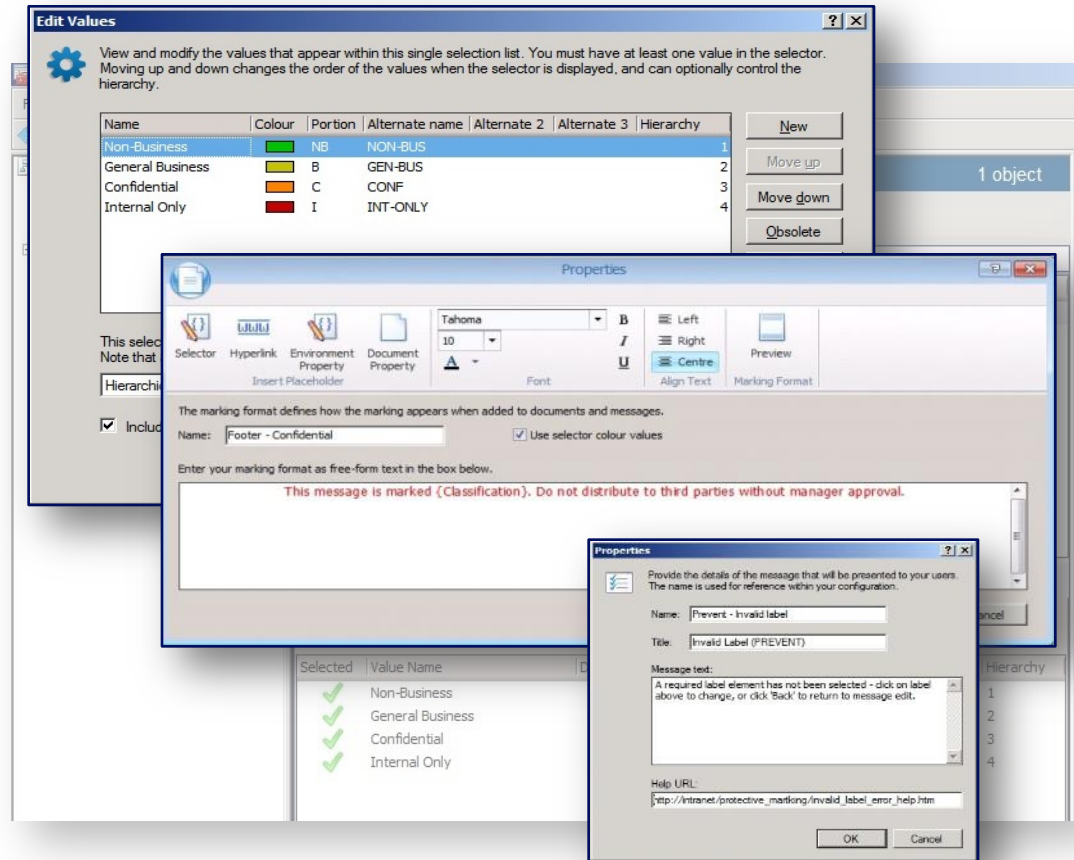
BULK LABELLING OF LEGACY FILES & DOCUMENTS

- RETROSPECTIVE APPLICATION OF CLASSIFICATION LABELS
- SUPPORT FOR NON-NATIVE FILE TYPES
- APPLIES LABELS TO ANY FILE CONTAINED IN WINDOWS FILE STORE
- BESPOKE SCRIPT CREATION VIA POWER SHELL



UNIFIED ADMINISTRATION

- ALL PRODUCTS MANAGED FROM A SINGLE LOCATION
- QUICK START TEMPLATES
- MULTIPLE POLICY SUPPORT
- REUSABLE POLICY COMPONENTS
- HIGHLY CONFIGURABLE BEHAVIOURS



- ❑ Check & apply labels upon upload
- ❑ Enforce classification upon import

The screenshot shows a SharePoint interface with a document upload dialog box open. The dialog box is titled "Shared Documents - LD HR Pol. 73-23 R3.docx". It features a top bar with "Edit" and a close button. Below this is a toolbar with icons for "Save", "Cancel", "Paste", "Copy", and "Delete Item". A yellow information bar states: "The document was uploaded successfully. Use this form to update the properties of the document." The form contains the following fields:

- Name ***: LD HR Pol. 73-23 R3.docx
- Title**: (empty field)
- Classifier Label**: General Business (highlighted in blue)

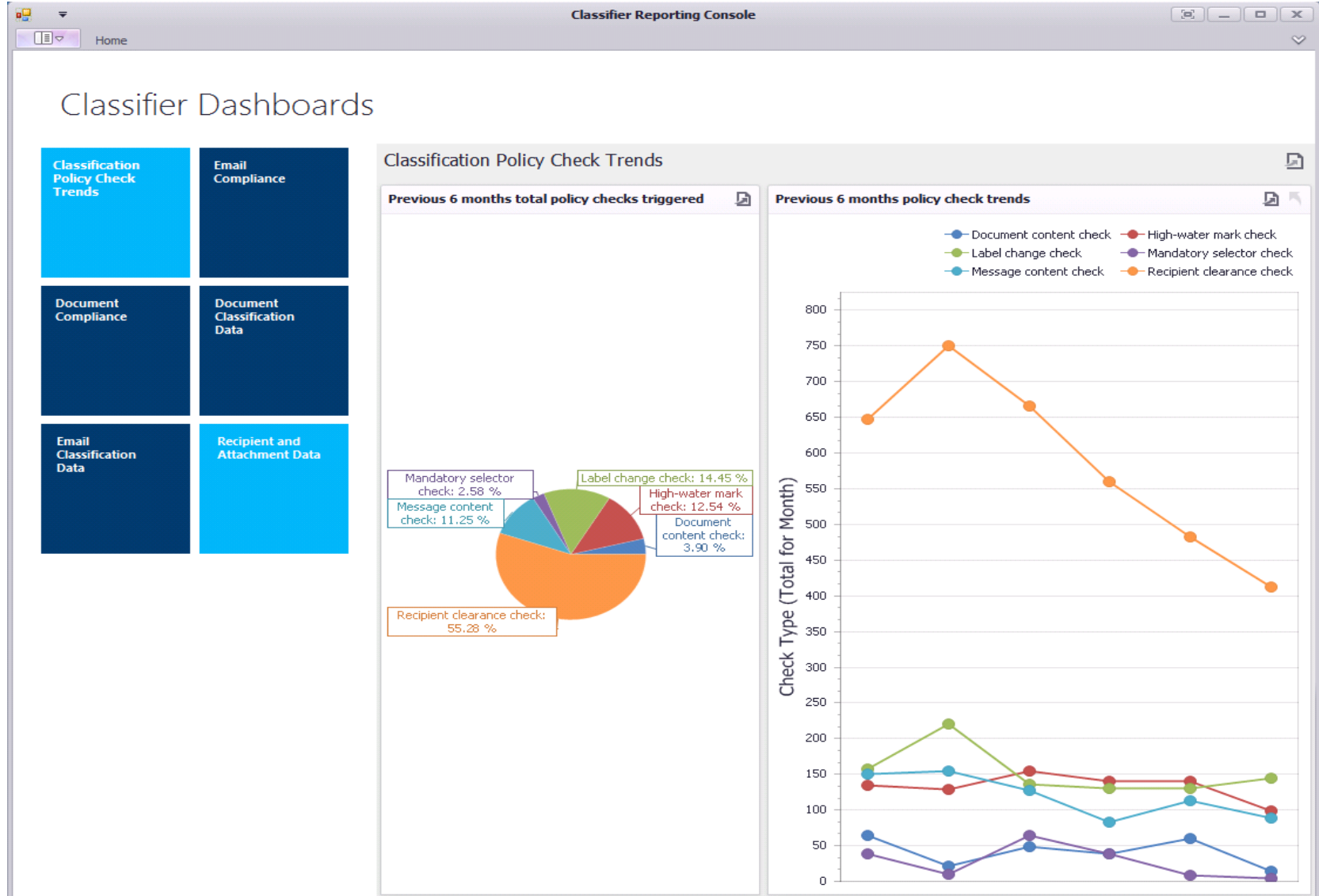
At the bottom, it shows the document's metadata: "Created at 9/26/2013 4:45 PM by Beth Kaer" and "Last modified at 9/26/2013 4:45 PM by Beth Kaer". There are "Save" and "Cancel" buttons at the bottom right.

- ❑ Dashboards and Reports
 - ❑ Extensible by customer
- ❑ The dashboards and reports reflect
 - ❑ Principals – who is doing what
 - ❑ Content – what content is being processed
 - ❑ Actions – which Classifier rules are honoured / ignored

- ❑ Monthly trends against policy violations
- ❑ Attachment names for each classification value
- ❑ Types of documents for each classification value
- ❑ Individual users making policy violations
- ❑ Email domains receiving sensitive information

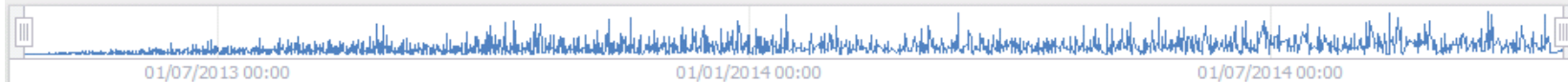
...Create your **own** dashboards and reports

Dashboard example

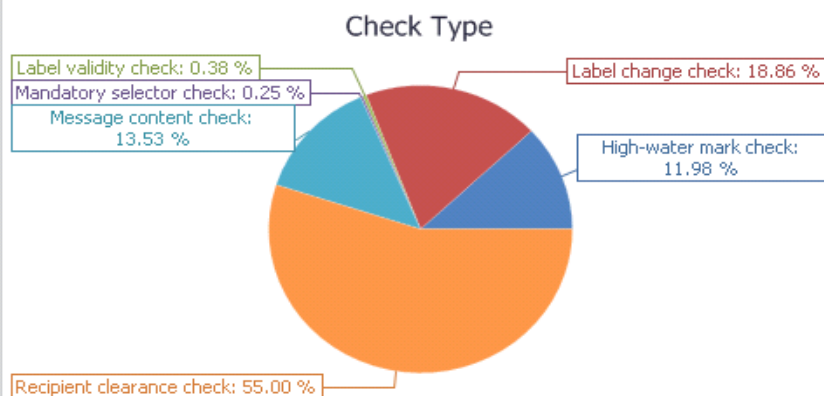


Email Classification Dashboard

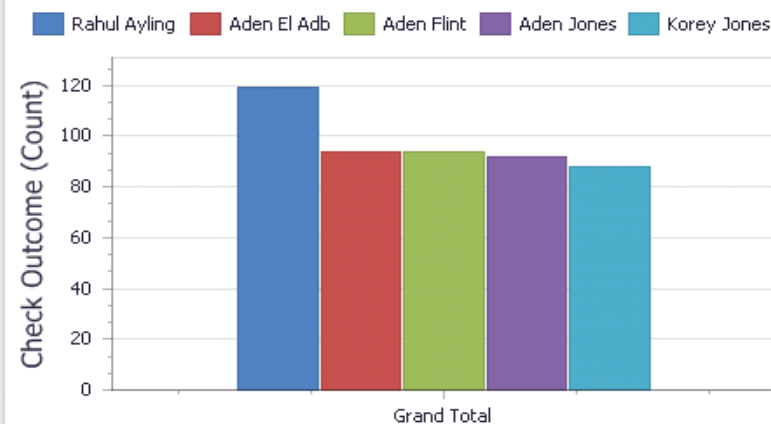
Email Compliance



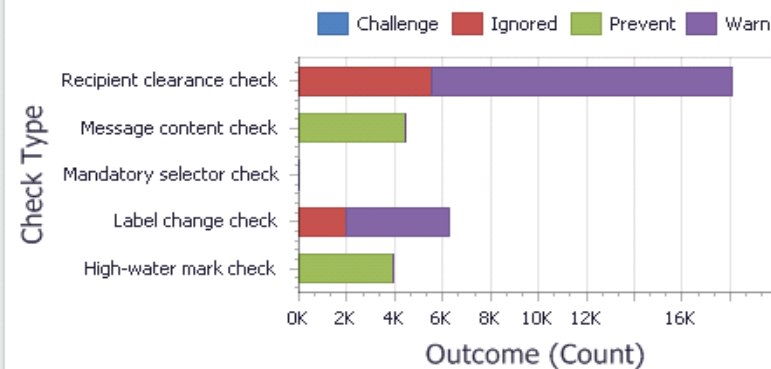
Total triggered policy checks



Top 5 users ignoring policy checks



Policy check outcomes





Benefiting from Data Classification

How data classification can help



Raise User
Awareness



Control
Unstructured Data



Protect valuable and
sensitive information



Drive technology
via metadata



Simplify
access control

How data classification can help



**Raise User
Awareness**



Control
Unstructured Data



Protect valuable and
sensitive information



Drive technology
via metadata



Simplify
access control

Raising User Awareness

Focus on putting the user at the heart of their data security strategy

Tool **transformed** users' security culture

Heightened **awareness** spilled over to printed documents

Requests for more **lockable** office storage

Users **asked** for data classification tool **back** when removed

Internal security awareness measure **increased** from 29% to 89%

Allianz 

60%

improvement in user security awareness

89%

reduction in data loss incidents

How data classification can help



Raise User
Awareness



Control
Unstructured Data



Protect valuable and
sensitive information



Drive technology
via metadata

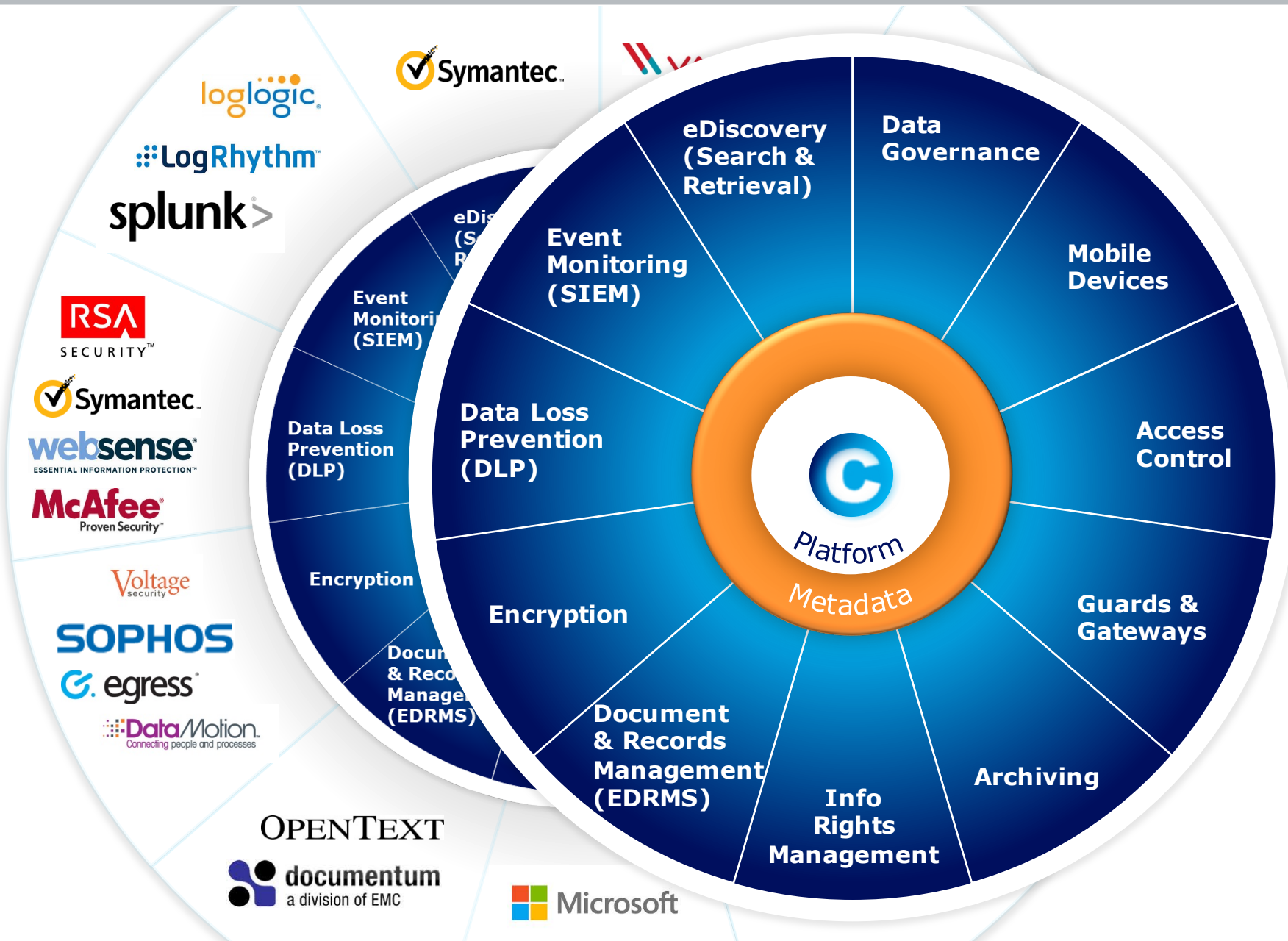


Simplify
access control

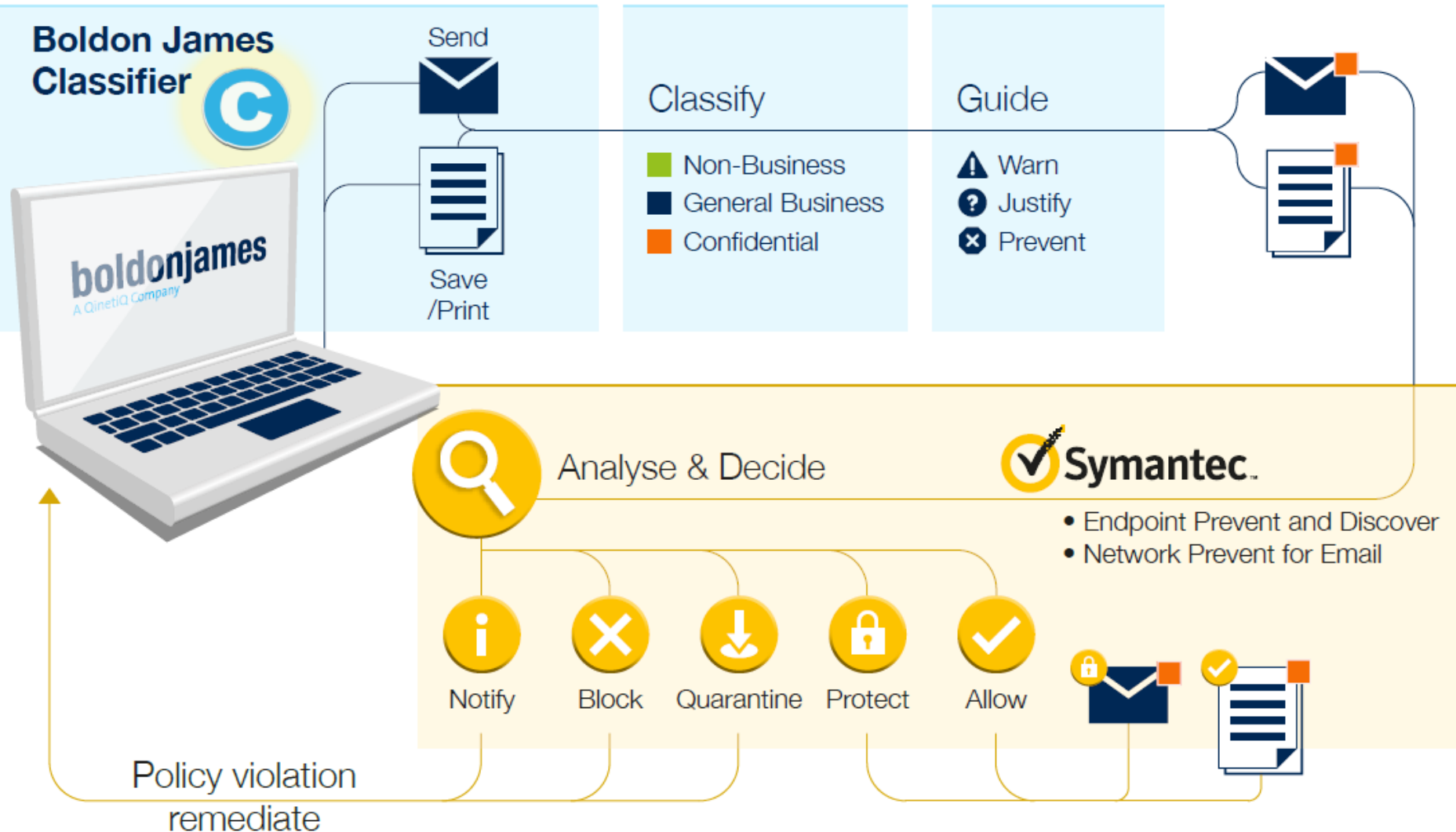
Classification **Metadata**
can drive complementary
security and information
management technologies:



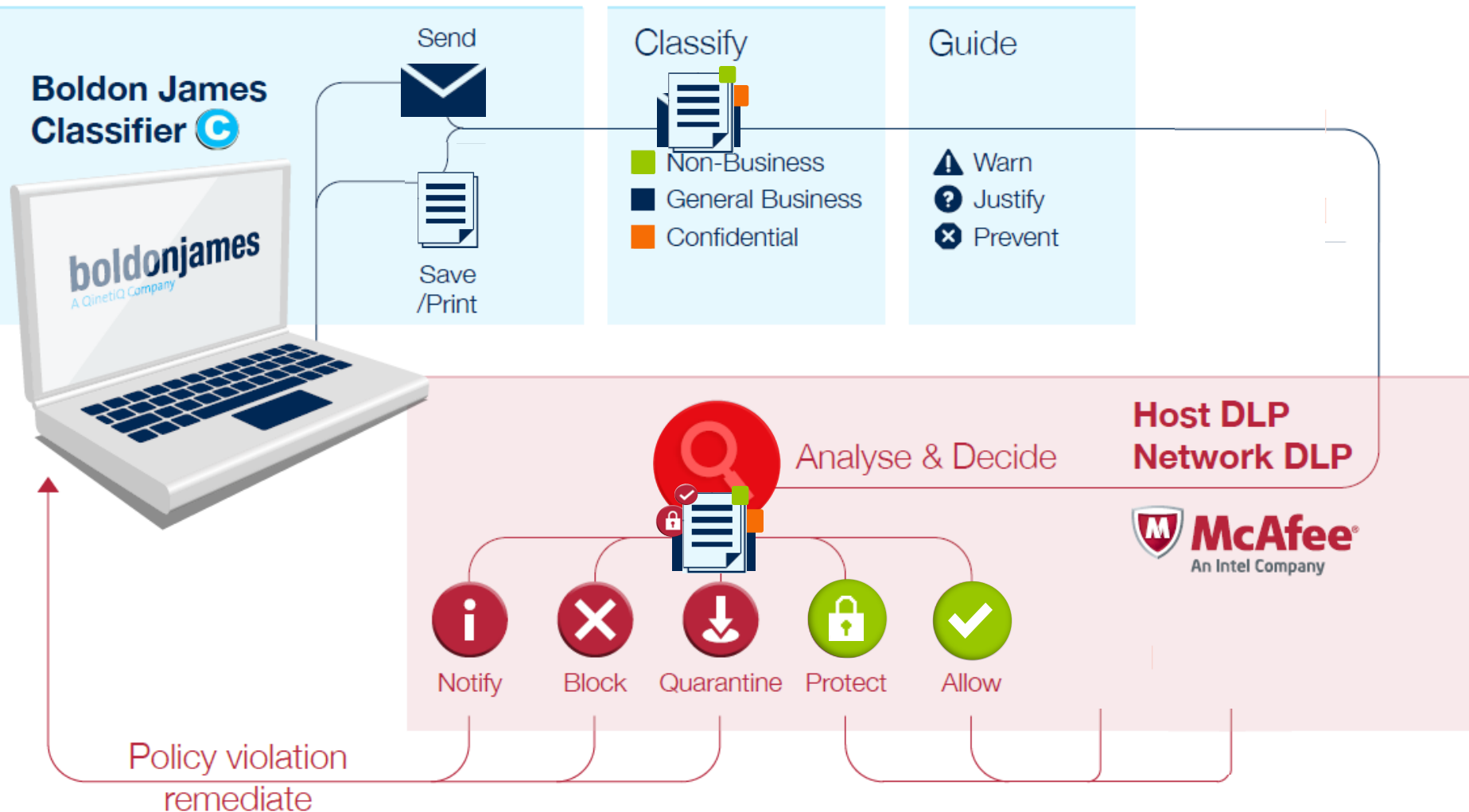
Technology partnerships



Classifier and Symantec™ DLP



Classifier and McAfee® DLP

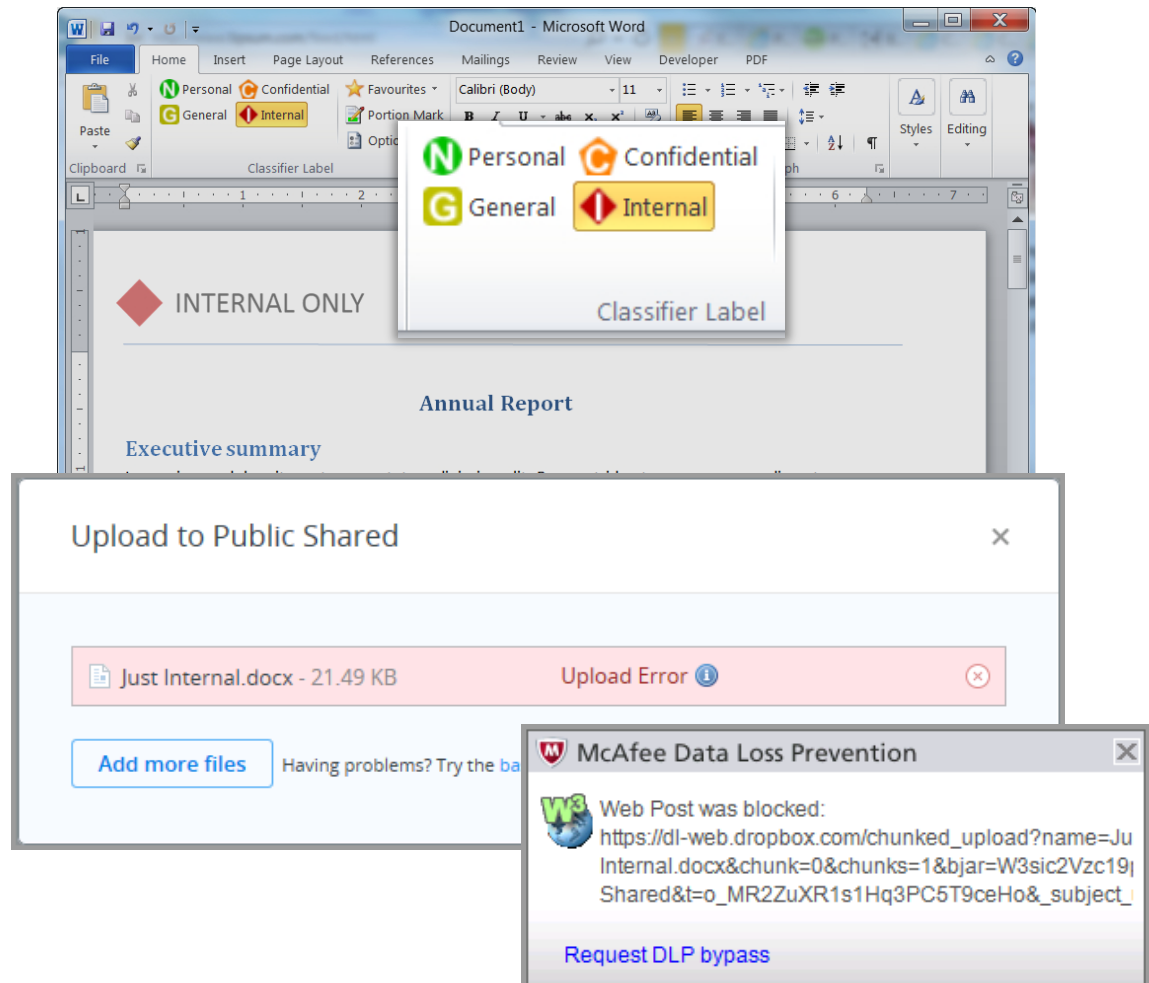


Helping to improve DLP accuracy via metadata labels....

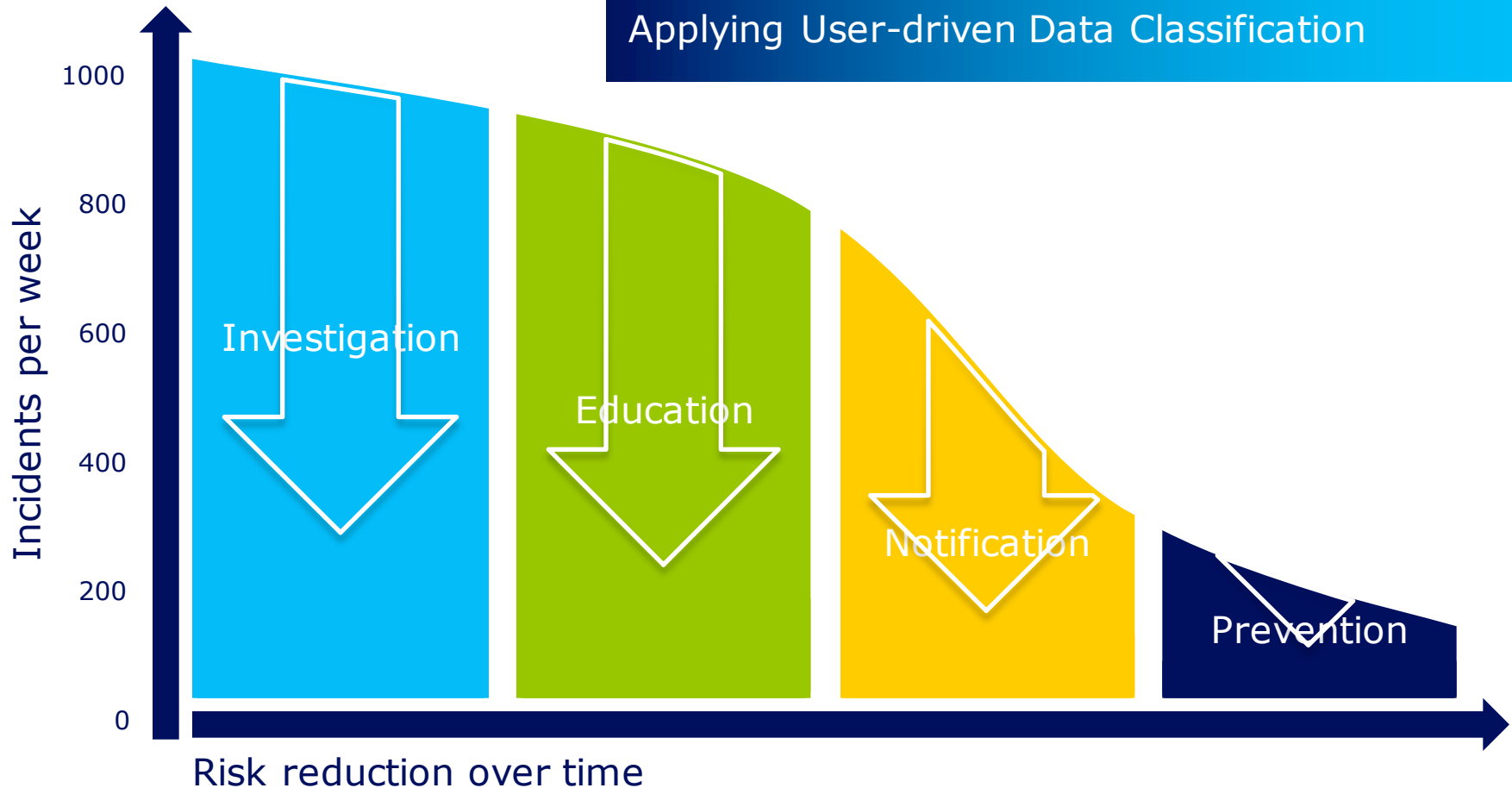
...and prevent offload to
external devices and
upload to the Cloud,
for example...



Dropbox



Applying User-driven Data Classification



How data classification can help



Raise User
Awareness



Control
Unstructured Data



Protect valuable and
sensitive information



Drive technology
via metadata



Simplify
access control

Simplify access control to shared data

Employee View

Beth Kaer

Site Actions ▾ Browse

Library Tools

Documents Library

New Document ▾ Upload Document ▾ New Folder

Edit Document View Properties Edit Properties Classify... E-mail a Link Download a Copy Workflows Publish

New Open & Check Out Manage Share & Track Copies Workflows

Libraries

Site Pages

Shared Documents

Lists

Calendar

Tasks

Discussions

Type	Name	Modified	Modified By	Classification
	Business Strategy 2014	9/20/2013 3:22 PM	Beth Kaer	Internal Only
	Business Strategy 2014	9/20/2013 3:22 PM	Beth Kaer	Internal Only
	InvoiceReport4535	9/26/2013 4:46 PM	Beth Kaer	General Business
	Lab Demo Softball Fall 2013	9/20/2013 3:22 PM	Beth Kaer	Non-Business
	LD HR Pol. 73-23 R3	9/26/2013 4:46 PM	Beth Kaer	General Business
	TPS Report	9/20/2013 3:22 PM	Beth Kaer	Confidential

+ Add document



Partner View

Marie Rogers

Site Actions ▾ Browse

Library Tools

Documents Library

New Document ▾ Upload Document ▾ New Folder

Edit Document View Properties Edit Properties Classify... E-mail a Link Download a Copy Workflows Publish

New Open & Check Out Manage Share & Track Copies Workflows

Libraries

Site Pages

Shared Documents

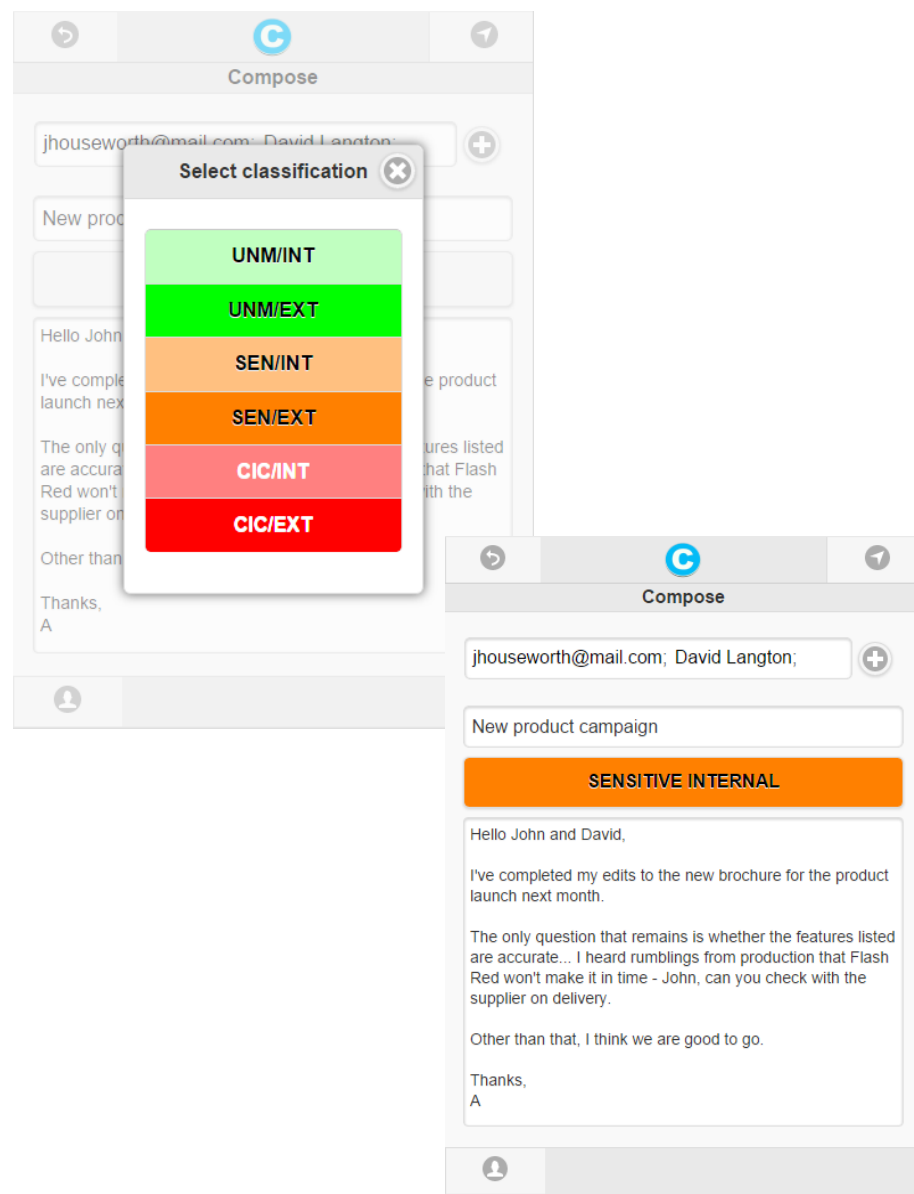
Lists

Calendar

Type	Name	Modified	Modified By	Classification
	InvoiceReport4535	9/26/2013 4:46 PM	Beth Kaer	General Business
	Lab Demo Softball Fall 2013	9/20/2013 3:22 PM	Beth Kaer	Non-Business
	LD HR Pol. 73-23 R3	9/26/2013 4:46 PM	Beth Kaer	General Business

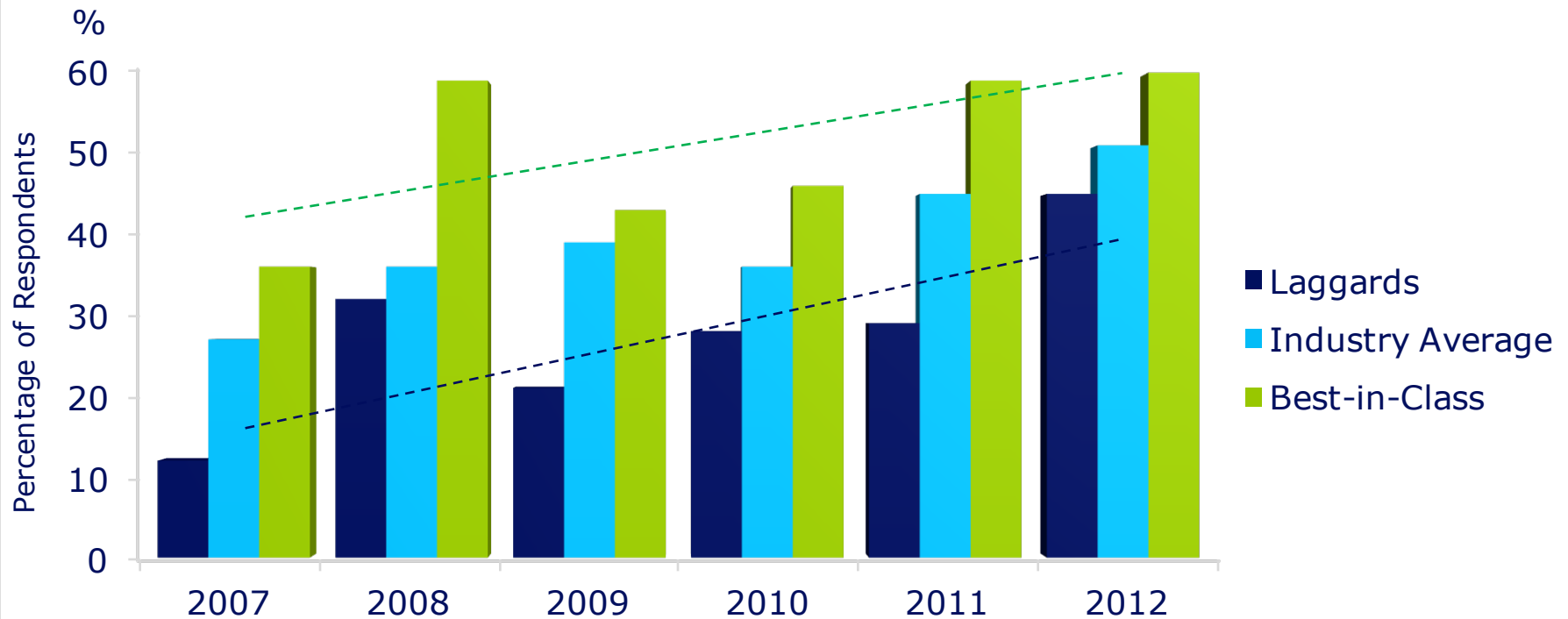
+ Add document

- ❑ Mobile Classifier Email labelling for mobile data
- ❑ Web-based email app
 - ❑ Lightweight mobile app leveraging Microsoft OWA/EWS
 - ❑ Multiplatform – Android and iOS, Windows mobile
 - ❑ Multi-format – Smartphone and tablet touchscreen
 - ❑ Compatible with Exchange Online (Office 365)



Companies who have a **Best-in-Class** security score are **3 times more likely** to be using data classification.

Data Classification as a Current Enterprise Capability by Maturity Class 2007-2012



Source: Aberdeen Group, February 2013



Case Studies: Implementing Data Classification

❑ Background

- ❑ Management concerned about accidental release of **commercially-sensitive content**
- ❑ Decision already taken to enhance collaboration and information sharing
- ❑ Focus on brand and employee protection

❑ The Challenge

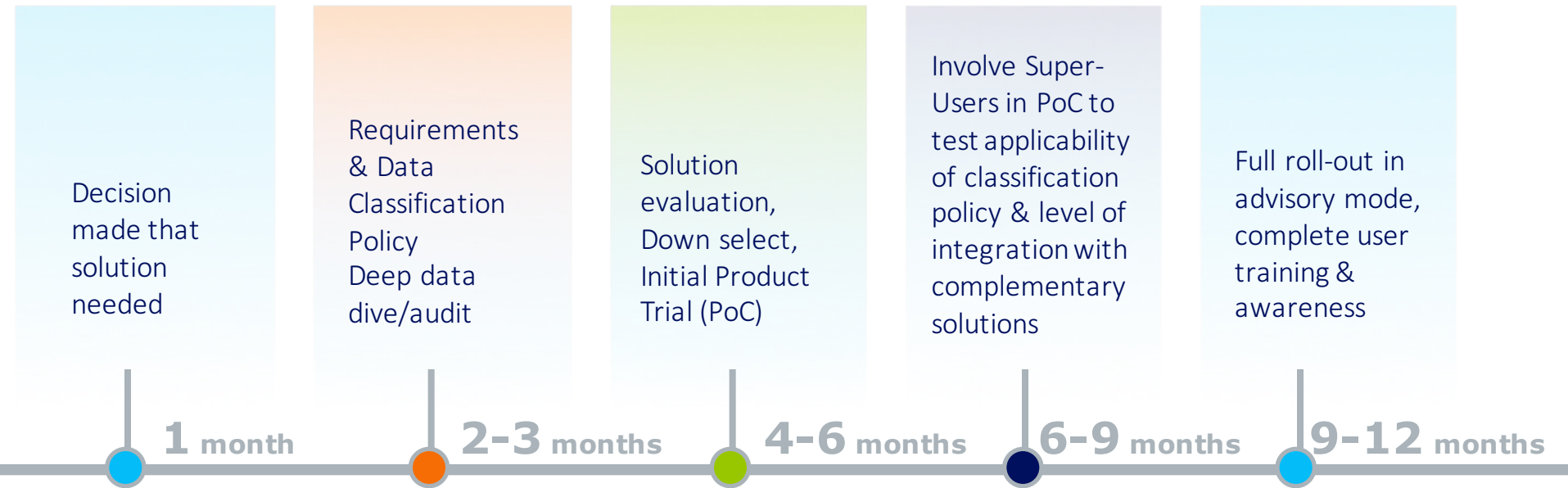
- ❑ Stretched archiving procedures & reduced storage costs
- ❑ Wide spectrum of data types and sources to consider - including **surveys, financials, energy production** projects
- ❑ Lack of knowledge about **what data was being stored** in tools like SharePoint and Symantec
- ❑ **Discover** what data they had and **define** a data classification policy



- ❑ Requirements & Constraints
 - ❑ Integration with existing applications & platforms – SharePoint, intranets, supplier extranets
 - ❑ Meeting strict industry regulations, processes and procedures
 - ❑ *Future attainment of ISO27001*
 - ❑ Ensuring the solution had a low overhead and seamlessly integrated with Symantec's email security suite
 - ❑ The flexibility to apply different rules to different user communities



Typical large organisation solution timeline



Senior Management Team Involvement & Sponsorship

❑ Benefits

- ❑ SharePoint Classifier enabled users to **apply labels** to files held in SharePoint
- ❑ Increased **user awareness** of the value of sensitive information
- ❑ Metadata ensured **consistent control** over the dissemination of information
- ❑ Radical improvement in the way SharePoint-sourced information is **managed, controlled and shared** throughout the organisation.
- ❑ Classifier helped enforce corporate policy and rules on handling and release of emails
- ❑ **Boosted ROI** in DLP, encryption, archiving & storage, e-discovery, information rights management and ERDMS
- ❑ Helped meet key regulatory and assurance requirements, including **ISO27001**
- ❑ Core part of the organisation's data protection strategy





Data Classification Best Practice



Public



Internal



Confidential

Data classification policy (cont.)

	Restricted Data (highest, most sensitive)	Sensitive Data (moderate level of sensitivity)	Public Data (low level of sensitivity)
Legal requirements	Protection of data is required by law (e.g., see list of specific HIPAA and FERPA data elements)	Stanford has a contractual obligation to protect the data	Protection of data is at the discretion of the owner or custodian
Reputation risk	High	Medium	Low
Other Institutional Risks	Information which provides access to resources, physical or virtual	Smaller subsets of protected data from a school or department	General university information
Access	Only those individuals designated with approved access and signed non-disclosure agreements	Stanford employees and non-employees who have a business need to know	Stanford affiliates and general public with a need to know
Examples	■ Medical ■ Students ■ Prospective students ■ Personnel ■ Donor or prospect ■ Financial ■ Contracts ■ Physical plant detail ■ Credit card numbers ■ Certain management information ■ See below for more specific examples	■ Information resources with access to restricted data ■ Research detail or results that are not restricted data ■ Library transactions (e.g., catalog, circulation, acquisitions) ■ Financial transactions which do not include restricted data (e.g., telephone billing) ■ Information covered by non-disclosure agreements	■ Campus maps ■ Business contact data (e.g., directory information) ■ Email 

1. Keep Policy Simple & Easy to Use
2. One size does not fit all
3. Consider how you Collaborate
4. Plan For Legacy Data
5. Close the loop



Why put Data Classification at the centre of your layered security approach?

- ❑ Empowers users & increases data security awareness
- ❑ Supports more effective archiving procedures, reducing storage requirements and costs
- ❑ Adds context and meaning to unstructured data
- ❑ Supports compliance to industry regulations and standards
- ❑ Applies valuable metadata to drive greater efficiencies across other enterprise security and information management technologies
- ❑ Supports more secure collaborative & remote working
- ❑ Maintains business viability – protects intellectual property
- ❑ Fast becoming security best practice – the smart thing to do





Thank you.

<name>

<email>

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Web: www.boldonjames.com