



# GDPR: The role of DLP and Incident Risk Ranking

February 2017

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# DISCLAIMER

The following presentation does not represent direct legal advice.

We strongly recommend you discuss achieving compliance via your Legal/Compliance teams, Data Protection/Privacy Officer and work with the relevant workers councils.

# UNIQUELY FORMED TO OFFER A NEW APPROACH TO SECURITY

**websense®**



**Raytheon**



**STONESOFT**

**Commercial Leader**

*with*

Content Security & DLP  
Cloud / On-Premise / Hybrid

**Pioneer on Cyber Frontlines**

*with*

Financial Resources  
Deep Understanding of Threat Detection

**Networking Innovator**

*with*

Advanced Evasion Prevention  
Security at Scale



# FORCEPOINT

POWERED BY **Raytheon**

AS AN ORGANISATION THAT HANDLES PII...

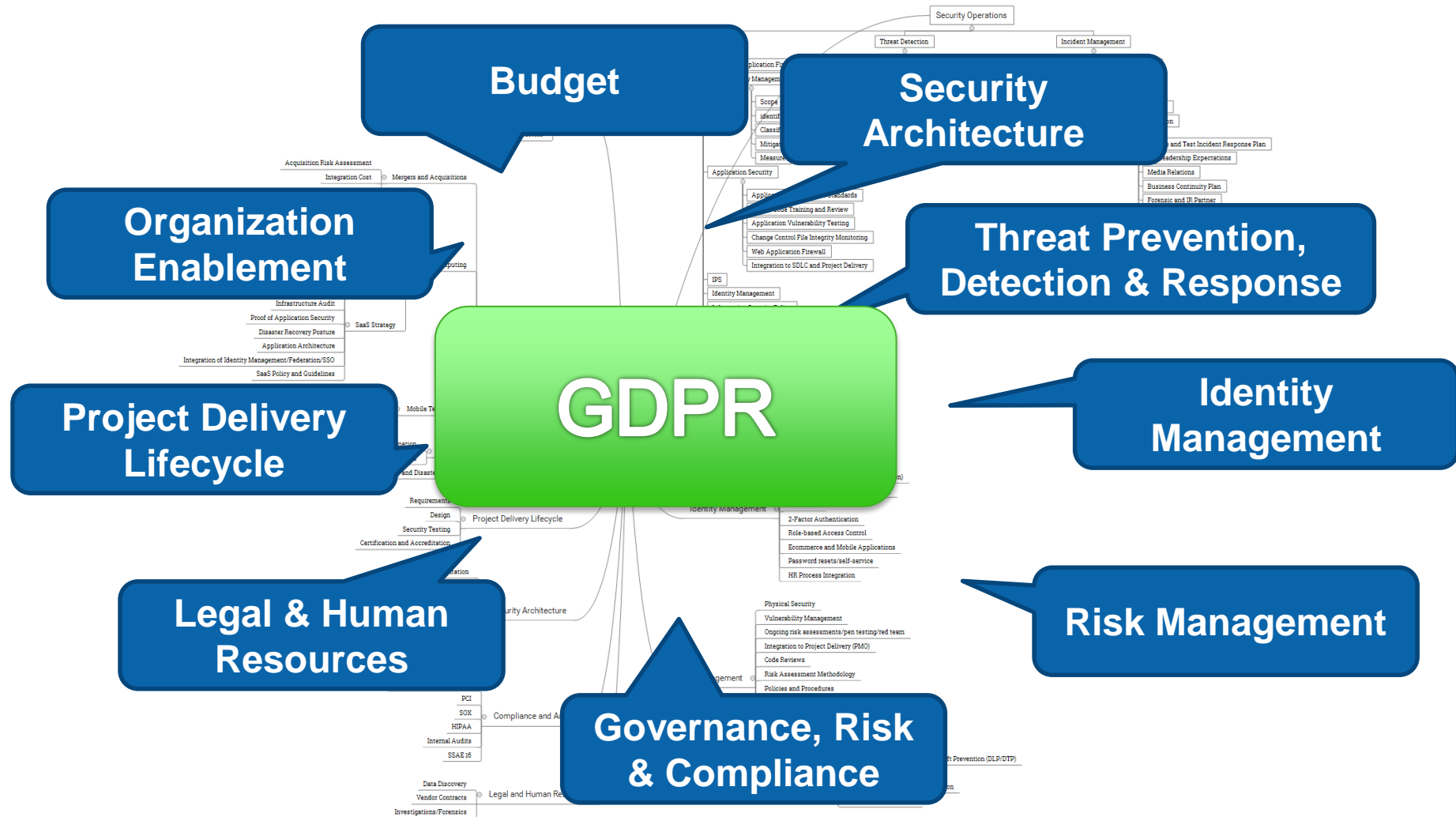
Are you a controller?  
Are you a processor?  
Are you both?

# ARTICLE 4 - DEFINITIONS

**‘controller’** means the natural or legal person, public authority, agency or other body which, alone or jointly with others, determines the purposes and means of the processing of personal data; *where the purposes and means of such processing are determined by Union or Member State law, the controller or the specific criteria for its nomination may be provided for by Union or Member State law;*

**‘processor’** means a natural or legal person, public authority, agency or other body which processes personal data on behalf of the controller;

**‘personal data’** means any information relating to an identified or identifiable natural person (‘data subject’); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person;



# NETHERLANDS - GDPR READY

## 4000 data breaches reported since January 1

© FR OCTOBER 7, 18:38 INTERIOR, TECH



To the Authority Personal (AP) since January 1 received nearly 4,000 reports of data breaches. AP president Aleid Wolfsen said in an [interview with NU.nl](#) that in response to these reports now walk dozens of studies and that there most likely fines will come from.

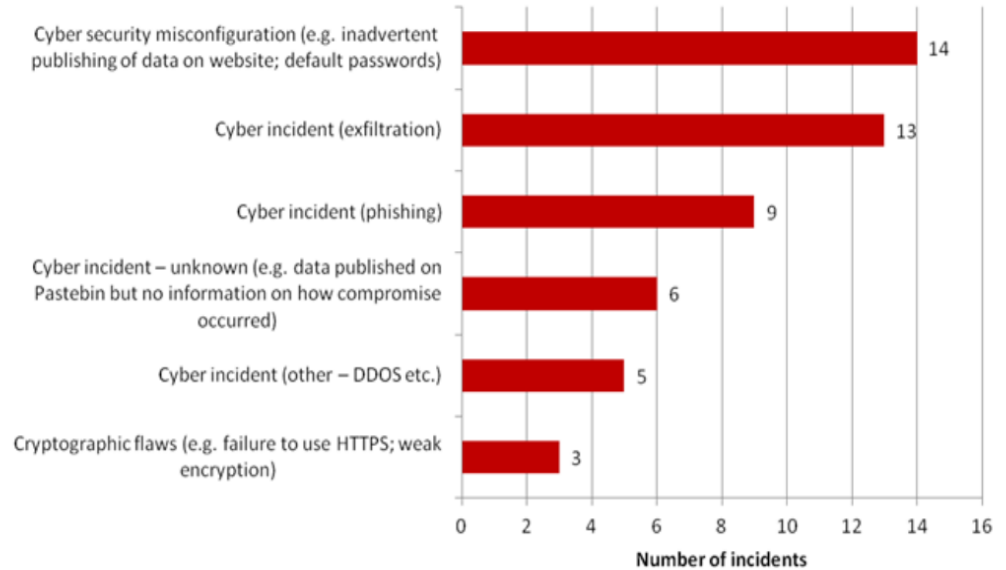
According Wolfsen are the cases where the protection of personal data "drastically out of order" is. It often involves human error, but also serious leak of medical data.

- Netherlands introduced a new Data Protection law in 2016. A head-start to GDPR
- 4000+ data breach incidents reported to authority personal since 1<sup>st</sup> January 2016
- >50% of Dutch Government agencies reported a data breach in 2016
- Breach causality involved human error in majority of cases

# ICO REPORT 2016



## Cyber incidents by type



'Other principle 7 failures' are security incidents that cannot be categorised as one of the other types. Examples include failure to password protect emails containing personal information and processing personal data relating to work on a non-business computer.



# TECHNOLOGIES CHANGE



# PEOPLE ARE THE CONSTANT IN SECURITY

# TECHNOLOGIES CHANGE



## ACCIDENTAL INSIDER

### Inadvertent Behaviors

Poorly communicated policies and user awareness



### Broken Business Process

Data where it shouldn't be, not where it should be



### Rogue Employee

Leaving the company, poor performance review



### Criminal Actor Employees

Corporate espionage, national espionage, organized crime



## COMPROMISED INSIDER

### Malware Infections

Phishing targets, breaches, BYOD contamination



### Stolen Credentials

Credential exfiltration, social engineering, device control hygiene

# YOU MUST UNDERSTAND INTENT TO INTERPRET AN ACTION

**John A.**  
Actuary  
Global Insurer



Copies PII to  
removable media

- Leaving on monthly business trip
- Regularly takes work home
- Complies with company policies

**GOOD  
EMPLOYEE**

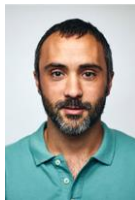
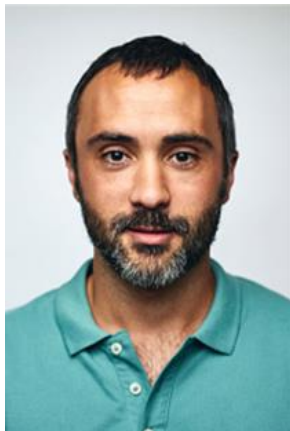
- Received bad performance review
- Stockpiling sensitive data on personal USB drive
- Copying customer details and requirements

**MALICIOUS  
INSIDER**

# YOU MUST UNDERSTAND INTENT TO INTERPRET AN ACTION & IDENTIFY IMPERSONATORS

**Roberto S.**

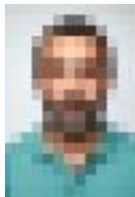
Scientist  
Pharmaceutical  
Company



**GOOD  
EMPLOYEE**

- Regular remote worker

Credentials are  
compromised



- Escalating privileges
- Off hour working times
- Remote connection from foreign country

**COMPROMISED  
INSIDER**





## RECOMMENDED ITEMS

**35-50L Rucksack**  
**Mountain Boots**  
**Crampons**  
**Gaiters**  
**Helmet**  
**Harness**  
**Ice axe**  
**Waterproof Jacket and**  
**Trousers**  
**Mountain Trousers**  
**Thermal Layer**  
**Mid-Layer Jacket**  
**Light Weight Duvet Jacket**

**Gloves**  
**Warm Hat, Sun Hat & Buff**  
**Socks**  
**Sun Glasses & Goggles**  
**Sun Cream & Lip Protection**  
**Water & Water Bottle**  
**Snacks / Hill food**  
**Head Torch**  
**Personal Medical Items**  
**Money**  
**Passport**  
**Mobile phone**  
**Map**

# ASSUMED ITEMS

ITEM	NEED
Passport	Allows me to travel Proves I'm authorised
Mobile phone	If I need help I can call – selfie at summit to prove I made it
Map	Allows me to set a route and check on progress. Make Day 1 hut

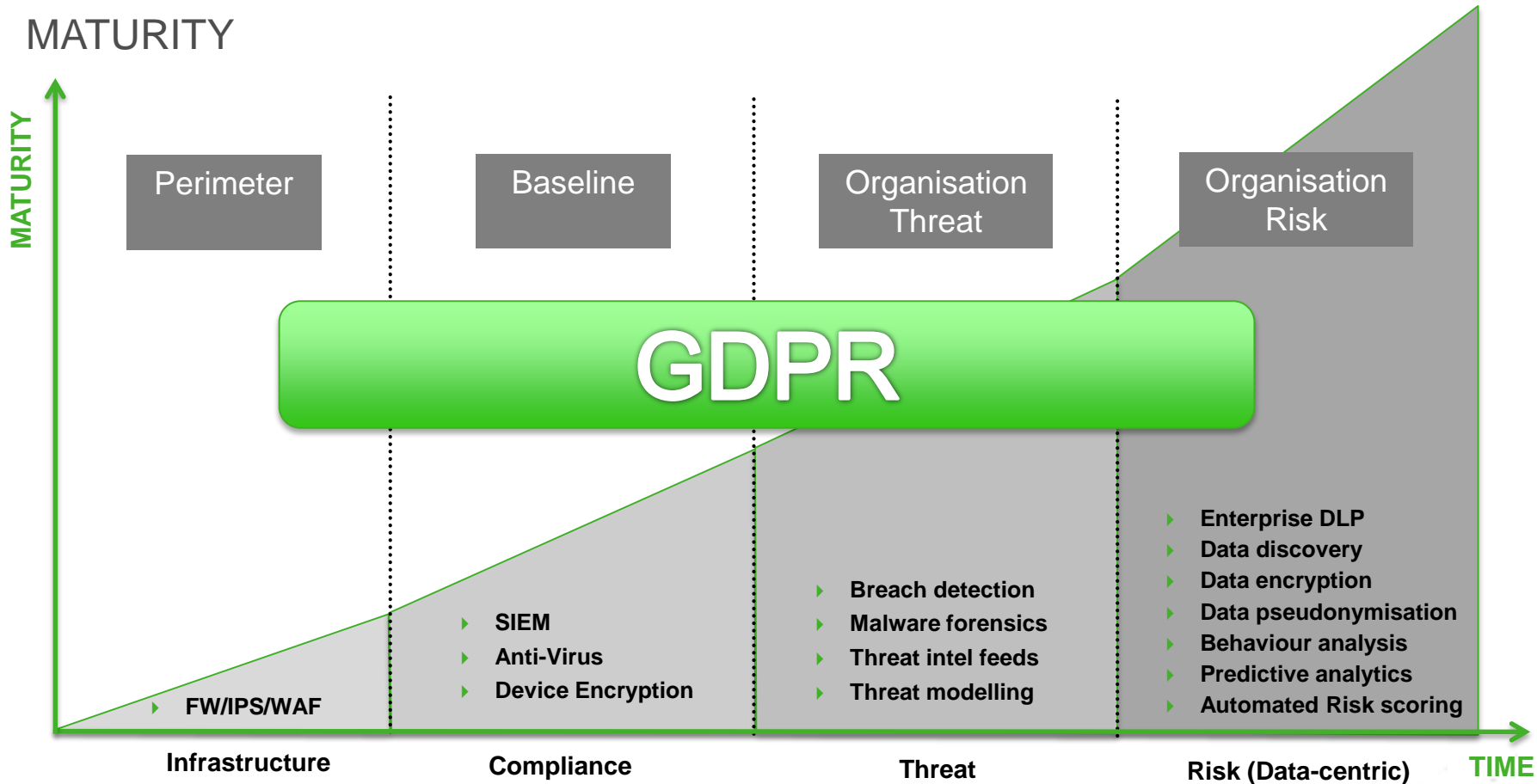
# ASSUMED ITEMS

ITEM	NEED
Certification (ISO27018)	Allows us to operate Proves we're authorised
Supervisory Authority	If we need help we can call – selfie at summit to prove we made it
Data protection strategy	Allows us to set a route and check on progress. Make Day 1 hut (25 <sup>th</sup> May 2018)









# GDPR

- ❑ Assessment of current data protection practices
- ❑ Creation of a data protection governance structure
- ❑ Maintaining a personal data inventory
- ❑ Creating information notices
- ❑ Maintaining consent mechanisms
- ❑ Application of technical and organisational controls
- ❑ Performing Data Protection Impact Assessments (DPIA)
- ❑ Preparation to report personal data breaches



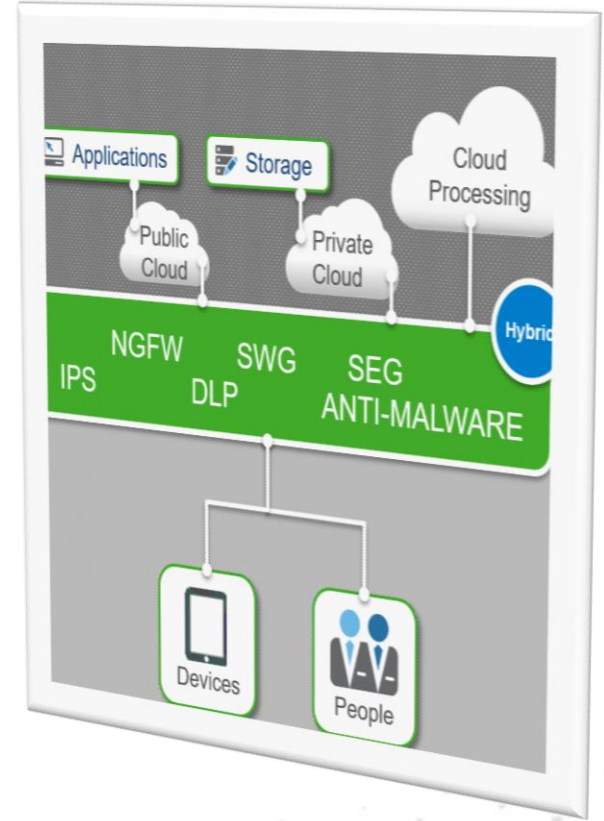
# GDPR KEY ARTICLES

- ❑ Article 6 – Lawfulness of processing
- ❑ Article 17 – Right to Erasure
- ❑ Article 25 – Data Protection by Design/Default
- ❑ Article 32 – Security of Processing
- ❑ Article 33 – Data breach Notification <72hrs
- ❑ Article 35 – Data Protection Impact Assessments (DPIA)
- ❑ Chapter V (Article 44-50) - Data Transfers
- ❑ ...many more!!



# GDPR GUIDANCE FOR CLOUD

- ❑ Assess where PII data is stored/processed for each cloud service/application
- ❑ Enforce policies on processors that process PII data in non-EU locations to ensure Data Transfer rules are met
- ❑ Track use of PII data through behaviour analytics from endpoint, network and cloud
- ❑ Align organizational, governance and technical controls to identify misuse, mishandling, unlawful processing or profiling
- ❑ Review model contracts, consider Privacy Shield, understand other national data protection laws
- ❑ Educate employees on the correct use of cloud services/applications. Provide measurement and metrics to the Data Protection Officer





# GDPR STRATEGY



## Preparation

- Appoint a Data Protection Officer (DPO)
- Review controller/processor responsibilities
- PII Data Discovery



## <12 Months

- Data Flow Mapping (Internal/External processing)
- Contract Review
- Data Protection Impact Assessments



## <25<sup>th</sup> May 2018

- Updated Technical & Organisational controls
- Data Breach Notification Readiness (<72hrs)
- Right to Erasure, Portability, SAR, Consent etc

# NEW OSTERMAN REPORT

## WHITE PAPER

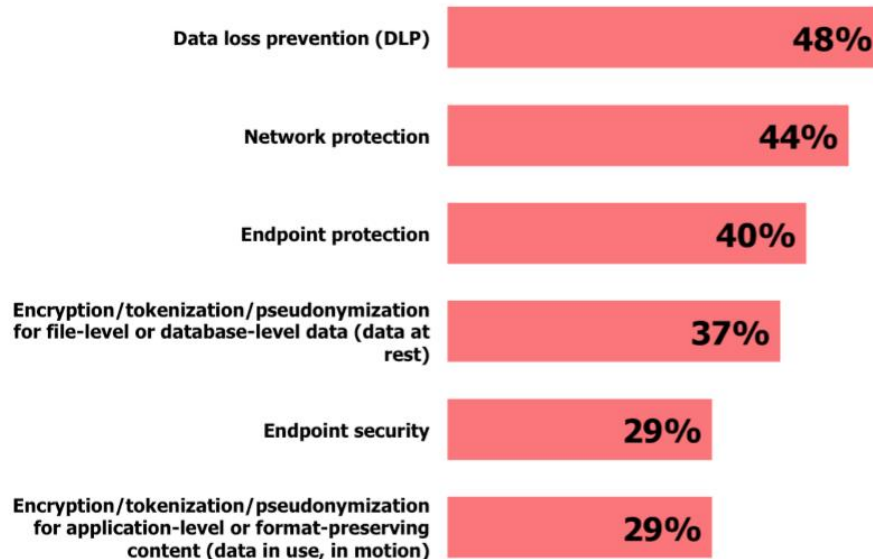
### GDPR Compliance and Its Impact on Security and Data Protection Programs

An Osterman Research White Paper  
Published January 2017



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[www.ostermanresearch.com](http://www.ostermanresearch.com) • @osterman

**Figure 2**  
**Data Protection Technologies That Organizations Will Spend More On During the Next 12-18 Months to Specifically Address the GDPR**



Source: Osterman Research, Inc.

# DATA DISCOVERY

**FORCEPOINT TRITON® APX**

User name: admin Log Off

Web Data Email Mobile

Main Settings

Status Incidents

Workflow Remediate Escalate

Support: Incidents

4 incident(s) / 1 selected

Folder	File Name	File Type	Size	Severity	Channel	Discovery Type
2170	win-s6fmlaovr5...	UK PIT UK Passpor...	UK PIT For Discovery	117 B	High	
2138	win-s6fmlaovr5...	UK PIT UK Driver ...	UK PIT For Discovery	197 B	High	
2138	win-s6fmlaovr5...	UK PIT UK Nationa...	UK PIT For Discovery	104 B	High	

Location

Workflow - DPO  
Remediate - Encrypt/Pseudonymize  
Escalate - Incident

Machine Learning

Policy Management

DLP Policies

Discovery Policies

Content Classifiers

Resources

Logs

Traffic Log

System Log

Audit Log

Incident: 262170 Severity: High Channel: Discovery Discovery Type: File System

Display: Violation triggers

Rule: UK PIT: UK Tax ID Number

- UK Tax ID Support Terms near UK Tax ID Number  
tax id, 12345-12345, 12342-32465, 55555-55555, 13525-23265, 76541-23567, 97274-84727

File Details

File path: \\win-s6fmlaovr5\accountnumbers\UK PIT UK Tax ID Number and Name.txt

Hostname: win-s6fmlaovr5

File Size: 136 B

Date Created: 25 Feb. 2016, 01:03:00 PM GMT+0000

Date Modified: 09 Sep. 2013, 11:29:59 AM GMT+0000

Date Accessed: 25 Feb. 2016, 01:03:00 PM GMT+0000

Checksum: e969bfef90541f9f1b3c74d744797fd

Folder Owner: BUILTIN\Administrators

File Owner: BUILTIN\Administrators

File Permissions

Permissions	Permissions
Everyone	[RW]
WIN-S6FMTLAOVRS\Administrator	[RW]
BUILTIN\Administrators	[RW]
NT AUTHORITY\SYSTEM	[RW]

Incident Details

Severity: High

Status: New

Channel: Discovery

Analyzed by: Policy Engine WIN-S6FMTLAOVRS

Detected by: Crawler WIN-S6FMTLAOVRS

Event time: 25 Feb. 2016, 01:03:14 PM

Access Control

File properties



# DATA BREACH NOTIFICATION

FORCEPOINT TRITON® APX

User name: admin Log Off

Web Data Email Mobile

Appliances TRITON Settings Help

Main Settings

Role: Super Administrator Deploy

Status

Dashboard

System Health

Endpoint Status

Mobile Status

Reporting

Data Loss Prevention

Mobile Devices

Discovery

Policy Management

DLP Policies

Discovery Policies

Content Classifiers

Resources

Logs

Traffic Log

System Log

Audit Log

Incidents (last 7 days)

Workflow Remediate Escalate

Report: Incidents (last 7 days)

Date Range: Last 7 Days

Manage Report

Source

Destination

# Records

Source	Destination	Severity	Action	Maximum Matches	Transaction
nthacker@forcepoint.com	RJay@hunton.com	Medium	Quarantined	1	12.73 KB
nthacker@forcepoint.com	RJay@hunton.com	Medium	Quarantined	1	12.73 KB
nthacker@forcepoint.com	RJay@hunton.com	Medium	Quarantined	1	12.73 KB
johnb@newco.com	johnb@gmail.com	High	Permitted	2	987 B

Incident: 232643 Severity: Medium Action: Quarantined Channel: Network email

Tune Policy

Display: Violation triggers

Rule: UK PII: Bank Account number and Name

- UK Bank Account number near Support Term near UK Name  
Account number, Aalaya Abbey, 12345678

Forensics Properties History

From: nthacker@forcepoint.com

To: RJay@hunton.com

Subject: Updated account numbers

Attachments: AccountNumbers.xlsx(11.87 KB)

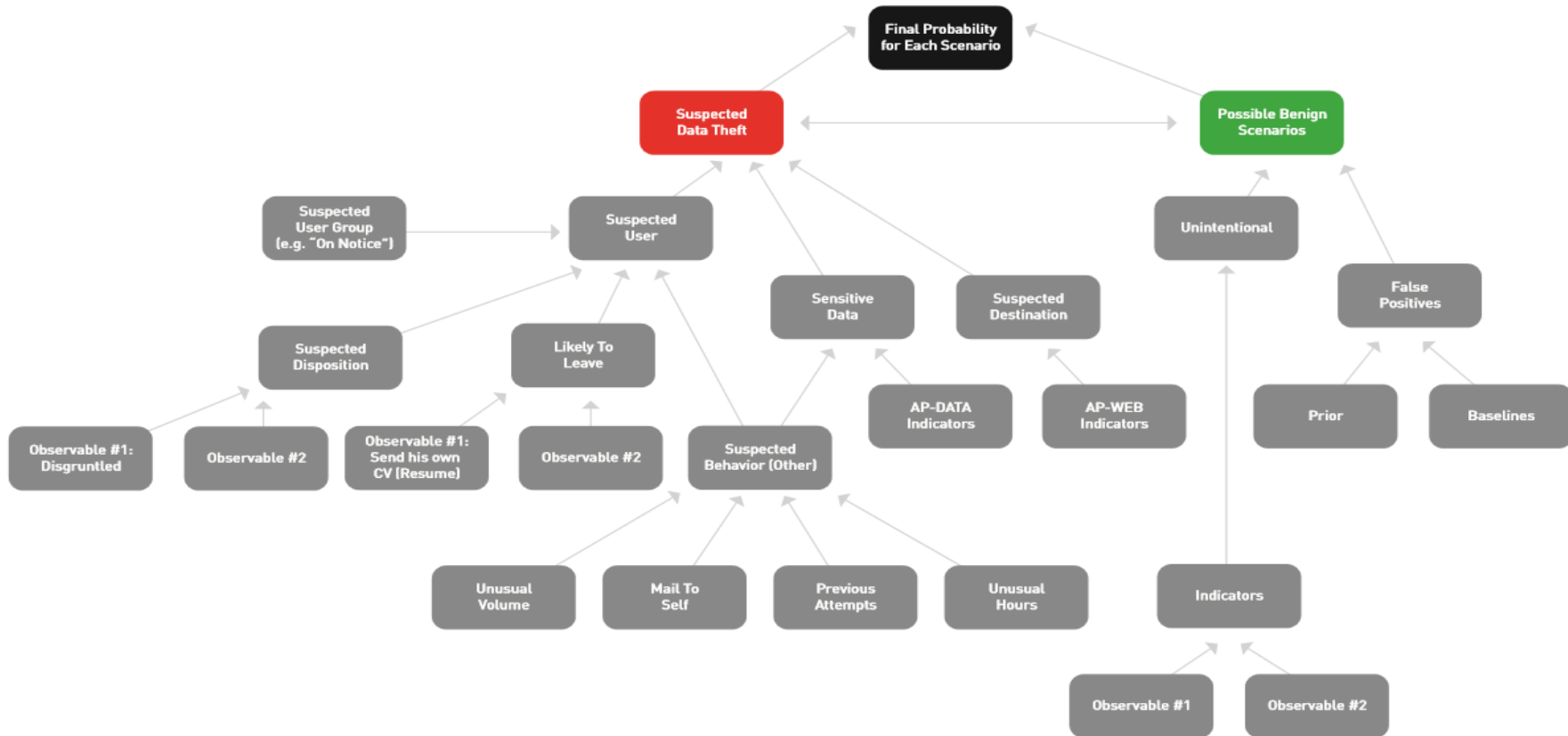
Message Body

Sent: 25 Feb. 2016, 12:59:13 PM

Full Data Forensics

Show as: Plain Text

Close



Web

Data

Email

Mobile

Appliances

TRITON Settings

Help

Role: Super Administrator



Deploy

Main

## Incident Risk Ranking - Top Cases

My Cases

Settings



Status

Shows the highest scoring cases during the selected time period, along with details for those cases. Up to 20 cases are shown.

Sat, 8 Oct 2016

20 Cases

Score 2.0+

Weekend 12 1-2 Oct Mon 4 3 Oct Tue 5 4 Oct Wed 7 5 Oct Thu 8 6 Oct Fri 10 7 Oct Sat 20 8 Oct Sun 18 9 Oct

Reporting

Policy Management

Logs

Settings

General

Authorization

Deployment

8.1

Suspected data theft

08 Oct. 2016, 11:31 AM

ID: 197126



**James Brown**  
Principle Engineer

Sent password content to a personal acquaintance, gus@gmail.com.

3 incidents >

7.6

Suspected data theft

08 Oct. 2016, 09:31 AM

ID: 196526



**Linda Jackson**

Showing 1 sources of 1



**James Brown**  
Principle Engineer  
Department: R&D  
[jbrown@mycompany.com](mailto:jbrown@mycompany.com)  
+001 (312) 345-6711

7.0

Suspected data theft

08 Oct. 2016, 09:00 AM

ID: 197141



**Barbara White**  
Sales Manager

Copied credit card content (500 matches) to a removable media.

1 incident >

6.5

Suspected data theft

08 Oct. 2016, 08:21 AM

ID: 197132



**Mark Smith**  
Security Administrator

Sent credit card content (100 matches) to 3 common destinations.

6 incidents >

6.2

Suspected data theft

08 Oct. 2016, 12:31 PM

ID: 197135



**PublicServer**  
10.0.12.34

Sent 4 shadow files to a personal acquaintance, sam@gmail.com.

4 incidents >

6.2

Suspected data theft

08 Oct. 2016, 07:20 AM

ID: 197164



**Dave Black**  
Sr. Marketing Manager

Uploaded credit card and financial content (2 matches) to labse.eu

6 incidents >

4.1

Suspected personal communication

08 Oct. 2016, 11:00 AM

ID: 198116



**Bob Davidson**  
Developer

Sent content of various violated policies to 2 email addresses.

2 incidents >

4.0

Suspected personal communication

08 Oct. 2016, 06:20 AM

ID: 197144



**SharedServer**  
11.2.32.12

Sent credit card and financial content (2 matches) to 2 email addresses.

1 incident >

2.8

Broken business process

08 Oct. 2016, 11:25 AM

ID: 197187



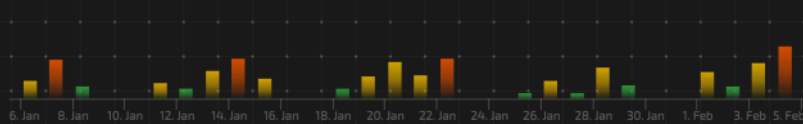
**Dana Brown**  
Principle Engineer

Uploaded credit card content (4 matches) to internal.org.com.

9 incidents >

Close

## ORGANIZATIONAL RISK SCORE TREND



## TOP RISK SCORES



## HIGH RISK EMPLOYEES

6.8 Betty P Barnes

- Process Started is extremely high compared to **organizational** history.
- Logged Off is extremely high compared to **organizational** history.
- Logged On is extremely high compared to **organizational** history.
- Web Content Rendered events are very high.

5.5 Christopher V Foster

- Window Title Changed events are extremely high.
- Process Started events are extremely high.
- File Copied events are very high.
- Keys Typed is a bit high compared to **organizational** history.

4.5 Jessica M Simmons

- File Copied is very high compared to **organizational** history.
- Video Collected is very high compared to **organizational** history.
- Process Started events are very high.
- File Copied events are very high.

3.5 Phillip C Mitchell

- File Moved events are very high.
- File Copied events are very high.
- Locked is rather high compared to **organizational** history.
- Agent Disable Attempted is a bit high compared to **organizational** history.

3.0 Gregory E Alexander

- Email Sent is very high compared to **organizational** history.
- Email Sent is rather high compared to **personal** history.
- Process Started is a bit low compared to **organizational** history.

2.0 Juan C Valdez

- Email Sent is very high compared to **organizational** history.
- Email Sent is a bit high compared to **personal** history.
- Process Started is a bit low compared to **organizational** history.

COMMAND CENTER

ACTIVITY

ADDRESS 271 Vine Street  
Millbrae, CA 94040



PHILLIP C MITCHELL

ENGINEERING DIRECTOR - INITECH

## 90-DAY RISK SCORE TREND



## RISK SCORE BREAKDOWN

TOP  
1011/07/2015 -  
02/04/2016

Policy Events

0  
1

File Sharing Path Audit

100%

3.5

12:00 PM

SENT 10 EMAILS.

12:00-12:15

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:19

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:21

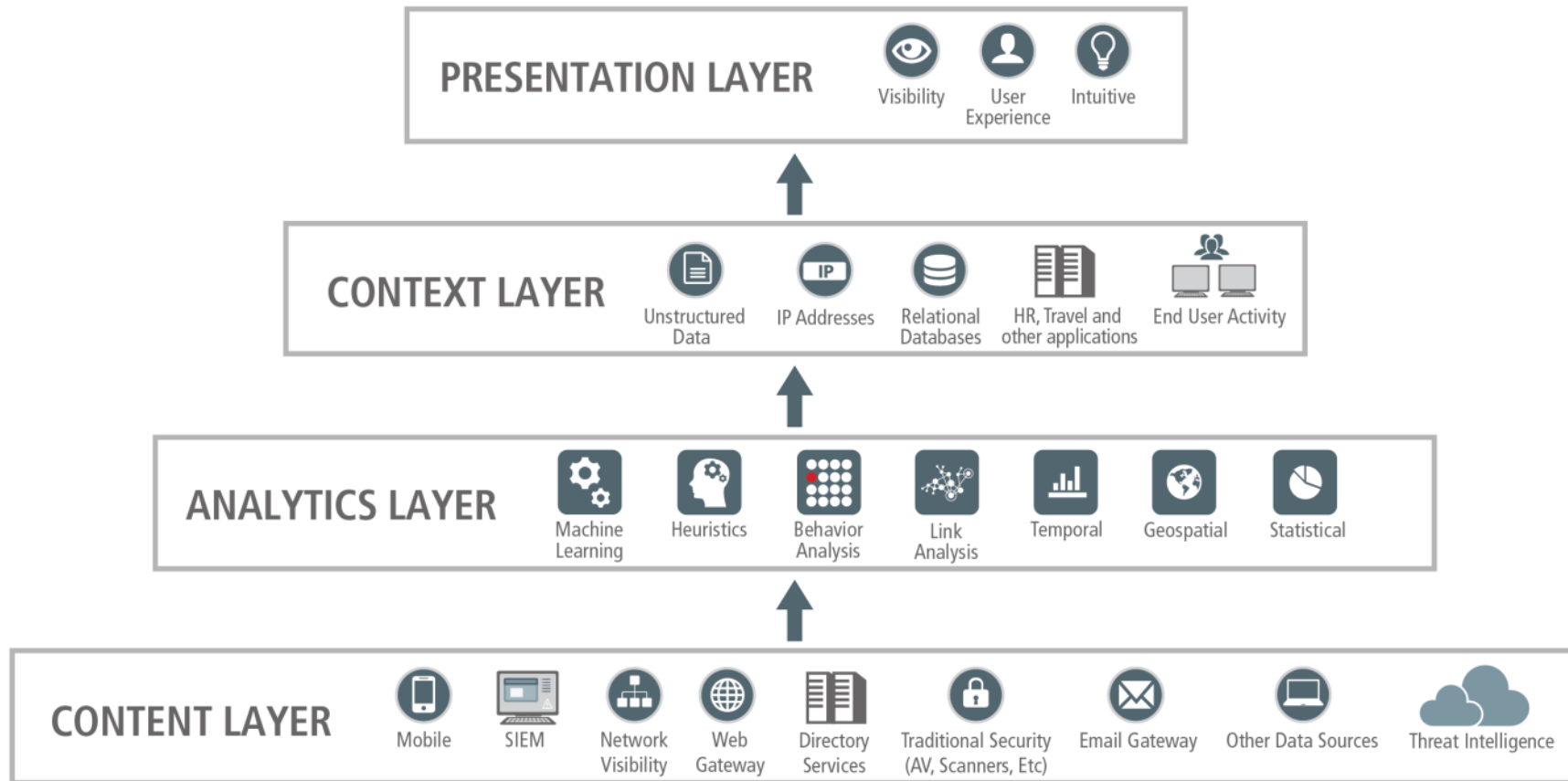
Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:15

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:22

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:18

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:21

Sent an email titled "Webmail Audit Test" to [mstewttest@gmail.com](#) with [mstewttest@yahoo.com](#) copied and [mstewttest@hotmail.com](#) blind copied using [lexplore.exe](#).  
2016-01-22 12:03:22



# OUR COMMITMENT – OOCSSO, TRUST PROGRAM, FEDRAMP, CSA STAR 2, ISO27001, ISO27018



Building Your Capability to Fight Cybercrime

## Office of the CSO

Whether you are creating a new security strategy for your company or agency, assessing or improving your existing security program or even actively under attack, the Forcepoint™ Office of the CSO can help support you at every step. Each of our experts brings to bear decades of industry experience to address your specific needs.

Our focus is on collaboration to enable your organization to achieve its utmost goals. As our experts work throughout the security community, we share the wisdom of the world's most consistently secure organizations, reveal the latest tactics of cybercriminals, and help you transform your security strategy.

PRO BONO HELP FOR EVERY STAGE OF YOUR SECURITY STRATEGY

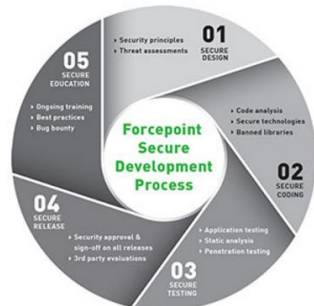
## CONTACT US

Select State if applicable

Select one

How can we help you?

SUBMIT



WE DELIVER ACCESS TO **CERTIFIED**  
**CLOUD DATA CENTERS WITH NO**  
**HIDDEN SURCHARGES**





# Questions

February 2017

Neil Thacker, Deputy CISO

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