

歐盟《通用數據保障條例》生效一週年 談數據安全現代化

GDPR One Year On – Never Too Late To Modernize Your Data Protection

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Data Protection | Web Security | CASB | NGFW | Advanced Malware Detection | Behavioral Analytics | Insider Threat | Email Security | Data Guard | Cross Domain

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What is **GDPR** ?



What is GDPR ?

General Data Protection

Regulation - regulation on data protection for personal data across the EU effective May 25th, 2018

What is it Important ?

The cost of compliance will be significant and cost of non-compliance even higher !

Am I affected ?

If you possess or manage data on an EU resident, then GDPR applies to your organization

Why should I care ?

Penalties of up to **4% of annual revenue** or **€20 million**, whichever is greater

Major Difference between GDPR and PDPO

	EU GDPR	Hong Kong PDPO
Application	Either in EU or offer goods or services to; or monitor the behavior of individuals in EU	Data users who process personal data in or from Hong Kong
Personal Data	Any information relating to an identifiable natural person, directly or indirectly, e.g. location and online identifier	Directly or indirectly to a living individual which can be ascertained
Accountability and Governance	<ul style="list-style-type: none">• Technical and organizational measures• Data protection by design• Impact assessment on high risk processing• Designated <u>Data Protection Officer</u>	Not explicitly stated but privacy management programme and best practices are recommended

Major Difference between GDPR and PDPO

	EU GDPR	Hong Kong PDPO
Sensitive Personal Data	Special categories (art9), e.g. racial or ethnic origin, political opinions, religious or philosophical beliefs, or trade union membership, genetic data, biometric data, health data, sex life or sexual orientation	N/A
Consent	<ul style="list-style-type: none">• Opt-in with unambiguous indication• Parental authorization below 16 or 13	<ul style="list-style-type: none">• Opt-out• No parental consent required
Breach Notification	<ul style="list-style-type: none">• Notify the authority of a data breach without undue delay• Notify affected data subjects if his/her rights and interests at risk	No mandatory requirement, but recommended

Major Difference between GDPR and PDPO

	EU GDPR	Hong Kong PDPO
Data Processors	Regulated	Not directly regulated
New and Enhanced Rights for Data Subjects	Rights to be “ forgotten ”, notify/ restrict / object processing / profiling ,	Only rights to access, correction, longer than required retention, opt-out direct marketing activities
Cross- jurisdiction Data Transfer	Certification and adherence to approved codes of conduct are explicitly made one of the legal bases for transfer . [Art 46]	Certification and adherence to an approved code of practice are not explicitly made a legal basis. 6 conditions for exemption [s.33(2)(a-f)]
Sanctions	Administrative fines up to €20 million or 4% of the total worldwide annual turnover . (art83)	Penalties only after judicial process if failure to comply enforcement notices

GDPR 1-Year Anniversary : Looking Back

- ▶ 90,000 breach notification across Europe
- ▶ 150 “headline” fines
 - Google’s **€50M** fine by France’s data protection watchdog is the highest recorded for its data consent policies
 - UK’s ICO fines British Airways a record **£183M** over GDPR breach that leaked data from 500,000 users
- ▶ Organizations spent an average of \$1.3M* on their GDPR programs



How much does it cost ?

Transport

How much will Cathay Pacific be fined by UK regulator, given British Airways' record US\$229 million penalty over similar data breach?

- Both airlines last year suffered major cyberattacks, with data of 9.4 million Cathay passengers affected, and half a million customers involved for British carrier
- BA was hit with a fine equivalent to 1.5 per cent of its revenue in 2017, and by same benchmark, Cathay could lose US\$186.5 million



Danny Lee

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How much
does it **really** cost ?

Operating results analysis

	Six months ended 30th June		
	2019 HK\$M	2018 HK\$M	Change HK\$M
Airlines' profit/(loss) before exceptional items	966	(844)	+1,810
Exceptional items*	(59)	101	-160
Taxation	(292)	(161)	-131
Airlines' profit/(loss) after taxation	615	(904)	+1,519
Share of profits from subsidiaries and associates	732	641	+91
Profit/(loss) attributable to the shareholders of Cathay Pacific	1,347	(263)	+1,610

* Exceptional items in 2019 include data security costs of HK\$20 million and costs of HK\$39 million associated with the acquisition of Hong Kong Express (2018: a HK\$101 million gain on the disposal of CO₂ emissions credits).

so far.....



A global wave of data privacy laws

- ▶ Many non-EU countries have implemented GDPR-like laws
 - **Brazil** General Data Protection Law (LGPD) will be enforceable in Feb 2020
 - **Canadian** Personal Information Protection and Electronic Documents Act (PIPEDA)
 - **Japan's** Act on Protection of Personal Information was amended in May 2017
 - **Australia's** Privacy Amendment Act 2017
 - **China** national standard Personal Information Security Specification
 - **Facebook and Apple CEOs are lobbying for global GDPR-like laws**

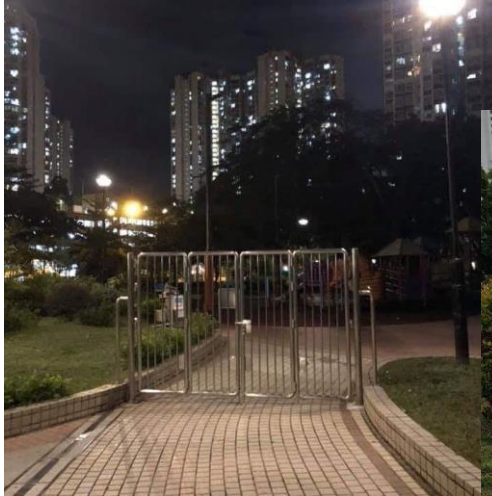


Top GDPR Challenges – 1 Year Later

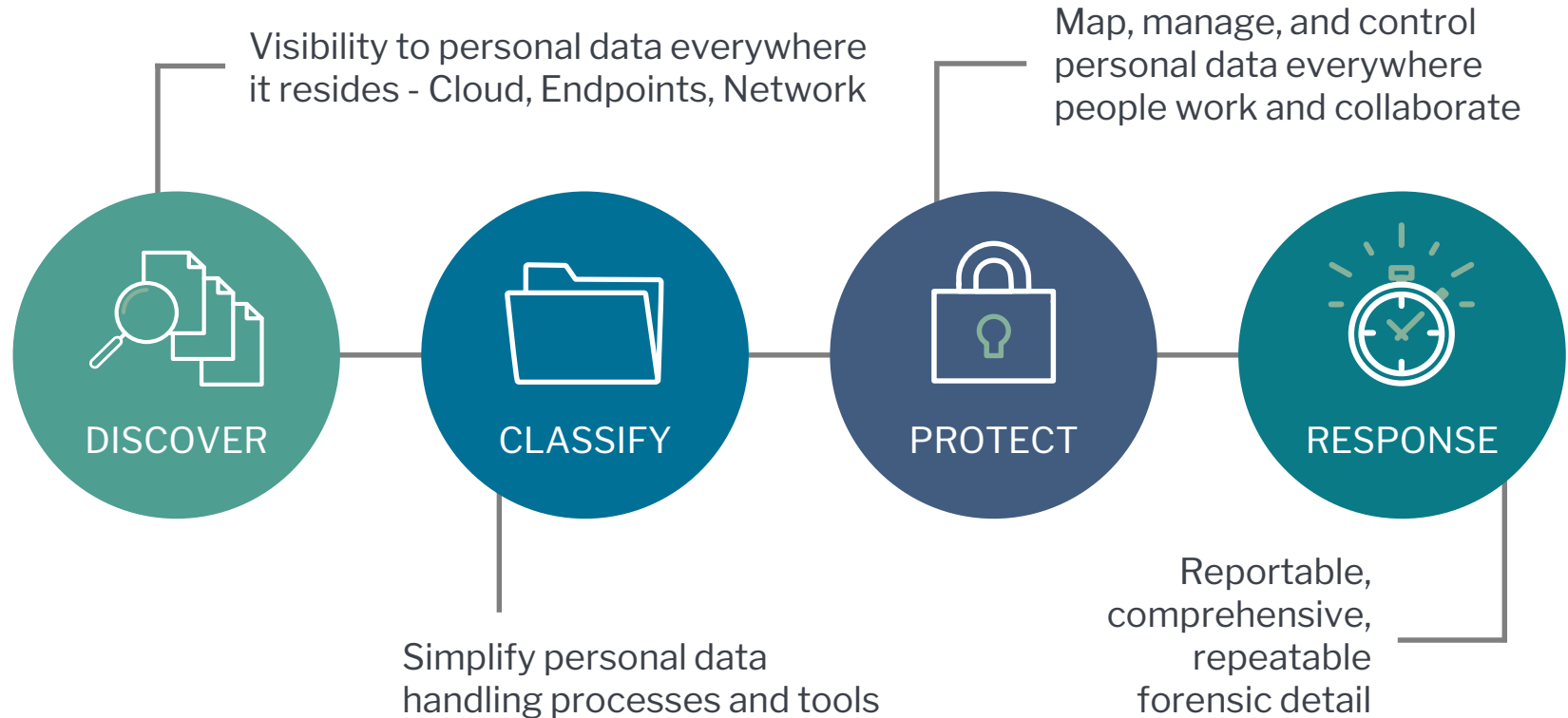
- ▶ **Data Subject Access Requests (DSAR)** are challenges for organizations and need **automation**
- ▶ **Big data**, filled with personal information, is a big challenge
 - Many organizations implemented over-compliance and **deleted too much data**
- ▶ There is an **existential threat** to organizations
 - **Lower spending** organizations treated GDPR as a **compliance exercise** while **higher spending** organizations tackled it as a **privacy exercise** and took a programmatic approach
 - Those that tackled GDPR as a compliance exercise over a privacy program are **at a higher risk**



What's wrong with a “Compliance Exercise” ?



Standard Approach to GDPR or ^{Any} Data Protection



A person in a blue shirt is using a printer. The image is slightly blurred, focusing on the action of printing.

Once a point of time

- ▶ An employee tries to print customer's credit card data and the DLP solution blocks it.

You do not know if this individual poses a risk to the organization.

What If You Can Better Understand The Intent



What if your employee tries to print a customer's credit card data? DLP blocks it, but then he...



tries to copy the data to USB. DLP blocks it, but then he...



tries to upload it to Google Drive. CASB blocks it, but then he...



tries to upload it to Dropbox. CASB blocks it, but then he...



tries to send it to a personal email address. DLP blocks it, but then he...



tries to download to his mobile phone. DLP blocks it, but then he.....

The behavior indicates this person is a risk, but your security team still does not know.

Once a point of time



**User connect to
a classified system**



**User is online
while on vacation**



**User login
from a new location**

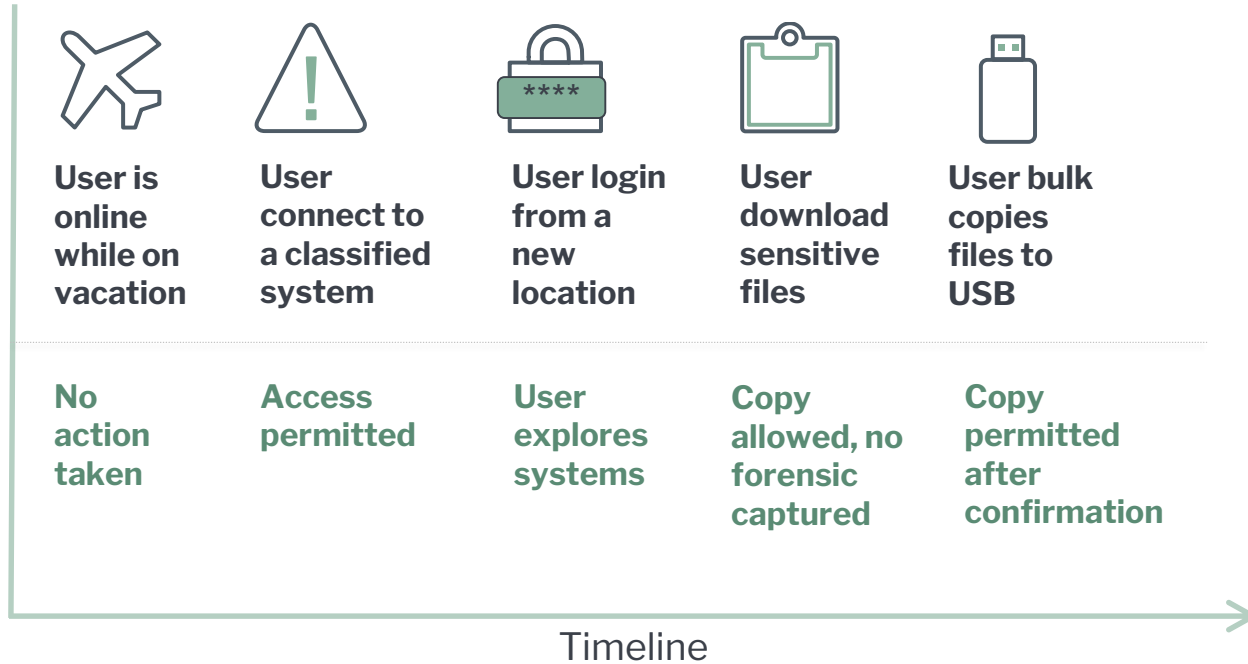


**User download
sensitive files**



**User bulk copies
files to USB**

What We Got Today – Just Another “Noisy” Day



Forcepoint Critical Data and Intellectual Property Point of View

Embrace a risk-adaptive, dynamic approach to data protection



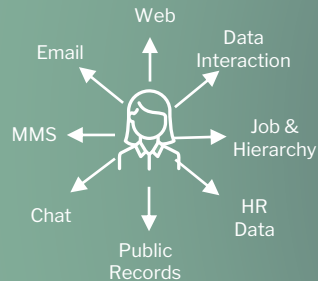
1 Analytics Driven
Visibility



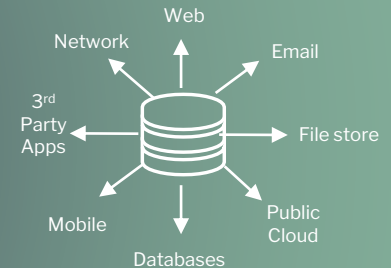
2 Risk-Adaptive
Controls



3 Intelligent and
Dynamic Automation



**Delivered by Understanding
Users and Data**



1 Analytics driven visibility

Oversight everywhere users work and collaborate



► Locate and understand the data

- Discover data at-rest, in-use, and in-motion across on-premises and cloud assets
- Data labeling and classification
- Structured and unstructured data

► Identify your riskiest users

- Both security and non-security data sources
- Additional context derived through deep forensics
- Earlier identification of risky users

► Gain insights by leveraging analytics

- Understanding behaviors to establish baseline
- Gaining contextual correlation
- Building an informed narrative

Analytics Sources

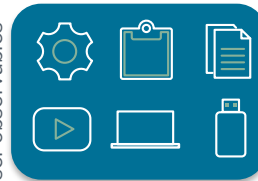
Existing Security Systems



Non-Security Systems



Machine and user observables



Prioritized list of risky users

Top 39 Entities Of Interest		
Entities	Risk Score ¹	Risk Level ¹
👤 pzamudio	99	5
👤 nwells	30	2
👤 npellegrino	30	2
👤 mmiller	30	3
👤 rmaclean	28	2
👤 eallen	28	2
👤 cgraff	28	2
👤 acouncil	27	2
👤 rheilman	27	2
👤 rialiberte	27	2

Risk-Adaptive Controls



Automated the response according to the risk level

Single, risk-adaptive policies

- Centralized policy management
- Protection across multiple channels, including endpoint, network and cloud.

Individualized data protection

- User risk-aware policies
- Allows for increased user productivity, improving security while reducing user frustration

Automated smart enforcement

- Surface anomalies, adjust individualized security controls
- Dynamic, adaptive enforcement based on risk

Number of Matches	Severity	Action Plan		
At least 1	Medium ▼	Block All ▼		
<input type="checkbox"/> At least: 2 ▲▼	Medium ▼	Audit Only ▼		
<input type="checkbox"/> At least: 3 ▲▼	Medium ▼	Audit Only ▼		

Matches are calculated as the matched conditions.



☒ For Risk Adaptive Protection users, determine actions according to the source's risk level:

	Risk level 1	Risk level 2	Risk level 3	Risk level 4	Risk level 5	
Action plan:	Audit Without Forensics ▲▼	Audit Only ▲▼	Audit and Notify ▲▼	Drop Email Attachments ▲▼	Block All ▲▼	

3 Intelligent and Dynamic Automation



Building a better understanding of users to establish intent

► Establish a repository of Adaptive Trust Profiles

- Forcepoint has built a research division and invested in data scientists to build models to determine intent
- Understanding intent allows for graduated levels of monitoring and enforcement which can help aid investigations

► Automate Intelligent Response

- The security team is alerted to the risky behavior while the policies protect the data
- The SOC moves from alert coordination to case prosecution

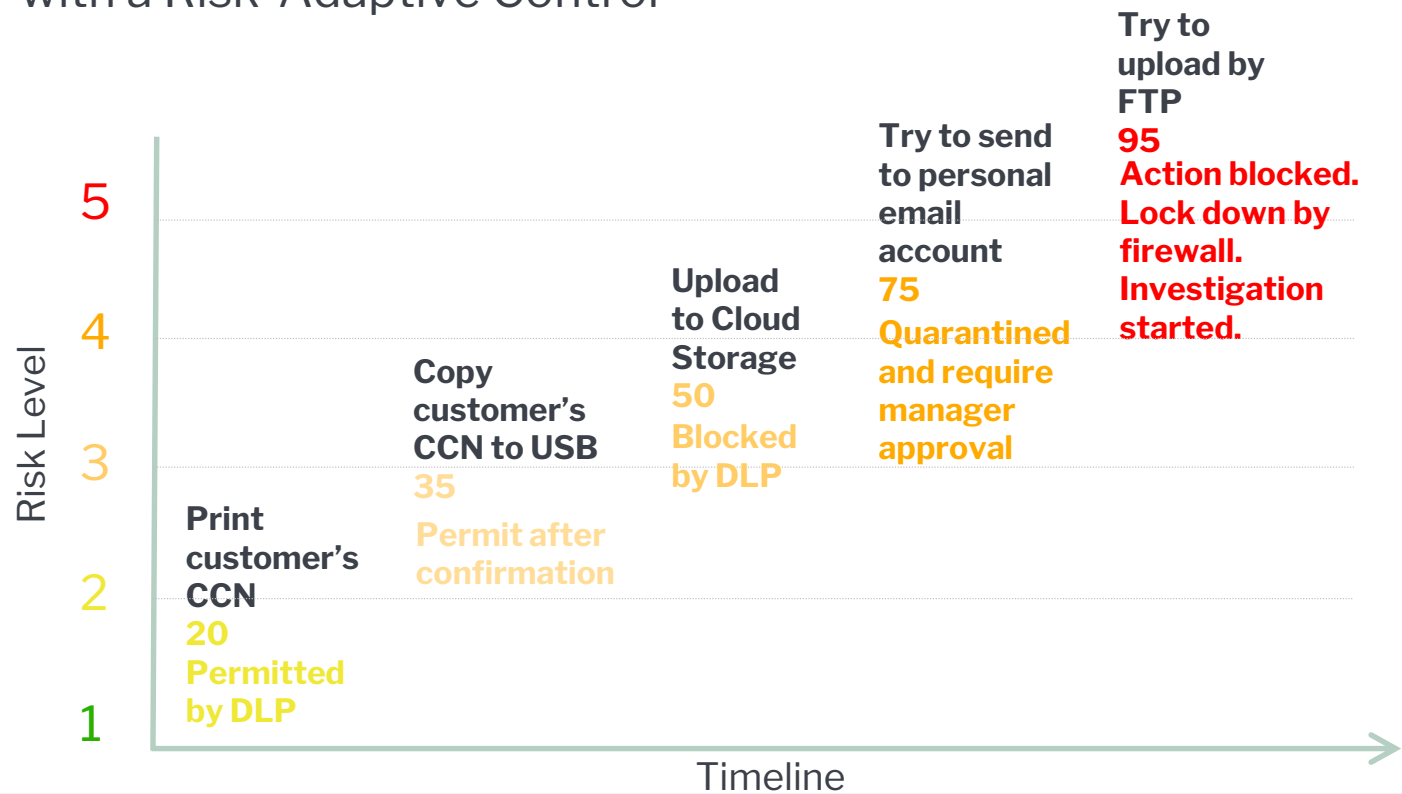
► Move from “what happened?” to a more prescriptive posture

- By understanding behaviors and intent, we can graduate enforcement to accompany varying levels of risk
- Combining inferences and observables with enforcement allows for proactive identification and remediation against potential risk



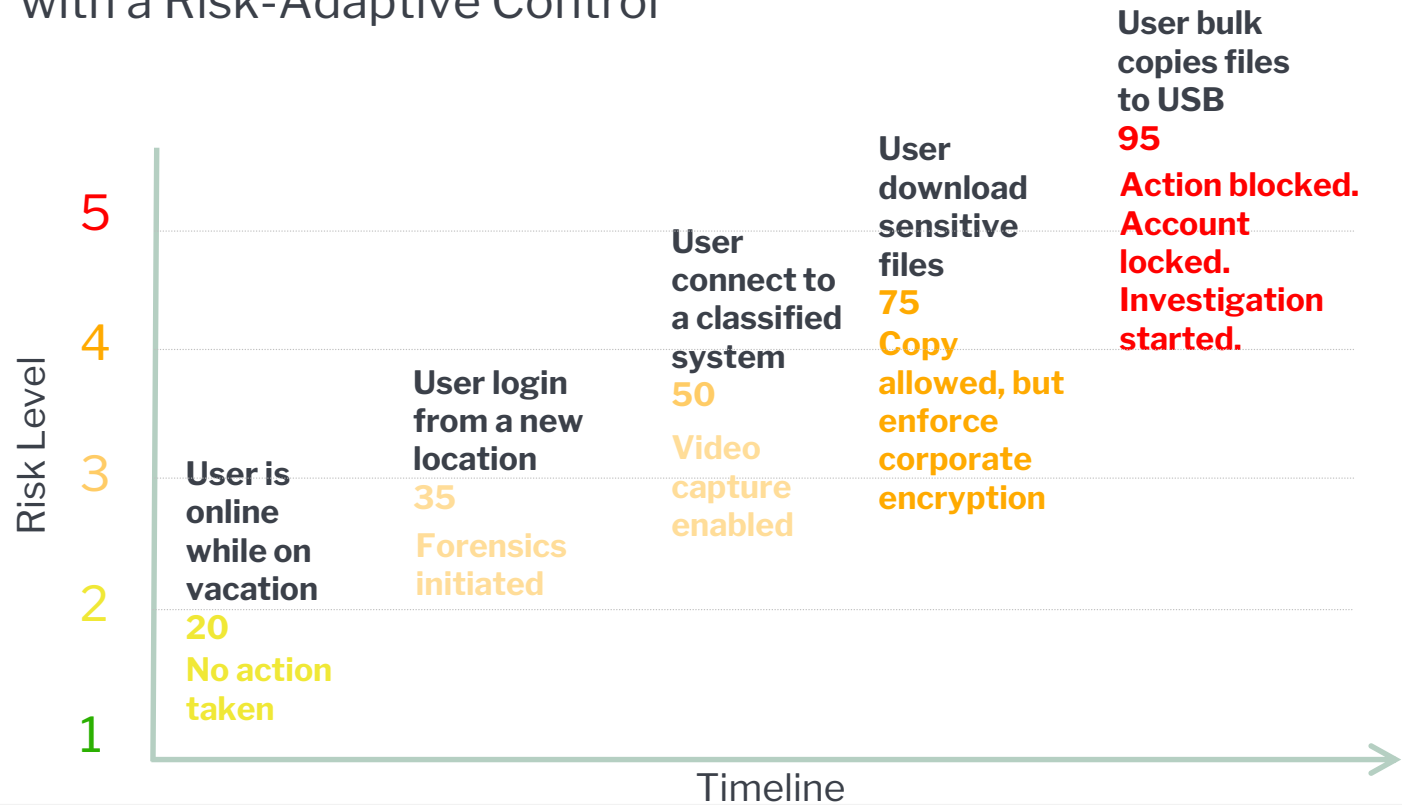
Now again, when someone trying to print

with a Risk-Adaptive Control



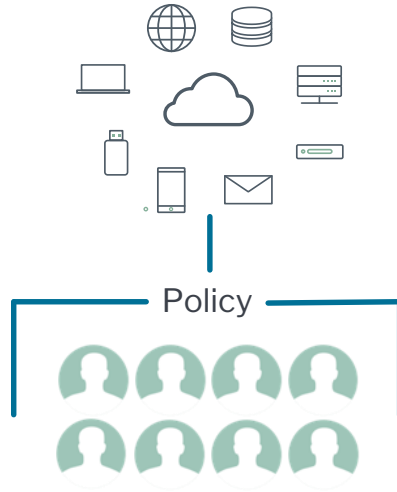
Now again, when someone on vacation

with a Risk-Adaptive Control



Modernization of Data Protection

From Traditional Security



One-to-many enforcement of static, generic policies, producing high false positive rates.

To **Human-Centric Security**



One-to-one enforcement of different policies based on the risk, enabling automation.

And Capable of Handling Exceptions

A screenshot of a 'Forcepoint One Endpoint' exception dialog. The dialog has a red header bar with a yellow warning icon and the text 'Action required' and 'Time remaining: 29 seconds'. Below the header, there is a blue information icon followed by text: 'This operation appears to be in violation of corporate policy. This is an example of introductory text that spans two lines.' Underneath, it says 'Policy triggers:' followed by two blue information icons and text: 'CreditCards - 5 matches' and 'USCreditCards - 5 matches (+ 1 more)'. Then, it says 'If you feel this operation is justified, please select a reason and click Allow. If you would like to cancel this operation, please click Block.' Below this, there are five radio button options: 'False positive, operation is legitimate', 'Required for business purposes', 'Approved by my manager', 'Personal data', and 'Other:'. There is a text input field for 'Enter other reason (required)'. At the bottom, there is a blue link 'Read more about our corporate policy' and two buttons: 'Allow' and 'Block'.

Even the most individualized policies can require exemptions

Key Takeaways

- ▶ **GDPR is not over...** it's part of doing business and a continual process
- ▶ GDPR is a privacy effort
 - **not just compliance**
- ▶ Organizations must look for **automation** and **modernization** of their data protection strategy



—
THANK YOU!

