



**Is your data safe?**

The why & how of building a  
data-first security program

October 2022

DATA  
GROWTH



INCREASING  
REGULATIONS

SOPHISTICATED  
ATTACKERS



We've been watching the  
**SECULAR TRENDS** for a  
long time...

# Technical Scarcity



# CYBERCRIME keeps getting worse

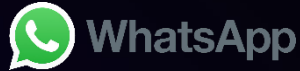


The threat landscape is ever changing...

# REGULATIONS sharpened their teeth

## FINE

€ 225,000,000



**Country:** Ireland

**Authority:** Data Protection Authority of Ireland

**Date:** 09/02/2021

**Fine:** €225,000,000

**Organization Fined:** WhatsApp

**Article Violated:** Art. 5 (1) a)

**Type:** Non-compliance with lawful basis for data processing

**Summary:** Facebook owned messaging app WhatsApp has been fined by the Data Protection Authority of Ireland with a huge sum of €225 million. This concludes an investigation spanning from 2018. The Data Protection Authority of Ireland commented that WhatsApp discharged its GDPR transparency obligations with regard to the provision of information and the transparency of that information to both users and non-users of WhatsApp's service. This includes information provided to data subjects about the processing of information between WhatsApp and other Facebook companies.

## FINE

€ 746, 000, 000



**Country:** Luxembourg

**Authority:** National Commission for Data Protection (CNPD)

**Date:** 07/22/2021

**Fine:** €746,000,000

**Organization Fined:** Amazon Europe Core S.a.r.l.

**Article Violated:** Several

**Type:** Failure to comply with data processing principles, and others

**Summary:** The DPA authority in Luxembourg fined Amazon Europe Core S.a.r.l. with EUR 746,000,000 (\$887,000,000) because the US subsidiary did not process personal data according to the GDPR regulations. Apparently, Amazon Europe Core had misused its customer data for targeted advertising. But the company defends itself, saying that there was no data breach and at not time was customer data exposed to other unauthorized third parties. The fine enforced by the Luxembourg DPA came as a result of a 2018 complaint by French privacy rights group, La Quadrature du Net. They argued that Amazon, among other big companies, manipulate customers through targeted content and advertising. They further argued that this was against the principles or privacy and information freedoms of all Europeans. Whether Amazon's defense wins the case remains to be seen.



# The Data-First Approach

Our world is more  
**RELIANT** on data  
than ever...

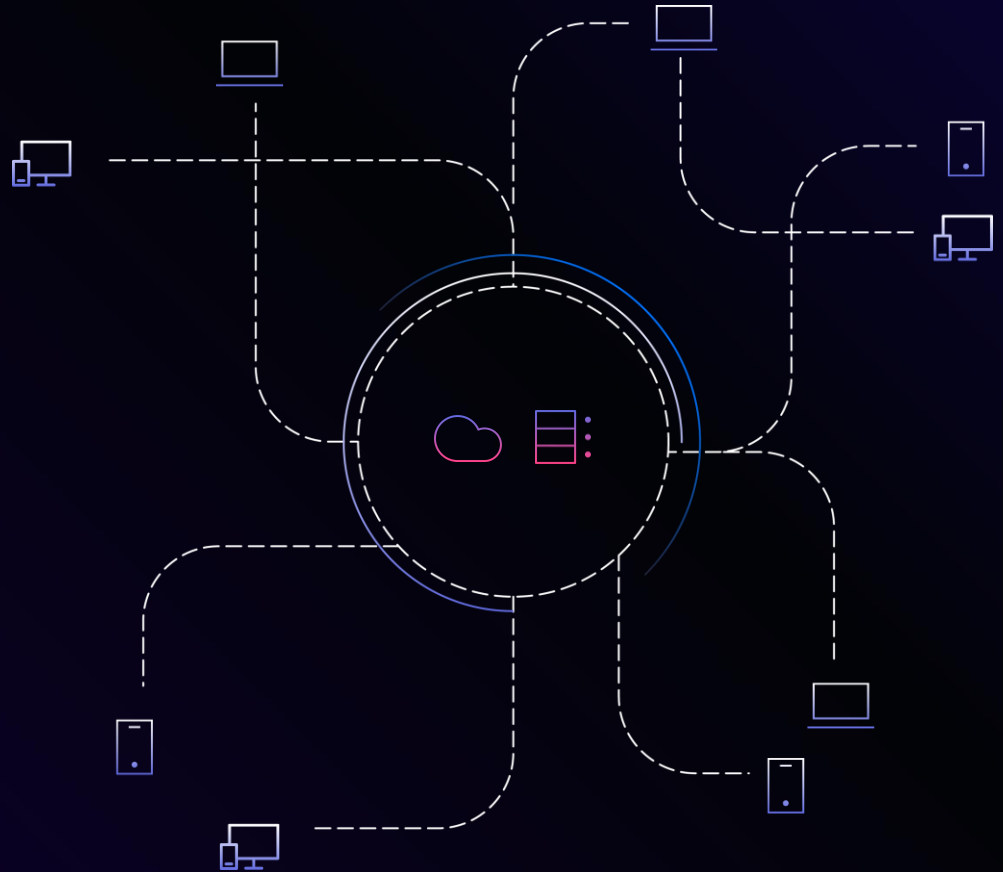




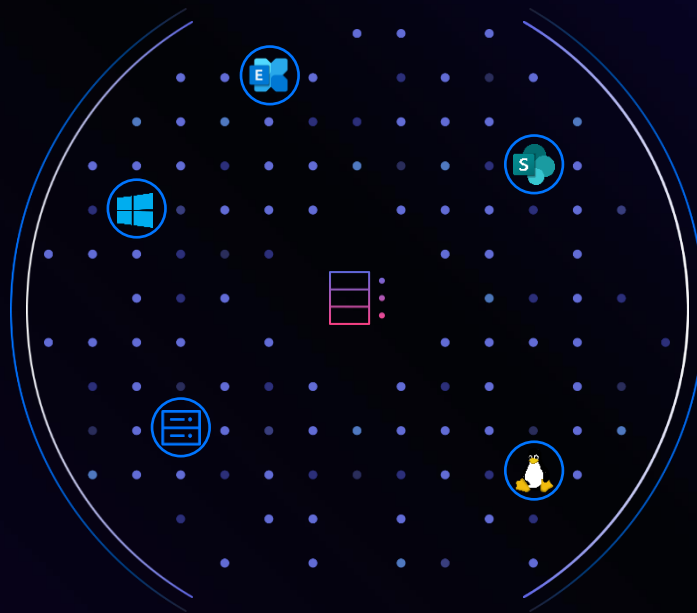
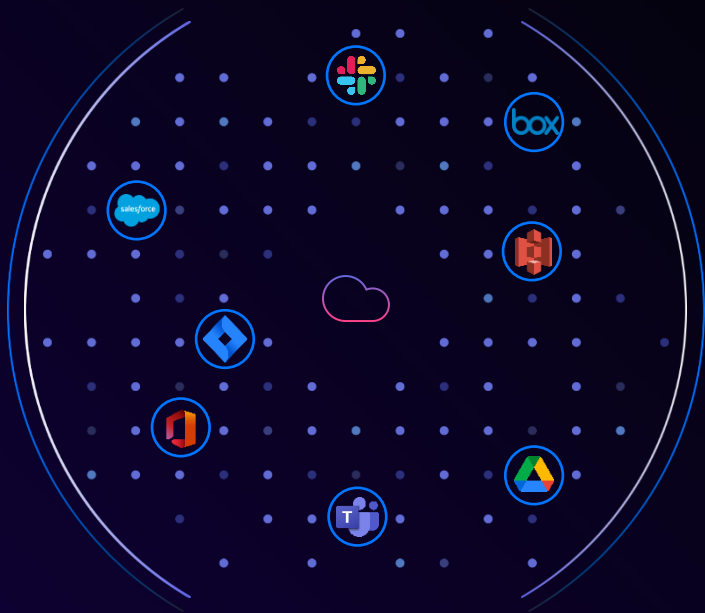
The security  
**PERIMETER** is  
harder to define



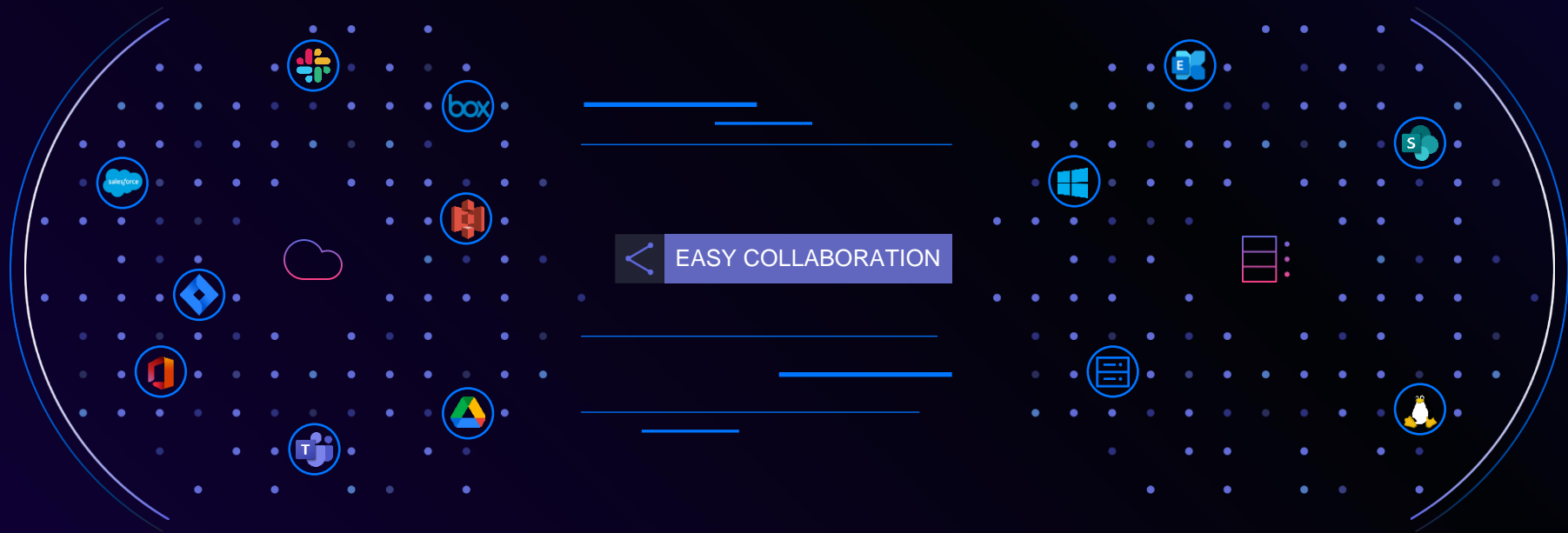
Endpoints are  
more like  
**ACCESS** points



# Data **GROWS** in “sanctioned” data stores



# They make COLLABORATION EASY



# And make **SECURITY HARD**

BLAST RADIUS

**17 MILLION**

AVERAGE # OF FILES ACCESSIBLE  
BY EVERY EMPLOYEE

# Where is the Team's data stored?



Team → New SPO Site

Standard Channel → New SPO Folder

- Files → In the SPO folder
- Emails → In the SPO folder

Private Channel → New SPO site

- Files → In an SPO folder
- Emails → In an SPO folder

1:n Chats

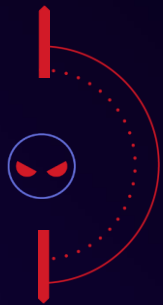
- Attachments: OneDrive → Chats folder



SharePoint  
Online



OneDrive



ENDPOINTS

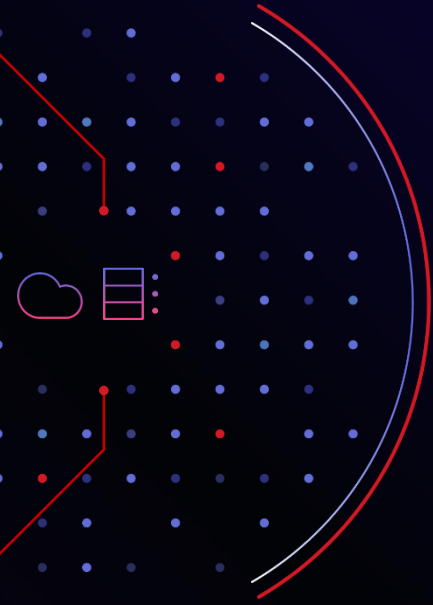
CLOUD DIRECTORY

GATEWAY

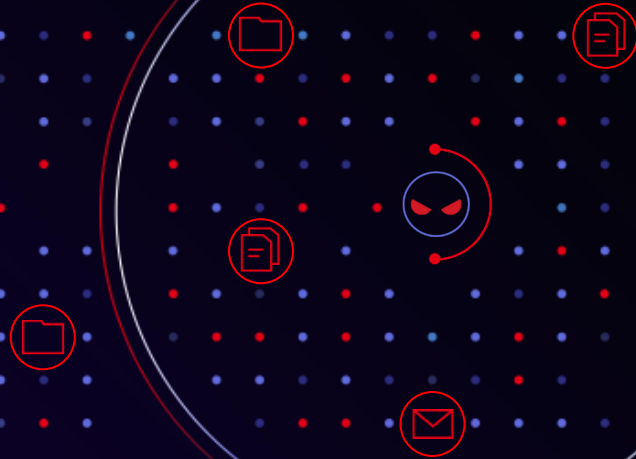
INTERNAL SERVER

ACTIVE DIRECTORY

There are many **VECTORS** to get to the data

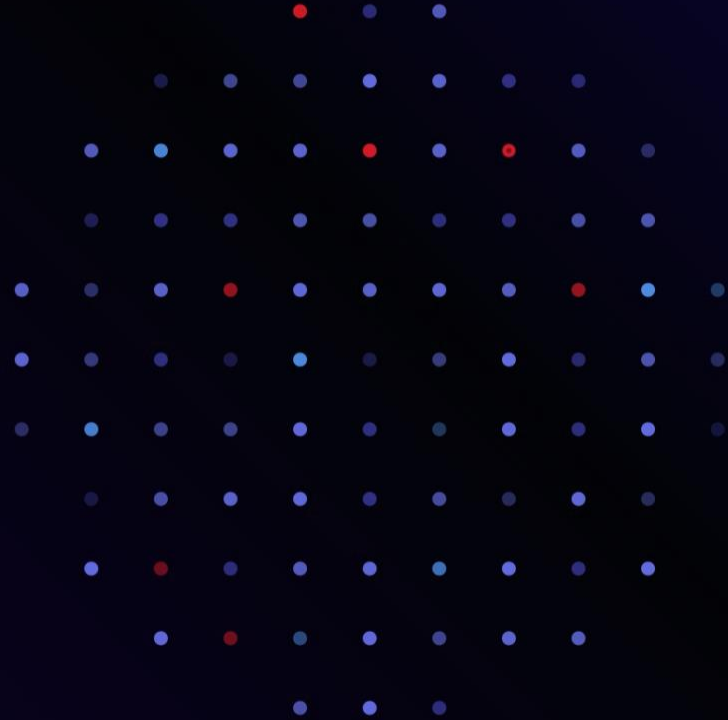


All it takes is **ONE**





But what happens  
when security  
**STARTS WITH DATA?**



# It's intuitively SIMPLE





But the problem is  
immensely **COMPLEX**

And the **SCALE** of the problem is hard for people to imagine

Consider a single Terabyte of data

- 1 million files, 50k folders
- 5% of folders with unique permissions
- Each unique folder with 3-5 groups

A large, ancient brick fortress, likely the Castel Sant'Angelo in Rome, is shown from a low angle across a body of water. The structure is made of weathered red brick with several arched openings and a prominent cylindrical tower on the left. The sky is a clear, deep blue. The water in the foreground is dark and calm.

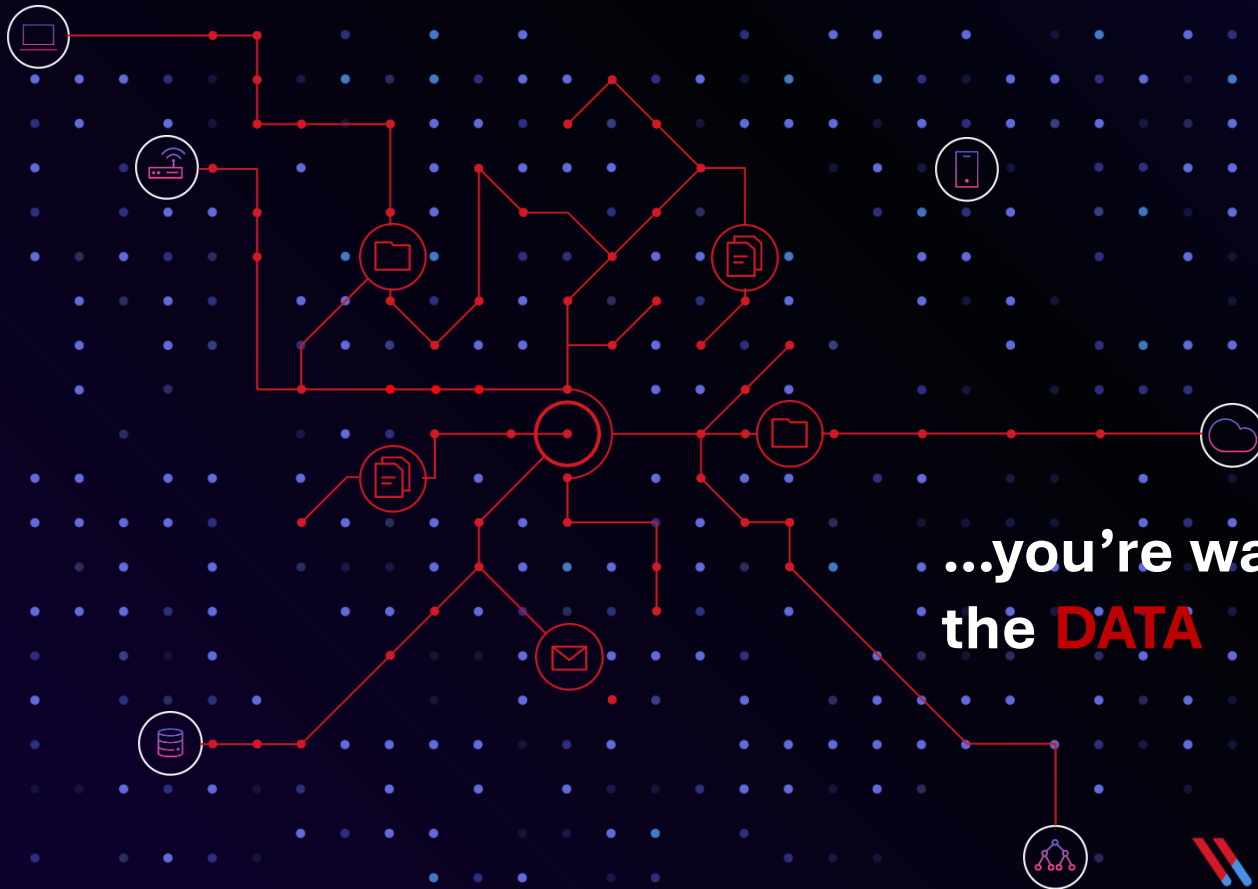
The **CONTROLS** are  
closer to the asset

# Reduce the **BLAST RADIUS**





You **CATCH** what others miss because...



...you're watching  
the **DATA**





**Real life examples...**



LAPSUS\$

Reply

**We recruit employees/insider at the following!!!!**

- Any company providing Telecommunications (Claro, Telefonica, ATT, and other similar)
- Large software/gaming corporations (Microsoft, Apple, EA, IBM, and other similar)
- Callcenter/BPM (Atento, Teleperformance, and other similar)
- Server hosts (OVH, Locaweb, and other similar)

**TO NOTE: WE ARE NOT LOOKING FOR DATA, WE ARE LOOKING FOR THE EMPLOYEE TO PROVIDE US A VPN OR CITRIX TO THE NETWORK, or some anydesk**

If you are not sure if you are needed then send a DM and we will respond!!!!

If you are not a employee here but have access such as VPN or VDI then we are still interested!!

You will be paid if you would like. Contact us to discuss that

@lapsusjobs

← 837 👁 37.2K 📌 2:37 PM 👍

# NVIDIA, Samsung, LG, Ubisoft, EA

LAPSUS\$

We hacked NVIDIA,

The hack is kinda public atm, and here's our announcement,

We were into nvidia systems for about a week, we fastly escalated to admin of a lot of systems.

We grabbed 1TB of data,  
We grabbed the most important stuff,  
schematics, driver, firmware, etc...

We are still waiting for nvidia to contact us.  
We are also selling a full LHR V2  
(GA102-GA104) -> we hope it will soon be  
removed by nvidia

If NVIDIA doesn't contact us, we will take  
actions.

Please note: We are not state sponsored and  
we are not in politics AT ALL.

Btw NVIDIA tried but failed, we have all the  
data.

614 edited 11:08 AM

| Name   | Size       | Download Pri... |
|--|------------|-----------------|
| ▼ <input checked="" type="checkbox"/> Samsung                      | 189.93 GiB | Normal          |
| <input checked="" type="checkbox"/> README.txt                     | 595 B      | Normal          |
| <input checked="" type="checkbox"/> Samsung Electronic - part 1.7z | 89.59 GiB  | Normal          |
| <input checked="" type="checkbox"/> Samsung Electronic - part 2.7z | 30.68 GiB  | Normal          |
| <input checked="" type="checkbox"/> Samsung Electronic - part 3.7z | 69.65 GiB  | Normal          |

# Russian APT Encounter

- Varonis alerted on malicious activity
- Well-known IR firm told customer there was no sign of compromise
- Customer called the Varonis IR team to be sure
- IR team
  - Discovered and contained infection in 13 minutes
  - IR began remediation, recovery, and forensics
- Research team
  - Reversed Qbot malware and exposed C2 server
  - Extracted victim list and found future variants





# At Least 2,726 Victims Worldwide

QUICK LINKS: 2019 Security Priorities · CSO50 Conference & Awards · Reviews · Video · Newsletters · Resources/White Papers



Home · Malware

NEWS

## Qbot malware resurfaces in new attack against businesses

This new persistent and difficult-to-detect Qbot version is designed to steal financial information.



DATA CENTRE SOFTWARE SECURITY DEVOPS BUSINESS PERSONAL TECH SCIENCE

Security

## Qbot malware's back, and latest strain relies on Visual Basic script to slip into target machines

We've said it once, we've said it a thousand times. Don't open weird attachments, kids

By Gareth Corfield 28 Feb 2019 at 16:15

19 SHARE



**How do you protect  
data from LAPSUS\$  
style threats?**

# Know where your sensitive data is overexposed





# Focus on global access first, then right-size

- Force attackers to gain privileged access in order to do meaningful damage
- Many attackers we see are looking for soft targets
  - “What can this account get me in the next 6 hours?”
- Hunt and eliminate “Everyone” group access on file shares and “Anyone” links in M365



**briankrebs** ✓  
@briankrebs



From a security pro who fought LAPSUS\$: It forces us to shift thinking about insider access. Nation states want longer, strategic access; ransomware groups want lateral movement. LAPSUS\$ asks: What can this account get me in the next 6 hours? We haven't optimized to defend that.

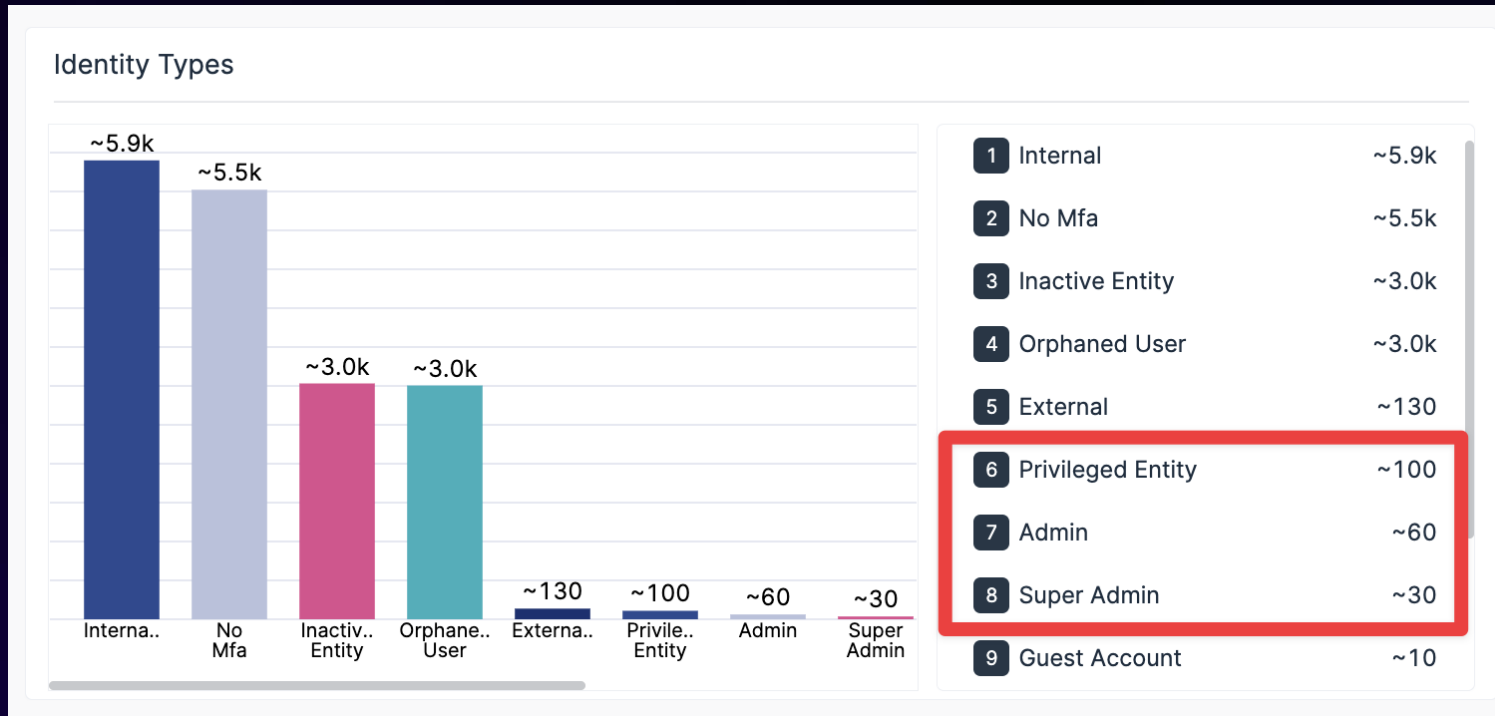
8:51 PM · Mar 23, 2022 · Twitter Web App

322 Retweets 26 Quote Tweets 1,266 Likes

# Classification helps you prioritize

|                     |   |                     |
|---------------------|---|---------------------|
| 2022-01-20 19:57:07 | Mimikatz downloaded from hxxps://github.com by [SYSTEM NAME REDACTED]\[ACCOUNT NAME REDACTED]   | Escalate Privileges |
| 2022-01-20 20:58:31 | RDP disconnect from [SYSTEM NAME REDACTED] by [SYSTEM NAME REDACTED]\[ACCOUNT NAME REDACTED]  | Move Laterally      |
| 2022-01-20 23:02:41 | First malicious logon by [ACCOUNT NAME REDACTED]@sykes[.]com to O365  | Initial Compromise  |
| 2022-01-21 00:05:15 | [ACCOUNT NAME REDACTED]@sykes[.]com accessed hxxps://[INTERNAL URL REDACTED]/personal/[INTERNAL USER NAME REDACTED]/Documents/Projects/ryk/DomAdmins-LastPass.xlsx via SecureLink | Internal Recon      |

# Quick win: start with super admins and privileged accounts



# 50% of security leaders said they don't get an alert when someone is given super admin privileges

**2** **Activity Profile**  
Set trigger conditions

**Action**

And ▾ Action name ▾ Equals ▾ add\_users\_to\_a\_group\_assignr ×

And ▾ Privileged action ▾ Equals ▾ Okta ×

+ add\_users\_to\_a\_group\_assigned\_admin\_privileges

+ Add group

# Identify org-wide misconfigurations and exposures



Internal repository creation member privileges

Jan 30, 2022 11:50 PM a



Password Policy 1 - Password expires after # days

Mar 20, 2022 02:31 PM <https://dev-7142671.okta.com>



Password Policy 1 - Lock out user after # unsuccessful attempts

Mar 20, 2022 02:31 PM <https://dev-7142671.okta.com>



Sign On policy 2 - Rule 1 - Prompt for factor

Last seen at Mar 28, 2022 02:31 PM | First seen at Mar 20, 2022 02:31 PM | Edited

MFA is not required by default so some users may be able to sign in without MFA.

# Focus on user behavior, not just static IOCs

- When a user accesses or downloads an abnormal amount of sensitive data
- When sensitive data is shared publicly
- If a user logs in from an unusual or blacklisted country.
- If MFA has been disabled
- Excessive password/MFA reset requests
- If a contractor or stale account becomes active after a long period of inactivity

# Key Takeaways

- Data growth, increased regulation
- If you assume compromise, protecting data should be a priority
- Sophisticated insiders and external attackers can evade detection
- Defenders should seek to reduce uncertainty with visibility and context
- Combining the right ingredients can reduce Time To Detection / Time To Response and help you answer: “Is our data safe?”
- Risk assessments are a great first step in reducing uncertainty

# Thank you

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