

# A people-centric approach to security.

proofpoint®

Adenike Cosgrove

VP, Cybersecurity Strategy







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“Egypt’s canal chief says human error could be behind ship’s grounding.”

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STADT-KAFFEE

STADT-KAFFEE

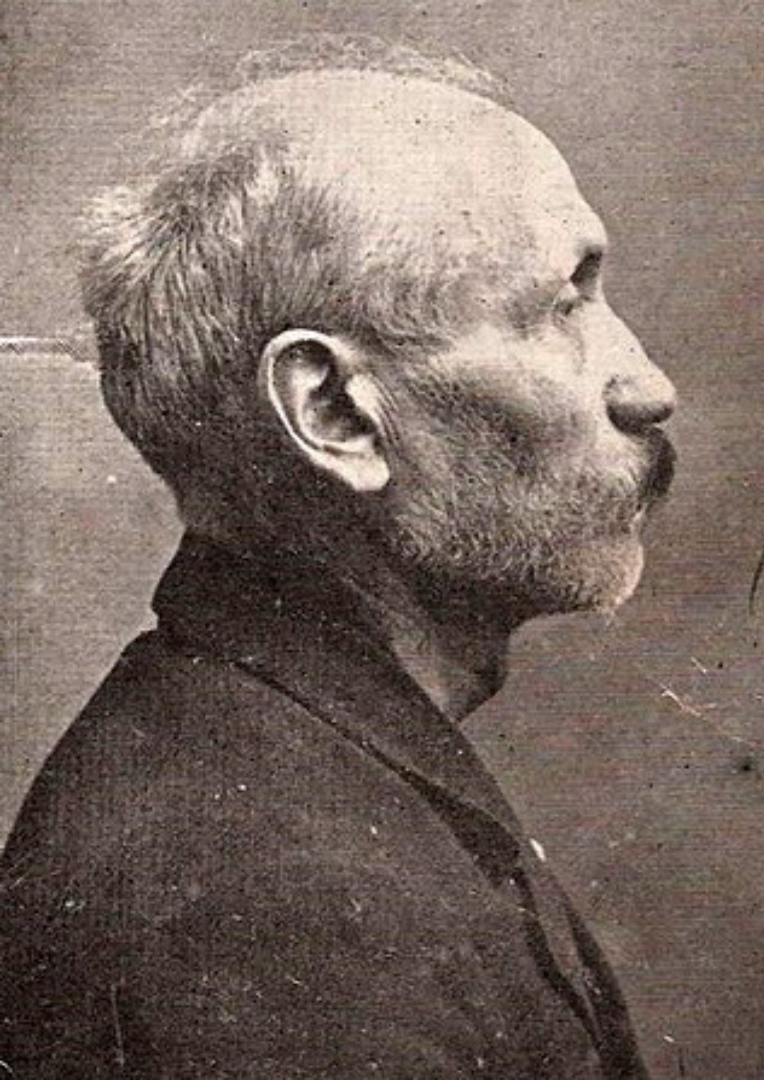
STADT-KAFFEE

EMIL RÖGENER  
Waldorf-Historia Cigarettes

Cafe Kropcke

6

12



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“Friedrich Wilhelm Voigt masqueraded as a military officer, rounded up soldiers, and ‘confiscated’ 4,000 marks from a municipal treasury.”

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**Donna-Marie Cullen** 🧡 🌻 @DonnaCullen85 · May 17, 2021  
HSE cyberattack 'stole my end goal', says cancer patient.

I'm just one of thousands of patients effected by this horrible cyberattack on the HSE.

[@IrishTimes](#)



irishtimes.com  
HSE cyberattack 'stole my end goal', says cancer patient  
Woman (36) due to finish treatment on May 31st but now has 'no idea' when she'll be seen

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“I got a call at lunchtime and was told that my radiation wouldn't be going ahead because of the cyber-attack.”

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# It started with a phish

## Anatomy of the ransomware (or BEC, or data theft) attack

### Initial access

Attacker looks for a way into the organisation

**18 March 2021**

User opened malicious Microsoft Excel file attached to a phishing email sent on 16 March 2021.

16/03: Email Malware



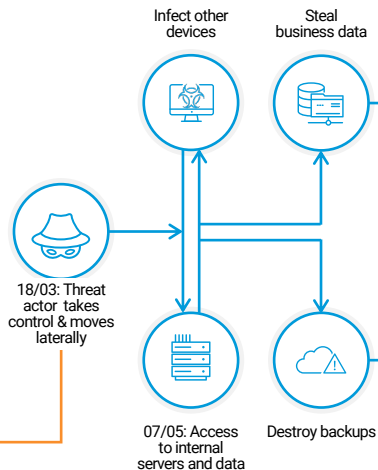
18/03: Loader, Downloader, RAT, Banking Trojan, keyloggers



### Consolidation & preparation

Attacker attempts to gain access to critical devices and server admin

**18 March 2021 – 14 May 2021**  
Attacker operated in network over eight-week period.

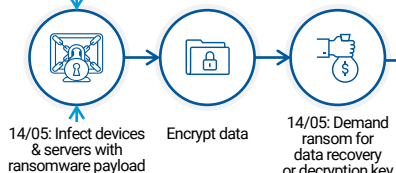


### Ransomware launch

Once all systems identified, infected, and information collected, criminal then sends ransomware payload

**14 May 2021**

Detonation of Conti ransomware which caused widespread IT disruption.



### Impact on target

Attacker steals and encrypts data, then demands ransom





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“They don't do stages of sarcoma. You either have sarcoma, or it has spread, and if it has spread, it is terminal.

“For me it was the worry. If there was even a minute chance of a crumb of this cancer left in my head, that it would just start to multiply and my radiation plan would need to be completely revised.”

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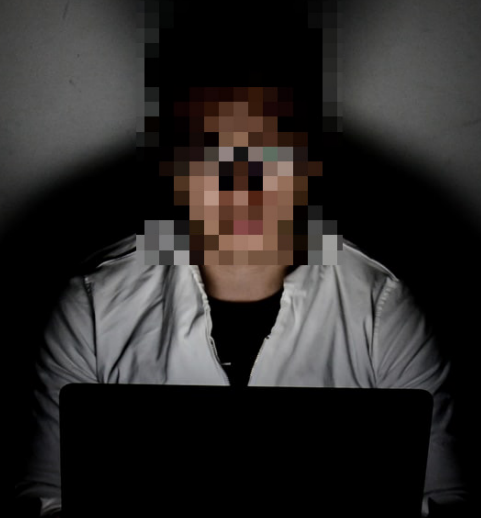




“We got into your network through phishing. The email with the malicious attachment was opened by an employee... the user is asked to include the document's macro to display the content.

#Solution: Make it impossible to perform such an attack!

#How? You should figure it out for yourself...”



# Systemic risk is people-centric risk.

# DBIR

## Data Breach Investigations Report

2008

2022

85% of data breaches involved a human element, just 3% involved a technical vulnerability.

**verizon**<sup>✓</sup>

75% of ransomware attacks start with email.

 **paloalto**<sup>®</sup>  
NETWORKS

95% of security breaches are human related.

WORLD  
ECONOMIC  
FORUM



“Had we known that what was true nine years ago would still be true today, we could have saved some time by just copying and pasting some text.

Oh well, maybe in another nine years things will change for the better.”

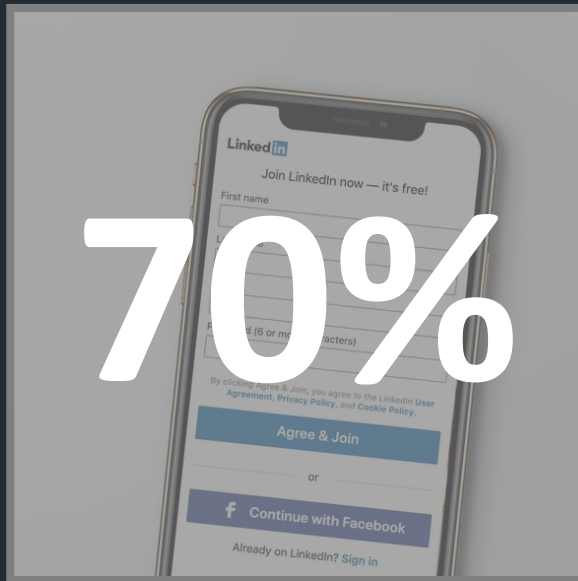
**verizon<sup>v</sup> DBIR**



# Attackers don't hack in... they log in



RUNNING ATTACKER'S  
CODE FOR THEM

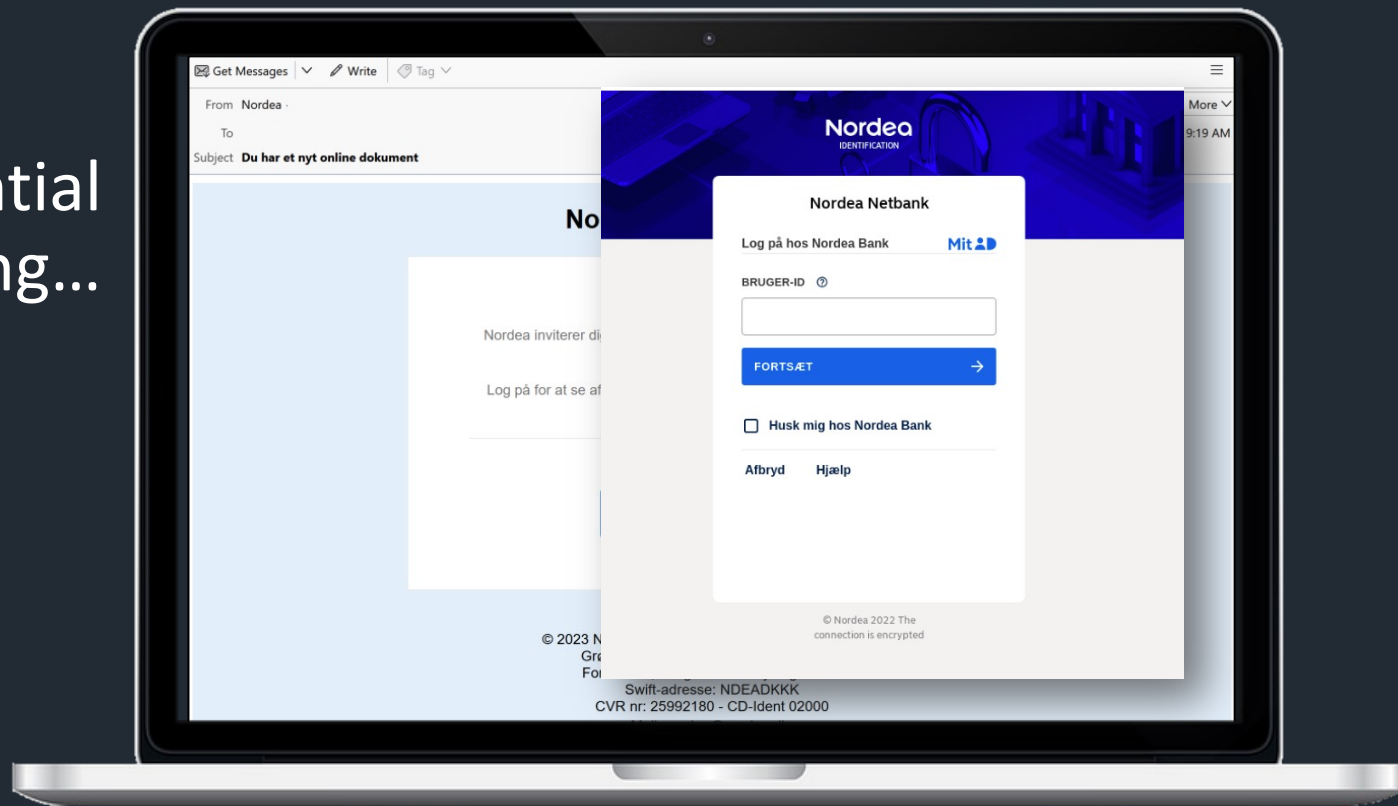


HANDING OVER  
CREDENTIALS TO THEM

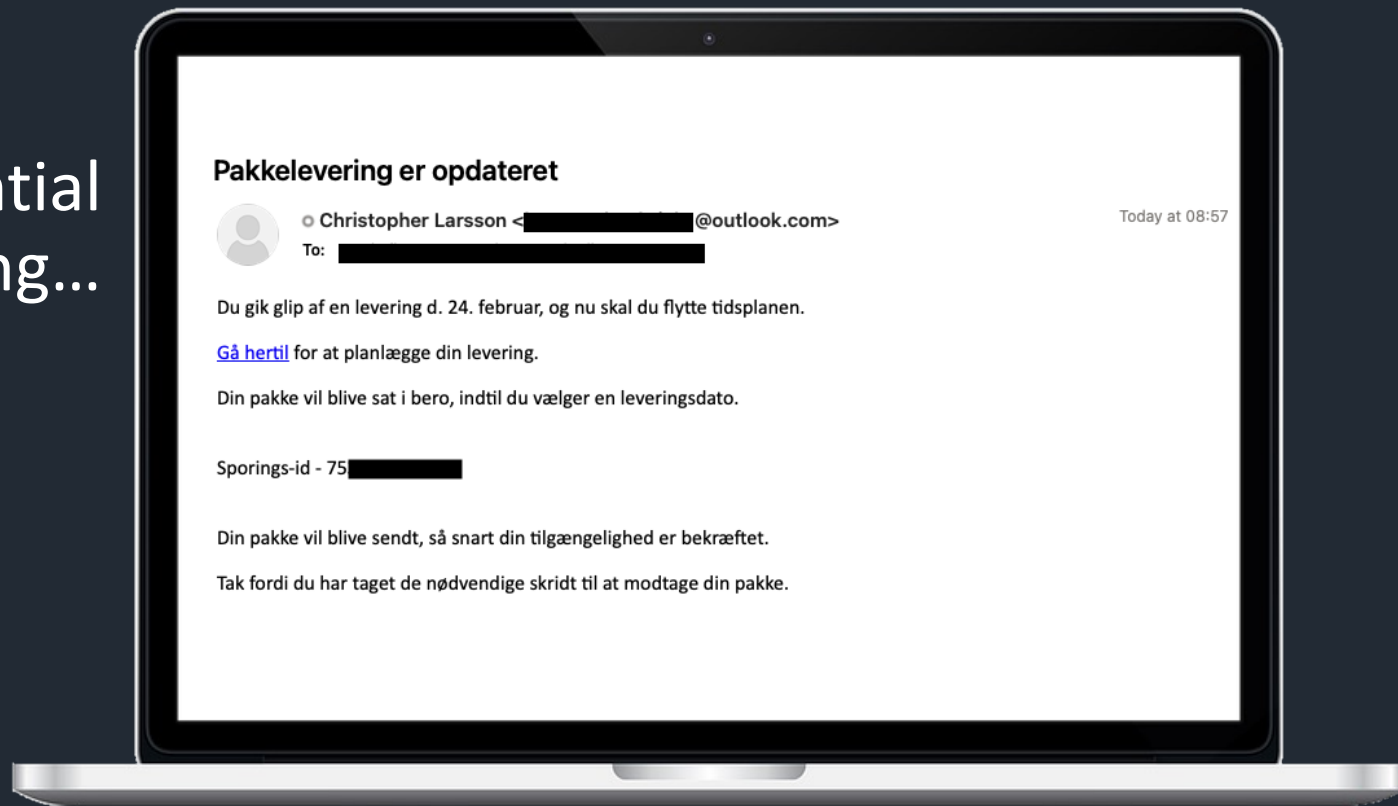


TRANSFER FUNDS OR  
DATA TO THEM

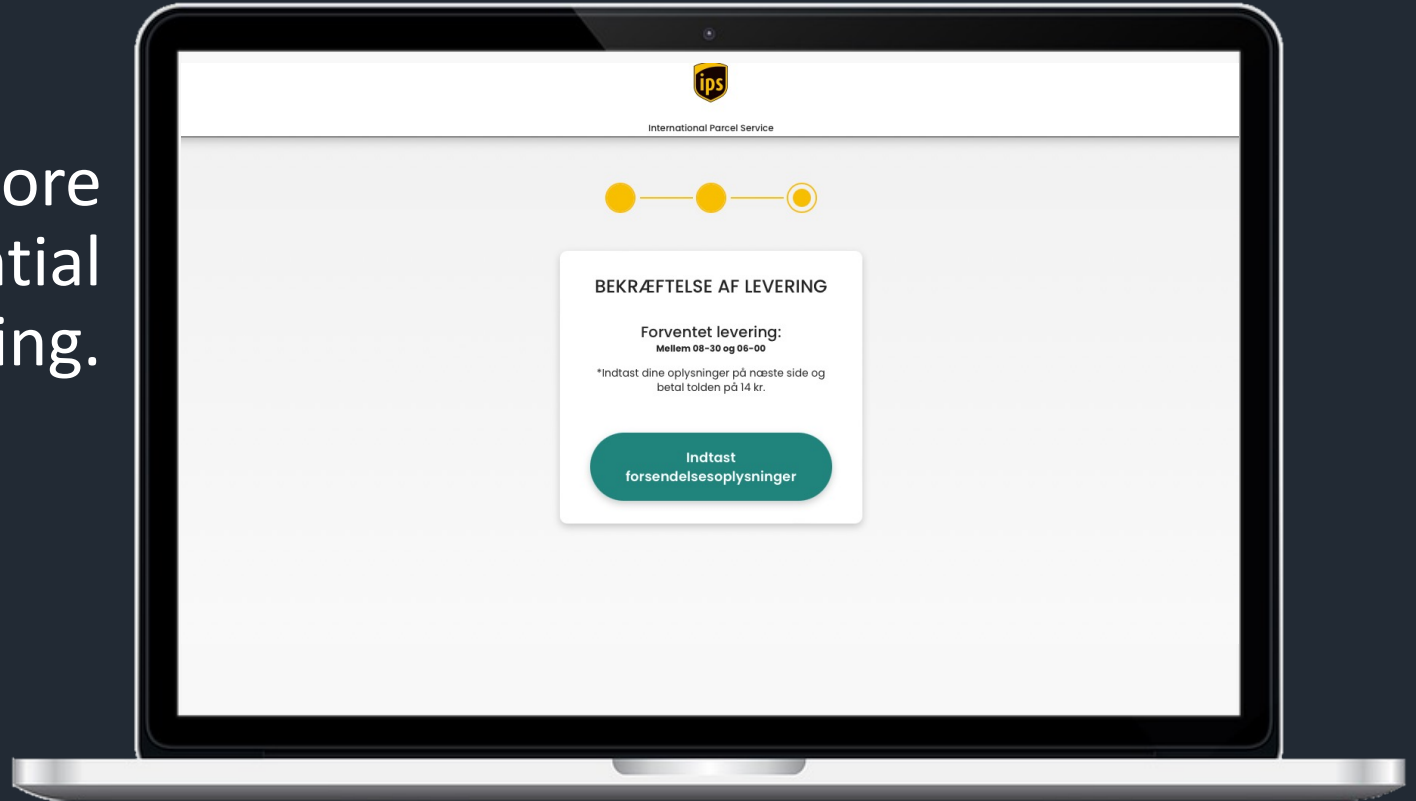
# Credential phishing...



...credential  
phishing...



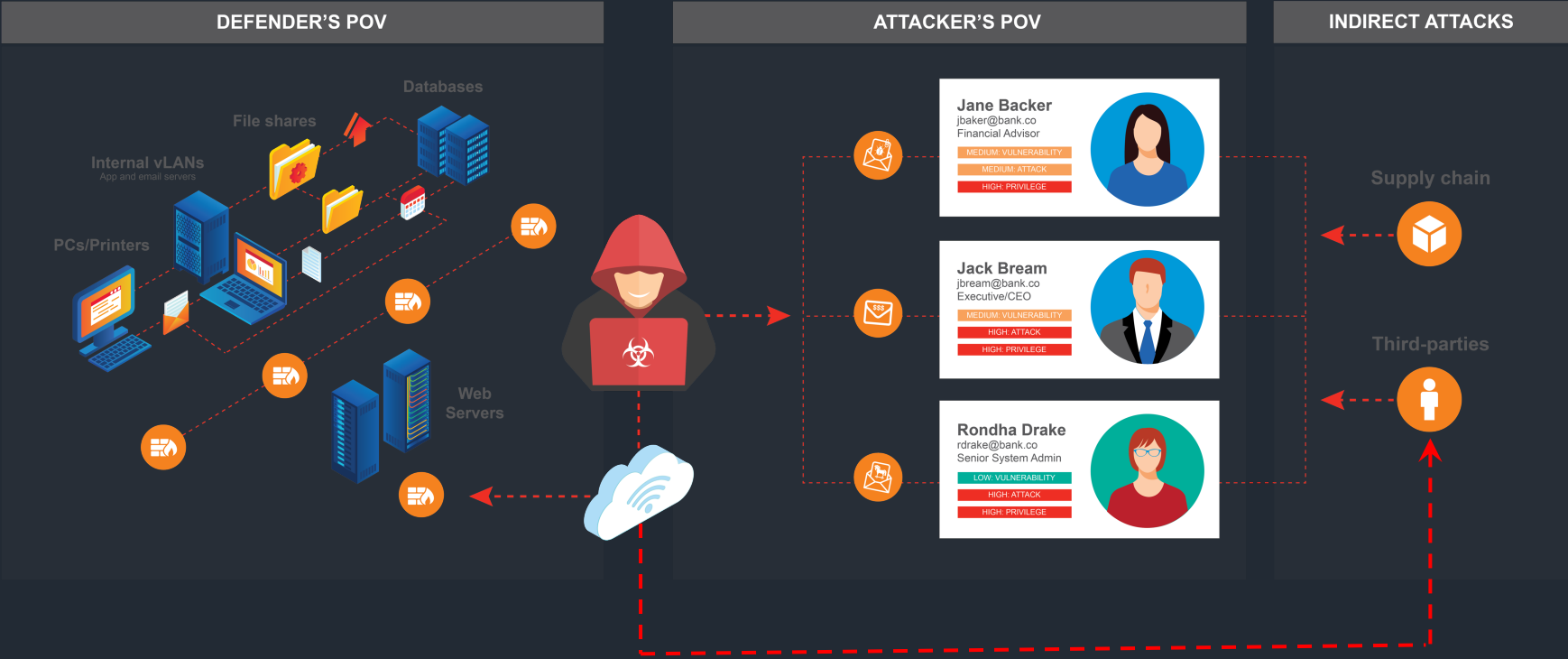
...and more  
credential  
phishing.





# The human has always been the perimeter.

# But have we changed our focus?



# People the common link across attack chain



Recon

- Prevent + detect to identity deception
- Prevent + detect + respond to targeted attacks
- Detect + respond to cloud account takeover



Initial compromise



Persistence

- Prevent common attack paths
- Detect + respond to lateral movement
- Detect + respond to privilege escalation



Info gathering



Priv Esc



Lateral movement



Staging

- Prevent + detect + respond to data exfiltration attempts
- Prevent + detect + respond to domain admin access
- Gain insight into risky user behaviour



Impact

Proofpoint  
**Aegis**

Proofpoint  
**Identity Threat Detection + Response**

Proofpoint  
**Sigma**

# Answering the questions that matter most

## AXIS: Adversaries

Who are they and what do they want?



How do they operate?

Who else have they attacked?

## AXIS: People

Who is attacked?



Who is risky?

Who has privilege?

## AXIS: Data

Who has access?

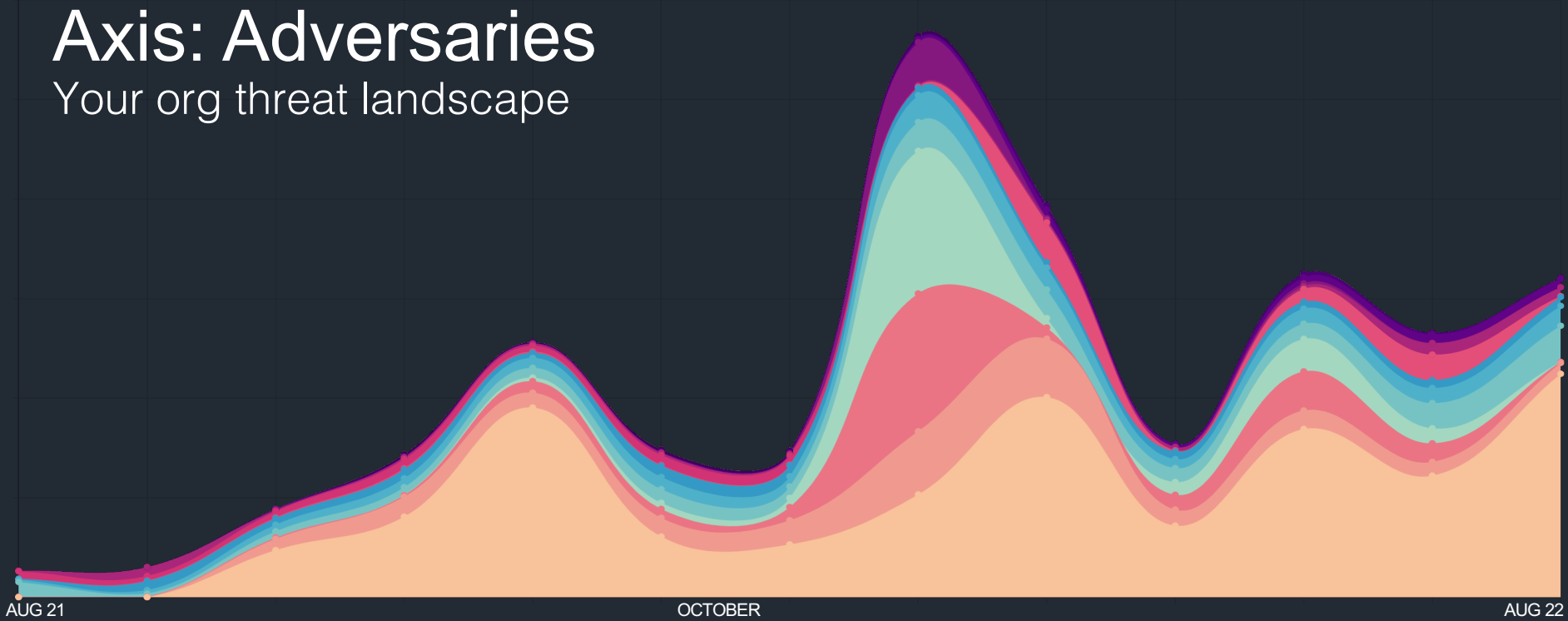


Is it sensitive?

Is it moving or stored in a risky way?

# Axis: Adversaries

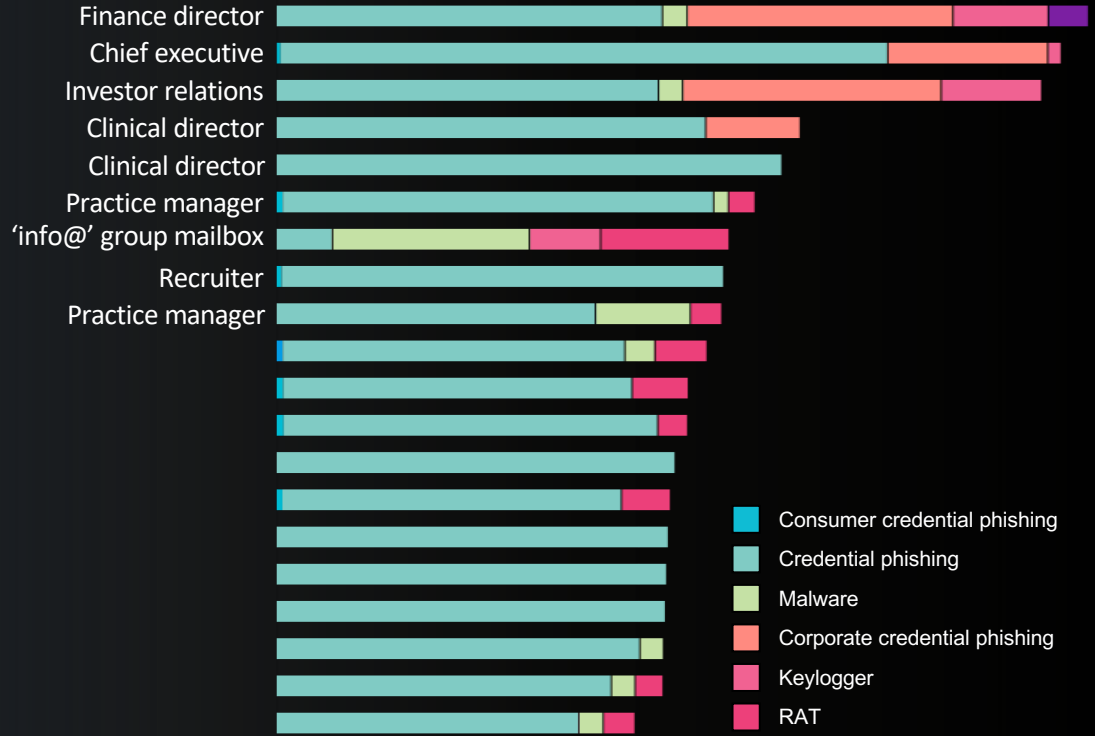
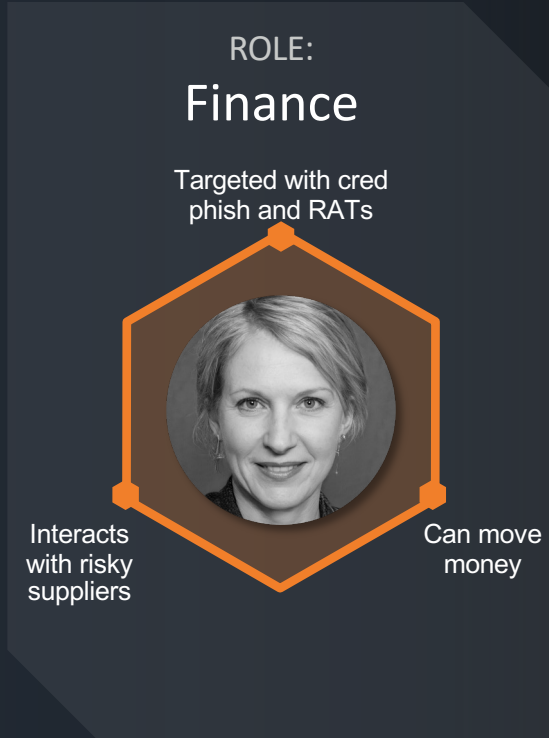
Your org threat landscape



- Credential phishing
- Malware
- Banking
- Botnet
- Corporate credential phishing
- Consumer credential phishing
- Keylogger
- Downloader
- Stealer
- RAT
- Pen-test
- Ransomware
- Malspam
- Spambot
- Backdoor
- Cryptocurrency miner

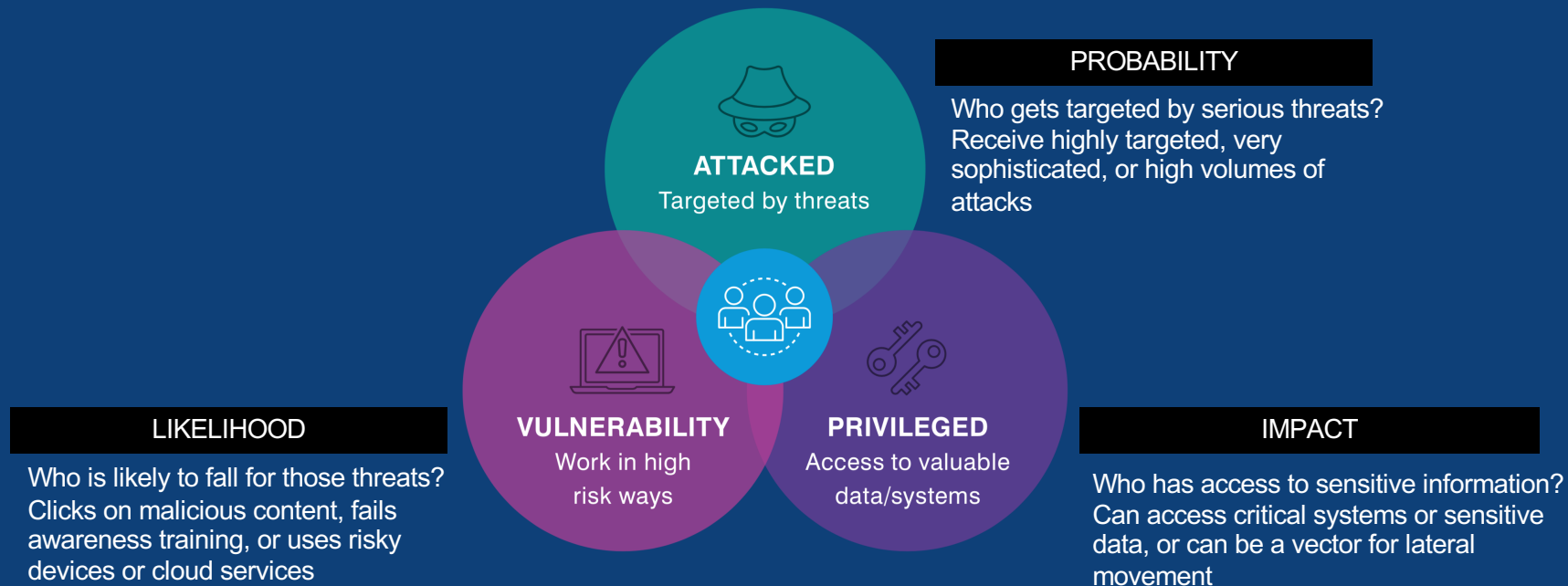
# Axis: People

People are different.... but targetable



# Axis: People & Data

Assess the human attack surface



DASHBOARD

Risk for date: 8/17/2020

Last Calculation of Risk: 8/16/20, 5:40 PM

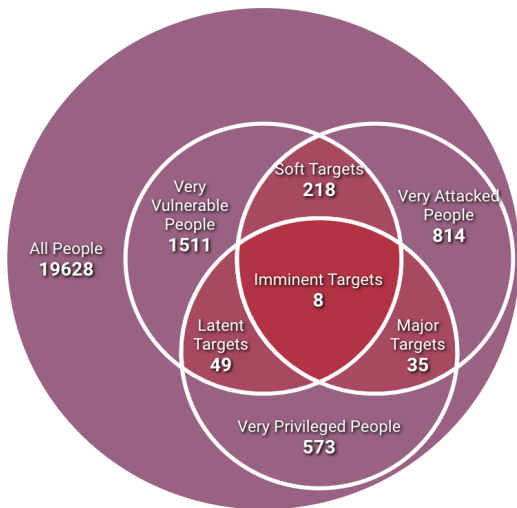
- ALL PEOPLE
- IMMINENT TARGETS
- MAJOR TARGETS
- LATENT TARGETS
- SOFT TARGETS
- VERY ATTACKED PEOPLE
- VERY VULNERABLE PEOPLE

- Overview
- New Comers
- Seniority
- Business Function
- Special

19628 TOTAL

Top Targets

Rank	Name	VIP	Risk
1	<b>Carmine Bowman</b> Payroll Services Senior HR Generalist		6.6
2	<b>Ieystn Mcintosh</b> Service Specialist		6.2
3	<b>Ilona Mann</b> Service Specialist		6.2
4	<b>Demetre Higgins</b> Sr Service Partner - GROUP Service		6.2
5	<b>Manfred Hudson</b> Service Partner - GROUP Service		6.2
6	<b>Janeva Morrison</b> Client Services Supervisor (CSS)		6
7	<b>Raman Dalton</b> Service Representative		6



4.2

Risk Level



Risk Motion



Attacked



Privileged



Vulnerable

Description

All employees of the organization including members of Very Attacked , Very Privileged and Very Vulnerable groups as well as all other people.



# Adaptive controls that protect people

## ROLE: Finance

Block impostor attacks with ML



Flag risky suppliers with tags

Train on BEC threats

## ROLE: Research Scientist

Web isolation to preserve privacy

Protect cloud collaboration with web, endpoint DLP



Deliver custom training on campaigns targeting intellectual property

## ROLE: Support

Isolate all links to shared alias so clicks do no harm



Use ITM to protect customer data

Train on data handling



Recon



Initial compromise



Persistence



Info gathering



Priv Esc



Lateral movement



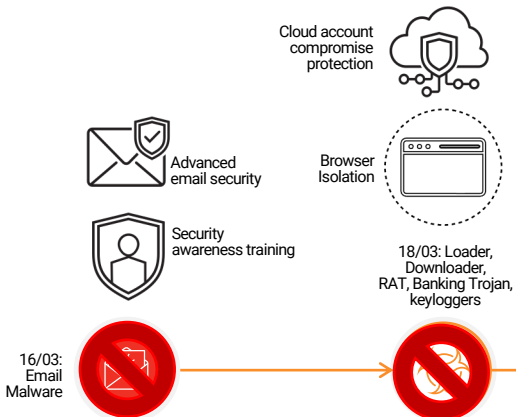
Staging



Impact

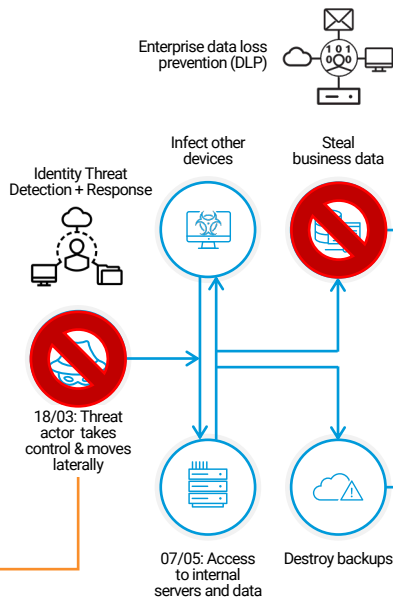
### Initial access

Attacker looks for a way into the organisation



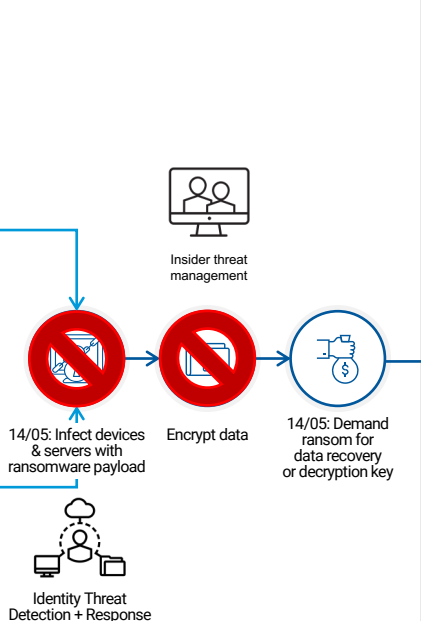
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# Protecting people

The new perimeter

**Protect people by blocking threats from reaching users and by training them.**

Education is more effective when it's:

- Individualised,
- Context specific and
- Delivered at a time, and in a way, the user prefers

**Knowledge of who is being attacked**, and with what, provides actionable intelligence to:

- Protect the individual & enterprise
- Drive user engagement
- Assess the threat actor goals

People Risk – Bring these together to **allow a risk-based approach**

- Automated, dynamic controls
- Personalised messaging & education
- Insightful Board level metrics

proofpoint.

Securing email. Protecting people. No compromises.

# Learn more

Uncover your Very Attacked People

[go.proofpoint.com/en-email-security-get-in-touch.html](https://go.proofpoint.com/en-email-security-get-in-touch.html)

## About Proofpoint Email Protection

More than 90% of targeted attacks start with email, and these security threats are always evolving.

Proofpoint Email Protection catches both known and unknown threats that others miss. By processing billions of messages each day, Proofpoint sees more threats, detects them faster, and better protects you against hard-to-detect malwareless threats, such as impostor emails.

## GET IN TOUCH WITH US

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