

# **RSA**Conference2019 **Asia Pacific & Japan**

Singapore | 16–18 July | Marina Bay Sands



**BETTER.**

SESSION ID: SEM-T03C

## **Neither Phish nor Flash: How Attackers Fish Businesses without Phishing**

**Rose Bernard**

Senior Manager, Strategic Intelligence  
Digital Shadows



#RSAC

# Key Takeaways

- By the end of this sessions you should:
  - Be able to recognize the changing landscape of business email compromise
  - A combination of people, process and technology is required to mitigate BEC
- Recognise key mitigation techniques, including:
  - Update Security Awareness Training and develop BEC Playbook
  - Build-in multiple person authorizations to approve significant wire transfers
  - 2FA to mitigate credential compromise
  - Monitor for executive over exposure online and domain impersonations

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# **Business Email Compromise: in thematic context**

**Social Engineering and Account Takeover**



# Business emails in demand

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- Contract scans
- Purchase orders
- Payroll information
- Financial reports





# Method 1: Social engineering



## Lazio football club fell for a €2 million email scam: report

AFP

news@thelocal.it  
@thelocalitaly28 March 2018  
17:07 CEST+02:00

football

sport

crime

lazio

Share this article



## Cyber-Scammers Steal €50 Million from Austrian Airplane Manufacturer

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FACC falls victim to a Business Email Compromise attack

Jan 21, 2016 13:55 GMT · By Catalin Cimpanu · Share:     

FACC Operations GmbH, an Austrian company that produces various airplane parts for companies like Airbus and Boeing, has announced a cyber-incident during which cyber-fraudsters managed to steal around €50 million from their bank accounts.

The company [published a note](#) about the incident on January 19, saying it was "a victim of a crime act using communication and information technologies."

FACC did not add anything more, except that the total damages were not yet fully accounted for, but the sum revolved around €50 million / \$54 million.

Bloomberg

Technology

## How One of Australia's Richest Men Lost \$1 Million in Email Scam

By Kaye Wiggins

15 December 2017, 10:58 GMT Updated on 15 December 2017, 14:55 GMT

- ▶ John Kahlbetzer's administrator was tricked to make payment
- ▶ Man accused of involvement in the fraud says he's a victim too

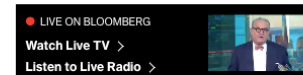
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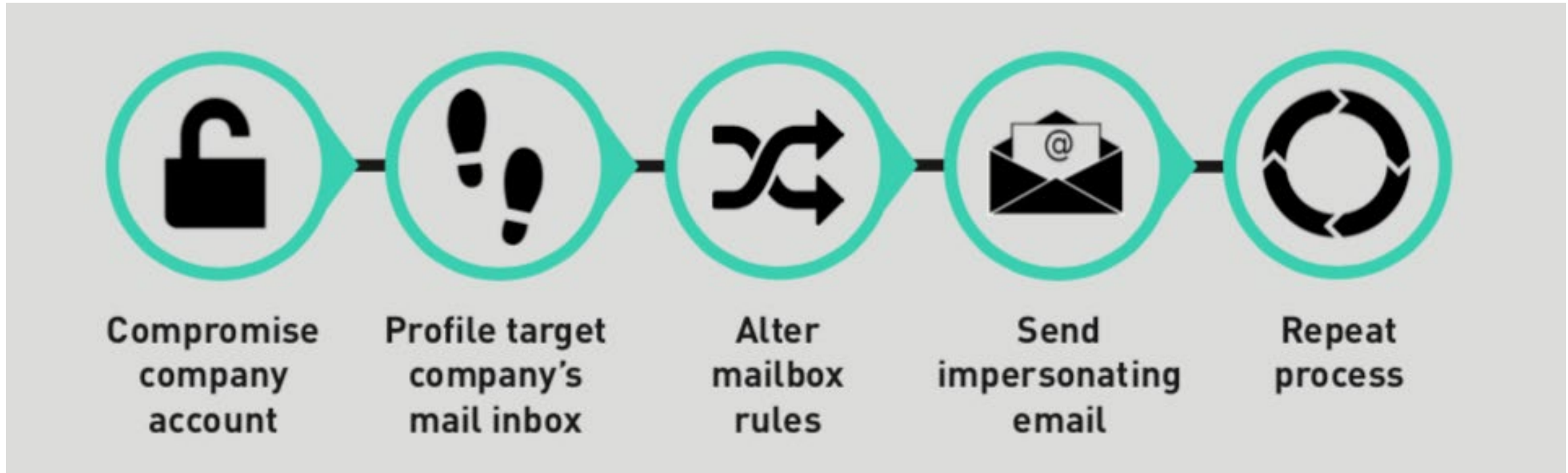
In this article

The multi-millionaire founder of Twynam Agricultural Group Pty Ltd, lost \$1 million in an email fraud, a London court heard Thursday. The British man who facilitated the theft says he's a victim too.

John Kahlbetzer, who is on the Forbes list of the 50 richest Australians, lost the money when fraudsters tricked the administrator of his personal finances into transferring it to them, his court papers say.



## Method 2: Account compromise



# Co-operative bank's email hacked, Rs 95 lakh looted

TNN | Updated: Jun 3, 2018, 20:03 IST



Representative image

based on a complaint filed by T L Hanumantharaya, chief executive officer, Sri Su Co-Operative Bank Ltd.

✉️ 🖨️ A- A+

BENGALURU: A private co-operative bank has alleged that tech-savvy criminals hacked into its official email and siphoned off Rs 95 lakh in two transactions on May 28 and 29 from their account at IDBI Bank.

Cybercrime police of the Criminal Investigation Department have filed a case against unknown persons

THE STRAITS TIMES

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## Police warn against scammers alerting WhatsApp users to account takeover scams





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**The future: new trends and themes**



# Multiple Ways of Accessing Inboxes without Phishing



## 1. Paying for access

It's possible to outsource this work to online actors, who will acquire company credentials for a set fee or percentage of earnings. The price will vary depending on the type of mail service, but services are available from as little as \$150.



## 2. Getting lucky with previously compromised credentials

It's common for employees to reuse passwords across multiple accounts. With many email and password combinations of finance departments email accounts already compromised, cybercriminals can get lucky.



## 3. Search across misconfigured archives

Why go to a dark web market when you can get sensitive information for free on the open web? With employees and contractors having to turn to easy, rather than secure, ways of archiving their emails, the barrier for cybercriminals is dramatically reduced.

# Paying for Access: going out for tender



bosskel

Joined: 3 years ago  
0 posts

Primary post

Hi I need fresh **Australia** and Europe business email and pass I am ready to buy. Please contact me on ICQ :678166154

[Home](#) > [Buy, Sell, Trade, Services Offered / Wanted](#) > Topic

[Advanced](#)

## Buying hacked company email accounts

Posted by [JulieCash](#)

[Forum List](#) [Message List](#) [New Topic](#)

[JulieCash](#)

[Buying hacked company email accounts](#)

August 02, 2018 04:56AM

Up to \$5000 all via WSM escrow

[Business/Corporate Email Hacking](#)  
asked Jan 20 in [Hidden Answers](#) by C

- [email](#)
- [hacking](#)
- [database](#)
- [business](#)
- [corporate](#)

# Getting lucky with previously compromised credentials

- 437,746 finance department email addresses exposed in third party breaches
- 34,000+ APAC domains
- Searched for:
  - accounts@company.com
  - payments@company.com
  - receivable@company.com

Top Level Domain	Credentials Exposed
.com.au	20898
.in	5040
.co.in	3120
.co.nz	1707
.net.au	1018
.com.hk	743
.org.au	564
.com.sg	508
.comau	367
.tv	326
<b>Total</b>	<b>34291</b>



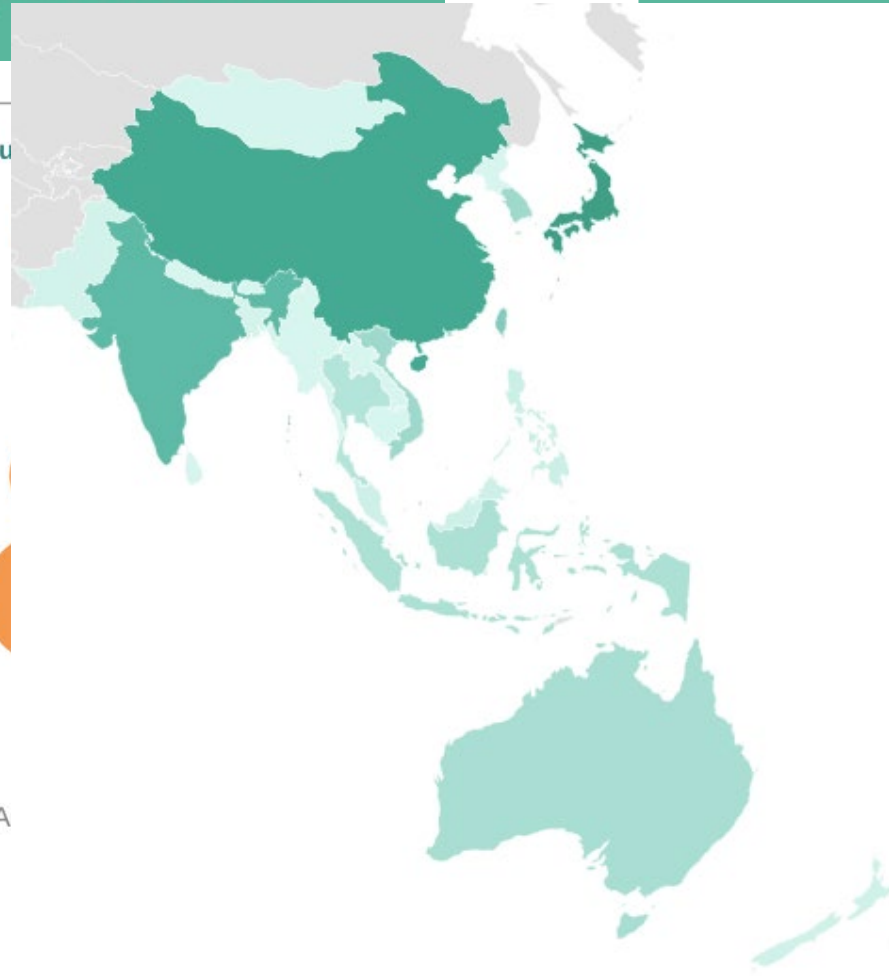
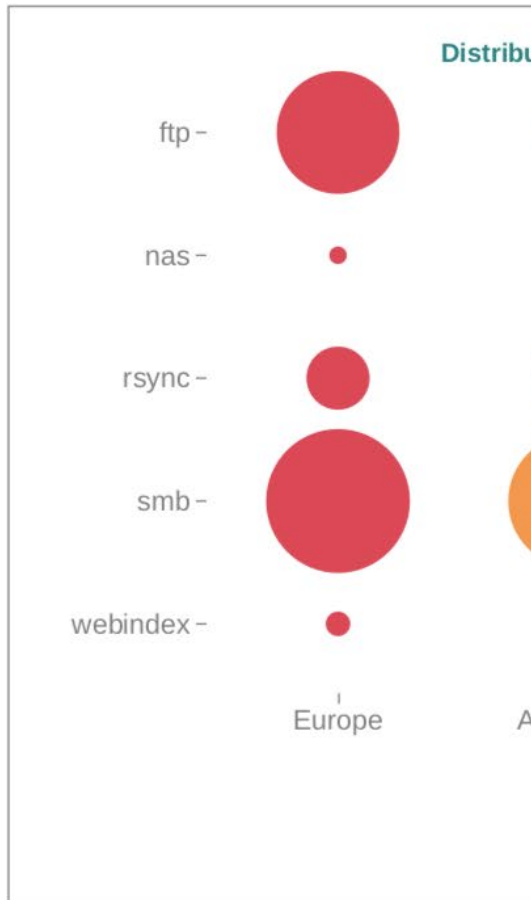
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## **Business Email Compromise: new trends and themes in geographic context**



**2,326,558,731**  
files currently exposed online

**50% increase**  
in file exposure since  
March 2018



Region	File exposure
Europe	1,053,665,953
Americas	590,056,298
Asia-Pacific	399,300,440
Middle East	56,704,649
Africa	31,883,980
Central Asia	1,189,421

# Singapore healthcare database hit by 'major cyber-attack'

James Walker 20 July 2018 at 15:00 UTC

Healthcare Data Breach Singapore

Data breach impacting 1.5m people was "deliberate, targeted, and well-planned"



Singapore

## Singapore health system hit by 'most serious breach of personal data' in cyberattack; PM Lee's data targeted

A total of 1.5 million SingHealth patients' non-medical personal data were stolen, while 160,000 of those had their dispensed medicines' records taken too, according to MCI and MOH.

## Firms fined \$1M for SingHealth data security breach

SingHealth and Singapore's public healthcare sector IT agency IHIS have been slapped with S\$250,000 and S\$750,000 financial penalties, respectively, for the July 2018 cybersecurity attack that breached the country's personal data protection act. The fines are the highest dished out to date.



By [Eileen Yu](#) for [By The Way](#) | January 15, 2019 -- 10:41 GMT (02:41 PST) | Topic: [Security](#)

SingHealth, the largest healthcare group in Singapore, has been the target of a "major cyber-attack" that resulted in the personal information of around 1.5 million individuals being compromised – including that of Prime Minister Lee Hsien Loong.



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## **Mitigating the risk**





# Mitigating the Risk

1. Multi-factor authentication
2. Update security awareness training to include BEC scenario
3. BEC playbook
4. Work with your wire transfer application vendors to build in multiple person authorizations to approve significant wire transfers
5. Conduct ongoing assessments of your executive's digital footprints
6. Properly configure and authenticate file sharing services and NAS devices

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## **Key takeaways**



# Key takeaways

Many ways to access email inboxes  
without phishing

1. Paying for access
2. Getting lucky with previously compromised credentials
3. Searching across misconfigured archives

# Key takeaways

- A combination of people, process and technology is required to mitigate BEC
  - Update Security Awareness Training and develop BEC Playbook
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