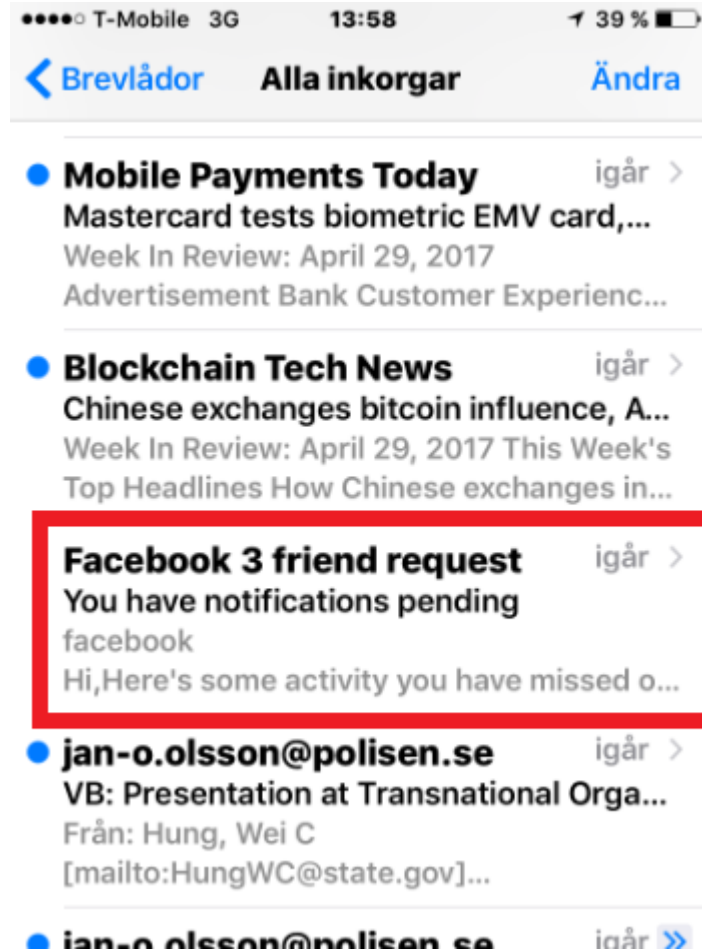


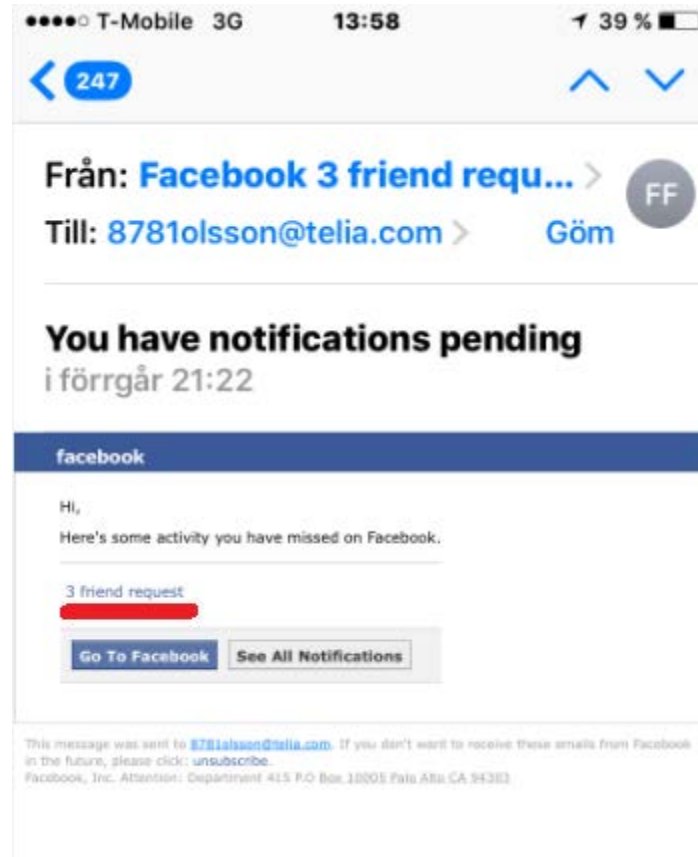
# Creditcard Fraud and Fraud Prevention Strategies

Swedish National Fraud Center, NBC  
Jan Olsson





# Finally popular.....



# What the .....

Mail 3G 13:59 39%

octanegolf.com.sg

CanadianPharmacy

EN USD Product Search

**Erection Powerpack only for \$74.95**  
10 pills Viagra + 10 pills Cialis

**Special Deals (Limited-Time Offer)**

Product	Original Price	Discount	Final Price
Viagra	\$1.16	25% OFF	\$0.86
Cialis	\$1.99	20% OFF	\$1.59
Viagra Super Active+	\$3.00	15% OFF	\$2.55
Levitra	\$2.24	10% OFF	\$2.02

**Categories**

**Most Popular Products**

Product	Price	Category
Viagra Super Force	\$4.25	Erectile
Pink Female Viagra	\$0.72	Female
Viagra Professional	\$0.72	Erectile
Cialis Super Active+	\$2.99	ED, Erectile

# Fraud, is that a problem?

# Global Remarks

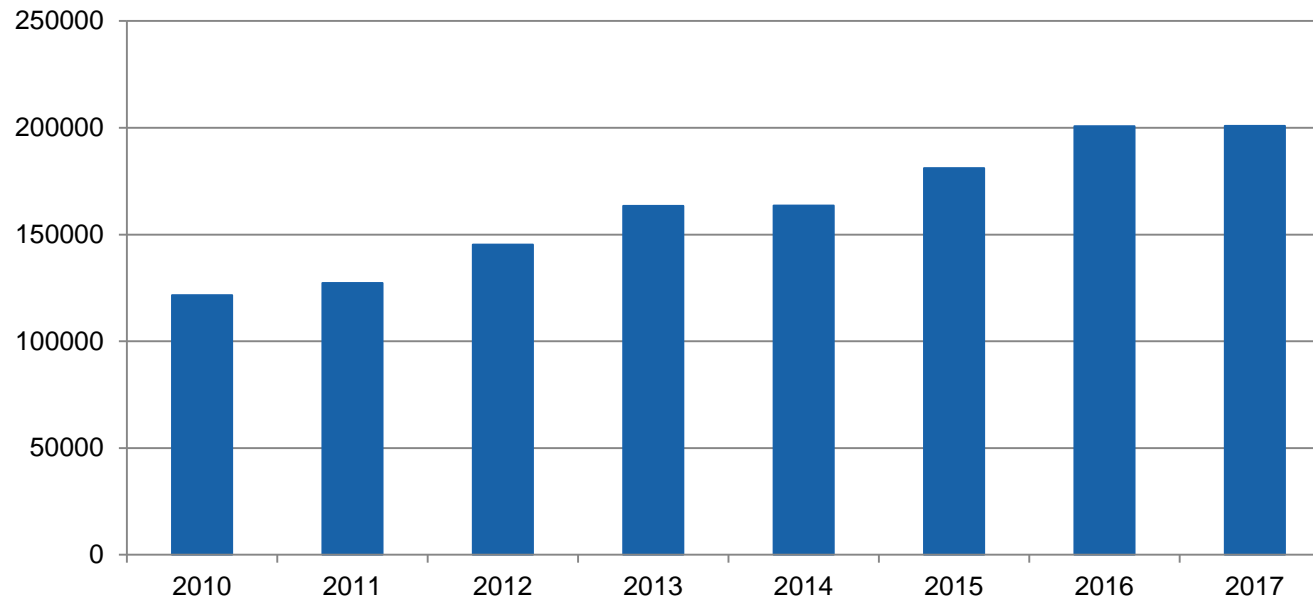
**3.840.000.000.000 Euro = The global costs of Fraud**

(Infosecurity)

**5.500.000.000.000 Euro = The global costs for  
company's due to data breaches**

(Nordea Bank)

# Fraud Reported to Swedish Police



2010	2011	2012	2013	2014	2015	2016	2017
121 640	127 244	145 327	163 361	163 550	181 135	200 751	200 913

# Card not present, CNP

Stay secure when buying online



**3D Secure**

Verified by  
**VISA**

**MasterCard.**  
SecureCode.

2017: 80.000 reported cnp fraud, the real real number was 160.000



# Card information ?

- **Data Breach**
- **Pos Malware**
- **Keylogger internt/externt**
  - **Phishing**

# Data Breaches

Zappos	24,000,000	web	hacked
Sony Online Entertainment	24,600,000	gaming	hacked
UK Revenue & Customs	25,000,000	government	lost / stolen media
U.S. Department of Veteran Affairs	26,500,000	government, military	lost / stolen computer
Tianya Club	28,000,000	web	hacked
Taringa	28,722,877	web	hacked
Ashley Madison	32,000,000	web	hacked
RockYou!	32,000,000	web, gaming	hacked
Steam	35,000,000	web	hacked
CardSystems Solutions Inc. (MasterCard, Visa, Discover Financial Services and American Express)	40,000,000	financial	hacked
Weebly	43,430,318	web	hacked
Evernote	50,000,000	web	hacked
Living Social	50,000,000	web	hacked
Commission on Elections	55,000,000	government	hacked
Home Depot	56,000,000	retail	hacked
Tumblr	65,469,298	web	hacked
Target Corporation	70,000,000	retail	hacked
JP Morgan Chase	76,000,000	financial	hacked
National Archives and Records Administration (U.S. military veterans' records)	76,000,000	military	lost / stolen media
Sony PlayStation Network	77,000,000	gaming	hacked
Anthem Inc.	80,000,000	healthcare	hacked
AOL	82,000,000	web	inside job, hacked
TK / TJ Maxx	94,000,000	retail	hacked
Rambler.ru	98,167,935	web	hacked
Heartland	130,000,000	financial	hacked
Equifax	143,000,000	financial, credit reporting	hacked
eBay	145,000,000	web	hacked
Adobe Systems	152,000,000	tech	hacked
Massive American business hack including 7-Eleven and Nasdaq	160,000,000	financial	hacked
Friend Finder Networks	412,214,295	web	poor security / hacked
Yahoo	500,000,000	web	hacked
Yahoo	3 000 000 000	web	hacked

# Equifax - Interesting Breach summer 2017

- **Equifax Inc.** is a consumer credit reporting agency in the US
- collects and aggregates information on over 800 million individual consumers and more than 88 million businesses worldwide.
- cybercriminals accessed approximately 145.5 million U.S. Equifax consumers' personal data, including their full names, Social Security numbers, birth dates, addresses, and, in some cases, driver license numbers.
- at least 209,000 consumers' credit card credentials were taken in the attack.
- Residents in the United Kingdom and Canada were also impacted

# Magnitude/Vulnerability

## Trustwawe Spiderlabs

- 81% didn't discovered it themselves
- 98% of the surveyed companies had weaknesses
- 95% mobile apps had weaknesses

The criminal's return was staggering 1425%

# IBM

- 256 days for discovery
  - 158 days to delete
  - Average cost per company about 50 million sek (530.000 Euro)
  - Cost per data record 1.400 sek ( 150 Euro)
- (Centric och Ponemon Institute)

# HP

- Of 200 companies with more than 1,000 employees, 100% were exposed to data breach, of which 67% in the past year

# Can the private sector prevent CNP?

Monitorising ( ecommerce kyc)

3D-Secure!

Amex Safekey – Dynamic Password

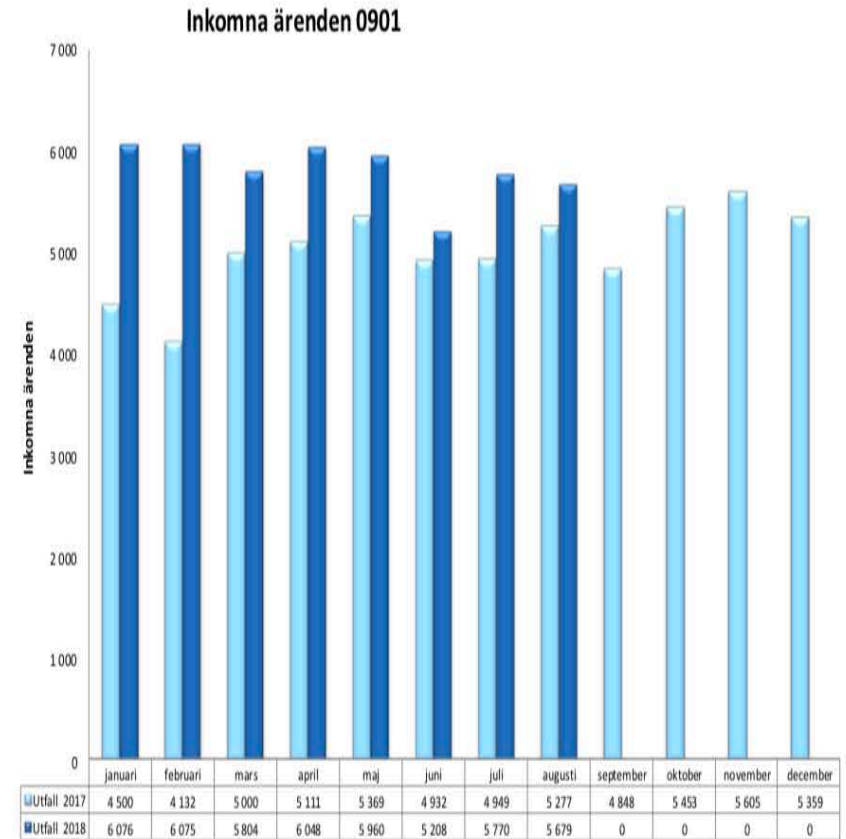
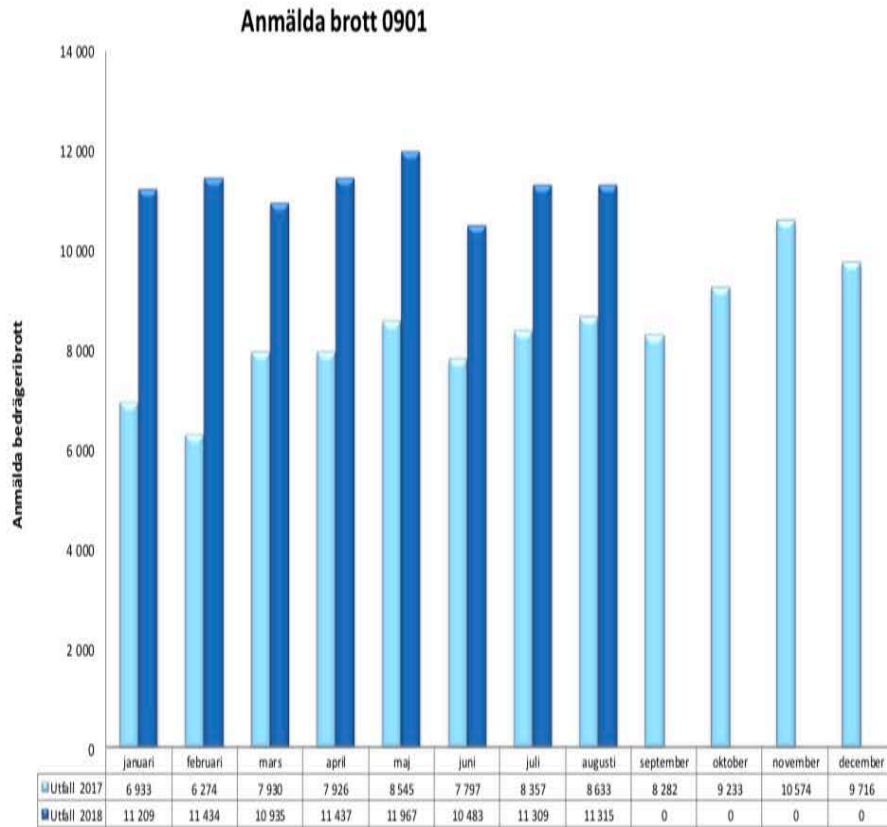
Gemalto, Oberthur – Dynamic CVV

Swedbank

**Internet barrier / Geoblocking**

(PSD2/GDPR)

# CNP 2018



40% increase so far...

# Reasons for the increase

- **Card On File (CPP)**
- **Payment App:s on smartphones (Cash-Out)**
- **Chinese e-comm merchants (CPP and Cash-Out)**
- **Test purchases**



# Is investigation the solution?

- 201 000 reported fraud cases
- Increase each year 10-15 %
- 80 000 CNP cases (160.000)
- 267 fraud investigators
- 30 of them just administrate CNP reports ( read and kill ).
- **Impossible...**

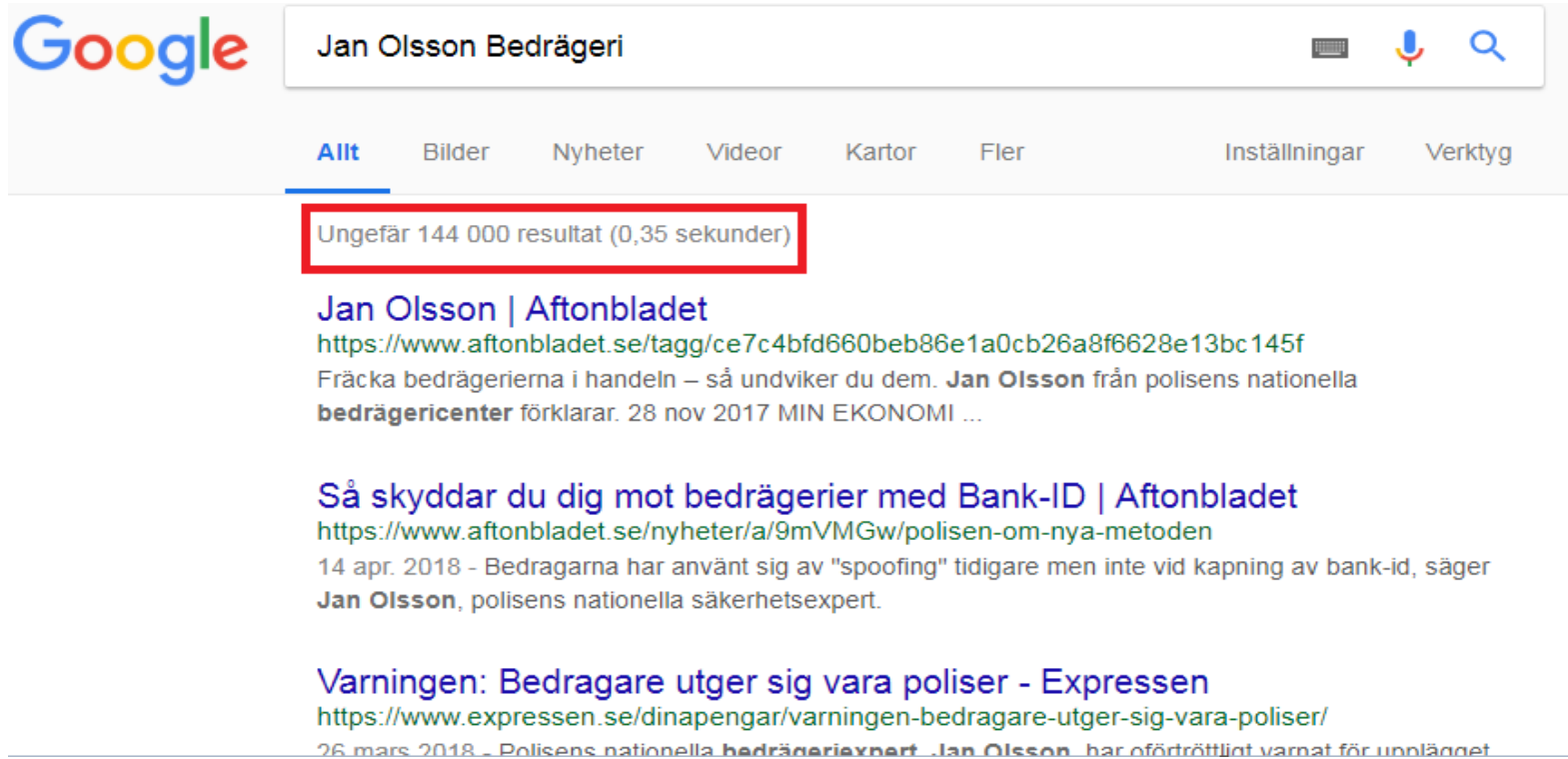
# Prevention

- **Awareness**
- **Affect those who own the tools to prevent the fraud**
- **Find out what makes the fraud possible**
- **Opinions publicly - Take advantage of the opportunity**

# AWARENESS

## Use media to alert but also to affect

(The search: my name and “fraud” gave 144.000 hits)



The image shows a Google search interface. The search bar contains the text "Jan Olsson Bedrägeri". Below the search bar, the "Allt" tab is selected. A red box highlights the search results summary: "Ungefär 144 000 resultat (0,35 sekunder)". Below this, three search results are visible:

- Jan Olsson | Aftonbladet**  
<https://www.aftonbladet.se/tagg/ce7c4bfd660beb86e1a0cb26a8f6628e13bc145f>  
Fräcka bedrägerierna i handeln – så undviker du dem. **Jan Olsson** från polisens nationella bedrägericenter förklarar. 28 nov 2017 MIN EKONOMI ...
- Så skyddar du dig mot bedrägerier med Bank-ID | Aftonbladet**  
<https://www.aftonbladet.se/nyheter/a/9mVMGw/polisen-om-nya-metoden>  
14 apr. 2018 - Bedragarna har använt sig av "spoofing" tidigare men inte vid kapning av bank-id, säger **Jan Olsson**, polisens nationella säkerhetsexpert.
- Varningen: Bedragare utger sig vara poliser - Expressen**  
<https://www.expressen.se/dinapengar/varningen-bedragare-utger-sig-vara-poliser/>  
26 mars 2018 - Polisens nationella bedrägeriexpert **Jan Olsson** har oförtröttligt varnat för upplägget

It is about informing the public, businesses, organizations and politicians, at all levels, what to do and what not to do.

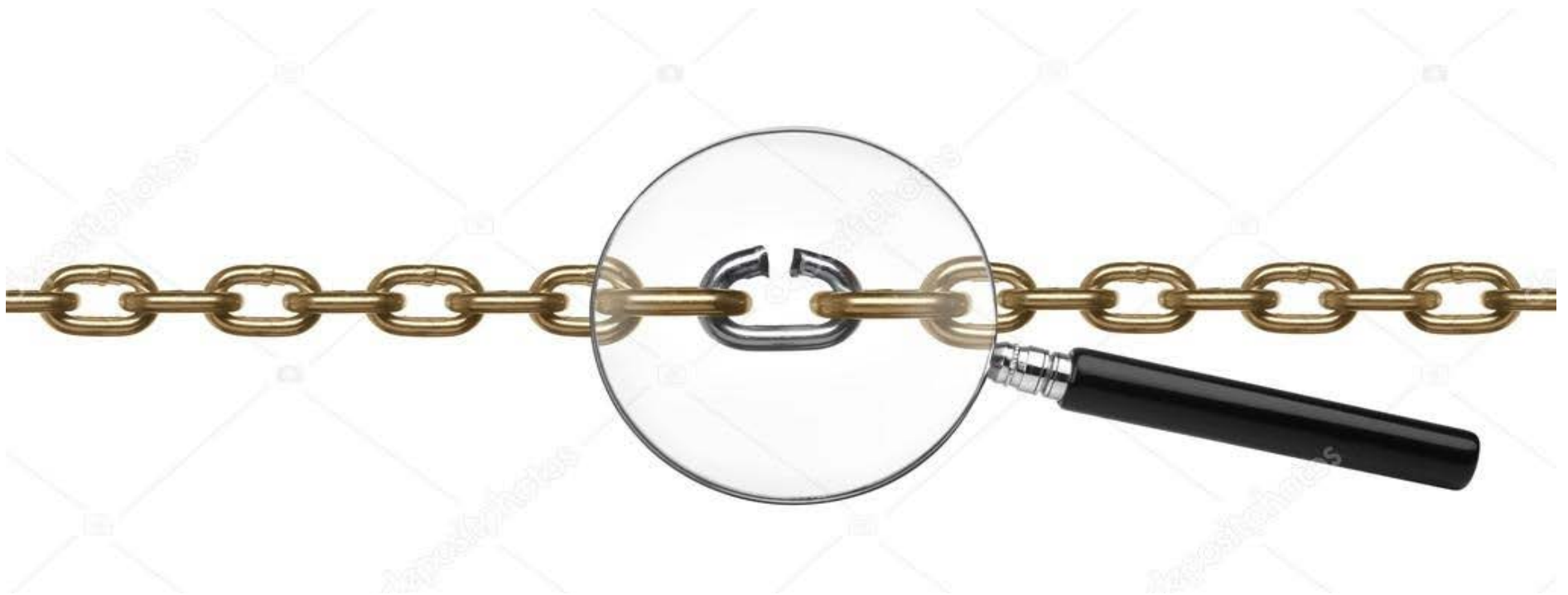
# Affect those who own the tools

Together we are strong, alone we are nothing.

- The LEA can't do anything by themselves
- Create strong, permanent and ongoing partnerships with external partners
- Influence process owners against a higher level of security

# Find out what makes the fraud possible

Analyze the chain and find the weak link..



# Drive opinion

- **Inform the politicians and those who own the process that creates the problem, it works, they can make a difference..**
- **Use Media as an ax..**
- **What is said on television and written in the newspapers is read by police management, companies and politicians**

# Global actions with preventive results



**EUROPOL**  
**EC3** | European Cybercrime  
Centre



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- GAAD (Global Airport Action Days)
- ecommerce days
- EMMA 4 (Moneymules)
- Topp100 Fraudsters

@EC3Europol

Europol Unclassified - Basic Protection level

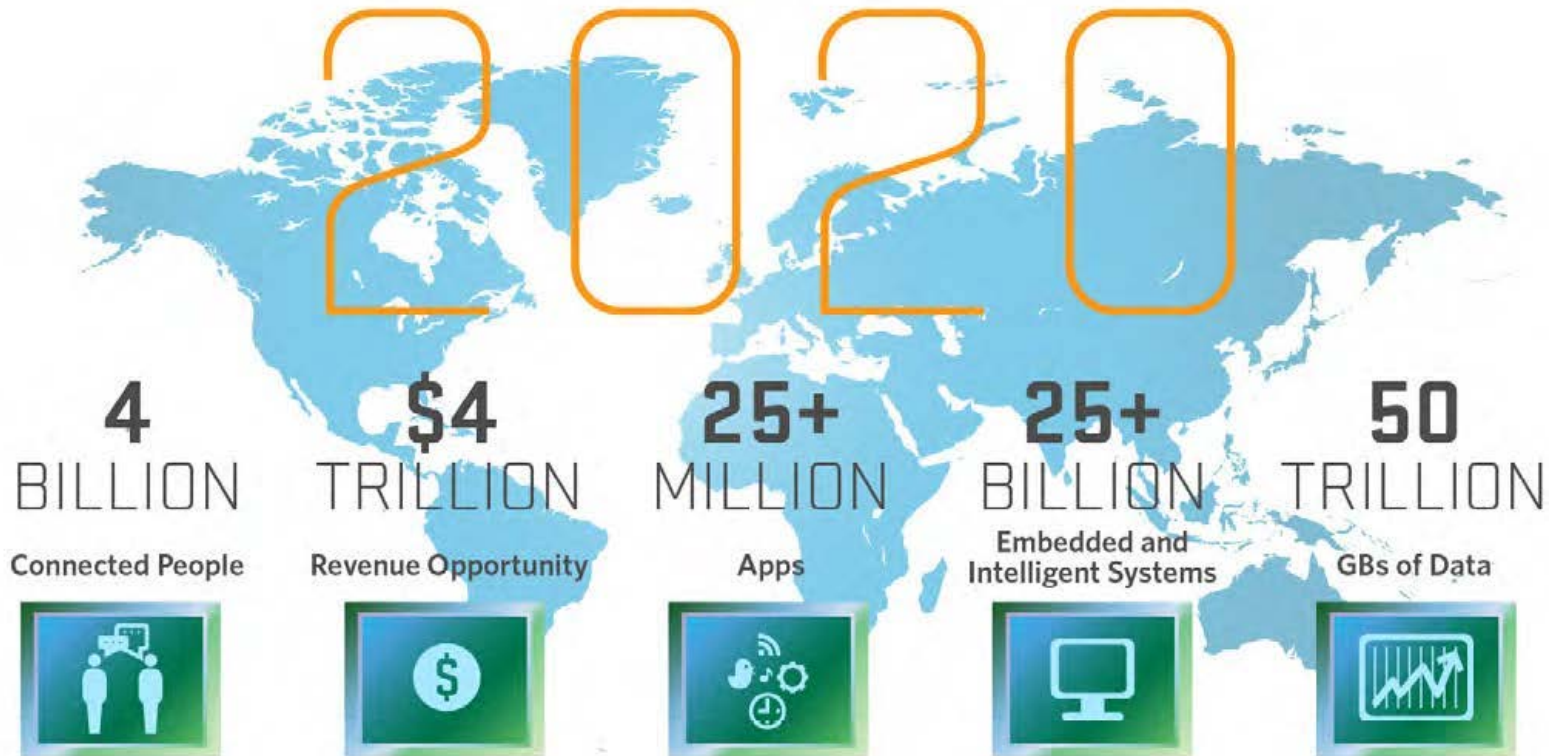


# IOT





# IOT

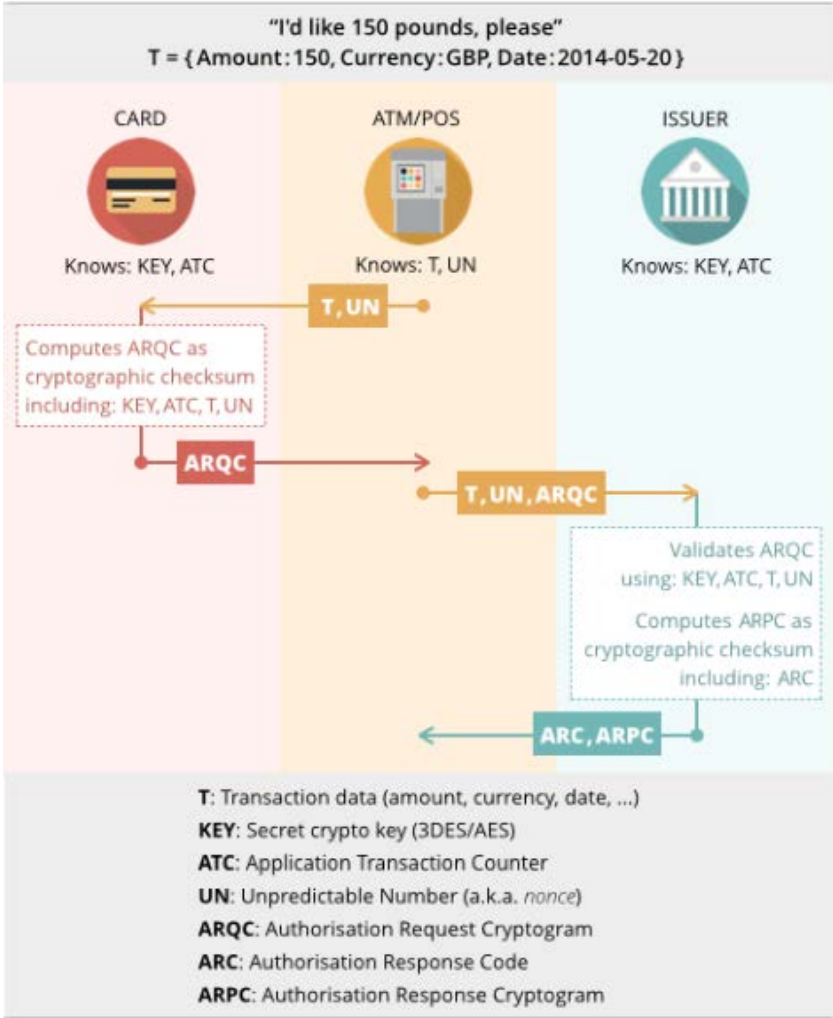


# IOT

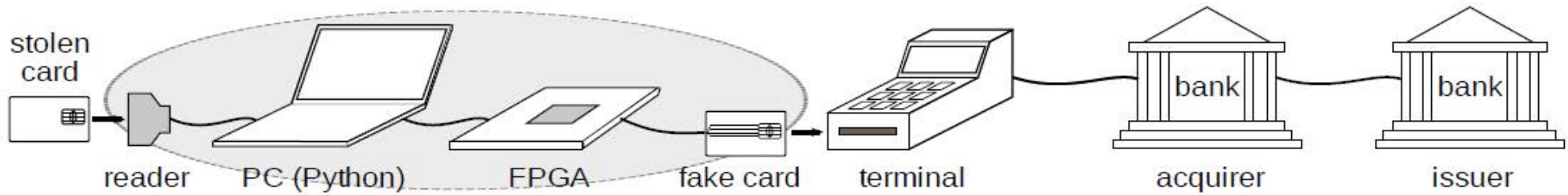
Eller när sker det första digitala mordet?

# Who is in the lead of development ?

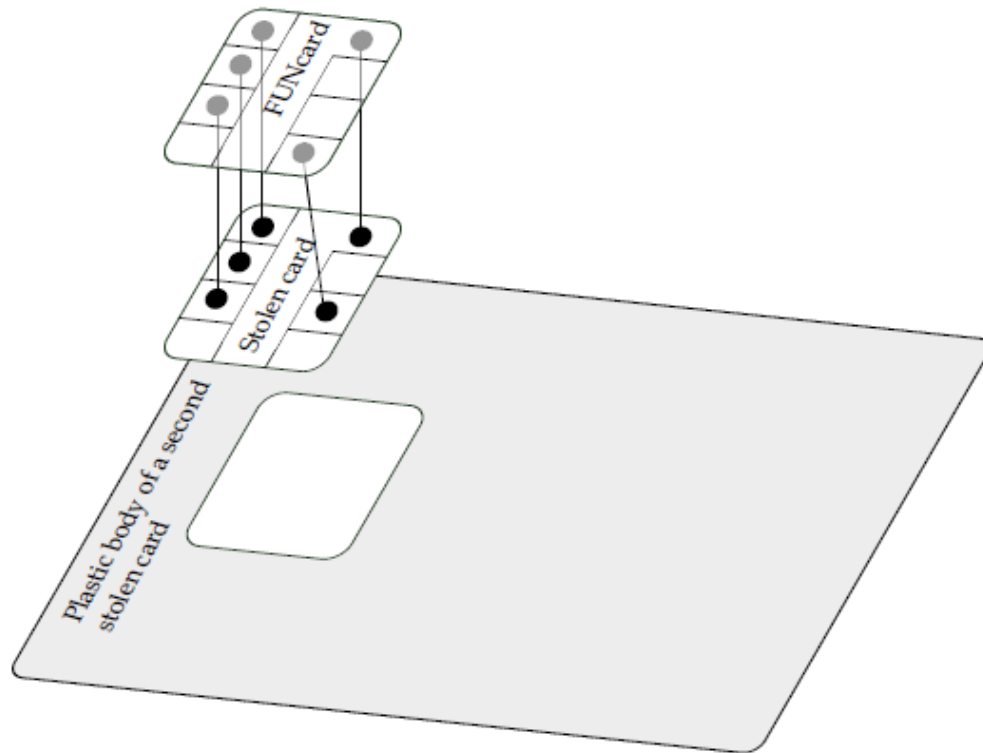
# Cambridge report 2010, a man-in-the-middle attack.



# Equipment needed, 2010-2011



# Simultaneously in a basement



40 st cards, 680.000 dollar.

# Impact of the fraud situation

- A treath to the monitary system
- A treath to society

**But:**

- Too much losses increase the propensity of change
- PSD2/GDPR

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