



# Abuse





# Abuse

IIS Registry  
**Abuse and Prevention**  
Peter Forsman



photo:@kalexanderson

IIS Registry since 2009, Domain industry since 2002, Computer training since 1994

# Alter ego

Publicist, Lecturer  
Analyst, Investigator

Pro Bono



photo: Magazine Café

Contributor / Awareness

# Alter ego

Mass Media

Law Enforcement

Trends, Modus Operandi  
OSINT



Sometimes need to dig deep..

# Alter ego

Mass Media

Law Enforcement

Trends, Modus Operandi

OSINT



photo: [imagecollectiononline.com](https://www.imagecollectiononline.com)

# Alter ego

Mass Media

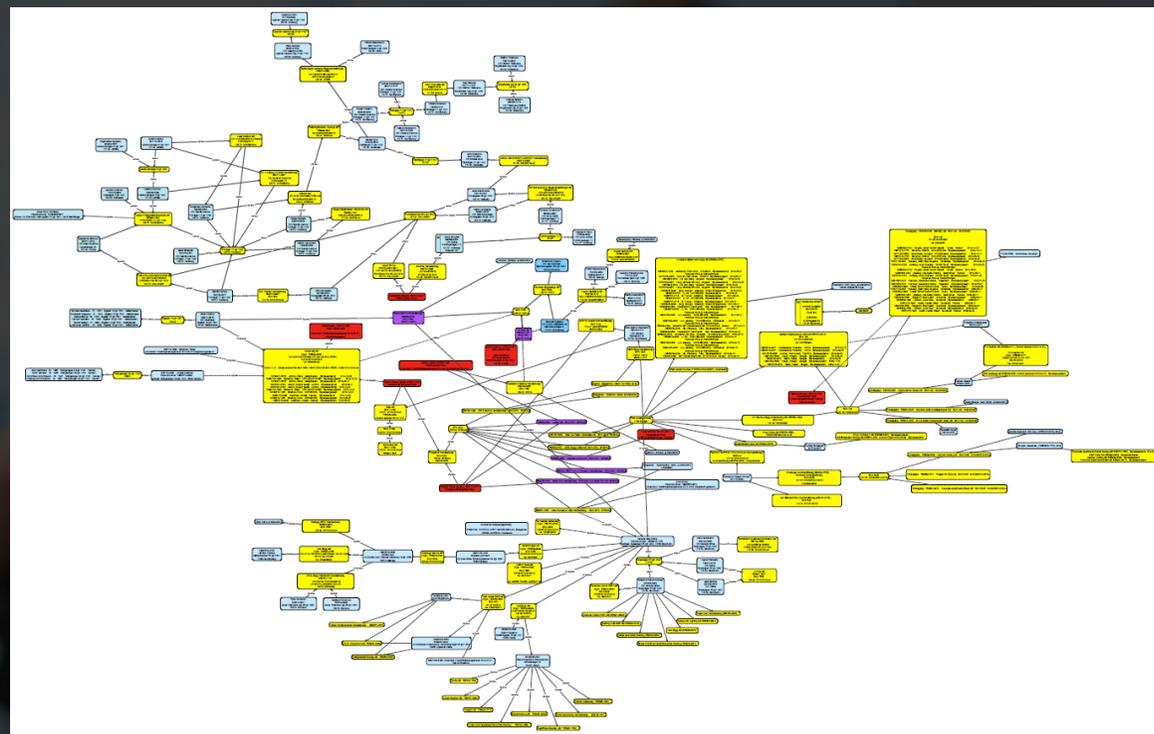
Law Enforcement

Trends, Modus Operandi

OSINT

Open Source Intelligence  
(Open sources on the internet)

..and largely to get the whole picture.





# The boundary between..

The **only** way to **prevent** and **bring awareness**, is to fully **understand** it yourself..

..but only tell the necessary parts to the public

Otherwise, awareness risks to be a balance that borders to be a **useful idiot** to new fraudsters

# Traditional smörgåsbord



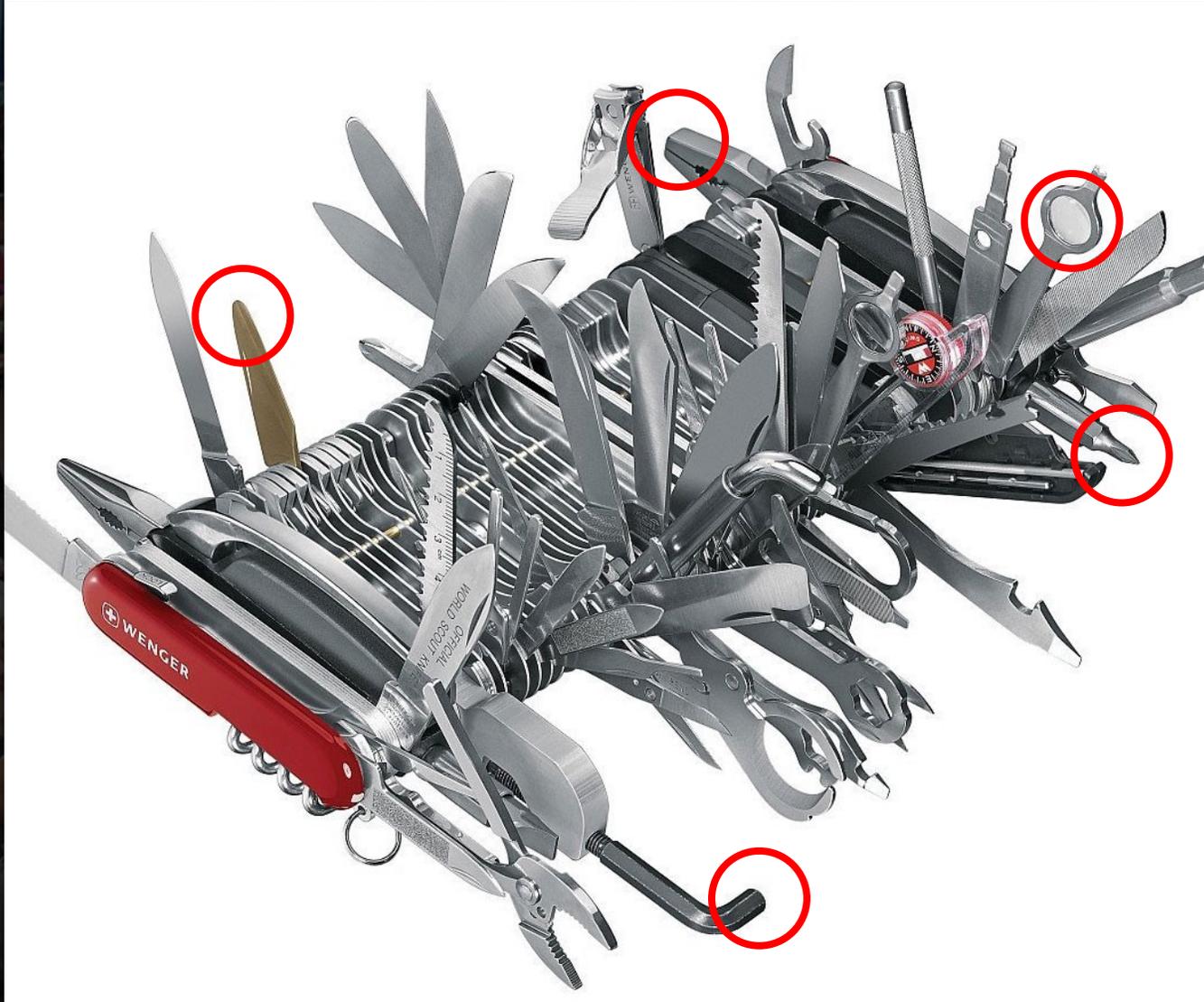
naah..

# Customize



Pick what components  
you need!

# Variations..



Targets  
Setups  
Approach  
Marketing  
Distribution  
Layers of decoys

# Next phase..



**When you got your victims.**

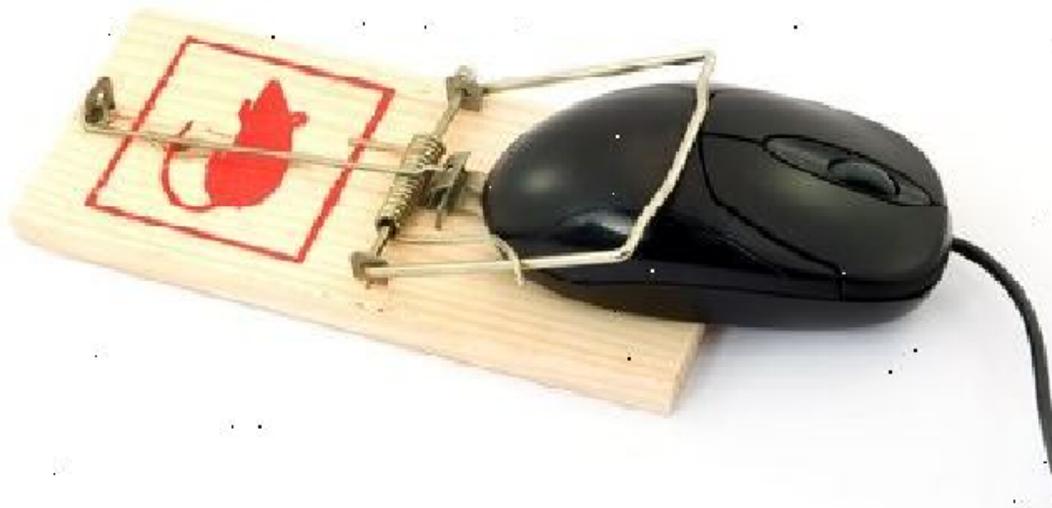
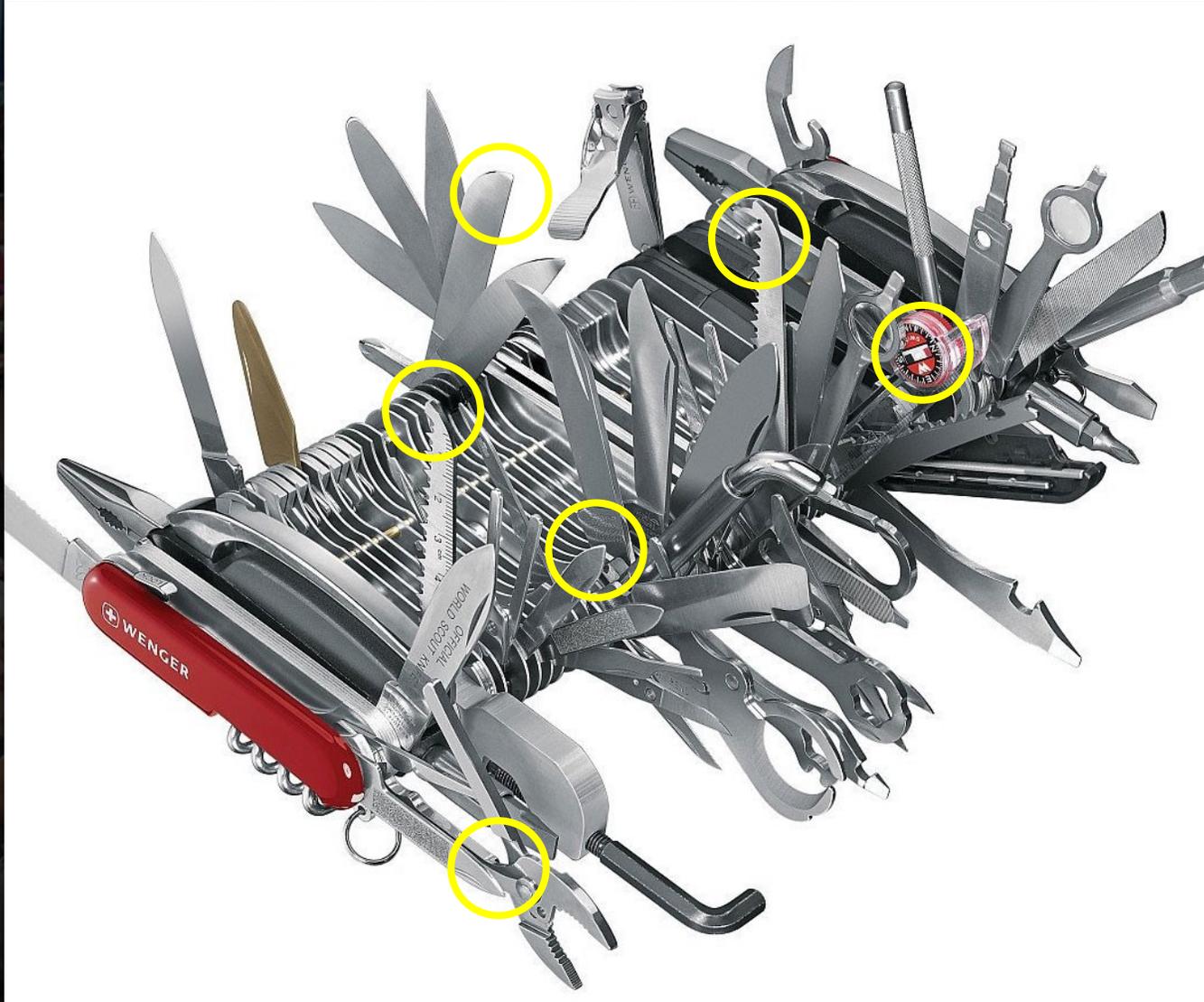


photo: dreamstime.com

# Hide and seek..



Targets  
Setups  
Approach  
Marketing  
Distribution  
Layers of decoys

Payment methods  
Layers of payees  
Decoys  
Risk spreading  
Money laundering  
Etc.

**Squeeze value from info**

# In the past few year(s)

Domain name related abuse

# False registrant data

Q1 2017:

Appr. 6500 .se-domains were deactivated and later released. (Reason: **Reuse** of names, orgno, email etc.)  
fictive identities

# False registrant data

*"Learn and adapt"*

But since May 2017:

The contacts is **only related to 2 domains each.**

And the problems continues.

What kind of problems?

# False registrant data

It may be a *new look*, but it's the "same coin"

- False "generated" information  
(often with own valid email and phone)
- "Hijacked" information from other registrants – looks valid!  
(often with own valid email and phone)



photo: riksbank.se

## Contact information for domain

As of June 3, 2013 the contact information for private persons/sole traders will only be shown if the holder of the domain name has approved the publication.

Contact ID	stifte0702-00242
Name	Måns Jonasson
Organization	IIS
Organization number	[SE]802405-0190
Holder e-mail address	varadomaner@iis.se
Address row 1	Box 7399
Address row 2	-
Address row 3	-
Zip code	10391
City	Stockholm
Country	SE
Phone	+46.84523500
Fax	+46.84523502
Contact created	2007-02-09
Contact last updated	2016-04-21
Registrar	SE Direkt

## Contact information for domain

As of June 3, 2013 the contact information for private persons/sole traders will only be shown if the holder of the domain name has approved the publication.

Contact ID	petint7829-00001
Name	(not shown)
Organization	(not shown)
Organization number	(not shown)
Holder e-mail address	(not shown)
Address row 1	(not shown)
Address row 2	(not shown)
Address row 3	(not shown)
Zip code	(not shown)
City	(not shown)
Country	(not shown)
Phone	(not shown)
Fax	(not shown)
Contact created	2012-12-01
Contact last updated	-
Registrar	Loopia AB

# Released ..with a history

Backlinks to a domain.. along with **historical hijacked content** is being abused for Grey/Black Hat SEO and especially for an increasing amount of **false** Counterfeit websites.

## Domännamn som blir lediga att registrera imorgon 04:00 UTC

Inloggade gratisanvändare ser data 2 dagar fram, 20 dagar för betalande användare.

### Sektion 1: Domäner med inlänkar

Domän med Majestic Kategori	DomainStats.io Backlink Score	Ahrefs Linking Domains	Ahrefs URL Rating	Majestic Trust Flow	Moz Domain Authority	Google PageRank	Facebook	Wayback Archive	Domain Score	Dropdatum
<a href="https://instagramlikes.se">instagramlikes.se</a>	-20	16 (-49)	16 (-13)	0 (+0)	10 (-2)	N/A	846	4 gånger sedan 2015	0	16 Nov 2017
<a href="https://vintagehoneymoon.se">vintagehoneymoon.se</a> Business > Arts and Entertainment Språket på inlänkar: svenska	227	110 (+29)	28 (+3)	8 (-5)	28 (+1)	3	426	21 gånger sedan 2012	4	16 Nov 2017
<a href="https://landvetterlekland.se">landvetterlekland.se</a>	-22	10 (+4)	12 (+4)	0	10 (+2)	0	291	11 gånger sedan 2013	0	16 Nov 2017
<a href="https://freddiessportsbar.se">freddiessportsbar.se</a>		13 (-5)	17 (-2)	0 (-7)	11 (-11)	2	227	17 gånger sedan 2013	1	16 Nov 2017
<a href="https://tunneloppet.se">tunneloppet.se</a> Sports > Organizations Språket på inlänkar: svenska	9	29 (+1)	19 (-3)	14 (+0)	17 (-1)	1	76	52 gånger sedan 2003	0	16 Nov 2017
<a href="https://hudhalsan.se">hudhalsan.se</a>	-16	12	14	0	10		53	56 gånger sedan 2004	1	16 Nov 2017
<a href="https://kidzshop.se">kidzshop.se</a> Home > Family Språket på inlänkar: svenska	18	37 (+22)	22 (+5)	8 (-1)	19 (+6)	1	45	61 gånger sedan 2006	1	16 Nov 2017

# Released ..with a history

Appr. 70% of caught names left a lifecycle of 2-10 years

From 50 up to 500 each day

Nytt meddelande

Till Peter Forsman <info@intemetsweden.com>

Från Peter Forsman <info@intemetsweden.com>

About the same proportion we see the addresses in a e-mail client..

Nytt meddelande

Till Peter Forsman <info@intemetsweden.com>

Från Peter Forsman <info@intemetsweden.com>

Nytt meddelande

Till Peter Forsman <info@intemetsweden.com>

Från Peter Forsman <info@intemetsweden.com>

# CEO Frauds / BEC - typos

Nytt meddelande

Till Peter Forsman <info@intemetsweden.com>

Från Peter Forsman <info@intemetsweden.com>

Nytt meddelande

Till Peter Forsman <info@intemetsweden.com>

Från Peter Forsman <info@intemetsweden.com>

# CEO Frauds / BEC - typos

l instead of i

q instead of g

0 instead of o

**r+n instead of m**

n instead of m

Dashes (-) in domains

svenska\*

sveriges\*

swedish\*

\*ab.se

\*sverige.se

\*sweden.se

# CEO Frauds / BEC

**Spooferd** e-mail addresses (one way communication)

E-mail under **Typo Domains** (Two-way communications)

E-mail under **Alt. TLD** (Two-way communications)

Free web mail, **Displayed Names** (Two-way communications)

+ other types, that I will show you!

BEC is the "new" 419 type of scams..

# CEO Frauds / BEC

- But comes in variations.. Either pretty simple comparable to **spear phishing mail** (Usually either **9 600** or **36 000 EUR**)
- Or advanced and sophisticated, often initiated by a trojan, man-in-the-email, etc  
Many phases and steps, before "the hit"  
More comparable with **romance scams**

..up to **50 000 000 EUR** or even **100 000 000 USD**

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

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.

screen: softpedia.com



screen: fortune.com

## Exclusive: Facebook and Google Were Victims of \$100M Payment Scam



By Jeff John Roberts April 27, 2017

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

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screen: softpedia.com



Law Enforcement estimates that **20 percent of BEC succeeds**

screen: fortune.com



## Public Service Announcement

FEDERAL BUREAU OF INVESTIGATION



**May 04, 2017**

Alert Number  
**I-050417-PSA**

Questions regarding this PSA should be directed to your local **FBI Field Office**.

Local Field Office Locations:  
[www.fbi.gov/contact-us/field](http://www.fbi.gov/contact-us/field)

**BUSINESS E-MAIL COMPROMISE  
E-MAIL ACCOUNT COMPROMISE  
THE 5 BILLION DOLLAR SCAM**

This Public Service Announcement (PSA) is an update to Business E-mail Compromise (BEC) PSAs 1-012215-PSA, 1-082715a-PSA and I-061416-PSA, all of which are posted on [www.ic3.gov](http://www.ic3.gov). This PSA includes new Internet Crime Complaint Center (IC3) complaint information and updated statistical data as of December 31, 2016.

**DEFINITION**  
Business E-mail Compromise (BEC) is defined as a sophisticated scam targeting businesses working with foreign suppliers and/or businesses that regularly perform wire transfer payments. The E-mail Account Compromise (EAC) component of BEC targets individuals that perform wire transfer payments.

screen: ic3.gov

## Exclusive: Facebook and Google Were Victims of \$100M Payment Scam



By Jeff John Roberts April 27, 2017

# next..



*Lack of understanding of the domain name hierarchy / addressing*

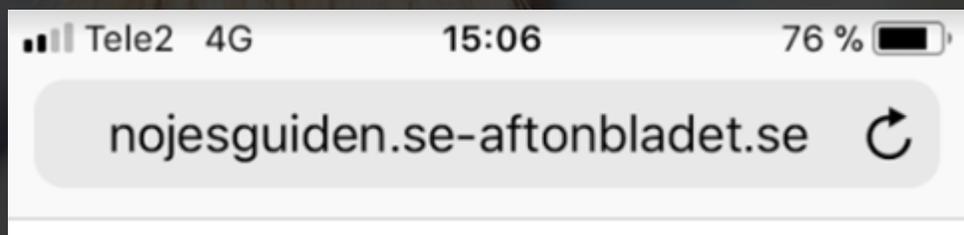
**FROM**



**TO**



# Consumer traps subdomains



What consumers see

nojesguiden.se-aftonbladet.se  
aftonbladet.se-nojesguiden.se  
secure.se-nordea.se  
nordea.se-secure.se

# Consumer traps subdomains

Or they will see

nojesguiden.se-aftonbladet.se  
aftonbladet.se-nojesguiden.se  
secure.se-nordea.se  
nordea.se-secure.se

# Consumer traps

Monitoring new types

[se-aftonbladet.se](http://se-aftonbladet.se)  
[se-nojesguiden.se](http://se-nojesguiden.se)  
[se-nordea.se](http://se-nordea.se)  
[se-secure.se](http://se-secure.se)

# Operation Homoki



*A case study where the domain name usage is the ultimate tool for crime and how it get refined over time.*

# Operation Homoki



Since early 2014, hundreds of domains have been registered with hijacked **valid company information**, except for tele and e-mail.

The domain names have been used by a group for credit frauds, BEC, social engineering and Bank frauds ..in different and changing combinations.

# Operation Homoki



## **Liga misstänks ligga bakom tusentals dataintrång – kan vara största it-härvan någonsin**

En av de största dataintrångshärvorna i Sverige någonsin rullas nu upp, kan SVT Nyheter avslöja. Åtta personer åtalas på måndag i Malmö misstänkta för tusentals dataintrång mot företag, myndigheter och ett riksdagsparti – Sverigedemokraterna.

Screen: svt.se

September 2017

## **Gang suspected to be behind thousands of computer breaches - may be the largest IT-investigation ever**

One of the largest data intrusion investigations in Sweden ever rolled up, SVT News can reveal. Eight people are being charged on Monday in Malmö suspected of thousands of data violations against companies, authorities and a parliamentary party - the Swedish Democrats.



# Operation Homoki timeline



Feb 2013

Jan Nowak AB | 2 millions in unpaid demands

**Homoki** Sweden AB | 2 millions in unpaid demands

### Credit frauds

and..

(Authorities dont do credit controls in Sweden..)

Maps and register over real estates and owners

Company register / Swedish companies



Feb 2013

Jan Nowak AB | 2 millions in unpaid demands

Homoki Sweden AB | 2 millions in unpaid demands

## Credit frauds

and..

(Authorities dont do credit controls in Sweden..)

Maps and register over real estates and owners

Company register / Swedish companies

2013-12-09	2 043	Bet.förel. utslag
2013-12-09	13 273	Bet.förel. utslag
2013-12-09	52 171	Bet.förel. utslag
2013-12-09	411 910	Bet.förel. utslag
2013-12-02	12 415	Restf. Skattekonto
2013-09-25	395 055	Bet.förel. utslag
2013-09-23	1 995	Bet.förel. utslag
2013-09-23	4 823	Bet.förel. utslag
2013-09-23	18 638	Bet.förel. utslag
2013-09-23	21 888	Bet.förel. utslag

2013-12-09	651 863	Bet.förel. utslag
2013-12-09	3 465	Bet.förel. utslag
2013-12-09	3 823	Bet.förel. utslag
2013-12-09	6 049	Bet.förel. utslag
2013-12-09	7 513	Bet.förel. utslag
2013-12-09	11 218	Bet.förel. utslag
2013-12-09	8 749	Bet.förel. utslag
2013-12-09	46 973	Bet.förel. utslag
2013-12-09	8 370	Bet.förel. utslag
2013-12-09	22 388	Bet.förel. utslag
2013-12-09	42 668	Bet.förel. utslag
2013-12-09	68 683	Bet.förel. utslag
2013-12-09	58 965	Bet.förel. utslag
2013-12-09	44 113	Bet.förel. utslag
2013-12-09	36 446	Bet.förel. utslag
2013-12-09	22 454	Bet.förel. utslag
2013-12-09	45 056	Bet.förel. utslag
2013-12-09	18 951	Bet.förel. utslag
2013-12-09	60 206	Bet.förel. utslag
2013-12-09	9 217	Bet.förel. utslag
2013-12-09	67 893	Bet.förel. utslag
2013-12-09	128 481	Bet.förel. utslag
2013-12-09	73 535	Bet.förel. utslag
2013-12-09	98 183	Bet.förel. utslag
2013-12-09	78 100	Bet.förel. utslag
2013-12-09	97 858	Bet.förel. utslag



Jan 2014

Register domain names on existing companies,  
with their own mail and phone number

mail

**create one page websites**

(with false postal address and phone numbers)

purchase@**acme.se**

purchase@**acmeab.se**



Jan 2014

Register domain names on existing companies, with their own mail and phone number

mail

**create one page websites**

(with false postal address and phone numbers)

**purchase@acme.se**

**purchase@acmeab.se**

10-15 large orders

**"Techretail providers"**

Procuts

Invoice

**Delivery address**

Acme AB



March 2014

Started a company that sold "imported products" on websites and sale platforms.

"imported products" = stolen goods



April 2014

Register domain names on existing companies, with own mail and number

mail

301 to original web page



June- 2014

Register domain names on existing companies, with own mail and number

Changed addresses and phone numbers on online registers for the hijacked company, to manipulate check ups.

mail

301 to original web page



Q1 2015

Register domain names on existing companies, with own mail and number

Changed addresses and phone numbers on online registers

mail

301 to original web page

1 Registrar (Domain)

1 NS provider

1 Hosting Provider (301/php)

*"Learning the infrastructure and responsibilities"*



Q2 2015

Starts to send **invoices and tender requests, with malicious attachments.**

Trojans, keyloggers etc (.docm/.pdf)

Depending on who and what information they steal, the victim get impersonated in different ways.

Logins, e-mail conversations get hijacked etc.

**Control No.:** P-338/7-2015

**Requesting country:** United Kingdom

**File No.:** 2015/52766-1

**Date of publication:** 31/07/15



## MODUS OPERANDI

<b>Type(s) of offence:</b>	European Distribution Fraud
<b>Date of the offence:</b>	2014 to Current
<b>Place of offence:</b>	London and other UK locations
<b>Country of offence:</b>	UK
<b>Circumstances of offence:</b>	<u>UK based fraudsters</u> are placing fraudulent orders with European Companies to supply goods to the UK, resulting with the victims sustaining significant financial loss.

**Description of modus operandi:** European legitimate businesses are being targeted by UK criminals who are purporting to be well known UK national and international companies based in the United Kingdom.

Object/ device/concealment  
method/procedure.

The criminals place large fictitious orders via telephone or email using the details of well-known UK companies. In some cases multiple orders have been made in a short space of time resulting with a greater financial loss to the victim suppliers.



Q3 2015

Hijack persons e-IDs

And sign changes of board members in companies.

In some cases, they open accounts and take new credits/loans

In other cases, they open up new accounts with new suppliers



### Q1 2016

Impersonates to be CEO of a company and emailing their bank, claiming they have a new leasing partner. And asking the bank to send a large sum to the new partners account.

The new partner is a newly formed company, signed with hijacked e-ID

Since this worked, they repeated this modus to a number of banks and financial institutes..



Aug 2016

It is confirmed that they have hacked several thousands of clients and to show another type, say hello to the **Brazilian soccer player "Hulk"**!







And now for the devil in the details..

----- Mensagem original -----

De : fangtao@sipg-fc.com

Data: 2016/08/08 04:11 (GMT-03:00)

Para: Victor Eleuterio <[victor.eleuterio@bicharaemotta.com.br](mailto:victor.eleuterio@bicharaemotta.com.br)>

Assunto: Re: Solidarity Mechanism Givanildo Vieira de Sousa ("Hulk")

Dear Sir,

Thanks for your email. we will check all the invoice with each amount refer to the player passport. If the payment is executed, we will inform you at once.

Thanks again

sincerely

Tao Fang

**Shanghai -> Brazil**



And now for the devil in the details..

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发件人: Victor Eleuterio <[victor.eleuterio@bicharaemotta-br.com](mailto:victor.eleuterio@bicharaemotta-br.com)>

收件人: fangtao@sipg-fc.com

抄送: - Marcos Motta - <[mm@bicharaemotta-br.com](mailto:mm@bicharaemotta-br.com)>

日期: 2016 年 08 月 24 日(星期三) 下午06:01

主题: Re: Solidarity Mechanism Givanildo Vieira de Sousa ("Hulk")

历史记录:  已答复此消息。

Dear Mr Tao Fang,

Hope you are fine.

Shanghai -> Brazil

Brazil -> Shanghai

# Preparation

You have sent a email to a CEO, with a malicious attachment, that is sending you screenshots of what the CEO sees on his screen.

**1.** Impersonate the CEO of one of Swedens largest techretailers

(25 physical shops and webshop, 1.7 billion SEK)

**3.** The day after, recieve a email that the change is completed along with status of the account.

**2.** Email their payment partner, asking them to **change paying account** for the company (4 shops) along with a **correct filled form** and a **copy of passport**.

**4.** Transferred 420 000 SEK to another account.



2016-05-09 13:02:23 [webhallensverige.se] get registered

Sid 817 2016-05-09 13:09:25 webhallensverige.se ?

7 minutes from registration

----- Original Message -----

From: Wilhelm Sporrong // Webhallen Sverige AB [wilhelm.sporrong@webhallensverige.se]

Sent: 2016-05-09 16:37

To: merchant@klarna.com

Subject: Konto

Hej

Vi håller på och omstrukturerar inom vår organisation och vi har öppna konto som är avsett enbart för utbetalningar av Klarna fakturor .

Alla utbetalningar skall ske till angivet konto enligt bifogat dokument.

Var god bekräfta på mail när ändringen är genomfört.

-

Med vänlig hälsning / Best regards,

Wilhelm Sporrong VD



\*\*\*\*\*

Webhallen Sverige AB

2 hours 28 minutes later







## Passkopia som inkom till Klarna

16

Signerat av

Signerat datum

Diariern  
5000-K558623-16

Enhet  
Polisregion Syd, Bedrägeribrott 2 Rgn Syd

Originalhandlingens förvaringsplats

Datum  
2016-05-18

Tid  
10:12

Funktion

Uppgiftslämnare

Berättelse

Sporrøng är VD för Webhallen.

Passbilden stämmer inte med Sporrøngs verkliga pass.

Passnumret går till ett barn som är född 2006.

screen: ehandel.se



PassportPhoto4You! Home Help Samples

Most used sizes

- U.S. passport
- Indian standard
- Chinese standard
- Hungarian standard
- Print sizes

Ad closed by Google  
Stop seeing this ad  
AdChoices

### Online passport photo

Did you know that you can create your own passport photo online? All you need is a digital camera. Take a photo yourself and then upload it to our website. Our website uses face detection to set the exact cut size. If you are not satisfied with the head size in the photo, you can easily change the cut area by the crop frame. With our website you can create passport and ID photos for more than 70 countries.

Upload a photo >>>

Crop 2x2" size passport photo

What size is a passport photo in pixels?

Size (cm)	Size (inches)	Size (pixels) (300 dpi)
5.08x5.08 cm	2x2 inches	600x600 pixels
3.81x3.81 cm	1.5x1.5 inches	450x450 pixels
3.5x4.5 cm	1.38x1.77 inches	413x531 pixels
3.5x3.5 cm	1.38x1.38 inches	413x413 pixels
3x4 cm	1.18x1.57 inches	354x472 pixels
5x7 cm	1.97x2.76 inches	591x827 pixels
3.3x4.8 cm	1.30x1.89 inches	390x567 pixels

Common passport photo sizes  
The most used sizes are: (2 x 2") and (3.5 x 4.5 cm).



WILHELM SPORRØNG, EJ FALSKBESTÄLLARE

## Webhallens VD används i stort bedrägeriförsök



screen: trustmapp.com

My challenge was:

1. To find the domain names "ad hoc"  
Reused of registrant data, patterns, small details, used the same 10 registrars
2. Match investigators at the police with the correct registrar/Hosting partner (to secure evidence)
3. Contact the hijacked company to ensure they were informed..

# Operation Homoki



Heard in a wire tapping in the summer of 2016, between two suspects when they were planning to register a new domain name:

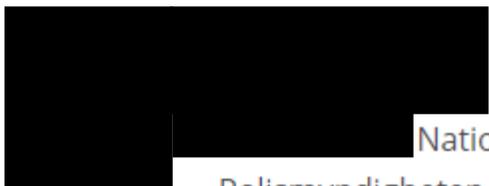
*"We can **not register .se**, because that damn Forsman is working there!"*

# Operation Homoki



“ Polismyndigheten kan i sin brottsbekämpande verksamhet inte exkludera externa samarbetspartner. De har i flera stora nationella insatser mot grov organiserad brottslighet visat sig vara värdefulla.

Framförallt IIS och Peter Forsman har varit behjälpliga när det gäller internetrelaterad brottslighet. Det har varit en brottslighet med modus som i en samlad bild bedömts som synnerligen allvarlig och samhällshotande. Specifikt brottsförebyggande verksamhet med modus inriktat mot fakturabedrägeri i operation Fafne, Gungner och Draupner samt bedrägeri som föregåtts av dataintrång i operation Homoki.



Nationell Seriebrottslighet

Polismyndigheten

Homoki I+II

Since 2013 and continuously.

”Special national event”

”Hundreds” of .se- and .nu-domains

Gigantic investigation.

Every police region i Sweden, 13 prosecutors, 50 full time investigators.

1 of 5 trials

Split by modus, so that different parts are judged separately.

# Stop and think..

Change of focus:

**FROM** the *usual* usage as aliases of content and e-mail addresses

**TO** complete tools of crime.

(Domains solely registered for hoax emails used in BEC and credit frauds.)



# Thank you!

IIS Registry  
**Abuse and Prevention**  
Peter Forsman  
[peter.forsman@iis.se](mailto:peter.forsman@iis.se)