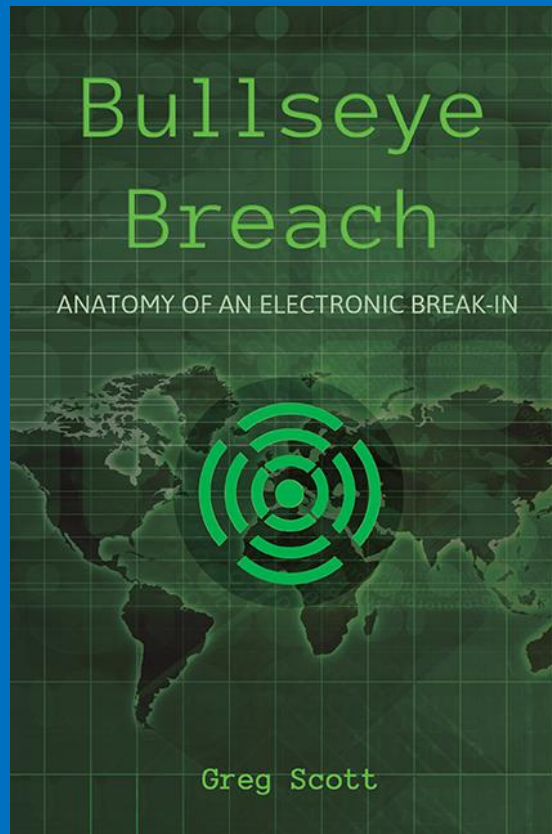
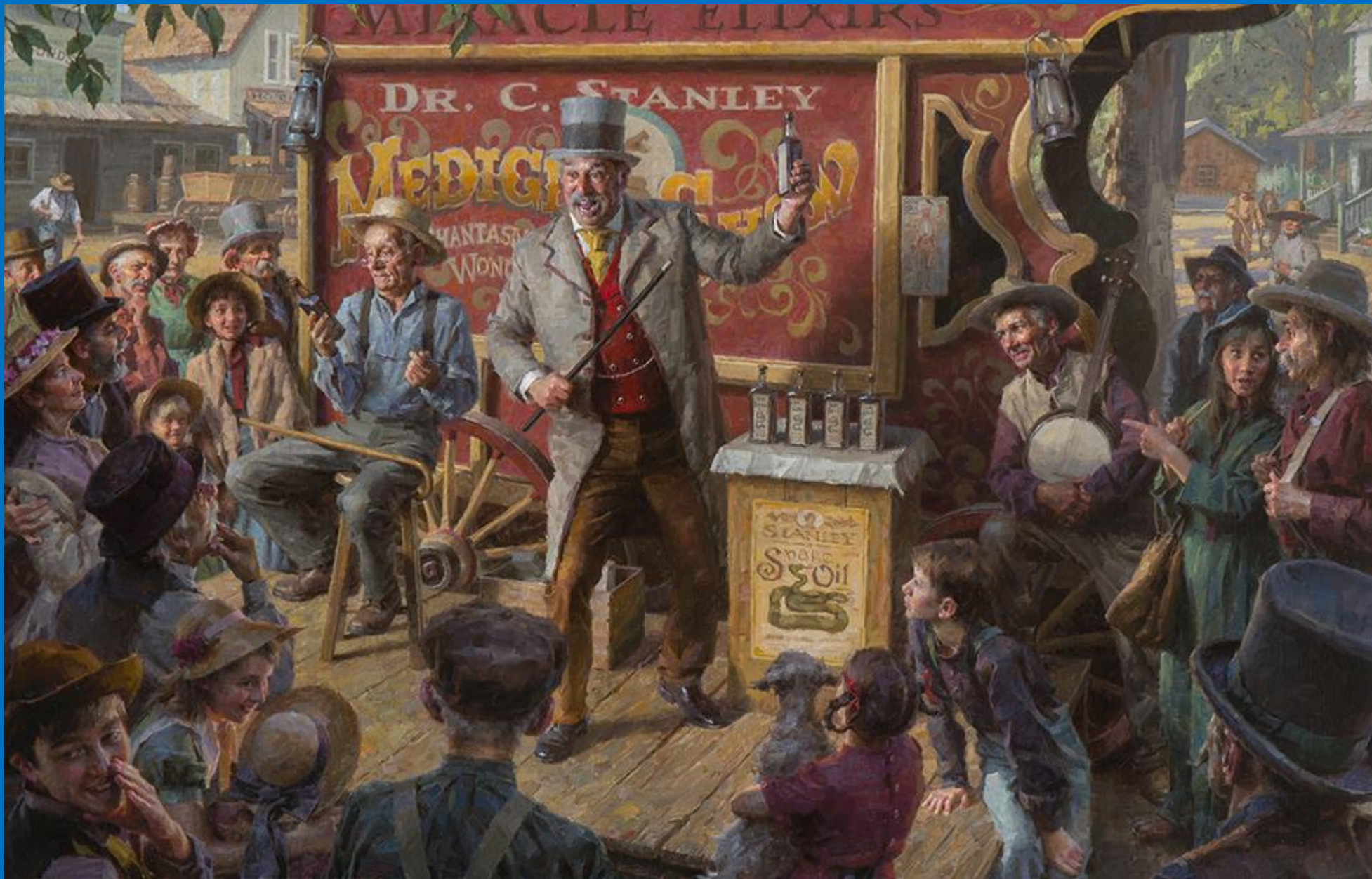


# A few common Internet attacks



Greg Scott



Different  
century

Same  
snake oil

Image from

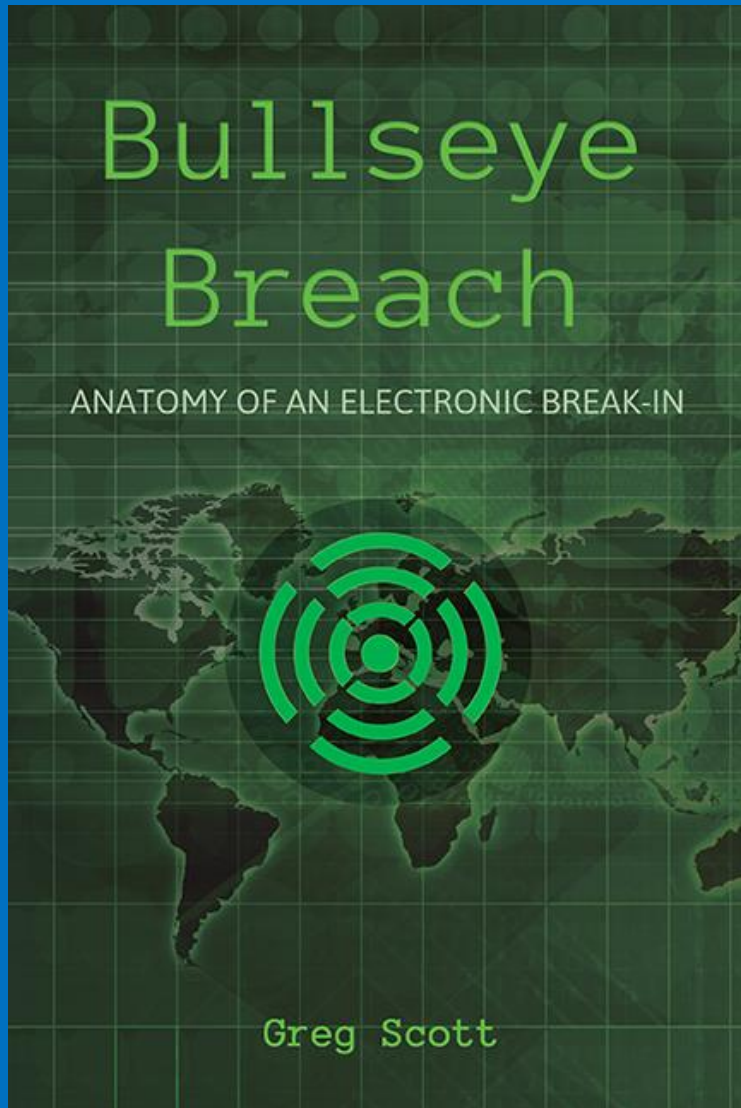
[http://www.morganweistling.com/images/2015/WEISTLING\\_FINAL\\_REWISE\\_FOR\\_ADS\\_SNAKE\\_OIL\\_SALESMAN.jpg](http://www.morganweistling.com/images/2015/WEISTLING_FINAL_REWISE_FOR_ADS_SNAKE_OIL_SALESMAN.jpg)

# Only now we call it “social engineering.”

A great definition:

- Social engineering refers to psychological manipulation of people into performing actions or divulging confidential information.
  - See [https://en.wikipedia.org/wiki/Social\\_engineering\\_\(security\)](https://en.wikipedia.org/wiki/Social_engineering_(security))
- By far the number one threat to our privacy.
- Social engineering nailed the IT Department in my *Bullseye Breach* fictional world.
- And it nailed several organizations in the real world.

Social engineering tactics helped steal millions of credit cards in my fictional world.



It's behind nearly all the sensational data breaches in the real world.

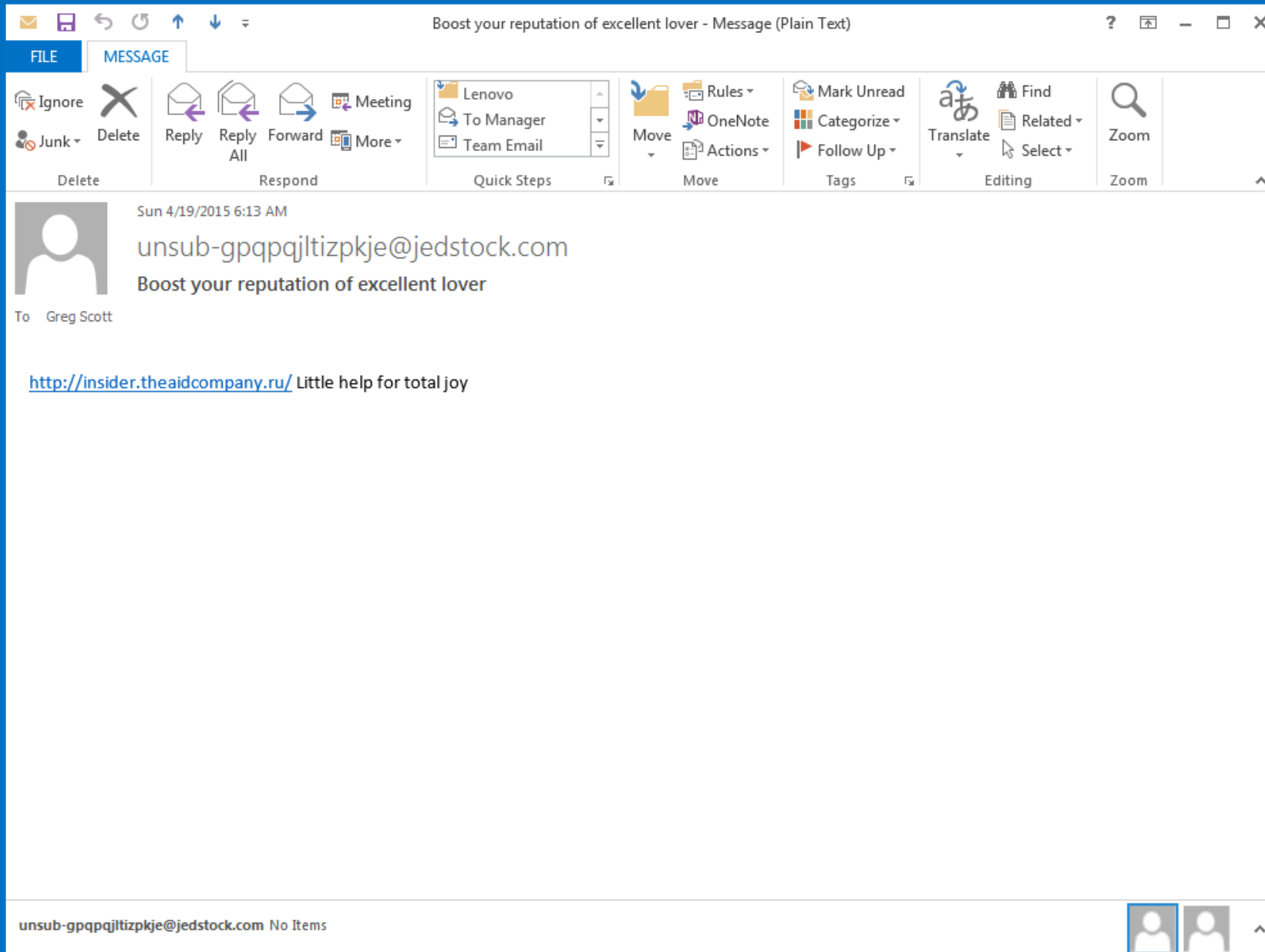
# How does 21<sup>st</sup> century social engineering work?



# Phishing attack

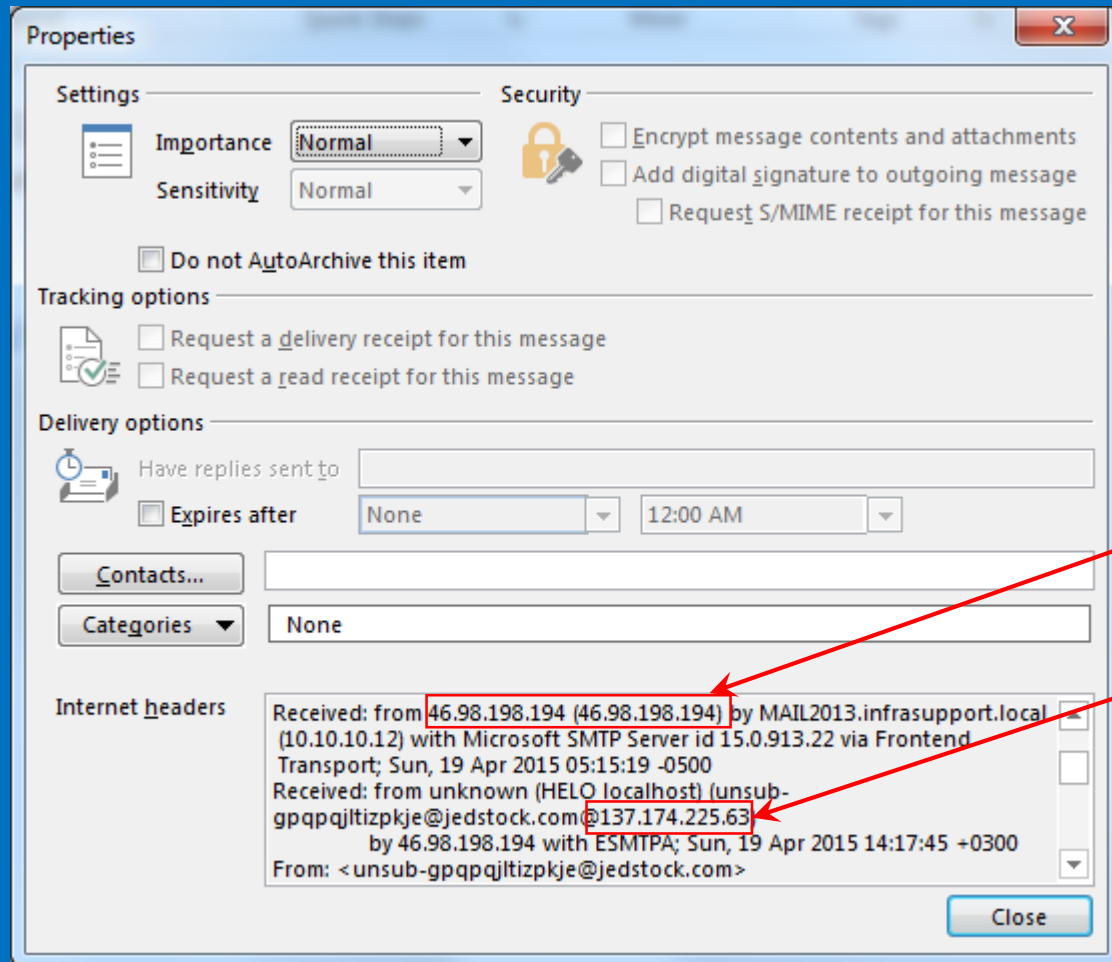
- In a typical large scale phishing attack, an evil intruder named Trudy sends a mass email to potential victims with the hope that victims will open a malware attachment or access the wrong website.
- In a spear phishing attack, Trudy does homework on potential victim Alice and tailors her email to Alice's unique tastes.
  - If Alice is a victim of the US Government Office of Personnel Management data breach, Trudy might tailor her email to mimic the "click here" OPM email.
  - Alice thinks the email directs her to an OPM website to set up her free credit monitoring
  - But Alice really goes to Trudy's evil website designed to steal Alice's banking info.

# A typical “phishy” spam email



- This one is easy to spot from its clumsy content.
- But how would you find out where it really came from?

# Click File...Properties



Look at the email header

Where did it really come from?

Yeast Google Analytics: D... x 46.98.198.194 WHOIS regi... x

www.networksolutions.com/whois/results.jsp?ip=46.98.198.194

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### WHOIS Results

You Searched for: 46.98.198.194

**46.98.198.194**  
Record Type: IP Address

NetRange: 46.0.0.0 - 46.255.255.255  
CIDR: 46.0.0.0/8  
NetName: 46-RIPE  
NetHandle: NET-46-0-0-0  
Parent: ()  
NetType: Allocated to RIPE NCC  
OriginAS:  
Organization: RIPE Network Coordination Centre (RIPE)  
RegDate: 2009-09-29  
Updated: 2009-09-30  
Ref: http://whois.arin.net/rest/net/NET-46-0-0-0

OrgName: RIPE Network Coordination Centre  
OrgId: RIPE  
Address: P.O. Box 10096  
City: Amsterdam  
StateProv:  
PostalCode: 1001EB  
Country: NL  
RegDate:  
Updated: 2013-07-29  
Ref: http://whois.arin.net/rest/org/RIPE

ReferralServer: whois://whois.ripe.net:43

OrgTechHandle: RNO29-ARIN  
OrgTechName: RIPE NCC Operations  
OrgTechPhone: +31 20 535 4444  
OrgTechEmail: hostmaster@ripe.net  
OrgTechRef: http://whois.arin.net/rest/poc/RNO29-ARIN

OrgAbuseHandle: ABUSE3850-ARIN  
OrgAbuseName: Abuse Contact  
OrgAbusePhone: +31205354444  
OrgAbuseEmail: abuse@ripe.net  
OrgAbuseRef: http://whois.arin.net/rest/poc/ABUSE3850-ARIN

Search Again

Search again here...

Search by either

☒ Domain Name e.g. networksolutions.com  
☐ IP Address e.g. 205.178.187.13

Search

Use a  
whois  
lookup to  
find out  
who owns  
the  
sending IP  
Address

Yeast Google Analytics: D... x 137.174.225.63 WHOIS re... x

www.networksolutions.com/whois/results.jsp?ip=137.174.225.63

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### WHOIS Results

You Searched for: 137.174.225.63

137.174.225.63  
Record Type: IP Address

NetRange: 137.174.0.0 - 137.174.255.255  
CIDR: 137.174.0.0/16  
NetName: RIPE-ERX-137-174-0-0  
NetHandle: NET-137-174-0-0-1  
Parent: NET137 (NET-137-0-0-0-0)  
NetType: Early Registrations, Transferred to RIPE NCC  
OriginAS:  
Organization: RIPE Network Coordination Centre (RIPE)  
RegDate: 2004-02-18  
Updated: 2004-02-18  
Ref: http://whois.arin.net/rest/net/NET-137-174-0-0-1

OrgName: RIPE Network Coordination Centre  
OrgId: RIPE  
Address: P.O. Box 10096  
City: Amsterdam  
StateProv:  
PostalCode: 1001EB  
Country: NL  
RegDate:  
Updated: 2013-07-29  
Ref: http://whois.arin.net/rest/org/RIPE

ReferralServer: whois://whois.ripe.net:43

OrgAbuseHandle: ABUSE3850-ARIN  
OrgAbuseName: Abuse Contact  
OrgAbusePhone: +31205354444  
OrgAbuseEmail: abuse@ripe.net  
OrgAbuseRef: http://whois.arin.net/rest/poc/ABUSE3850-ARIN

OrgTechHandle: RNO29-ARIN  
OrgTechName: RIPE NCC Operations  
OrgTechPhone: +31 20 535 4444  
OrgTechEmail: hostmaster@ripe.net  
OrgTechRef: http://whois.arin.net/rest/poc/RNO29-ARIN

Search Again

Search again here...

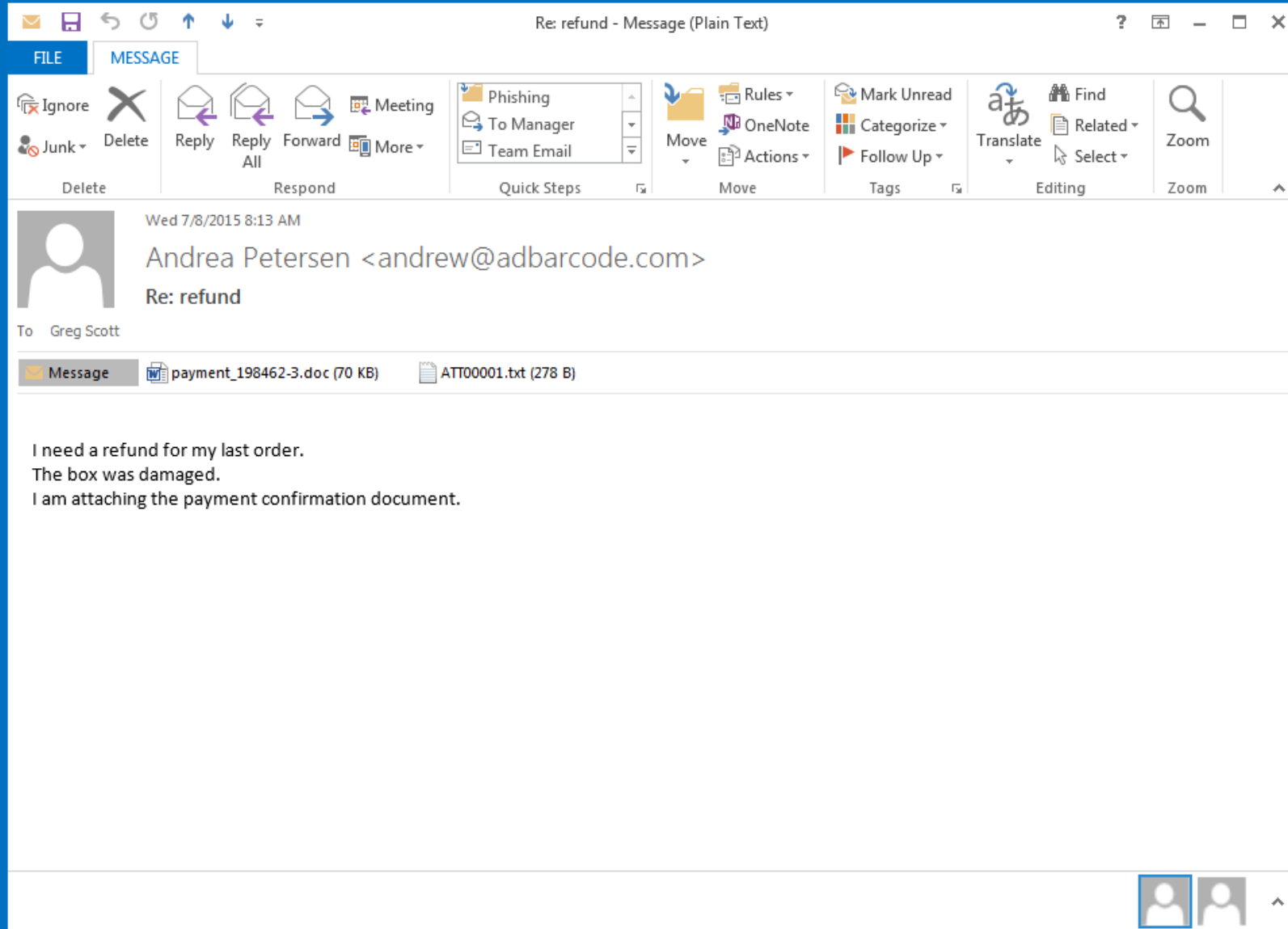
Search by either

☒ Domain Name e.g. networksolutions.com  
☐ IP Address e.g. 205.178.187.13

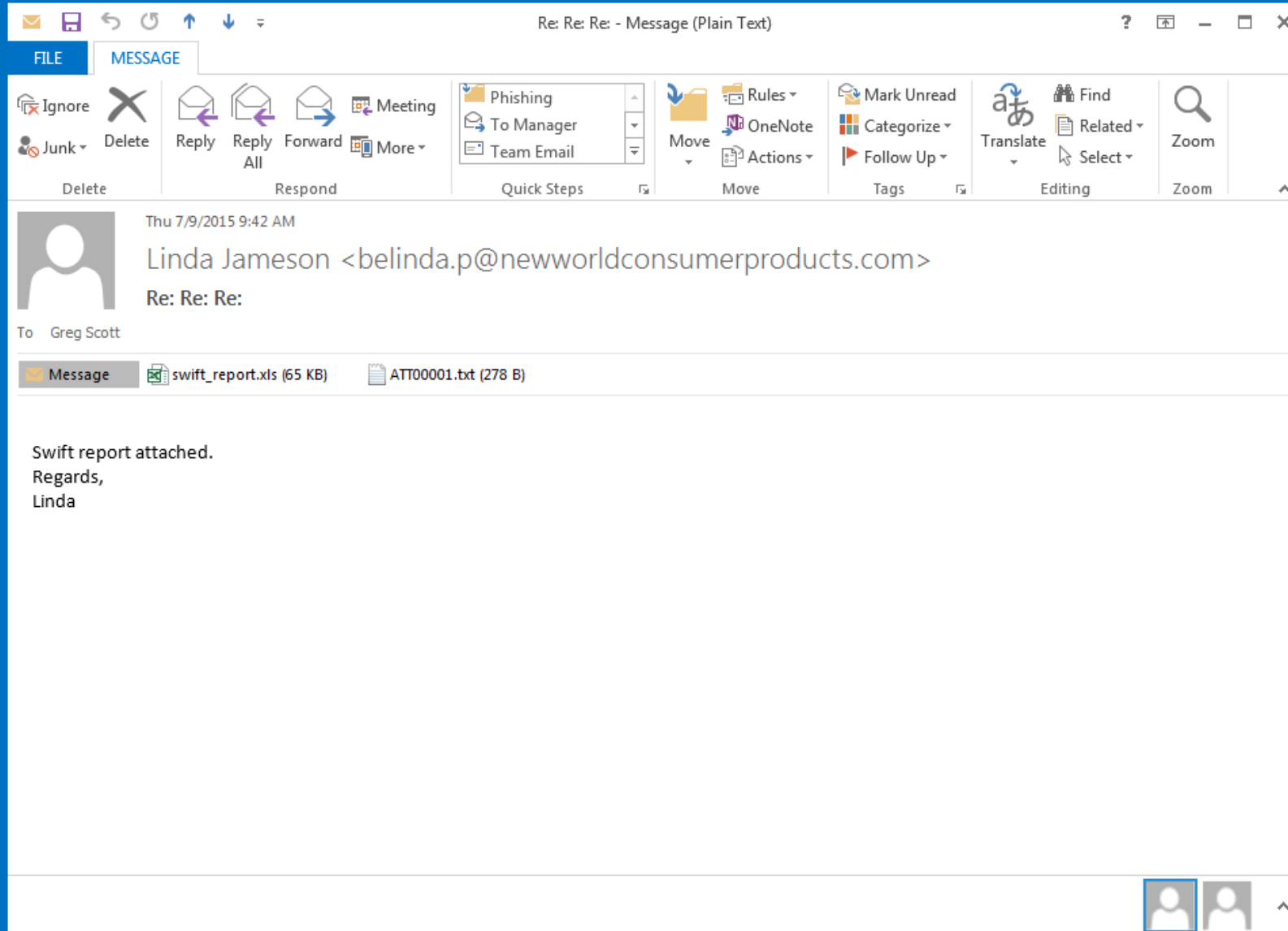
Search

This one started in the Netherlands and routed through Ukraine.

# They're not always obvious to spot from content



# Here's another one aimed at the financial industry



# Watering hole attack

- Alice operates a website that everyone in Bob's industry uses.
- Alice's website has a zero day vulnerability. Or maybe Alice uses sloppy security practices.
  - Zero day – a software bug bad guys exploit that good guys haven't found out about yet.
- Trudy exploits the vulnerability in Alice's website and embeds an evil program.
- Bob accesses Alice's website. Trudy's content silently invades Bob's computer.
- Trudy now owns Bob.

# Fake tech support websites

Post a question in a Yahoo support forum.

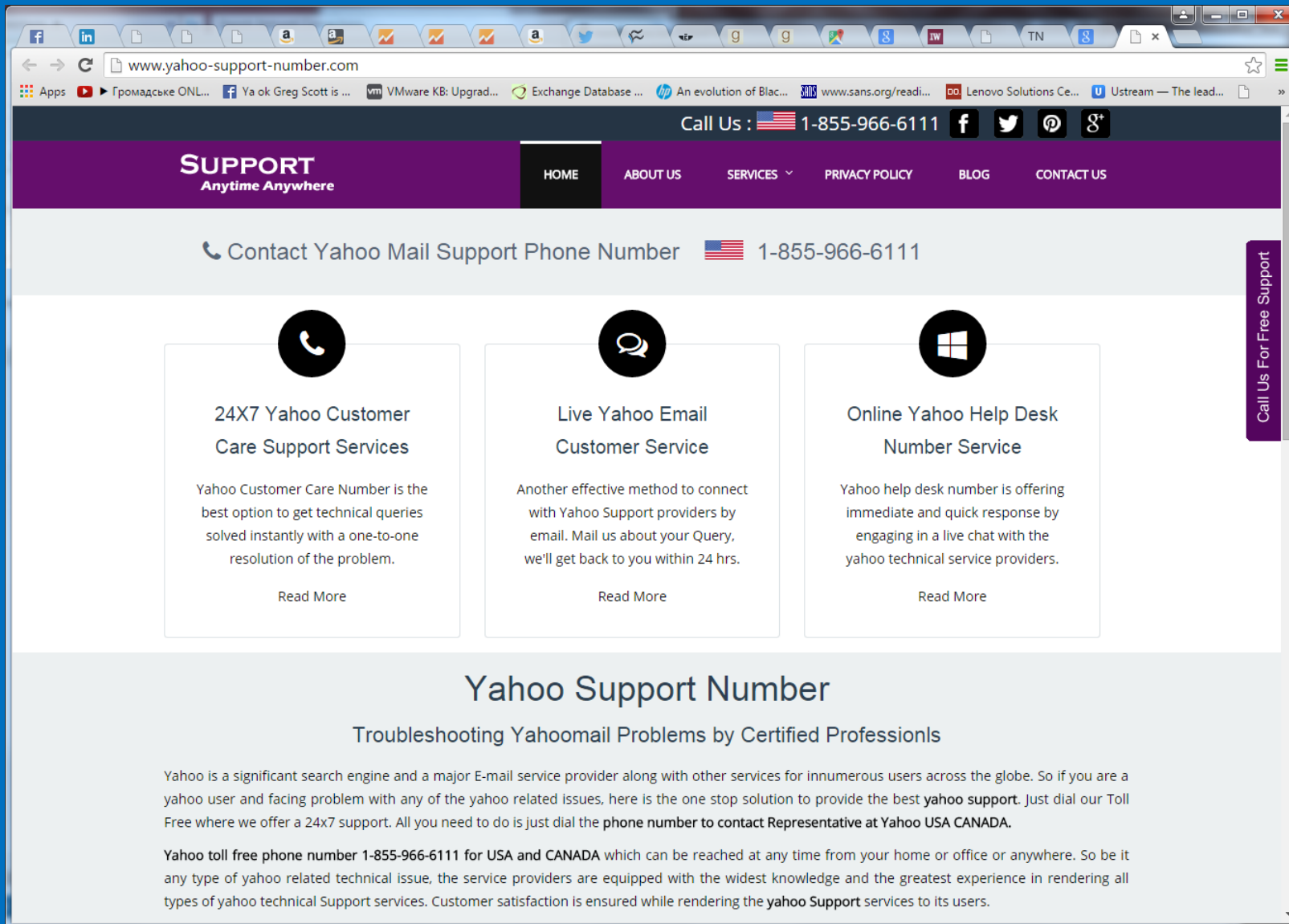
The reply sends you to a website with a toll free phone number.

Call the number.

Grant permission for some bozo on the other side of the world to connect to your computer.

Give them your credit card number.

Now they own you.



# Appeals to greed

Access this sleazy website that promises a free download of my book, *Bullseye Breach*.

Endure popup after popup promising all kinds of free junk.

Sooner or later, you'll see a popup claiming you have a virus. Or your flash player is out of date.

Go ahead – click on the link!

The screenshot shows a web browser window with multiple tabs. The active tab is a torrent site with the URL `kickass-torrent.ytsre.eu/bullseye-breach-by-greg-scott-bindaredundat-t10559948.html`. The page features a search bar, navigation links (YTSRE.EU, COMMUNITY, BLOG, FAQ, REGISTER / SIGN IN), and a main content area for the torrent 'Bullseye Breach by Greg Scott {Bindaredundat}'. It shows 1 seeder and 1 leecher, with a 'DOWNLOAD TORRENT' button. A sidebar on the left has social media links and a 'DOWNLOAD' button. A table lists the files for download:

File Name	Size
Bullseye Breach Anatomy of an Electronic Break-In - Greg Scott.epub	313.09 KB
Bullseye Breach Anatomy of an Electronic Break-In - Greg Scott.mobi	411.32 KB
Bullseye Breach Anatomy of an Electronic Break-In - Greg Scott.pdf	952.26 KB
Bullseye Breach by Greg Scott (cover).png	213.59 KB

Below the table is a 'Description' section with the text: ***Bullseye Breach: Anatomy of an Electronic Break-In*** April 19th 2015 by Greg Scott (Author) {Bindaredundat}. At the bottom left, there is a book cover for 'Bullseye Breach: Anatomy of an Electronic Break-In'. On the right side, there is a 'Latest Forum Threads' section with several posts. At the bottom right, there is a large popup advertisement for 'Vpnster' with the text: 'Protect all private data on your device and connect to a public Wi-Fi safely with Vpnster!'. The popup has two buttons: 'Get Protection!' and 'No, thanks!'. There is also a 'Report a bug' link.

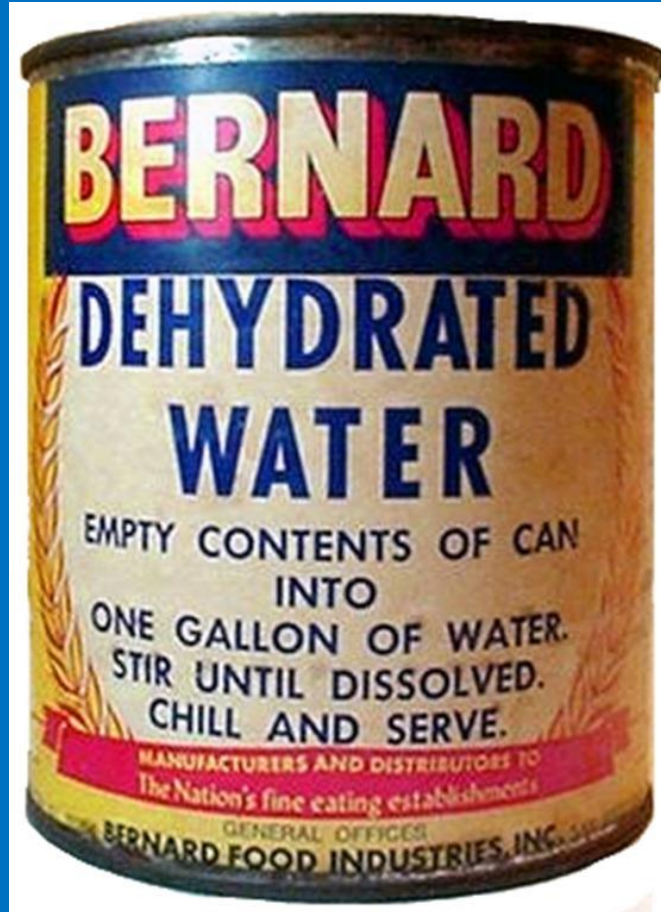
# Use this device to identify your most powerful security weapon.

Instructions:

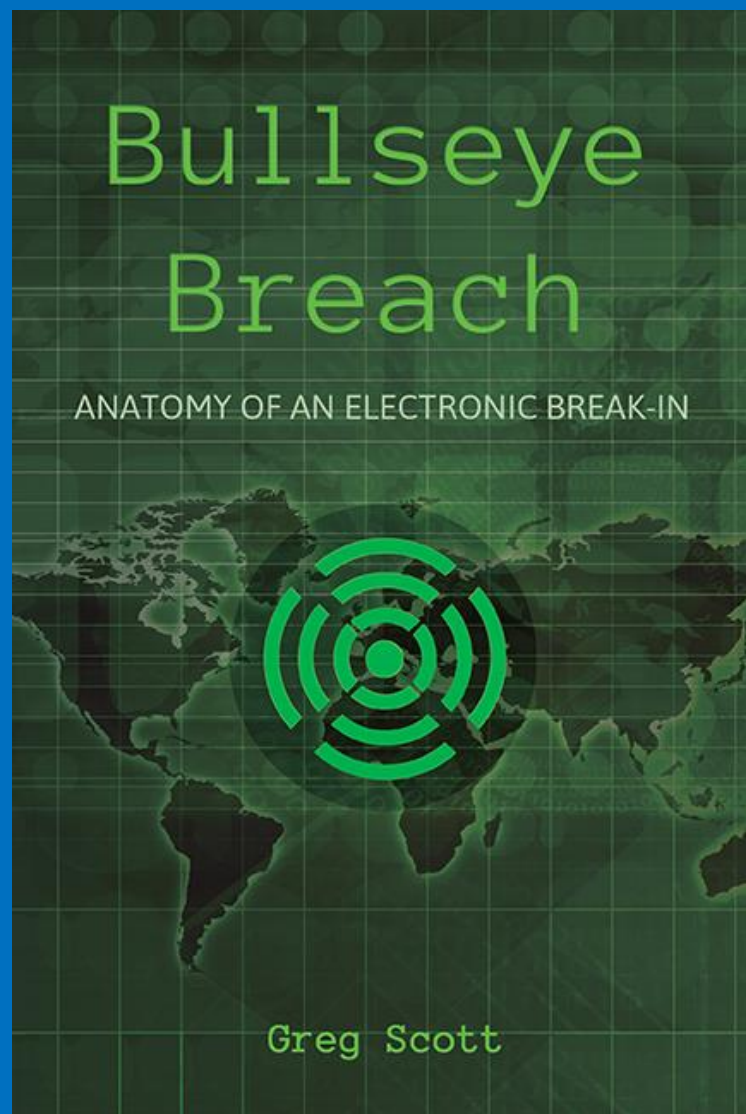
- Hold this device in front of you.
- Look inside.
- Gaze upon the most important weapon in your security arsenal.
- Exercise this weapon frequently.
- Keep it updated.
- Guard it jealously.
- Use it wisely.



Con games are alive and well today and live  
on the Internet



# Buy your copy today!



Greg Scott – [gregscott@infrsupport.com](mailto:gregscott@infrsupport.com)

Twitter: DGregScott

1 (651) 260-1051

**Warning:** Don't start reading until a Friday because you won't be able to put it down.

This gives you the weekend to recover from jet-lag after reading all night.

<http://www.bullseyebreach.com>