

The Explosion of Cybercrime - The 5 Ways IT May Be an Accomplice

Brent Graham
Kaspersky Lab

Never ending..

18 Home Depot: 56M Cards Impacted, Malware Contained

SEP 14

24 Jimmy John's

SEP 14

More than seven
at nationwide s
one of its perm



More saving.
More doing.

KrebsonSecurity

In-depth security news and investigation

stole an
April and
breach

19 Fire Sale on Cards Stolen in Target Breach

FEB 14



Last year's breach at **Target Corp.** flooded underground markets with millions of stolen credit and debit cards. In the days surrounding the breach disclosure, the cards carried unusually high price tags — in large part because few banks had gotten around to canceling any of them yet. Today, two months after the breach, the number of unsold stolen cards that haven't been cancelled by issuing banks is rapidly shrinking, forcing the miscreants behind this historic heist to unload huge volumes of cards onto underground markets and at cut-rate prices.

Dear Valued Customer

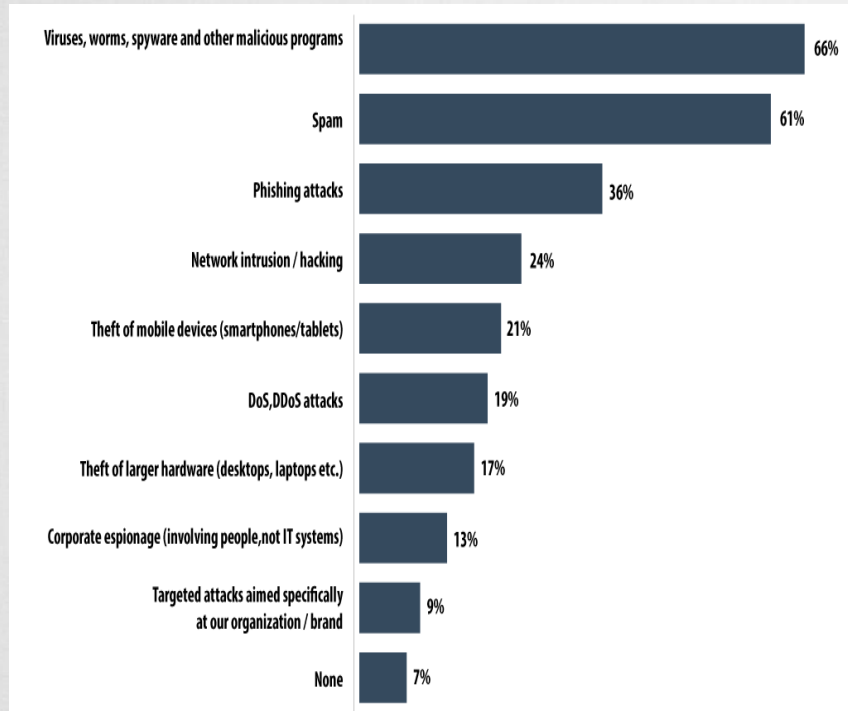
As you may have heard, our payment data system was impacted, which could impact customers using our stores. On September 15, 2013, we learned that the breach had been discovered and that we have committed to providing enhanced protection throughout our U.S. stores, offering significant new protection for



and the



2013 Corporate Threats Survey



- 91% of business's suffered one cyber attack in the last 12 months
- 9% of business's were victims of a targeted attack
- Malicious programs could soon replace company insiders as the way of gathering information

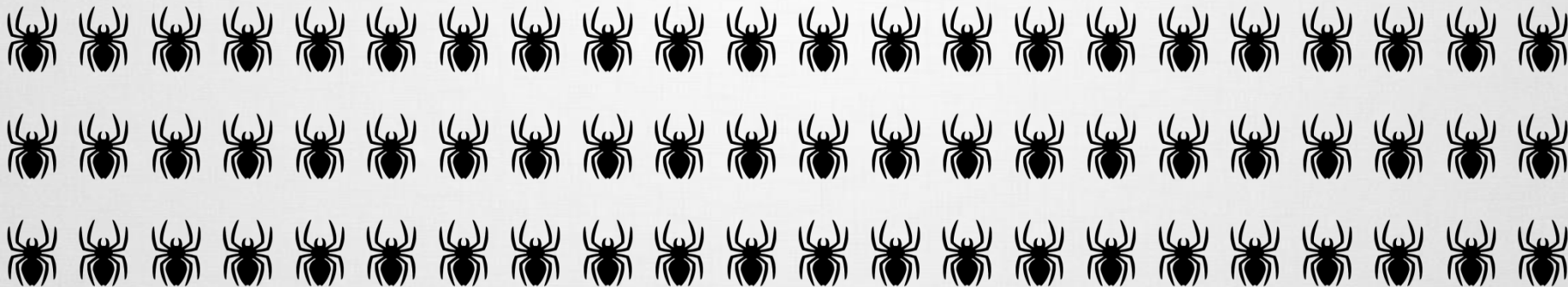
1994

One new virus every hour



2006

One new virus every minute



2011

One new virus every second

Or 70,000 samples/day

What about

2014

?

Kaspersky Lab

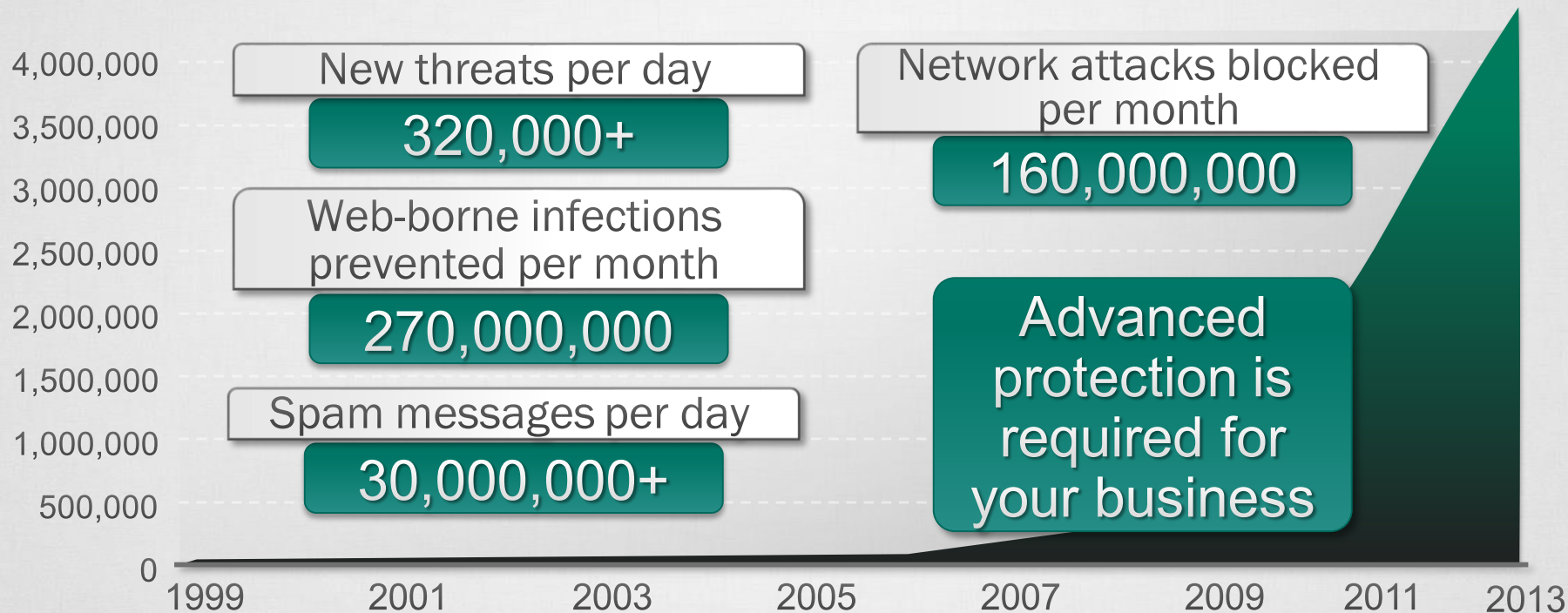
is currently processing

320,000

unique malware samples

EVERY DAY

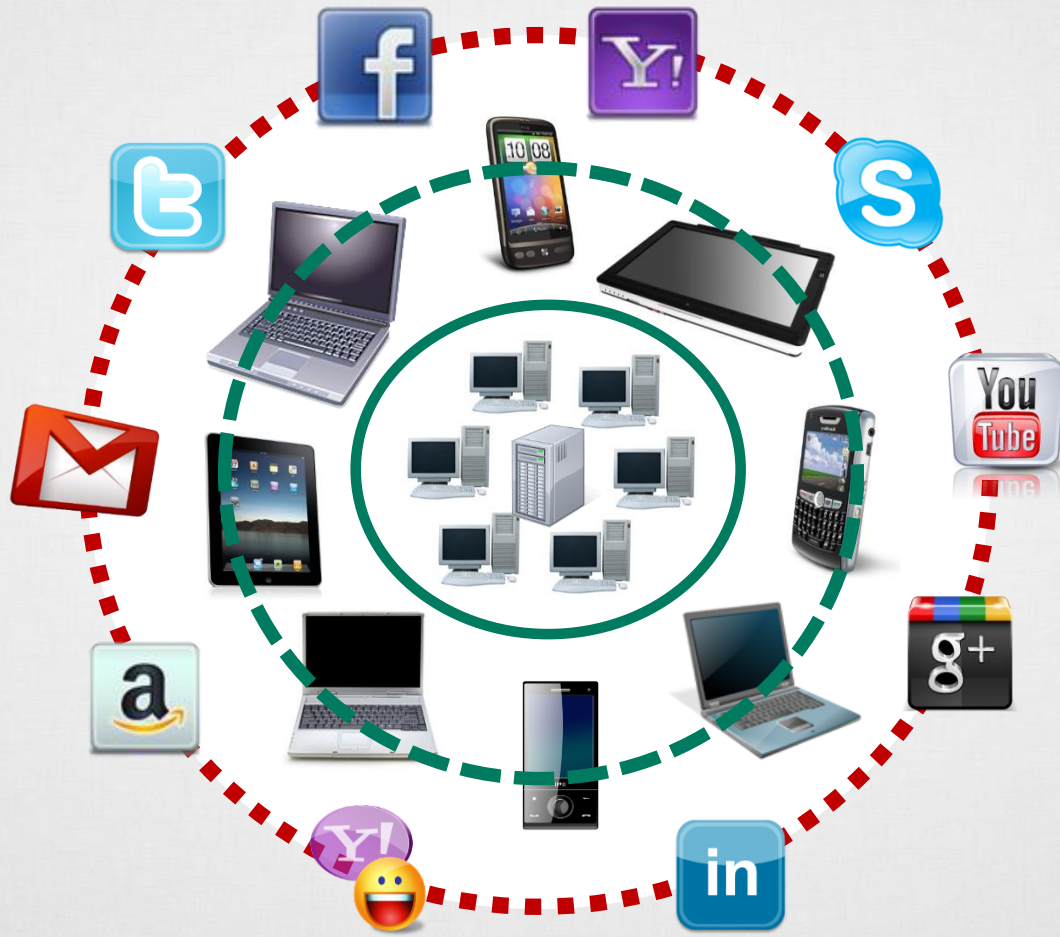
THREATS: SMARTER, FASTER, MORE



ORIGINAL CORPORATE SECURITY PERIMETER



TODAY'S SECURITY PERIMETER



Online Account Takeover

Corporate accounts and
generated have exper
legal protections that

the ACH credits that are
not offer the same
ion E.

Joe accesses Web
page for "Bank A"
requiring log in

Web Page



Joe's information is
sent to cyber
criminal



THE CYBER-THEFT PYRAMID



- ▶ Purchase malware to steal banking credentials
- ▶ Launch attacks from compromised machines
- ▶ Transfer stolen funds, cover their tracks



- ▶ Engage in the transfer of stolen funds
- ▶ Retain a percentage for their services



- ▶ Individuals
- ▶ Businesses
- ▶ Financial Institutions



← Malware Coders:
Develop malicious
software sold on the
Black Market

Malware
Exploiters


Money Mules

Victims

Welcome > Blog Home > Data Breaches > SSNs Compromised in University of Maryland Data Breach



by **Brian Donohue**

 Follow @TheBrianDonohue

February 20, 2014, 2:49 pm

NC STATE UNI
OFFICE
NFOR

New

SECURITY AND C

S&C Services

T Policy & Comp

Information Secu

Organizational R

Software Licensi

Management

S&C Home

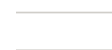
NAVIGATION

Recent posts

DIT Site Admin L

ty Login (WRAP)

US MAP



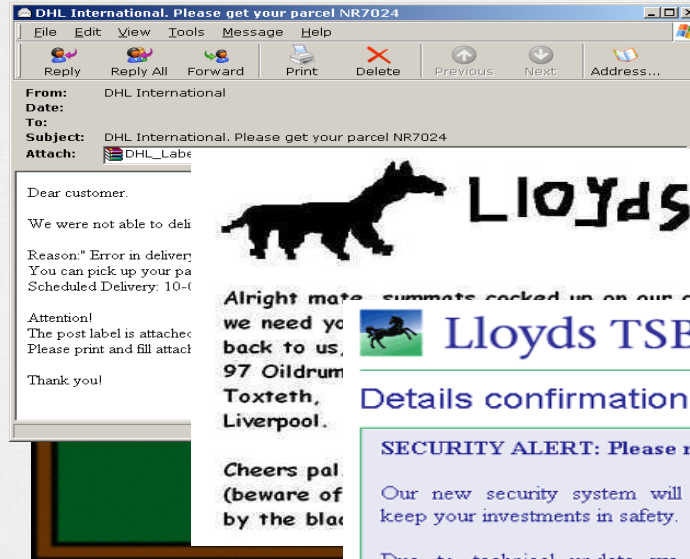
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KASPERSKY lab

Threat Landscape - Malware

➔ A
➔ P
T

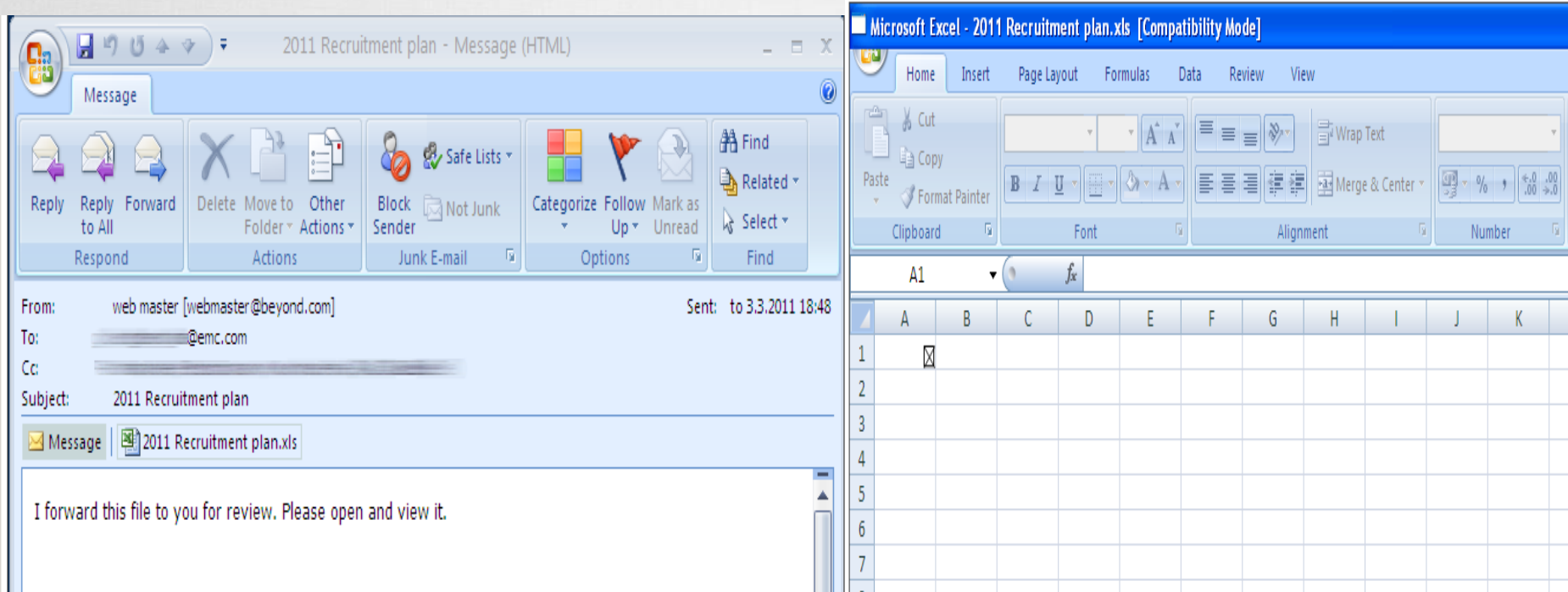


RSA: TARGETED ATTACK CASE STUDY

- ▶ On March 17th 2011, RSA announced that it was hacked
- ▶ During the 2011 Kaspersky Security Analyst Summit, Uri Rivner from RSA talked about how it happened:
 - ▶ Two employees received an e-mail which contained a spreadsheet attachment labeled “2011 Recruitment Plan”.
 - ▶ The e-mail has been marked as SPAM and put into the spam folder
 - ▶ One of the employees opened it...and released a zero-day Adobe Flash vulnerability.



RSA E-mail & Attachment



The image shows two overlapping windows. The left window is an email client displaying an email titled "2011 Recruitment plan - Message (HTML)". The email header includes:

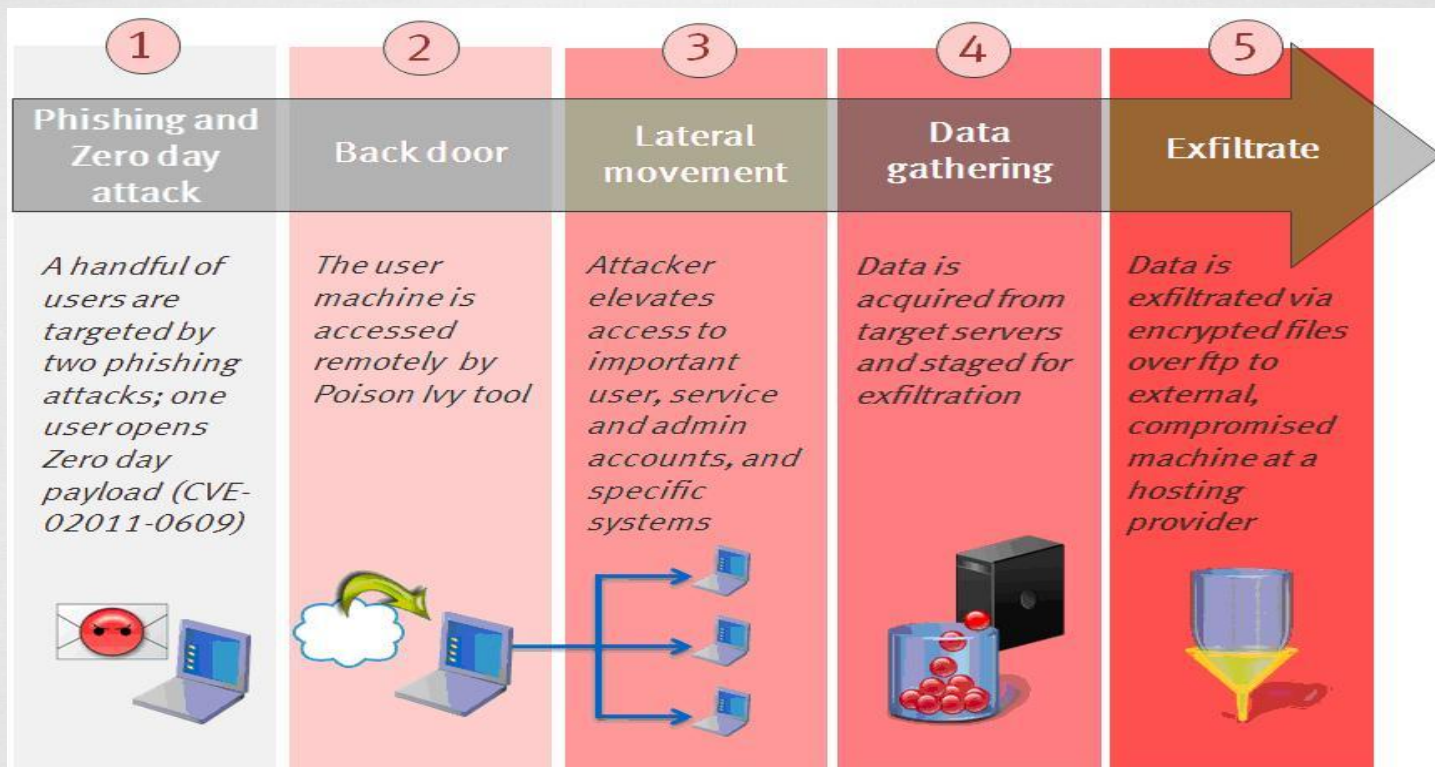
From: web master [webmaster@beyond.com] Sent: to 3.3.2011 18:48
To: [redacted]@emc.com
Cc: [redacted]
Subject: 2011 Recruitment plan

The email body contains the text: "I forward this file to you for review. Please open and view it." Below the text, there is a message icon and an attachment icon for "2011 Recruitment plan.xls".

The right window is Microsoft Excel, titled "Microsoft Excel - 2011 Recruitment plan.xls [Compatibility Mode]". The ribbon shows the "Home" tab with various options like Cut, Copy, Paste, Format Painter, Font, Alignment, and Number. The active cell is A1, and the formula bar is empty. The spreadsheet grid shows columns A through K and rows 1 through 7. Cell B1 contains a small square icon.

The Blueprint

How does this happen?



Targeted Attacks:

The attackers were able to serve the message by exploiting a trust relationship that the RSA conference site had with a third-party hosting provider. The conference site uses a Web analytics package called “Lucky Orange,” which keeps track of how visitors use and browse the site. That package contained a Javascript function that called home to a stats page on a server hosted by **codero.com**, a hosting firm based in Austin, Texas.

According to **Codero CEO Emil Sayegh**, the attackers spoofed several messages from Codero executives and sent them to company employees. The messages led to a link that prompted the recipients to enter their account credentials, and someone within the organization who had the ability to change the domain name system (DNS) records for Codero fell for the ruse.

Sayegh said the attackers followed the script laid out in Winkler’s talk, almost to the letter.

State Sponsored Cyber Terrorism

Researchers uncover cyber spying campaign dubbed 'The Mask'

BY JOSEPH MENN AND [JIM FINKLE](#)

PUNTA CANA, Dominican Republic Mon Feb 10, 2014 3:57pm EST

0 COMMENTS |  [Tweet](#) 152  [Share](#) 8  [Share this](#)  g+ 3  [Email](#)  [Print](#)



State Sponsored Cyber Terrorism

Chinese Cyber-Attacks: Will the United States Step Up Its Active Cyber Defense Posture?

Posted: 05/27/2014 2:33 pm EDT | Updated: 05/27/2014 2:59 pm EDT



2	2	8	0	0	0



The indictment of [five Chinese military hackers](#) by a grand jury in the Western District of Pennsylvania illustrates the increasing importance of cyberspace in the great power relationship between the United States and China. It also shows that four years of talking about cyber-espionage, including at the presidential level, have lead to nowhere. All five of the alleged offenders are purported to be members of the secretive Unit 61398 of the People's Liberation Army in Shanghai. They are accused of computer hacking, economic espionage and other offenses targeting the U.S. private sector. According to U.S. Attorney General Eric Holder: "This is a case alleging economic espionage by members of the Chinese military and represents the first ever charges against a state actor for this type of hacking."

KASPERSKY LAB ANALYSIS REPORT

THE EVOLUTION OF PHISHING ATTACKS:

2011-2013

KASPERSKY Lab

- ▶ In 2012-2013, 37.3 million users around the world were subjected to phishing attacks, up 87% from 2011-2012

- ▶ The number of distinct sources of attacks in 2012 and 2013 increased 3.3 times (+330%)

Most targeted: Social, Search, Banks

Others

49.07%

Yahoo!

9.85%

Banks

20.64%

Facebook

9.69%

Amazon

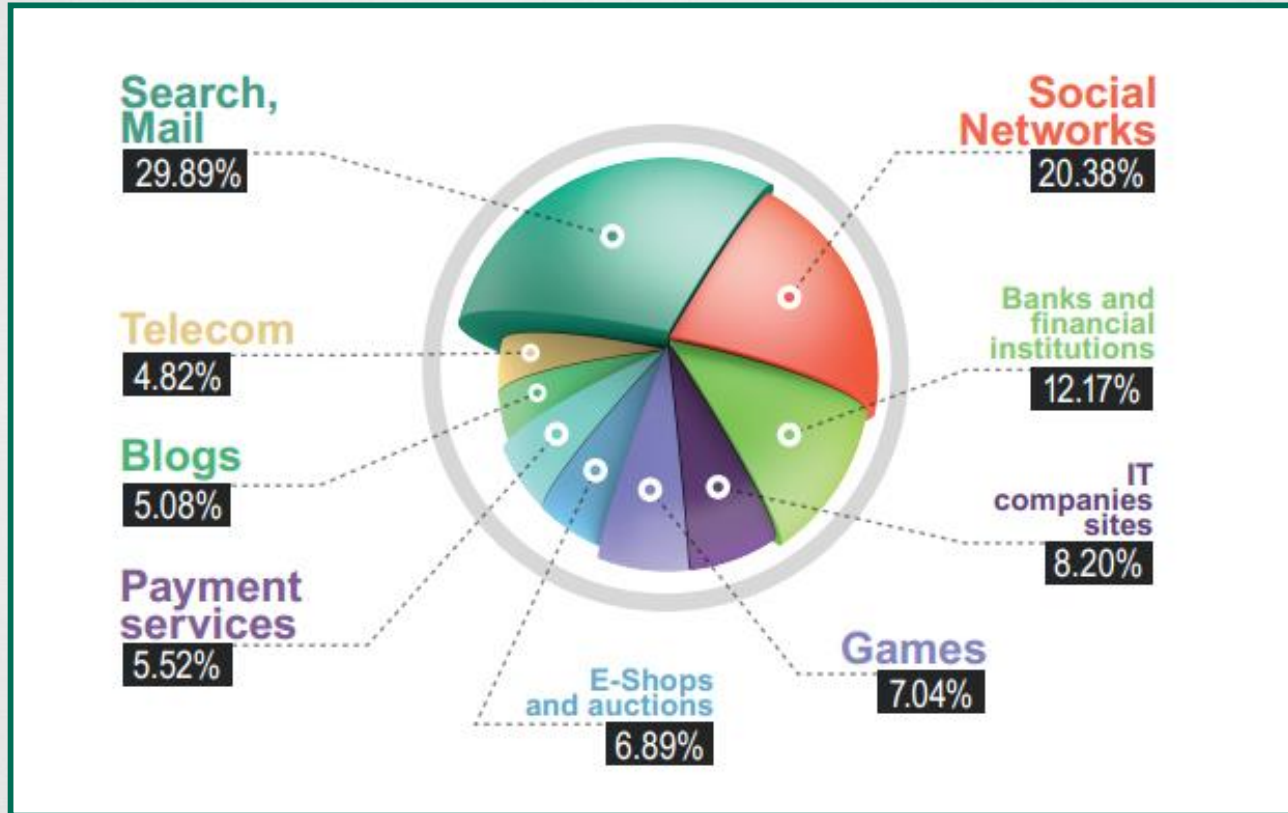
3.86%

Google

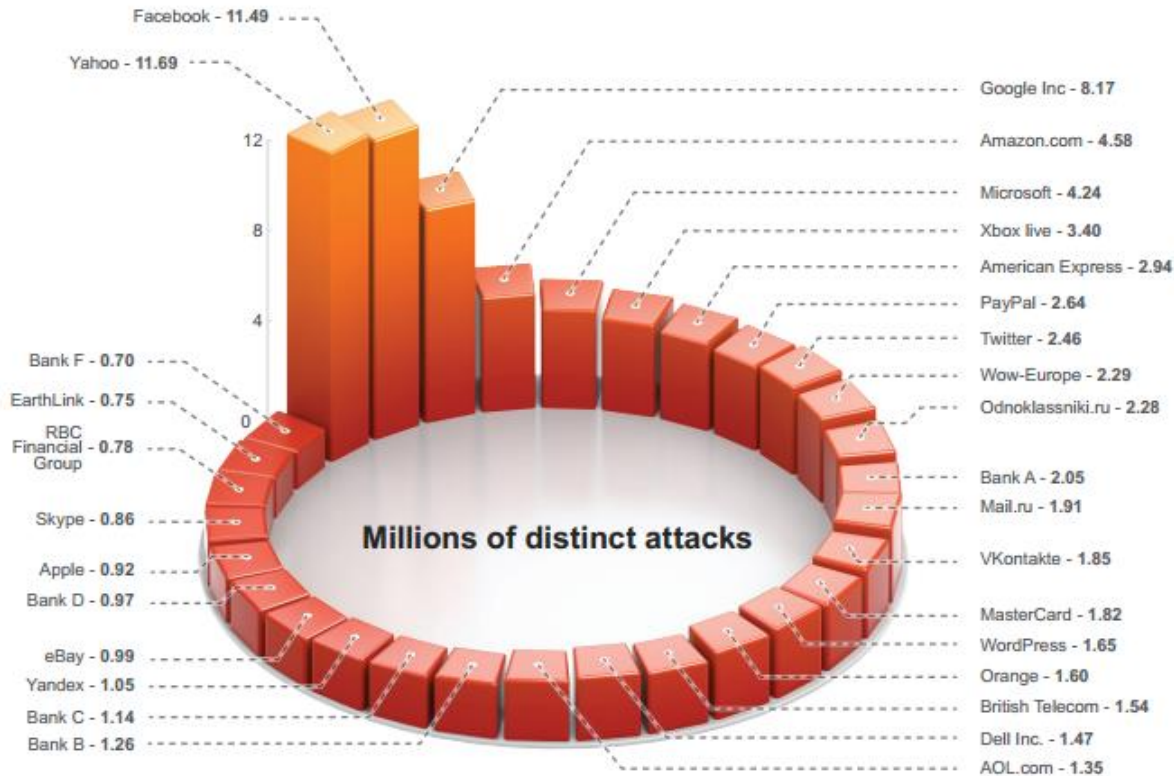
6.89%

- ▶ 102,100 Internet users around the world were subjected to phishing attacks daily!

PHISHING SITES BY CATEGORY



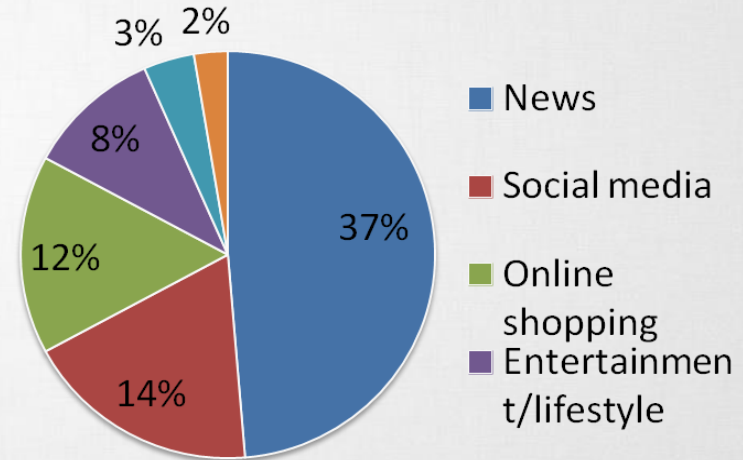
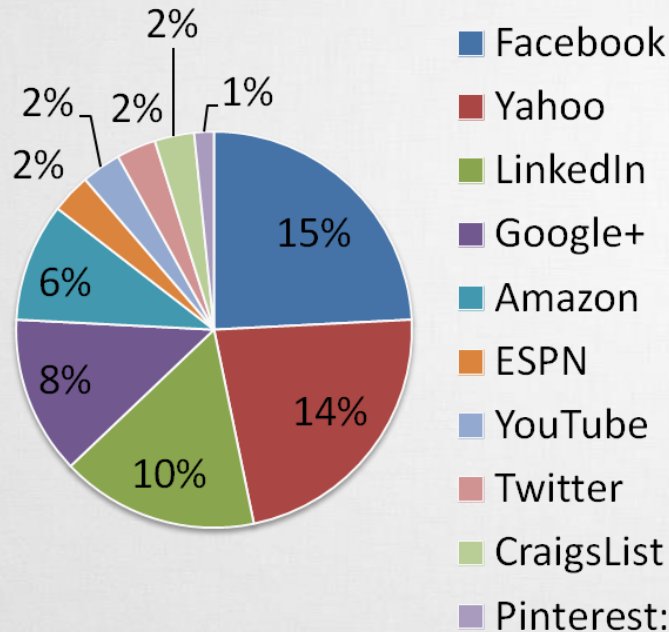
TOP 30 PHISHING TARGETED SITES 2012-2013



 USA	
1	Yahoo!
2	Facebook
3	Google Inc
4	Amazon.com: Online Shopping
5	Wow-Europe
6	Microsoft Corporation
7	AOL.com
8	American Express
9	Bank A
10	Twitter

CORPORATE EMPLOYEE ACTIVITIES

- ▶ 69% of U.S. employees spend at least 30 minutes on personal activities during business hours
- ▶ 34% of those employees spend their time online, most commonly on:



SOURCE: Salary.com's 2013 Wasting Time at Work Survey: <http://www.salary.com/2013-wasting-time-at-work-survey/>

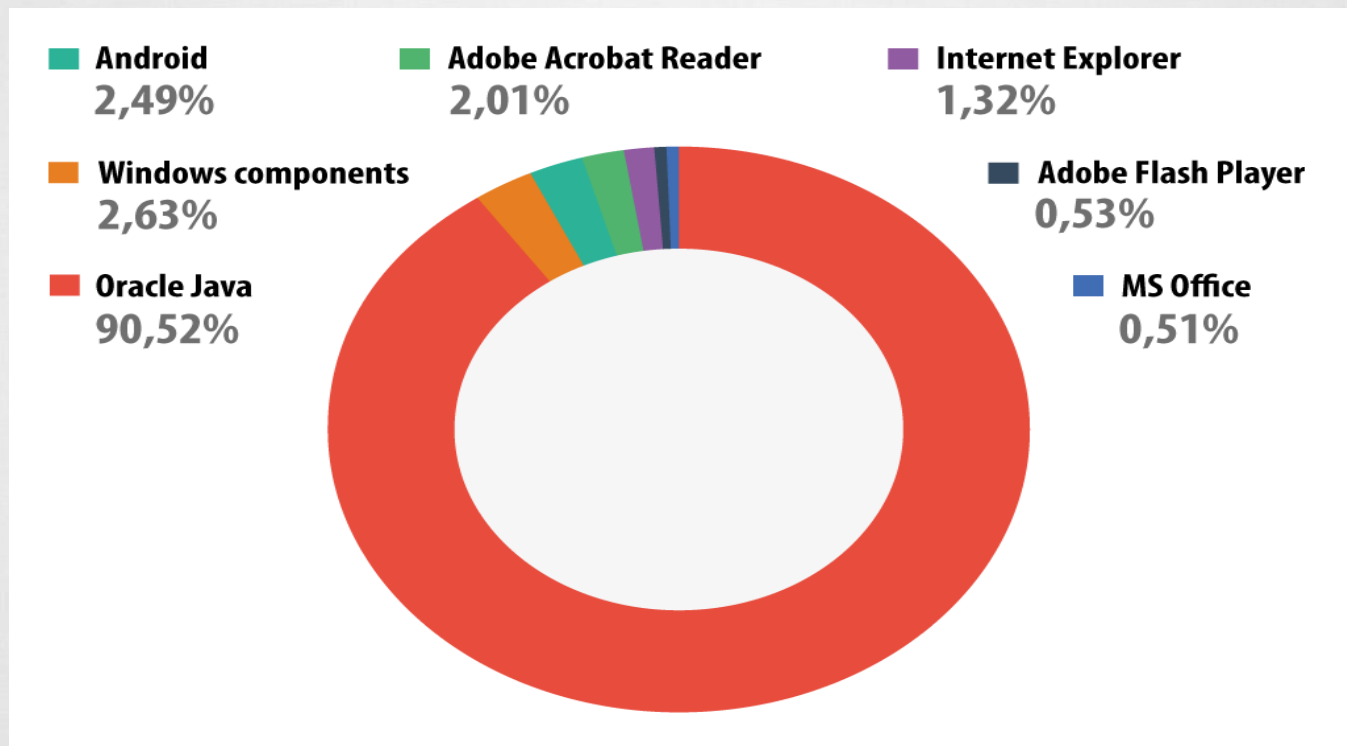
VULNERABILITIES – WHO IS AT RISK?

- ▶ In the first half of 2013, over 30,900,000 vulnerable programs and files were detected on user computers running Kaspersky Security Network (KSN)
- ▶ An average of 8 vulnerabilities were detected on each user's computer
- ▶ 45% of vulnerabilities detected by users were Oracle & Java
- ▶ Oracle Java, Adobe Reader, Office and Adobe Flash are the most exploited programs by cybercriminals in attacks

In short, many more users are vulnerable than conventional thinking suggests



Vulnerable Apps Exploited by “The Bad Guys”



Mobile Malware 10 Years Old Already

Ten Years of Mobile Malware



Sue Marquette Poremba | DATA SECURITY  | 22 JAN, 2014



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Hard to believe that it was 10 years ago when the first piece of mobile malware made its attack. According to Axelle Aprville, senior mobile anti-virus researcher with Fortinet, the first piece of mobile malware, a worm, was called Cabir and was targeted specifically to attack the Nokia Series 60. In an article looking at the history of mobile malware posted to [Mobile Security Zone](#), Aprville wrote:

[I]ts attack resulted in the word "Caribe" appearing on the screen of infected phones. The worm then spread itself by seeking other devices (phones, printers, game consoles...) within close proximity by using the phone's Bluetooth capability.

Compare that to what Aprville wrote about malware in 2013:



Top Security Priorities
for CIOs in 2014

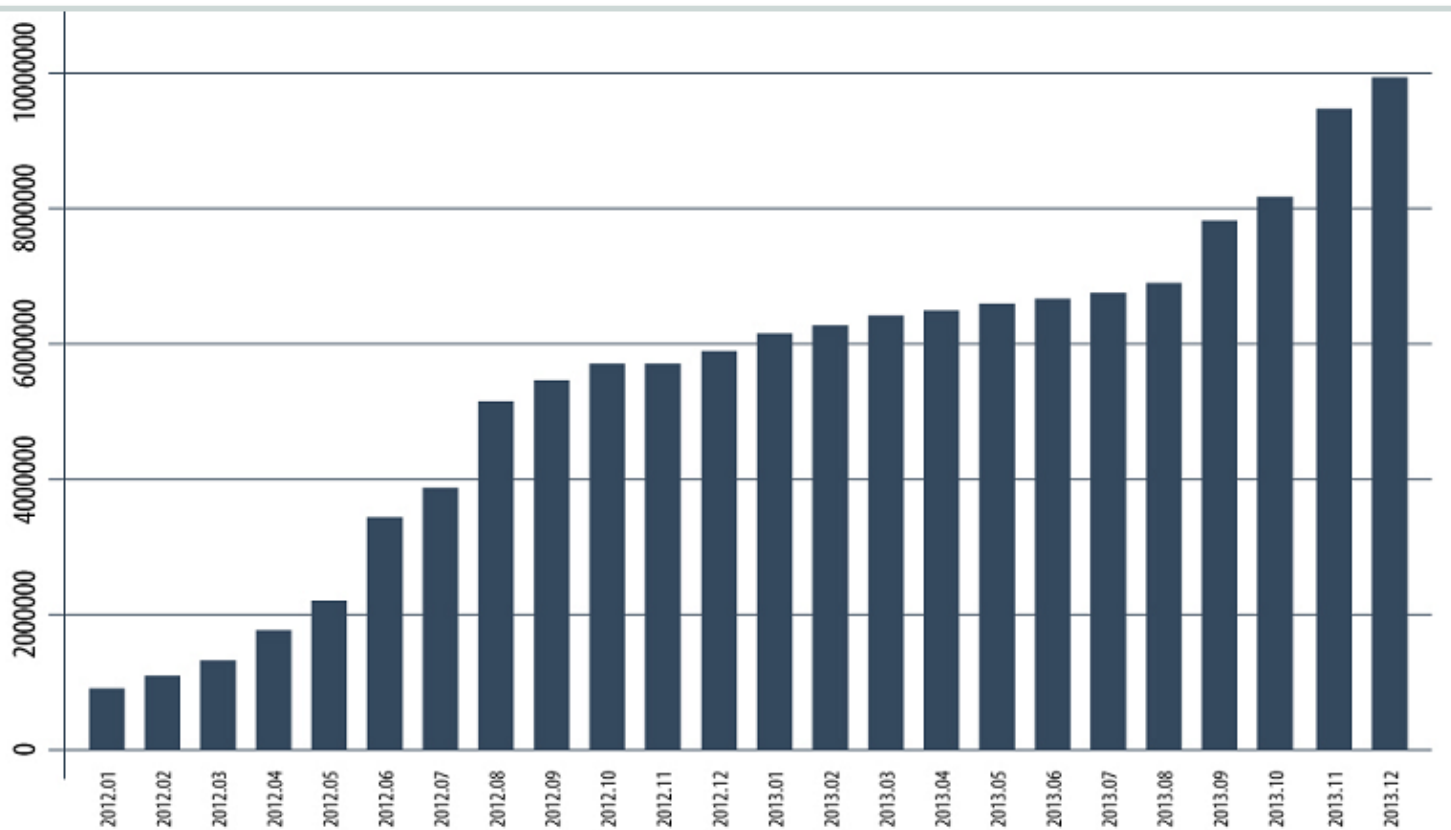
[View Slideshow](#)

2014 MOBILE MALWARE STATISTICS

MOBILE MALWARE SAMPLES IN OUR COLLECTION



2013: MOBILE MALWARE INSTALLATION PACKAGES



- ▶ In 2013, 3,905,502 installation packages were used by cybercriminals to distribute mobile malware.
- ▶ From 2012-2013 we detected approximately 10,000,000 unique malicious installation packages

2014 MALWARE CLASSIFICATION & CAPABILITIES

MALWARE DISTRIBUTION BY BEHAVIOR TYPE

29% Adware

22% Trojan-sms

17% Trojan

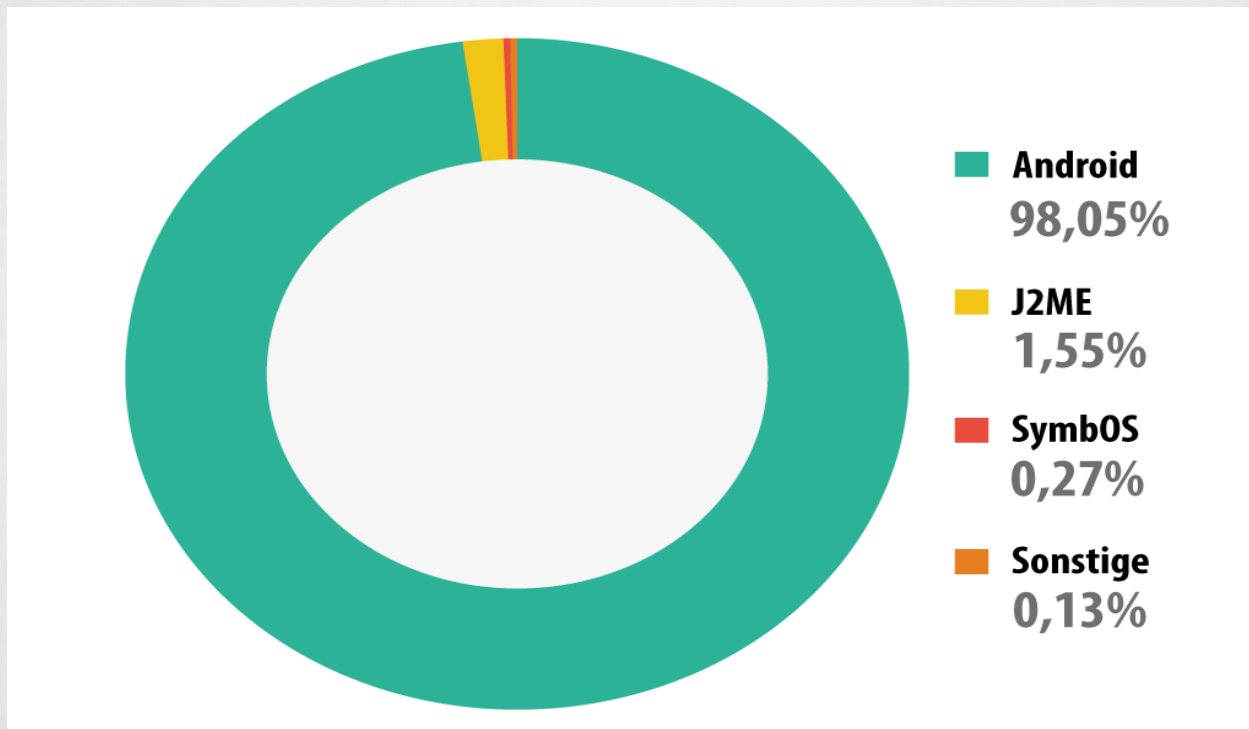
11% Backdoor

9% Risktool

12% Others

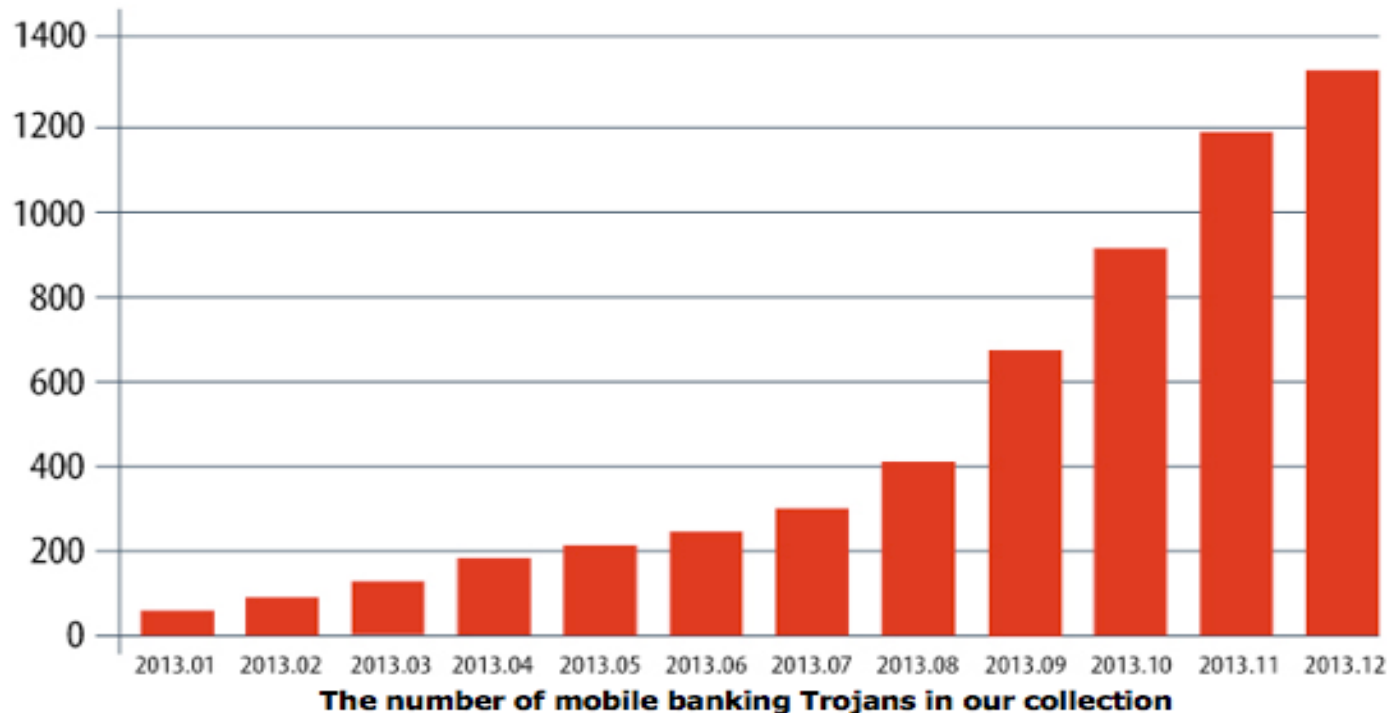


Mobile Malware by Mobile OS



Mobile Banking Trojans

Staggering growth from 67 to 1321 during 2013



2013 Mobile Malware Breakdown

■ Trojan-SMS 36% ■ Backdoor 26% ■ Trojan 16% ■ Trojan-Downloader 7% ■ Other 15%



- All mechanisms used to target PC's moving to mobile
- Main target to steal money; secondary target to steal personal data
- Majority of Mobile Malware are botnets with rich feature set
- Online Banking the clear target

Large Android Botnet

threatpost Monday, January 21st, 2013

Google™ Custom Search

The Kaspersky Lab Security News Service

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[Mobile Security](#) | [Privacy](#) | [SMB](#) | [Social Engineering](#) | [Virtualization](#) | [Vulnerabilities](#)

Home > Mobile Security >

January 15, 2013, 1:03PM

Android Botnet Infects 1M+ Phones in China


by Christopher Brook Twitter Facebook Reddit Share Like 25
5 4 Comments

Up to a million Android users in China could be part of a large mobile botnet according to research unveiled by Kingsoft Security, a Hong Kong-based security company, this week.

The botnet has spread across phones running the Android operating system via Android.Troj.mdk, a Trojan that researchers said exists in upwards of 7,000 applications available in the Google Play marketplace, including the popular Temple Run and Fishing Joy games.

According to reports, the strain of malware was discovered in 2011 but recent analysis has shown the botnet has ramped up infection rates and at this point might have infected one million smartphones.

The botnet opens phones to remote hijacks and unauthorized purchases, according to [a report by the BBC today](#) while a separate report on China's [Xinhua News Agency](#) [Translated] which first reported about the botnet earlier this week, claims the malware has caused some phones to randomly open "strange software" that is tricky to remove.



A similar Android botnet, [Rootstrap](#), infected more than 100,000 devices and scammed users into sending fake SMS messages last year. That malware, much like Android.Troj.mdk, was largely confined to China and at the time was described as the largest mobile botnet documented to date. If Android.Troj.mdk has indeed spread to a million phones as Kingsoft suggests, it's possible the botnet could soon overtake Rootstrap.

[China has already proven itself](#) to be a seemingly endless source of mobile malware and [with news today](#) that the country's mobile users have risen 18 percent from last year to 420 million, scores of phones are being put at risk daily.

In the last few months



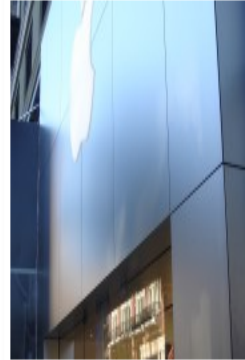
by **Dennis Fisher**

October 21, 2013 , 10:49 am

Categories: Social Engineering, Vulnerabilities, Web Security



5



October 17, 2013 , 11:10 am

Apple iMessage Open to Man in the Middle, Spoofing Attacks

by **Dennis Fisher**

Categories: Apple, Cryptography, Featured, Privacy

The Apple iMessage protocol has been shrouded in secrecy for years now, but a pair of security researchers have reverse-engineered the protocol and found that Apple controls the encryption key infrastructure for the system and therefore has the ability to read users' text messages—or decrypt them and hand them over at the order of a[...]



3

[Read more...](#)

Not a Typo!!



Kaspersky Counts Over 10 Million Malicious Android Applications

Posted 02/10/2014 at 11:44am | by Paul Lilly

4

Comments

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191

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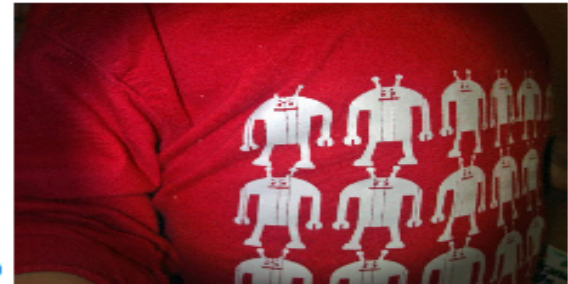
21

Share

Android is by far the biggest target of mobile malware

Security firm **Kaspersky** says it has **logged 10 million dubious Android applications** to date. It comes down to a numbers game for cyber criminals, and since Android is the most popular mobile operating system on the planet -- market research firm **Canalys** estimates that Android accounted for 80 percent of smartphones shipped in 2013 -- it attracts the most attention from malware writers.

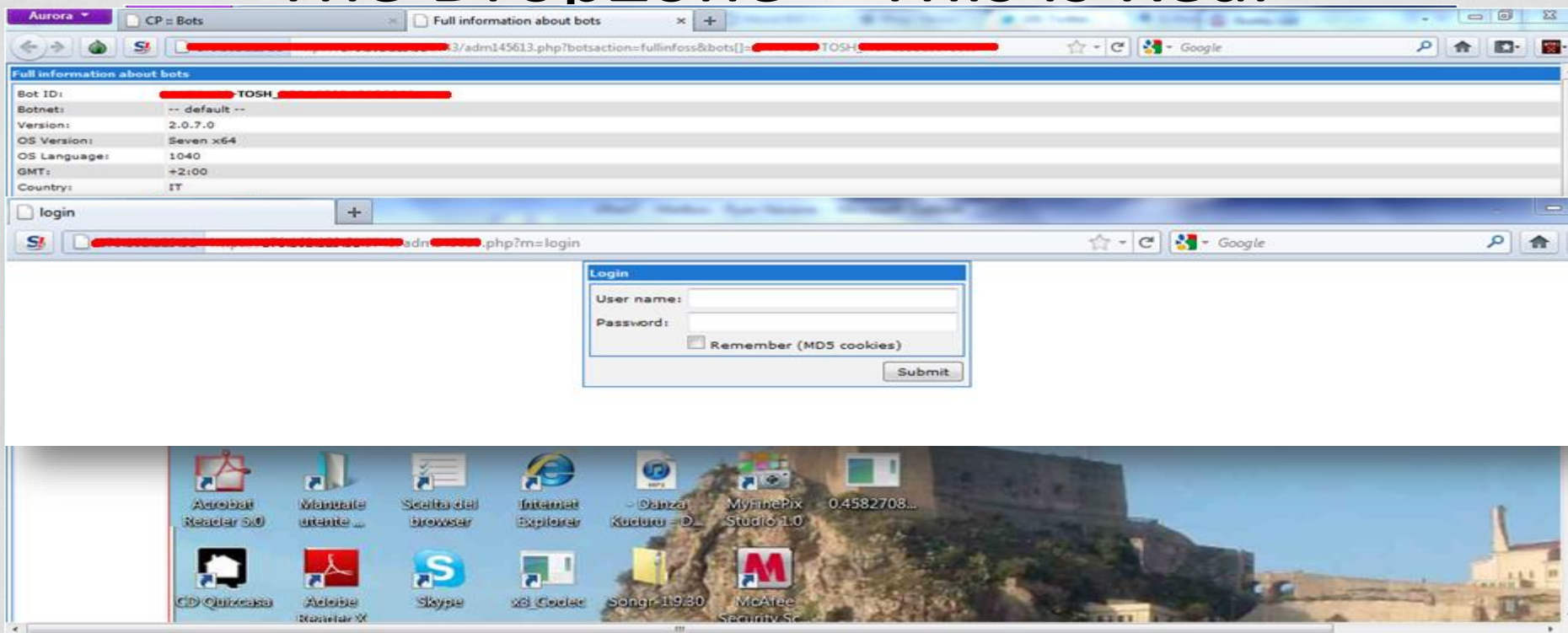
"In most cases malicious programs target the user's financial information. This was the case, for example, with the mobile version of Carberp Trojan that originated in Russia," **Kaspersky** explains. "It steals user credentials as they are sent to a bank server."





I LOVE THIS THING!

The DropZone – This is Real



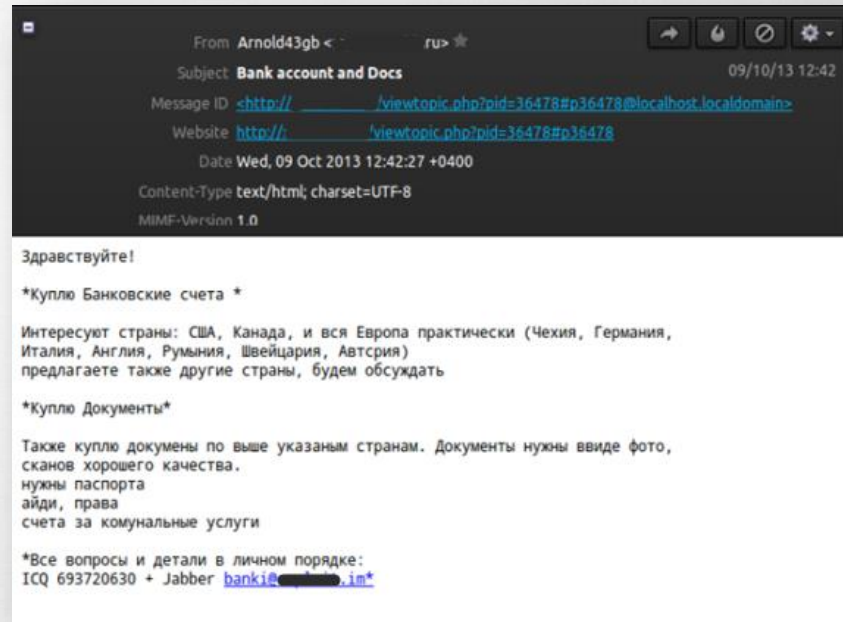
THE UNDERGROUND MARKET

RESELLING STOLEN CREDIT CARDS

Visa Cw 2 \$ per 1	Master Cw 2.5 \$ per 1	Discover Cw 3.5 \$ per 1	Amex Cw 3.5 \$ per 1
			
Warranty: 3 day Max buy: 30	Warranty: 3 day Max buy: 30	Warranty: 3 day Max buy: 30	Warranty: 3 day Max buy: 30
Min buy: 5 In Stock: 42	Min buy: 5 In Stock: 42	Min buy: 5 In Stock: 42	Min buy: 5 In Stock: 42
Buy now quantity	Buy now quantity	Buy now quantity	Buy now quantity
5 10 15 20 30	5 10 15 20 30	5 10 15 20 30	5 10 15 20 30

50\$ For 500\$ Balance	50\$ For 500\$ Balance	50\$ For 500\$ Balance	50\$ For 500\$ Balance
			
Warranty: 3 day Max buy: 3	Warranty: 3 day Max buy: 30	Warranty: 3 day Max buy: 30	Warranty: 3 day Max buy: 30
Min buy: 1 In Stock: 13	Min buy: 5 In Stock: 42	Min buy: 5 In Stock: 42	Min buy: 5 In Stock: 42
Buy now Buy With Balance	Buy now Buy With Balance	Buy now Buy With Balance	Buy now Buy With Balance
500\$ 1000\$ 1500\$ 2000\$ 3000\$ Balance	500\$ 1000\$ 1500\$ 2000\$ 3000\$ Balance	500\$ 1000\$ 1500\$ 2000\$ 3000\$ Balance	500\$ 1000\$ 1500\$ 2000\$ 3000\$ Balance

RESELLING DATABASES OF STOLEN & AGGREGATED FINANCIAL CREDENTIALS



From: Arnold43gb <...ru> ★

Subject: Bank account and Docs

Message ID: <http://.../viewtopic.php?pid=36478#p36478@localhost.localdomain>

Website: http://.../viewtopic.php?pid=36478#p36478

Date: Wed, 09 Oct 2013 12:42:27 +0400

Content-Type: text/html; charset=UTF-8

MIME-Version: 1.0

Здравствуйте!

*Куплю Банковские счета *

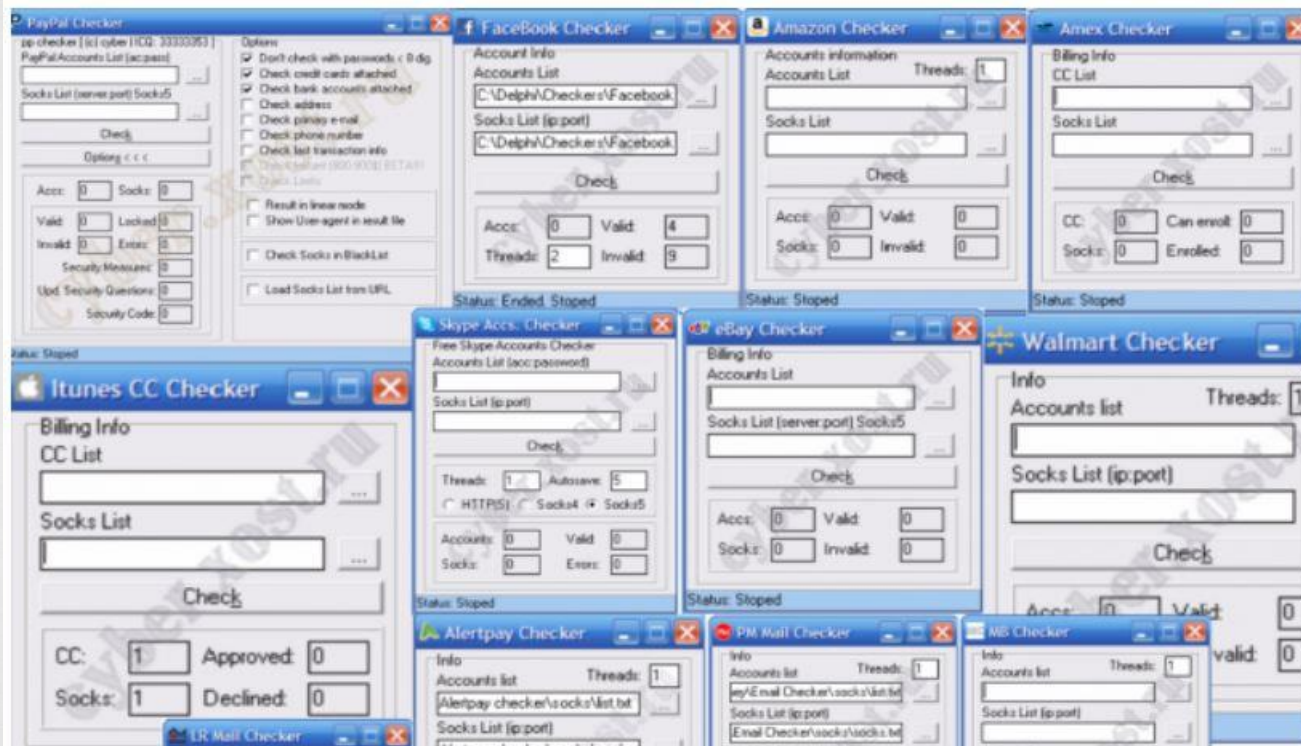
Интересуют страны: США, Канада, и вся Европа практически (Чехия, Германия, Италия, Англия, Румыния, Швейцария, Австрия)
предлагаете также другие страны, будем обсуждать

Куплю Документы

Также куплю докумены по выше указанным странам. Документы нужны ввиде фото, сканов хорошего качества.
нужны паспорта
айди, права
счета за коммунальные услуги

*Все вопросы и детали в личном порядке:
ICQ 693720630 + Jabber banki@...im*

The Value of a Hacked PC



Account checking tools sold on the cybercriminal underground by one vendor.

Be Ready for What's Next

**5 Ways IT may
Be an
Accomplice**



1) Migration Myopia

Believing that company data never finds its way to home systems



2) Social Media Mania

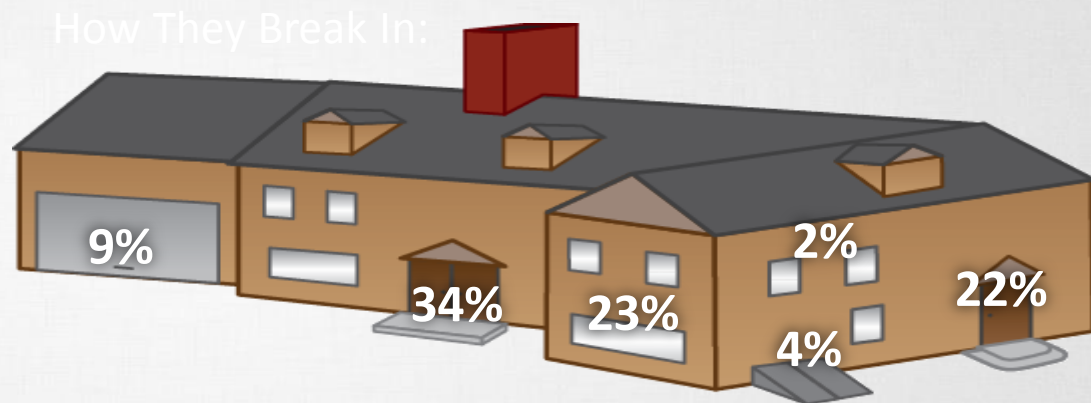
Adopting Social Media Without Protection



3) Attention Misdirection

Focusing on Protection vs. Detection and Response

- 95% of respondents listed the 12 items below
- 95% thought that Prevention was key
- IT Security spending follows the same mindset



Prevention

Doors
Locks
Windows
Fence

Detection

Alarm
Motion detector
Monitoring
Crime watch

Response

Dog
Police
Gun
Insurance

Source: "Data @ Risk" by David H. Stelzl

4) Awareness Deficit

Failing To Foster A Culture Of Awareness



5) Reliance on Compliance

- Compliance... just one step north of negligence.

Josh Corman, the 451 Group

**MEETS
COMPLIANCY
STANDARDS**

Compliant Lifeboat Capacity:

1,060

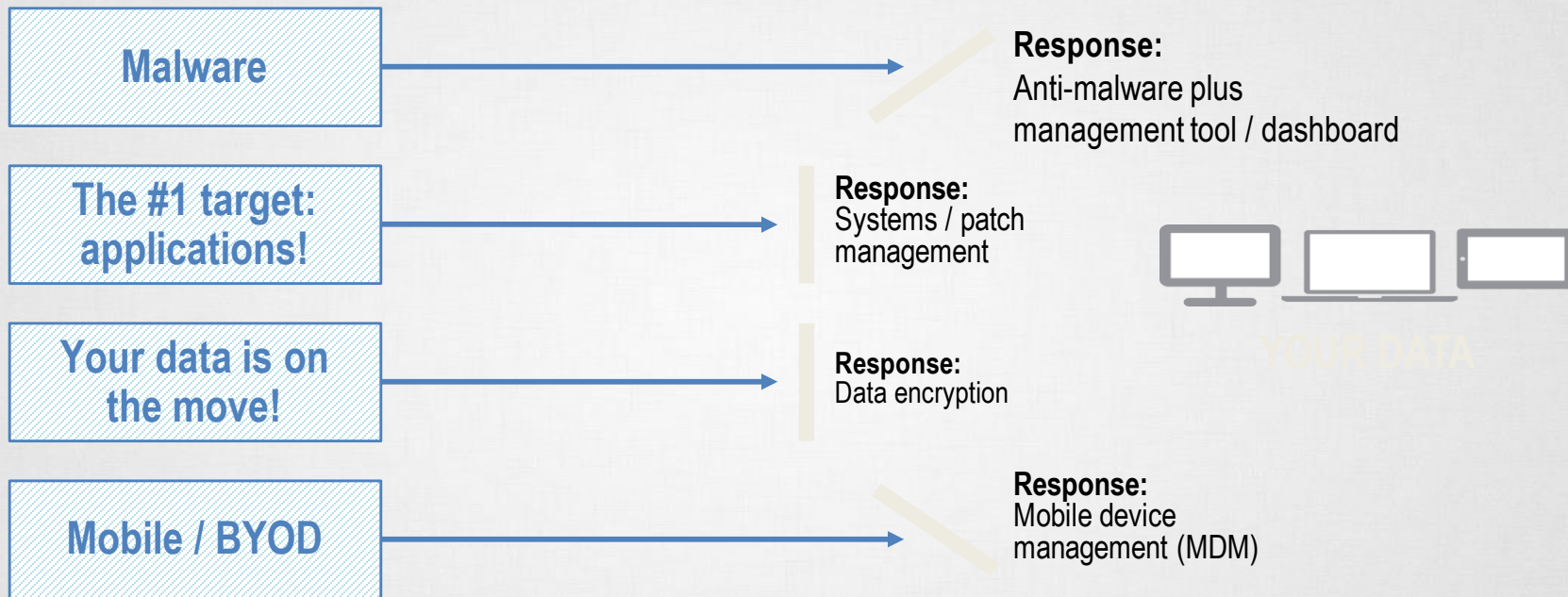
Actual Lifeboat Capacity:

1,178

Passengers:

3,547

The impact on IT security



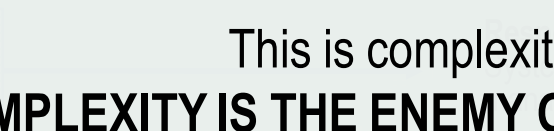
The impact on IT security

Malware



Response:
Anti-malware plus
management tool / dashboard

The #1 target
application

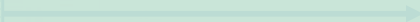


Response:
Patch

This is complexity

COMPLEXITY IS THE ENEMY OF IT SECURITY

Your data is on
the move!



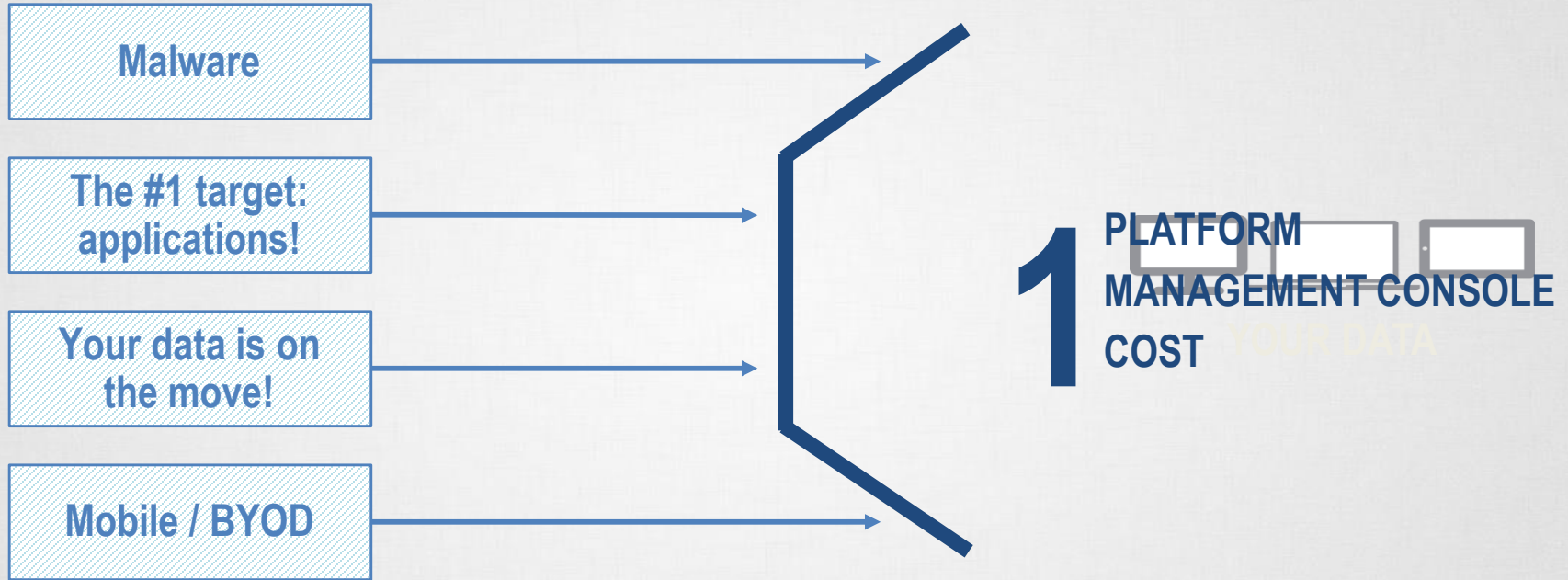
Response:
Data encryption

Mobile / BYOD

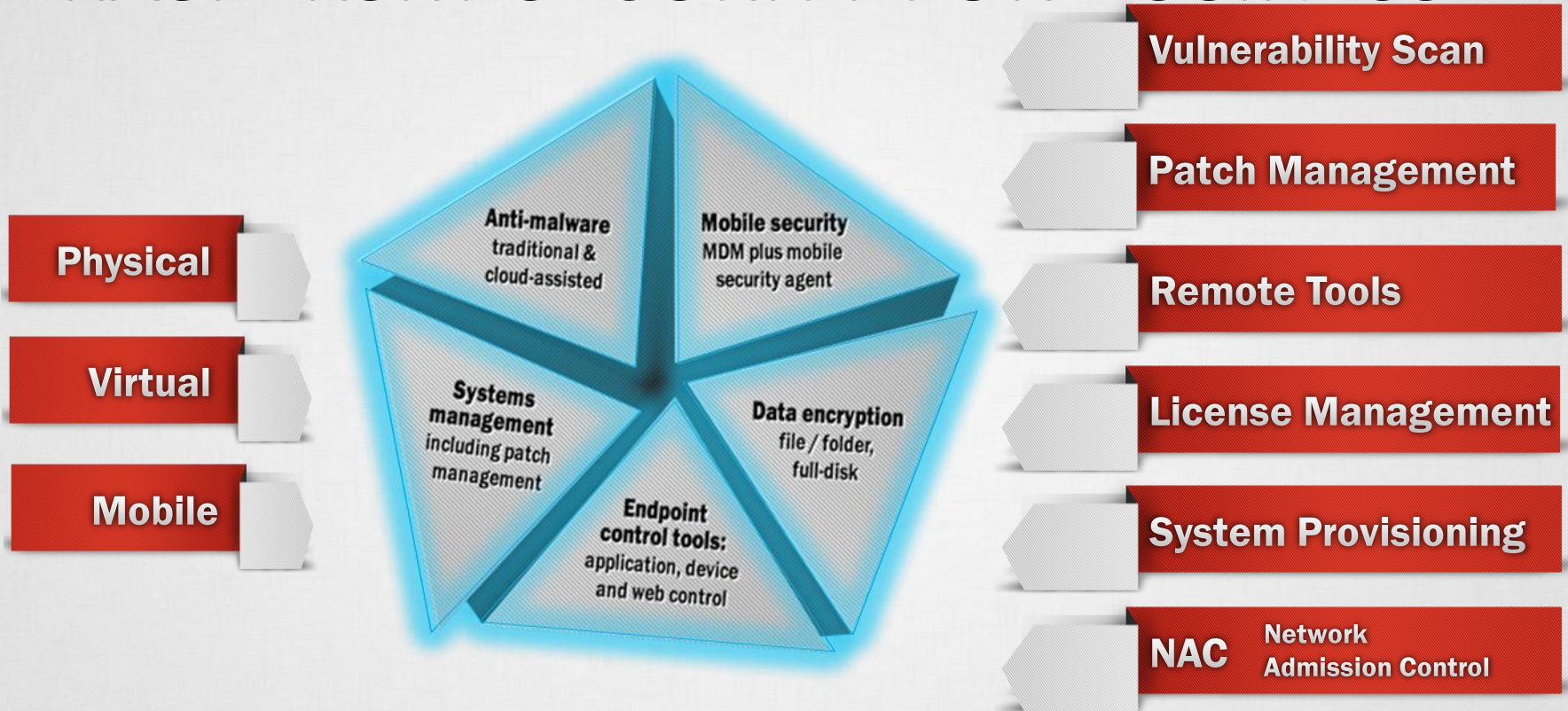


Response:
Mobile device
management (MDM)

What if?



KASPERSKY SECURITY FOR BUSINESS



OUR LEADERSHIP IS PROVEN BY INDEPENDENT TESTS

In 2013, Kaspersky Lab products participated in 79 independent tests and reviews.

Our products won the 1st place 41 times and finished in the Top 3 of all tests 61 times (77%).

The size of the bubble is number of 1st places.

