Social Engineering (SE)

BeerTalk

Berlin, 17. Februar 2015

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Agenda

Introduction to Social Engineering

- Attack / Spoofing vectors
- Phishing Sites / Trojan Horses

Live Demos

Compass Experience

- Countermeasures
- Social Engineering Test Benefits

What is Social Engineering?

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What is social engineering?

Attack Vectors / Spoofing Methods

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Attack & Spoofing Vectors

Social Networks

Impersonation

Drive-by-Infection

Baiting

Phishing

Fingerprinting

E-Mail Infection

Phone

Malicious Website

Dumpster Diving

Misuse of Trust

Why do you trust a message?

- I know the sender (phone number, mail-address)
- I know the structure of the message
- I expect the message

Why do you trust a web site?

- I know the domain of the website
- I know how the web site looks like
- I trust the seal on the web site
- I trust the SSL/TLS certificate

Targeted Attacks

Why make a lot of noise if one victim provides the information I want?

- Run attack to only a few individuals
- Take more time on one individual, better preparation of the attack

Targeted Attacks

- Do not raise suspicion
- No AntiVirus patterns for used malware
- Hard to detect in log files / with intrusion prevention systems
- Longer infection possible, restart malware everytime the user logs in – long time compromise

Phishing Sites

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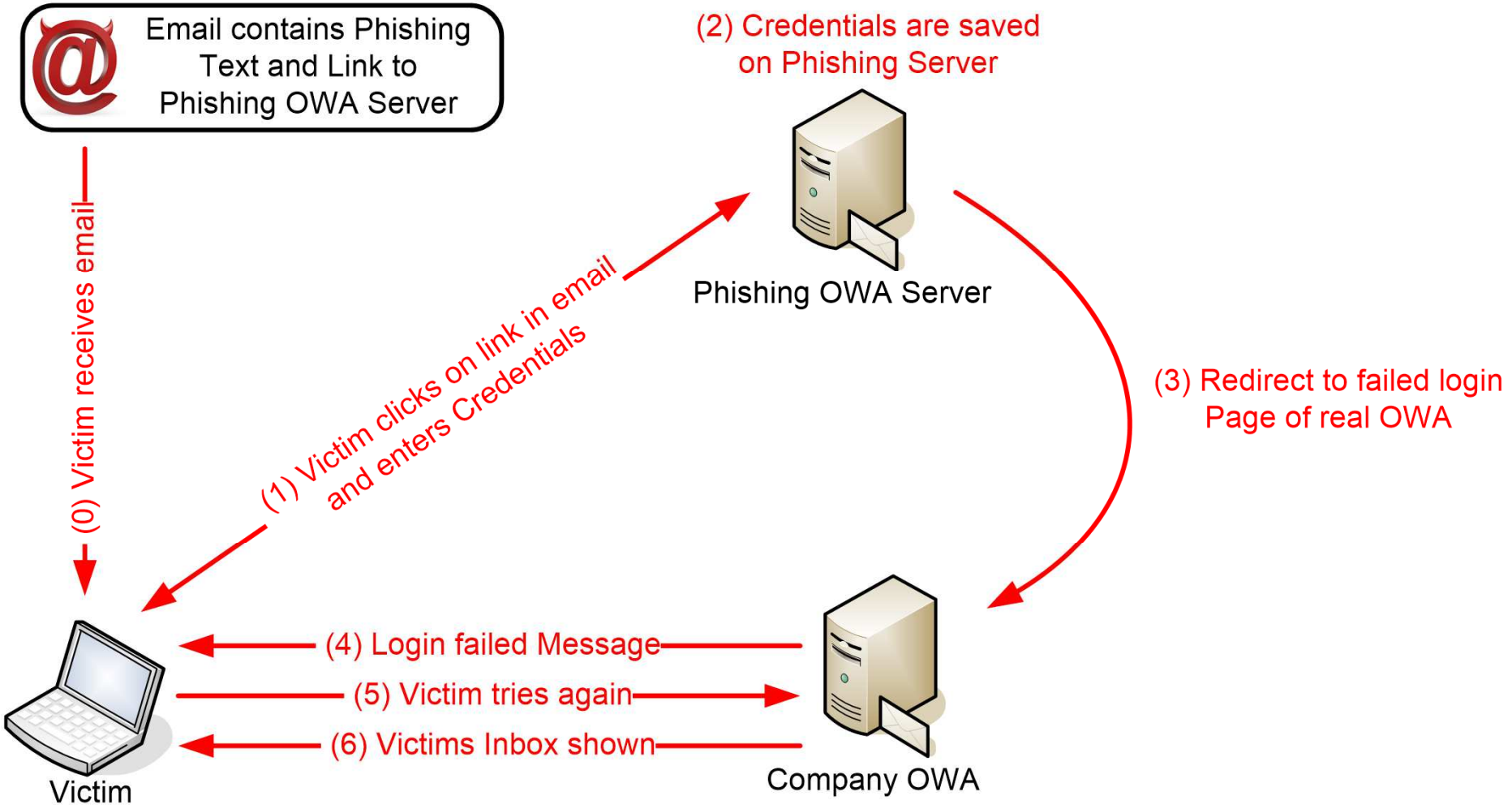
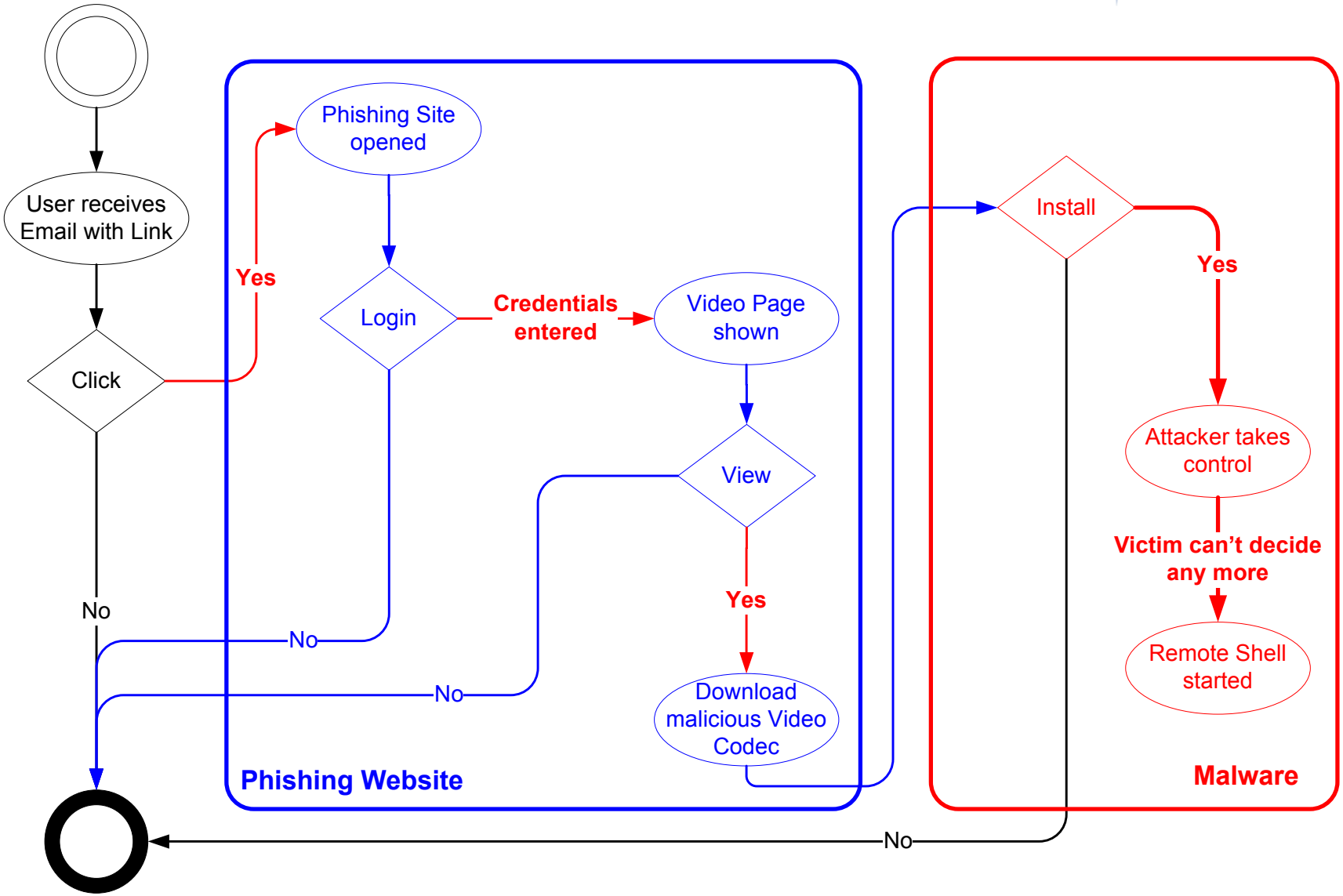
Simple Phishing Website

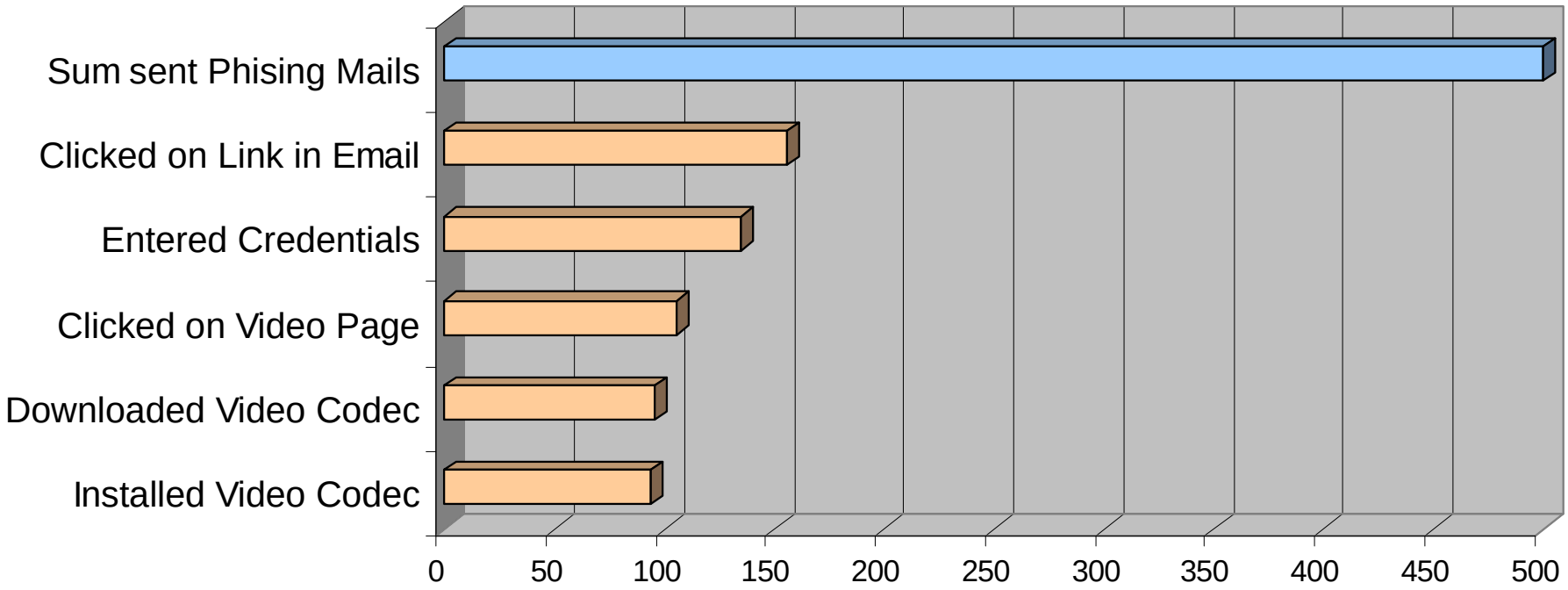
Simple Phishing Website explained



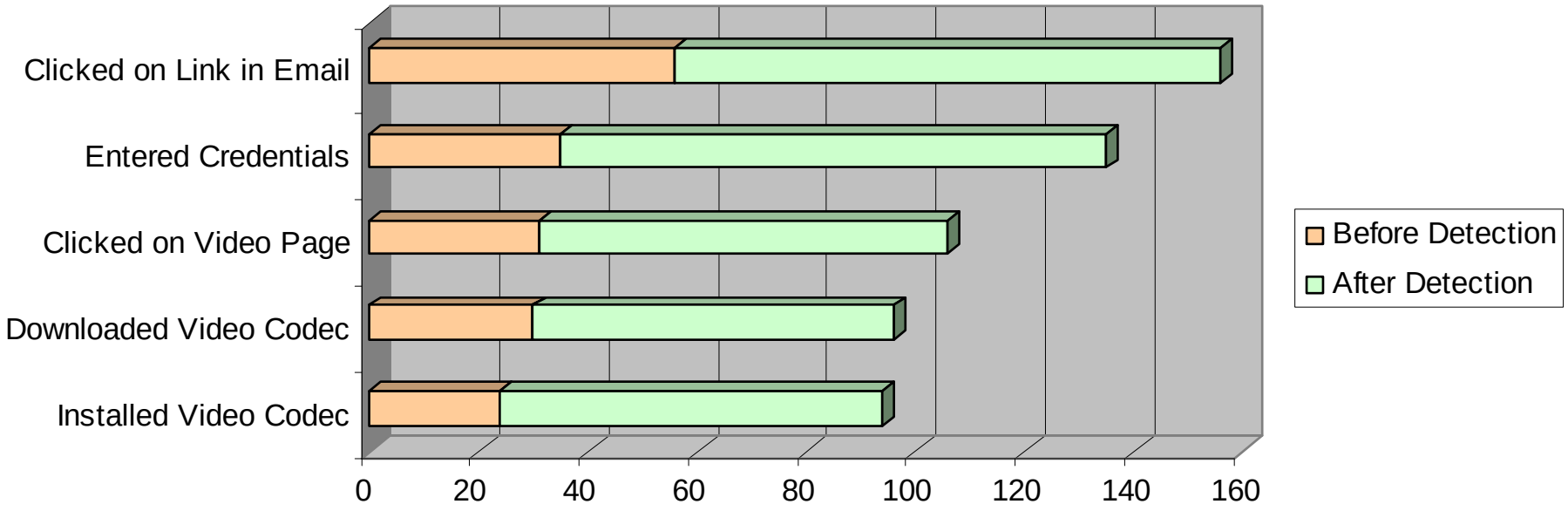
Example of complex Phishing Site



Analysis of complex Phishing Sites



Analysis of complex Phishing Sites (2)



Trojan Horses

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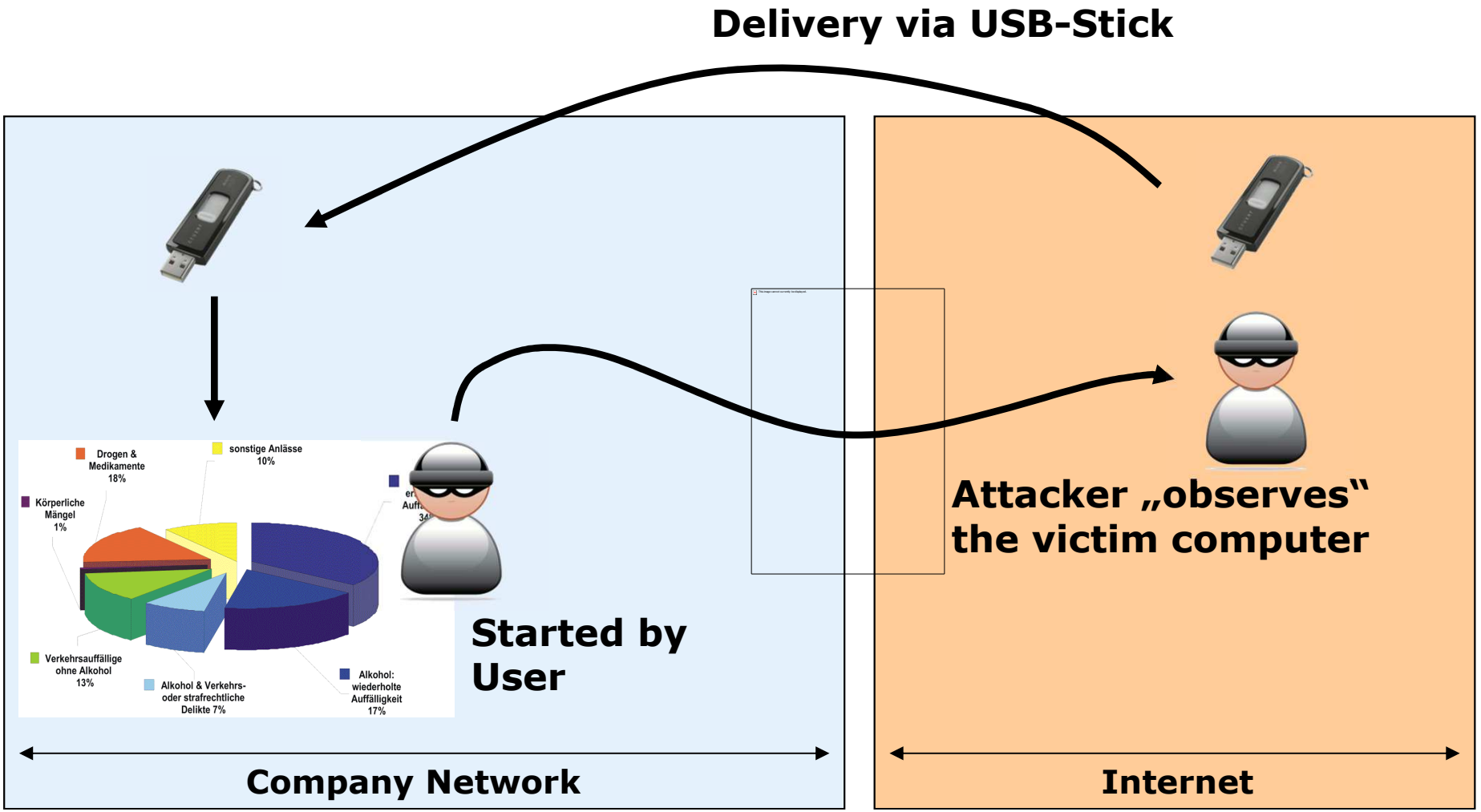
Trojan Horse

Covert Channel



Live Demos

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Live Demo – Computer Phishing

A1) Webmail Phishing

- Attack Vector:
  - eMail with URL
- Goal:
  - Get Webmail/Windows credentials

A2) FaceBook Phishing (Invitation)

- Attack Vector:
  - eMail with Facebook invitation
- Goal:
  - Get Facebook credentials / Impersonation

Live Demo – SmartPhone Information

B1) SMS from your Bank

- Attack Vector:
  - SMS with call back number
- Goal:
  - Get personal information

B2) GPS location

- Attack Vector:
  - SMS with URL to location web site
- Goal:
  - Get coordinates of victim

Live Demo – SmartPhone Phishing

B3) iCloud Phishing

- Attack Vector:
  - SMS with URL to phishing web site
- Goal:
  - Get iCloud credentials
  - Steal date stored in iCloud (contacts, files, backup, etc.)

B4) Android NFC Business Card

- Attack Vector:
  - Business card with modifed NFC, points to phishing web site
- Goal:
  - Get Google credentials
  - Steal data stored on Google (mails, contacts, files, etc.)
  - Install trojan app on mobile phone

Live Demo – CallID Spoofing

B5) CallID Spoofing

- Attack Vector:
  - Call with spoofed sender number
- Goal:
  - Get personal information

Live Demo – Trojan User Interaction

C1) Exe in Word-Dokument

- Attack Vector:
  - Mail with Word-Document
- Goal:
  - Remote control the workstation of the user

C2) Download EXE

- Attack Vector:
  - Facebook chat message – download URL
- Goal:
  - Remote control the workstation of the user

C3) USB Trojan

- Attack Vector:
  - USB stick with interesting file (EXE)
- Goal:
  - Remote control the workstation of the user

Live Demo – Trojan DriveBy

D1) Drive-By Java 0-Day

- Attack Vector:
  - Web site with URL
- Goal:
  - Remote control the workstation of the user

Countermeasures

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But, you can protect your Company

- Technical Countermeasures
  - Virus Scanner
  - Disable Autorun / USB / CD-ROM
  - Disable dangerous attachements in Emails
  - Firewalls / Content Filter / SSL-Split-Proxy
  - IDS
  - Protocol Sanitation (HTTP / DNS)
  - Limit user permissions
  - Secure WLAN
- Organizational Countermeasures
  - Access Control
  - Security Zones
  - Educate Employees – User Awareness
  - Security Policies
  - Awareness Demo
  - Social Engineering Test

Social Engineering Test Benefits

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Social Engineering Test Benefits

I know Social Engineering always works.

So why should I conduct a Social Engineering Test in my company?

Social Engineering Test Benefits

Technical Infrastructure – Sufficient?

Incident Handling – Adequate?

Security Awareness Courses – Learning Success?

Security Processes – No Weak Points?

Access Control – Impenetrably?

Thank you very much for your attention!

Contact

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