Deloitte.

Companies like yours

Jan-Jan Lowijs, Maarten Aertsen

DDMA - Datasecurity congres

May 19th, 2015
Edel, Amsterdam

Deloitte.

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Privacy team

Deloitte Risk Services

The Netherlands

Consultant

- Privacy Advisor
- Security Engineer

Jan-Jan Lowijs

Privacy team

Deloitte Risk Services

The Netherlands

Manager

- Privacy & Data protection
- Vulnerability management

Security & Privacy at Deloitte in the Netherlands

- Over 120 Security & Privacy professionals
- Over 65 CISSP's
- Over 40 Ethical hackers
- Official security and privacy trainers recognized by ISACA, $(ISC)^2$, IAPP

On September 19th 2013 the 3rd finals took place in Atlanta. Over 600 teams participated in the preliminary rounds. The 10 best teams representing all continents participated in the finals. The Deloitte Netherlands team won this final for the third time.

Trends

The cyber world is ever evolving

Society & Economy

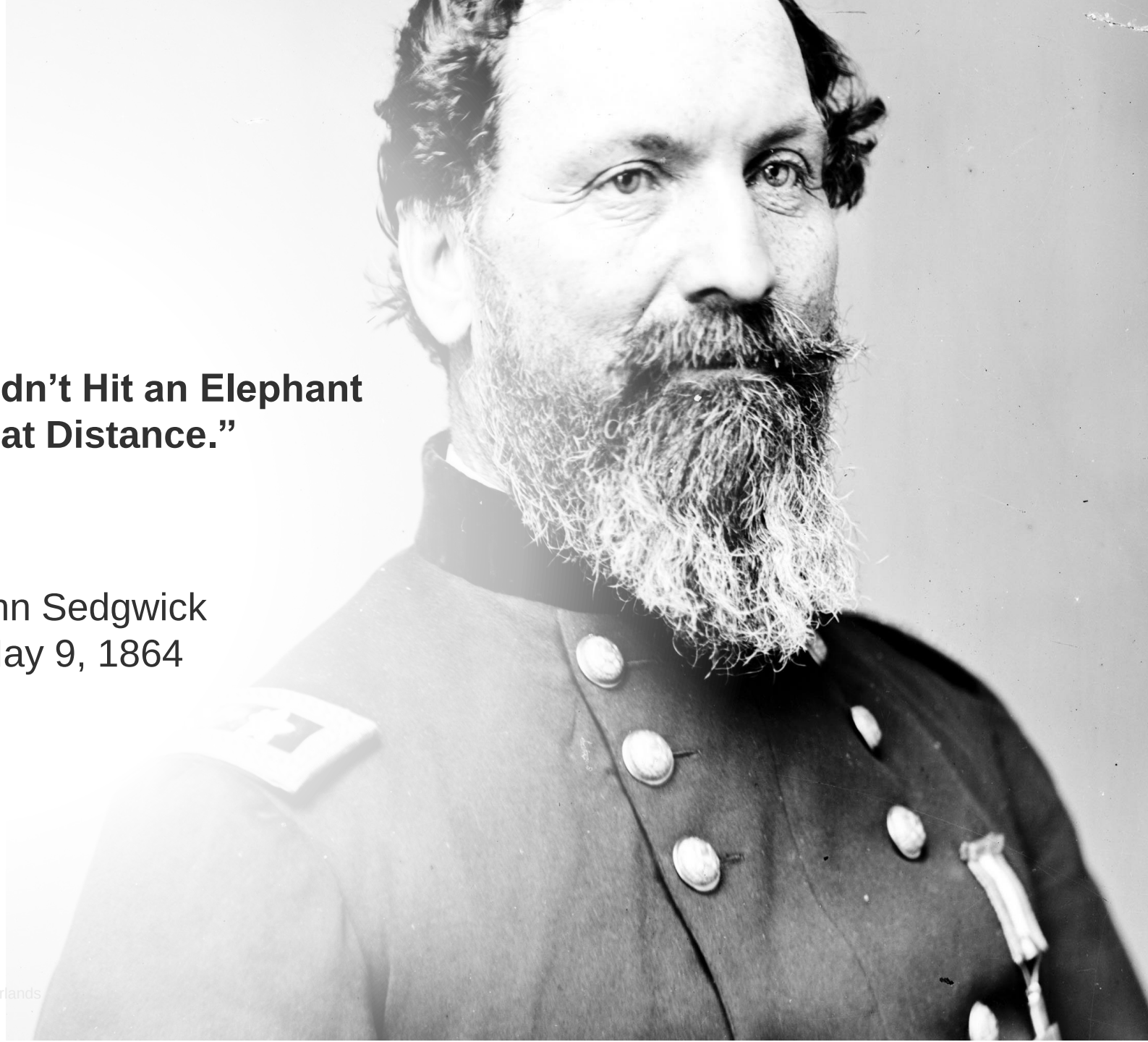
1. Dependence on technology is growing
2. Connectivity increases dramatically
3. Disruptions in technology are a clear and present danger to business continuity

Cloud computing, Social Media, mobile computing, BYO, remote working, always online, digital-supply-chain, online shopping, online banking, etc.

Cyber Threats

1. Increased digital
2. Cybercrime is professionalizing
3. Increase in other factors and motivations

DDoS, Skimming, SPAM, Phishing, Spear-phishing, Internet banking hack, Credit card data theft, Identity theft, Password cracking, Disclosure confidential data, hacking Social Media, hacking parking terminals, disruption manufacturing systems, etc.



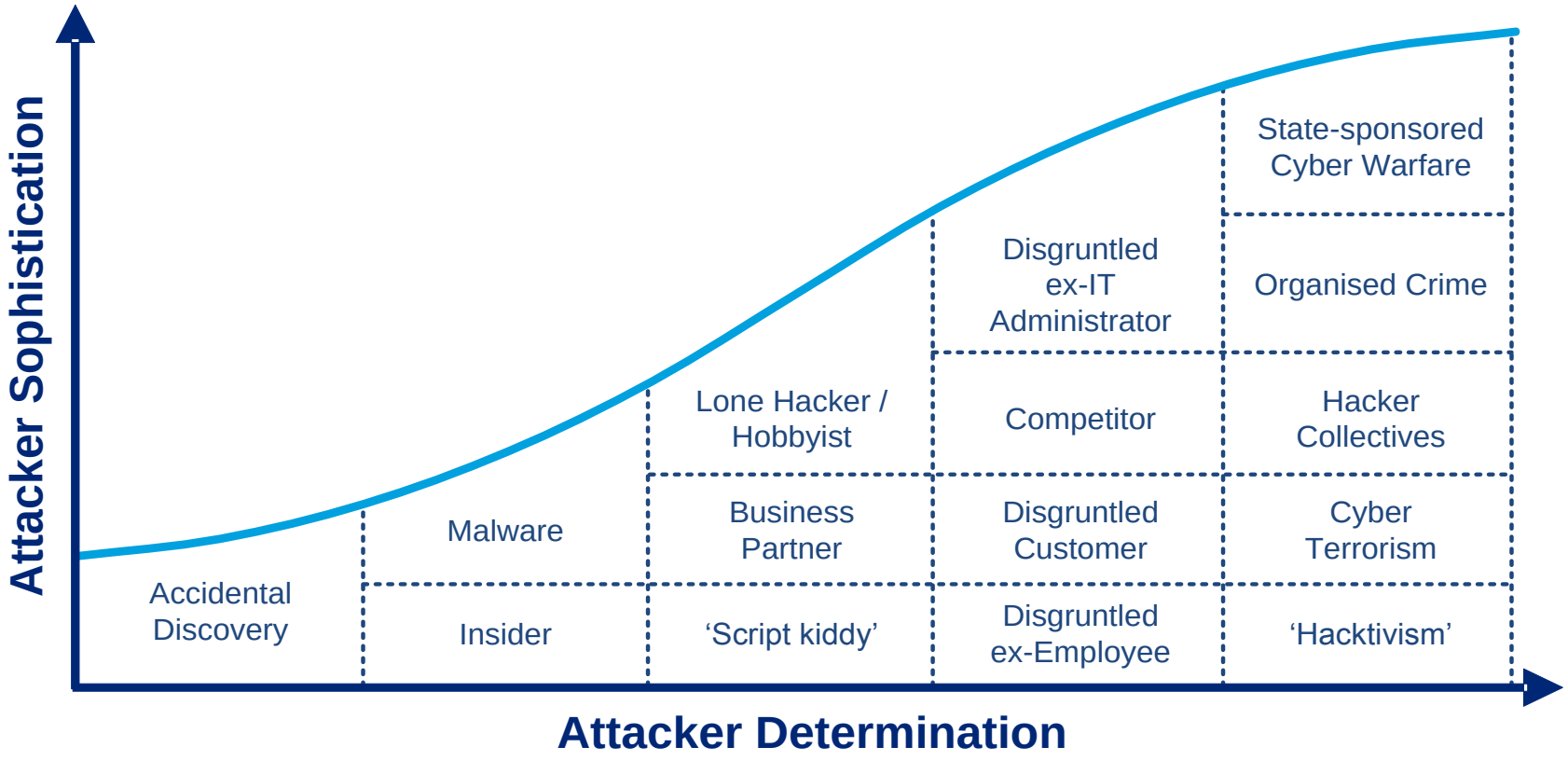
“They Couldn’t Hit an Elephant at that Distance.”

John Sedgwick
May 9, 1864

The danger

Who is targeting you?

Type	Permission?	Criminal Intent?
Blackhat	No	Yes
Greyhat	No	No
Whitehat	Yes	No



Companies like yours

Video

Companies like yours

Video

http://www.deloitte.nl/cybervideo

Companies like yours
Comments

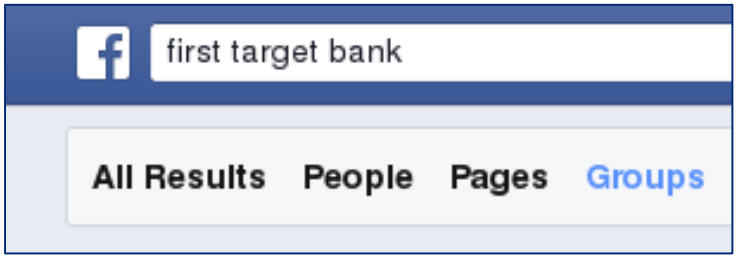
Nice movie, but…

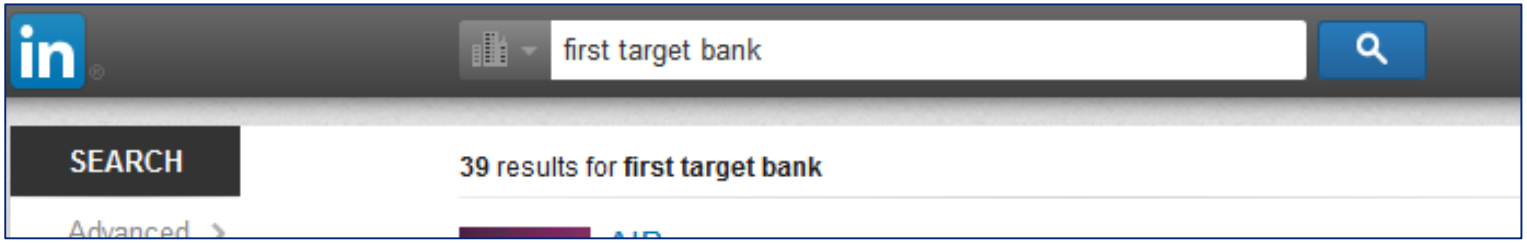
- This will never happen to us.
- Not at our company.
- It’s too much ‘James Bond’.
- It isn’t that easy in real life.
- They are just actors.
- …

Not in real life?

Allow us to demonstrate

Step 1
Information gathering





Step 1

Ally is system administrator.

Ally expects pictures from Jim.

Step 2
Social engineering

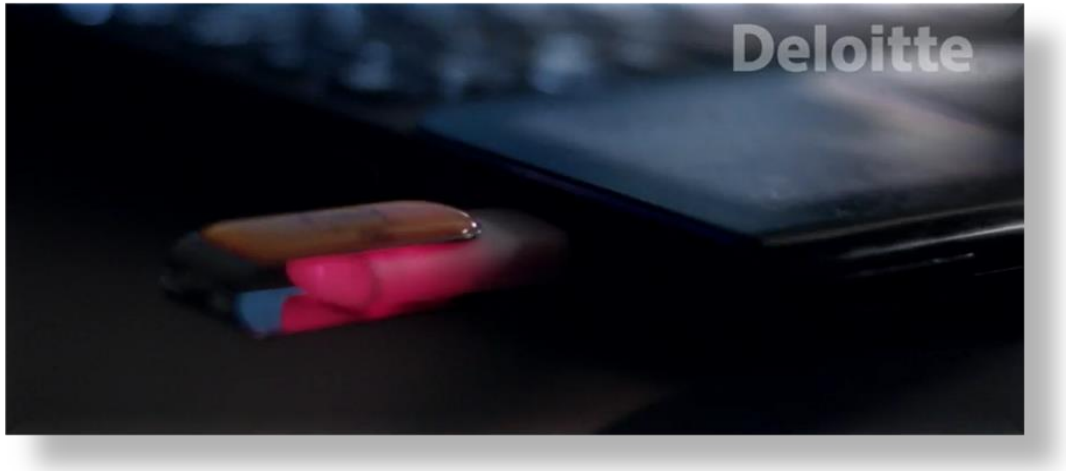
Step 2

Victim 1

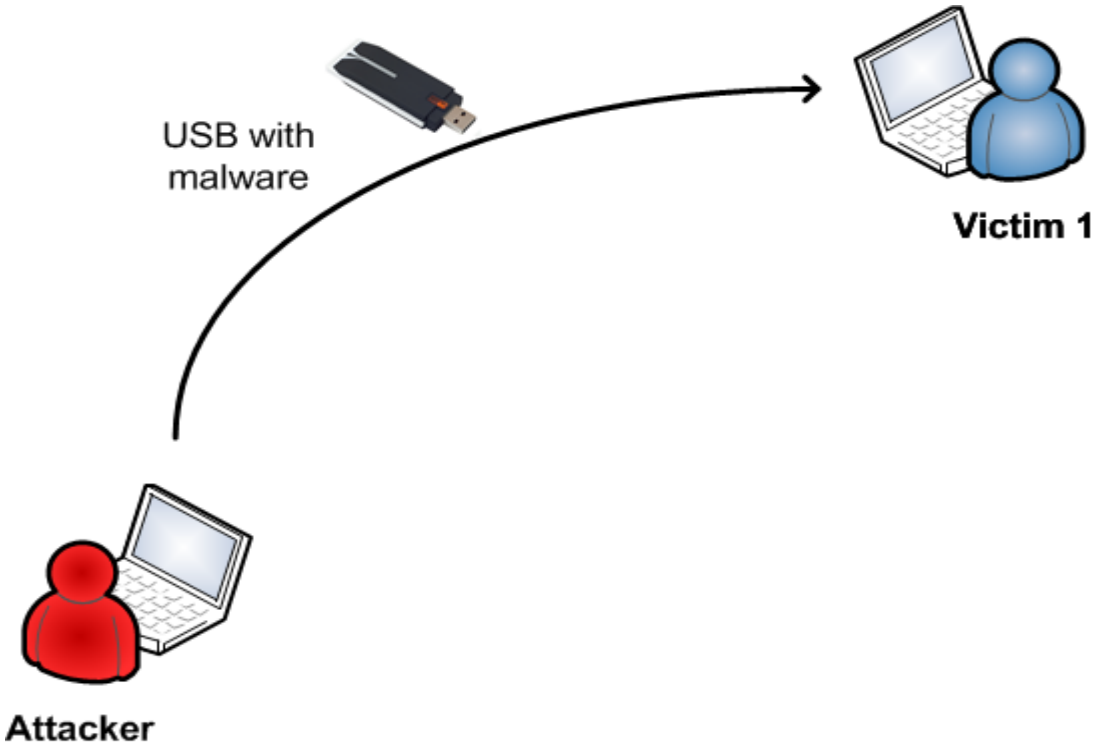
Jim

Attacker

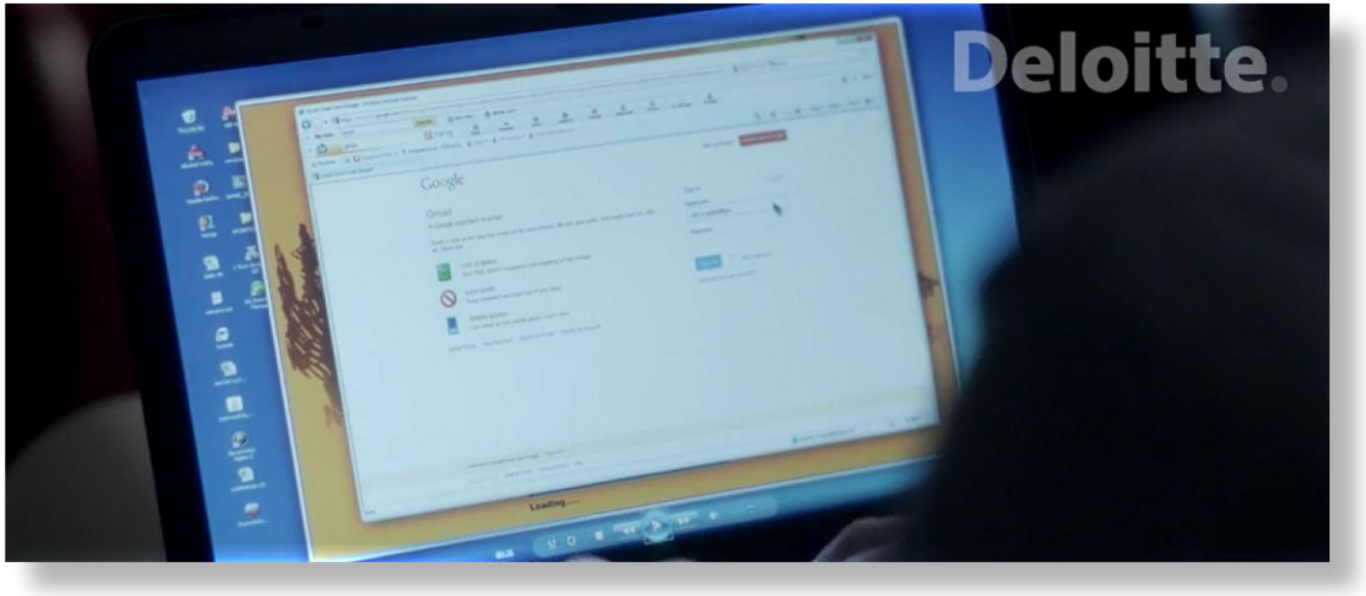
Step 3
The infection



Step 3



Step 4
Gaining access



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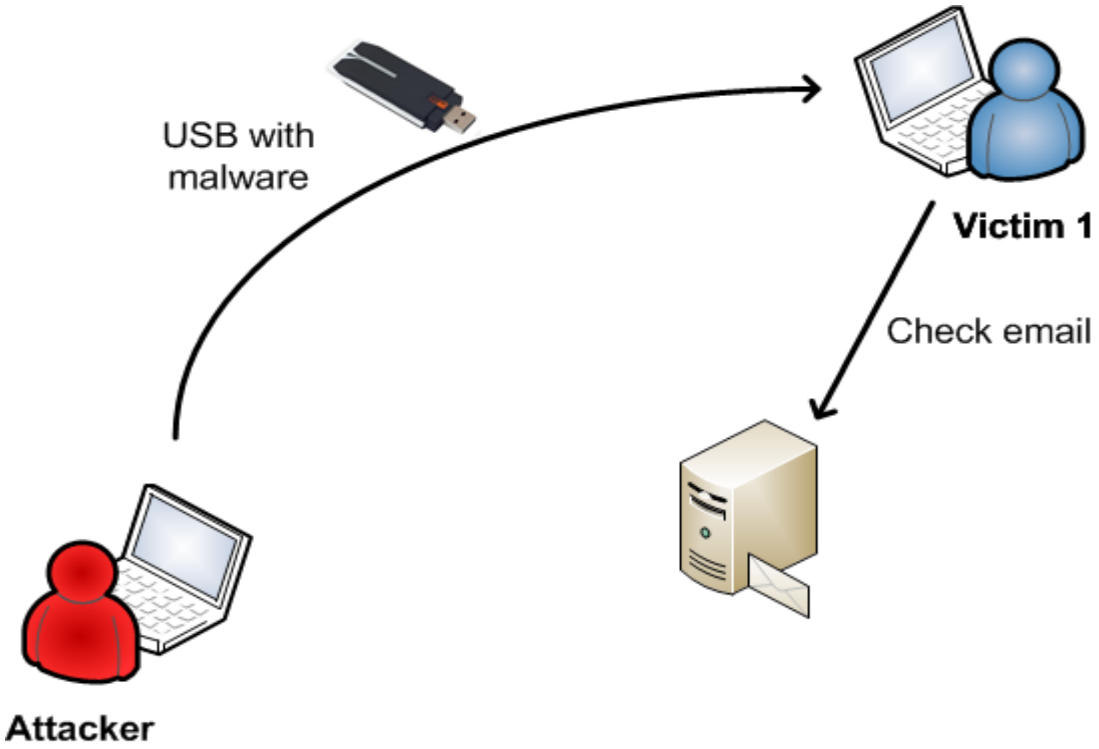

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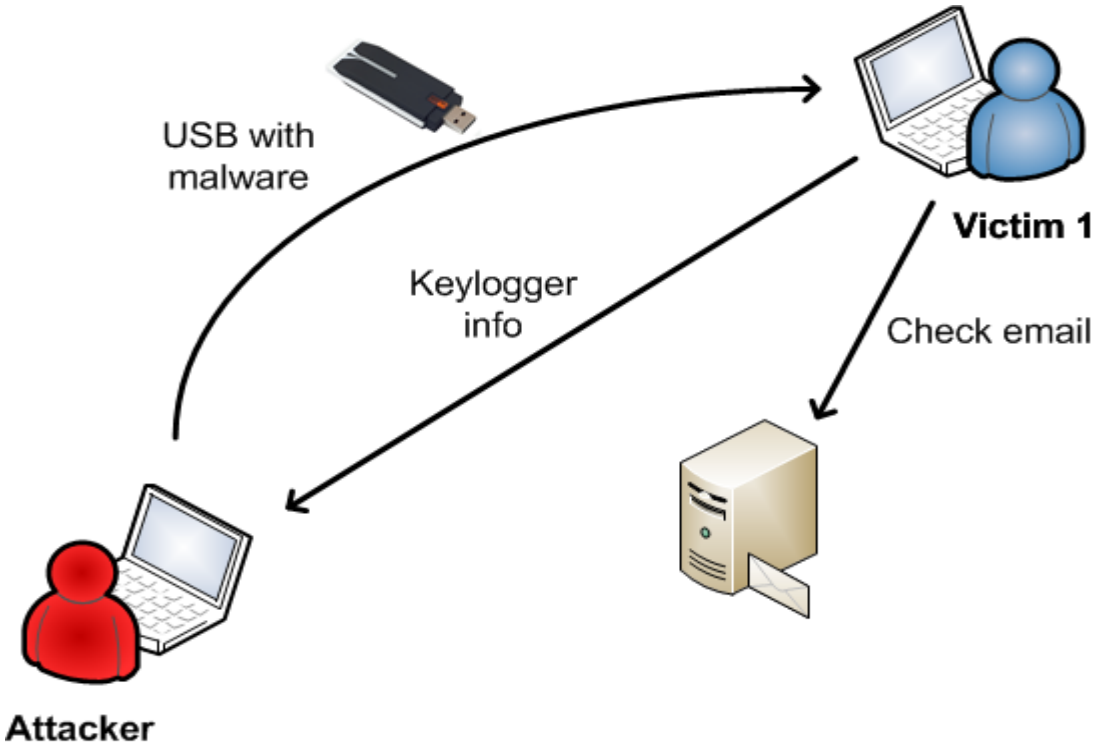

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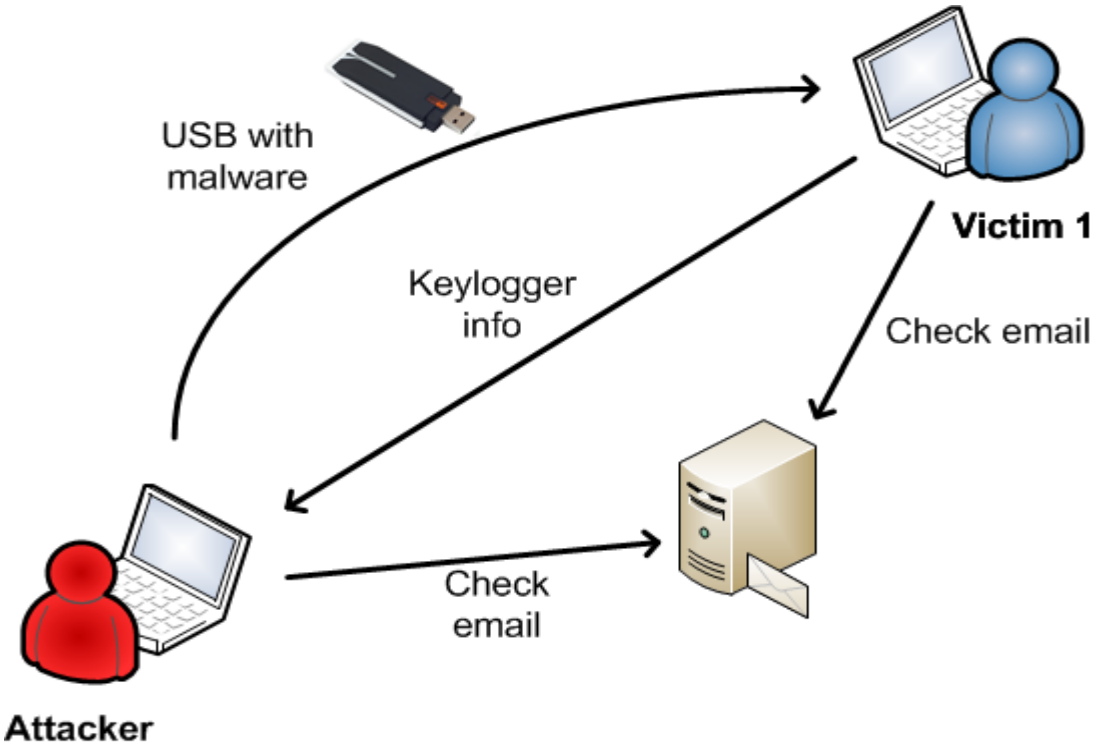
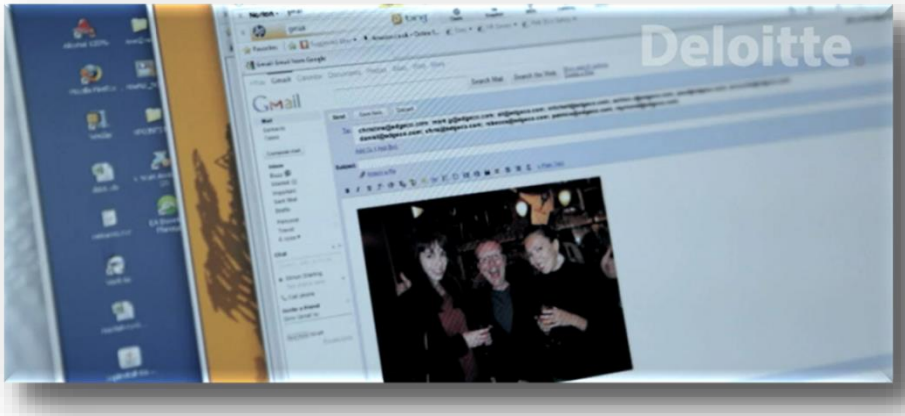


- Access e-mail
- E-mails with passwords
- Password reset option
- Passwords exchange
- Business contacts
- Access LinkedIn
- Access Twitter
- Access Facebook
- Etcetera

Step 5
Expanding privileges



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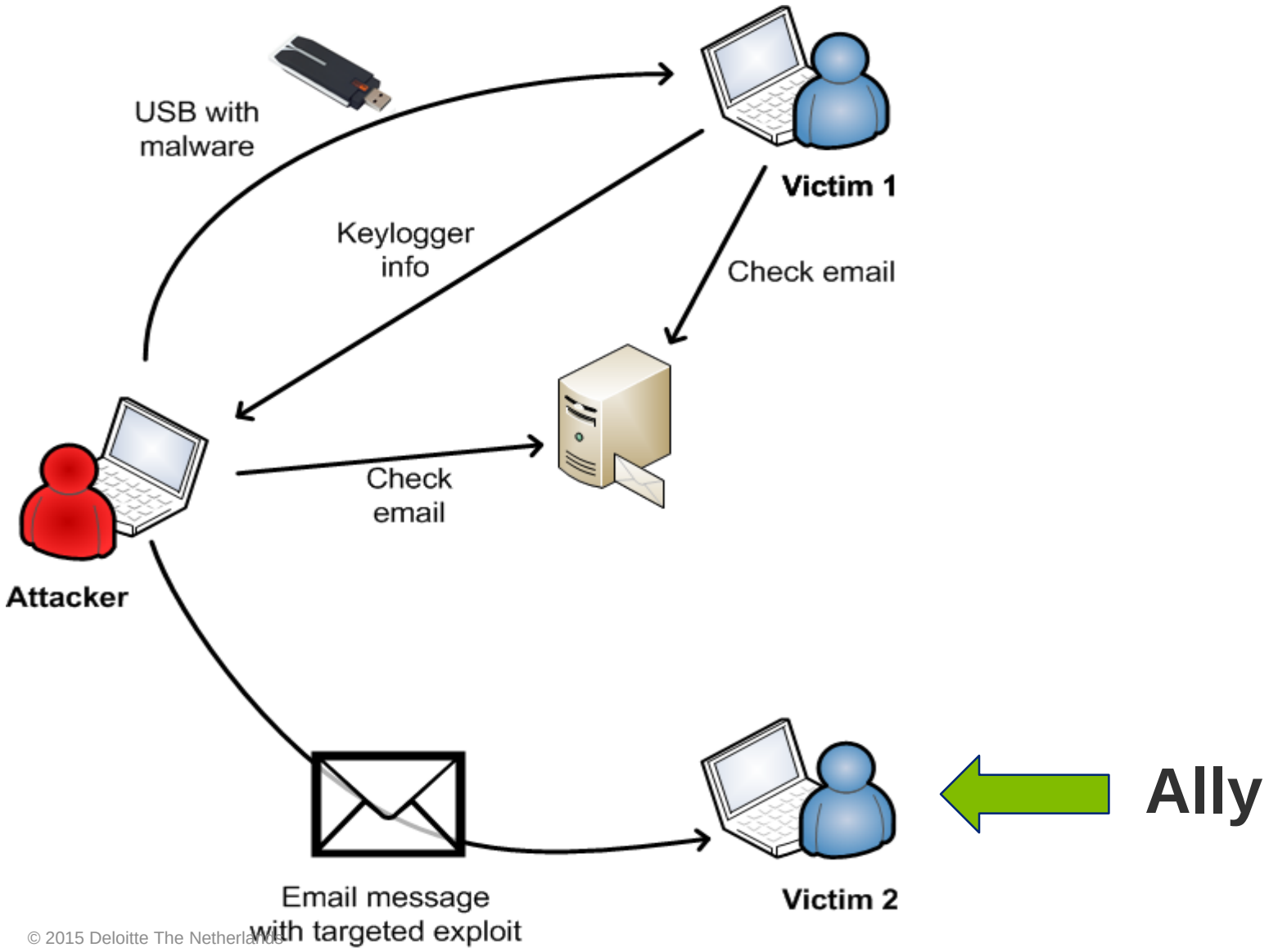
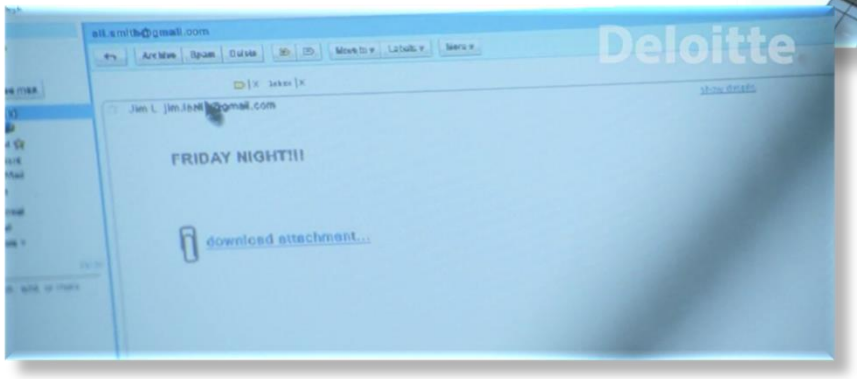


Step 6
Taking control



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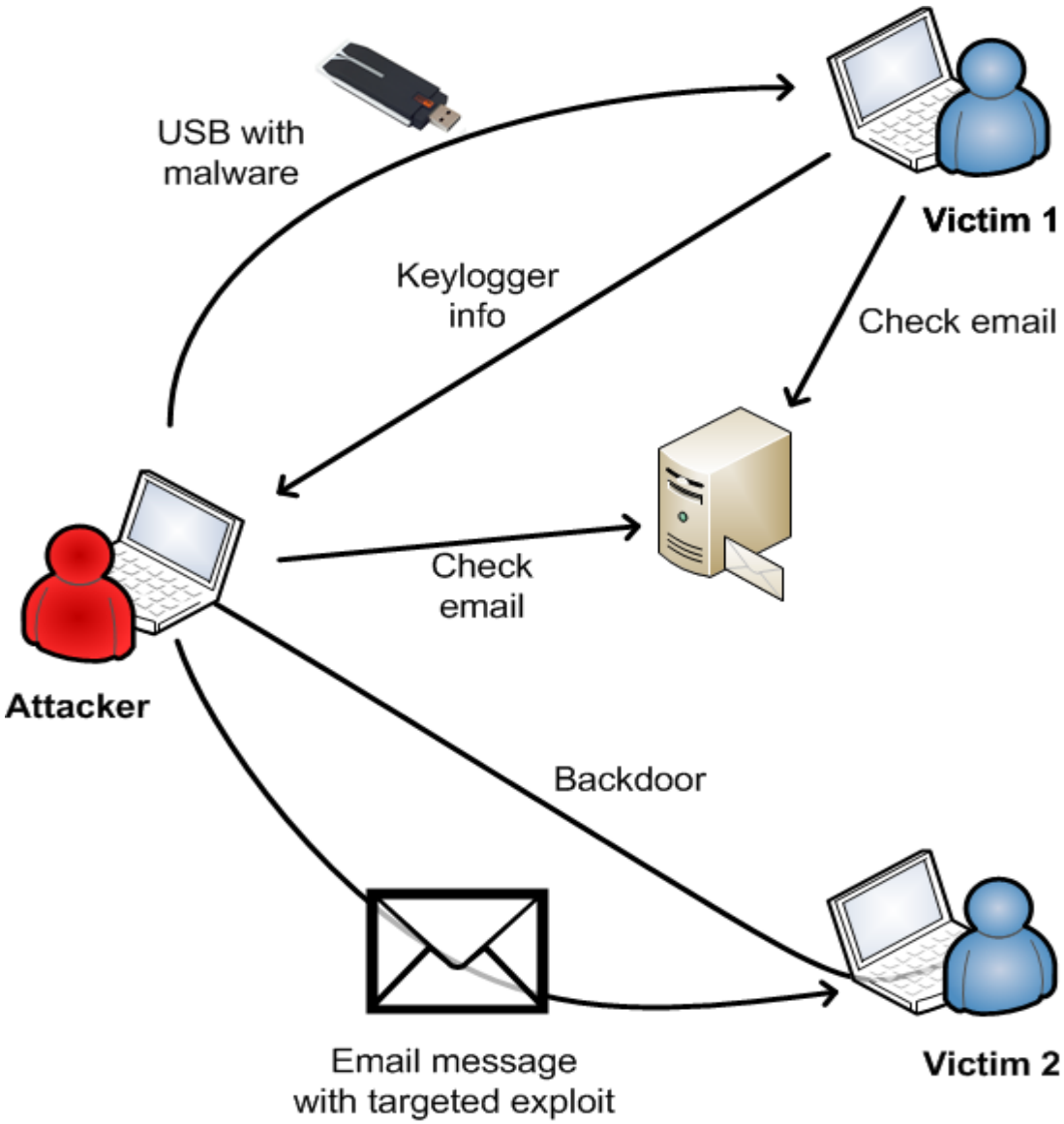

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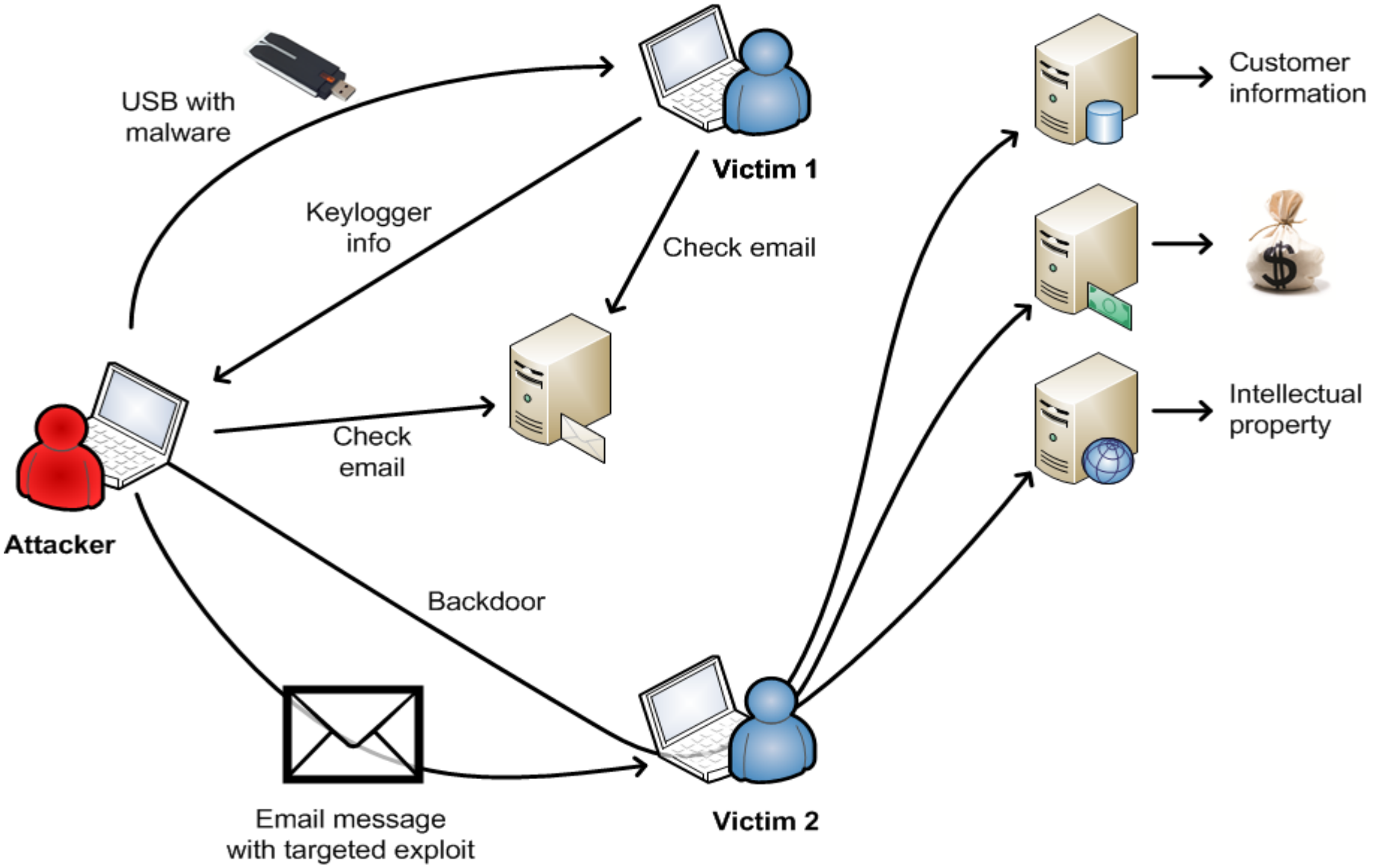
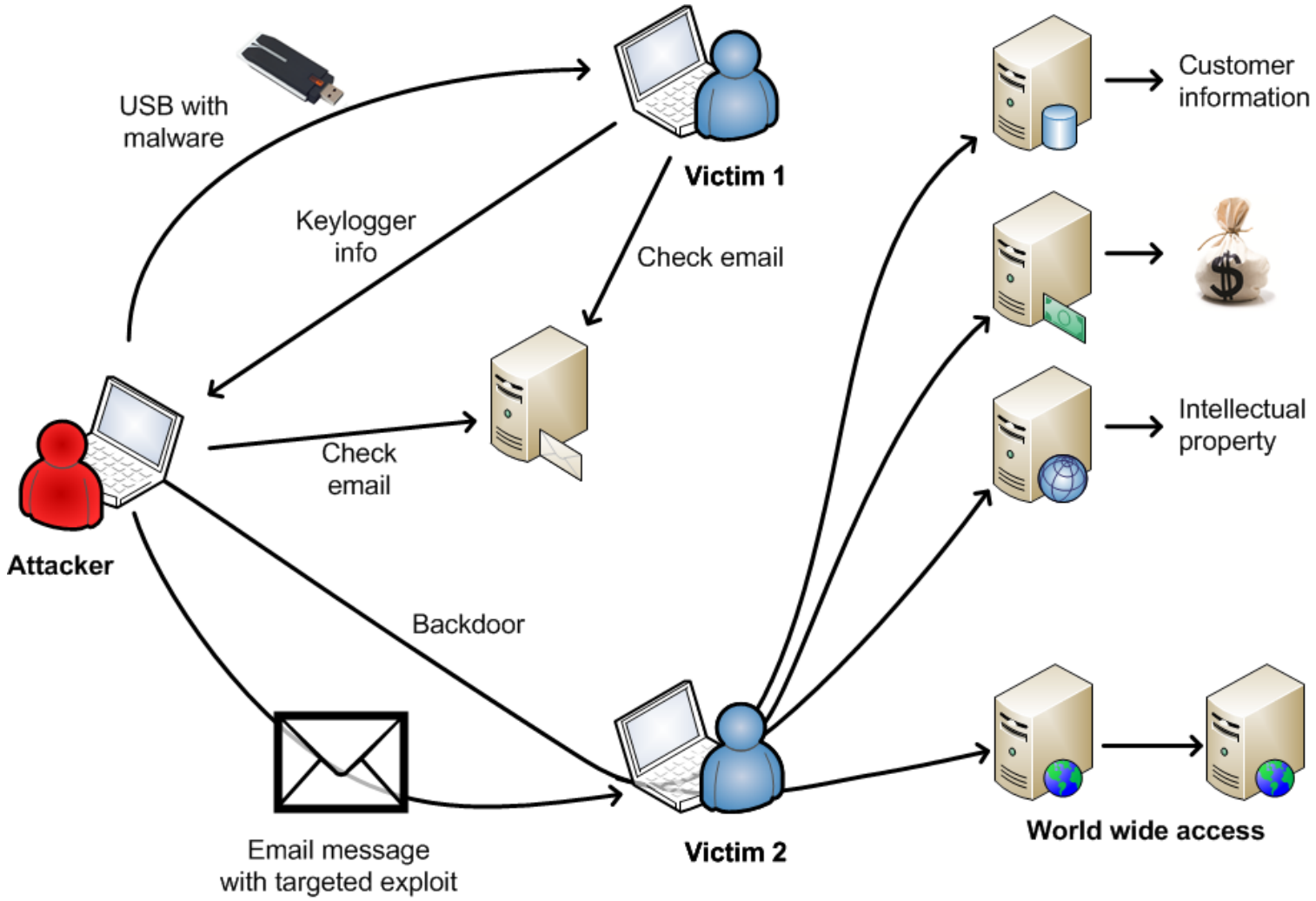
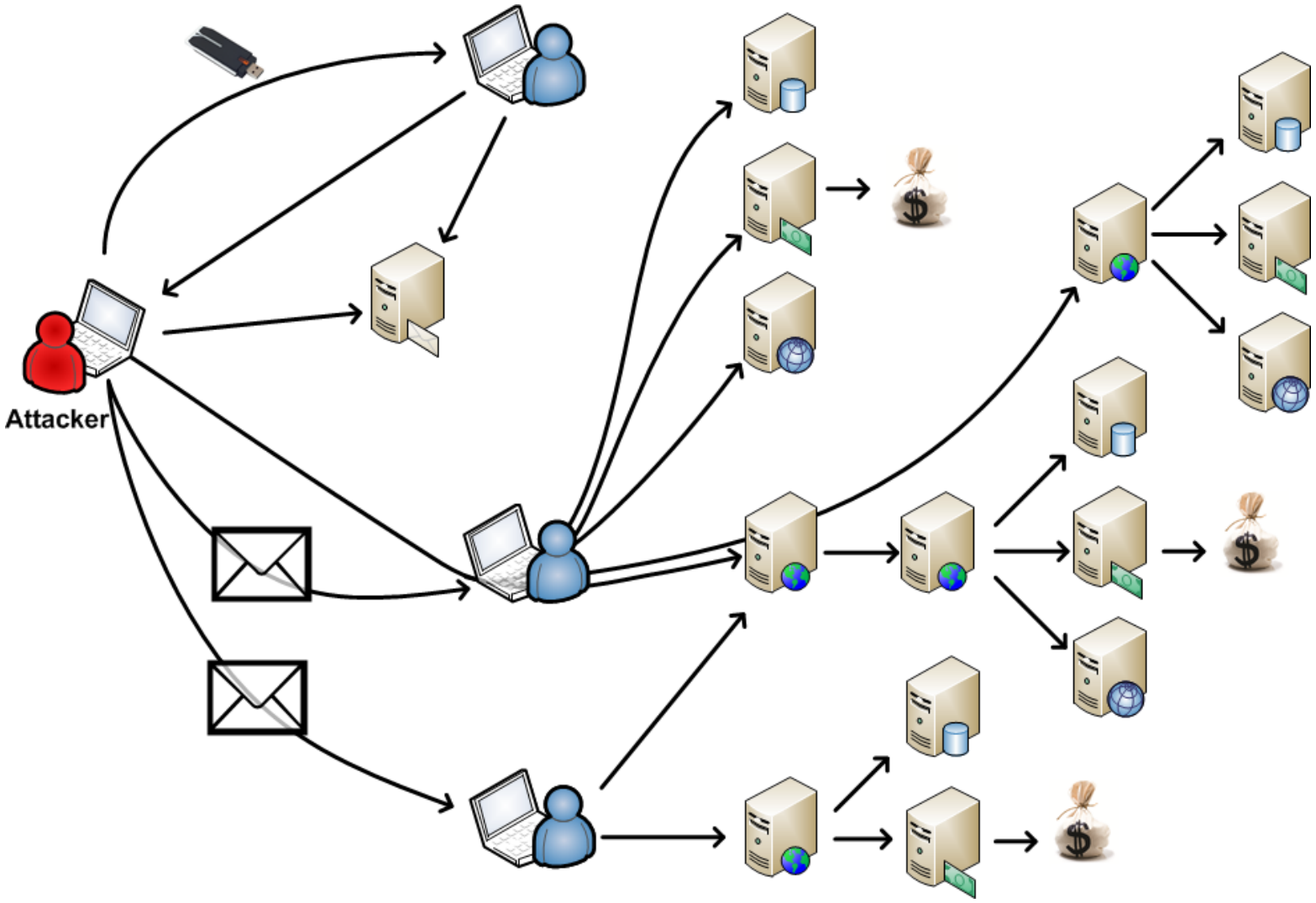


Step 7
Worldwide

Step 7



Step 7



Key message

Resilience

Hackers vs. Defenders

An asymmetric fight

Hackers

- Unlimited time, low costs
- Only one hole is sufficient
- Rules do not apply

Defenders

- Limited time, limited budget
- Time between discovery and mitigation
- Everything is connected and nobody is in charge

Assume you will be hacked.

Your organization will be breached

How to respond?

1. Your organization will be hacked; are you able to detect and respond?

2. Can you justify to your stakeholders whether your organization was in control and has gone through careful decision making process to balance risks, mitigation and costs?

3. Can you respond with:
   - what is going on?
   - were you aware of this risk?
   - what did you do to prevent this from happening?
   - what are you doing to contain it?

Cyber Resilience
Cycle

Closing remarks

Q&A

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