



Inside the hacker's mind

October 16th 2018



1. Who are we?



2. Why should we care about this?



3. What do we see?



4. What can we do?



Who are we?

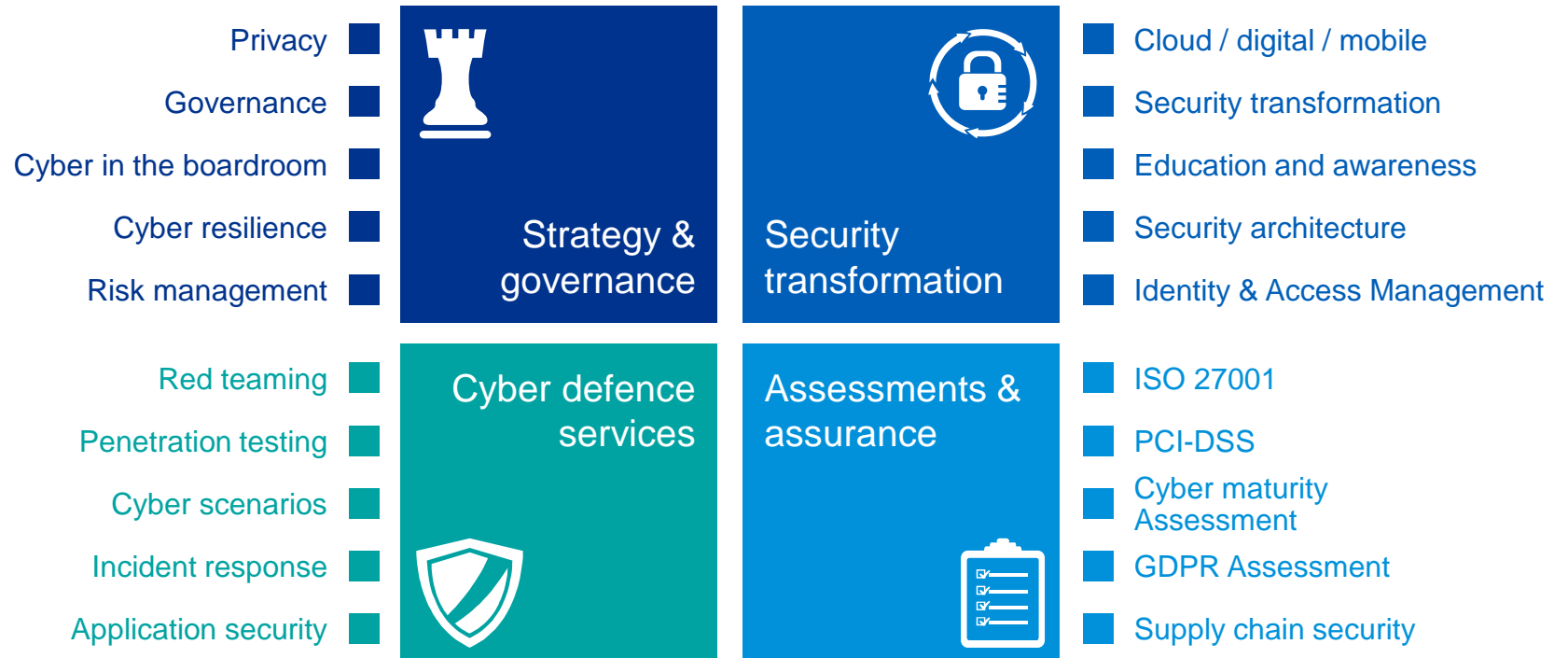


Who are we?





Who are we?





Why should we
care about this?

2



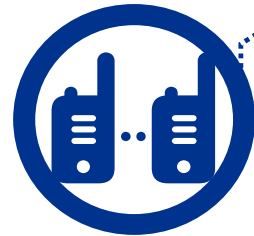
Why should we care?



Hacktivism

Hacking inspired by ideology

Motivation: shifting allegiances – dynamic, unpredictable
impact to business: public distribution, reputation loss



Organised crime

Global, difficult to trace and prosecute

Motivation: financial advantage
impact to business: theft of information



The insider

Intentional or unintentional?

Motivation: grudge, financial gain
impact to business: distribution or destruction, theft of information, reputation loss



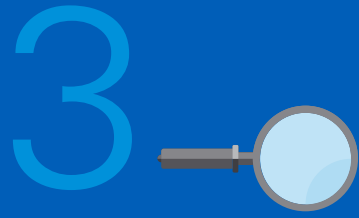
State-sponsored

Espionage and sabotage

Motivation: political advantage, economic advantage, military advantage
impact to business: disruption or destruction, theft of information, reputational loss



What do we see?



What do we
see?

[Picture was removed because of confidentiality reasons]

Key takeaways:

- Industrial environments are highly complex with lots of components and interconnections
- Industrial environments are often very vulnerable (because maintenance is difficult: it's hard to bring down production systems)

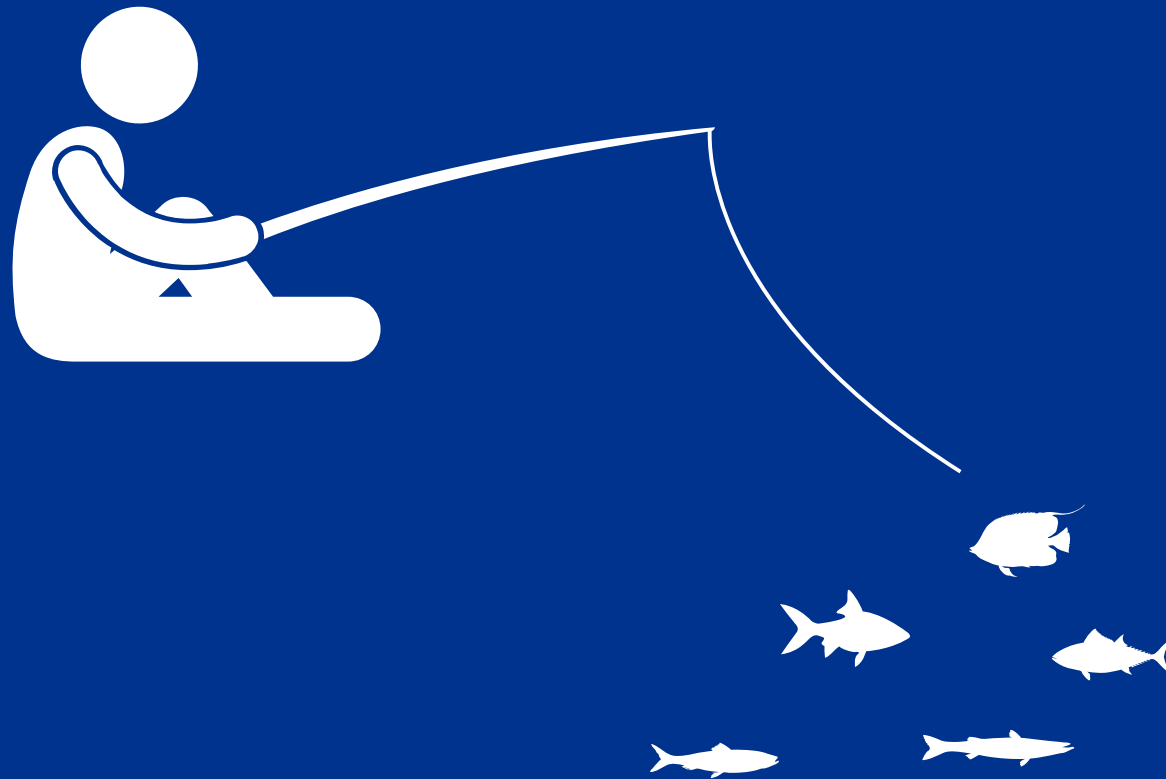


War Story #1





War Story #2

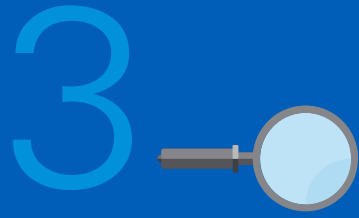




War Story #3



Who needs nerds anyway?

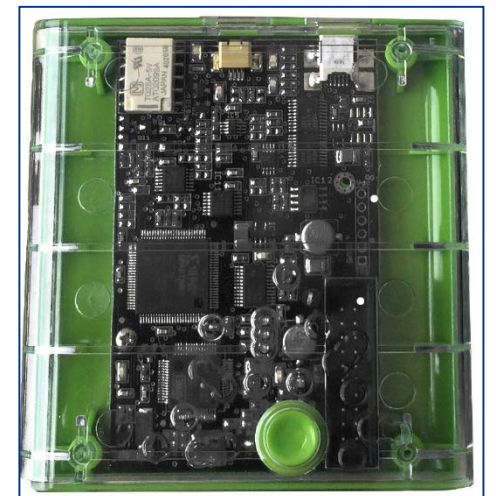


What do we
see?

[Some pictures were removed because of confidentiality reasons]

Key takeaways:

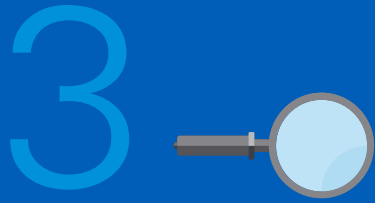
- Technological access is not always required
- Gaining physical access is (super) easy and can have a huge impact as well





War Story #4





What do we see?

```
The haddisks of your computer have been encrypted with an military grade encryption algorithm. There is no way to restore your data without a special key. You can purchase this key on the darknet page shown in step 2.
```

```
To purchase your key and restore your data, please follow these three easy steps:
```

1. Download the Tor Browser at "<https://www.torproject.org/>". If you need help, please google for "access onion page".
2. Visit one of the following pages with the Tor Browser:

```
http://petya37h5tbhyvki.onion/P9UUR3  
http://petya5koahtsf7sv.onion/P9UUR3
```

3. Enter your personal decryption code there:

```
cdSPP4-JUZrRr-pMSxia-gXpmfB-vGwof-FfMph1-XTUzUn-QmFeeU-ofb94y-HuScaa-rB1gmU-djYAEH-8WEakz-wrQ85W-BbsCzw
```

```
If you already purchased your key, please enter it below.
```

```
Key: 8x3qrMHjmkRN9jfd  
Decrypting sector 83234 of 126464 (65%)
```



What can we do?

4



What can we
do?

Risk-based approach, in the form of the following services ...

OT Security Reviews/Assessments

- People
- Process
- Technology

In-Depth IT/OT Technical Security Testing

- Configuration checks
- Network traffic analysis
- Ethical hacking

Advisory for OT Security Monitoring Capabilities

Training and Cyber Security Education

- OT Cyber Security Incident Response



Thank you!



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