Når går IT-sikkerhet over i Cybersikkerhet?

Erling Hessvik
5. juni 2018
OUR PURPOSE

TO SAFEGUARD LIFE, PROPERTY AND THE ENVIRONMENT
We are a quality assurance and risk management company
DNV GL Digital Solutions

~1000 experts coming together to optimize development and deliver pure data smart and digital solutions
From IT Security to Cyber Security

IT Security

Information Security

Cyber Security
IT and Cyber Security

Information Security

Cyber Security

IT Security

Cyber-physical systems are everywhere

- Power & Water Utilities
- Transportation
- Home Automation & IoT
- Food production
Tech unicorns and autonomous cars
What happens when there are thousands of autonomous cars?

Chinese group hacks a Tesla for the second year in a row

Elizabeth Weise | USA TODAY
Published 3:04 p.m. UTC Jul 28, 2017

A slide showing the "Unauthorized Xmas Show" hack that allowed a group of Chinese researchers from Tencent to remotely open the doors and trunk of a Tesla X, and blink the lights in time to music sent out through the car's sound system.

USA Today, July 2017
Tesl Model 3 breaking issue is pure software

**Tesla Model 3 Falls Short of a CR Recommendation**

Despite record range and agile handling, issues with braking, controls, and ride quality hurt the Model 3's Overall Score

By: Patrick Olsen
Last updated: May 30, 2018

[1/4 SHARED]

**Tesla Model 3 Gets CR Recommendation After Braking Update**

Automaker responds to Consumer Reports test results and reduces stopping distance by nearly 20 feet

By: Patrick Olsen
May 30, 2018

[1/4 SHARED]

Consumer Reports, May 2018
https://www.consumerreports.org/hybrids-evs/tesla-model-3-review-falls-short-of-consumer-reports-recommendation/
How does the software handle the unexpected?

TechCrunch, May 2018
https://techcrunch.com/2018/05/24/uber-in-fatal-crash-detected-pedestrian-but-had-emergency-braking-disabled/?guccounter=1
How much security can you expect in a $10 product?
Attacks still fail more often than they succeed

Harvard Business Review, 2018
Cost consequences of an attack

AVERAGE ANNUALIZED COST OF CYBER CRIME BY SECTOR, WORLDWIDE (US$ M)

SHARE OF COSTS PER CONSEQUENCE OF ATTACK

- Business disruption
- Information loss
- Revenue loss
- Equipment damages
- Other costs

SOURCE: “2017 COST OF CYBER CRIME STUDY: INSIGHTS ON THE SECURITY INVESTMENTS THAT MAKE A DIFFERENCE,” ACCENTURE AND PONEMON INSTITUTE

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The effect on the global economy is significant
There is a global lack of cyber security talent

Cyber security talent is needed to several roles

- Procurement
- Development
- Operation
- Governance
- Control
BEING IN CONTROL
HAS NEVER BEEN MORE
CRITICAL
What should we do?
We need a coherent and standardised approach

- We need to request sufficient security
- We need to consider the life time of products
- We need standards to reuse knowledge
Different standards and goals for different segments

IoT

Industrial Control Systems

The Crown Jewels
5 possible actions

- Identify what you need to protect
- What are the threats?
- Which vulnerabilities do you have?
- What can you improve?
- What can you learn from others?
Integration tools and databases, fileservers, infrastructure

Hosted in branch A

Hosted in branch B

Corporate IT platform

Local IT platform

Revenue MNOK

Number of employees

Indicates cloud service

A Hosted in branch A

B Hosted in branch B

Integration tools and databases, fileservers, infrastructure

A

B

C 8

D 8

E 12

F 9

G 13

A 12

Hosted in branch B
Learn from others: How to secure a cyber-physical system

IEC 62443 says **what** to do

Created by the industry - DNV GL’s recommended practice shows **how**

Openly available:

Takk for oppmerksomheten

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SAFER, SMARTER, GREENER