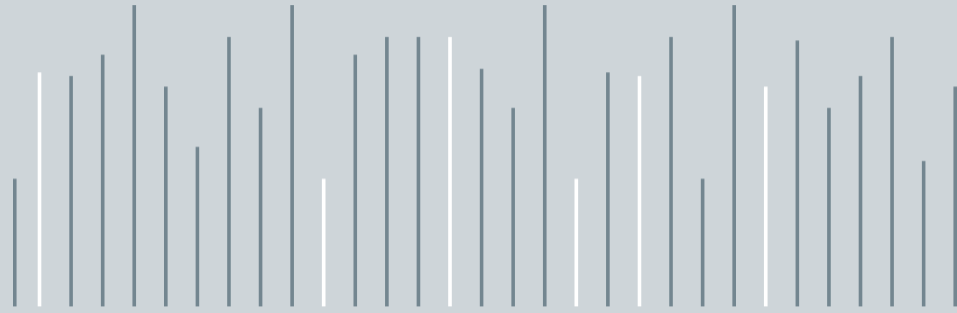# nic 2017

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The premium event for IT-professionals

Feb. 1-3rd in Oslo Spektrum

IoT for ITpros

What does IoT mean for CxO's

- Provide increased value
    - Faster, better and more intelligent responses for actions
    - Empowers employees to utilize their time better

- Multiple definitions – do you remember "cloud" ten years ago?

Welcome to…

- Wikipedia
- IDC
- GigaOm
- Gartner

IDC defines the Internet of Things as a network of networks of uniquely identifiable endpoints (or "things") that communicate without human interaction using IP connectivity — whether "locally" or globally.

I concur most with IDC's
…today

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What does IoT mean for ITpros

- FAnsweredQ: most likely, you do **not** loose your job – but…
- A new way of thinking automation, management and ROI
- Free time by automation of labor intensive tasks
- Rething security

No Isolation

- Unique way of avatar representing
- Leading IoT provider for human representation

Demo

IoT – for who?

- Commerce

IoT – for who?

- Commerce
- Industry

IoT – for who?

- Commerce
- Industry
- Real estate

IoT – for who?

- Commerce
- Industry
- Real estate
- Agriculture

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IoT – for who?

- Commerce
- Industry
- Real estate
- Agriculture
- Healthcare

Source: prlog

Modern threats

- Assume breach?

- Hacker takes control over…

  - …Nissan Leaf in Oslo

"I found out that the whole API is unauthenticated and only require the VIN to target a vehicle. To add insult to injury those action are from simple http Get request."

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Modern threats

- Hacker takes control over…
  - …North Carolina highway sign

Prank hacks of these highway signs happen all the time. Last week, three different North Carolina highway signs were hacked and reprogrammed to display the message "Hack by Sun Hacker."


Source: http://www.tomsguide.com/us/highway-signs-easily-hacked,news-18915.html/

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Modern threats

- Hacker takes control over…
  - …water treatment plant

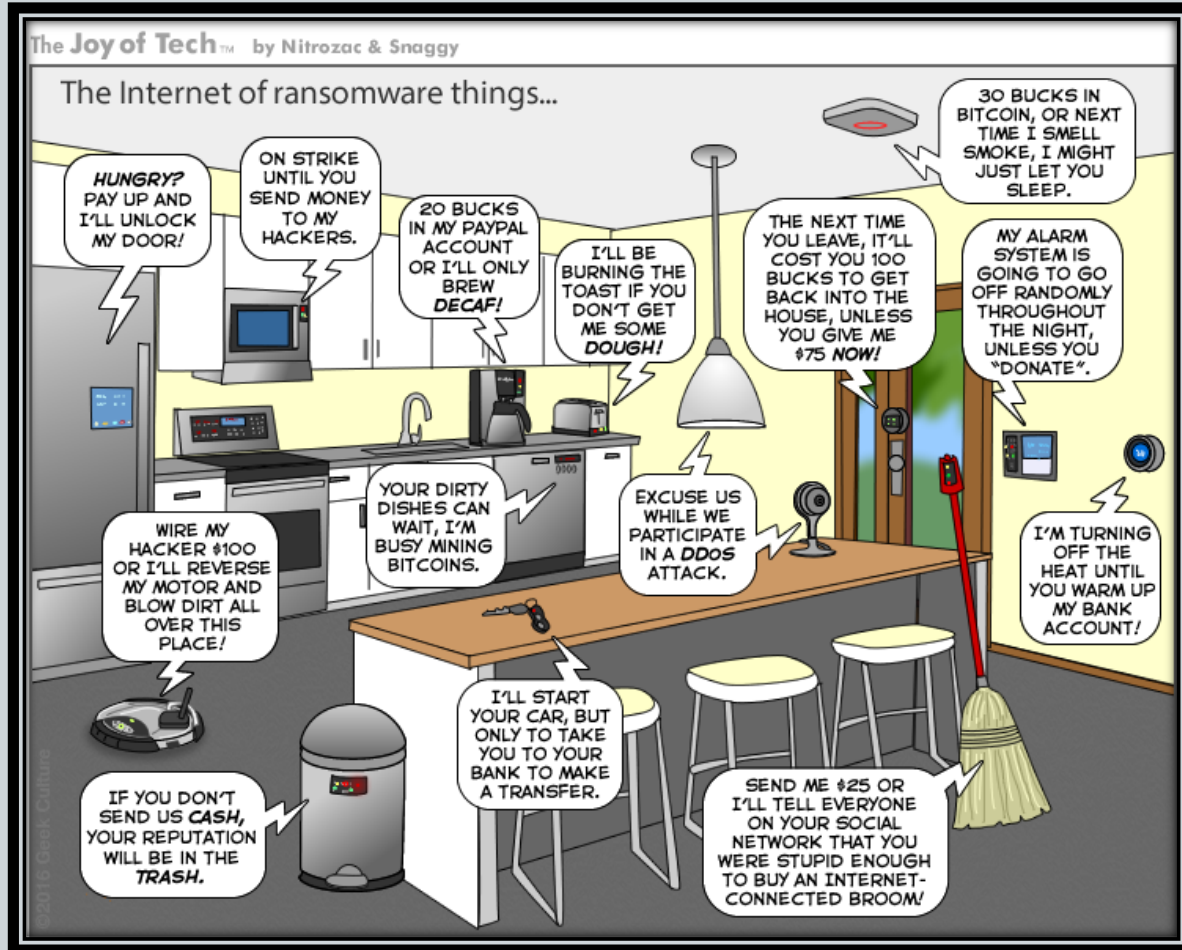   *Hackers infiltrated a water utility's control system and changed the levels of chemicals being used to treat tap water*

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Modern threats

- I take control over…
  - …Bergen light-rail
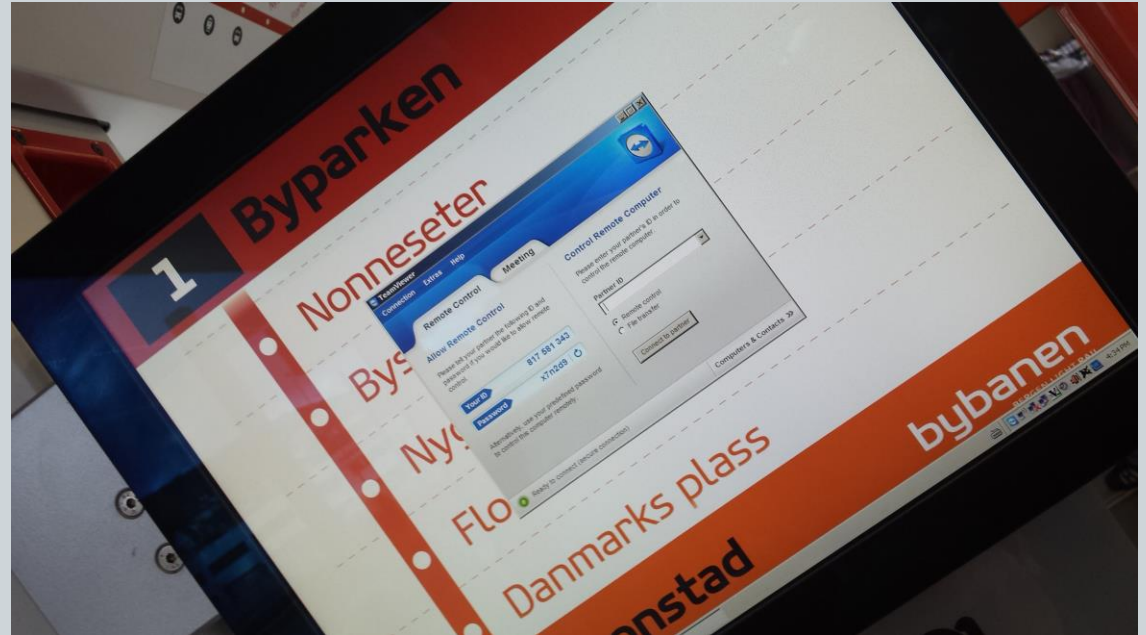
The sum of all fears
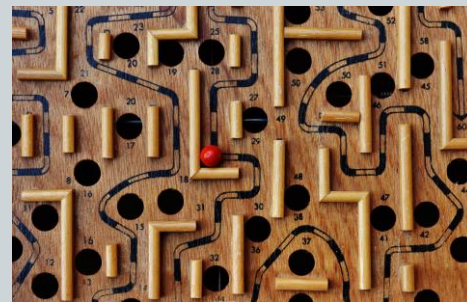
Modern security

- Layer on layer
- Point-to-point secure connection
- Secure your endpoint
- Audit access

Ask yourself: When and how will the attack hit?

Layers

- Design: Don't let users try serial numbers or ID's to find devices
- Password: Don't use default device passwords – **EVER**
- If one layer is compromised, another is protecting you
  - Data encryption
  - Intrusion protection
  - Separate critical systems

Point-to-point

- Two-way-authentication – cloud and device
- Altering data and queries
- Spoofing device or users credentials

Endpoint security

- Authentication and authorization of access
- Remove unnecessary features and connectors
  - If you can survive without an USB connection, go for it!
- Use a trusted platform

Audit access

- Audit access for groups and persons
- Audit access for devices
- Monitoring and surveillance
- Educate ITpros and end users

Don't forget

- Have a way of communicating flaws and breaches immediately!
  - Twitter
  - Facebook
  - Mail
  - Phone

Thank you!

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