



REPUBLIC OF ESTONIA
INFORMATION SYSTEM AUTHORITY

Developments in cyber domain

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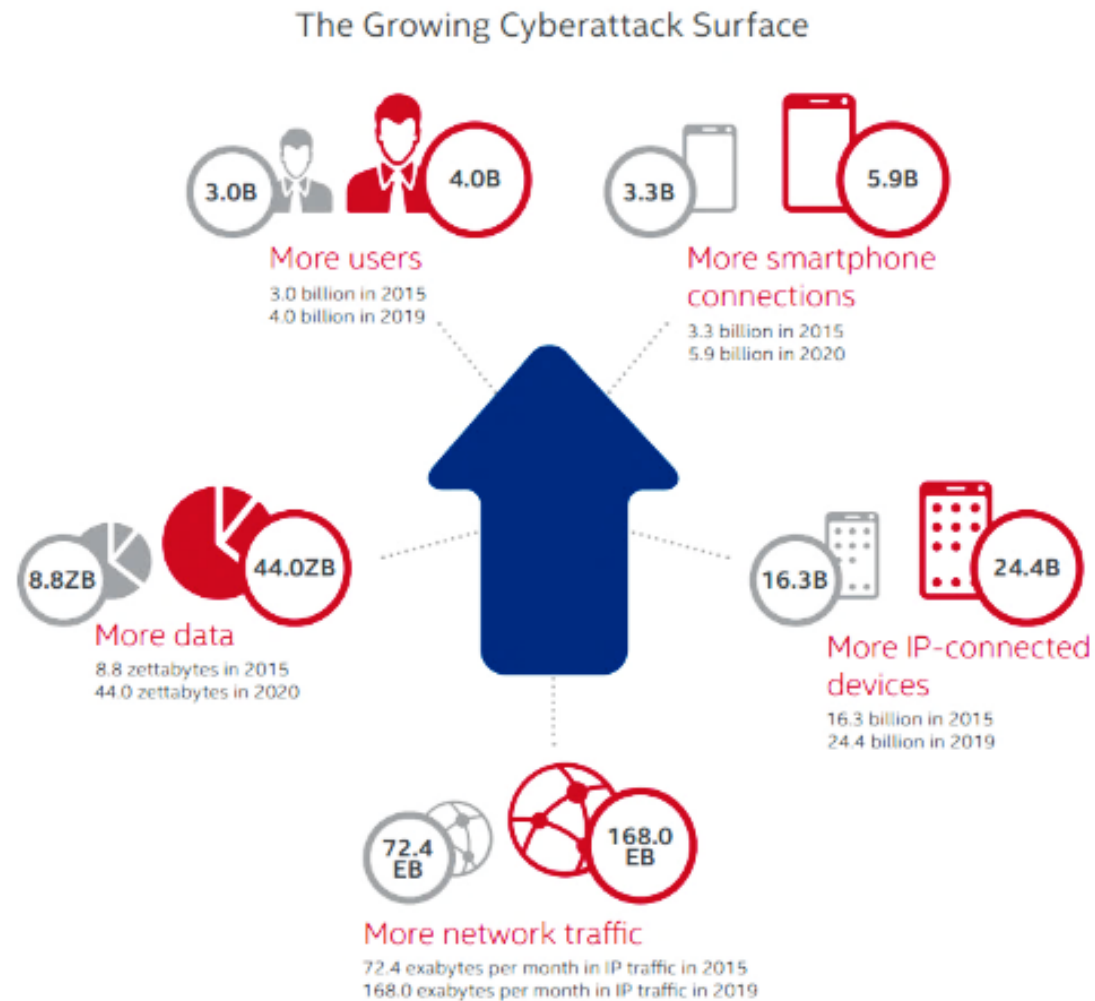
Information System Authority (RIA)

2016

- Central **e-government** systems
- Coordination of national **cyber security**
- **EU Structural Funds** for IT development



More of everything



Source: McAfee Labs, 2015.

Development of cyber threat

- 1990-2000 minor impact(e-mail etc)
- 2000-2007 rise of cyber criminals
- 2007-2013 national security issue
- 2013- ... significant impact to national security, economy and well-being of the population

Threat actors

- Nation States
- Organized Crime
- Group actors- Hactivists
- Lone actors- Script Kiddies

Espionage



Information warfare



Critical Information Infrastructure



Russian peculiarities in cyberspace

- Incorporated cyber into power projection
- Large group of people with top level IT Skills
- Historical links between security services and organized crime
- Use/lack of international norms

Estonian peculiarities in cyberspace

- Public services highly digitalised (i-voting, e-health, e-taxation, etc)
- Trust
- Architecture - security by design (electronical identity, X-road)
- Reputation
- Community

How do we defend?

- Total defence (role for the government, organisations, community, individuals)
- Formal structure as part of comprehensive defence – civilian led
- Informal: Collective brain – community based approach



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Thank You!

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