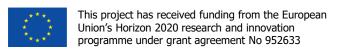
Holistic cybersecurity for the AloT ecosystem

Panel discussion – session 5

Dr. Jesus Luna Garcia

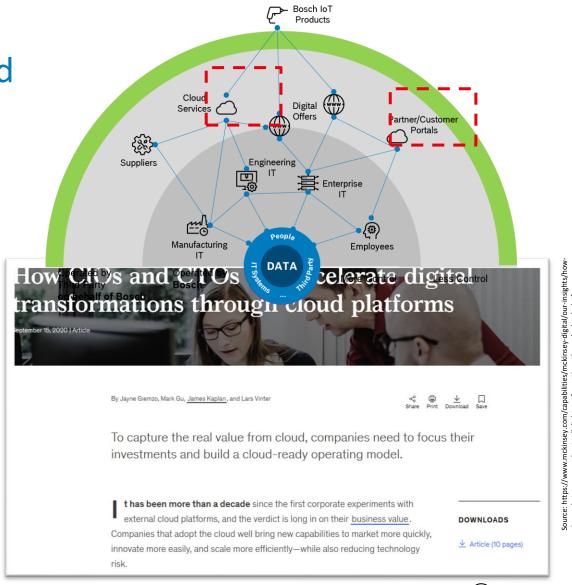






Setting the context – AloT and Cloud

- Al-enabled IoT systems (AIoT) are intrinsically related to digital transformation, even in our daily life.
- This is an ever-growing global market, which has a huge dependency on (complex) cloud systems and architectures.
 - Hybrid-cloud
 - Multi-cloud
 - Cloud plugins, cloud APIs, cloud marketplaces
- Given the pervasive nature of AloT, consumers need to have confidence in the cybersecurity of connected products and solutions.



Challenges

- Parallel to its growth, consumer trust in AloT has shaken since several years.
- Where are (some of) the challenges?
 - Misconfigurations (cloud / AIoT)
 - Shared responsibility (cloud)
 - Alignment with enterprise cybersecurity framework (cloud)
 - Externalization of cloud cybersecurity (MSSP)
 - Security culture (cloud / AIoT)
- Is it about AloT or cloud?
 - − Both ⊕ we the need holistic approaches!



"Hopeless"
Ron Rivest (2012), Co-Inventor of RSA-Crypto
Systems, Turing Award (2002)



"Lousy IoT Security"
Bruce Schneier (2019) Writer, fellow and
lecturer at Harvard's Kennedy School, board
member of Electronic Frontier Foundation



Holistic cybersecurity

- Notwithstanding its criticality, cloud systems are not deployed in isolation.
 - Cloud is essential part of service/supply-chains for AIoT and other connected products.
- Therefore, cybersecurity must be seen as a whole/end-to-end solution.
- In such complex scenarios, additional challenges (e.g., interoperability of SIEM solutions) become more evident.



Source (2007): https://youtu.be/1N9zKS9s4oY



Strengths and Opportunities – EU focus

Where are the strengths?

- Strong regulatory framework
- Many relevant R&D+I initiatives
- Conspicuous increase of cloud security solutions in the market
- Cloud provides huge automation capabilities (cybersecurity included)



Where are the opportunities?

- Interoperability and standardization (<u>we're still</u> <u>cutting through the jungle</u>)
- Concrete guidance/good-practices for shared responsibility
- Productization of R&D+I activities
- Trainings and skillset (special focus on SaaS)

Food for thought:

- Cybersecurity vs. Trustworthiness
- How secure is a cloud-security solution? (see next panel on certification)





Thanks!

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