

**Digital Transformation for Cities and Communities Webinar Series**  
**Episode #9: Addressing the Security Risks of Digital Transformation on IoT**

# **IoT, digital transformation and security, coherence or complexity?**

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THE FUTURE

# About us



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# The 2022 main trends of cyberattacks

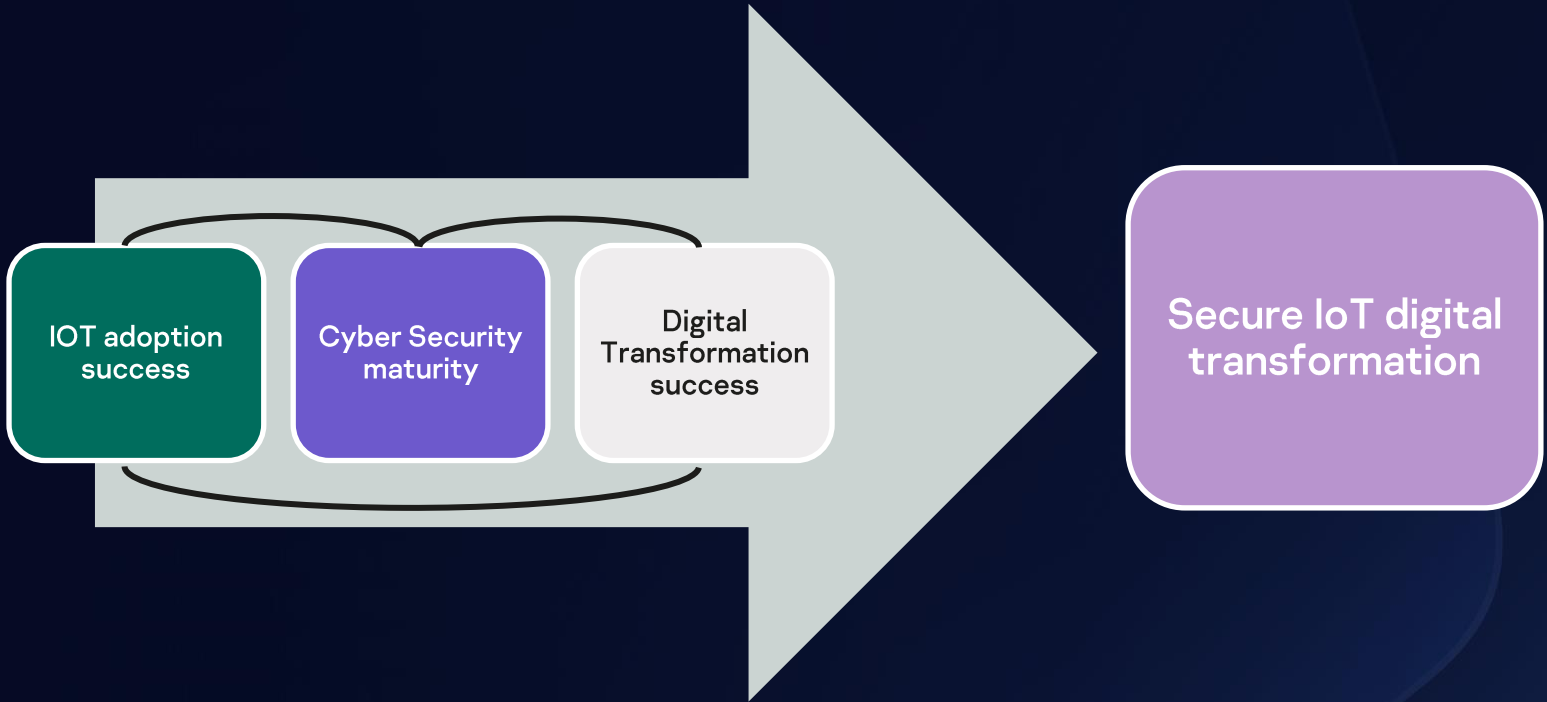
- Beyond Windows, to firmware and mobile implants
- Big game hunting
- Naming and shaming



Today's topic– an introduction

Addressing the Security Risks of Digital Transformation on the Internet of Things

# Main antecedents of a secure IoT digital transformation



# Top challenges of IoT adoption success

- **Integration and management of data and systems**
- **Managing complexity**
- **Skilled/sufficient resources**
- **Cybersecurity maturity**


# Top challenges of digital transformation success

- **Organizational culture and change management**
- **Strong digitization strategy**
- **Skilled IT resources and management**
- **Clarity on the budget and goals**
- **Efficient data management and business processes**
- **Cybersecurity maturity**


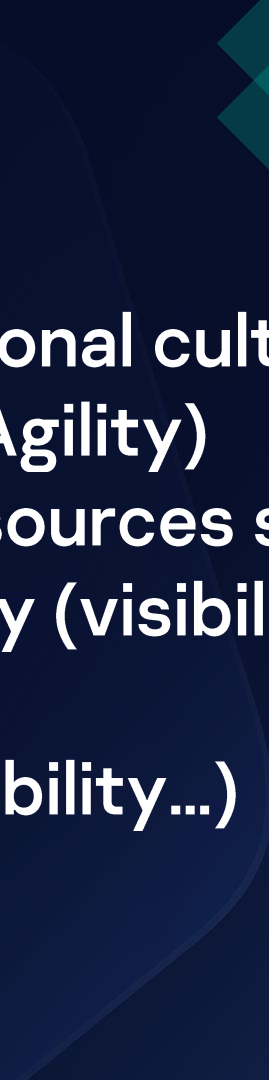
# Top challenges of cybersecurity maturity

- **Sufficient maturity (Visibility, Reactivity)**
- **Skilled/sufficient employees**
- **Strong strategy and policies**
- **Efficient technologies**



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# Most common challenges of a secure IoT digital transformation

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- A large teal shape with a curved left edge and a pointed right edge, containing the list of challenges.
1. Organizational culture (Change, Agility)
  2. Human resources skills
  3. Complexity (visibility, maturity, interoperability...)

# The cybersecurity risks on IoT, down the rabbit hole

1. Executives and employees not aligned
2. The company changes do not align with digital transformation goals
3. The company processes do not align with cybersecurity requirements
4. Inadequate utilization of resources
5. Ineffective security of data and systems
6. Organization open for threats like backdoors, insufficient data and employee awareness and security resulting in
7. Loss of data (e.g. ransomware), Loss of infrastructure, Leak of data(e.g. blackmail), Loss of business and investments, Loss of reputation, Lawsuits...
8. City-wide impact, Critical infrastructure and National security impact...

# Reading between the lines: unnecessary complications

1. The need to satisfy all stakeholders (Execs, employees, legal, clients, partners...)
2. The need to explain and convince all stakeholders of each step on the way to a successful transition
3. The need to make sure the digital transformation does not compromise other requirements like cybersecurity
4. The need for better utilization and development of resources
5. The need to repeat the same exercise for numerous organizations

# Going back to fundamentals, the role of standardization

## Standardization

From Wikipedia, the free encyclopedia

**Standardization** or **standardisation** is the process of implementing and developing [technical standards](#) based on the consensus of different parties that include firms, users, interest groups, standards organizations and governments.<sup>[1]</sup> Standardization can help maximize [compatibility, interoperability, safety, repeatability, or quality](#). It can also facilitate a normalization of formerly custom processes. In [social sciences](#), including [economics](#),<sup>[2]</sup> the idea of *standardization* is close to the solution for a [coordination problem](#), a situation in which all parties can realize mutual gains, but only by making mutually consistent decisions. Standardization is creating emotional balance, conventional detail, a universal familiarity and natural definition to a concept based on physical or emotional comfort and acceptance by changing societal behaviors and developments.

# Thank you!

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