Security and IoT

Andreas Ebert
Regional Technology Officer, European Union
Microsoft Corporation

An **INVISIBLE** revolution is coming
Security Challenges of IoT

Technological Perspective: Common Security Issues

- Insecure Design
- Disclosure of personal information
- Limited ability to receive updates
- Data Integrity
Secure IoT Principles

Secure by development

Secure communications

Manageability of updates

Level of cloud service capacity

Existing approaches that help secure IoT from the beginning
New Concepts

Cloud Computing
- Management & processing in cloud
- Large-scale risk management in cloud
- Limited capabilities on devices

Fog Computing
- Management & processing on edge
- Local resource utilization
- Distribution of risks

Challenges & Opportunities
Potential Opportunities

Blockchain
- Availability
- Confidentiality
- Integrity

Blockchain as a Service
“Bletchley” Cryptlets

World Economic Forum:
10% of Global GDP stored on blockchain by 2025

Artificial Intelligence
- Better decision-making
- Identify threats

Better decision-making
Identify threats