



Quo Vadis Cybersecurity?

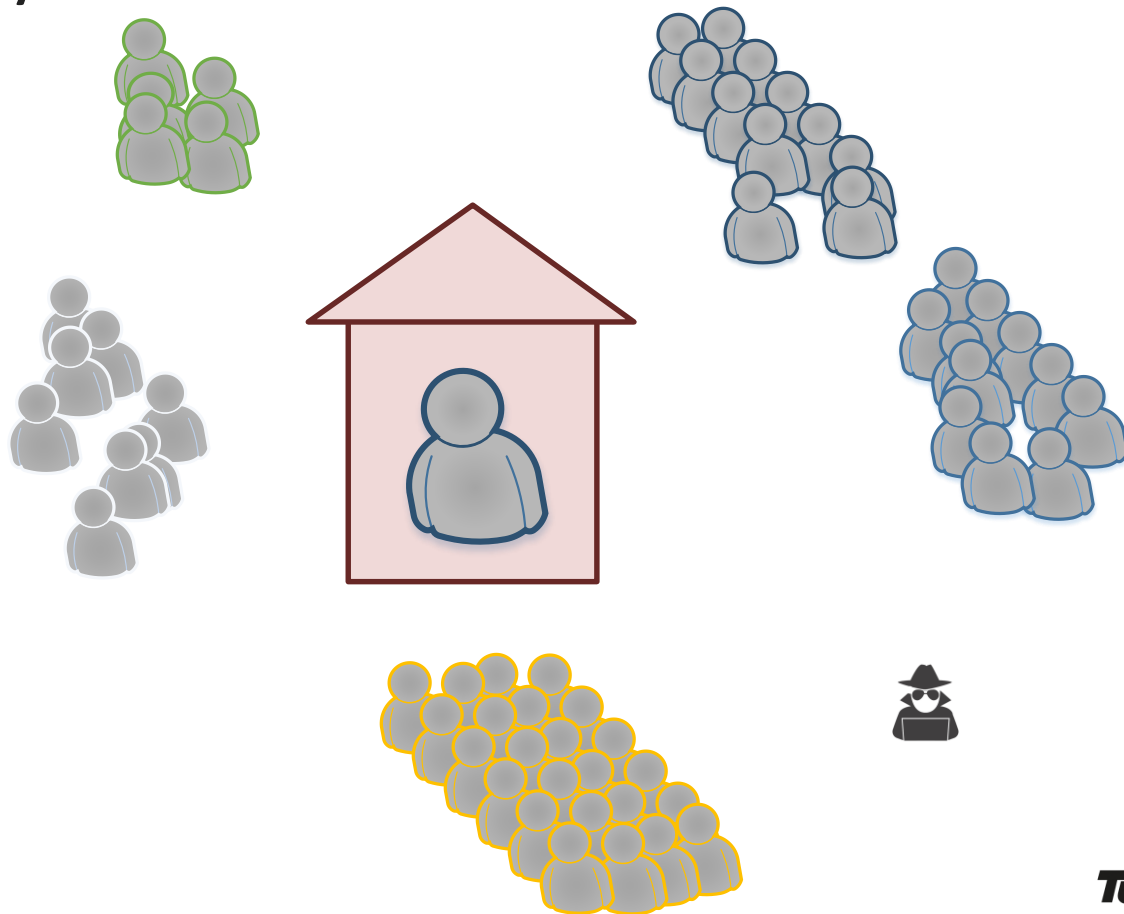
Warum Standards und Testverfahren für IT-Sicherheitstechnologien auf europäischer Ebene harmonisiert werden müssen

Markus Bartsch

Micro View of Cybersecurity

Basic IT Security Functionalities

1. Identity
2. Authentication
3. Communication
 1. Trusted Channel
 2. Non Repudiation
 3. Zoning
- Information Flow Control



Micro View of Cybersecurity: Protection of the Individual



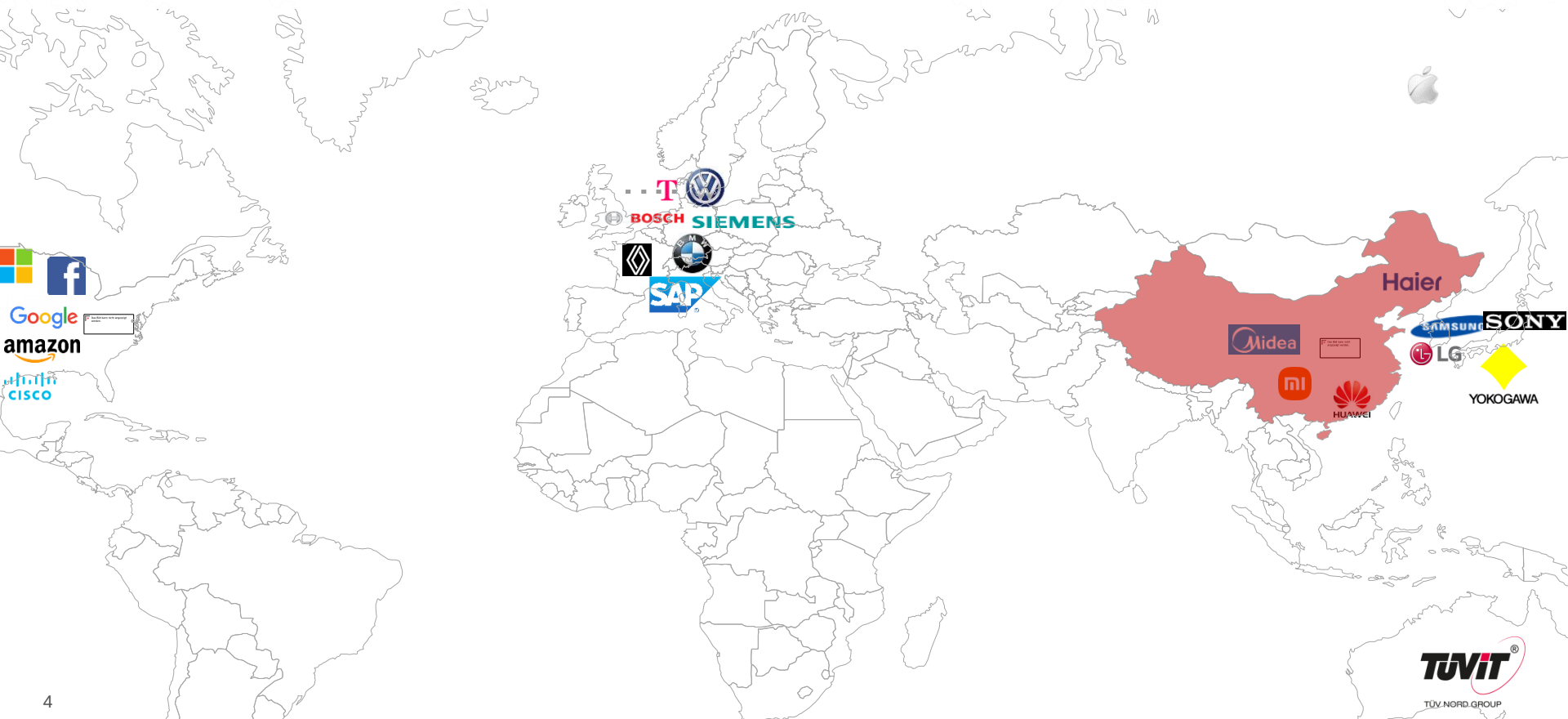
Basic IT Security Functionalities

1. Identity
 2. Authentication
 3. Communication
 1. Trusted Channel
 2. Non Repudiation
 3. Zoning
- Information Flow Control



Macro View of Cybersecurity: Protection of a Community

Information Advantage



Result

Micro

Basic IT Security Functionalities

1. Identity
2. Authentication
3. Communication
 1. Trusted Channel
 2. Non Repudiation
 3. ZoningInformation Flow Control



IoT

1. **Basic Functionalities** essential in any IoT Device

Macro

Advanced IT Security Functionalities

4. Access Control
5. Administration
6. Auditing



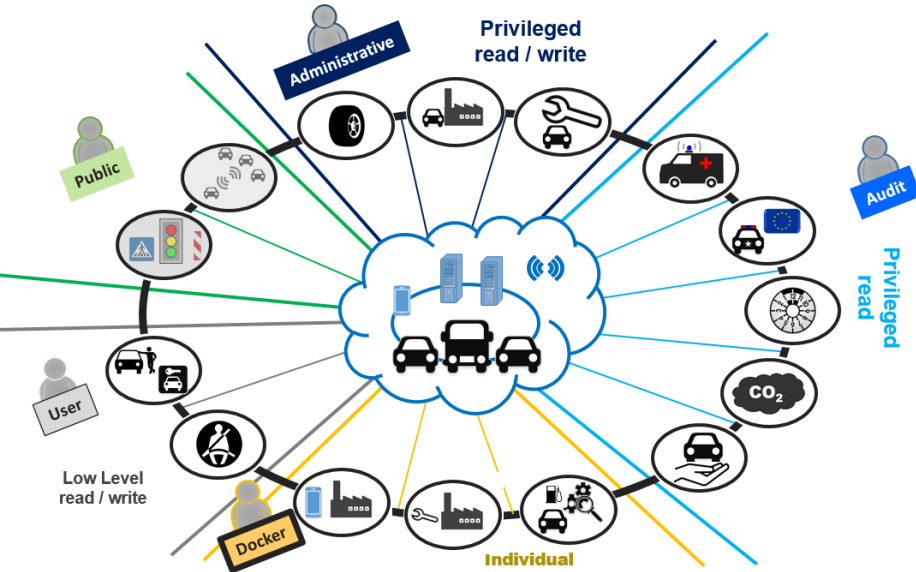
2. **European Policy** (*Micro vs. Macro*)
3. Importance of **Cloud Security**

Attacker could be anyone:

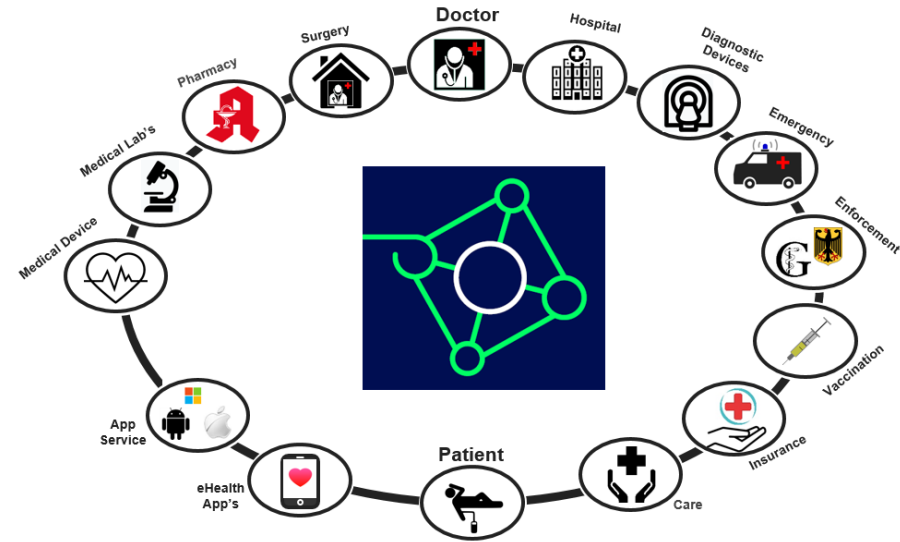
3. Access Control → **“Separation of Duties”**
4. **“Multiple Eyes”** Principle:
 - “Kill root”
 - Distributed Auditing*

Macro View of Cybersecurity - Examples

Automotive (OTP)



eHealth Telematics Infrastructure 2.0 (TI 2.0)



<https://www.tuvit.de/de/aktuelles/white-paper-downloads/fia-studie/>
<http://link.springer.com/article/10.1007/s11623-021-1396-3>

Thank you very much for your attention!

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