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Innovative Answers to the IoT Security Challenges

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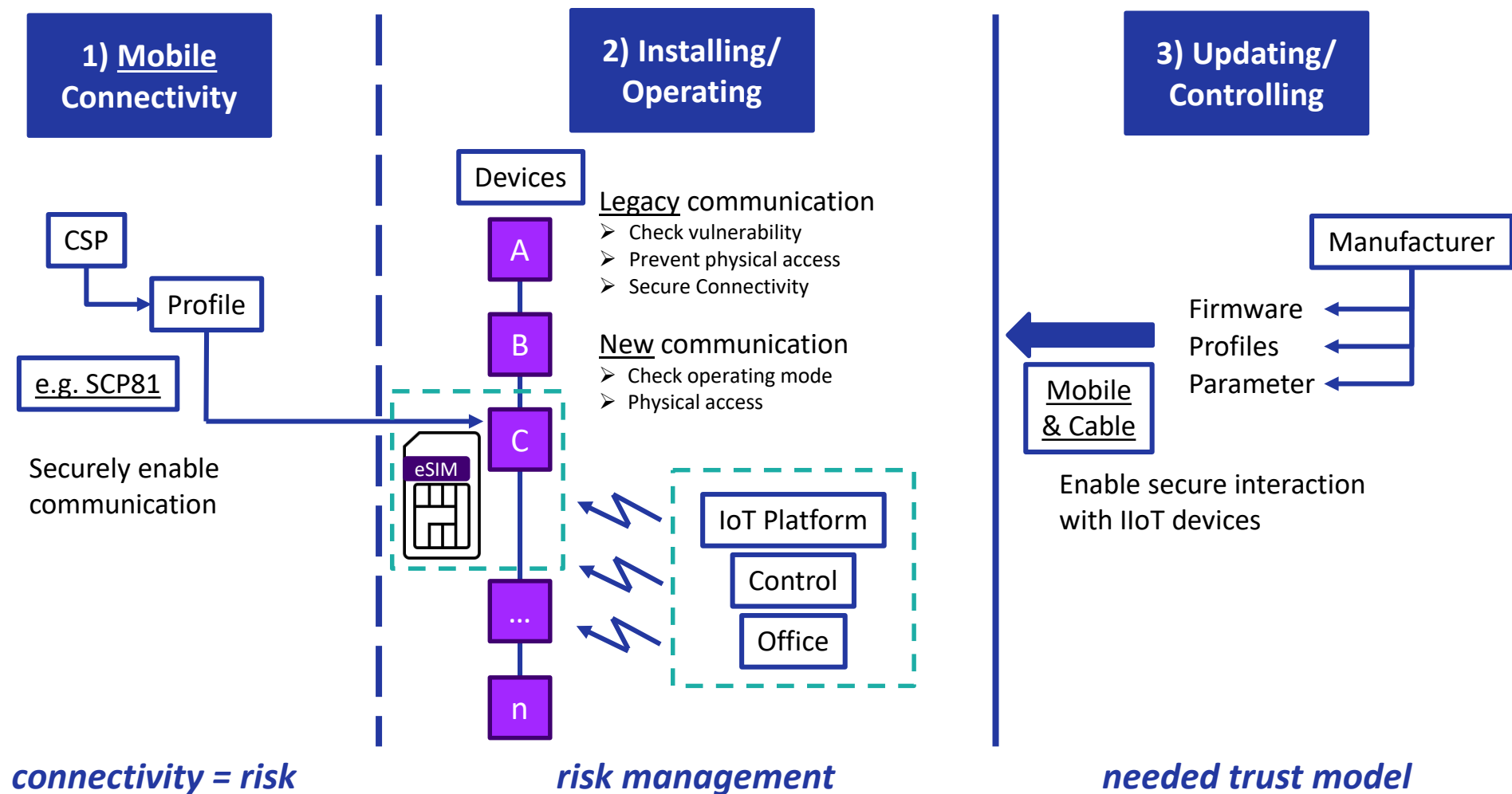
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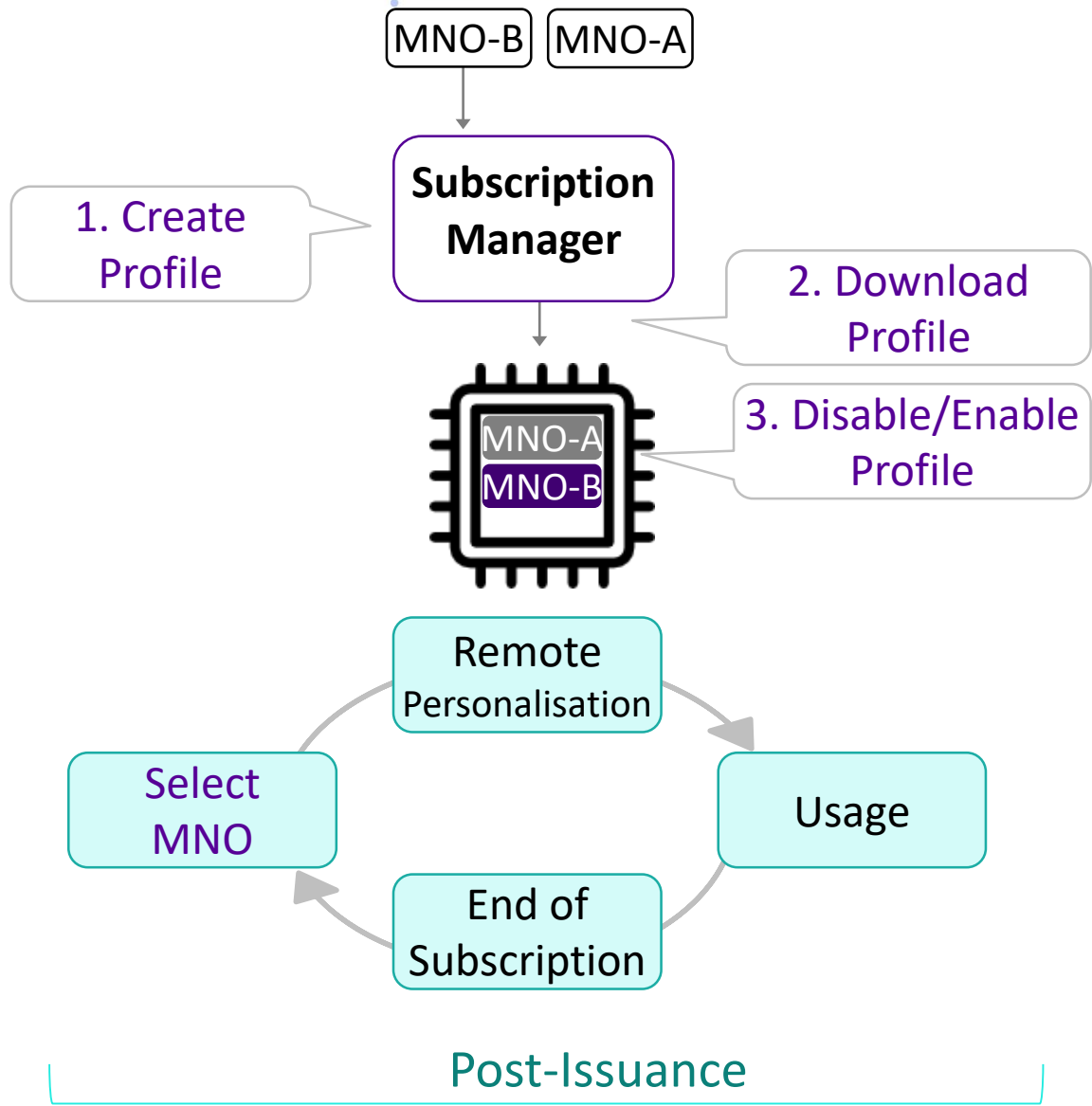
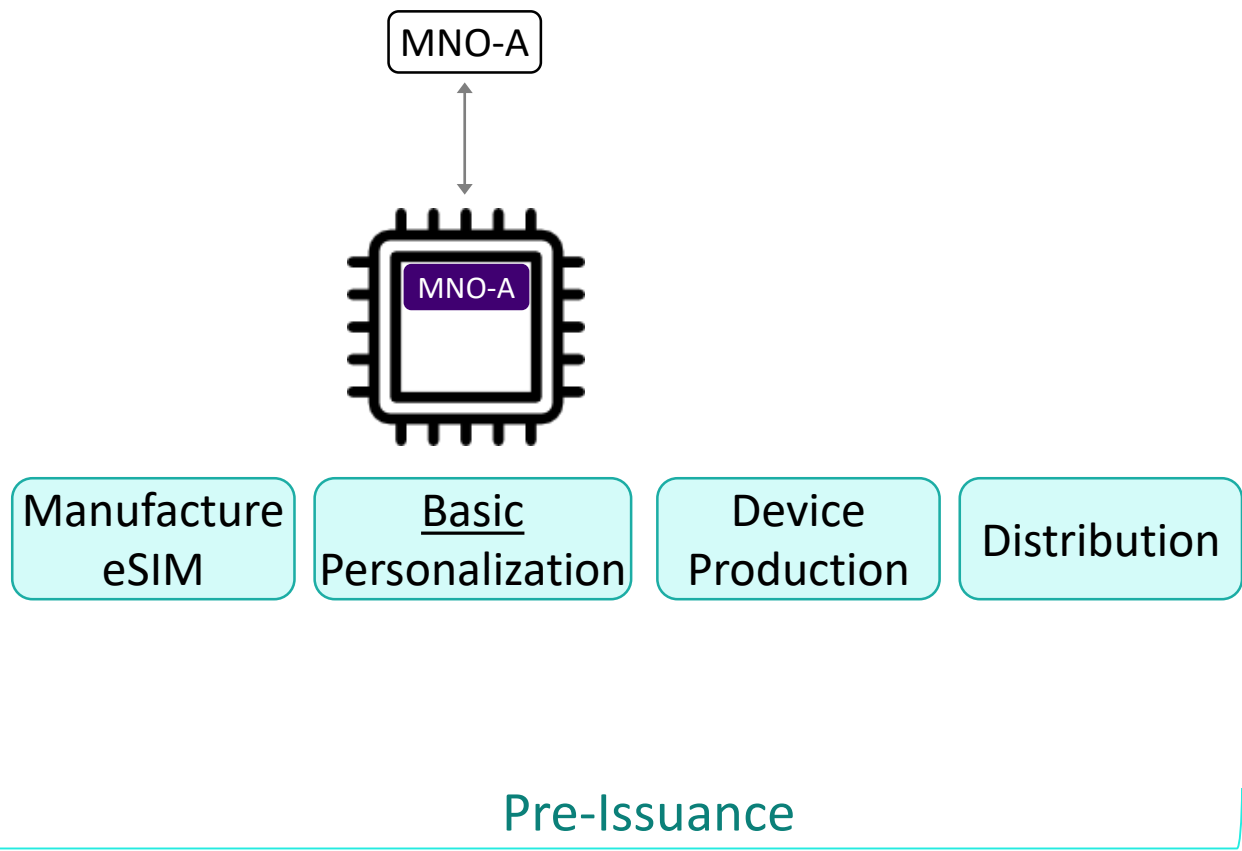
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IoT Security Challenges



eSIM Life Cycle for (I)IoT



Risk assessment

Magic level : risk assessment by experience

External security required



Knowledge

Understanding level : risk assessment by knowledge

External security still needed

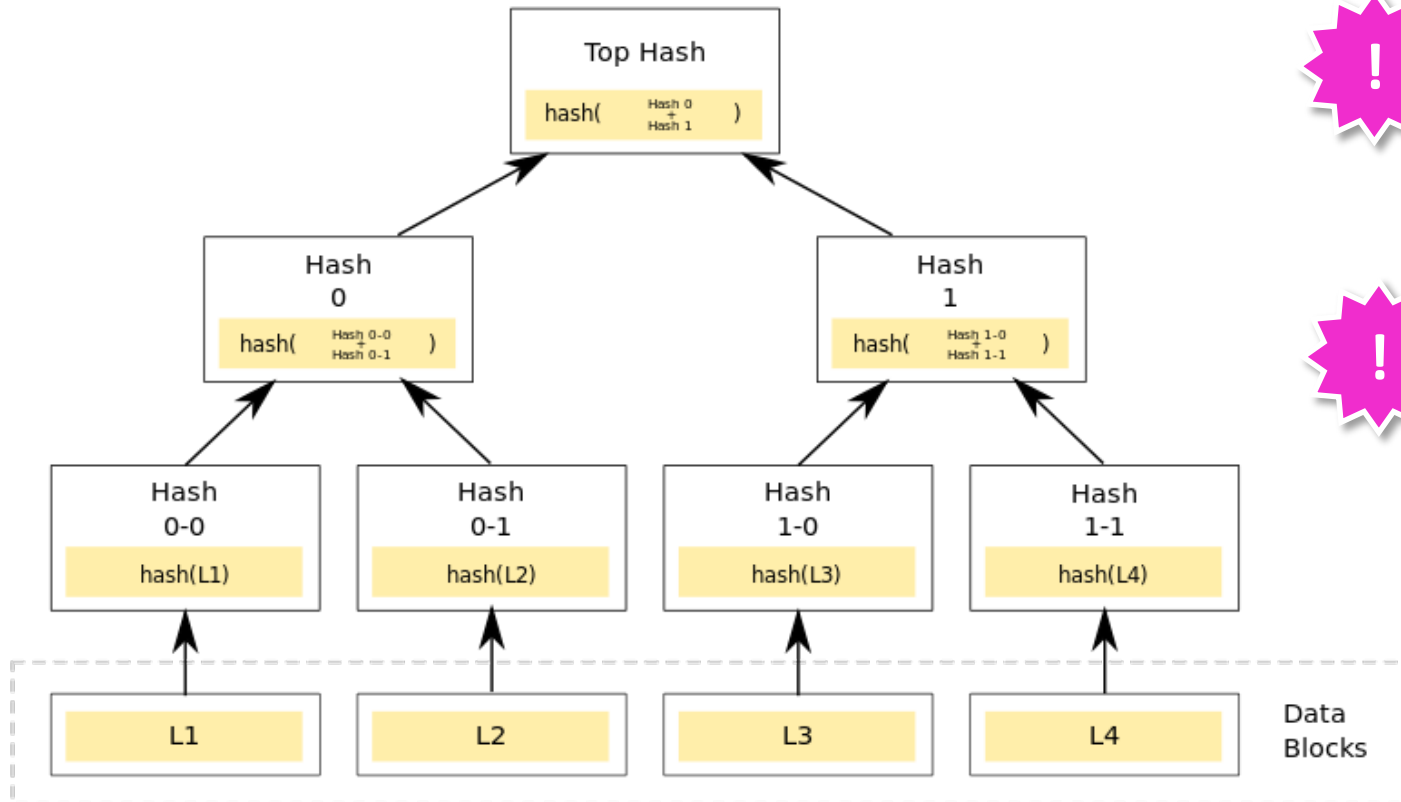


Practice

Expert level : risk assessment by practice, security ownership

Relevance for IoT

trustmodel (currently): undefined



Centralized models will not work in the IoT context



**Best practice:
Certificate transparency (CT)**

Authenticity and integrity can be validated
Distributed!

Innovative approach

- Subscription Manager enables flexible, secure and efficient choice of connectivity provider for (I)IoT devices
- In combination with the newly specified Secure Element Management Service (SEMS) by Global Platform (I)IoT devices can be
 - Managed in groups using special certificates
 - Securely provisioned with new applications via app stores
- Benefits:
 - Post-issuance remote control of (I)IoT device connectivity
 - Reduction of secure element content management costs
- ➔ Disruptive change of traditional management model

Mastering IoT security

- ✓ Train R&D about hacks & design with security
- ✓ Complement IT security with OT security
- ✓ Look for OT security products, manageable by OT staff

Relevance for IoT

trustmodel (to be defined): distributed

IOT
INTERNET
OF THINGS



Trust in IoT:
Elements need to interact spontaneously
Hence trust building needs to be decentralized

What You Have Learned Today

- IoT is a security challenge
- Cybersecurity is a race, between those who make “doors” and “locks”, and those who attempt to break them.
- But, innovative solutions are available

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