Towards Secured M2M-based Service-Oriented Systems

Laboratoire d'InfoRmatique en Image et Systèmes d'information

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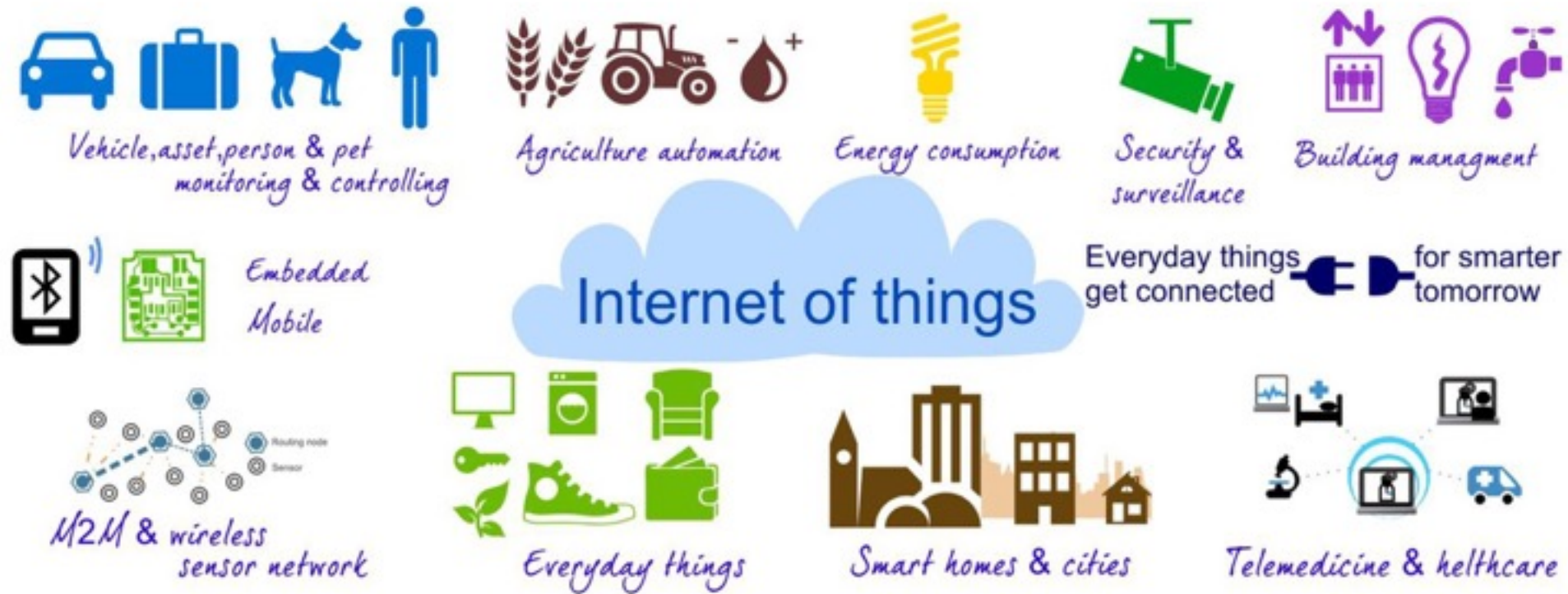
IoT Scope

Vehicle, asset, person & pet monitoring & controlling

Agriculture automation

Energy consumption

Security & surveillance

Building managment

Embedded Mobile

Internet of things

Everyday things get connected — for smarter tomorrow

M2M & wireless sensor network

Everyday things

Smart homes & cities
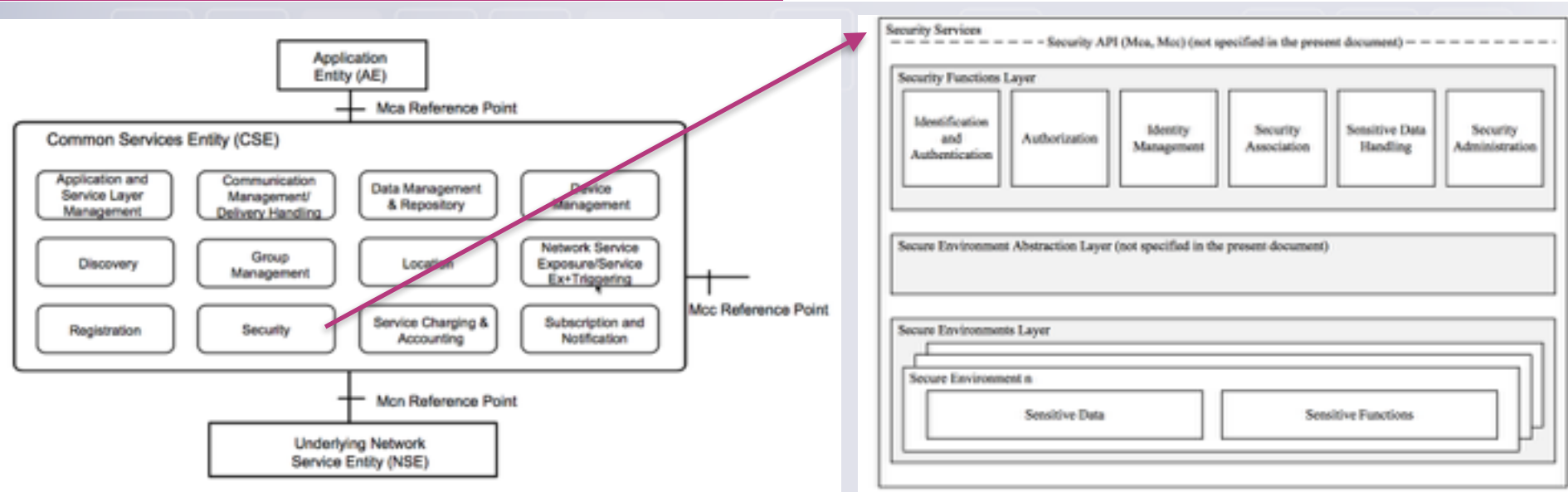
Telemedicine & helthcare

Interconnectivity   Heterogeneity   Scalability   Dynamic Changes   Limited Resources

IoT Security Challenges

- Interconnectivity
- Heterogeneity
- Scalability
- Limited Resources
- Dynamic Changes

- Confidentiality
- Authentication
- Authorisation
- Availability
- Privacy

IoT SOA Security Architecture

- Provide security as a service or one component in entire IoT systems
- Provide simple tools to users to configure the security policy
- Develop our own security modules in the entire security services component.
- If users need this security function, they could load the corresponding security module.

Privacy Preserving Services Module for Mobile Devices

- Campus map
- 24 mobile devices
- Device a0 sends a message to a1
- No end-to-end connectivity
- Store-carry-and-forward
- Mobility pattern
- Protect mobility pattern
- Protect the source and the destination of message
- This module uses our new routing algorithm to preserve privacy

Privacy Preserving Services Module for Mobile Devices

Questions?