Towards Secured M2M-based Service-Oriented Systems

Xiaoyang Zhu (SoC)
Supervisor: Youakim Badr
IoT Scope

- Interconnectivity
- Heterogeneity
- Scalability
- Dynamic Changes
- Limited Resources
IoT Security Challenges

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

- Confidentiality
- Authentication
- Authorisation
- Availability
- Privacy
- 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?