"Challenges and Solutions for SMART Solutions: Protocols, Interoperability, Testing and Collaboration"

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Protocols – Privacy

- Challenge
  - Data derived may imply the identity of a person
  - New notions: (un) linkability and (un)observability
- Solutions
  - Dynamic identities
  - Privacy Policy Manager (PPM) in oneM2M specifications
    - Standardised list of privacy attribute value pairs
    - Automatic comparison of a users privacy preferences and an applications privacy policies (what, when, why information is collected and or shared) and creation of ACL

Interoperability

- Challenge
  - Compliance with oneM2M only now being asked for in RFI, RFP, ITT,s etc. sent to potential service providers platform vendors
  - Legal issue – only specify a requirement not a solution
- Solutions
  - Model forms of contract
  - ….

Testing

- Challenge
  - Multitude of unattended devices in remote locations, especially important where the infrastructure is the sort of "street furniture" that goes unremarked by passers-by
- Solutions
  - Detectability; the need for the machine to become aware of and react to a security breach such as tampering..
  - Recoverability: since the equipment may be dispersed or inaccessible, it must be possible to undertake at least some remediation and reset functions remotely.
    - Learning point from UK Smart cities – need to close a road to access a lamppost containing M2M/IoT Infrastructure

Collaboration - with other SDO's

- Challenge
  - 400 documents on their agenda
  - Liaison statements with a large attachment – no time to open so "noted" for the next meeting – "*next agenda item please*"
  - But next meeting 450 documents and new Liaisons

- Solutions
  - Joint face to face meetings with time for guest presentation perhaps- but takes 6 months to plan