

Breakout Session

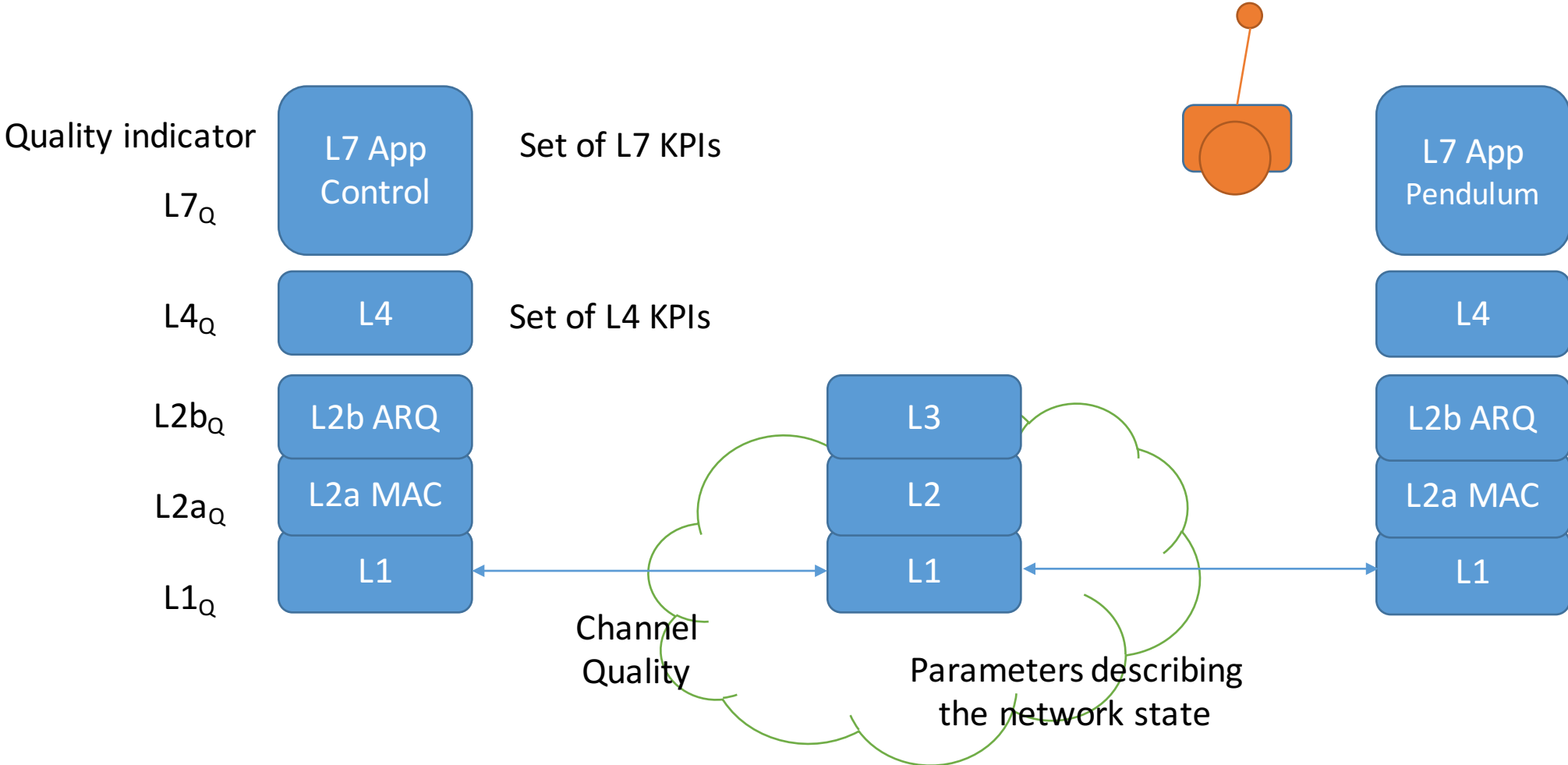
Wireless Prototyping and Measurements

MIR3 November 2017

Keywords / Topics of discussion

- Quality-of-Control, Metrics
- Testbed
 - Application perspective / Network perspective
- Platforms for prototyping
- Simulations tools / models
- Scenario
 - Eg. Single hop, multi hop
 - Benchmark for evaluating
- Measurements
- Models
- KPIs and Guarantees
- Impairments
 - External, controlled, movements/mobility
- Application characterization
 - QoS needs, traffic

Reference Model



Reference Model

- Goals
 - Reproducibility
 - Scenarios
 - Parameters
 - KPIs ➡ Quality-of-Control
- Who will use it?
- What to provide?
- Implementation?

Testbed

- Lego Mindstorms
- Software artifact for mimicking/abstracting the physical system
- Different MAC and physical layers: 802.15.4 / 802.11 / ...
- Software artifact for mimicking the physical layer
 - 6TiSCH simulator for 802.15.4
 - Matlab-based simulation of 802.11
 - ns3
- Real-world traces and previous measurements to be plugged in the previous software pieces

Models

- Modeling influence of the L1 parameters on the L2b performance