

Agent Substitution Mechanism Demonstration: Indoor Light Level Control System

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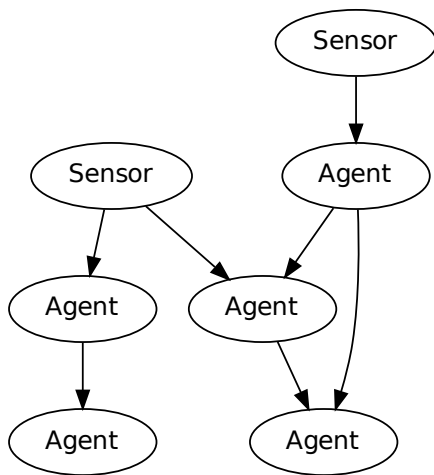
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Dataflow network



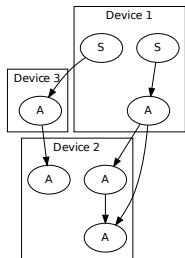
Smart-M3 Platform

- Middleware for services based on intercommunicated agents
- Allows information sharing between agents and services

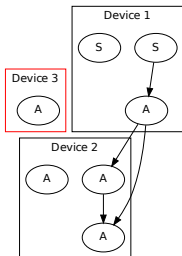
Dataflow network – model of a Smart-M3 service!

Agent Substitution Mechanism

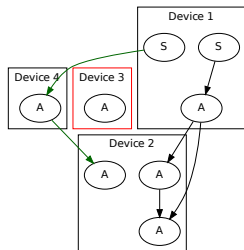
Normal network operation



An agent loses connection



Substitute agent operation



Light Level Control System

The system consists of

- Indoor and outdoor sensors
- Remote control unit
- Actuators on blinds and lamps



System Components



Indoor Illuminance Sensor

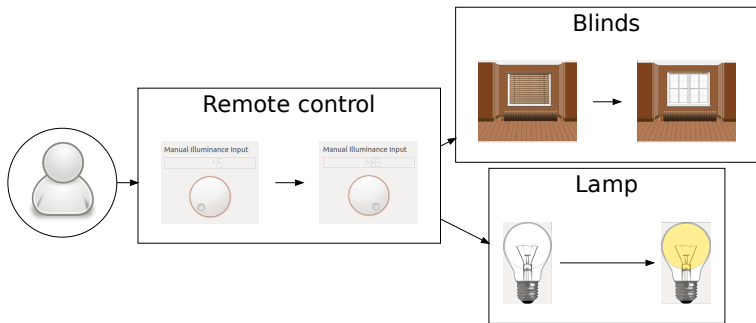
Lux:

Outdoor Illuminance Sensor

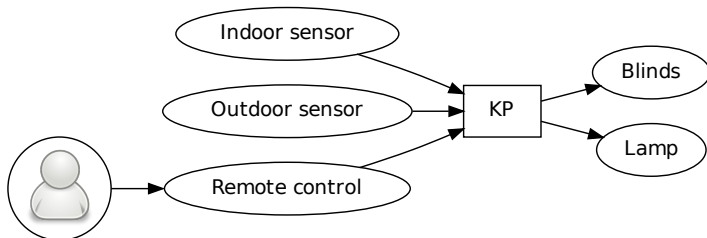
Lux:

Manual Illuminance Input

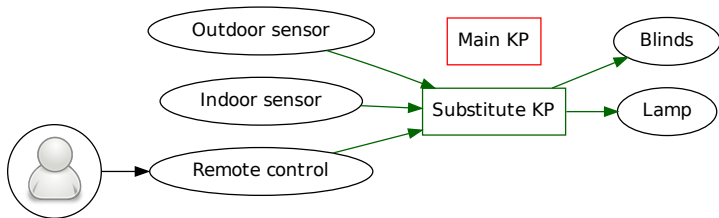
System Usage



Operation of the System



Substitution in the System



Substitution mechanism

- Prevent corruption of system operation
- Work in stand-alone mode (without user participation)