ESIOT Product Presentation

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PICT, PUNE

Product

SMART Curtains

Product Description

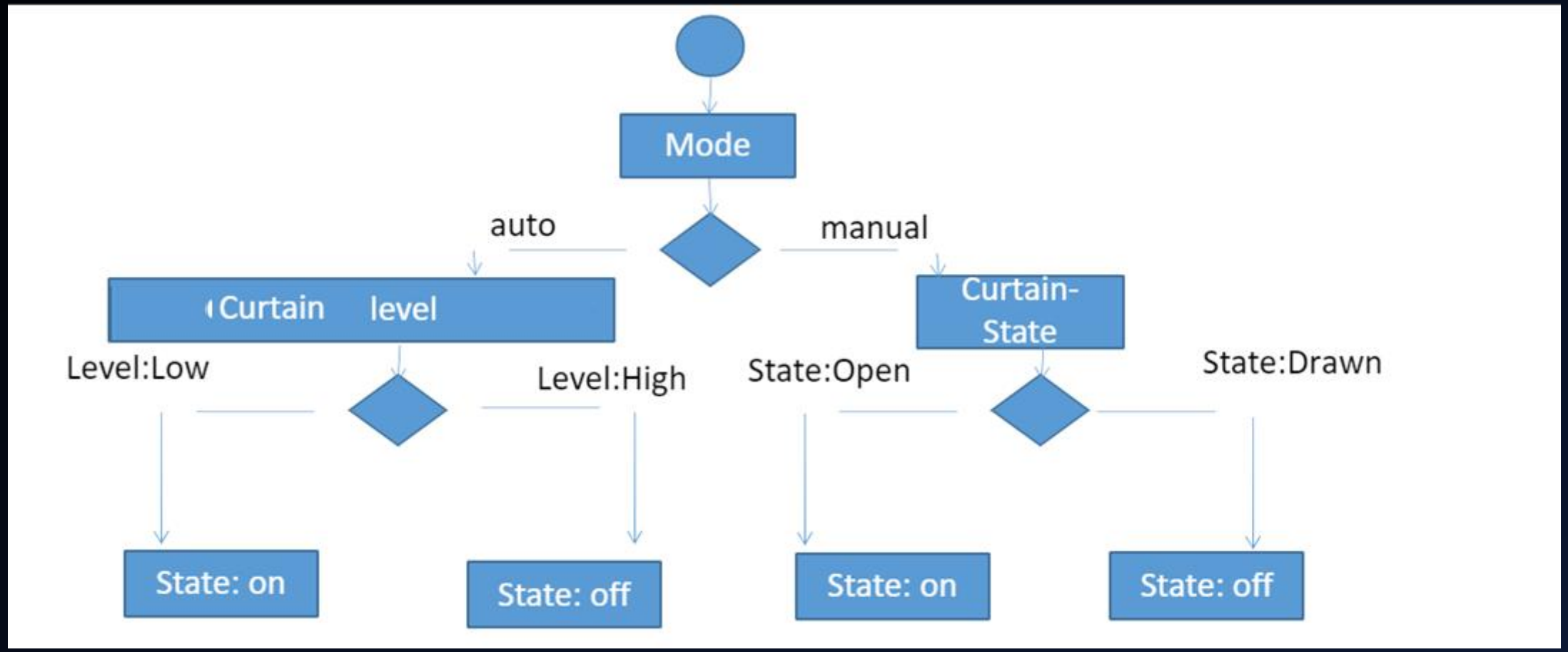
Smart Curtains

- Eliminating the need for human intervention for operating curtains. According to user activity it slowly opens and closes at night. Can be connected via app and light sensor. Users can then control and schedule their curtains to open and close with an app on their phone or by voice control – the system supports Google, Alexa, Siri and IFTTT with the SwitchBot Hub. A built-in light sensor allows the curtains to open automatically when the sun rises.

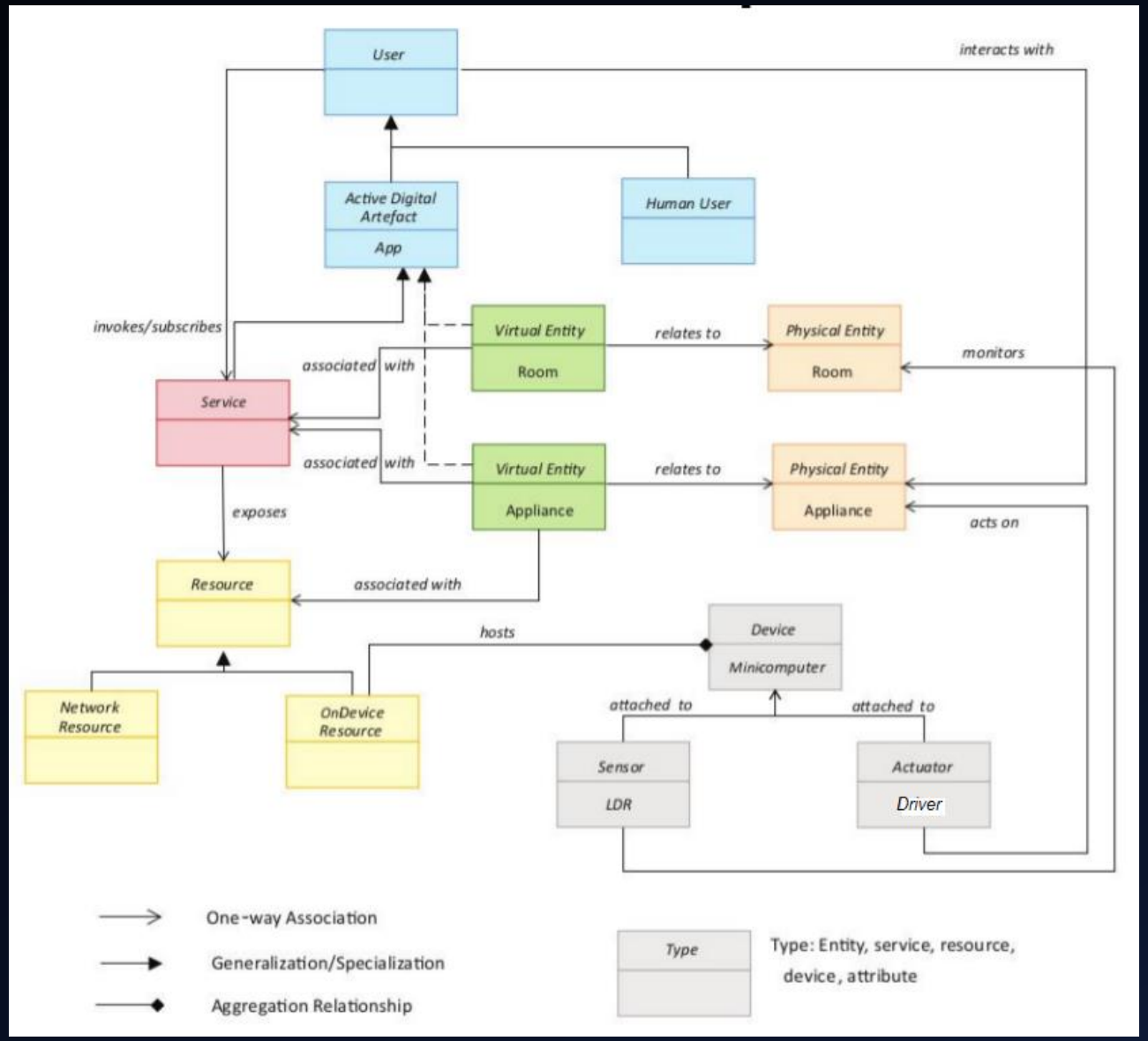
Purpose & Requirement Specification

- Purpose: To eliminate the need for human intervention for operating curtains. According to user activity it slowly opens and closes at night. Can be connected via app and light sensor. Users can then control and schedule their curtains to open and close with an app on their phone or by voice control.
- Behavior: Has both manual mode to move curtains and auto mode which moves curtains at specified times.
- System Management Requirement: Interaction through app installed on user phone, voice control or remote controller.
- Data Analysis Requirement: Timing of alarm on phone and phone switch off at night. Studies user activity through app usage, analyzes voice commands and usage patterns. The machine locally analyzes timing data, but the machine learning is on Cloud.
- Application Deployment Requirement: It can be mounted to the rod or the rail of a curtain and connected via app and light sensor. Can be accessed remotely using the app.
- Security Requirement: User authentication on app, password login and fingerprint lock after long period of inactivity.

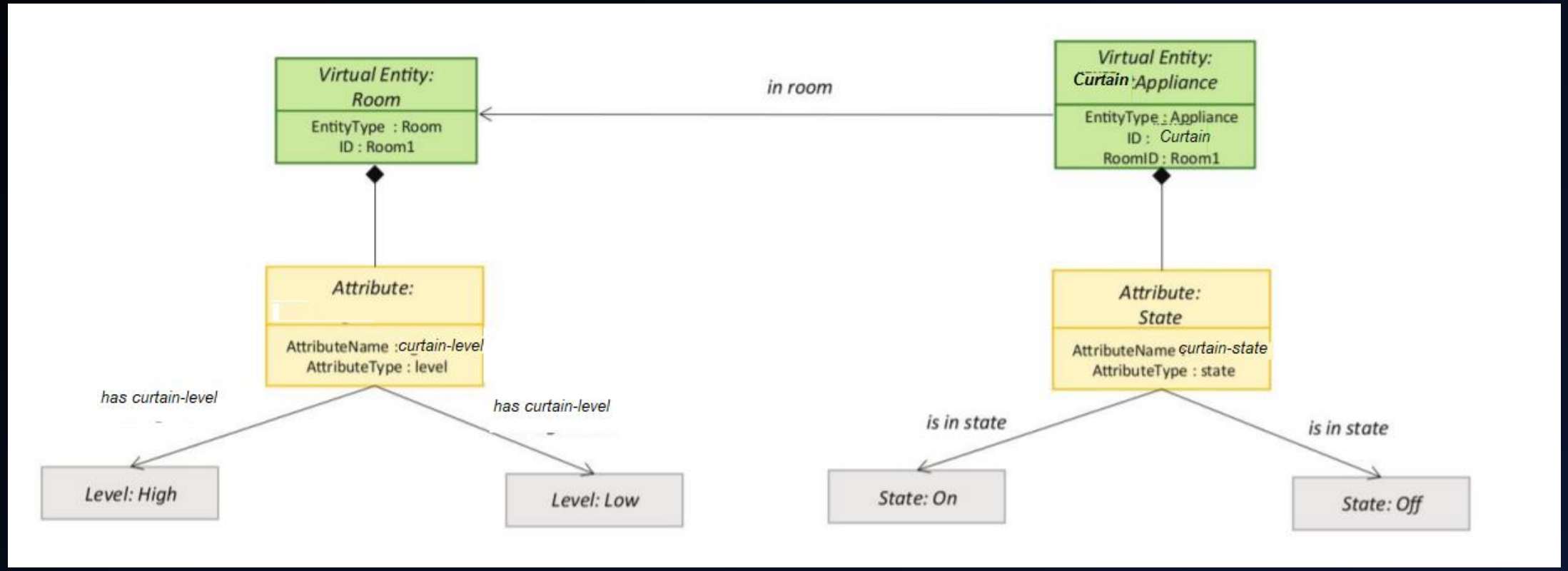
Process Model Specification



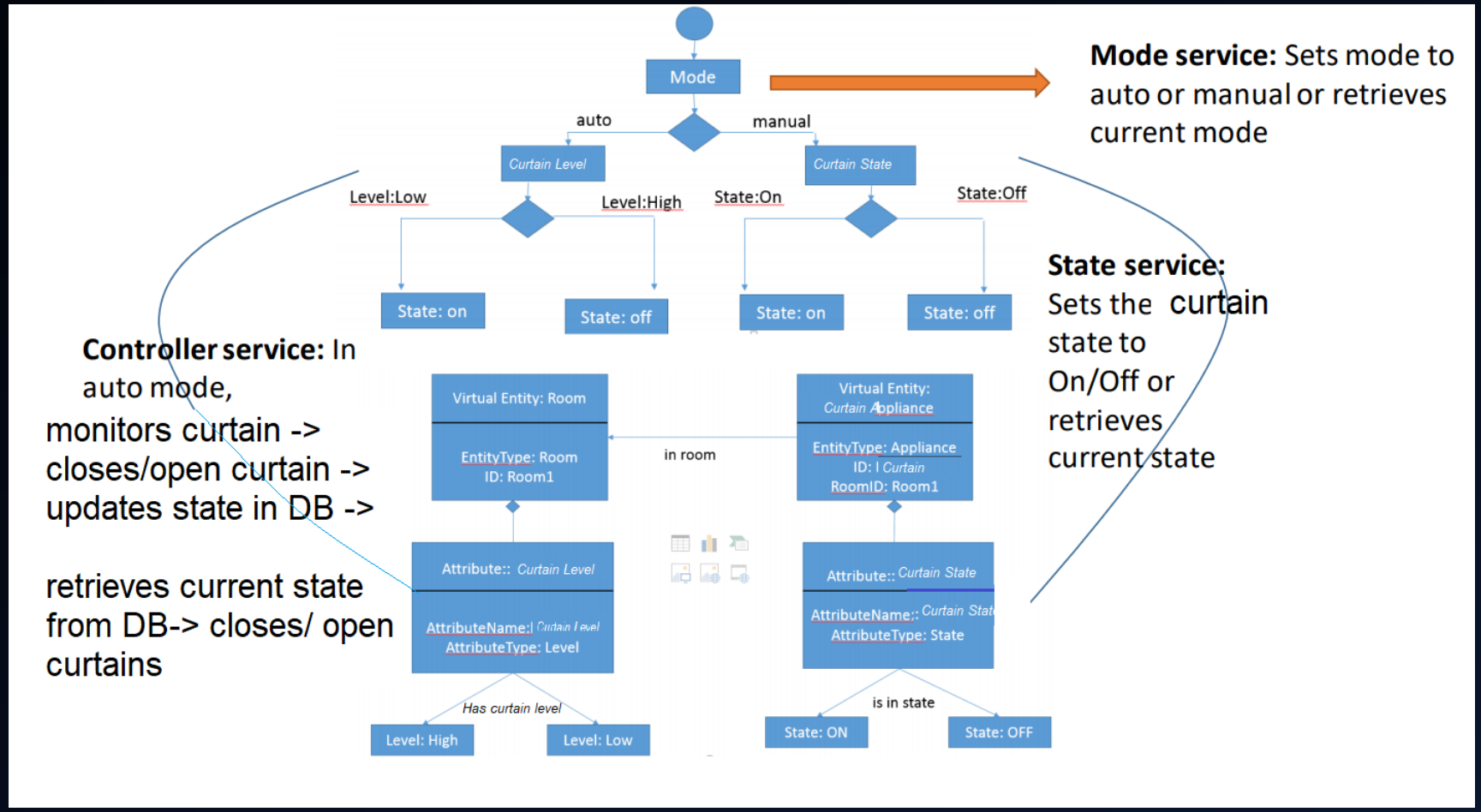
DOMAIN MODEL SPECIFICATION



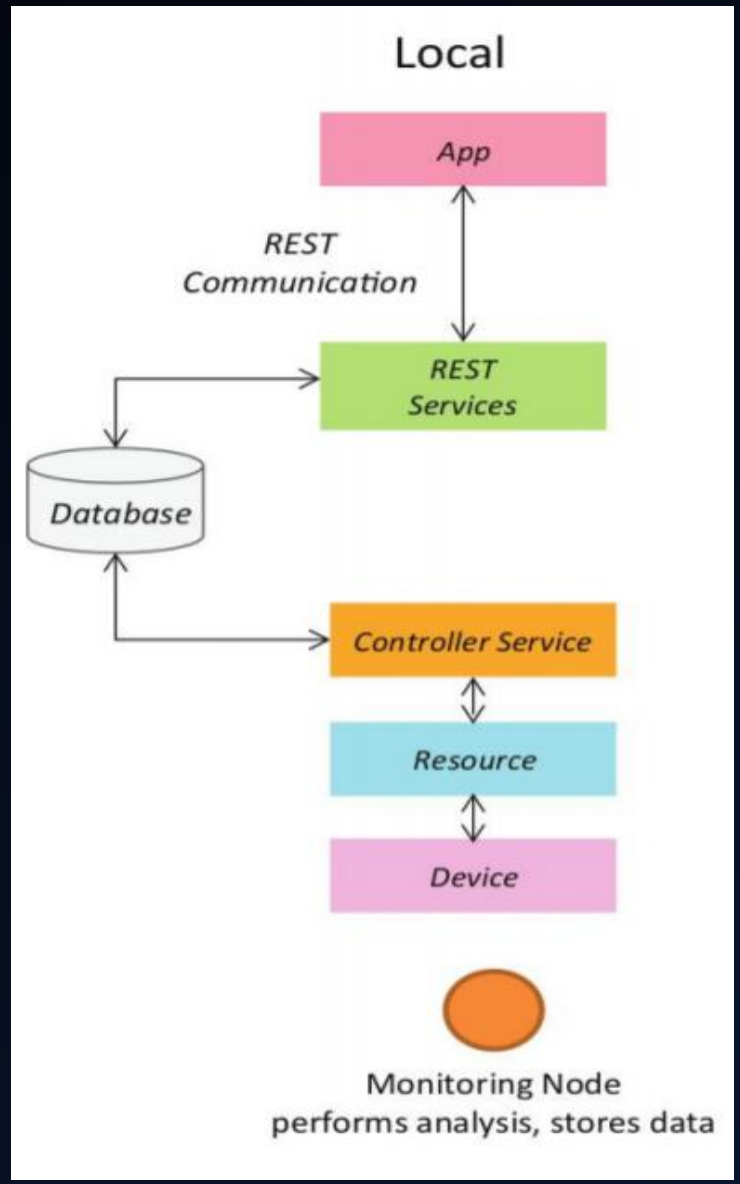
Information Model Specification



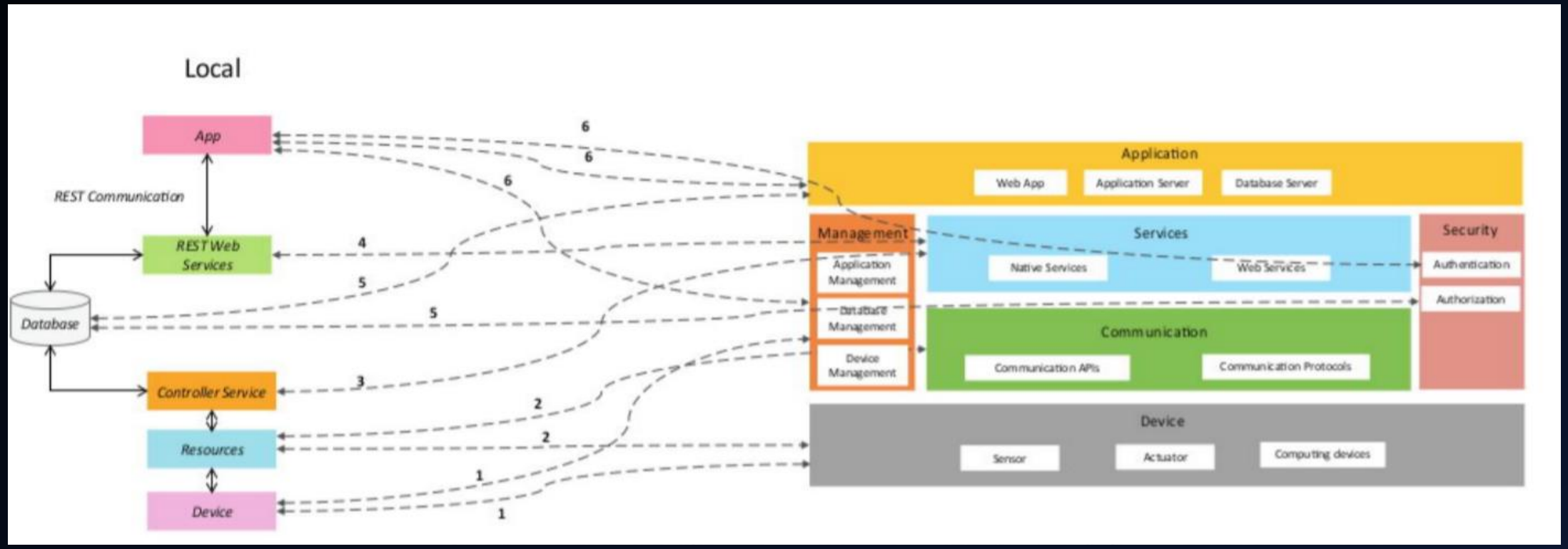
Service Specifications



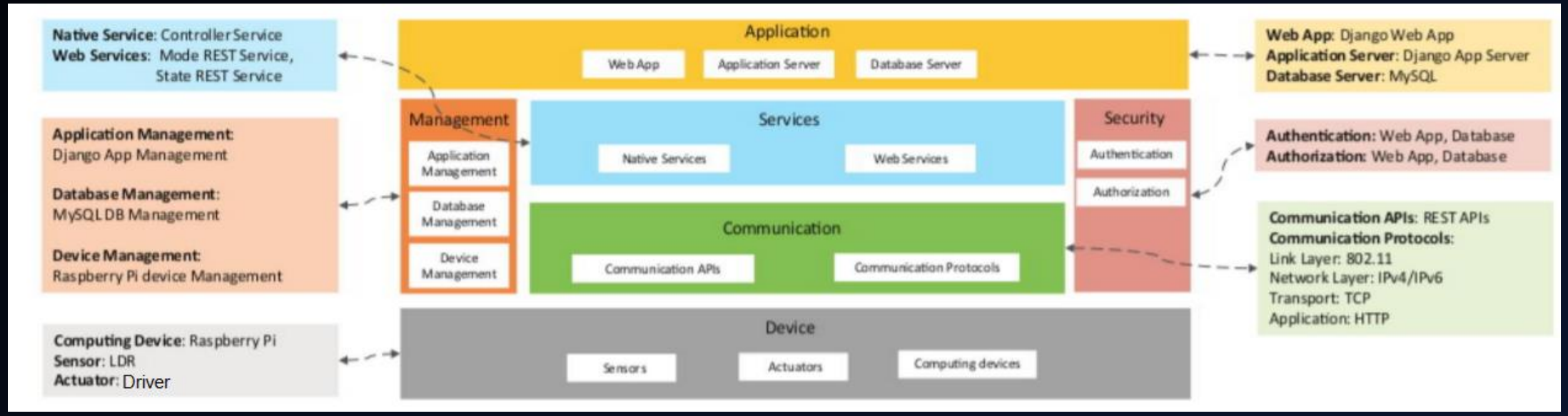
IOT LEVEL SPECIFICATIONS



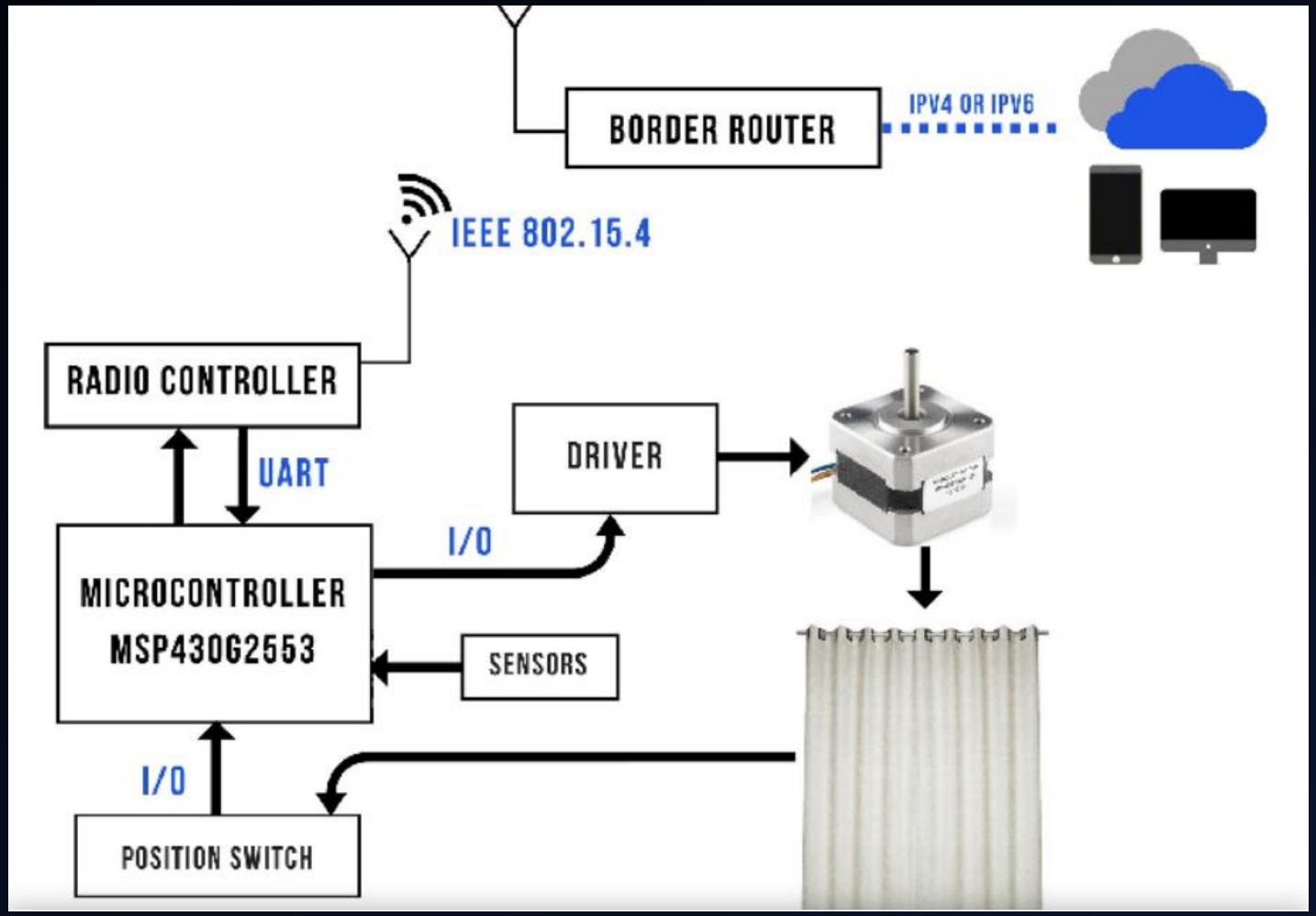
Functional View Specifications

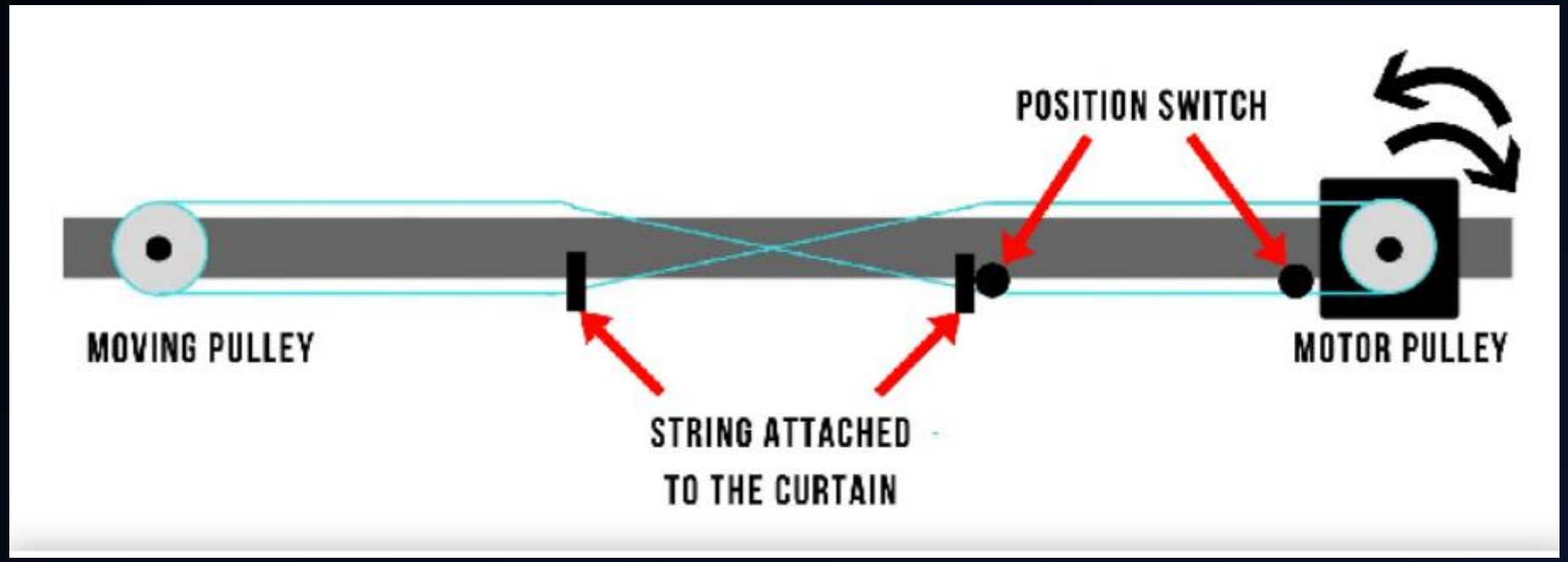


Operational View Specification



Device and component Integration




POSITION SWITCH
MOVING PULLEY
MOTOR PULLEY
STRING ATTACHED
TO THE CURTAIN

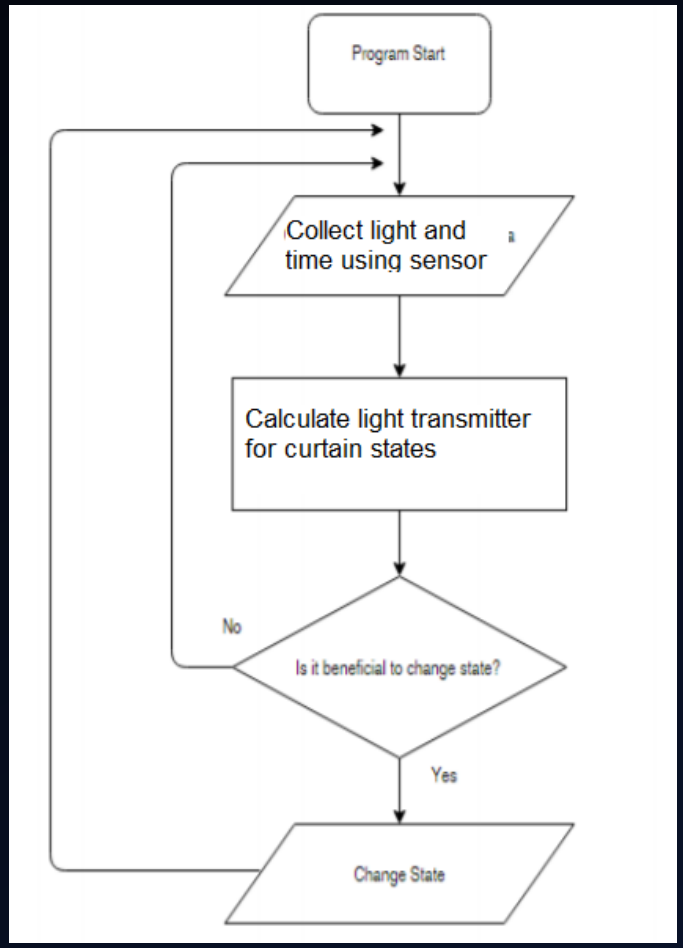
Application Development

Auto

- Controls the curtain appliance automatically based on the lighting conditions in the room

- Curtains
  - When Auto mode is off, it is used for manually opening and closing the curtains.
  - When Auto mode is on, it reflects the current state of the curtain appliance.

Flow Diagram



c.
d.

THANK YOU!

Hope this application eases the lives of many individuals and will be incorporated in many smart homes!