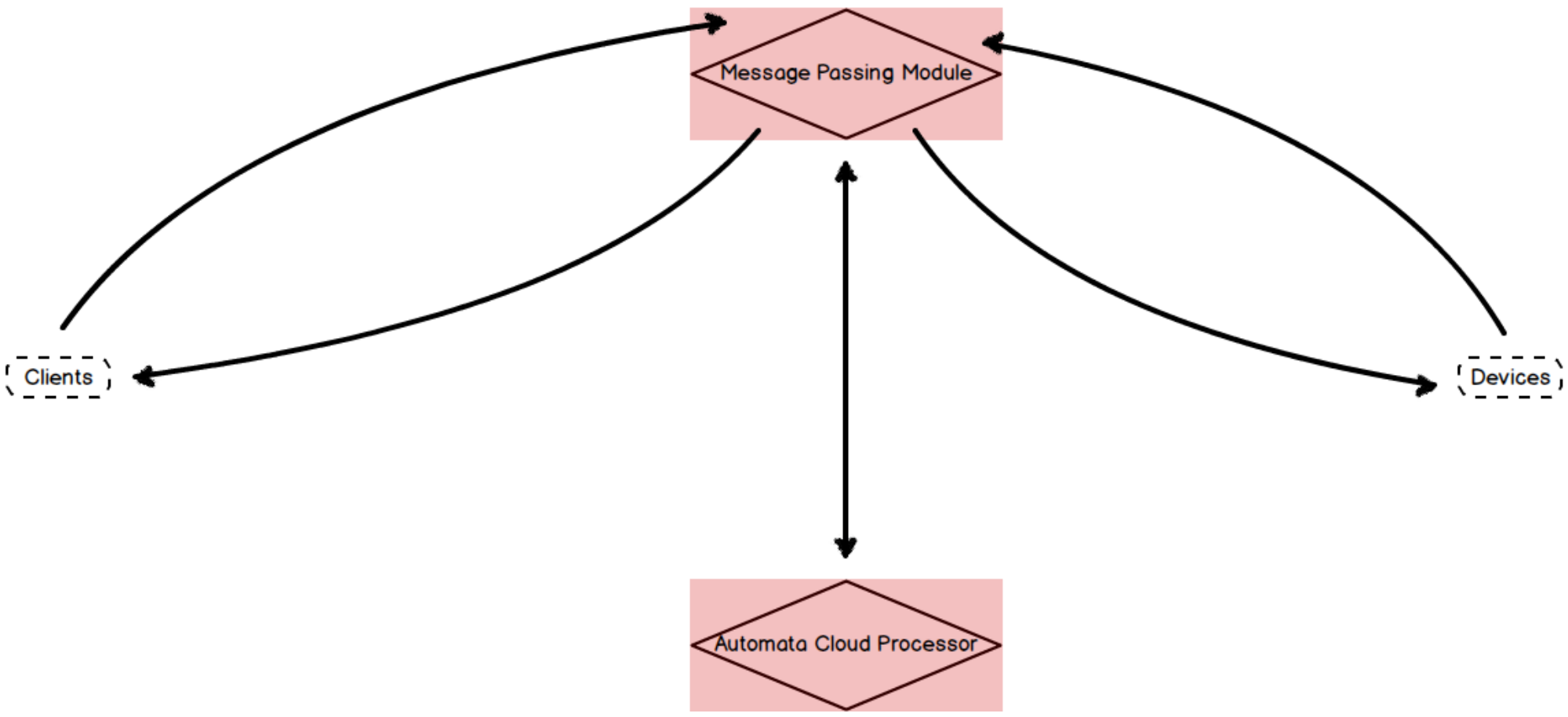
Jason Walker
Capstone: Automata Cloud Processor
Official Advisor: George Markowsky
Unofficial Advisor: Zach Hutchinson

Automata Cloud Processor

Architecture Overview



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Message Passing Module

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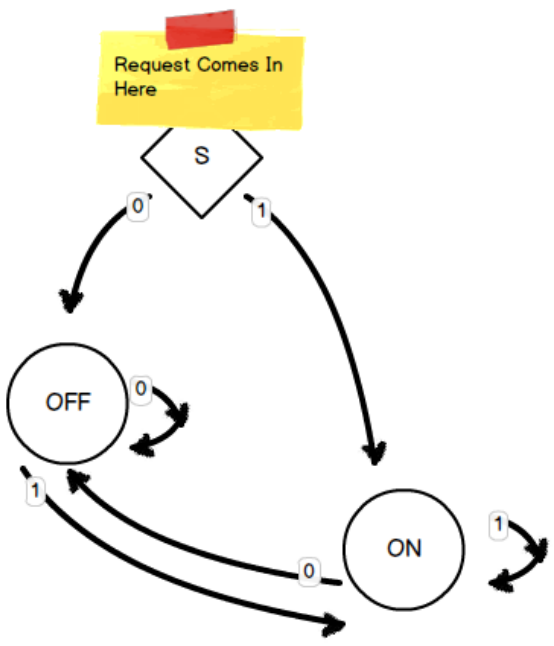
Cloud Processor

Example Model of a Device (Lightbulb)

This lightbulb has two states.
On
Off



This device would be modeled by our system as:

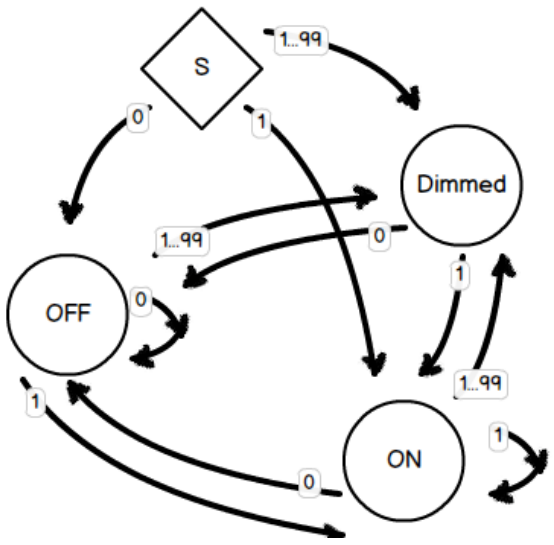
```
states:[{
        name:"On",
        value: 1,
},
{
        name: "Off",
        value: 0,
}],
current_state: 0
```

*** I purposely changed the On/Off posiition to prove a point. Current state is an index to a state in the state array.. that way if the device fails we have a saved state in the DB model. When the device reboots we can read from the DB to restore the state of the machine.

Example Model of a Device (Lightbulb)

This lightbulb has multiple states.
On - Full Brightness
Dimmed - Partial Brightness
Off - Zero Brightness

We can change our FSA by adding one more state



This device would be modeled by our system as:

```
states:[{
        name:"On",
        value: 1,
},
{
        name: "Off",
        value: 0,
},
{
        name: "Dimmed",
        value: 53,
        range:{
                low: 1,
                high: 99,
        }
}]
current_state: 2
```

*** In this example we would store the value in the FSA range. We can still point to the correct value 53.. In an FSA any value that is not in the FSA is not accepted.