

Realizing "Lifestyle Update" through Web of Things

4th June, 2019

2nd W3C Workshop on the Web of Things

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About Panasonic

Aim to be a “Lifestyle Update” company



Connected

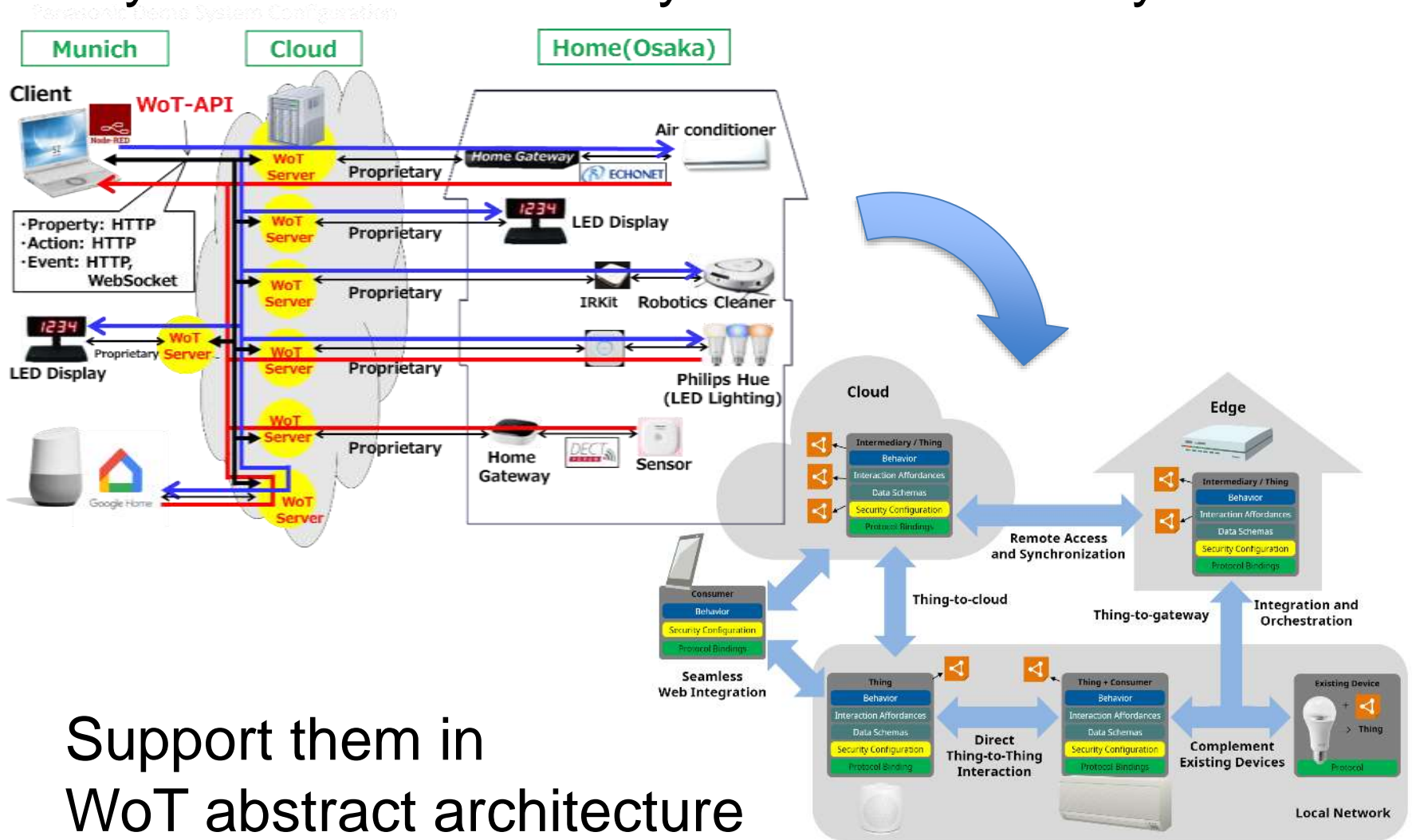
Software defined

Upgradable

Panasonic contribution to Web of Things

Contribution 1: Architecture supporting legacy protocols

Many devices are already connected locally



Contribution 2: Specification verification through Plugfest

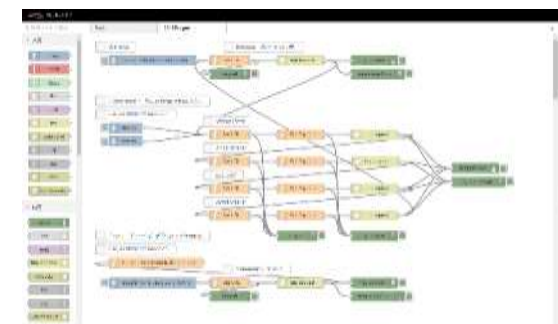
Real things in Smart home



WoT Client on Browser



WoT Client on Node-RED



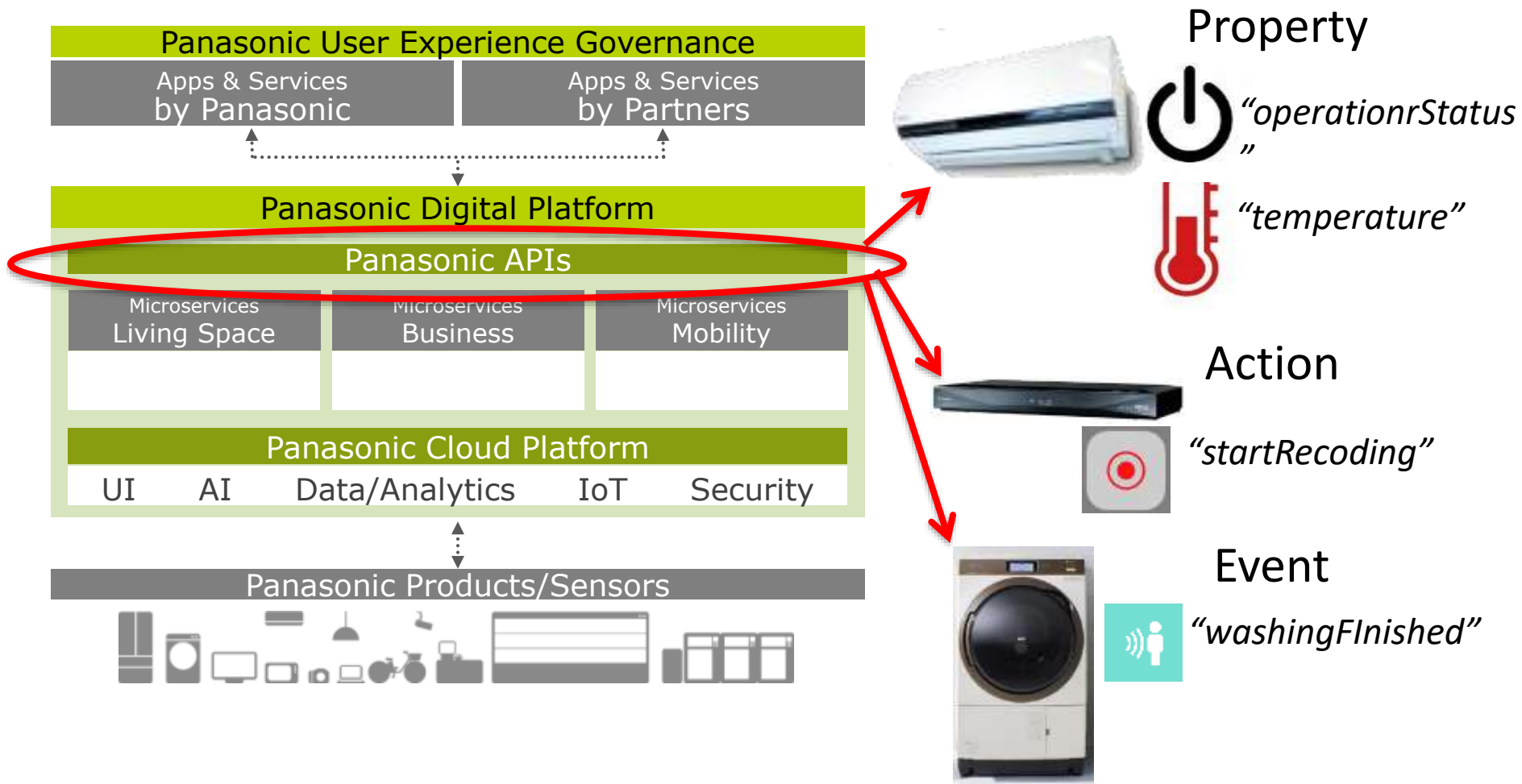
Virtual things (simulator)



Deployments in Panasonic

Panasonic Digital Platform

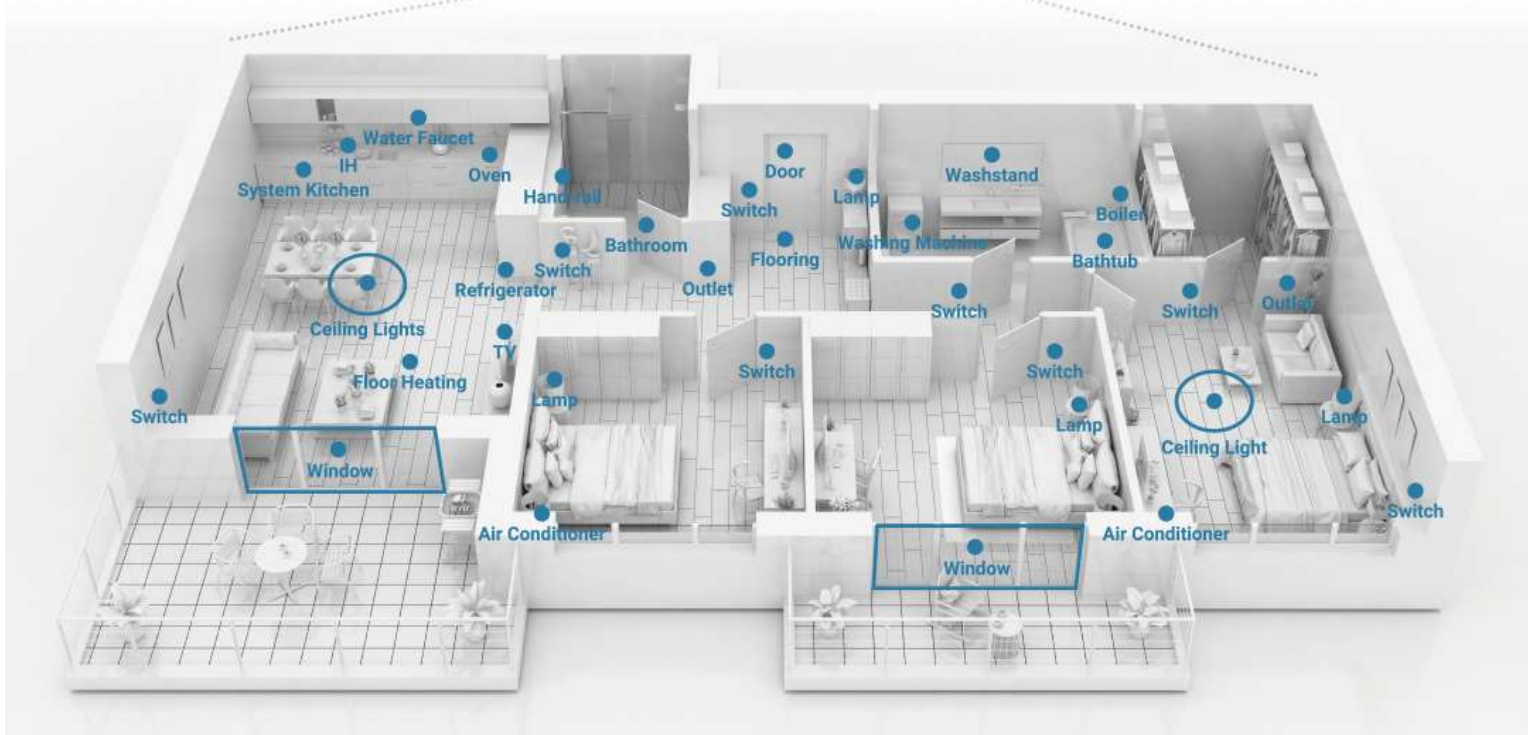
Developing APIs Based on WoT Interaction Model



Example application: HomeX

Aim: leverage Panasonic's touchpoints in the home

HOMEX



Use cases: A Life with HomeX (video)



<https://www.youtube.com/watch?v=ixGUylp7VcA>

Further work on Panasonic Digital Platform

Introducing WoT Thing Description

```
{
  "@context": [
    "https://www.w3.org/2019/wot/td/v1",
    {
      "sosa": "http://www.w3.org/ns/sosa/",
      "ssn": "http://www.w3.org/ns/ssn/",
      "om": "http://www.wurvoc.org/vocabularies/om-1.8/"
    }
  ],
  "@type": "Thing",
  "id": "urn:dev:ops:32473-WoTLamp-1234",
  "sosa:observes": {
    "@id": "urn:dev:ops:32473-WoTStation-1234/temperature",
    "@type": "om:Temperature"
  },
  ...
  "properties": {
    "temperature": {
      "ssn:forProperty": "urn:dev:ops:32473-WoTStation-1234/temperature",
      "description": "Temperature measurement of the weather station",
      "type": "number",
      "minimum": -32.5,
      "maximum": 55.2,
      "unit": "om:degree_Celsius",
      "forms": [...]
    }
  },
  ...
}
```

Use case 1: Identify functionality difference among various models



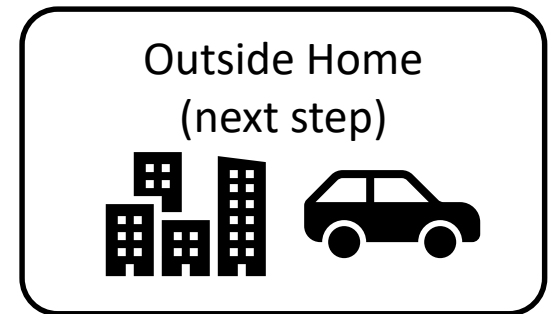
Use case 2: Identify same functionality (e.g. human detection) from different devices using semantic annotation



Expectation to standardization

Standard set of vocabulary and data model

Further development of vocabulary and data model to increase interoperability b/w different manufacturers is expected



Thank you!