

## **T2TRG Summary**

IETF 96, Berlin, Germany, 2016

<http://w3c.github.io/wot/charters/wot-ig-2016.html>

# **INTEREST GROUP RE-CHARTER**

# WoT Interest Group

- AC Review finished 15 July 2016
  - 34 support this Charter as is
  - 1 suggests changes, but supports the proposal
- IG Scope
  - Support proposed WG
  - Organize and run PlugFests
  - Collaborate with other SDOs, organizations, etc.
  - Investigate ideas for long-term goals

<http://w3c.github.io/wot/charters/wot-wg-2016.html>

# **WORKING GROUP CHARTER**

# Proposed WoT Working Group

- Roadmap
  - Integrate feedback from bilateral outreach
  - Resolution to submit on 27 July 2016
  - Start W3M Review period on 3 August 2016
  - Start AC Review period on 24 August 2016
  - Be able to start WG around October 2016
- Please have a look and send feedback
  - <http://w3c.github.io/wot/charters/wot-wg-2016.html>
  - Mailing list or GitHub Issues

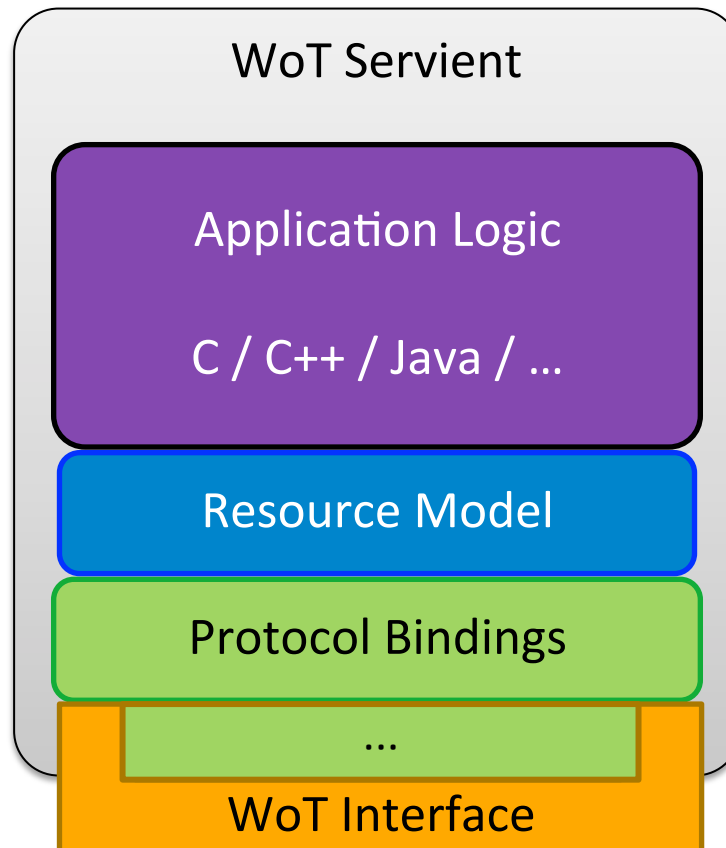
# **MAIN PROGRESS TOPICS**

# Thing Description (TD) Type System

- TD allows to plug in different systems
- Evaluation of popular type systems in Web apps
  - Schema.org system has some limitations
  - XML-based schemas are too implementation specific
  - JSON Schema for now used in PlugFest to explore further
- Open issues
  - Semantic annotations alongside data structure definitions
  - Existing tool support for automatic validation

# Without Scripting API

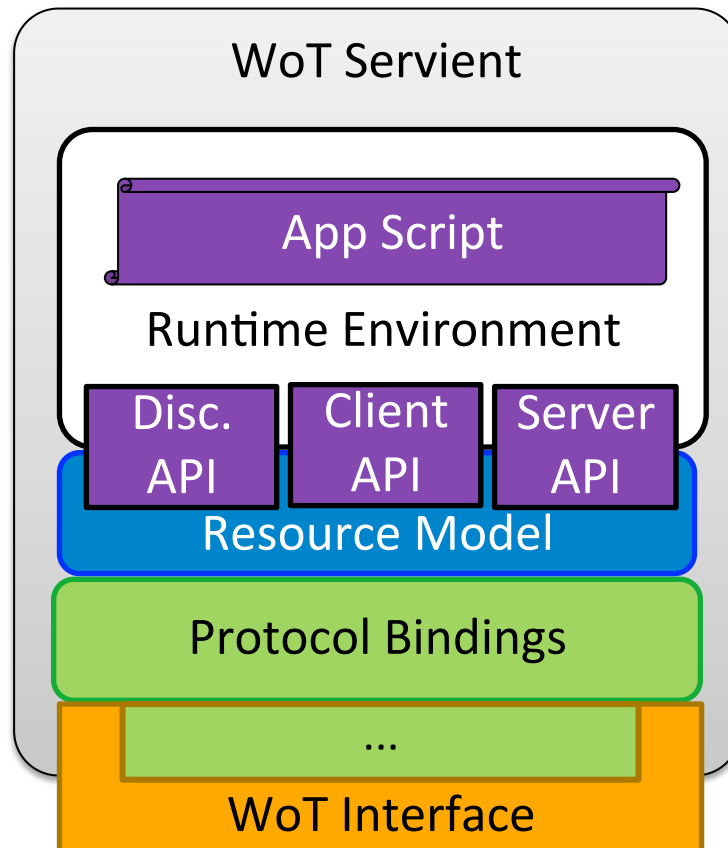
- Application logic often implemented natively





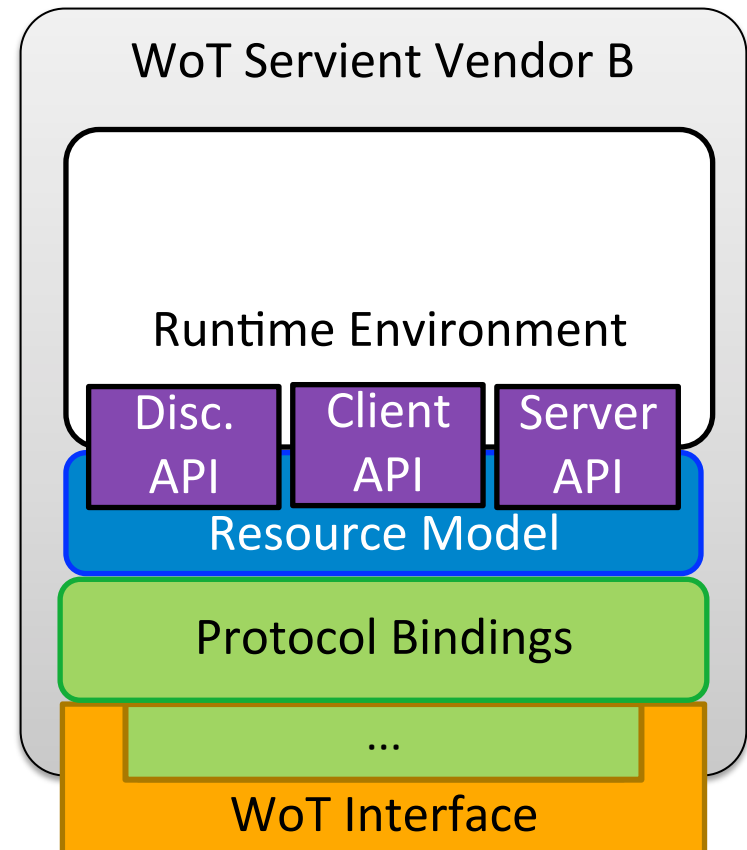
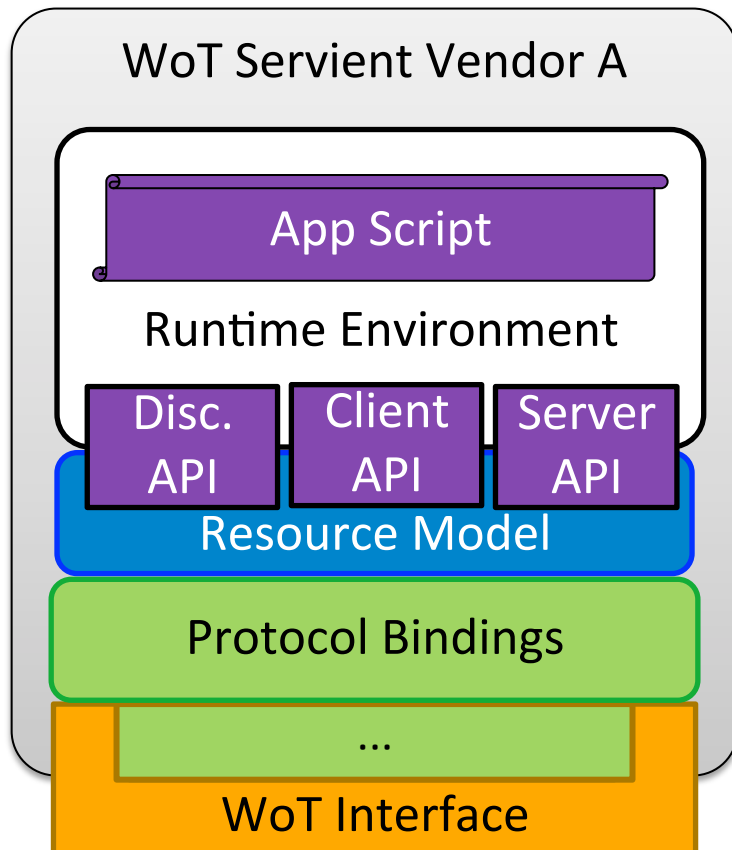
# Scripting API

- Web-like development and deployment



# Scripting API

- Common runtime enables portable apps



# Script Example (Expose Thing)

```
// create software object to represent local Thing
WoT.newThing("counter")
  .then(function(thing) {
    thing
      // programmatically add interactions
      .addProperty("count", {"type": "integer"})
      .addAction("increment")
      .onInvokeAction("increment", function() {
        console.log("incrementing counter");
        // persistent state is managed by runtime environment
        var value = thing.getProperty("count") + 1;
        thing.setProperty("count", value);
        return value;
      })
      // initialize state (no builder pattern anymore)
      thing.setProperty("count", 0);
  })
  ._catch(console.err);
```

# Script Example (Consume Thing)

```
// create software object to represent remote Thing based on TD URI
WoT.consumeDescriptionUri("http://servient.example.com/things/counter")
  // use promise to handle asynchronous creation
  .then(function(counter) {
    counter
    // invoke an Action without arguments
    .invokeAction("increment", {})
    // which is an asynchronous call -> promise
    .then(function() {
      console.log("incremented");
      counter
      // read Property (async.) to confirm increment
      .getProperty("count").then(function(count) {
        console.log("new count state is " + count);
      });
    })._catch(console.error);
  })
  ._catch(console.error);
```

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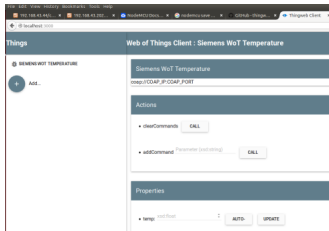
# **F2F MEETING AND PLUGFEST**

# F2F Meeting

- 11 – 14 July 2016
- Hosted by CETC in Beijing
  - Colocated with local IoT event
  - Exchange with CETC and local companies
- PlugFest and technical demos
- Plenary and breakout discussions

# Scenario 1: Hello WoT

TD Web UI for  
human interaction



Open Source

Servient platform  
with scripted apps



**SIEMENS**

Servient connected  
to legacy devices

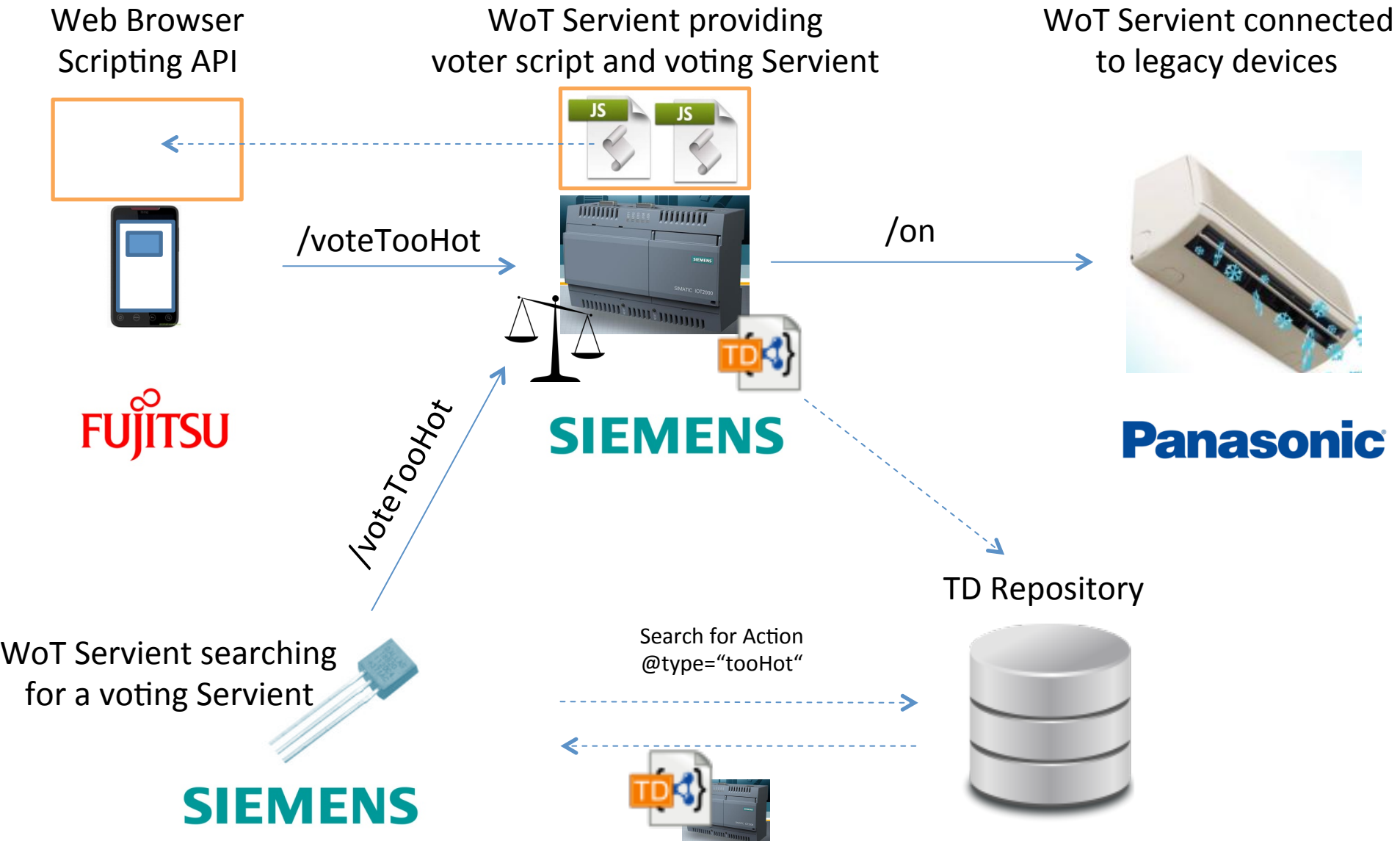


**Panasonic**

`/voteTooHot`

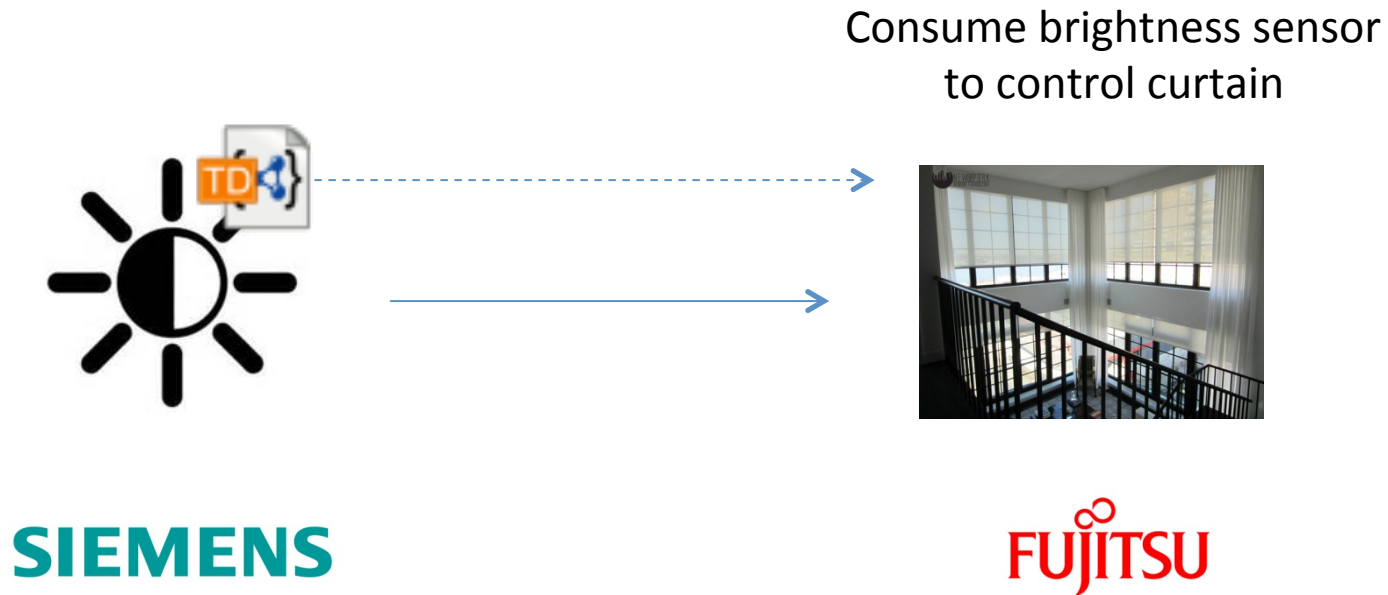
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# Scenario 2: Full WoT





# Scenario 3: Rule-based Automation



# PlugFest Online Resources

- Current Practices (Beijing Release)
  - <http://w3c.github.io/wot/current-practices/wot-practices-beijing-2016.html>
- Organization Wiki
  - [https://www.w3.org/WoT/IG/wiki/F2F\\_meeting,\\_July\\_2016,\\_China,\\_Beijing#PlugFest](https://www.w3.org/WoT/IG/wiki/F2F_meeting,_July_2016,_China,_Beijing#PlugFest)
- Test Cases
  - <https://github.com/w3c/wot/blob/master/plugfest/2016-beijing/plugfest-test-cases-beijing-2016.md>
- Report Template
  - <https://github.com/w3c/wot/blob/master/plugfest/2016-beijing/TestCaseCoverage.xlsx>  
(t.b.d.)