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 supports this Charter as is
  - 1 suggests changes, but supports the proposal
- IG Scope
  - Support proposed WG
  - Execute 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 to in PlugFest to explore further
- Open issues
  - Semantic annotations alongside data structure definitions
  - Existing tool support for automatic validation
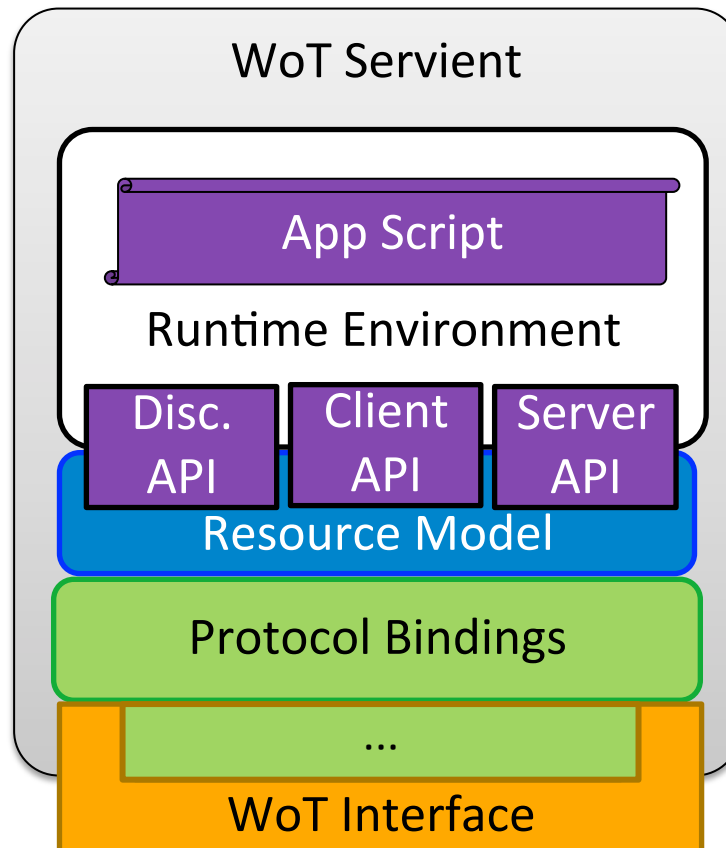
Without Scripting API

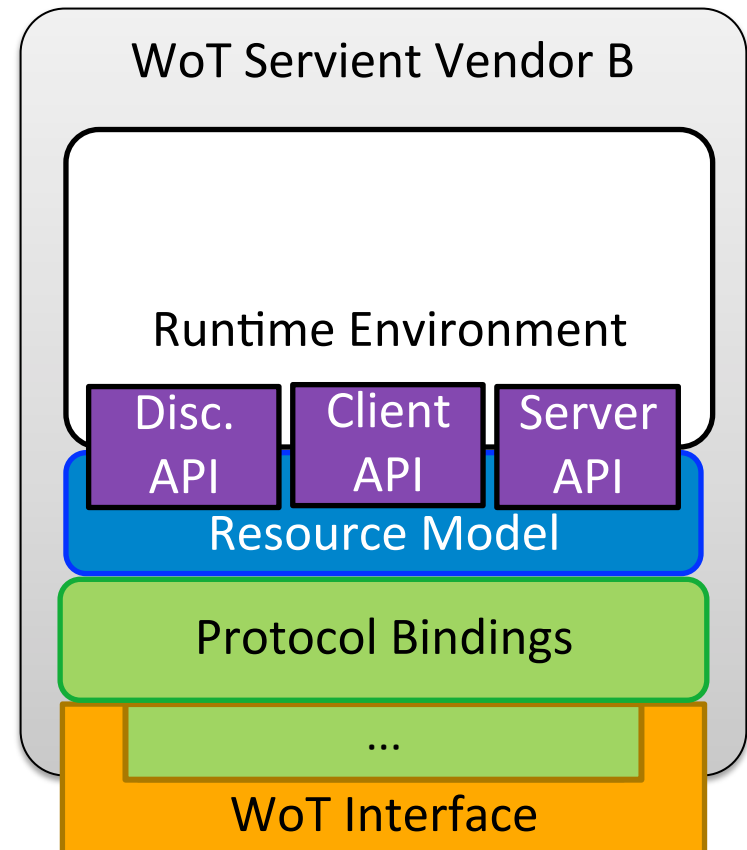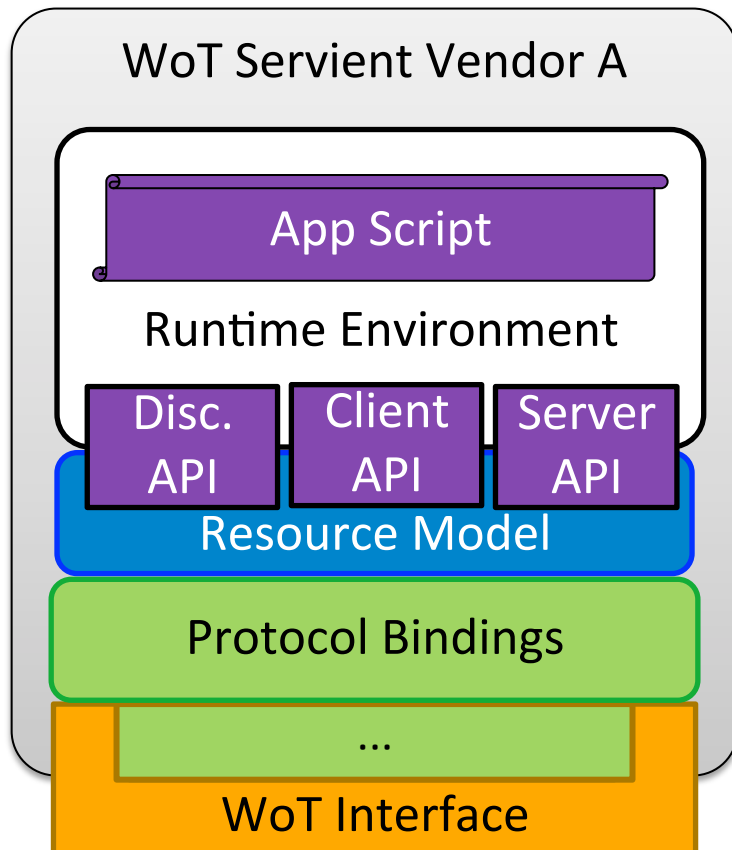- Application logic often implemented natively
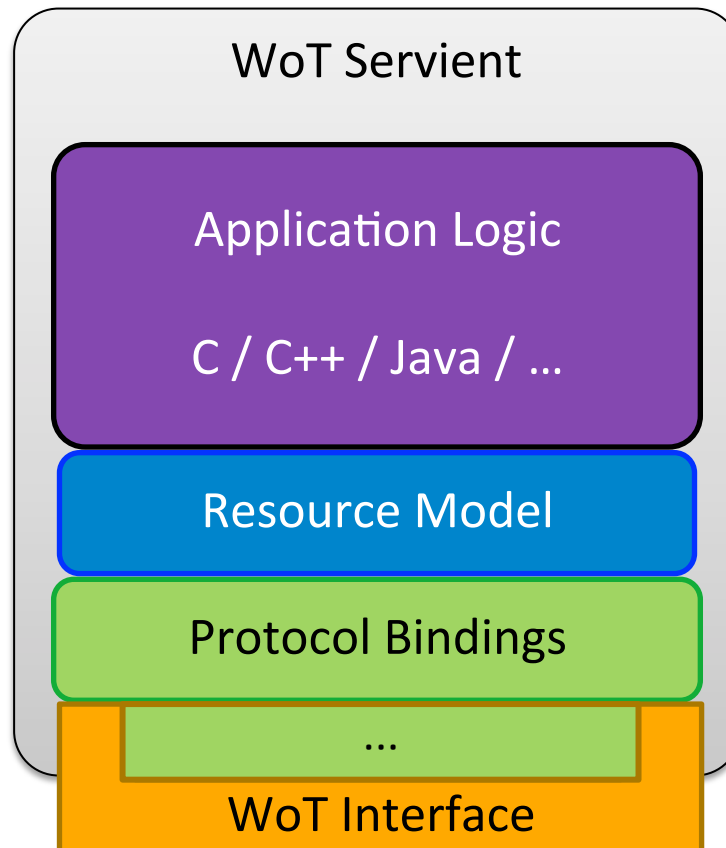
Scripting API

- Web-like development and deployment

Scripting API

- Common runtime enables portable apps

Script Example (Expose Thing)

```javascript
// 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)

```javascript
// 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);
```
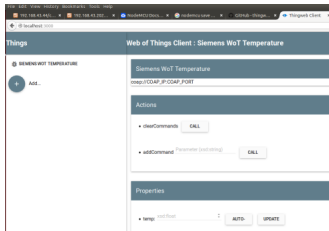
W3C WoT F2F Beijing 2016

F2F MEETING AND PLUGFEST

Scenario 1: Hello WoT

TD Web UI for
human interaction

Servient platform
with scripted apps

Servient connected
to legacy devices

/voteTooHot

/on

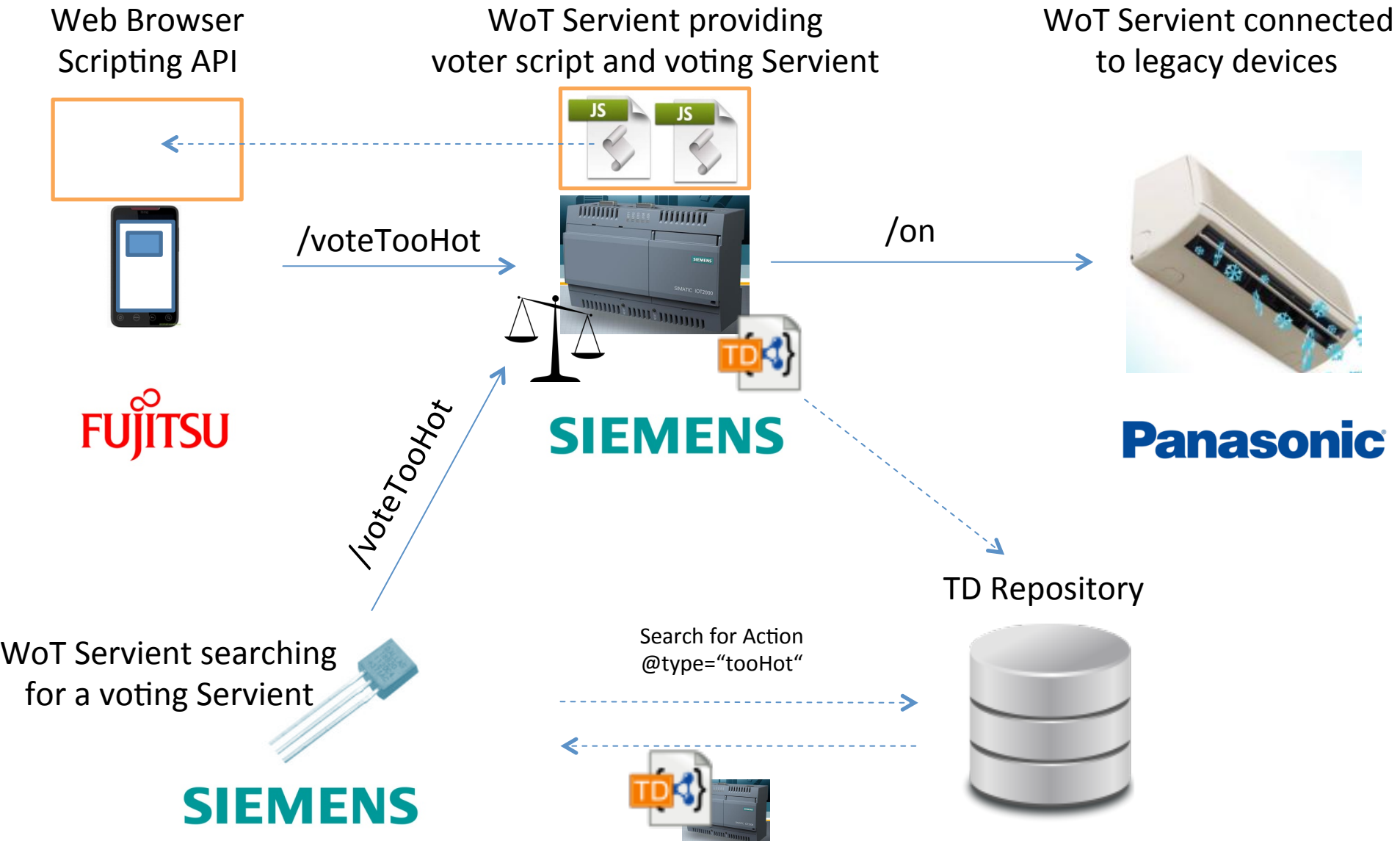Open Source

SIEMENS

Panasonic

Scenario 2: Full WoT

Web Browser
Scripting API

WoT Servient providing
voter script and voting Servient

WoT Servient connected
to legacy devices

FUJITSU

/voteTooHot

/on

SIEMENS

Panasonic

/voteTooHot

WoT Servient searching
for a voting Servient

Search for Action
@type="tooHot"

TD Repository

SIEMENS

Scenario 3: Rule-based Automation

Consume brightness sensor to control curtain
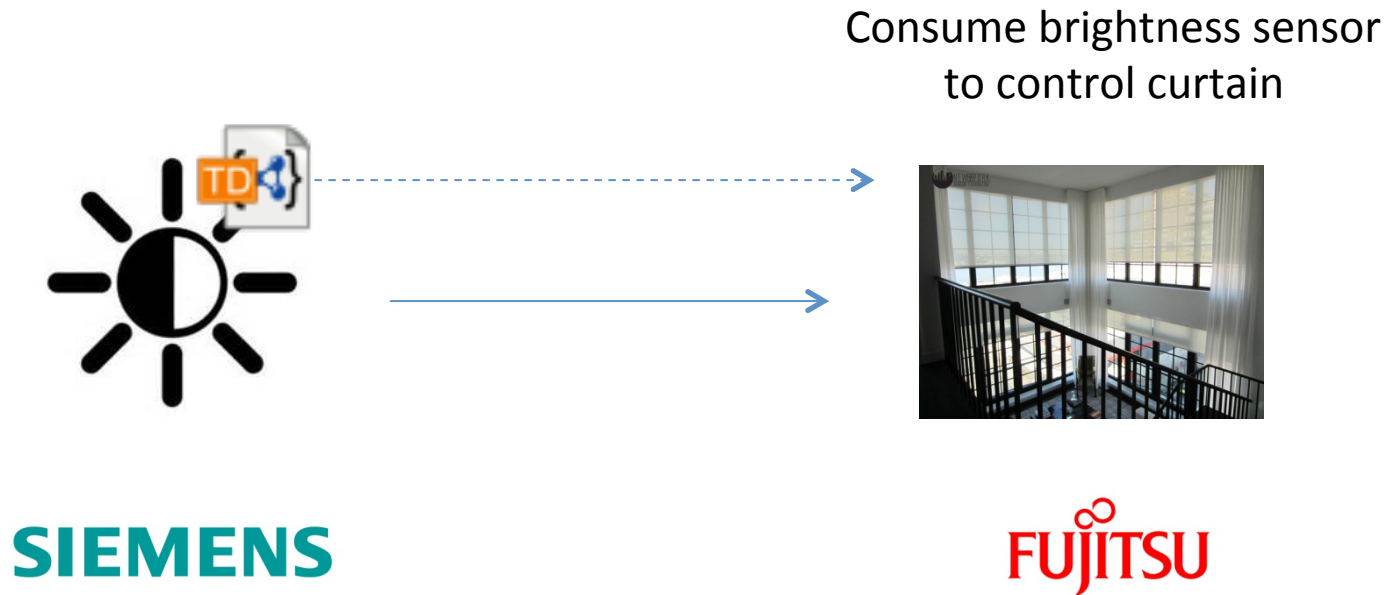
PlugFest Online Resources

- 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
- 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.)