Example Sequences of interaction patterns (for discussion in Prague)

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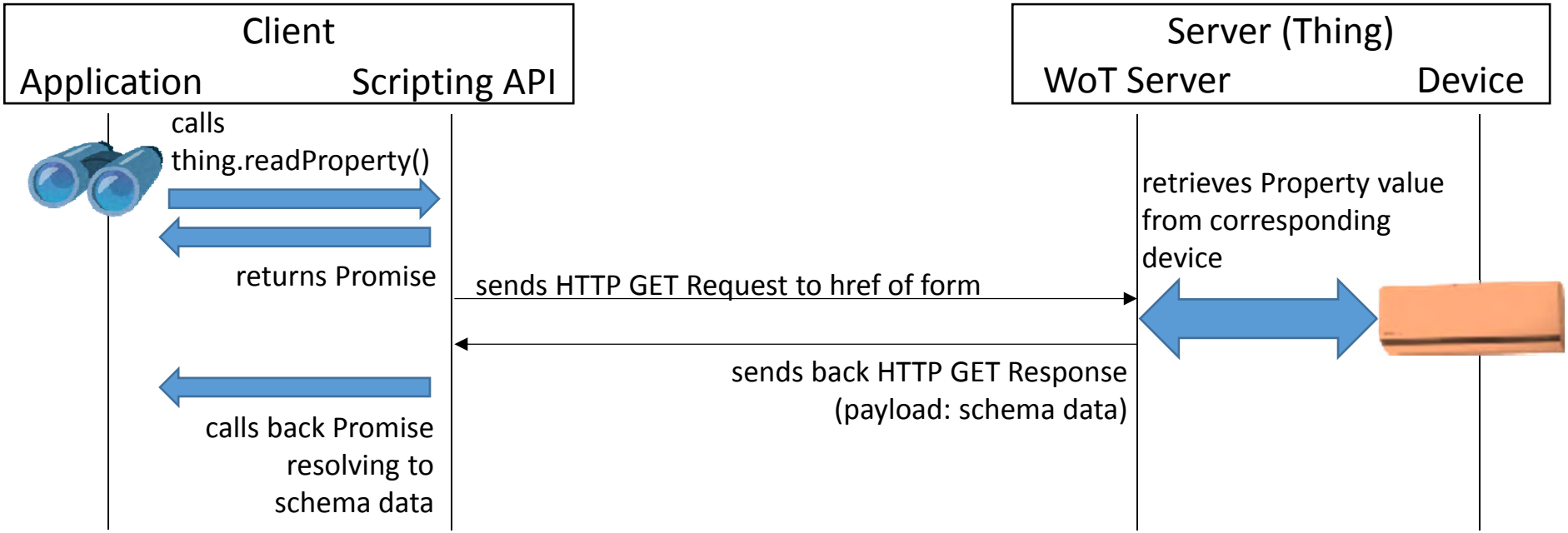
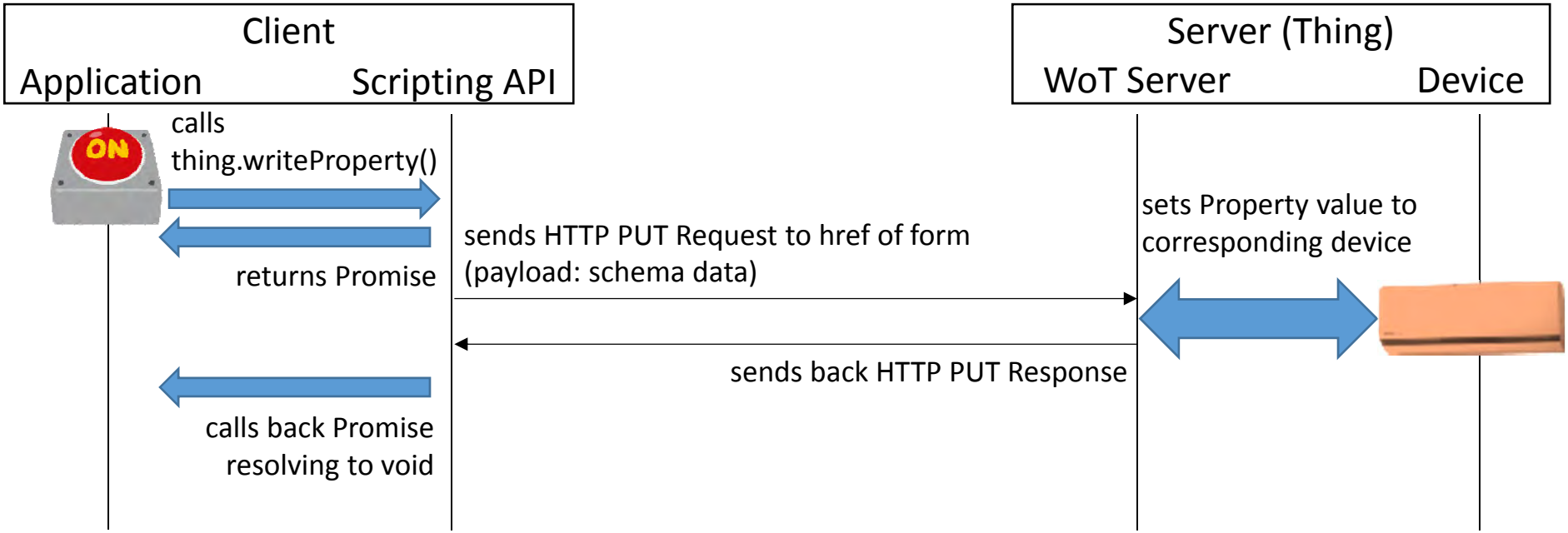
Motivation

- For interaction patterns (Property, Action and Event), we have rough consensus on which to use for what, how to use them, and so on.
- But there is no clear description of end-to-end sequence for each interaction pattern, so it is not easy to identify
  - what is specified and what is not within spec
  - consistency between TD, Scripting and Binding
- To make clear such aspect, this is a strawman to walk through the end-to-end sequence with diagrams.

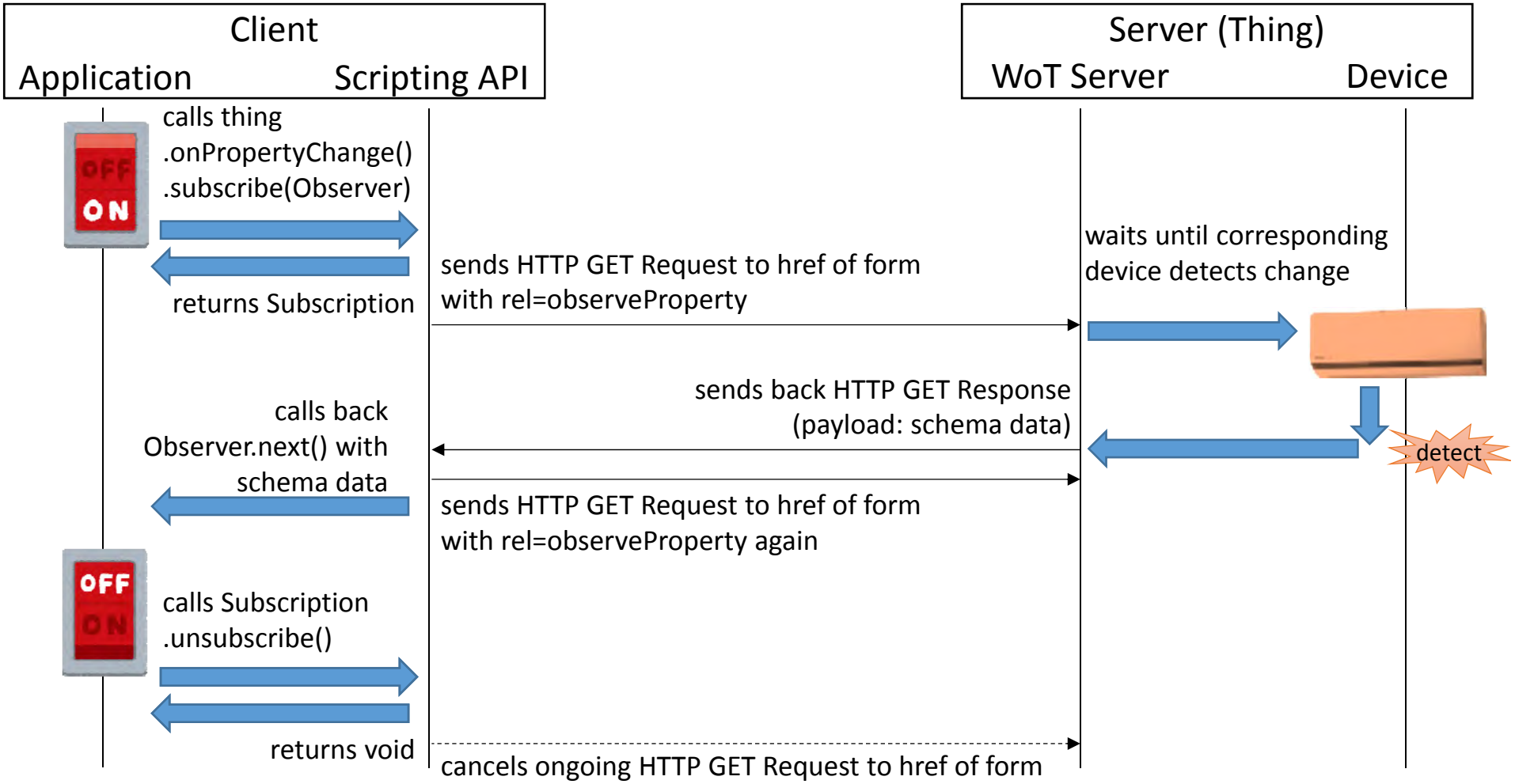
1. Property
1.1 readProperty (binding = HTTP)



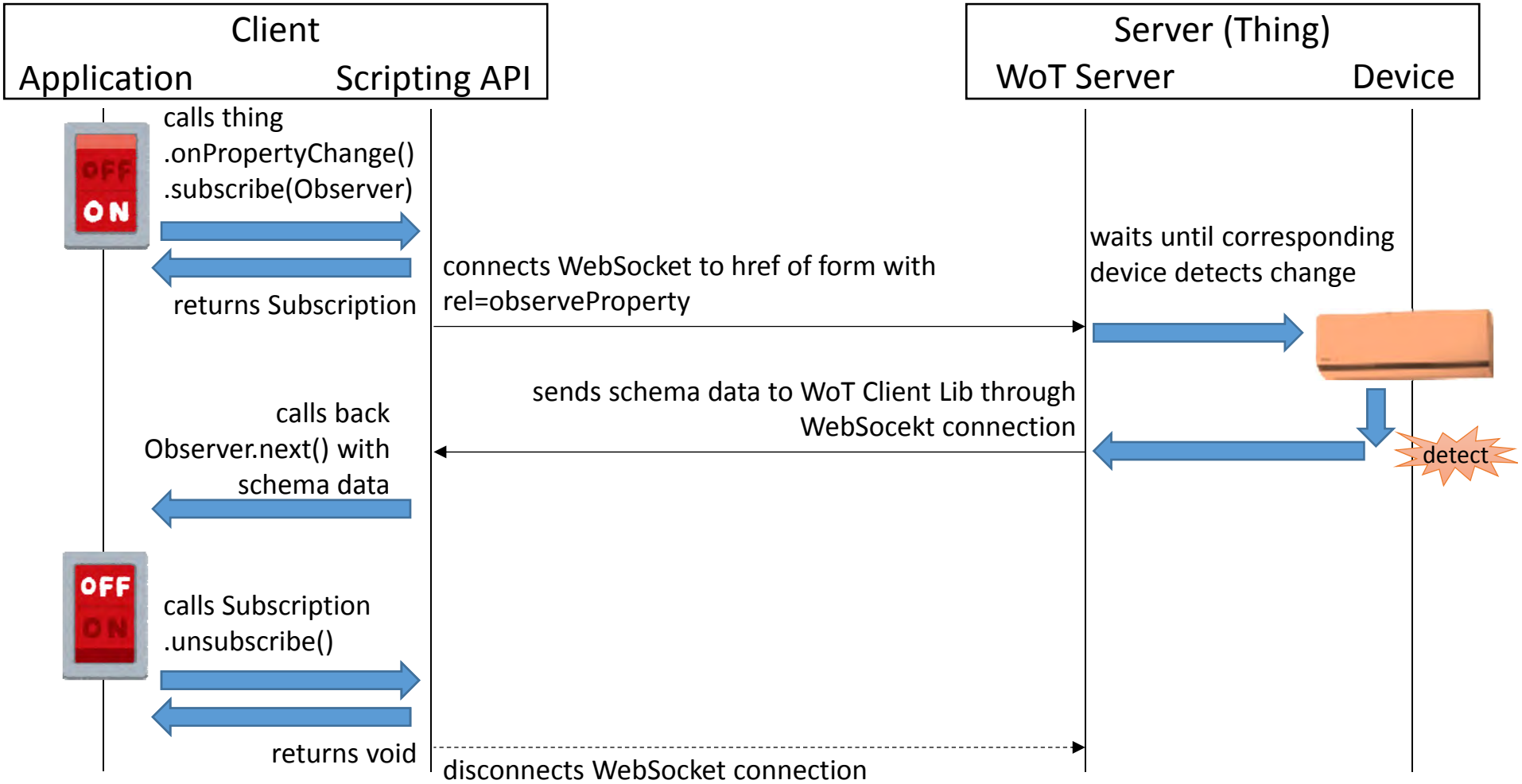
1. Property
1.2 writeProperty (binding = HTTP)



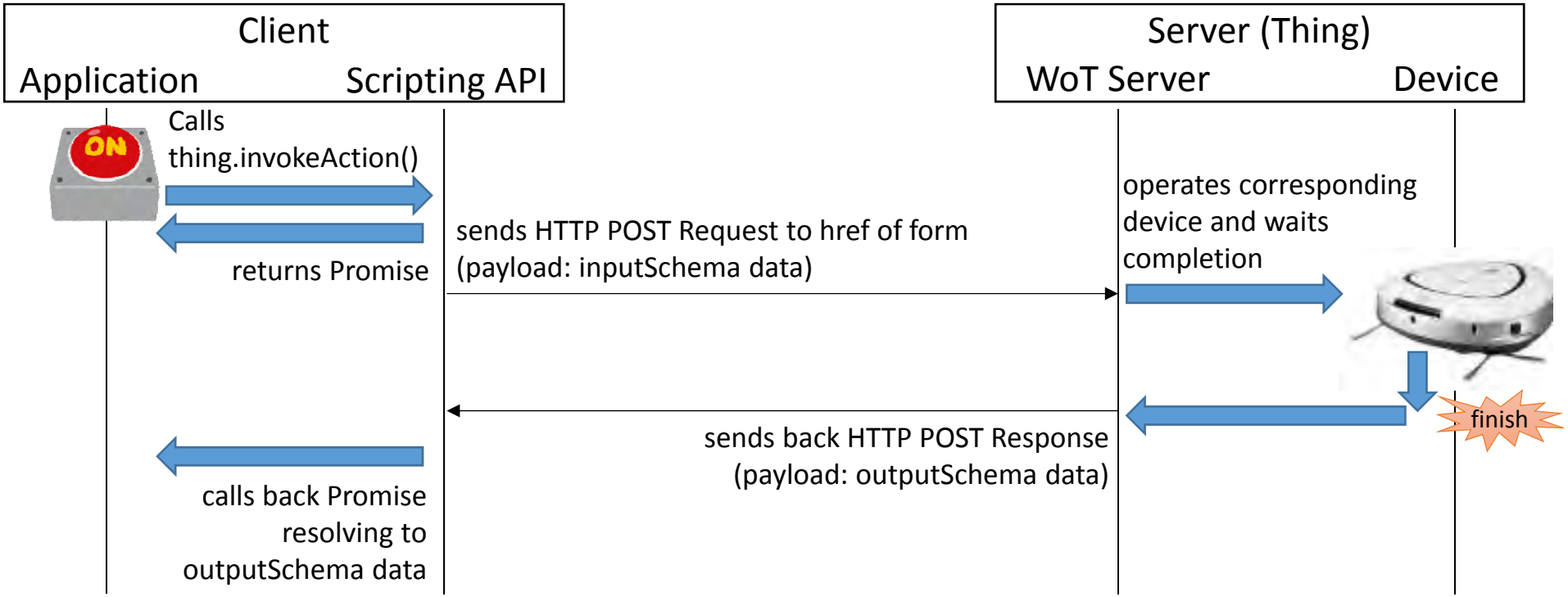
1. Property
1.3a observeProperty
(binding = HTTP Long Polling)



1. Property
1.3b observeProperty
(binding = Simple WebSocket)



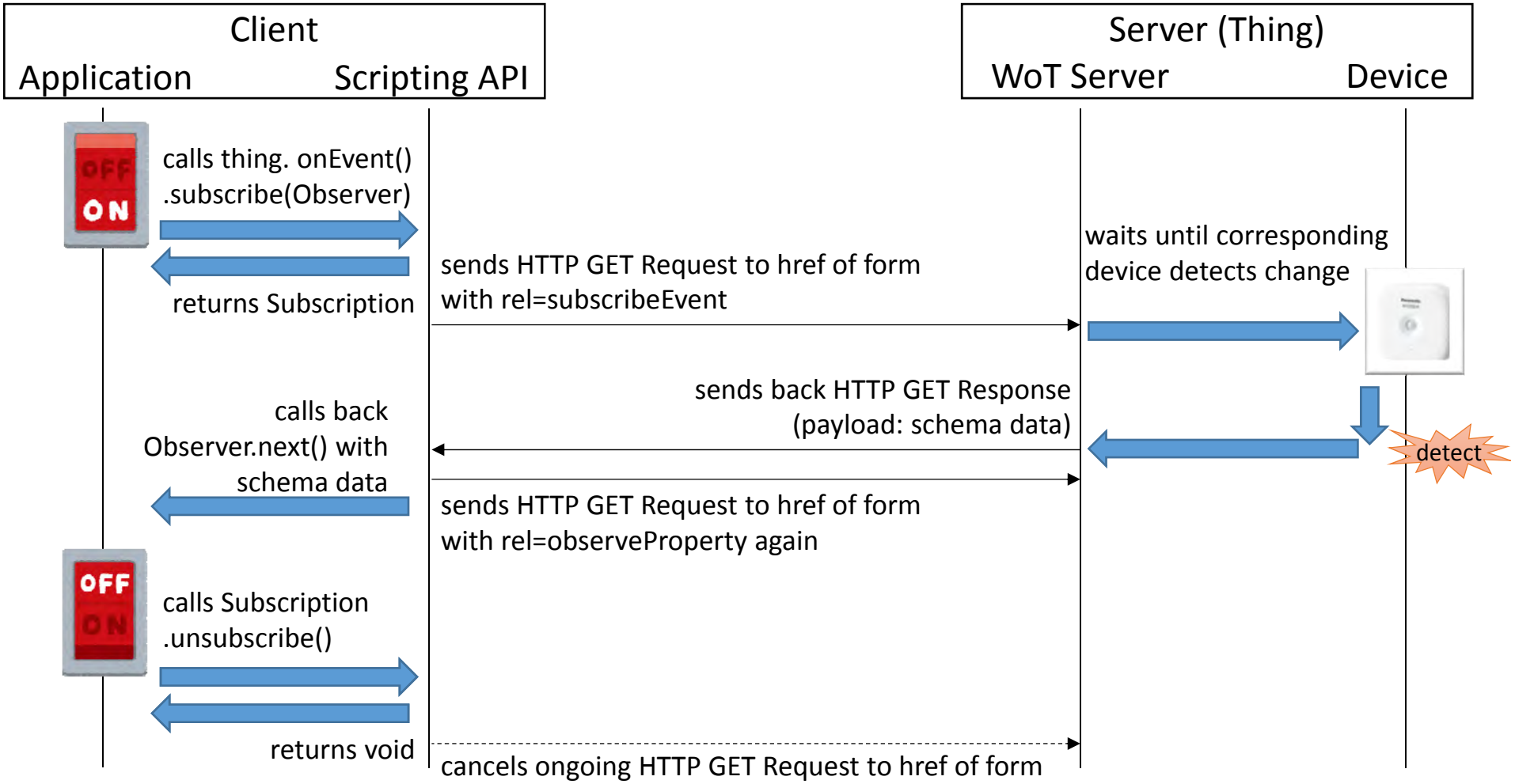
2. Action (binding = HTTP)



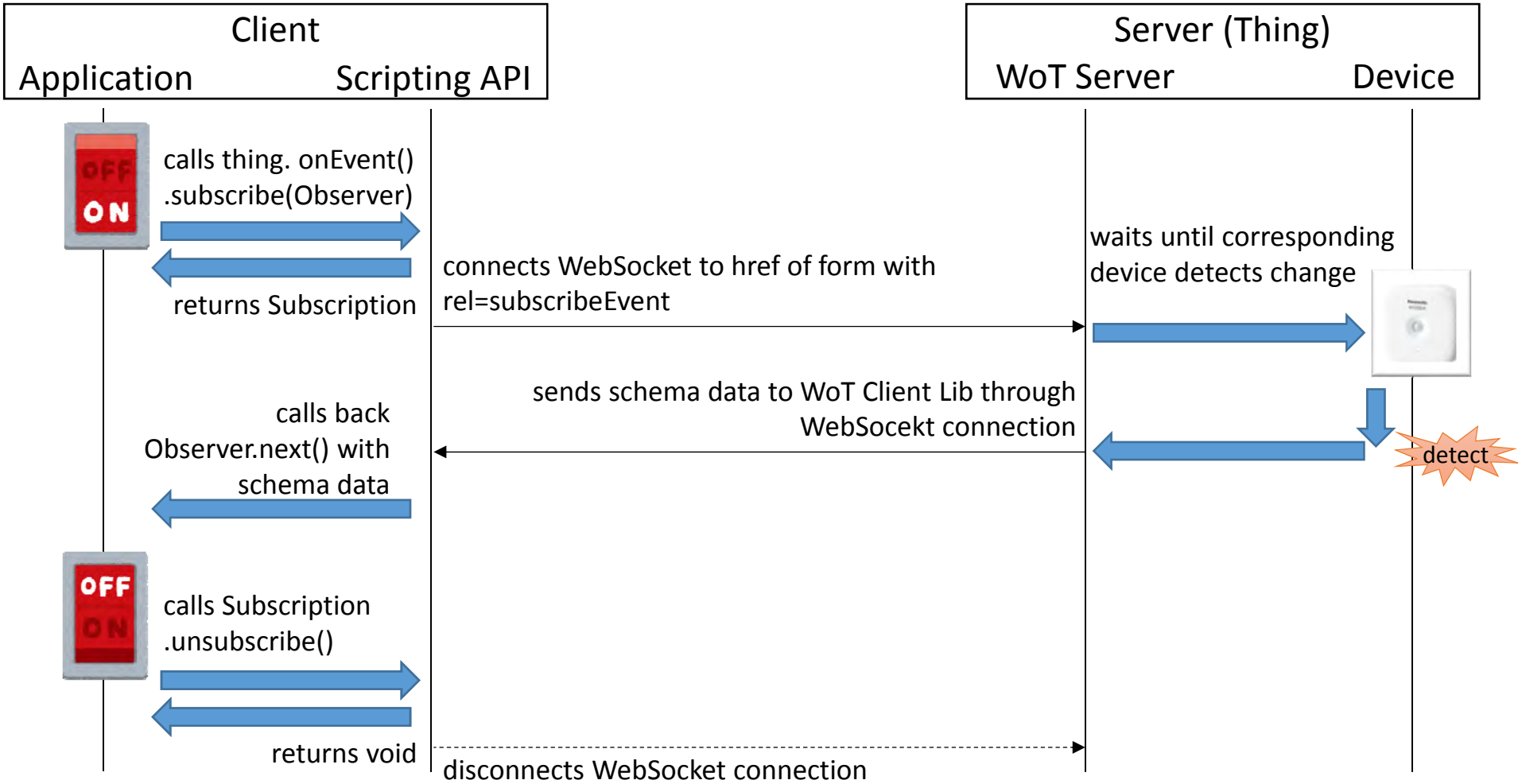
Note:

- Considering that consumedThing only have invokeAction() method currently, assumption here is that POST method is synchronous, so it returns after some time when the device completed the action.
- Question: do we need to consider adding “cancelAction()” in this case?

3a. Event (binding = HTTP Long Polling)



3b. Event (binding = Simple WebSocket)



Further things to consider

- Textual definition and explanation of interaction patterns at one place (e.g. architecture document), , prior to this illustration
  - What are the Property, Action, Event is
  - How the Property, Action, Event can be used

  (https://github.com/w3c/wot-architecture/issues/49#issuecomment-375266465)

- How to model more complicated patterns?
  - Asynchronous Action with monitor and cancel features.
- Do we need examples for other protocol bindings?
  - CoAP, MQTT, …
  - Event with late binding (prior Panasonic proposal)