ALLSEEN ALLIANCE

HAE Service Framework – F2F Meeting Minute

February 24-26, 2015

F2F Meeting Attendees

Name	Company	24 Feb.	25 Feb.	26 Feb.
Wonchul Choi	LG Electronics	yes	yes	yes
Seungchul Han	LG Electronics	yes	yes	yes
Inhwan Choi	LG Electronics	yes	yes	yes
Tomoki Ogawa	Panasonic	yes	yes	yes
Hiroo Ishikawa	Panasonic	yes	yes	yes
Milton Wang	Haier	yes	yes	yes
David R Kaufman	Honeywell	yes	yes	yes
Pierluigi Toccane	Electrolux	partly	no	no
Fabrizio Dolce	Electrolux	partly	partly	yes
Yoshinori Nagai	Sharp	yes	yes	yes
Shigeki Nakamura	Sony	yes	yes	yes
Takeshi Oishi	Sony	yes	yes	yes
Mauro Taiariol	Electrolux	yes	yes	yes
Giovanni Tiano	Electrolux	yes	yes	yes
Stefano Toppan	Electrolux	yes	yes	yes

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- **Agenda discussion**
  - The main objective of the F2F meeting is to define a “Common Device Model” across different vendors.
  - Discussion about the proposes agenda which was sent by Inhwan. Following points are added:
    - Discuss the interaction with other working group (e.g. Security 2.0)
    - Atomic define should be better define before discussing specific appliances
  - Moreover some open points should be clarify in the starting session of first day before going forward to the discussions of specific device types (e.g. how to map parent and children in complex device, how the manage multiple instance of the same properties)

- **Additional Contribution on data model**
  - Device Model for thermostat by Honeywell
  - this device type shall be added to the “Air related” appliances

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- **Additional Discussion on Device Model**
  - Electrolux open points (see allseen-hae-device model rationals electrolux-r0-20150223.pptx)
    - Device Model Resources definition (common and shared) and examples
    - AllJoyn mapping of resources, following critical points are identified:
      - optional or mandatory: a resource identification mechanism (service discovery) is preferable than investigate a priori which are the mandatory ones for any device type
      - hierarchical dependences (i.e link resources children similar resources to the parent)
      - multiple instance of the same resource
  - LG contribution presentation (see “AllSeen-HAE-Suggested Enhancement to Device Model General Structure from LG-r2-20150224.pptx”)
    - AllJoyn Bus object and its interfaces, multiple instances, object paths …
    - this hierarchical structure uses object path to exposed itself at the discovery phase
  - Sharp suggestion
    - it is better define a single interface for each device (e.g. the Refrigerator has a single interface with properties for Fridge temperature and properties for Freezer temperature) to avoid complexity.

(continue in the next slide)

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- **Additional Discussion on Device Model (cont.)**
  - Electrolux comments to LG proposal:
    - describe the hierarchical structures in the common part (DeviceType) instead of use the object path; the risk on LG's approach is to have empty Device-Specific interfaces.
    - In any case the descriptor of the whole structure is needed / usefull in the common part?
    - The main weakness : 1) we can not rely on object path or object name.
      2) we have to define rules how to describe the hierarchical relationship between a device and its sub-units.
      3) The container interface of a specific device might be empty in terms of its interface members.
  - The LG approach is preferable because it follows the general mechism to discover and access resource or device models.
    - It relies on AllJoyn bus object description contained in About signal.
    - One of its benefits is that consumer (or controller) side application can find a specific device which is standardized by HAE by looking for Interface of interest contained in the bus object description at the About discovery phase.
    - The consumer side application don't have to join an AllJoyn session with a producer side application (or device) and read some properties to figure out what kinds of devices are there and what are their capabilities.

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- Other discussed Issues
  - Mandatory / Optional feature definition: the problem of splitting interfaces in Optional and Mandatory is that it is not possible to have one single group of optional interfaces: each optional property should be independent from other and so define an interface
  - "Subset of enumeration”:
    - IRB is against the usage of subsets (a value that is not common for every vendor should move to a dedicated interface)
    - it is not easy to define enumeration values as optional / mandatory

- **Common Part**
  - It is better to focus in the interfaces definition rather than start to define atomic devices.
  - So the Atomic Device definition is postponed to the end of specific appliances parts.
  - The discussion takes as reference spreadsheet, edited by Inhwan, containing the collection of all attributes provided by different companies (see this document)

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- **Previous day meeting minute discussion and approval**
  - DeviceType values related describing interfaces will be well defined
  - In particular some rules will be defined in the interface structure organization, e.g.:
    - in a specific path there is only one "Device type" interface
- **Device Model - Common Part**
  - The analysis of common part of Device Model continues the result (containing the approved properties) is in the file “Allseen-HAE-Device Common-r0-20150224.xlsx”
- **Device Model - Shared Part**
  - Shared properties are discussed; a dedicated spreadsheet is edited (see “Allseen-HAE-Device Common-r1-20150226.xlsx”)
  - in order to be more efficient the discussion is arranged in this way:
    - Shared features are identified in abstract way (e.g. Temperature, …)
    - Detailed description (format) will be specified later during the discussion of specific device

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- **Other discussion point:**
  - Security issue:
    - Security of communication channels (data encryptions ...): it is out of scope of this group
    - Security of data expose: (from third parts App is it possible to detect that user is out of home ...) to be asked to TSC
  - Time of day
    - there should be a dedicated "basic service" in the AllJoyn framework (available for 14.12 release).

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- **Discussion about some input coming to HAE via e-mail**
  - Quick review of the IPSO alliance doc
  - Powertech App
- **Device Model -Shared Part**
  - Temperature:
    - Target Temperature: the Min and Max values are to be mandatory; it is the case to define some "very small" (minus infinite) and "very big" (plus infinite) values to avoid to split the optional
    - Discussion about Unit (Celsius, Fahrenheit, ...), not writable ore not
    - Represented Temperature (i.e. the way) is out of the “Temperature” interface
    - “External Temperature” is not needed

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- **Device Model - Common Part**
  - Optional Properties:
    - instead of define some properties as optional it is better to have them mandatory and let the device to set to a special value ("unknown", "null" or something like that) in case this information is missed.
    - it is to avoid splitting the interface
    - even the “RemoteControl” can be mandatory: it is RO and in devices, which don't support it, it will be always True or always False (e.g. sensors which only monitor)
  - The new definitions are to be written clearly, or not used:
    - e.g. Instead of use “Notifiable”, it is better to refer to standard definition of IRB (EmitsChangedSignal: "true", "invalidates", "false") as in the wiki page

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- **Device Model - Common Part (cont.)**
  - How to manage Enumeration in case of optional states (i.e. the device supports only an enumeration sub-set for a specific interface)
    - The selected solution is to define a “get valid enumeration” mandatory method
    - A discussed alternative is the get from About the list of supported enum values, each one is specified by a specific object path
- **Weekly call time**
  - the proposal is to follow the TSC (6 AM PST, 1 PM PST, 9 PM PST) Wednesday
  - The next one is 6 AM PST, March 4th 2015
- **Committers and Contributors Survey**
  - Android and iOS application developer are needed
- **Other topics and discussion**
  - Proposal of another F2F meeting

Thank you

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