

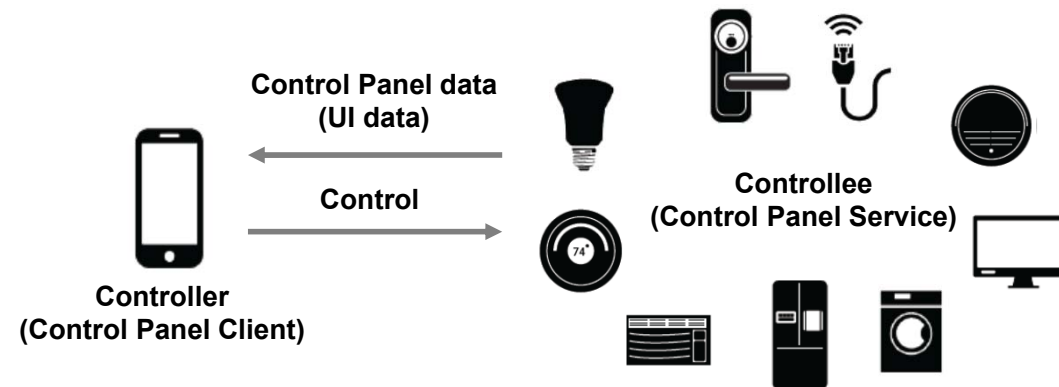


**ALLSEEN
ALLIANCE**

**Home Appliances &
Entertainment (HAE)
Service Framework
Proposal**

Motivation

- Control Panel Service Framework
 - Controllee exposes its UI using the framework
 - Controller renders the UI and control the controllee based on UI input by a user
 - Similar to Web Server ↔ Browser concept
 - Very generic and extensible framework !



- But, it has some limitations
 - Control & monitoring is only possible when a user see the controller screen
 - Exposed functionalities for the same type of device may differ by vendors
 - Not easy to accommodate a variety of controller screens : Smart Watch/Phone/Tablet/Laptop and TV, etc

HAE* Service Framework

* Home Appliances and Entertainment (devices)

Why is it important ?

Purpose

- Define the standard device profiles for Home Appliances and Entertainment devices
- Leverage this commonly exposed device capabilities to create innovative IoT services

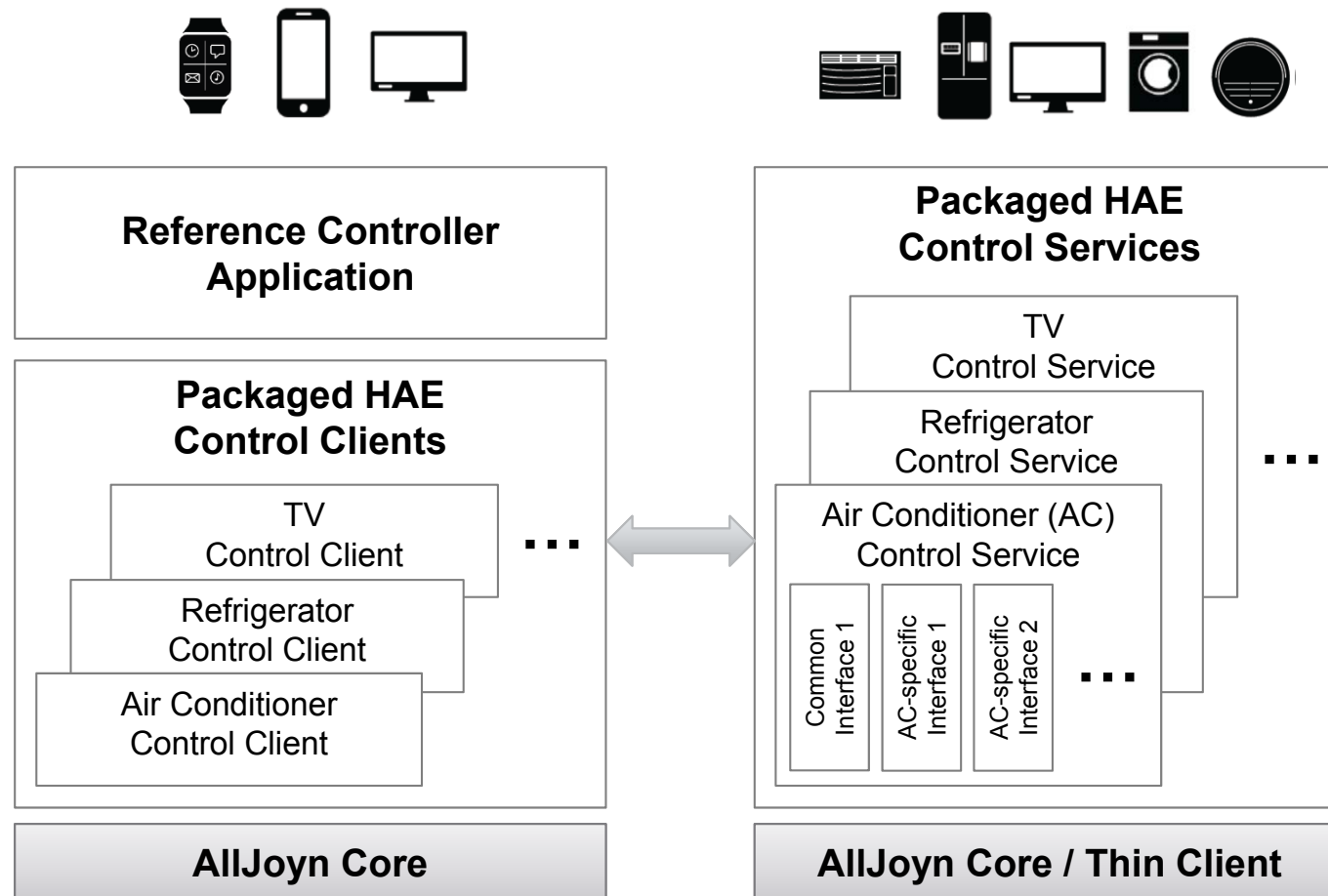
Benefit

- Cross-vendor interoperability
- Background control & monitoring
- Identical user experience across devices from different vendors thanks to the identical exposed device capability
- Tailor-made UI for each controller screen

HAE* Service Framework

* Home Appliances and Entertainment (devices)

Overall Architecture



- One control service / client pair per HAE device
- Provide packaged HAE control services / clients
- For each HAE device, only the corresponding control service will be implemented by using a build option
- For controller applications, controllable devices are up to developers' choice

Scope of Project

- Standard HAE device profiles will be developed
- A minimum set of common functionality across devices from different vendors will be specified
 - Vendor-specific extensions will be allowed without raising any interoperability issue
- Scope of HAE devices
 - Home Appliances devices
 - Air Conditioner, Air Cleaner, Air Quality Monitor, Oven, Refrigerator, Robot Vacuum, Washer, etc
 - Home Entertainment devices
 - Smart TV, etc
- One or more AllJoyn Interfaces will be developed for each HAE device profile
 - Some interfaces can be commonly used for various HAE devices
- The project will deliver a common implementation for HAE service framework into the open source

Dependencies, Project Name, Working Group

- Dependencies
 - AllJoyn Core and Base services such as About interface
- Proposed Project Name
 - Proposed name for the project : “HAE Service Framework”
 - Proposed name for the git repository : “device_profiles/hae”
- Proposed Working Group
 - By considering future additions of new category device profiles such as Wearables, Car, Sensors and Energy-related IoT devices, formation of a new umbrella working group called “Device Profiles” is proposed
 - Starting with HAE service framework as an initial project, new categories of devices can be profiled by proposing new projects under the same umbrella working group

Committers and Contributors


- Maintainer
 - Name of and affiliation of the maintainer
- Committers
 - Haier, LG, BUPT (Beijing University of Posts and Telecommunications) teams
 - Open to any interested party
- Contributors
 - Haier, LG, BUPT teams
 - Open to any interested party

Initial Contribution & Project Plan

- Initial Contribution
 - Upon creation of the project, a high-level overall system description document will be provided
- Project Plan
 - Specifications : December 2014
 - High-level design (HLD) documents for foundational components : February 2015
 - Foundational Component Implementations for Linux : May 2015
 - Certification Test Suite : July 2015
 - Reference Controller Applications for Android & iOS (+ Windows ?) : August 2015
 - First Official Release : August 2015



Thank you

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