

## Technical Steering Meeting

June 09, 2015



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### Reminder:

# This call is being recorded



- 1. Approve minutes from previous meeting
- 2. Core 15.08 Update
- 3. SRP deprecation request
- 4. Webdocs maintainer and committers
- 5. Common Frameworks
  - Vote on Base Services 15.04 release
- 6. HAE Project Progress Update
- 7. Overseas trip recap



## Core 15.08 Update

#### **Core 15.08**

- Scheduled release date
  - August 28
- Features
  - Major features (Committed for the release)
    - AJCORE-1393 Security 2.0 (MSFT, QEO, QCE)
    - AJCORE- 1686 Commercialize UDP Transport for TC <-> RN connections (QCE)
  - Minor features (Best effort not committed)
    - ASACORE-2034 Deadlock if max BusAttachment concurrency is reached (MSFT)
    - ASACORE-2029 Add About feature to JavaScript binding (LG)
    - ASACORE-1813 Change Win7 LN-side Standard Client to connect to the Win10 named pipe... (MSFT)
    - ASACORE-1556 Fix the Logger so it can work with ETW on Windows (MSFT)
    - ASACORE-1060 Add non-variadic functions to marshal/unmarshal multiple message args (MSFT)
  - Full list of features
    - https://jira.allseenalliance.org/issues/?filter=11008



# SRP deprecation request

## SRP deprecation request (1/2)

#### Background

- SRP is an authentication mechanism in AllJoyn that allows two endpoints to establish a shared secret knowing only a password. Unlike ECHE\_PSK, the pre-shared value in SRP may have low entropy (like a 4-digit PIN printed on the box of a Thing). This is a useful feature, but SRP is not the best way to realize it, for the following reasons
  - SRP is not supported on the thin client. It's also not a good fit for low-power devices, as it's computationally more
    expensive than elliptic-curve (EC) based primitives.
  - SRP uses a separate crypto stack from the ECDSA and ECDH. To implement SRP requires large integer arithmetic (bignum) and SHA-1. SRP is only auth mechanism using these. (the others share core the EC code, and use SHA-256).
  - The current SRP implementation needs work, it lacks protections against side channel attacks. The considerable investment improving it is better spent elsewhere.

## SRP deprecation request (2/2)

#### Proposal

- In place of SRP, MSFT via the Core WG will propose an alternative protocol to get the same functionality that is a good fit for the thin client, i.e., use the same underlying EC code and hash function.
- MSFT is currently reviewing the password-authenticated key exchange protocols specified in IEEE 1363.2, one of these protocols will form the basis of the proposal.
- The design and implementation of the new mechanism will target the 15.08 release.

#### Implications

- Apps using SRP will have to migrate to another auth. Mechanism
- Apps that only support SRP, and are not updated will not be able to connect with newer apps.
  - Those supporting SRP and other auth mechanism(s) may negotiate to a mechanism supported by both sides
- Our codebase will get smaller, and have less crypto code (we can remove SRP, Bignum and SHA-1)

#### TSC Vote



# Webdocs maintainer and committers

#### Webdocs maintainer and committers

- The webdocs.git project was originally under the documentation subcommittee, but is now part of the Developer Support Working Group.
- Please approve the following roles:
  - Maintainer:
    - George Nash
  - Committers:
    - Brian Spencer
    - Jan Lissens
    - Mathew Martineau



## Common Frameworks: Base Services 15.04 release

# **Common Frameworks Base Services 15.04 release**

- Fully tested platforms
  - Linux Ubuntu (64 bit x86) (SCL & TCL)
  - Android Lollipop (ARM7) (SCL only)
  - OpenWRT Barrier Breaker (SCL only)
- Informally tested, not verified
  - Windows
  - iOS

#### **Base Services TC Summary**

- No new features
- Bug fixes for thin core
  - ASABASE-503 TCL Control Panel Generator '.c' file does not include the generated '.h' file
  - ASABASE-498 base\_tcl sample apps fail on darwin
  - ASABASE-249 Cannot onboard when the WiFi credentials set to WEP with security ASCII and the client uses ANY
  - ASABASE-241 TCL apps do not handle AJ\_ERR\_WRITE. Leading to application Announcement infinite loop

### **Base Services SC Summary**

- No new features
- Bug fixes for standard core
  - ASABASE-231 Config client crashes on gingerbread android version
  - ASABASE-345 Config service sample code error, authentication failure
  - ASABASE-452 Deprecate older About related base service APIs
  - ASABASE-479 1504 SC ConfigClient sample memory leak
  - ASABASE-482 1504 SC Linux ControlPanel controller sample memory leak
  - ASABASE-454 NotificationDismisserSender and NotificationDismisserReceiver bus objects have the same path
  - ASABASE-470 Remove SuperAgent from Notification service
  - ASABASE-489 Notification service reports bad introspection XML
  - ASABASE-345 Config service sample code error, authentication failure
  - ASABASE-453 The Onboarding Daemon should not use hard-coded device ID and App I

#### Base Services 15.04 release vote to approve

- Full text of resolved and open bugs: https://jira.allseenalliance.org/secure/ReleaseNote.jspa?projectId=10103&version=10901
- Call for vote to release Base Services 15.04 for the CBI
  - The 30 day review period starts on notification to the board

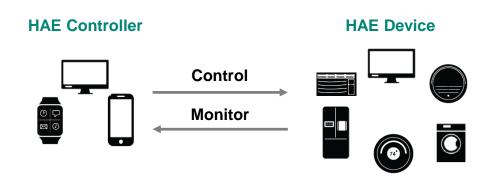


- Inhwan Choi, LG Electronics
- Project Maintainer

#### **Overview of HAE Service Framework**

The HAE service framework project develops the common way of controlling and monitoring Home Appliances & Entertainment (HAE) category devices, regardless of device manufacturers.

#### **Use Cases and Benefits**



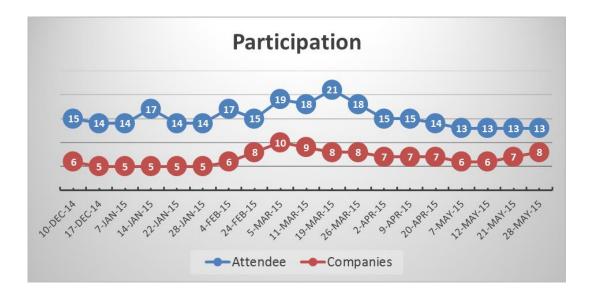
- Cross-Vendor Interoperability
- True Machine-to-Machine Interaction

#### **AllJoyn Representation**



#### **Consistent Efforts**

Members are making consistent efforts to deliver AllJoyn interface definitions for flexible representation of HAE devices while complying with IRB guidelines.



- Participation hit record-high in March.
- Consistent participation by 7 companies.





- Target schedule for interface definitions
  - Submit to IRB by early July.
  - Get approval by early August. (before summer vacation)

### **Current Progress**

- "Common" interface
  - Contains common part for All HAE devices.
  - Per About announcement, one and only one shall be found under the root HAE bus object.
  - <u>https://jira.allseenalliance.org/browse/ASAHAE-3</u> (under comments & resolutions)
- "Shared" interfaces
  - Sharable or Reusable interfaces across HAE devices.
- AllJoyn syntax independent device models have been developed first to help identify common/reusable features across device types and separate optional features from mandatory ones.
- 36 interfaces are developed and converting those into AllJoyn-syntax version are under way.
- A few more are expected to be added. \*The final total number of interface definitions are subject to change.
- "Device" interfaces
  - 20 interfaces will be developed. (one per each standard HAE device type)
  - Refrigerator, Fridge, Freezer, Ice Maker, Air Conditioner, Humidifier, Dehumidifier, Air Purifier, Electric Fan, Air Quality Monitor, Thermostat, Washer, Dryer, Washer Dryer, Dish Washer, Oven, Cooker Hood, Cooktop, Robot Cleaner, TV.
- Link to interface definitions for internal review will be available shortly here (ASAHAE-16).
  - Use of Git /Gerrit was adopted for further comments & resolutions of developed interface definitions in markdown format (@ June 21st call).

## **Next Step**

Updated milestones

Milestone	Original (Dec-14)	1 <sup>st</sup> Update (Feb-15)	2 <sup>nd</sup> Update (May-2015)
AllJoyn interface specifications	Feb. 2015	Apr. 2015	Submission to IRB by July 8, 2015 IRB Approval by August 5, 2015
High-level design (HLD) documents	Mar. 2015	May. 2015	End of August, 2015
Foundational component implementations for Linux (C/C++)	Jun. 2015	Jul. 2015	End of October, 2015
Certification test suite	Aug. 2015	Sep. 2015	End of December, 2015
Reference controller applications for Android & iOS	Sep. 2015	Oct. 2015	End of December, 2015

• To finish our work on interface definitions, 3<sup>rd</sup> F2F meeting will be held in Beijing during 6/23 ~ 26.

#### **Open Points and Call for Advice**

- List of general open points is available here.
  - https://jira.allseenalliance.org/browse/ASAHAE-13
- While resolving some of open points, inquiries and requests were made to IRB, Core and Common Frameworks WGs.
  - A new feature Jira ticket (<u>ASACORE-1811</u>) to add support for generic error message delivery for Properties was created.
  - A question on the availability and its current status of "Time Service" was asked, and one of HAE participants volunteered to take over the project.
  - A question on the reusability of the org.alljoyn.Control.Volume was asked, it was recommended to redefine the volume control interface of HAE's own since that interface violates some of IRB guidelines.
- Some of points are still open and they are not HAE-specific. Your advice or consultation would be greatly
  appreciated.
  - [ID 6] Is it legal to reply to a method call or SetProperty before applying a set-point value internally?
  - [ID 8] Too frequent emission of property changed signal should be avoided. Any guideline or minimum requirements on frequency or interval?
  - [ID 10] Identifying semantic meanings of multiple instances of an interface.



## Overseas trip recap

## **Asia Trip**

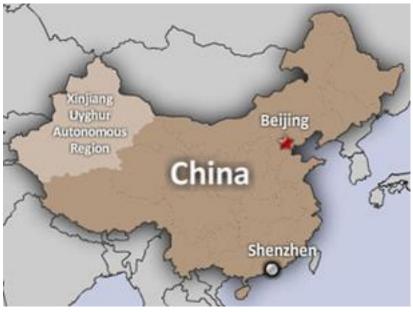
#### Japan

- 1. Renesas
- 2. Canon
- 3. Qualcomm
- 4. Kii
- 5. Panasonic
- 6. Sharp
- 7. Sony
- 8. Skeed

#### China

- 9. PISEN
- 10. Allwinner
- 11. TP-LINK
- 12. ZTE
- 13. Haier
- 14. BUPT
- 15. Lenovo





#### **South Korea**

- 16. LGE
- 17. LG Uplus
- 18. Electrolux



- 19. ASUS
- 20. POWERTECH
- 21. ThroughTek
- 22. D-LINK
- 23. Quanta



### **UK Trip**





The WBA Vision Forum

Tower Hotel, London, UK May 19, 2015



Invitation only

GSMA, WBA, Comcast, AT&T, iDA BT, iPass, London, NYC, ...





## **Thank You**

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