

### Technical Steering Meeting

October 26, 2015



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### Reminder:

## This call is being recorded



- 1. Approve minutes from previous meeting
- 2. AllJoyn SIP End2End Connector Project Proposal
  - Call for TSC vote
- 3. Testing Subcommittee
  - Call for volunteers
- 4. Common Frameworks Discussion



Proposed by: Yongheng Luo (CEO), Wei Ren (CTO)
SmartConn - Beijing HengShengDongYang Tech. Co.

### AllJoyn SIP End2End Connector Project Proposal

### Objectives:

- Establish a standard End2End mechanism for secure interoperability and interconnections among devices, applications, and cloud services.
- Provide a fine-tuned session control layer which benefits service providers in terms of operation and maintenance.
- Provide a standard way to scale both horizontally (unlimited access capabilities) and vertically (open platform for 3<sup>rd</sup> party cloud applications).
- Enable AllJoyn devices/applications to connect to existing telecom networks like 3G/4G and even future
   5G core networks and to interoperate with devices/applications in telecom networks.
- Based on the standard telecom protocol SIP (Session Initiation Protocol), we introduce a standard carrier-grade network layer called "SIP Communication Network Layer".
- The SIP Communication Network Layer is composed of different IMS domains. The SIP End2End Connector is registered in one domain and can be accessible from other Connectors

### **Proposal Information**

- Working Group: Gateway Working Group
- Staff from Beijing HengShengDongYang Tech. Co.
  - Maintainer: Wei Ren
  - Committers: Wei Ren, Yongheng Luo, Nan Wang
- Dependencies:
  - Gateway Agent 14.12 (and 15.09 when available), AllJoyn Core 14.12 and newer
- Supported platforms:
  - Raspberry Pi 2, Windows 10, OpenWRT, Ubuntu 14.04, Android, iOS
- GIT repository "ajsipe2e", Mail list: share Gateway Working Group mail list.
- Development Plan
  - First commit will be one month after the approval of the project. First release is planned to be in March 2016.
- We ask support from the TSC for approval of this project.

### 3<sup>rd</sup> Party Testing

### **AJATS and Release Testing - Recap**

- TSC voted to approve budget for dedicated Alliance test resources
  - Shared expense across membership
  - Guaranteed resource availability
  - TSC can set priorities for testing vs. priorities of individual members
  - Decided outsourcing to 3<sup>rd</sup> party more practical Alliance directly hiring test engineers
- TSC and AllSeen Alliance board of directors approved budget
  - Combined budget for both test systems \$250K for first year
- Final RFPs sent out to vendors in August
  - Vendor selection was completed in September
  - Contracts with Oregon State University have been signed

### **Testing Subcommittee**

- Request for a member to take on the responsibility to form a testing subcommittee.
  - Initially discussed at the TSC Face to Face during the summit
- The primary role of the subcommittee
  - Interface between the TSC and WG chairs
  - Provide guidance and support to the Oregon State University team
  - Ongoing guidance and support as needed
- The subcommittee is needed as soon as possible.
  - Vital to support the roll out of the release and verification test capability
- If you are willing to volunteer as chair or member please nominate yourself so we can get the approval process started.

# Common Frameworks Discussion

### Why Common Frameworks?

- Help accelerate AllJoyn adoption
  - Make it easy to add AllJoyn capabilities to a device
  - Reduce the time and effort to meaningful functionality
- Provide standardized services to address common use cases:
  - Get a device onto a WiFi network
  - Set configuration parameters for an application or device
  - Send or receive human readable text notifications
  - Render simple control panels from a generic application
  - Standardized way to get or set time of day on device
  - Transfer files
  - Stream audio

### **Base services**

- Subset of the projects under common frameworks:
  - Config
  - Onboarding
  - Notifications
  - Control Panel
- Components of the "Compliant Base Implementation"
  - Covered by non-assert clause of IP policy
- At least one base-service is required for certification
  - Can be client side (consumer) or server side (producer)
  - Exception is made for a standalone Routing Node

### **Challenges**

- Limited engagement by community
  - Little evolution since initial contributions
  - Few if any of original contributors/committers remain
- Code base is large and costly to maintain
  - 146,000 SLOC
    - 34% C++
    - 31% C
    - 27% Java
    - 8% Objective-C
  - Platform specific implementations not just bindings
    - Unlike AllJoyn core does not leverage a common implementation
    - Greatly increases test burden

### **SLOC** breakdown by service

Service	SLOC SC	SLOC TC		
Control Panel	21650	5179		
Config	5193	555		
Notification	10617	1492		
Onboarding	9833	1076		
Time	22244	1759		
Samples	15537	19098		
Services Common	440	519		
File Transfer	14012			
Audio	9060			
Media	3813			

### **Base Services Releases**

- Version 15.04 of Base Services
  - About feature was moved into core
  - Otherwise same feature set as 14.12 with some critical bug fixes
  - Released June 2015
  - Accepted into Compliant Base Implementation July 15th 2015.
- Version 15.09 of Base Services
  - Very limited release due to resource constraints
- Version16.04 of Base Services
  - Needs discussion…

### **Support matrix for 15.09 release**

Platform		nfig	Control Panel		Notifications		Onboarding			Time
	Client	Service	Controller	Controllee	Consumer	Producer	Onboarder	Onboardee	Manager SDK	
Linux SC	V	V	×	×		V	<u> </u>	N/A	N/A	×
OpenWRT	N/A	×	N/A	×	×	×	N/A	×	N/A	×
Linux TC	N/A	V	N/A	×	$\overline{\checkmark}$	V	N/A	×	N/A	×
Android	V	N/A	×	N/A	$\overline{\checkmark}$		<u> </u>	N/A	<u> </u>	×
iOS	×	×	×	N/A	×	×	×	N/A	N/A	×
Windows7	×	×	×	×	×	×	×	N/A	N/A	×

- ✓ Tested and part of the release
- Builds but not fully tested
- Not supported

### Delta from 15.04

Platform	m Config		Control Panel		Notifications		Onboarding			Time
	Client	Service	Controller	Controllee	Consumer	Producer	Onboarder	Onboardee	Manager SDK	
Linux SC	V	V	×	×	V		<u> </u>	N/A	N/A	×
OpenWRT	N/A	×	N/A	×	×	×	N/A	×	N/A	×
Linux TC	N/A	V	N/A	×	$\overline{\checkmark}$	V	N/A	×	N/A	×
Android	V	N/A	×	N/A	$\overline{\checkmark}$		<u> </u>	N/A	<u> </u>	×
iOS	×	×	×	N/A	×	×	×	N/A	N/A	×
Windows7	×	×	×	×	×	×	×	N/A	N/A	×

- ✓ Tested and part of the release
- Builds but not fully tested
- Not supported

### **Base Services 16.04 proposal**

- Control Panel
  - Archive the code
- Notifications
  - Archive existing code
  - Replace with sample code for TC and SC
- Config
  - Move into core
- Onboarding
  - Move into core (requires additional member resources)
- Time Service
  - Move into Smart Spaces WG (requires agreement by WG)



### **Thank You**

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