

# Technical Steering Meeting

July 12, 2016





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### **Agenda**

- 1. Approve minutes from previous meeting
- 2. AJATS
- 3. Affinegy Core Developer Update
- 4. OSU test update



Marcello Lioy

### **AJATS**

- Core team (Josh at Affinegy specifically) did some investigating
- Following are an overview and recommendations of the Core WG

#### What is AJATS?

- Tests AllJoyn Core
- ... simultaneously on multiple platforms (currently Android, iOS, Linux, Windows)
- ... to find interoperability issues (e.g., caused by endianness, architecture, OS-specific APIs, etc.)
- ... by using existing test apps in the core/test.git and core/alljoyn.git repositories.

#### What is it NOT?

- Does NOT test anything other than AllJoyn Core
- Does NOT test interoperability with real apps and devices
- Is NOT comprehensive (i.e., does not test all bindings, features, or OS interactions)

#### How does it work?

- Isolated network
- Driven by Jenkins
  - Host systems on OSX, Ubuntu, and Windows (all Jenkins clients)
  - Mobile systems are connected via USB to host systems
  - Jenkins starts jobs on the hosts and runs scripts from the core/test/testbot folder
- Scripts are run on each host system
  - They build each platform, including test mobile apps
  - They deploy the mobile apps to the devices
  - They load the test apps on the devices
    - ... and watch for output on the command line
    - ... while logging the output to files.
  - The test apps interact with other test apps on the network
    - Originally these were running cross platform, currently not

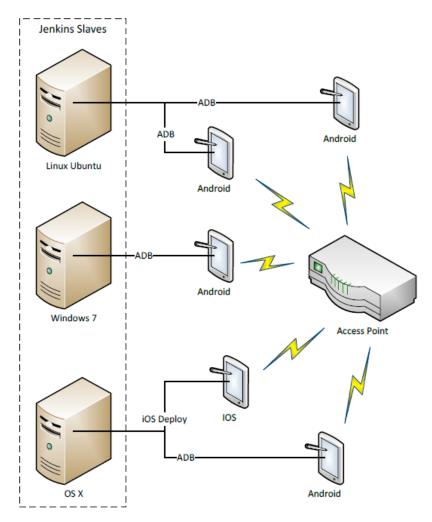


Figure 1 Block diagram of hardware for AJATS as operated by QCE.

#### **Current Tests**

#### Windows local

- Security 2.0 bbservice ←→bbclient
  - TCP and UDP SRP, LOGON, ECDHE\_NULL, ECDHE\_PSK, ECDHE\_ECDSA
- rawservice ←→rawclient
- basic\_service ←→basic\_client
- bbservice ←→bbclient

#### Android ←→ Android

- Lots of tests
- 2 or more Android devices in each test
- Java code was written specifically for these tests

#### Linux local

- Events & Actions
- Sessions
- PolicyDB
- Raw Sockets
- Platform-independent tests
- Multipoint session tests
- About tests
- Two daemons
- Stress tests
- Thin Core tests

## What is Missing?

- OpenWrt
- Windows ←→ iOS
- Windows ←→ Android (exists but disabled)
- Windows ←→ Linux
- Linux ←→ iOS

#### What needs Work?

- iOS Jenkins build needs to be finished
- Adding more cross platform tests (see previous list)
- Redundancy with single-host automated/unit tests could be removed (i.e., focus 100% on interaction and backwards-compatibility tests)
  - There is also an opportunity to remove some cross platform tests from the release test plan
- General cleanup and maintainability improvements

### **Core WG recommendation**

- In the past has been an extremely useful tool
  - Found many bugs
- Worth getting it up to speed and making critical improvements
  - Will give better cross platform/device to device test coverage

### **AJATS Cost**

- From a fiscal perspective:
  - Initial set-up cost of \$10k
  - OSU costs approximately \$540/months so relatively inexpesive
  - Budget for 2016 AJATS was set at \$35k so if project were to be retired, you'd be looking at approx. \$30k available for re-allocation, no termination fees
- Effort estimate to get it up and running
  - 1 FTE for 3 months to get it completely up an running with some critical upgrades
  - After that will be 20-20% FTE to maintain, monitor, triage and file bugs

#### **How to move forward?**

Does TSC need time to consider or can a motion be put forth now?

 Expend funded developer to get system up and running, and keep it running per estimate in earlier slide.



**June 2016 Development Report and July Plan** 

Art Lancaster, Affinegy

### June Results Report

- AllJoyn.js 16.04
  - Release completed
- AllJoyn Core 16.04a
  - Continued progress on iOS-focused patch release
- AllJoyn Core 16.10
  - Completed issues blocking HAE and Base Services
  - Issues with UDP stability are being addressed
- AJATS review completed
- Completed Building for Linux documentation review
- Worked on and Resolved
  - 33 resolved/closed
    - ASACORE 1137, 1278, 1597, 1645, 2687, 2724, 2774, 2924, 2940, 2947, 2960, 2965, 2968, 2969, 2972, 2973, 2976, 2986, 2988, 2989, 2992, 2993, 3000, 3007, 3012, 3018, 3027, 3031, 3033, 3034, 3048, 3049, 3050
- Worked on but still open
  - 15 investigated/worked on but remain open
    - ASACORE 1187, 1588, 2459, 2744, 2772, 2845, 2931, 2932, 2942, 2943, 2944, 2946, 3021, 3024, 3038

### **June Report**

- June actual staffing continued to closely match plan, just as we did in May
- June actual variance less -0.9%

Actual vs. Plan	Plan	Actual	Difference
Month of June	<u>Hours</u>	<u>Hours</u>	Actual - Plan
Development/Mgmt			
Art Lancaster	20	6	-14
Josh Spain	110	143.5	33.5
Paul Sigurdson	50	7.5	-42.5
Andrey Krokhin	192	184	-8
Krystian Zlomek	120	193	73
Jorge Martinez Hernandez	200	196	-4
George Tang	200	188.5	-11.5
Karol Matuszkiewicz	120	139	19
Kishore Kolli	200	200	0
QA			
Jes Golka	100	43	-57
Total	1312	1300.5	-11.5

### **July Plan**

- iOS 16.04a
  - Continue to be on plan to release by end of this month
- 16.10
  - Enhance iOS/OSX APIs, tests, samples, and documentation
  - Security 2.0 bindings
  - Finish resolving issues with UDP stability to alleviate need for TCP IPv6 implementation
  - Enhance Java bindings, remove deprecated functions, samples, etc.
- Complete HAE and Base Services issues
- IPv6 support
  - Resolve issues with UDP stability so that TCP IPv6 implementation is not needed
  - Probe AllJoyn in IPv6 environments
- Resolve Java bindings imparity
  - Deprecated functions, samples, etc.
- iOS documentation review

### July Funded Core Resource Plan

 July planned staffing is within 1% of the full month budgeted full loaded staffing (which is 960 hours for a 4 week month)

	<u>Hours</u>
Art Lancaster	16
Josh Spain	68
Paul Sigurdson	30
Andrey Krokhin	152
Krystian Zlomek	80
Jorge Martinez Hernandez	152
George Tang	152
Karol Matuszkiewicz	88
Kishore Kolli	136
Jes Golka	72
Developer Total	874
QA/Test Total	72
Totals	946



## **OSU Testing Update**

Carrie Hertel & Kris Schuff, CASS July 2016

## **Resourcing – June Hours**

Total Hours
89.00
6.83
141.95
3.95
143.46
385.19

Invoiced through June 30, 2016: \$86,860.04

Remaining Balance on Contract: \$113,139.96

### **June Work Items**

- Alljoyn.js 16.04 prep and testing
  - Full coverage on 64-bit
  - Partial coverage on 32-bit
  - Partial coverage on Windows
  - # of Jira issues filed: 13 (all resolved for 16.04)
- Internal documentation
- Training around iOS in prep for July's testing
- Environment setup to ensure iOS is ready for July's testing
- Additional environment setup
  - Two spare machines setup for dedicated Win7 and Win10 testing
  - Tyler working on isolating test networks

### **July Plan**

- Continue Transition Carrie Hertel as OSU team lead
  - Kris will be available for a few more months.
- iOS 16.04 Testing Preparation and Execution
- Continue to help determine overlaps with AJATS



# Thank you

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