



**ALLSEEN
ALLIANCE**

Core Working Group

October 01, 2015

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Agenda

1. 15.09
2. Unified Introspection XML Proposal
3. 16.04 feature planning
4. F2F Agenda
5. Review Action Items
6. Post Mortem action items



15.09

Schedule

- Sept 10
 - Deferred all JIRA tickets with severity of Major or lower
 - Release branch cut
 - Security 2.0 marked as Developer Preview
- Sept 17
 - Deferred all JIRA tickets with severity of Critical
- Sept 25
 - First round Windows 10 regression testing completed
- September 25
 - Lockdown for final regression testing
 - Includes final round of Windows 10 regression
- September 30
 - Official software release
 - Released!

Remaining issues

- Moving triage back to once a week (Thursday) starting week of October 12
 - Monday's (October 5) triage will focus on 15.09a candidate tickets
- 4 C&C related issues that need to be addressed.
 - Resolution identified
 - C&C to meet with Todd M. (QCE) to sync on resolution
 - <https://jira.allseenalliance.org/browse/ASACOMP-80>
 - <https://jira.allseenalliance.org/browse/ASACOMP-113>
 - <https://jira.allseenalliance.org/browse/ASACOMP-115>
 - Under investigation
 - <https://jira.allseenalliance.org/browse/ASACOMP-114>
 - Need to be resolved for Core certification
 - <https://jira.allseenalliance.org/browse/ASACOMP-104>
 - Base Services issue (Config & Onboarding)
 - Potentially CTT issue
 - Ram has been notified and will provide status to the TSC on Monday



Unified Introspection XML Proposal

<https://wiki.allseenalliance.org/irb/xmlv2>

Use Cases

- Developers need interface definitions for code generation
- AllSeen Alliance needs interface definitions to standardize
- End-users need descriptions of interfaces on a given device for creating If-This-Then-That (IFTTT) style rules with Events & Actions
- Admins need descriptions of interfaces on a given device for creating security policies

Currently have 3 incompatible formats

Format:	D-Bus style Introspect()	IntrospectWithDescription()	Extended Introspection XML	(Proposed) Converged Introspect()
Remotely queryable	✓	✓	✗	✓
D-Bus tool compatible	✓	Some	✗	✓
Localizable user descriptions	✗	✓	✓	✓
Developer descriptions	✗	✗	✓	✓
Named types	✗	✗	✓	✓
Enumerations	✗	✗	✓	✓

IRB has agreed on unified XML proposal

- Uses D-Bus compliant annotations instead of non-compliant XML elements & attributes
- Separates localizable descriptions from additional developer-specific comments
- Adds optional annotations useful in automatic code generation and in bridging to non-AllJoyn schemas (Min, Max, Units, Default, etc.)
- Includes XSD reference in the XML
- See <https://wiki.allseenalliance.org/irb/xmlv2> for details

Proposed migration process

1. Update IRB guidelines to use new format
 - Goal to get the TSC to ratify the new format & guidelines at same time
2. Write tool (XSLT) to convert old XML to new format
 - This will assist in migration
3. Update (for 16.04) SC/TC code to use new format in Introspect(), BusAttachment.CreateInterfacesFromXml(), etc.
4. Update tools like ajxmlcop and codegen utilities to accept new format
 - Includes updating <http://www.allseenalliance.org/schemas/introspect.xsd>
5. Once TSC approves new format, IRB will start requiring submissions to use the new format
 - Submissions already in progress not delayed
6. Ask TSC to direct WG's to update existing published specs to use new XML format



16.04 feature planning

16.04 list of features as of 9/10/15

Key	Summary	Bucket
ASACORE-2034	Deadlock if max BusAttachment concurrency is reached	App Developer Usability
ASACORE-1993	Drop connection to router node if bus operations timeout	App Developer Usability
ASACORE-1759	Add support for a new callback that will inform a multi-point session joiner that the session host has accepted its join request	App Developer Usability
ASACORE-1556	Fix the Logger so it can work with ETW on Windows	App Developer Usability
ASACORE-2273	Alljoyn Thin Core API to get socket descriptor...	App Developer Usability
ASACORE-1930	Distributables should have QCC_OS_GROUP_ defined	App Developer Usability
ASACORE-1811	Returning an error name/message on calling SetProperty	App Developer Usability
ASACORE-1374	Support Android Studio	App Developer Usability
ASACORE-1112	BusObject does not contain a GetInterfaces API call	App Developer Usability
ASACORE-1166	API Call to reset changeld for About Annoucements	App Developer Usability
ASACORE-942	About feature should provide an implementation of generating a device ID for each platform	App Developer Usability
ASACORE-1065	Add functions for runtime creation of Aj_Objects	App/Core Developer Usability
ASACORE-2404	Add Mutex::AssertIsOwner() functionality	Core Developer Usability
ASACORE-2386	Add a platform independent QCC_ASSERT macro	Core Developer Usability
ASACORE-2005	Teach BusAttachment to keep track of registered AddMatch rules	Optimization
ASACORE-2364	General support for key types other than ECC NIST P-256	Security enhancement
ASACORE-2363	Store more data about trust anchors	Security enhancement
ASACORE-2055	Design and implement new password-based authentication mechanism	Security enhancement
ASACORE-1715	Private key protection support for using passphrase not applicable for ECDHE_ECDSA mechanism.	Security enhancement
ASACORE-1714	ECDSA Certificate generation APIs should be implemented for language bindings.	Security enhancement
ASACORE-1430	Packet header encryption	Security enhancement
ASACORE-2254	Add support for a "const" annotation for properties	System Evolution
ASACORE-964	Add support for extended introspection XML format	System Evolution



F2F Agenda

Alliance Education

Core WG Technical Meeting



Core WG Technical Meeting

Logistics

- Not an official part of the Allseen Alliance Summit
- Wednesday October 21st
 - 10:30 AM – 12:00 PM

Core WG Technical Meeting - Agenda

- Group discussion
 - Identify top technical issues with AJCore
 - Identify leads/teams for each of them to begin efforts to resolve
 - Leads for each of the architecture topics will present 5-10 minutes summarizing issue and next steps
- Architecture topics
 - MSFT
 - Scalability and performance: any ideas related to Erdinc's recent measurements?
 - Any other known issues?
 - Concurrent callbacks - design, limitations, common deadlocks, etc.
 - Previously I discussed these with Todd and other QCE folks.
 - Mutex class
 - Detecting potential deadlocks
 - Should recursive lock acquires be banned?
 - Anyone interested in enabling AllJoyn across the LAN / multiple network links?
 - What are some of the technical challenges?
 - QCE
 - Enabled AJ mDNS to interoperate with off the shelf mDNS implementations
 - How would this work? What are the implications for the current implementation?
 - Optimize PubSub signals
 - Broadcast/sessioncast/addmatch: How those interact for optimal delivery?
 - Action: Look at reviewing scalability document and provide feedback



Alliance Education

Logistics

- Part of the Allseen Alliance Summit
- Wednesday Oct 21
 - 1:00 PM – 3:00 PM

Agenda

Time	Title	Owner	Notes
	What we have done so far	Marcello Lioy (QCE)	Efforts and evolution of the WG including process definition
	Tech overview of Security 2.0	Dave Thaler (MSFT)	
	Status on open source test assets	David McBride (QCE)	
	Scalability/Stress/system testing	Marcello Lioy (QCE)	Open discussion regarding potential stress/system testing efforts
	16.04 feature set	Marcello Lioy (QCE)	List of possible features. Preliminary legwork has been started to identify features



Action Items

Action Items

- Proposal to outline the process for changing APIs
 - Gavin (MSFT) will craft proposal for review by Core WG and then presented to TSC
 - Planned for September 24
- Arvind (MSFT) to create Wiki process page linked off of Core WG wiki
 - Remove references to java from mandatory binding list for 16.04 timeframe
 - Will be done end of September
- Ry (LF) setting up a Windows 10 VM
 - Test execution is 3-4X slower than Server 2012
- Windows 10 AJ router testing discussion
 - Add agenda item once Windows 10 VM issue is resolved



Post Mortem Action Items

Post Mortem Action Items

- Ry (LF): Need to have Alliance running Windows 10 when RTM'd
- Check readme files as part of the release procedure
 - Core WG needs to decide who will own the specific readme files
 - Need to partition them out by platform
 - Marcello (QCE) will do an inventory to determine how to partition them out
- Set a project milestone to begin integration branch merges
- Add a way in JIRA to track compatibility issues and proposals
- Define process for handling “Technical Debt”
 - Example: Took a shortcut to make a release and not loosing track of this to fix the shortcut
- Track feature branches and add more spacing between feature branch merges
- Define process to require regression/unit tests for bugs

Discussion

- ...



Thank You

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15.09 Platforms – Release Testing

- AllJoyn Standard Library:
 - Full regression test
 - QCE
 - Linux Ubuntu 14.04 LTS (64 bit)
 - Android Lollipop 5.0 (ARM)
 - OpenWRT Barrier Breaker (BB) branch
 - MSFT
 - Windows 10
 - Smoke test
 - QCE
 - Android JellyBean 4.1 (ARM)
 - Android KitKat 4.4 (ARM)
 - OpenWRT Chaos Calmer (CC) branch
- AllJoyn Thin Library:
 - Full regression test
 - QCE
 - Linux Ubuntu 14.04 LTS (64 bit)

15.09 SDKs

Included	
SDK	Toolchain Used
alljoyn-15.09.00-src.tar.gz	N/a - source
ajtc1-15.09.00-src.tar.gz	N/a - source
Core SDK - release (android)	Android NDK r10e, Oracle Java 7
Core SDK - debug (android)	Android NDK r10e, Oracle Java 7

Not Included	
SDK	Toolchain Used
Core SDK (osx/ios)	Unless a contributor is able to perform the platform tests then these binaries will not be distributed. Note: We will keep building it and include the OSX and iOS builds in the verification paths
Windows SDK (64-bit) (VS2012)	Visual Studio 2012, Oracle Java 7 (assumes contributor performs regression testing)
Windows SDK (32-bit) (VS2012)	Visual Studio 2012, Oracle Java 7 (assumes contributor performs regression testing)
Windows SDK (64-bit) (VS2013)	Visual Studio 2013, Oracle Java 7 (assumes contributor performs regression testing)
Windows SDK (32-bit) (VS2013)	Visual Studio 2013, Oracle Java 7 (assumes contributor performs regression testing)
Windows Thin Core SDK (zip file with source and stand alone router executable)	Visual Studio 2013 (assumes contributor verifies this works)

Backup: Supported bindings

- Existing bindings in Core
 - C++
 - Obj-C
 - Java
 - C
 - Javascript NPAPI

Language bindings discussion 5/7/15

- Need a formal policy to support language bindings
 - Came up at last TSC F2F
- SCL binding proposal
 - Required
 - C++ and C
 - Optional
 - Java, NPAPI, ObjC?
- TCL binding proposal
 - No proposal
 - Should we consider JavaScript?
- Need separate policy for platforms
 - May need to consider binding platform and language binding
- Next steps
 - Action: Marcello (QCE) to send proposal to the mail list



Notes from 14.12

Post Mortem

14.12 Post Mortem Improvement Items (1/3)

- Aligning date & the end game (lockdown) schedule of AllJoyn releases with release schedule of the contributing member companies if it happens to be in close proximity of AllJoyn release
 - **Action:** Arvind to send proposal to Core WG mail list
- Consistent and enforced definition/bar for code freeze
 - Need crisp definitions for "incremental bug bars" (normal, tell, ask)
 - Need approval granularity (approval on merge)
 - Need process for how to deal with large last-minute changes
 - Suggestion – only high priority issues “ask” are added one week before release
 - **Action:**
 - Marcello to send current milestone definition to Core WG mail list
 - Gavin to send proposal to Core WG mail list based on Marcello’s email
- Need processes for breaking changes
 - Regarding protocol, API syntax, behavior
 - Mitigation: Proposed changes should be advertised
 - **Action:** Chris to add the process to this to the existing process draft

14.12 Post Mortem Improvement Items (2/3)

- Need agenda and slides 48 hours ahead of core WG meetings
 - Best effort to send slides by COB Friday
- Need notes from core WG meetings sent more consistently
 - Note: Linux foundation unable to assist
 - **Action:** Gavin to see if someone from Microsoft can assist
- For TSC: PR coordination for releases
 - More an issue for marketing committee
 - **Action:** Chris to discuss this with Philip
- Engage system test during feature testing
 - More members conducting system test is preferred
- Testing needs to be better distributed across members
- E2E testing is needed
 - **Action:** David and Arvind will make a proposal
- More frequently merge feature branches so that deltas can be kept to a reasonable minimum
 - **Action:** Chris to add process to the Wiki process draft

14.12 Post Mortem Improvement Items (3/3)

- May need more frequent but shorter Core WG meetings
 - WG meeting immediately following triage meeting for 30 minutes
 - **Action:** Chris to change Core WG status meetings to 30 minutes after the Thursday triage
- Increase frequency of triage meetings earlier in the process
 - **Action:** Chris to set up biweekly triage 2 weeks prior to branch date
 - For 15.04 it will begin week of March 9
- Define JIRA severity vs. priority process
 - **Action:** David & Arvind to set up discussions to craft proposal
- To be discussed at next meeting
 - JIRA label to identify contributing organization taking ownership of the item
 - Need process for managing the platform matrix
 - Revisit code style guidelines, rules, and enforcement

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)
- Full list of features
 - <https://jira.allseenalliance.org/issues/?filter=11411>