



**ALLSEEN
ALLIANCE**

Core Working Group

July 30, 2015

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Agenda

1. 15.09
 - Features
 - Schedule
 - Platforms
2. qcc::String deprecation
3. AES Crypto bug : 15.04b discussion
4. Add Windows 10 to build
5. F2F Agenda
6. Review Action Items
7. Post Mortem action items



15.09



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=11008>

Schedule

- **Aug 05** Merge Sec 2.0 branch
- Release branch – date pending
 - Action: Arvind (MSFT) no 16.04 work being done by MSFT at this time
 - Starting Aug 5, no commits are made to master unless it is associated with a JIRA ticket targeted for 15.09
 - Goal: Only Critical or Blocking only once regression testing begins
- **Sept 04** regression testing complete
 - After this date only blocking tickets and critical tickets agreed by the Core WG accepted
- September 30 Release
 - SW is officially released
- Other milestones
 - Ticket deferral
 - All contributors are encouraged to review their team's major and below tickets
 - On Aug 10 triage we will start to punt all non critical and non blocking tickets
 - Note: Will not have Triage on Aug 03

15.09 Platforms – Release Testing 1/2

- QCE testing commitment for 15.09
 - AllJoyn Standard Library:
 - Full regression test
 - Linux Ubuntu 14.04 LTS (64 bit)
 - Android Lollipop 5.0 (ARM)
 - OpenWRT Barrier Breaker (BB) branch
 - Smoke test
 - Android JellyBean 4.1 (ARM)
 - Android KitKat 4.4 (ARM)
 - OpenWRT Chaos Calmer (CC) branch
 - AllJoyn Thin Library:
 - Full regression test
 - Linux Ubuntu 14.04 LTS (64 bit)

15.09 Platforms – Release Testing 2/2

- Call for contributors to provide release testing
 - AllJoyn Standard Library:
 - Full regression test
 - Smoke test
 - AllJoyn Thin Library:
 - Full regression test
- MSFT will validate only on Windows 10

15.08 SDKs

SDK	Toolchain Used
alljoyn-15.04.00-src.tar.gz	N/a - source
ajtbl-15.04.00-src.tar.gz	N/a - source
Core SDK - release (android)	Android NDK r10e (note r10e is a change – no objection from Core WG), Oracle Java 7
Core SDK - debug (android)	Android NDK r10e, Oracle Java 7
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)

Not included: 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
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qcc::String deprecation

qcc::String deprecation

- For 16.04:
 - Deprecate `qcc::String::secure_clear()` - Remove the internal usage of this function and develop a suitable alternative that external users can switch to.
 - Modify `qcc::String` to be a wrapper around `std::string`
 - This would include introducing functionality to support mixing `qcc::String` and `std::string`. Hopefully a type conversion operator to convert `qcc::String` to `std::string` will solve most of the mixing problems.
 - The deprecated version of `qcc::String::secure_clear()` will need to use `const_cast<>` to cast away `const` from the point obtained from `std::string::data()` so that it can wipe the memory before calling `string::clear()`. Hopefully, compilers won't warn about casting `const` away.
 - Document that `std::string` can be trivially converted to `qcc::String` and vice versa without an underlying `strcpy()`.
- For 18.04 (4 releases after 16.04):
 - Remove `qcc::String::secure_clear()`
 - Change `qcc::String` to just be a typedef of `std::string`
 - Change APIs that use `qcc::String` to take `std::string` instead
- Core WG approves
- Next steps
 - Present to the TSC



Request for 15.04b release

AES Crypto bug : 15.04b discussion

- <https://jira.allseenalliance.org/browse/ASACORE-2247>
- Crypto issue affecting Android SDK
 - Issue affects Android 15.04 applications using encryption with messages bigger than 8k
 - AllJoyn TC would also be affected with >8k messages
 - However, the default buffer sizes only support 1.5k.
- Request to make 15.04b release
 - Core WG agrees – make 15.04b for SC. Defer fix for TC for 15.09
 - Will verify bug fix
 - Will update unit test
 - Run automated unit tests and testbot tests
 - This does some interop testing



Add Windows 10 to build

Add Windows 10 to build

- Request to add Windows 10 to build
- MSFT asks what is needed to make this happen
- Need a Windows 10 VM
 - Action Mathew (QCE) to check with Ry (LF)
- Need to consider overall policy and process for adding/updating new platforms
 - Action Mathew (QCE) to look into crafting policy
- Note: 4 million copies of Alljoyn were shipped with Windows 10 as of 7/29/15



F2F Agenda

F2F Agenda

- 1 hour time slot
- Call for agenda items



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
 - Gavin (MSFT) will discuss MSFT regression testing for 15.09
- Dan (MSFT) to submit proposal to Core WG mail list about possible deprecation of `ajn::BusAttachment::Connect(connectspec)` overload
 - Dan (MSFT) will start investigation in July
 - Dan (MSFT) to create JIRA ticket after investigation
- Arvind (MSFT) to create Wiki process page linked off of Core WG wiki
 - Remove references to java from mandatory binding list
- Action: Chris (QCE) to add samples discussion meeting for next week



Post Mortem Action Items

Post Mortem Action Items (1/2)

- C Bindings
 - Need clear ownership and responsibilities documented
 - Need better alignment on binding strategy all-up (AllSeen)
- Need to have Alliance running Windows 10 when RTM'd
- SCONS needs to support VS 2015
- Add ASADOCS for Core to the triage
- Check readme files as part of the release procedure
 - Core WG needs to decide who will own the specific readme files
- Set a project milestone to begin integration branch merges

Post Mortem Action Items (2/2)

- Add a way in JIRA to track compatibility issues and proposals
- Need to collaborate on stress/system testing
 - Add a track on system testing at F2F in October
- More robust automated testing
 - Investigation of occasional failures
 - Better feature/code coverage
 - Integration test scenario's covering multiple features on multiple platforms
- Process for handling “Technical Debt”
- Track feature branches and add more spacing between feature branch merges
- Need more eyeballs on security for implementation and test
- Add process to require regression/unit tests for bugs

Discussion

- ...



Thank You

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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