ALLSEEN ALLIANCE

Technical Steering Meeting

June 22, 2015

Antitrust Compliance Notice

- AllSeen Alliance meetings involve participation by industry competitors, and it is the intention of AllSeen Alliance to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of and not participate in any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

- Examples of types of actions that are prohibited at AllSeen Alliance meetings and in connection with AllSeen Alliance activities are described in the AllSeen Alliance Antitrust Policy. If you have questions about these matters, please contact your company counsel, or if you are a member of AllSeen Alliance, feel free to contact Lee Gesmer or Andrew Updegrove, of the firm of Gesmer Updegrove LLP, which provides legal counsel to AllSeen Alliance.

Reminder:

This call is being recorded

1. Approve minutes from previous meeting
2. Security Sub-Committee (SSC) June Update
3. Time and scheduling should in an AllJoyn network
4. An abundance of “hubs”

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

Security Sub-Committee (SSC) June Update

Security Sub-Committee (SSC) June Update

- Defining process for security reviews as part of the IRB process
  - Between calls and email, Brian, Ram, Telis, and Dominique seem aligned
  - Last week we proposed our ideas to the broader group, seeking input/feedback
  - Next step, if no negative feedback: capture the ideas into a more formal document
- Defining best practices (Art & Greg Z helping)
  - Had an initial “getting organized” call last week
  - Hoping to have a good outline of areas to cover by end of this week (already behind schedule)
- Defining security testing process
  - Recommend this workstream wait until after the IRB / security-review process is fully sorted
- Defining vulnerability handling process
  - Will (this week) document process on how AllJoyn Thin Core Library “Signature not verified” was handled, and document requested/recommended process changes for SSC and then TSC consideration.
- Wiki: Will add charter and other documents but without people’s personal email addresses

Time and scheduling in an AllJoyn network

Time and scheduling in an AllJoyn network (1/3)

- Problems:
  - Many (most?) devices lack a Real-Time Clock (RTC) - no notion of wall-clock time.
  - There is no Time Service operating right now to provide time synchronization.
  - Devices need to schedule operations in the future.
  - Inaccurate clocks (drift)

Time and scheduling in an AllJoyn network (2/3)

- Solution 1: device centric epoch
  - Pros:
    - Simplest to implement for device manufacturers.
    - Allows for relative time scheduling of actions (e.g., start 4 hours from now).
    - No requirement for authoritative time source
  - Cons:
    - The setter needs to convert wall-clock time to a time delta from "now" in order to schedule an action at a given wall-clock time (e.g., start a 2:30am when energy costs are lowest)
    - Time stamps of when events happened effectively meaningless without converting the device's epoch to a meaningful time and then using that conversion factor to convert the timestamp.
    - Actions scheduled to happen at a given wall clock time will be invalid if device reboots (i.e., power outage) without the setter going back in to reinitialize the timer.

Time and scheduling in an AllJoyn network (3/3)

- Solution 2: global epoch
  - Pros:
    - Allows for simple scheduling of future actions: both relative (start 4 hours from now) and at a set wall-clock time (start at 2:30am) without any conversion done by the setter.
    - Time stamps of when events happen are intrinsically meaningful.
    - Actions scheduled to happen at a certain wall-clock time will happen at that time even after a reboot or power failure without any intervention by the setter.
  - Cons:
    - Requires an authoritative time source that devices sync up with which does not yet exist for AllJoyn.
    - Devices would need to implement a time service client.

Too many hubs?

Numerous projects are defining hub-like services

- Home Controller
  - Multi-device orchestration (events/actions, if-this-then-that, etc)
- Living Scenarios
  - Who, what, where, when context
- Lighting Controller
  - Scenes, groups, rules, etc.
- Security Manager
  - Users, groups, and device-to-device permissions
- Location
  - Co-location, spatial relationships
- Device System Bridge
  - Virtualize collections of non-AllJoyn devices

Rationalize device groups?

- Devices groups concept (as in LSF) could be more generic
- Device grouping may imply co-location (kitchen lights)
- Security permissions may apply naturally across a device group
- Bridged devices may form a natural group (Zigbee lightbulbs)
- Groups may be logical rather than physical (all the TVs, all the speakers)

Can we eliminate overlap?

- Living Scenarios vs. Home Controller
  - Are these just different facets of one service or truly distinct
  - How much can these leverage Events/Actions and a shared rules engine?
- Security groups and devices groups
  - Is there a natural alignment?
- Do lighting groups always map to spatial groups?
  - Location seems very important but as a concept is missing from LSF

Thank You

Follow Us On 

- For more information on AllSeen Alliance, visit us at: allseenalliance.org & allseenalliance.org/news/blogs