Technical Steering Meeting

June 24th, 2014

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Reminder:

This call is being recorded

Agenda

- Approve minutes from last call
- 14.06 Update
- Newly Submitted Project Proposals
  - Audio Service
  - Smart Home Service
- Gateway WG Progress Report
- Data-Driven API WG Progress Report

14.06 Release Update

14.06 Beta-release

- Per e-mail to the TSC and Board 14.06 to be released as a beta version
  - The alternative was to delay the release
  - So far feedback has been to release as planned rather than delay
  - Still expecting to close out all P1 and P2 bugs by the end of this week
- There are a lot of fundamental changes in this release
  - The test team does not believe they have had enough time to shake out the systems issues

14.06 Productization plan

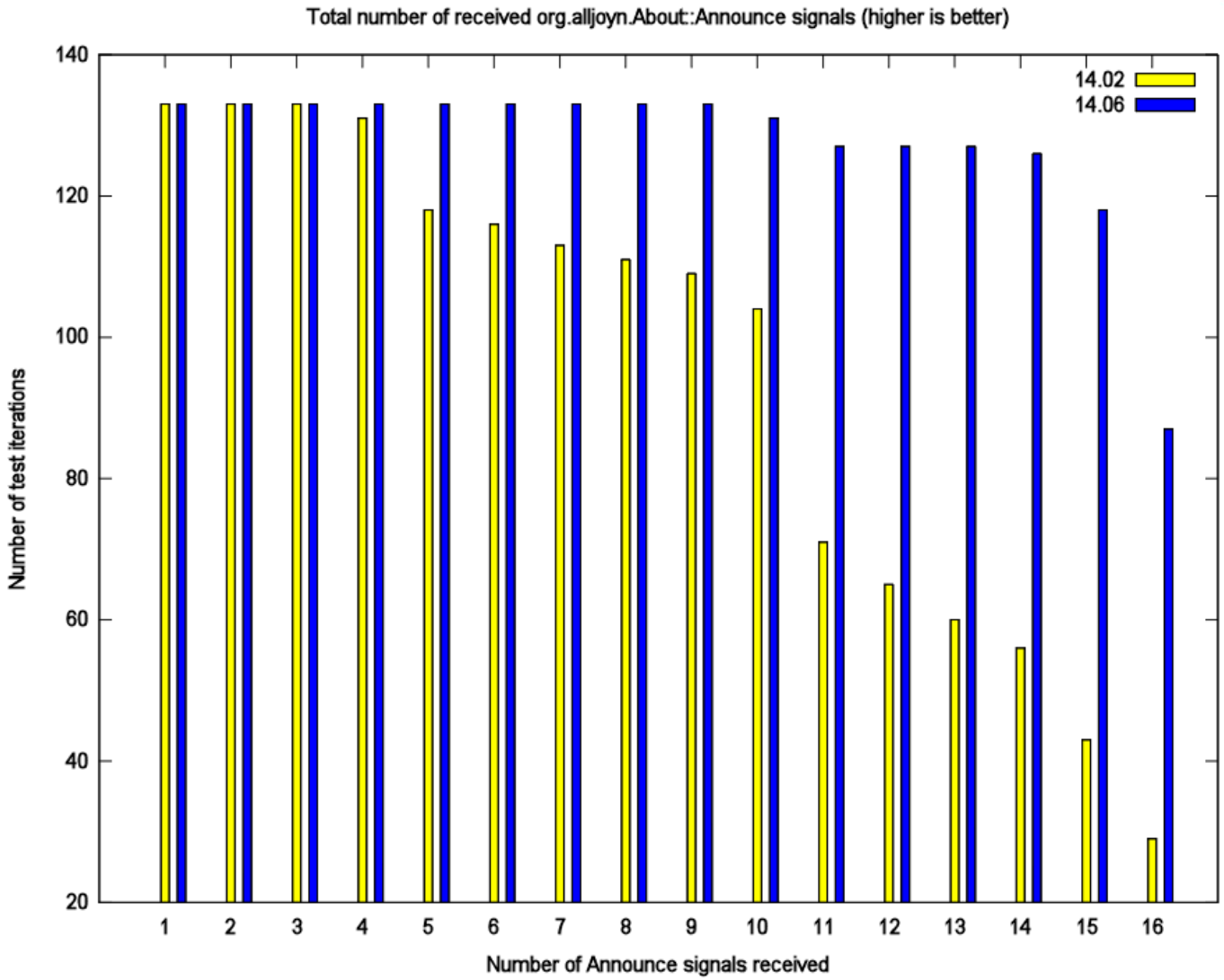
- Test team is evaluating status and will be making a recommendation by early next week
  - Very important that members pick up this release and start using it
  - New products should definitely be based on 14.06
- Implications for the 14.10 release still to be determined
  - 14.10 looks highly unlikely at this point

Benchmark details and methodology

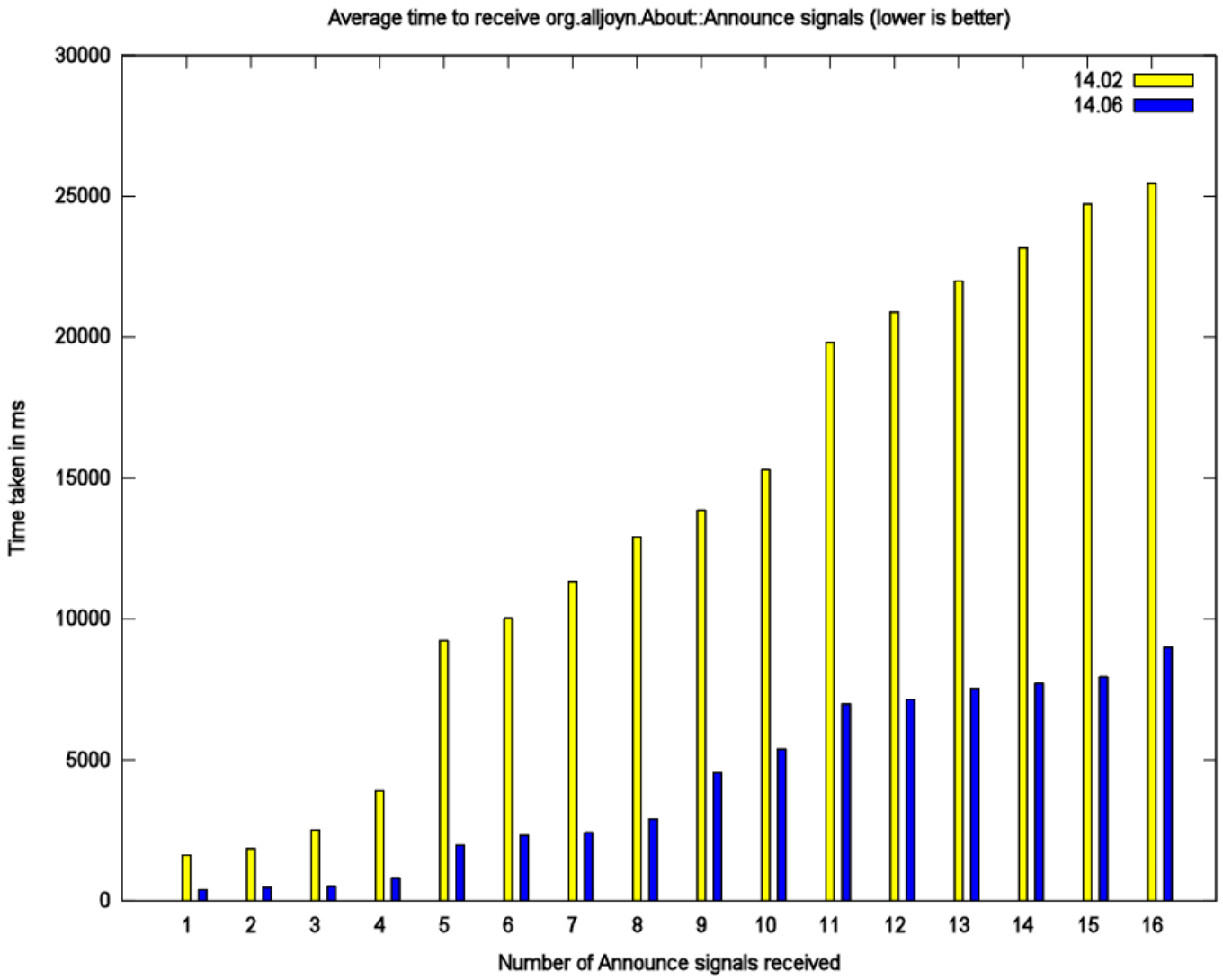
- **Benchmark task specification**
  - A consumer application registers to receive org.alljoyn.About::Announce signal from providers implementing a specific interface
- To do this using 14.02 SDK
  - The Announce handler checks each and every received Announcement and filters out the ones that don't implement the required interface
- To do this with the 14.06 SDK
  - RegisterAnnounceHandler is called with the required interface as a parameter

https://wiki.allseenalliance.org/core/core_14.06_ngns_results

NGNS Benchmarks - Reliability



NGNS Benchmarks - Latency



New Project Proposals

Audio Service Proposal

- **Project Description**
  - Unified method for AllJoyn devices to discover and stream audio from a source device to an audio sink device, e.g., from a wireless doorbell to a speaker.
  - Support for discovery of available audio content files
  - Registering a listener for sink information
  - Support for basic playback controls for pause, stop, play, volume up/down and mute.
  - Support for retrieving audio metadata
- **Note: the Audio Service is already contributed**
  - This proposal is solely about moving it into the Base Services Working Group for support and maintenance.

Smart Home Service Proposal

- Submitted by Haier June 22nd
  - Two week review period has started
- Proposal Summary:
  - Centralized appliance management and security
  - Group control to provide control bulk of appliances
  - Capture collection and storing of appliance data for cloud-based appliance data analysis

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Gateway Agent Working Group – Status Update

Art Lancaster
CTO, Affinegy

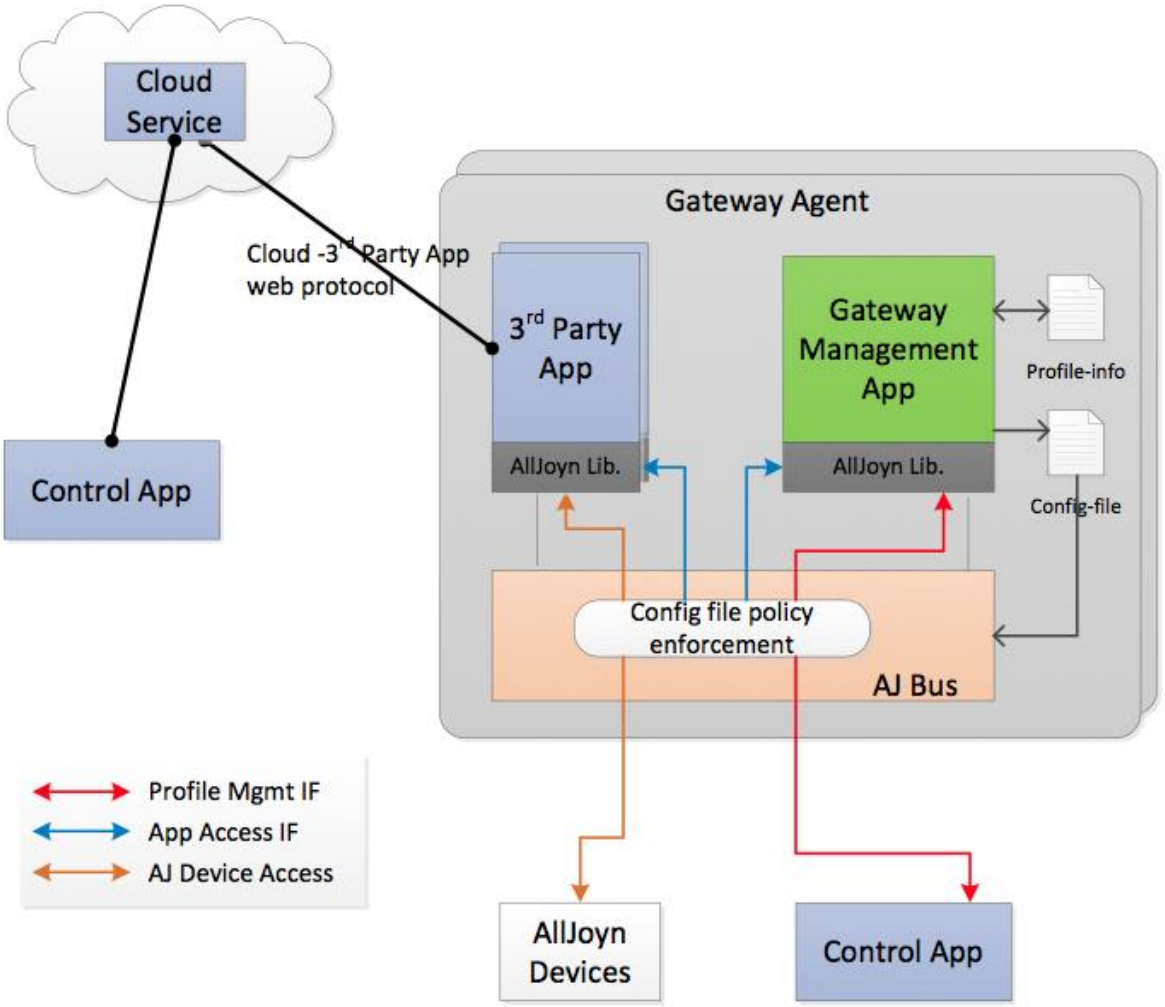
6/24/2014

Gateway Working Group - Objectives

- Provide a standard and secure, remote access method for AllJoyn devices and applications
  - The remote access method should not require specific Internet firewall or port mapping configurations, so that it robustly supports most Internet connections
- Provide an extensible and standard means to connect AllJoyn devices to external/cloud services by providing:
  - A secure services discovery and provisioning node
  - Managed by the proximal network owner or with granted authority by a services provider
  - The external services to be provisioned through a hardened gateway node
  - Support multiple independent services providers – where the network owner has easy control of which are allowed to connect to the proximal network AllJoyn devices and applications.

Architecture

- Gateway Agent software application
  - Embedded in an AllJoyn node in the local network – typically a hub or router
  - Normally pairs with a services provider
  - Can be more than one in the LAN
- 3rd party App = Cloud protocol connector
  - One or more as a plug in to gateway agent
- Control App = user experience which now can be mobile/remote or in the LAN



See High Level Design Document for details at
https://wiki.allseenalliance.org/_media/tsc/technical_steering_committee/proposals/alljoyn-gateway-agent-hld.pdf

Status

- Working group Wiki

  https://wiki.allseenalliance.org/tsc/technical_steering_committee/proposals/gatewayagent

  - Documentation and team members listing from QCE and Affinegy
  - GIT repository and JIRA links available
- Code contributions status
  - First commits made on 6/10 by QCE, Tsahi Asher
  - Specifically: Gateway Management App (Linux/OpenWRT environment) and a sample Control Appl (Android)
    - Code not fully through QA
    - But Affinegy team has successfully built and is developing against this code
  - Includes key Gateway Agent modules needed for 3rd party app development

High Level Plan – Oct release 14.10

- Affinegy developing the software module installer and a cloud connector 3rd party app that supports
  - Persistent connection NAT traversal via XMPP/BOSH (XEP-0206)
  - TR-069 cloud services connector (TR-069a5i7 with XMPP) – supports Affinegy's remote service management server.
  - Hosted server (ACS) developer access will be provided at no cost with a sample control user experience app
  - Supports proxy management from remote ACS, suitable for automated processes. Also includes support for registration and basic settings of the gateway as a LAN device
- Other 3rd Party Apps - We've been approached by others wanting to contribute cloud connector plug-ins for the Gateway Agent.
  - For example: MQTT
  - If others are interested let us know – it's a good time to add support for other cloud services as you may need for your own product plans.

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Data-Driven API WG Progress Report

Dominique Chanet
Technicolor – Qeo, LLC

Status of the code

- Proof of Concept implementation done
  - C++ Data-driven API Library (a wrapper around AllJoyn Core)
  - DDAPI Code Generator
  - Introspection XML extensions for named structs and dictionaries
- DDAPI requires a C++0x toolchain
  - saved us considerable implementation effort
  - we're open for 3rd party contributions that wean us off our shared_ptr dependency
- We're hard at work refining the implementation
  - Writing tests
  - Defining a proper threading model
- First release to AllSeen git repositories is done
  https://git.allseenalliance.org/gerrit/#/admin/projects/data/datadriven_api
- Not production-ready, but good enough for a "sneak peek".

Status of the code

- Shooting for a *slipstream release* in the wake of R14.06
  - still labeled experimental, but nicely integrated in the rest of the release
- Future evolutions (R14.10)
  - tweak discovery mechanism for NGNS
  - better compatibility with “standard AllJoyn”
  - create clean separation between DDAPI core and language bindings
  - Android/Java binding. Other language bindings, time permitting
  - Define, implement, incorporate Security 2.0 (joint work with Core WG)
- Longer term
  - complete the set of language bindings
  - type system extensions (joint work with Core WG)
    - optional fields/arguments
    - enumerations
    - interface versioning/elasticity/evolution

Status of the documentation

- Reference manual: comprehensive Doxygen docs
- Developer guide: currently limited to a short introductory section in the Tutorial
- Tutorial: short walkthrough of a simple home security system implementation
- README: build instructions, dependencies, etc.
- Data Modeling Best Practices: yet to be written

Thank You.