ALLSEEN ALLIANCE

Technical Steering Meeting

September 1, 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. AllJoyn Ambassador Program
   – Update & New Applicant
3. AJATS and Release Testing RFPs
   – Update
4. AllJoyn XMPP Connector Project Proposal
   – Call for TSC Vote
5. C&C Validation of AllJoyn releases
6. Ask forum
   – Call for participation

AllJoyn Ambassador Program: Update & New Applicant

AllJoyn Ambassadors Program:

AllJoyn User Group Meetups

We are **31** members across **4** Meetups

A Meetup group to discuss the AllJoyn Open Source Project and it's ecosystem.

AllJoyn® is a collaborative open-source software framework that makes it easy for devices and apps to discover and communicate with each other. It supports many language bindings and can be easily integrated into platforms small and large. The AllJoyn framework defines a common way for devices and apps to communicate with one another ushering a new wave of interoperable devices to make the Internet of Things a reality.

AllJoyn is hosted by the AllSeen Alliance, a nonprofit consortium dedicated to enabling and driving the widespread adoption of products, systems and services that support the Internet of Everything with an open, universal development framework supported by a vibrant ecosystem and thriving technical community.

https://allseenalliance.org/

Interested in representing the AllSeen Alliance as an AllJoyn Ambassador?

Apply now!

info@allseenalliance.org

Applicant: AllJoyn Ambassador Program

1. Name: Josh Spain

2. Email: jspain@affinegy.com

3. Member Company: Affinegy, Inc.

4. Where do you live? (There are certain countries where we're seeing a lot of interest so it helps to know where you're located): Austin, TX, USA

5. Why are you applying to be an AllJoyn Ambassador?

To help the Austin tech scene embrace AllJoyn

6. How have you participated in the AllJoyn community to-date?

Member of the IRB, committer of the Gateway Agent project, lead of the XMPP Connector project

7. What ideas do you have for your community that you wish you had time or resources to implement?

Meetup group, Hackathon, Attend other related meetup groups and represent AllSeen/AllJoyn

8. How will you work with others to achieve your goals?

I have already been working with others in Austin to arrange meetups and hackathons

9. LinkedIn profile page (if available): http://www.linkedin.com/in/joshspain

10. Twitter handle (if available): https://twitter.com/spainjosh

Applicant: AllJoyn Ambassador Program

1. Name: Yuping Tseng

2. Email: Yuping_tseng@tutk.com

3. Member Company: ThroughTek Co., Ltd.

4. Where do you live? (There are certain countries where we're seeing a lot of interest so it helps to know where you're located): Taipei, Taiwan

5. Why are you applying to be an AllJoyn Ambassador?

The AllSeen Alliance provides members with the opportunity to create open source communications framework to allow for products and services to be part of a wider ecosystem. ThroughTek wants to promote AllJoyn to improve interoperability and optimize services that could be used across different devices, applications and platforms to ultimately help gain IoT adoption so that it could be transformed into real-life use case.

6. How have you participated in the AllJoyn community to-date?

ThroughTek has participated in the community by building prototype products with AllJoyn integration. We have worked with other members such as Hier and PowerTech to test and create interoperability between devices.

Additionally, ThroughTek has attended several tradeshow events (including MWC Barcelona, IoT World San Francisco, Computex) and worked in collaboration with AllSeen Alliance to showcase AllJoyn and Kalay Multimedia SDK demo. Further, ThroughTek has participated in a couple AllSeen Alliance events as guest speaker to advocate for creating unified standards with AllJoyn and share our use case experiences.

7. What ideas do you have for your community that you wish you had time or resources to implement?

ThroughTek is integrating Kalay cloud services to the AllJoyn framework. This would enable AllJoyn framework to support video streaming, push notification service and connectivity over the internet.

Applicant: AllJoyn Ambassador Program

Yuping Tseng continued -

8. How will you work with others to achieve your goals?

ThroughTek plans to work with members and potential partners to understand current limitations and future needs. As an Ambassador, ThroughTek will survey available solutions on the market as well as possible alternatives to evaluate how to integrate Kalay into the AllJoyn framework. ThroughTek will prepare a work group proposal to spearhead the project to deliver multimedia applications with AllJoyn.

9. LinkedIn profile page (if available): Yuping Tseng: https://www.linkedin.com/in/yupingtseng

10. Twitter handle (if available): https://twitter.com/throughtek

---

- **Call for TSC to approve**
  - Josh Spain
  - Yuping Tseng

AJATS and Release Testing RFPs

Update

AJATS and Release Testing RFPs

- Schedule
  - July 31: RFP sent to TSC members mail list for review
  - Aug 3: The RFP is presented to the TSC at the Monday night call for review
  - Aug 17: The RFP is voted on by the TSC
    - If approved, the RFP is locked and published
      - All responses should be sent to rfp@allseenalliance.org
    - The 4 week clock for responding begins
  - Sept 01: TSC updated on process
  - Sept 14: TSC updated on process
    - Time to respond is closed
      - All submitted proposals are sent to the special mail list for review
        » A special email list will be created for TSC voting members that did not submit a proposal
  - Sept 22: Two-hour TSC meeting to review and discuss proposals
  - Sept 28: Vote is called and vendor chosen

AllJoyn XMPP Connector Project Proposal Call for TSC Vote

Art Lancaster, CTO, Affinegy
Chair Gateway Working Group
August 10, 2015

AllJoyn XMPP Connector for Gateway Agent Project Proposal

- Objectives:
  - Provide a standard connector for the AllJoyn Gateway Agent to enable existing AllJoyn Applications to work when away from the local network, just like they were at home.
  - Support joining two local AllJoyn networks as if they were one.
  - Support the AllJoyn Gateway Agent managed Service Profiles that determines which AllJoyn applications in the local network have remote access.
  - Enable remote services to connect to specific AllJoyn applications in the local network
  - Provide a complete and useful example external connector for the AllJoyn Gateway Agent in the AllSeen Alliance open source, that can help others create other protocol connectors.

- Remote access is provided with standard XMPP – enabling a fully open connector for external services that complies with official standards.

- **Call for TSC vote**

C&C Validation of AllJoyn Releases

Ram Jeyaraman
C&C WG chair

C&C Validation of AllJoyn Releases

- Currently, C&C WG does minimum verification of the Test Case Implementations (delivered by the various WGs) before integrating them into the Certification Test Tool (CTT).

- C&C WG needs to thoroughly validate each release of AllJoyn with C&C infrastructure
  - Verify that the Test Case Implementation is fully conformant to the Test Case specification
  - Perform each Test Case with several Reference Samples (Golden Units) and validate output
  - Create a validation report stating the results of the validation testing

- Note, Regression testing for AllJoyn releases does not guarantee that C&C will work properly

- This is an optional work item already listed in the Lead Lab agreement (with AT4 wireless)
  - Next step: This will be presented to the board for approval
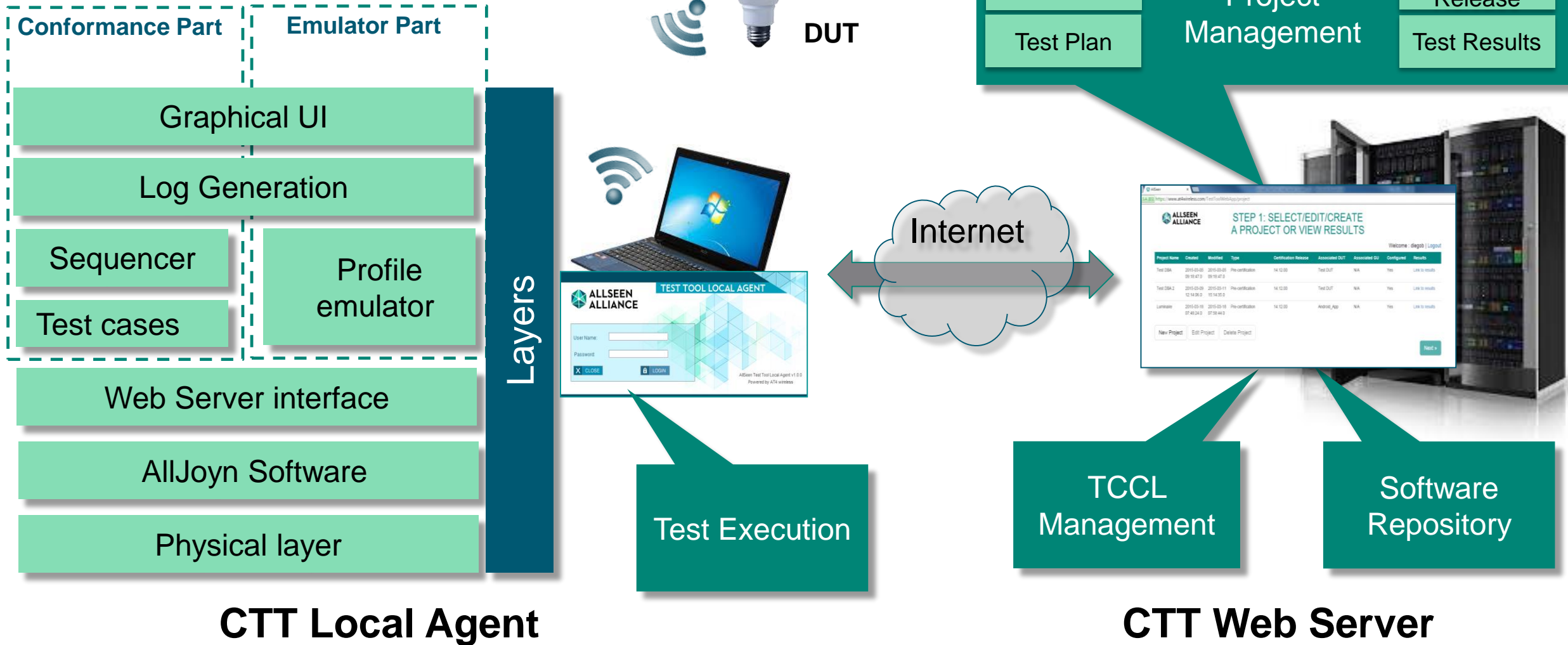 - No TSC action is required

C&C Test Cases Implementation

- In the current world:
  - CTT Test Cases Package structure only works with test cases implemented in Java
  - Some WGs do not want to use Java as the default language for Test Implementation
  - Some services do not provide Java APIs and it will be difficult to write Test Implementation in Java
  - Lack of clear Test Procedures (formal test description); this may lead to inconsistencies in C&C testing
  - There are gaps in Test Implementations (missing tests and incorrect tests)

- What is being proposed:
  - WGs will provide Test Case Specification listing interfaces to be tested and verification criteria
  - AT4 wireless will review Test Case Specification and write Test Procedures
  - AT4 wireless will write new Test Implementation in C/C++ and port existing tests from Java to C/C++
  - AT3 wireless will update CTT Test Cases Package to support different binding languages (Java, C/C++)
  - Note, this is an essential for delivering the CTT for each AllJoyn release. AT4 wireless already has been addressing some of the test implementation gaps.

AllJoyn System Emulator Tool (ASET)

- Current state of affairs
  - OEMs don't have an easy way to test AllJoyn capability in their products during development
    - Certified devices may not always be immediately available for the latest release
  - OEMs need a way to test their products <u>during development</u> against the latest AllJoyn releases

- What's being proposed
  - Since the CTT tool already has the basic components needed, the idea here is to extend the CTT to act as an AllJoyn System Emulator
  - One tool for all C&C activities; reuse the CTT architecture and code to develop ASET
  - Common implementation of CTT and ASET assures coherent test results and make it easier for OEMs
  - AT4 wireless is open to extending the CTT tool to include ASET capabilities

2. Architecture

Conformance Part

Emulator Part

Graphical UI

Log Generation

Sequencer

Profile emulator

Test cases

Web Server interface

AllJoyn Software

Physical layer

Layers

DUT

Internet

CTT Local Agent

Test Execution

ICS/IXIT

Test Plan

Project Management

Certification Release

Test Results

TCCL Management

Software Repository

CTT Web Server

Next Steps

- C&C WG requests TSC approval to proceed with

  - C&C Test Cases Implementation, and

  - Extend CTT to support AllJoyn System Emulator Tool functionality

- And employ AT4 wireless to deliver the above work items

  - As the Lead Lab and as the primary developer of the CTT, AT4 wireless is a natural candidate

  - AT4 wireless is open to assisting with the above work items

Ask Forum: Call for participation

Ask Forum

- 831 total questions to date

- 261 unanswered questions

- **Call to the community to assist**
  - Answering the questions
  - Becoming a moderator
  - Editing questions
  - Closing duplicates

Thank You

Follow Us On 🔵 🔵 🔵 🔵 🔵 🔵

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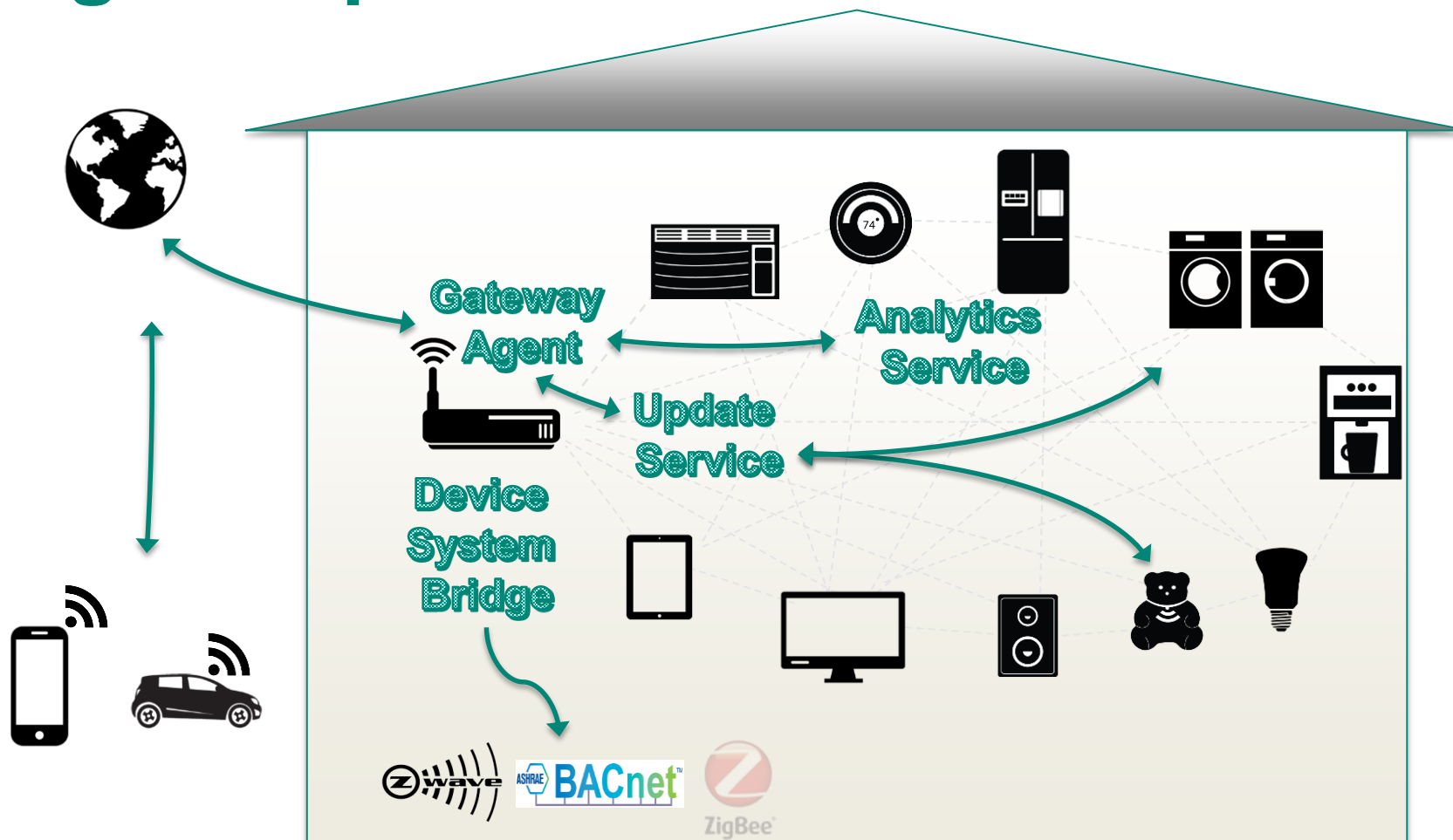
Backup Slides

AllJoyn XMPP Connector Project Proposal

Art Lancaster, CTO, Affinegy
Chair Gateway Working Group
August 10, 2015

Gateway Working Group - Overview

AllJoyn Connections for External Networks

- Remote access
- Update services
- Analytics services
- Other automation protocols
- More to come . . .
  - Connectors
  - Service Management

AllJoyn XMPP Connector for Gateway Agent Project Proposal

- Objectives:
  - Provide a standard connector for the AllJoyn Gateway Agent to enable existing AllJoyn Applications to work when away from the local network, just like they were at home.
  - Support joining two local AllJoyn networks as if they were one.
  - Support the AllJoyn Gateway Agent managed Service Profiles that determines which AllJoyn applications in the local network have remote access.
  - Enable remote services to connect to specific AllJoyn applications in the local network
  - Provide a complete and useful example external connector for the AllJoyn Gateway Agent in the AllSeen Alliance open source, that can help others create other protocol connectors.

- Remote access is provided with standard XMPP – enabling a fully open connector for external services that complies with official standards.

AllJoyn XMPP Connector Interfaces

Interface to Local AllJoyn bus

- Standard AllJoyn Bus connection to Gateway Agent routing node via its managed AllJoyn interface (for traffic and application management to the external network).

- Also can connect directly to the local AllJoyn bus if the traffic management with the Gateway Agent is not needed

Interface to the External Network

- Standard XMPP client interface to the external server

- Connector wraps each AllJoyn message in XMPP to relay via XMPP server to remote services or another AllJoyn XMPP Connector at a remote location.

- Each connector registers with the user's XMPP server account using standard XMPP user management and security through an encrypted tunnel.
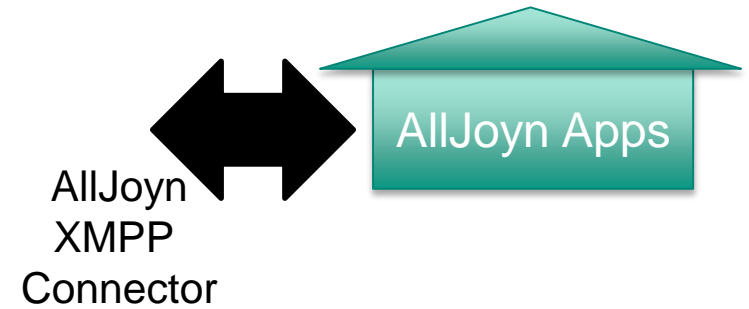
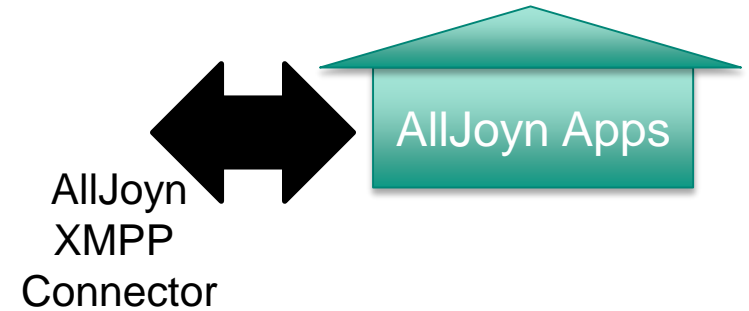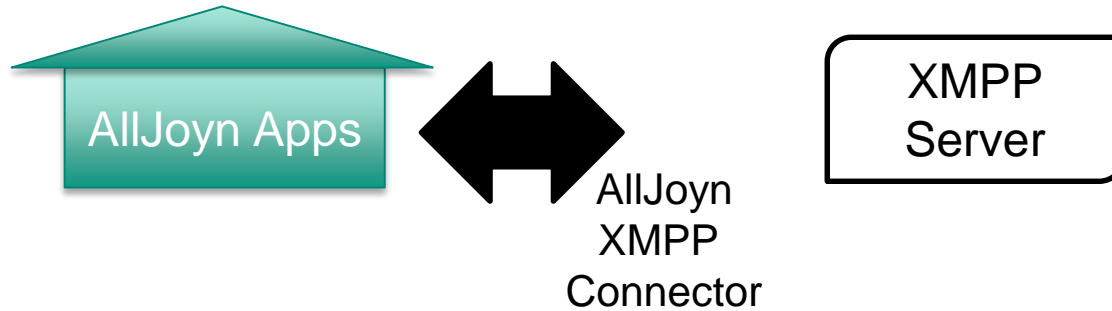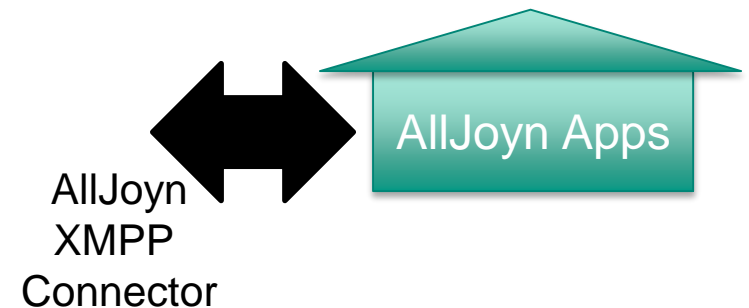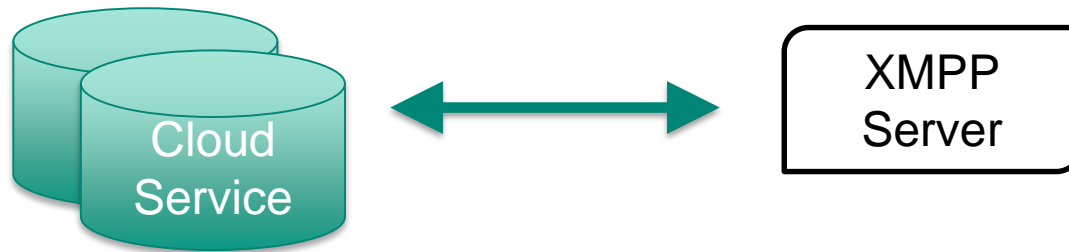# AllJoyn XMPP Connector Application Examples

Remote   **Cloud**   **Local**

AllJoyn local network to remote mobile apps

AllJoyn Apps

AllJoyn XMPP Connector (Android)

XMPP Server

AllJoyn XMPP Connector

AllJoyn Apps

Join two (or more) AllJoyn local networks to each other

AllJoyn Apps

AllJoyn XMPP Connector

XMPP Server

AllJoyn XMPP Connector

AllJoyn Apps

Connect local AllJoyn applications with remote services

Cloud Service

XMPP Server

AllJoyn XMPP Connector

AllJoyn Apps

AllJoyn XMPP Project Proposal Information

- Working Group: Gateway Working Group

- Staff - from Affinegy

  – Project lead and Maintainer: Josh Spain

  – Committers: Andrey Krokhin, Art Lancaster

  – Contributors: Paul Sigurdson, Jim Howard

- Dependencies:

  – Gateway Agent 14.12 (and 15.09 when available), AllJoyn Core 14.12 and newer

- Supported platforms: Ubuntu Linux 14.04, Raspberry Pi: Debian Wheezy, OpenWRT Barrier Breaker

- GIT repository "ajxmpp", Mail list: share Gateway Working Group mail list.

- Status and schedule

  – Linux AJXMPP is completed and tested by Affinegy at core 14.12, ready to commit to AllSeen Open Source. Will release with 15.09 support at the same time as Gateway Agent 15.09 (Q4)

  – Plan to add Windows Universal version target (Q4)

- We ask support from the TSC for approval of this project.

External libraries dependencies

Dependency	Description	License	URL
Libstrophe	XMPP client library	MIT/GPLv3 Dual License	http://strophe.im/libstrophe
libexpat	XML library	MIT	http://www.libexpat.org
libz	Compression library	zlib License	http://www.zlib.net
rapidjson	JSON parser library	MIT	https://code.google.com/p/rapidjson/

Affinegy Cloud Service for AllJoyn Developers

- Affinegy's CHARIOT XMPP cloud service will be provided for development and non-commercial use at no cost.
  - Is configured and ready for use to support the AllJoyn XMPP Connector and the AllJoyn Gateway Agent

- Includes Affinegy's AllJoyn XMPP Connector for Android which provides
  - A remote access connector with any current AllJoyn Android app running in the same Android device
  - Developer tools for working with connected products using the embedded AllJoyn XMPP connector.

- Public beta available in September. See http://chariot.global for more information

Thank you! Art Lancaster, alancaster@affinegy.com