



**ALLSEEN  
ALLIANCE**

## **C&C Execution Planning for RFP**

22 May 2014

# Two-Phased C&C Program

## Background

- Interoperability requires a significant amount of work, effort
- Members are asking for a mark to use today
- Other consortia have run into this challenge and used a two phased approach– the best chance of interoperability for devices prior to having a full interoperability program available
- AllSeen Alliance could execute on a two phase approach
  - **Phase 1:** Companies get to use “Designed for AllSeen” text on or with a product that passes self certification with a 3<sup>rd</sup> party authority confirming results
    - Limit for time period until Phase 2 is ready and then no longer allow **new usage**
    - Free members-only privilege **with ability for non-members also use to encourages products in market fast**
  - **Phase 2:** Full program requires passing services compliance tests + interoperability procedures tested by a lab -> get to use AllSeen Certified logo mark
    - When ready, implement full testing process and require full testing for use of the logo mark
    - Do not allow **new use** of the “Designed for AllSeen” option any more



# **C&C Program Elements**

# Core Elements of C&C Program

Element	Proposal	Rationale
1. Mark	One graphical logo trademark	Globally recognizable, simple to use in packaging, language/region independent. Cost efficient and easy to adopt by OEMs.
2. Service Descriptions (AllSeen Keywords)	Descriptive key words allowed in OEM's documentation only	Logo mark with 10+ service descriptions is too much space for a box or for consumers to really understand. The Alliance will define AllSeen Keywords that manufacturers can choose to use in the OEM's product documentation to describe services implemented. Alliance will not require these descriptors since they are outside the Mark. Alliance can only audit the Mark itself.
3. Meaning to Consumers	"a smarter connected device part of a larger AllSeen ecosystem"	Indicates to consumer this device has smarter, connected capabilities and the OEM's documentation provides details. The device is part of a larger ecosystem of AllSeen connected devices. The Alliance cannot define every user experience.
4. Minimum functional requirements by OEMs to get the Mark	Core + Any Service	Core alone provides consumers nothing. Any Service ensures the device does something. All devices must pass compliance tests for services implemented and pass interoperability procedures testing. If in the future, interoperability challenges arise due to non-standard implementation of services by OEMs on common device types, C&C Committee may pass more specific restrictions on OEMs to use the mark.
5. Jurisdictions	Tier 1, Tier 2 and select Tier 3	Minimize cost by scoping to relevant jurisdictions based on input from the Committee members.

# 1. Mark: One Graphical, Logo Trademark

- Provide simplicity around activation of consumer awareness around a new mark
- Other mark programs with multiple marks have consistently failed to drive awareness of differentiation between the marks with consumers
- Alliance budget supports implementation of a "one mark" strategy
- Keeps cost of implementing and policing a mark lower than alternative options that rely on filing for many marks based on many potential use cases and international audiences.



*Example of a possible logo mark with no associated text. Will work with Marketing Committee to create an appropriate logo mark.*

## 2: Service Descriptions: AllSeen Keywords

- Special “AllSeen Keywords” defined by the Alliance that would have restricted use in connection with the Logo Mark. The restrictions and rules will be defined in the Mark Usage Guidelines.
- Some AllSeen Keywords may be based on single service implementations, some may require multiple service frameworks.
- The Alliance Keywords are not mandatory as that may inhibit OEM adoption.
- The list will be updated by the Alliance time-to-time as new services are created and market demands require changes.

### Hypothetical Example...

AllSeen Keywords	Service Frameworks Required
Smart Notifications	Notifications
Smart Lighting	Lighting Service Framework Notifications
Smart FSA	Future Service Framework A Control Panel Notifications
Smart Future Appliance	Appliance Service Framework Notifications

# Example: How it all comes together

- Light bulb manufacturer implements AllSeen's Lighting Service Framework, Notifications and Core on a "smart" light bulb.
- Box includes the Mark. Product website includes the mark + AllSeen Keywords

The diagram illustrates how a smart light bulb manufacturer implements AllSeen's framework. It shows a product box, a website, and a list of features, all incorporating the AllSeen logo and keywords.

**Vendor packaging incorporates the logo mark only**

**Vendor uses Alliance Keywords in documentation**

**Vendor may also describe any proprietary capabilities of their device**

SmartCo Lighting's LED bulbs offer you the ability to leverage:

- **Smart Notifications** to notify you if you left your lights on when you leave the house
- **Smart Lighting** which can change the color of your lights
- SmartCo's proprietary RainLights service enabling your SmartCo lights to turn on when it rains outside

In addition, ACME Smart Light Switch will work with any other SmartMark device...

SmartCo Lighting LED LIGHTING INNOVATOR 20 0% WiFi CERTIFIED WARM WHITE 485lm 120volts 7.5w= 40w

### 3. Meaning to Consumers: The Mark means “a smarter connected device that is part of a larger AllSeen connected ecosystem”

- The mark should signify the promise of “a smarter connected device” that is “part of a larger AllSeen connected ecosystem” appealing to both consumers and vendors
- The mark should signify that this device is part of a larger AllSeen ecosystem of connected devices...including future connected devices you may buy several years from now.
- The Alliance has a goal to drive industry awareness for devices that have this mark as “best of breed IoT devices”
- The mark ensures that devices can discover and communicate with things nearby and does not restrict to a particular user experience
- OEMs will need to describe the user experiences they bring to life
  - The Alliance will recommend that Product documentation and marketing materials should describe specific capabilities and features. E.g. every manufacturer has a “Smart TV”, but what those TVs actually deliver is often different – consumers know to read further about specific capabilities. However, they understand that the Smart TV is likely internet connected and delivers content in new ways vs. “not Smart” TVs.
- **What the Mark is NOT:** trying to define every possible AllJoyn user experience



## 4. Requirements: Core + Any Service, Services Pass Test Suites, Interoperability Procedures

Minimal functional requirements for OEM to get the mark are implementing AllJoyn Core + Any Service from the AllSeen service codebase and then testing the Service(s) used.

If in the future, interoperability challenges arise due to non-standard implementation of services by OEMs on common device types, C&C Committee may pass more specific restrictions on OEMs to use the mark.

**Today AllJoyn has 6 Services:** Control Panel, About, Onboarding, Notifications, Configuration, Audio.

### 1. Must Pass Service Compliance Tests

1. Each device describes what services it implements via AllJoyn.
2. That device will then need to pass the Compliance Tests defined by the C&C WG for each service framework it has implemented to ensure the interfaces have been implemented correctly.

### 2. Must Comply with Interoperability Procedures

- The C&C Working Group will also define Interoperability procedures associated with the certain AllJoyn Service Frameworks to ensure devices that have those services are interoperable with “Golden Units” before they get the Mark

## 5. Jurisdictions: Tier 1 and 2, select Tier 3 jurisdictions

- All Tier 1 and Tier 2
- Tier 3: Select Jurisdictions Below:
  - Algeria
  - Barbados
  - Belarus
  - Bolivia
  - Costa Rica
  - Dominican Republic
  - Ecuador
  - Guatemala
  - Jamaica
  - Paraguay
  - Tajikistan
  - Thailand
  - Trinidad and Tobago
  - Turkmenistan
  - Uzbekistan
  - Vietnam



Worksheet

(Double click icon to open details on jurisdictions within Tiers)

# For Reference: Current Alliance Services

Here are the 6 current AllJoyn services (<https://git.allseenalliance.org/cgit/>) the Alliance has today with short descriptions

- **About:** Allows the app to advertise itself so other apps can discover it
- **Notifications:** Simple, standardized interface for sending and receiving human-readable messages. “The text message for the Internet of Everything”
  - Refrigerator could send a notification that freezer door has been left open for more than 5 minutes
  - This could be rendered on any consumer: mobile device, TV, set top box, etc...
  - Washing machine can send a notification when wash cycle is complete
- **Configuration:** Enables ability to set configurable persistent values
  - By default allows for a “Friendly Name” to be set. This name provides an end user the ability to specify a string that they can associate with the product, i.e. “Living Room TV”, “Patio Speaker”, “Garage Refrigerator” etc.
- **Onboarding:** Provides a standard way to get devices onto a Wi-Fi Network (Wi-Fi is needed)
- **Control Panel:** Infrastructure for exposing user interfaces for devices remotely
  - After receiving a notification that the oven has been on Broil for 5 minutes a user could bring up the oven’s control panel and change the setting to “bake at 250” to keep the food warm
  - A user could check the current values of a refrigerator (including current temperature) and modify the settings to make things hotter or colder as needed.
- **Audio:** Lets devices based on this framework leverage raw uncompressed audio playback or transmission.
  - Seamlessly discover and connect with AllJoyn-enabled audio devices for music or other audio playback. (e.g. doorbell, washer chime, baby monitor)



# **Product Changes & Certification**

# Types of Product Changes: Some changes may warrant re-certification, others may not. Example product changes include...

- Changes to Identifying Attributes
  - e.g. Name, System-Model, System-Id
- Change to Software
  - e.g. Addition of a Software Feature, Removal of a Software Feature, transport driver, a newer AllJoyn release
- Change Hardware Component
  - e.g. Change of Sensor. Clock. RAM/ROM, Processor
- Addition or Removal of non-AllSeen Software Features
  - e.g. Addition/Removal of a new non-AllJoyn software application, user interface changes that do not change AllJoyn functionality
  - NOTE: If a recompile of any software modules is required the change is considered a Change to AllJoyn Software.

# Derivative Products Certification

- “Derivative Products” applies to products that are related to a product that has already been certified. They could be different products in a company’s product line, or they could be the same product with bug fixes (e.g. software updates) or feature enhancements (e.g. a new model in Red).
- Not all derivative products may require a full-recertification
- The derivative certification process:
  - Defines types of changes to products
  - Defines types of actions required for changes
  - Maps changes to actions

# Potential Actions Required for Product Changes

## 1. “Type A”: Complete re-test done at Testing Lab or Self-certification

- This is done for changes that are considered significant enough that they may likely cause an interoperability or compliance failure in a device.

## 2. Derivative:

### a) Partial Retest

- This is done for changes that are limited in scope to a component of the system. These changes do not necessitate a complete retest, but do require documentation to be submitted detailing the change, and test suites that apply to the effected components to be re-run and re-submitted.
- C&C-WG will determine if the retest must be done in a lab or if some types of Partial Retests should be performed as self-certification tests.

### b) Certificate Update

- These changes are changes that do not affect functionality, such as form factor changes. These require an update to the currently held certification information, but do not require any retesting.

Change Type	Change Sub-Type	“Type A” Retest	Partial Retest	Certificate Update	Nothing Required
<b>Changes to Identifying Attributes</b>					
	Product Name			X	
	Model Number			X	
	System ID			X	
<b>Changes to Software</b>					
	Addition of non-AllJoyn, non-transport SW Features (e.g. Android OS update)			X	
	Removal of non-AllJoyn, non-transport SW Features			X	
	Transport Driver or SW change		X		
	New AllJoyn Release		X		
<b>Changes to Hardware Components</b>					
	Change to Transport component (e.g. WiFi, Bluetooth, other)	X			
	Change of non-Transport component (e.g. Sensor, Button)				X
	Change of essential hardware (e.g. Processor, Memory Size)		X		
	Non-functional change to Hardware (e.g. case, battery, color)				X





# **Transferring Certification**

# Transfer Certification Policy Overview

- Allows a product that is certified by one company to transfer to another company without further certification testing.
  - For example, an automotive infotainment supplier certifies its units for AllSeen, ships to auto manufacturer for inclusion in a car.
- Requires an Alliance policy for “copying” an existing product certification from one member company to another member company
- **C&C WG Proposed Transfer Policy:**
  - Product certification can be transferred an unlimited number of times to an unlimited number of member companies. However, only 1 transfer in chain from certifying company to transferee. Each transfer must be recorded. (See next 2 pages)
  - A certification transfer is intended for re-branded products
  - Hardware changes associated with cosmetic packaging
  - Software changes associated with GUI and re-branding
  - Transferred certification becomes independently owned by the receiving member (no burden on member who tested product at lab)
  - Receiving member accepts all future certification responsibilities, including adherence to brand guidelines

# Transfer Policy Scenarios

Member A



Tested and Certified

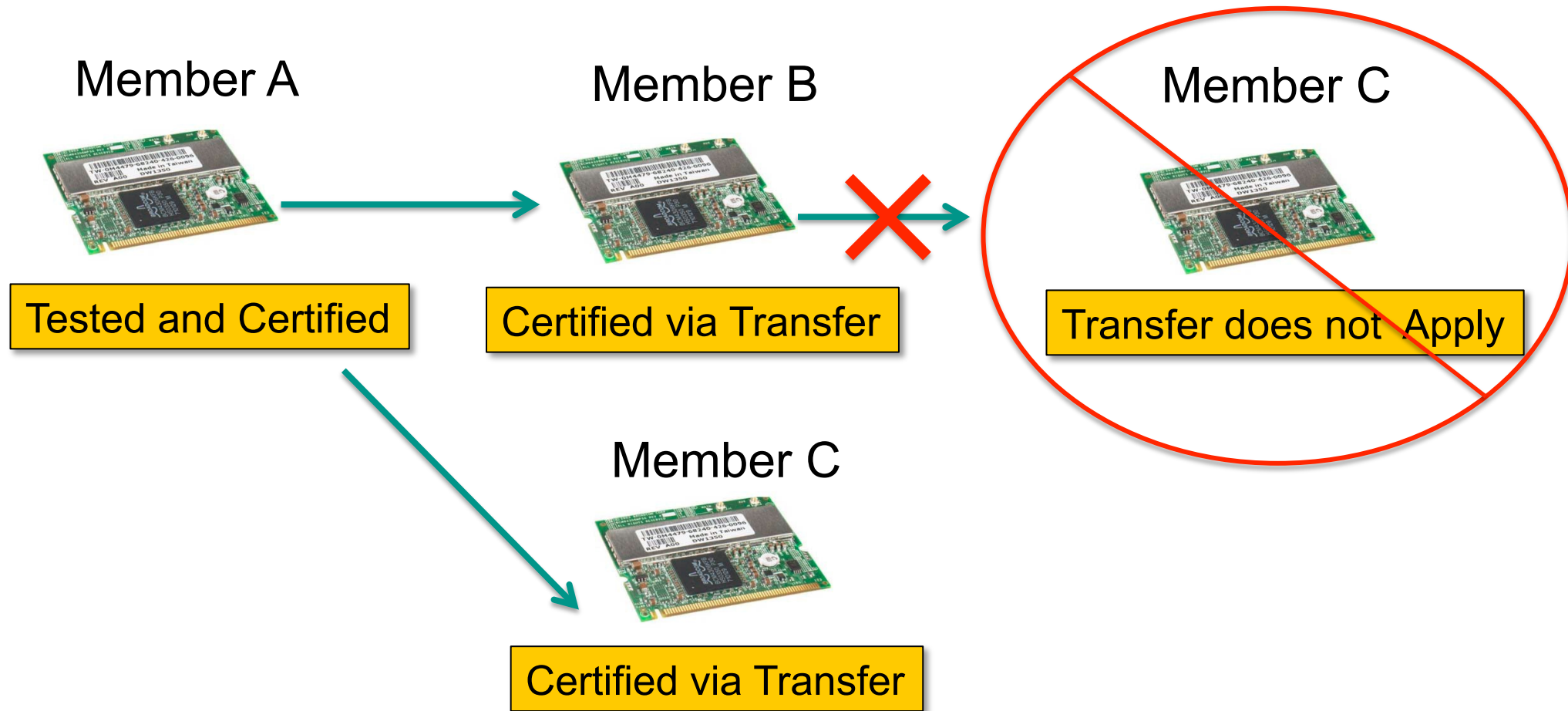
Member B



Certified via Transfer

# When a Transfer is NOT Allowed

*Only one degree of separation from tested product is allowed*



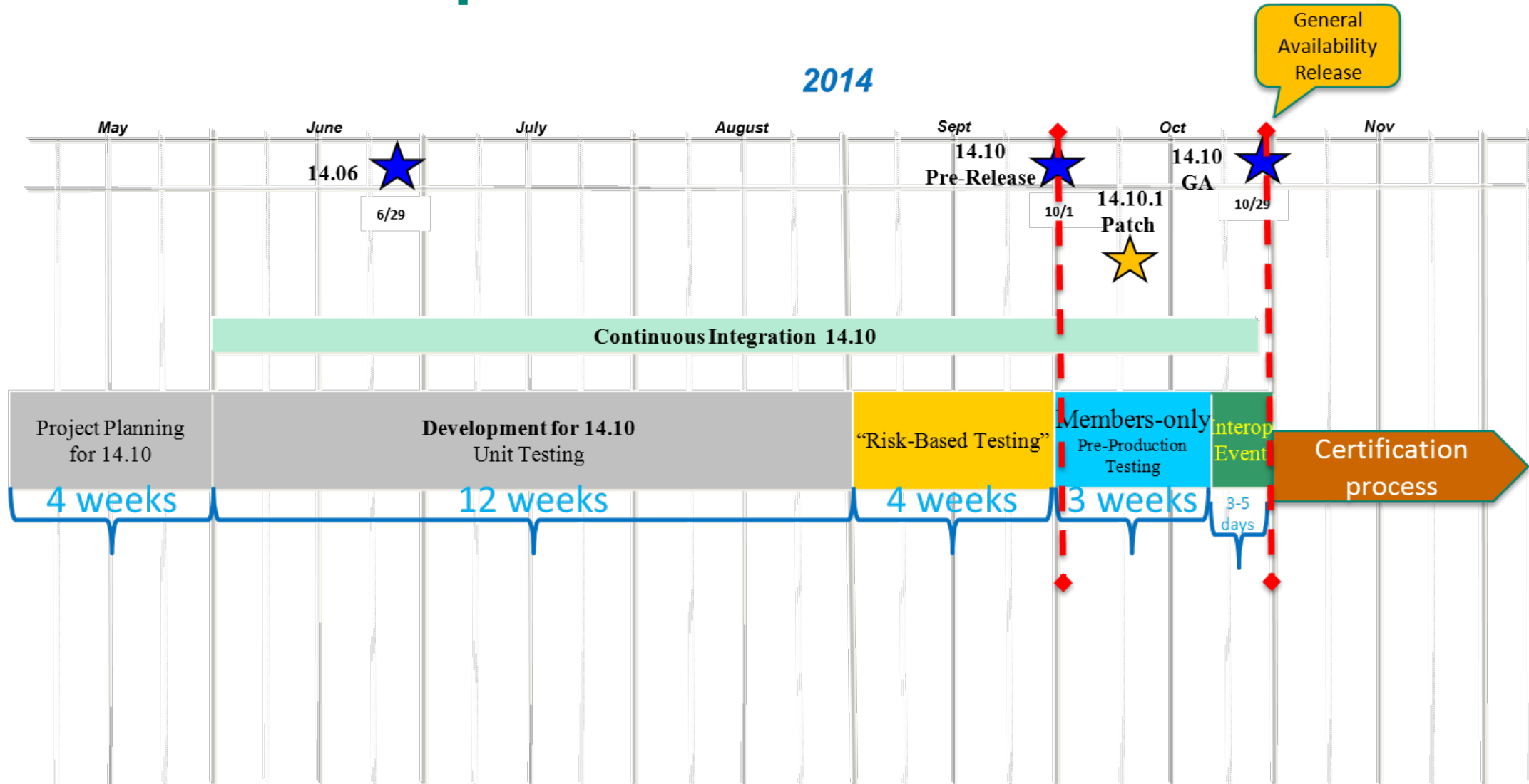
# Process for Transferring Certification

- Complete a transfer certification application through the Certification System
- Must provide a complete description of the differences between the suppliers' product and the receiving company's product
- After a product certification has been transferred, the receiving member may designate the product as a parent module and create dependent products

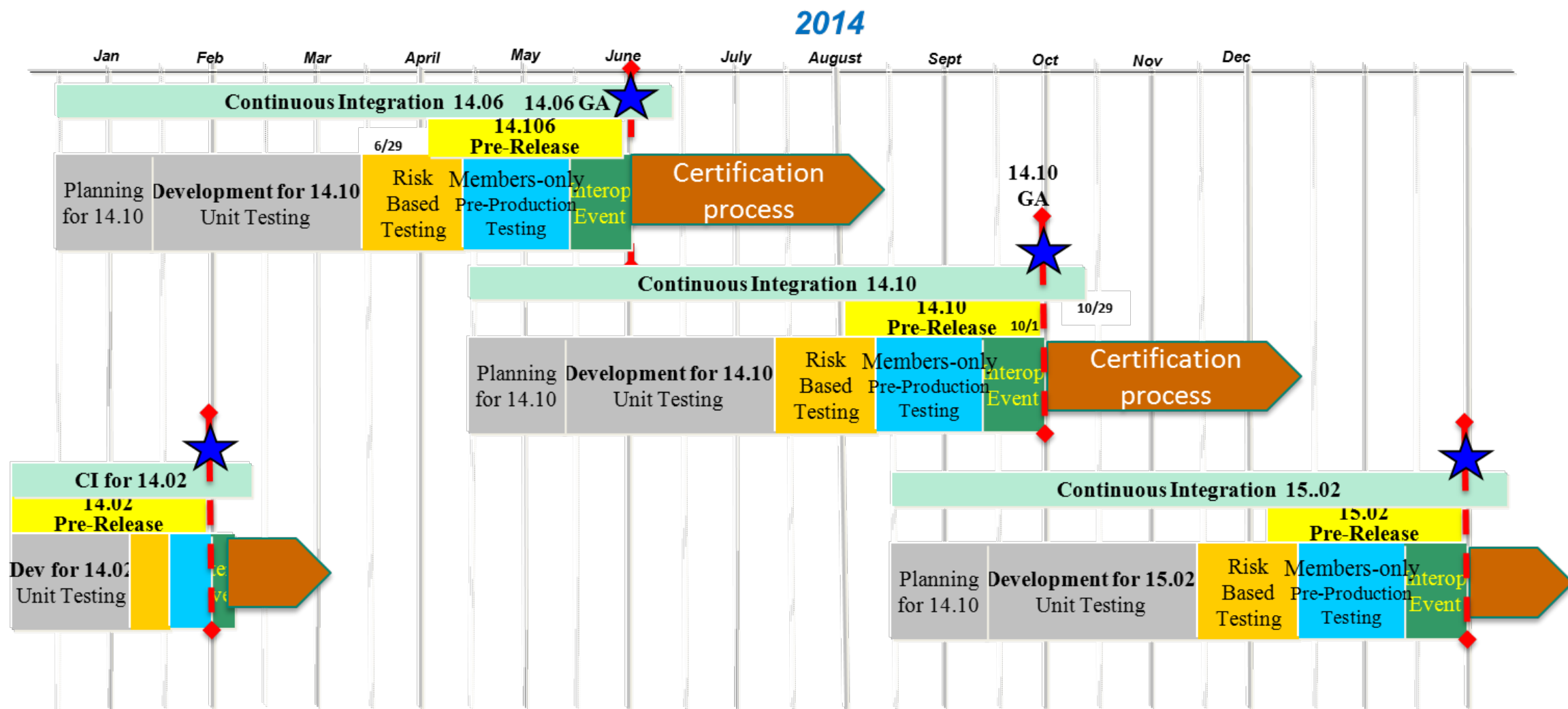


## **Release & Certification Timeline Examples**

# Timeline example for 1 AllSeen release




# A full year of releases and certification cycle







# Thank you

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