

DLNA Overview

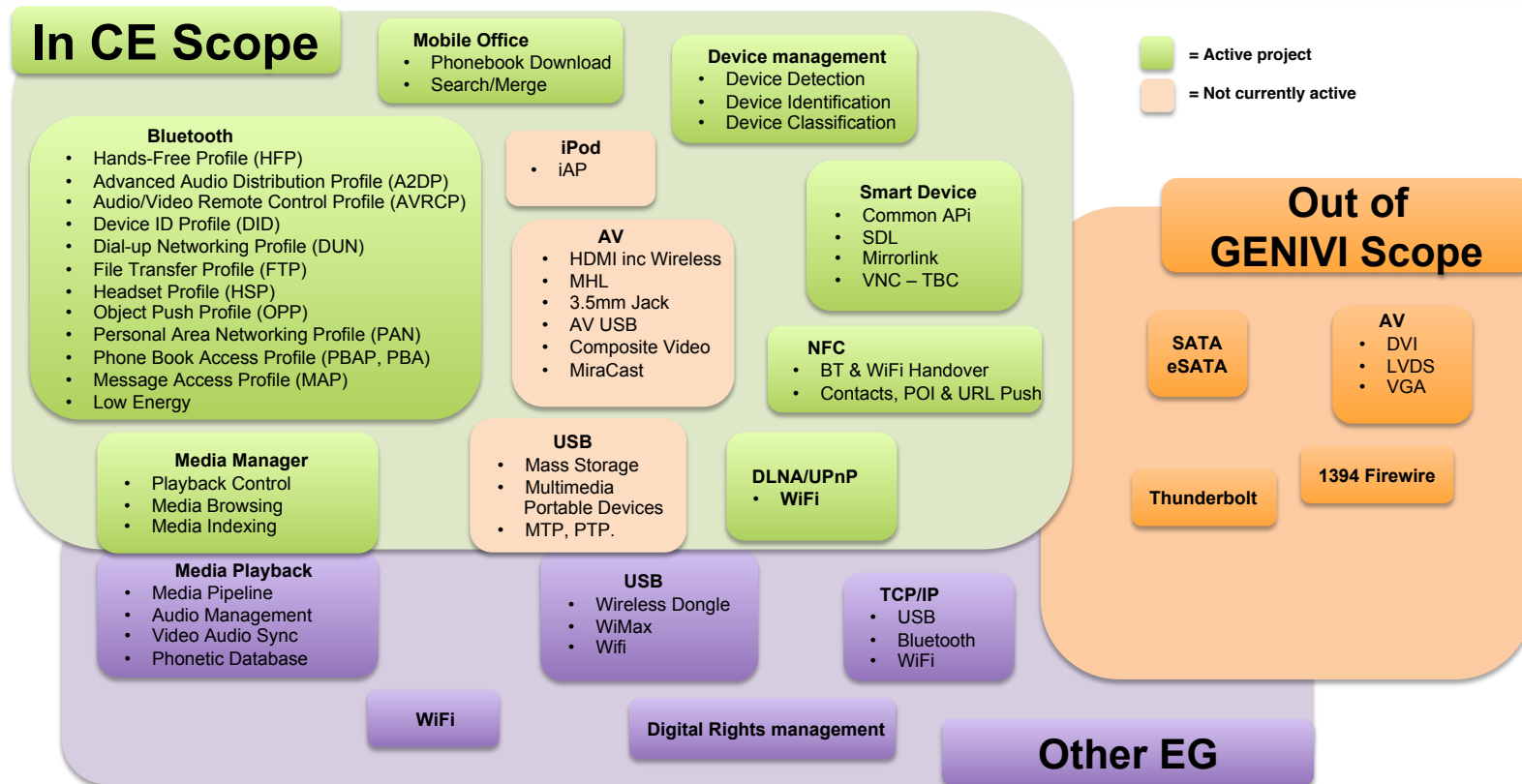
26th April |

Paul Wiles
CE Group Lead
Jaguar Land Rover

5-Oct-15

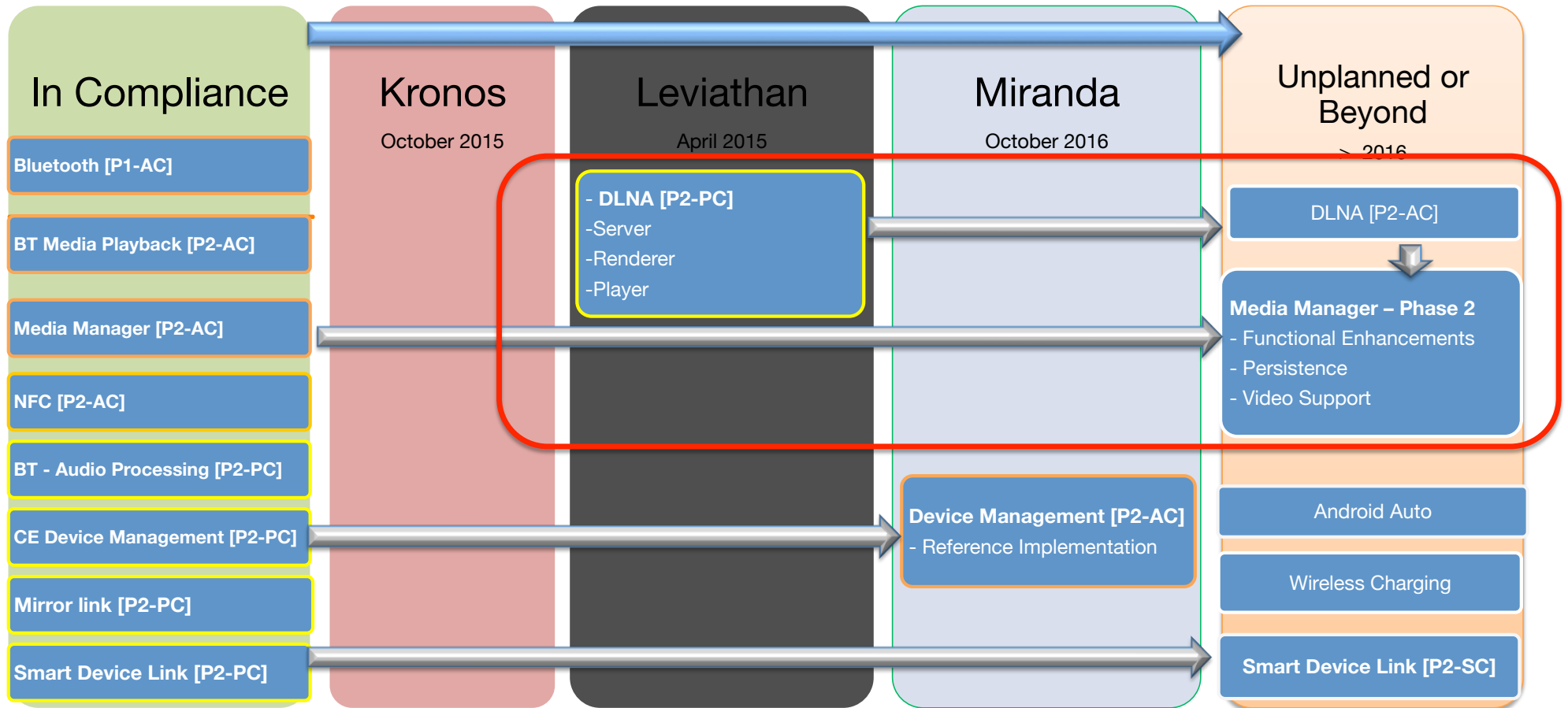
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CE EG Scope

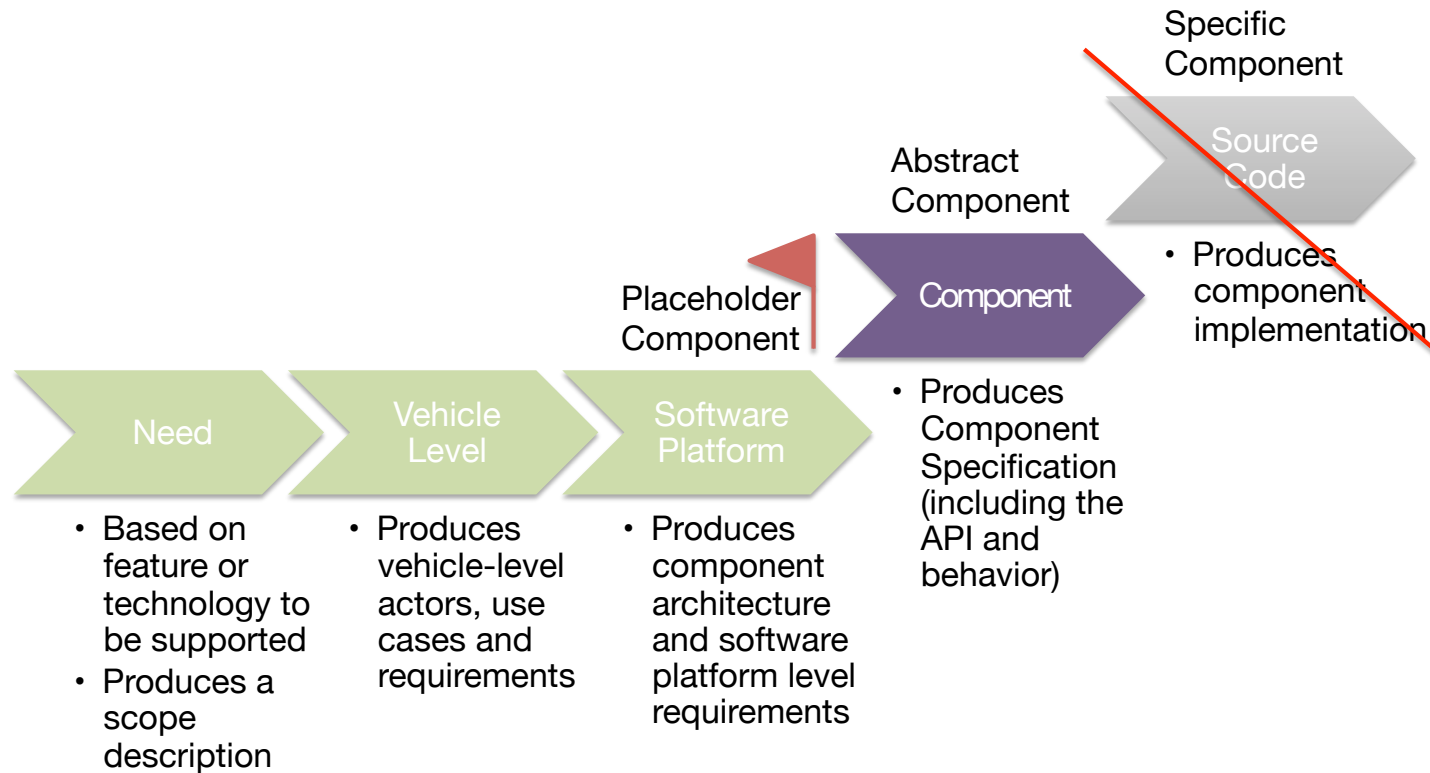




CE EG Components Roadmap



DLNA Status





Placeholder Links.

Need

<https://collab.genivi.org/wiki/display/genivi/DLNA+Requirements>

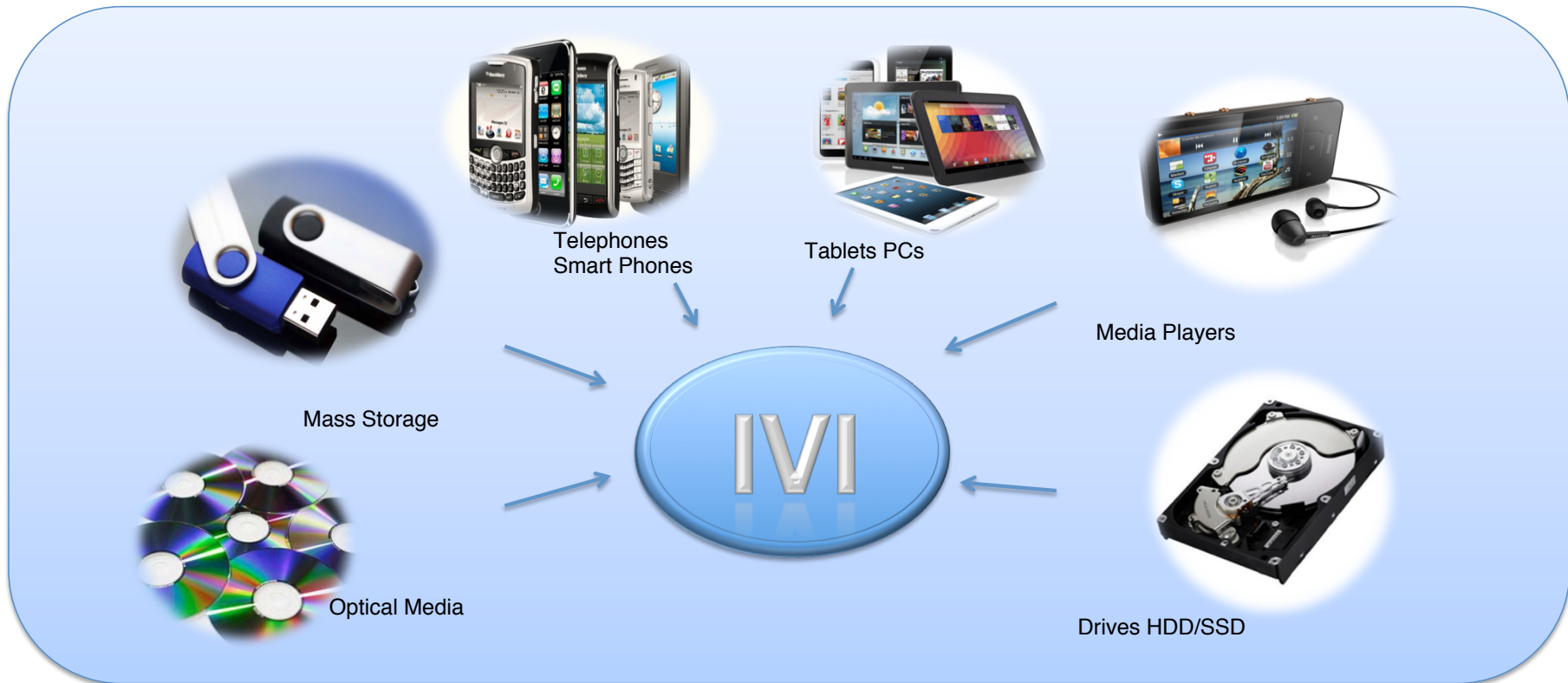
Vehicle
Level

<https://collab.genivi.org/wiki/display/genivi/DLNA+Use+cases>

Software
Platform

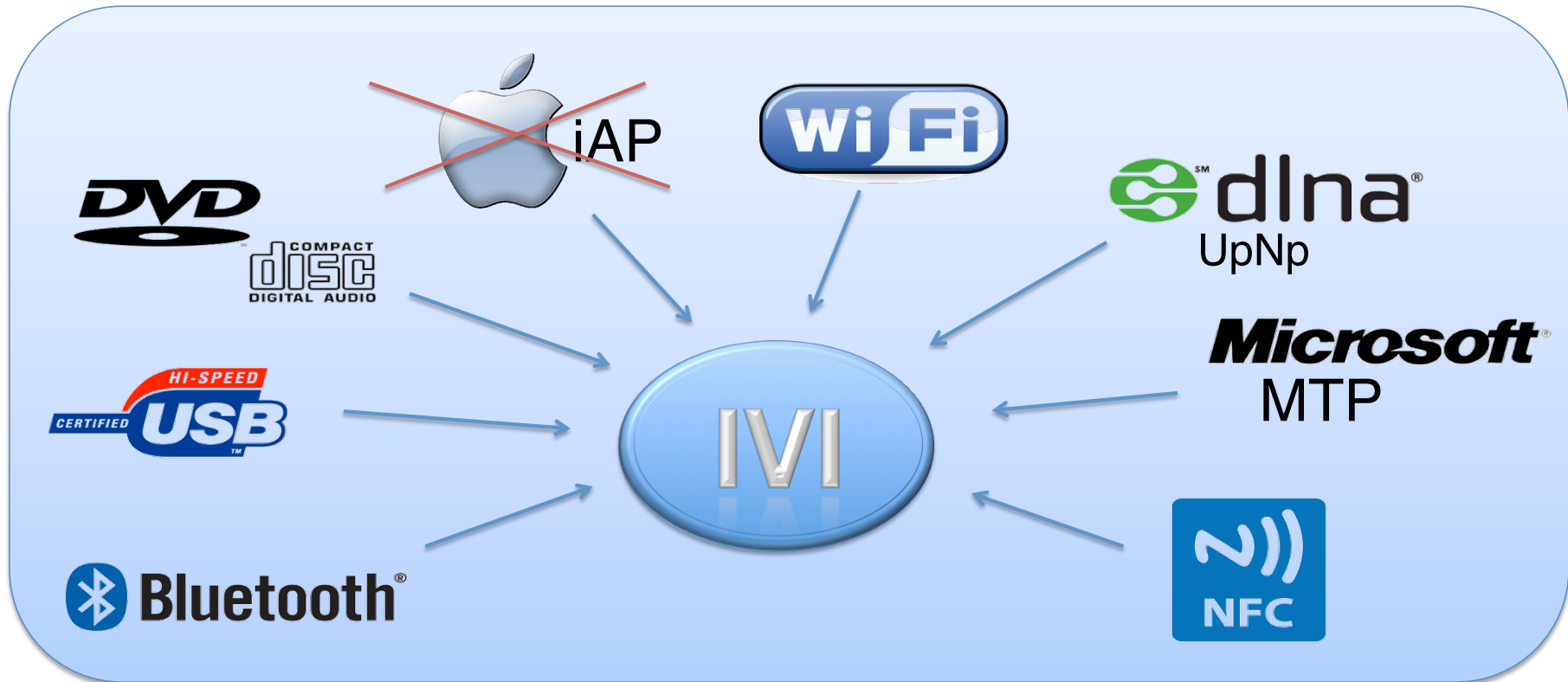
<https://collab.genivi.org/wiki/pages/viewpage.action?pageId=29557013>

CE Connectivity



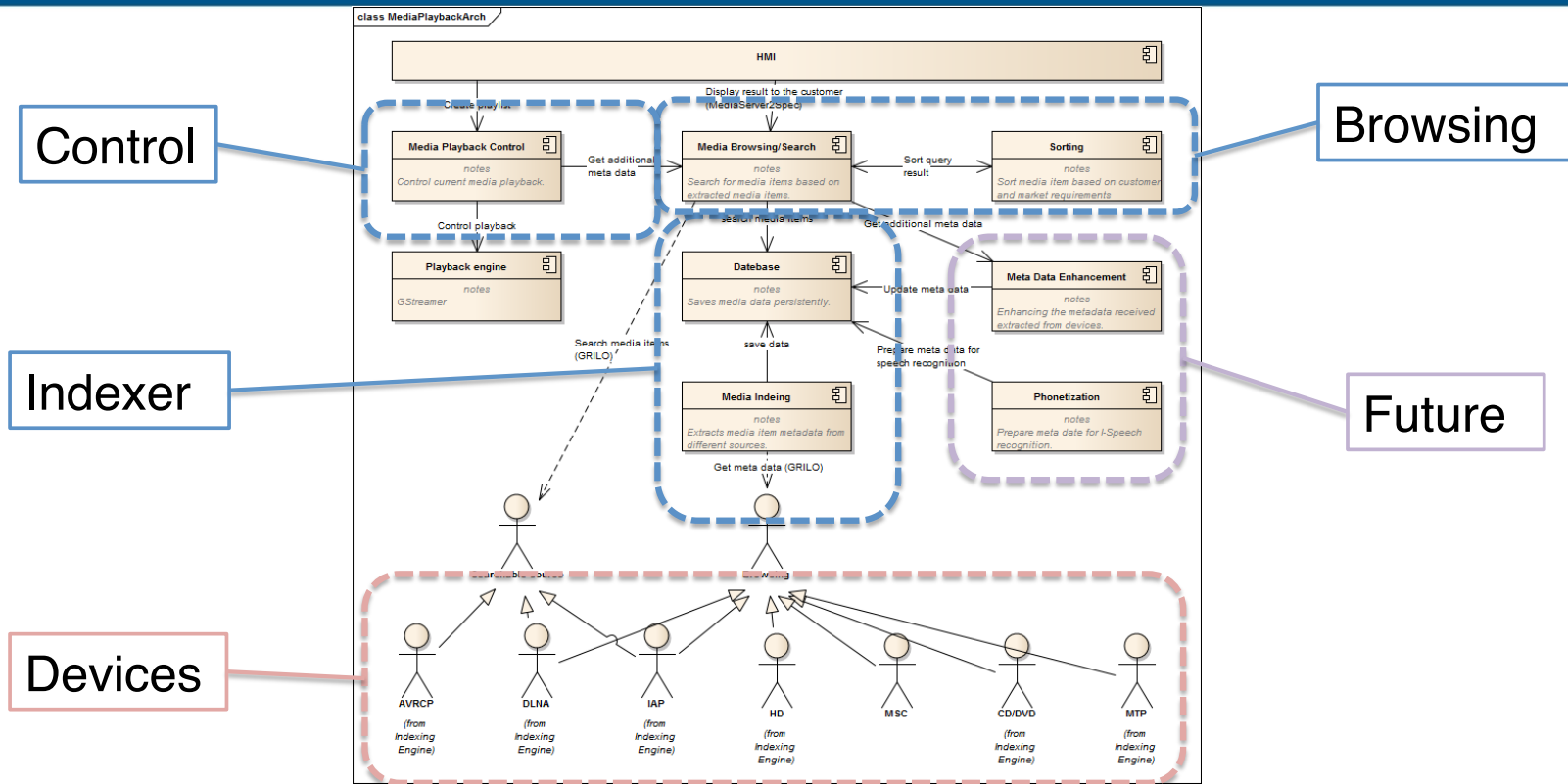


CE Technology "Enablers"



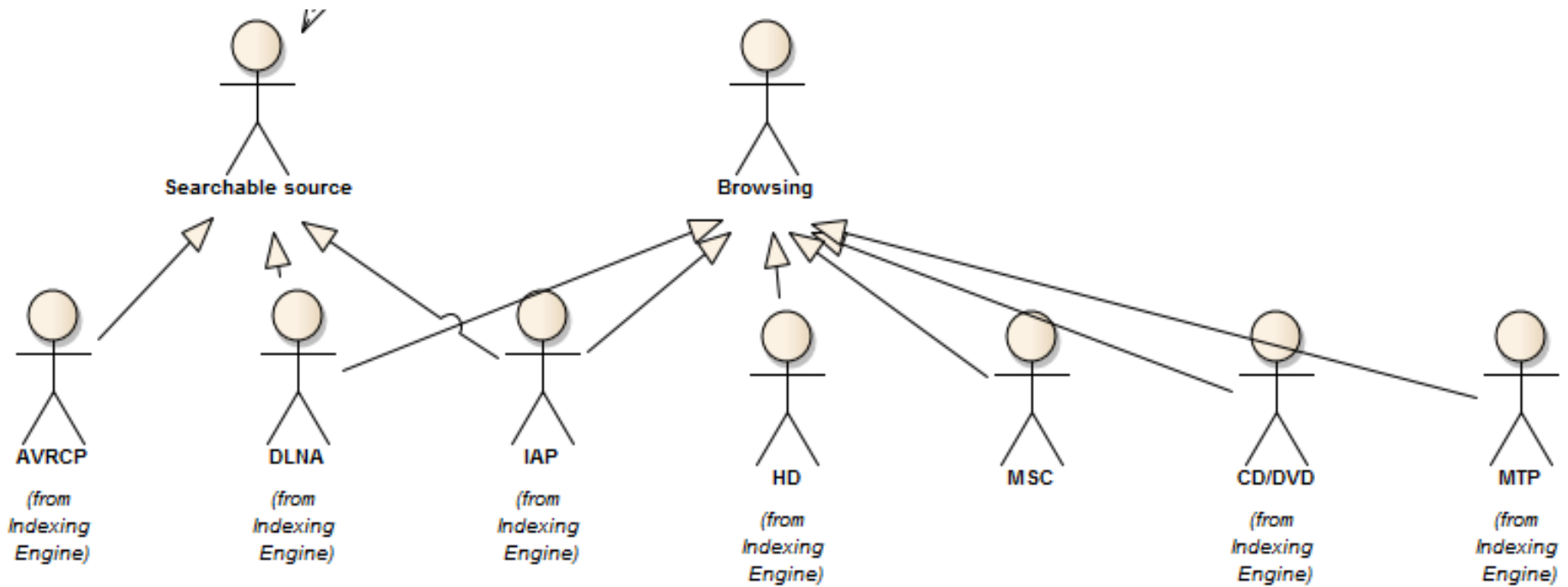


Media Manager architecture considerations





Media Manager architecture considerations





Example System software Requirements.

Alias	Title	Description	Priority	Originator	State	Co
Client side APIs for Digital Media Servers						
SW-DLNA-001	Search for Digital Media Servers	The DLNA stack shall search for available DMSs within the available network interfaces. The search shall operate in background mode. Upper layers will be informed about the results of the search operation. The list of found DMSs will be provided to the upper layers	P1	Hatem Oueslati	Approved	
SW-DLNA-002	Rescan for Digital Media Servers	The DLNA stack shall provide a method for re-scanning the available DMSs within the available network interfaces. The rescan shall be able to operate in background mode. The list of discovered DMSs is refreshed and provided to the upper layers	P2	Hatem Oueslati	Approved	
SW-DLNA-003	Notify when Digital Media Servers appear and disappear from the network	The DLNA stack should provide a method of notifying client applications when a new Digital Media Server joins the network or an existing server leaves the network.	P2	Hatem Oueslati	Approved	
SW-DLNA-004	Expose Digital Media Server details	The DLNA stack shall provide clients with the details of a discovered Digital Media Server. The details include the name, the device type, the icon, the version of the server	P1	Hatem Oueslati	Approved	
SW-DLNA-005	Expose Digital Media Server capabilities	The DLNA stack shall provide clients with the list of capabilities of a discovered Digital Media Server, e.g., search, sort, delete, synchronize, upload and download content, create containers.	P1	Hatem Oueslati	Approved	
SW-DLNA-006	Provide the ability to browse the directory hierarchy of a Digital Media Server	The DLNA stack shall allow client applications to browse the directory hierarchy published by a DMS. Its APIs should allow clients to ask the DMS to sort the results of a browse request and to specify filters that limit the types of meta data included in its results.	P1	Hatem Oueslati	Approved	



DLNA Use Cases – Only High Level Covered.

Activation & Deactivation
Start-Up
Shut-down
Activate DLNA
Source switching

Server browsing
Media Control

DMS Management
DMS available
DMS unavailable
Select Digital Media Render



▼ Start-Up - Reviewed version

Use Case ID	UC-DLNA-001
Use Case Title	DLNA Media Player Start-Up
Created by	JLR
Reviewed by	EGCE
Scope	
Actors	System
Description	The purpose of this Use case is to define the behaviour of the system when the DLNA Media Player (DMC) is started

Trigger:

1. DLNA Media Player application is started by the user.

Preconditions:

1. One or more Media Server(s) and the ECU are part of the TCP/IP network.

Main Flow:

1. System searches for all available Media Servers.
2. System finds/discovers one or more Media Servers available on the network
3. System raises the "Device available" event for every Media Server found.
4. The use case ends here.

Post-conditions:

1. "Device Available" event is raised for available Media Servers

Notes:

The IVI system must support the Digital Media Controller (DMC) client to interact. Searching for media servers may be subject to search timeout window



Playback carried from Media Manager.

Play - Pause - Stop - Fast Forward - Fast Rewind

Select Next - Select Previous

End of Media Item Reached Event

Set Repeat Mode - Enable Shuffle - Disable Shuffle

Get Track Status - Set Media Item Time

Media Item Unavailable Event



Target - Spring 2016 Abstract

- Fuller Set of Use cases.
- APIs to meet needs of use cases.
- Open Reference Code to prove APIs.
- Interface
- Documentation.



Collaboration



5-Oct-15

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DLNA in the car

Robert Guest.

ACCESS