



# FSA demo platform, a tutorial

27-04-2016/ 2 h | Technical study

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# Purpose of the presentation

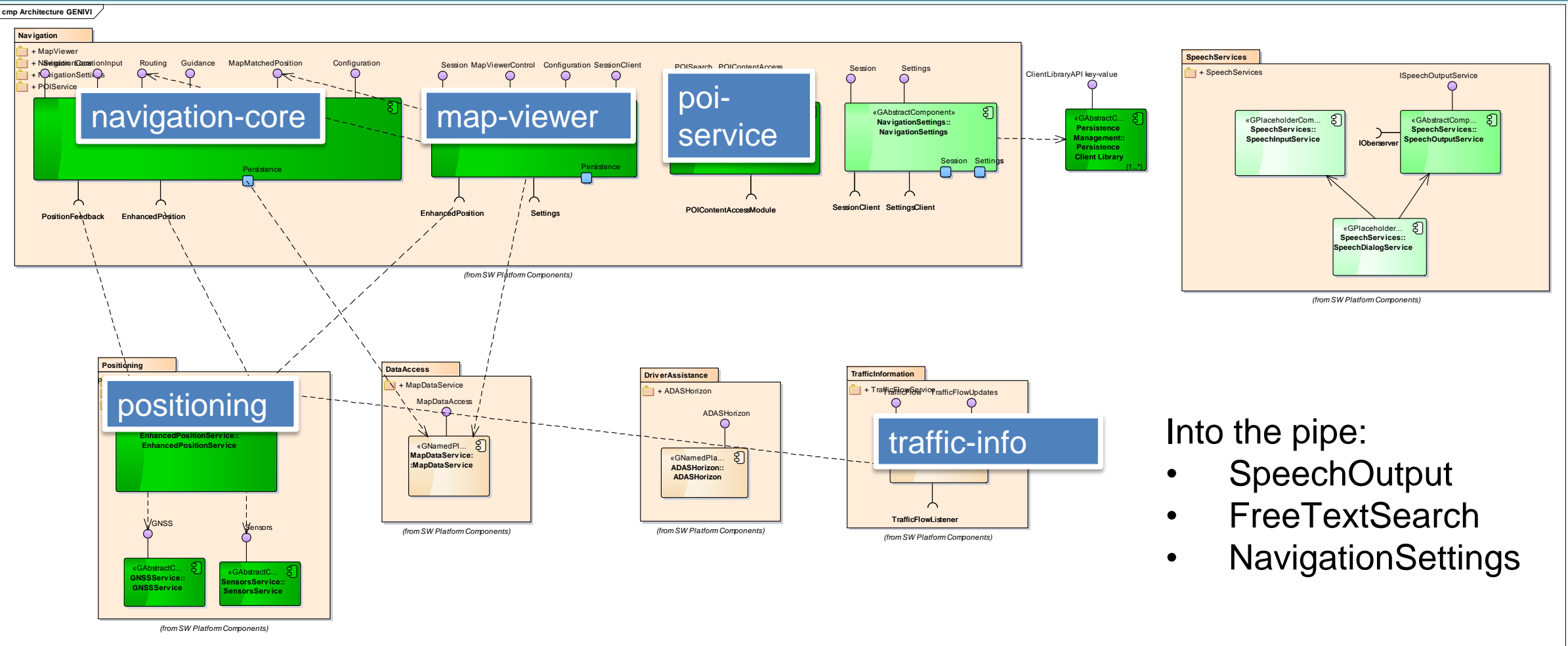
- To figure out why working on FSA and how expandable it could be
- To get an overview of the available APIs, code, test scripts
- To give your feedback about all that stuff

- LBS-EG APIs portfolio
- Work in progress
- Proof Of Concept
- Fuel Stop Advisor
- Test tools

Reminder on existing set of interfaces

# **LBS-EG APIS PORTFOLIO**

# Portfolio of interfaces (april 2016)



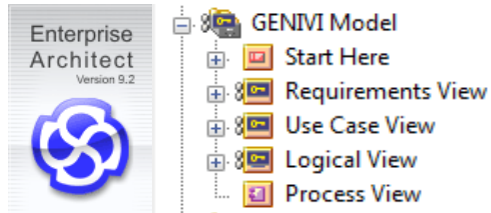
- Into the pipe:
- SpeechOutput
  - FreeTextSearch
  - NavigationSettings

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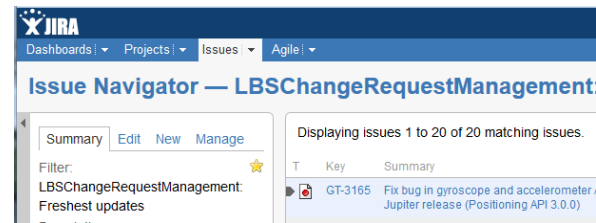
Use cases and requirements into an UML model



APIs, documentation and code of proof of concepts

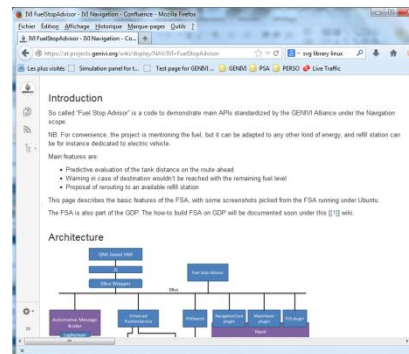
[git.projects.genivi.org /](http://git.projects.genivi.org/)

Change request management by Jira issues



+ other GENIVI tools

IVI Navigation Web portal



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# Interface release and proof of concept

## The 8.0 Platform Compliance Specification

NavigationCore [P2-AC] V3.0.0  
- Location input, Route calculation  
- Guidance

MapView [P2-AC] V3.1.0  
- Viewer control  
- Display map and geo-localized content

TrafficInfo [P2-AC] V1.1.0  
- Traffic Incidents

POIService [P2-AC] V1.0.0  
- POI Search  
- POI Content Access Module

Positioning  
- SensorsService [P2-AC] V4.0.0  
- GNSSService [P2-AC] V4.0.0  
- EnhancedPositionService [P2-AC] V3.0.0

[git.projects.genivi.org / lbs/navigation-application.git](https://git.projects.genivi.org/lbs/navigation-application.git) / shortlog

[summary](#) | [shortlog](#) | [log](#) | [commit](#) | [commitdiff](#) | [tree](#)  
first · prev · next

lbs/navigation-application.git

2014-12-08 <philippe...> wrap some qml text [jupiter\\_release](#) [MAP-3.1.0](#) [NAV-3.0.0](#) [POI-1.0.0](#)

Proof of concept for navigation  
Fuel Stop Advisor

[git.projects.genivi.org / lbs/navigation.git](https://git.projects.genivi.org/lbs/navigation.git) / shortlog

[summary](#) | [shortlog](#) | [log](#) | [commit](#) | [commitdiff](#) | [tree](#)  
first · prev · next

lbs/navigation.git

2014-12-15 philippe colliot remove alpha from the DBus xml API definition [jupiter\\_release](#) [MAP-3.1.0](#) [NAV-3.0.0](#) [POI-1.0.0](#) [TRA-1.1.0](#)

APIs and proof of concept

[git.projects.genivi.org / lbs/positioning.git](https://git.projects.genivi.org/lbs/positioning.git) / shortlog

[summary](#) | [shortlog](#) | [log](#) | [commit](#) | [commitdiff](#) | [tree](#)  
first · prev · next

lbs/positioning.git

12 days ago Marco Residori GT-3168 - Fix note in ComplianceSpecification [jupiter\\_release](#) [master](#) [ENPOS-3.0.0](#) [GNSS-3.0.0](#) [SNS-3.0.1](#)

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# LBS EG Roadmap

## TODAY

### In Compliance

NavigationCore [P2-AC] V3.0.0

- Location input, Route calculation
- Guidance

MapViewer [P2-AC] V3.1.0

- Viewer control
- Display map and geo-localized content

TrafficInfo [P2-AC] V1.1.0

- Traffic Incidents

Positioning [P2-AC] V3.0

- SensorsService V4.00
- GNSSService V4.00
- EnhancedPositionService V3.0.0

POIService [P2-AC] V1.0.0

- POI Search
- POI Content Access Module

SpeechService [P2-PC]

- SpeechInput
- SpeechOutput
- SpeechDialog

### Leviathan

Web APIs: POC

FSA in GDP

Positioning

- GNSSService V4.00

### Miranda

Free Text Search [P2-AC] V1.0.0

POI Service [P2-AC] V1.1.0

SpeechService

- SpeechInput [P2-PC]
- SpeechOutput [P2-AC]
- SpeechDialog [P2-PC]

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# Existing POCs

Status of the Proof Of Concepts								
Project	API version	Maintainer	Repository	Git tag	Franca file	Common API	Note	Road map
Positioning	3.0.0	Marco and Helmut	<a href="#">server and test scripts</a>	ENHPOS-3.0.0 GNSS-3.0.0 SNS-3.0.1	draft	NO	---	---
Traffic incidents service	1.0.0	Peter	<a href="#">server and client</a>	TRA-1.1.0	draft	NO	---	---
NavigationCore and MapViewer	3.0.0	PhilippeC	<a href="#">server client</a>	MAP-3.1.0 NAV-3.0.0 POI-1.0.0	draft	NO	---	---
POI Search	1.0.0	PhilippeC	<a href="#">server client</a>	POI-1.0.0	draft	NO	---	Update planned for L release
POI CAM with add/remove feature	0.1.0	PhilippeC	<a href="#">server client</a>	---	draft	YES 3.1.5	Basic test under GTK and output to the console	Update planned for L release
Fuel Stop Advisor	1.0.0	PhilippeC	<a href="#">application</a>	ENHPOS-3.0.0 GNSS-3.0.0 SNS-3.0.1 MAP-3.1.0 NAV-3.0.0 POI-1.0.0	draft	NO	---	Updated for each release

Hot topics

# **WORK IN PROGRESS**

- POC for navigation web APIs:
  - nodejs + socket.io
  - C++ addon (V8 library)
  - Replacement of navigation locale and units menu with HTML one
  - Test panel for the FSA

# Alignment of Franca IDL

- Purpose: to make Franca IDL a reference for the interfaces
- For compatibility reasons, the DBus xml and the Franca IDL will be maintained in parallel
- 95% of the alignment is done, review process to start
- Decision to stick to Common API approach for enumerations and variants:
  - DBus ‘i’ signature for enumerations (int32\_t)
  - DBus ‘yv’ signature for variant (struct of uint8\_t, variant)
- Still some issues with the path naming ?

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Reminder of main features

# **FUEL STOP ADVISOR**

# FSA: what's for ?

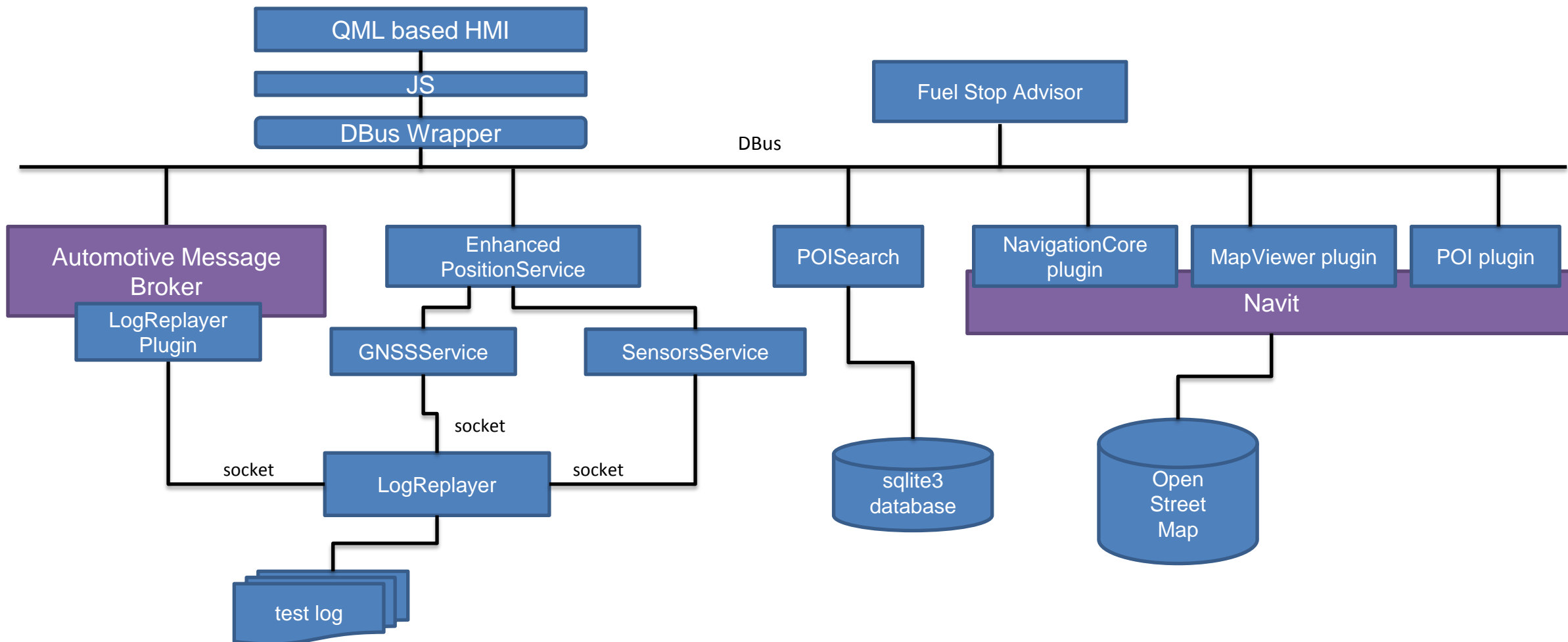
- Predictive evaluation of the tank distance on the route ahead
- Warning in case of destination wouldn't be reached with the remaining fuel level
- Proposal of rerouting to an available refill station

# FSA has been 'pushed' to GDP mainstream



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# FSA architecture today



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# Pending points and evolutions

- Documentation still needs to be improved
- AMB not maintained, it may be necessary to replace it by other solution
- In the roadmap: Speech Output, persistence, HTML based HMI, connection to off board POI source ...