

# Generic Communication Protocols Evaluation Project

★ *What is this?* Please refer to the [projects overview page](#) for a quick introduction, then for more details, the [Kickoff slides](#), and [recording](#).

## The project is completed.

- FARACON tool delivered, look [here](#).
- Published papers [here](#).

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### Historical meeting details

- Link to Zoom meeting: <https://zoom.us/j/741931761>
- ID de réunion : 741 931 761
- For local dial-in, visit : <https://zoom.us/u/aeDLu354w5>
- Agenda
  - Data & interfaces modeling (continuation of last week's discussion)
  - FARACON: wki page and linkedin post for dissemination
  - AOB

## Webinar: delivered twice on 24 & 25 September

- Title: Franca / ARA::COM Interoperability - Establishing interoperability of Linux-based systems and Adaptive AUTOSAR systems by model-to-model transformations
- [slide deck](#)
- [recording](#)
- latest release (v0.9) of the transformation tool: [franca\\_ara\\_tools/wiki/FARACON-Developer-Guide#how-to-build-the-command-line-tool-from-source-repository](https://github.com/franca_ara_tools/wiki/FARACON-Developer-Guide#how-to-build-the-command-line-tool-from-source-repository)

[Meeting Minutes](#) use link

[Presentations Materials](#) use link

## Project pages (list)

- [\[GPRO\] REST/HTTP](#)
- [AMM informal GPRO poll](#)
- [Android](#)
- [Bench-marking of different protocols & technologies](#)
- [CoAP](#)
- [CommonAPI overview](#)
- [Evaluation criteria for GPRO technologies](#)
- [Franca/ARA::COM Demo](#)
- [Franca+](#)
- [Franca-ARA Stage 2 Project](#)
- [GPRO Meeting Minutes](#)
- [GPRO - Presentations Materials](#)
- [GPRO Whitepaper](#)
- [List of relevant technologies](#)
- [Overview of a few communication protocols/technologies](#)
- [Poll - Your favorite protocols](#)

## Definitions

**Generic Protocol** (in this context):

"Network (\*and d IPC) protocols acting primarily as a transparent data carrier, applicable to many different application domains, but including convenience features above that of a plain data stream (socket). For example: data encoding, segmenting, opaque target addressing, routing, peer authentication, delivery guarantee, data integrity and service-discovery."

- In other words, we are concerned with OSI model levels 5-6 (approx.)
- To reduce scope – focused on segmented segmented, atomic, event/message event/message- based semantics more than "streaming data"
- \*IPC needs to be in scope, because of shared parts (data encoding) similarity, and that network-transparency is often a design goal.

<Single "project" definition to be copied from GA slide deck and then edited.>

## Project Goals

Please view the introduction [in this slide deck](#)

## Use cases

Information about real-world functions (ideally from user perspective) to anchor the technical discussion.

**FILL IN HERE!!!**

### Philippe C

NB: see the target architecture in the attached [file](#)

The vehicle position computed in the telematic box shall be provided to applications carried by the smartphone

- the vehicle position is either raw (i.e. coming from the GNSS sensor) or estimated (i.e. computed by a dead reckoning algorithm)

Transmission of data shall be seamless

- to avoid mismatch between data types
- to reduce diversity of specifications by using a common format

**Requirements:**

### Evaluation criteria for GPRO technologies

## List of relevant technologies [use link](#)

## Comparisons of different communication protocols/technologies

- [Overview Page containing one-paragraph summaries](#) of REST/JSON/XML/SOAP.
- When survey/knowledge sharing phase winds down, the [Evaluation Criteria page](#) should be extended, eventually leading to comparisons and possibly recommendation.

## Feature Selection

- We looked at the possibility to use feature-modeling tools (example: [Feature IDE](#)) to encode a database (model) of possible protocol features. Normal use of such tools is rather to define how a system can be configured, including all constraints, and then to present a UI to do that configuration (i.e. [selecting](#) features rather than comparing solutions), but it could be useful.
- Feature Selection tooling is definitely useful for complex feature modeling, so it's worth knowing about it and documenting it. See **May 15, 2018** in the [Minutes](#) .

★ The video is being recoded and combined into one. New (smaller) version is coming soon:

Introduction slide:



Presentation (⚠️ file is still truncated, please look for an updated version soon).



Franca-ARA-mod...5September.mp4