

# 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](#).

## Next call

### ★ Generic Communication Protocols Evaluation

**Next call: 16 April 2019**

#### Agenda

- Franca-ARA Stage 2 project - test cases
- transformation tool safety
- next step: Franca+
- AMM workshop preparation
- AOB

#### Zoom Meeting

- Register in advance for this meeting: Registration link (to be updated)
- Meeting link: <https://zoom.us/j/741931761>
- Zoom Meeting Number: 741 931 761

**Meeting Minutes** [use link](#)

**Presentations Materials** [use link](#)

## Project pages (list)

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

## 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

*<to be copied from GA deck and then edited>*

## Use cases

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

**FILL IN HERE!!!**

*Unknown User (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](#).