

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 Tuesday, December 11, 11:45 CET

Agenda

- scrum call for the CES 2019 showcase demo implementation
- proposal for a final deliverable content related to the generic communication protocol comparison

Zoom Meeting

- Register in advance for this meeting: [Registration link](#)
- Zoom Meeting Number: 946-772-269
- Password: gpro

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](#)

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!!!

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](#) .