Open Workshop on the Future Internet Architecture Design Principles
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February 2012
Why did TCP defeated OSI TP4?
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... because there was an usable API (the BSD Socket Library)
Should the Future Internet Network be middleware-aware or middleware-friendly?
Should the multi-tier nature of Application Architectures be bear in mind while designing the Future Internet Network?
FI-WARE: Building Open APIs for Developers aiming to deliver useful applications

Usability tested through a number of projects linked to specific usage areas
FI-WARE Technical Chapters

FI-WARE may bring the application-oriented middleware perspective to the debate
Thanks !!

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Creating a solid basis for the Internet of the Future
A product is useless without a platform, or more precisely and accurately, a platform-less product will always be replaced by an equivalent platform-ized product.

We don’t do internal service-oriented platforms, and we just as equally don’t do external ones. This means that the "not getting it" is endemic across the company: the PMs don’t get it, the engineers don’t get it, the product teams don’t get it, nobody gets it.

But making something a platform is not going to make you an instant success. A platform needs a killer app.
The FI Core Platform comprises a set of technological “Generic Enablers” which are considered general purpose and common to almost any “usage areas”

Generic Enablers (therefore, the FI Core Platform) will provide open interfaces:
• To Application Developers (APIs)
• To support interoperability with other GEs (need for replacement)
What is a FI-WARE Generic Enabler (GE)?

- The implementation of a FI-WARE Generic Enabler (GE) becomes a building block of a FIWARE Instance.

- Any implementation of a Generic Enabler (GE) is made up of a set of components which together supports a concrete set of Functions and provides a concrete set of APIs and interoperable interfaces that are in compliance with open specifications published for that GE.

- There might be multiple compliant implementations of a given GE.

- Each Architecture Chapter in FI-WARE will lead to definition of a set of GEs.
FI Core Platform Architecture: main chapters

- Service delivery
- Cloud Hosting
- Internet of Things
- Context/Data Management

Interface to the Network

Developer tools
Principles about IPRs

- **Specifications** of APIs (Application Programming Interfaces) and Interoperable Protocols supported by FI-WARE Generic Enablers (GE) **will be open and Royalty-free**

- The FI-WARE project will deliver a **reference implementation** for each of the GEs defined in the FI-WARE Architecture
  - Some components of these reference implementations may be closed source while others may be open source
  - The concrete open source license selected by the owning partners who work together in the implementation of a given component will be agreed by them, taking into account the Access Rights obligations and avoiding any impact on other Project partners and their work packages

- **License terms:**
  - No costs within the FI-PPP program,
  - FRAND conditions outside the FI-PPP
Future Internet Applications run on top of “FI Core Platform Instances” built upon selection and assembly of “Platform Products” implementing “Generic Enablers” of the “FI Core Platform”

Use Case trials will consist on application scenarios running on top of FI Core Platform Instances, involving real users
Creation of FI-WARE Instances
The FI-WARE Testbed

- The **FI-WARE Testbed** will be a case example of a FI-WARE Instance. It:
  - will allow Use Case projects and third parties to run and test Future Internet Applications based on FI-WARE GEs, validating them.
  - is aimed to be complete, in the sense that it will comprise reference implementations of all GEs defined in the FI-WARE Architecture.
  - Will be operated under central control and be accessible from a dedicated website.

- FI-WARE partners will provide support to UC projects in deploying their conceptual prototypes on top of the FI-WARE testbed.
The project will work towards the establishment of an Open Innovation Lab by combining:

• The FI-WARE Testbed
• The FI-WARE Development Support Infrastructure (forge + additional community tools)

It is intended that this Open Innovation Lab be available to third parties (specially SMEs) after the second year.
What should be different in FI-WARE

- It’s about software that works and successful Use Case projects using it.

- It’s about minimizing the paperwork which is not actually valuable to target users (App developers/providers).

- It’s about paving the way to actual transference of results:
  - Pushing standardization
  - Gaining attention by stakeholders (providers, developers).