FSFE's Comments on the revision of the European Interoperability Framework

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Introduction

The Free Software Foundation Europe (FSFE) welcomes the European Commission's initiative to update its European Interoperability Framework (EIF) in order to abolish existing digital barriers between the interaction of citizens and businesses with public administrations across all member states.

Interoperability between administrations, citizens and businesses is a prerequisite to a more efficient and effective delivery of digital public services, as stated in the draft revision of the EIF (February 2016), however it has to be acknowledged that interoperability is only a mean to its end and not as an end by itself. Hence, the *purpose the revised EIF has to serve is enshrined in the founding treaties of the European Union: the free movement of goods, people, services, and capital; free competition; and protection of fundamental rights and freedoms.*

The purpose and legal framework of the EIF

According to the current draft revision of the EIF, the purpose of interoperability framework is to provide guidance and a set of common core concepts for the design and update of national interoperability frameworks, policies, strategies, guidelines and other documents promoting interoperability on national level. The review of the EIF, according to the Commission, is deemed necessary in order to "put more focus on the implementation [emphasis added] of the EIF rather than the simple alignment with the national approaches on interoperability."

Hereby, it is important to stress that while the EIF has to set a good example for a more efficient use of public services, it cannot hamper the successful national frameworks (NIF) that already exist and function.

Such favourable examples, include the Government ICT Strategy (2011) in the UK, or NIF in Estonia (Estonian Interoperability Framework), Denmark (an agreement between the government and the regions and municipalities to use open standards in order to secure interoperability), and Sweden (Framework agreements that promote procurement of open standards and Free Software). According to the KMPG study for the European Commission about "State of Play of Interoperability in Europe - Report 2014" (hereinafter, the Report) these countries have also been reported as the leaders on interoperability in the EU [1]. *The explicit promotion of open standards and Free Software has been indicated as one of the factors of enhanced interoperability* in the aforementioned countries. The way these member states have chosen to ensure their interoperability to citizens and businesses should be set as a positive example.

[1] Roberto Gatti et al., State of Play of Interoperability in Europe - Report 2014", A study prepared for the European Commission, 2015.

The draft revision of the EIF does not clearly indicate the relationship between the revised EIF and the NIF. The purpose of the EIF, as stated above, is to focus on the implementation of the EIF across member states, however, the draft gives another contradictory explanation about this interrelation: NIF have to developed in an aligned way with the EIF while providing the necessary flexibility to address specific requirements. It is unclear how such flexibility is intended to be guaranteed.

As 'interoperability' per se is not a value or a principle that is codified through the EU founding treaties, the delivery of better public services that foster competition, respect privacy and follow the principle of non-discrimination does not end when the national public administrations align their NIF with the EIF. There is always room for improvement on both national and EU level, and the delivery of better public services that are interoperable and reusable cannot be perceived in a legal vacuum. National standardisation policies, procurement frameworks, and standardisation strategies should complement the efforts, although it is out of scope of the revised EIF.

Currently, there exists a *substantial disparity* between the level of interoperability. While some countries are advanced in delivering interoperable digital services, others are struggling to unify their regulations in order to align with EIF (for more information see, the Report).

Recommendation

In order to overcome national disparities, the revised EIF needs to be clear and concise, include the best practices amongst the member states that helped the latter to deliver, while bearing in mind the overarching EU values such as free competition and non-discrimination irrespective from one's nationality or a business model.

Underlying principles of European Public Services

The FSFE welcomes the expansion of core principles identified in the draft revision, especially in regard to the principles of user-centricity, and effectiveness and efficiency. However, the previous EIF v.2 included the separate principle of "Openness" which in the draft revision has lost its initial meaning and is equated to transparency.

It is important to stress, that *the idea of "openness" of solutions, technical specifications, and implementations is a prerequisite not only for interoperability but is crucial for the idea of technological neutrality, user-centricity, and reusability.* It is a principle of not only transparent decision-making but also a key enabler for collaboration and avoidance of vendor lock-in.

In EIF v.2, the principle of openness was inter alia defined as "the willingness of persons, organisations or other members of a community of interest to share knowledge and stimulate debate within that community", with the ultimate goal of problem-solving.

This principle is closely linked to Free Software (also known as "open source") which development and distribution system is inherently based on the principle of openness: the willingness of persons, organisations and businesses to share knowledge, solutions, and tools. The core of Free Software is enshrined in four freedoms it grants: to use the software, to share it with others, to study its source code, and to modify the software according to one's needs.

Consequently, *without Free Software and its underlying principle of openness it is impossible to create fully reusable, secure and privacy-respecting solutions.* Free Software enables software distribution and use without any restrictions. Due to this network effect, the use of standards is spurred which in return results in significantly better interoperability. The accessibility of the source code and the design information as well as the rights to modify, onward develop and distribute Free Software support reusability of good implementations. Hence, the overarching idea of "openness" is an important principle for better interoperability.

The way the principle of "openness" is handled in the draft revision, only refers to the question of "open data" and the transparency of administrative decision-making. While it is important to ensure that the citizens and companies are present in the decision-making over the quality of public services, and to be able to access information stored about them, it is not clear why the idea of collaborative knowledge-sharing has been abandoned from the core principles the member states have to comply with. Especially without any significant relevant additions throughout the whole draft revision.

Recommendation

The FSFE, therefore, encourages the Commission to reintroduce the principle of openness for the reuse of technical solutions in the EIF as the core principle.

The conceptual model for integrated public services provision

While it is important to ensure the accessibility of information and services in interoperable formats, it is necessary to not limit such principles to solely information and services. The draft revision is inconsistent in its reference to "information", "services" and interoperable

"solutions". The latter is often referring to software, an essential building block for technical interoperability. The technical interoperability can be perceived as the most significant layer to the digitisation of the European public services and its importance should not be underestimated.

Consequently, the conceptual model for integrated public services (i.e. chapter 3 in the draft revision) should not only include the reusability of "data and services" but have to include the reusability of technical solutions in order to encompass all layers of interoperability. The conceptual model, therefore, needs to acknowledge the importance of technical interoperability and refer to such interoperability in an apparent way. While the draft text acknowledges the importance of shared infrastructure of "reusable building blocks", it is not very clear from the text if the aforementioned building blocks include technical solutions, e.g. software. As such, the conceptual model for integrated public services provision cannot be complete without the proper attention to the all interoperability layers identified in the draft revision.

Recommendation

In this regard, the Basic Components identified in the chapter 3.3 of the draft revision, should in addition to the reuse of data and services, *include the reusability of technical solutions in a clear and apparent way, in order to avoid duplication of effort, extra costs and further interoperability problems*, bearing in mind the principle of openness, and avoidance of lock-in.

Hereby, it is important to ensure that no specific proprietary and closed technical tools should be promoted in order to achieve the desired "interoperability-by-design", but the reusability and the flexibility of technical solutions that are open, sustainable, transparent and provided under Free Software licences

Interoperability layers

Reference architectures

The draft revision identifies the importance of standards and specifications in promoting interoperability, and in regard to their catalouging refers to the European Interoperability Reference Architecture (EIRA) that "should be used to define conceptual reference building blocks". While it is important to promote certain tools in order to achieve the widest interoperability across the member state, it is essential to recognise other models of reference that in essence will contribute to the implementation of desired "interoperability-by-design".

Open specifications

The FSFE welcomes the priority the draft revision is giving to the open specifications in European Public Services. However, *when it comes to the technical interoperability and the reusability of technical solutions, i.e. software, it is important to not only promote open specifications but to allow software to act as a reference implementation in order to achieve better interoperability.* The latter can only be achieved by publishing such software as Free Software.

Free Software is defined through the four rights it grants to its users: to use, study, share and improve the software. Instead of developing lengthy specifications to the standard and expecting stakeholders to find their ways to implement it, it is more efficient to publish the source code and let everyone to copy and reshape the technology according to their specific needs.

This is particularly important because for most software standards the formal specification is insufficient, and the actual standard is defined both through the written specification and actual implementations. For the implementer the reference implementation is more valuable because it allows her to avoid the extended phase of trial-and-error in order to resolve specification ambiguities.

* Recommendation

Reference implementation published under Free Software licence may act as the formal specification without the institutional standard setting process and can be reproduced by any potential service provider. Therefore, allowing technology to be implemented directly will result in avoidance of duplicating standards in order for technology to be applied. Hence, reference implementation under a Free Software licence will avoid unnecessary duplications, while at the same encourage competition and enhance interoperability.

FRAND

The FSFE wants draw the Commission's attention to the contradiction between the interoperability goals it sets and its position in regard to acceptable licensing terms of open specifications on so-called FRAND ("fair, reasonable, and non-discriminatory") terms. According to the Commission, "this fosters competition since providers working under various business models may compete to deliver products, technologies and services based on such specifications".

It is necessary to understand that FRAND do not solely refer to the royalty-bearing conditions that are incompatible with Free Software. The problem of FRAND and Free

Software cannot be eliminated by the formula of "FRAND and/or royalty-free" licensing terms, as it has been proposed in the draft revision.

FRAND are harmful towards Free Software in numerous ways[2]: it goes against the core idea of Free Software which is based on open collaborative space of innovation and knowledge-sharing. The fact that FRAND terms create barriers for Free Software projects to implement the technical specification, has amongst others been also acknowledged by the European Commission.[3] In this regard it is surprising to see the contradictory statement in the draft revision stating the opposite.

As stated previously, Free Software licences create the open space for collaboration by delivering four freedoms to everyone in a clear, certain and nonnegotiable way. They treat every user as a potential developer or distributor of the software, by allowing everyone to use it, study how it works, share it with others, and improve it according to one's needs. FRAND, on the other hand, neutralises such collaborative environment as it impedes the freedoms granted by Free Software.

Notably, there is no consensus on what 'actually' constitutes FRAND, as in "fair, reasonable and non-discriminatory" terms. The terms are usually negotiated and kept secret. The licence granted is non-transferable and requires each implementer to seek an individual licence every time the technology is to be re-used. *As such, in addition to excluding the whole Free Software sector from implementing technical specifications FRAND licensing terms go against most of the core principles highlighted in the draft revision.*

In particular:

- **Transparency and openness** - by being negotiated in secret;
- **Reusability** - by hampering the idea of sharing with others their interoperability solutions, concepts, frameworks, specifications, tools and components, with its strict terms of acquiring an individual licence for every re-use of the standard;
- **Technological neutrality** - by excluding the whole Free Software sector from standardisation processes that consequently will result in a bigger vendor lock-in. Additionally, open standards and Free Software are seen as the most common counter-measure to the wide vendor lock-in in the EU public sector4;
- **Efficiency and effectiveness** - by creating unnecessary burdens to all stakeholders involved in bringing the better interoperability.

In a recent FAQ[4], the Commission stated:

[2]See FSFE's analysis on FRAND.

[3]European Commission, Staff Working Document "Guide for the procurement of standards-based ICT — Elements of Good Practice", SWD(2013) 224 final, 25/06/2013.

[4]European Commission - Fact Sheet on "Commission takes steps to modernise EU's standardisation policy", 1/06/2016.

> "The Commission does not prescribe business models in the market, be they built on open source, or on for-money licensing arrangements"

But business models are no longer the issue at hand, as the emerging maturity of the Free Software (aka Open Source) market has shown. By permitting FRAND arrangements for standard-essential patents (SEPs) within the software market, the Commission is proscribing development models based on Free Software by ensuring that implementation of certain standards will always be disadvantageous for those choosing this approach. This implicit proscription unreasonably advantages large multinationals with substantial patent portfolios and restricts both market entry and innovation by the smaller players inherent in most of the European market. It allows dominant players from established markets where monetisation of SEPs is the norm to unreasonably gain advantage in the internet software market where restriction-free collaboration is the norm. In a word, it encourages anti-trust.

In addition, it is important to highlight the recent Statement by the the United Kingdom, Estonia, Belgium, Slovenia, Poland, Latvia and Malta regarding the Council conclusions on the "Digital Single Market Technologies and Public Services Modernisation" package that focuses on the importance of the creation of Open Standards in regard to software. The aforementioned member states ask the Commission to "acknowledge all appropriate open, transparent and broad consensus-based models of standardisation used by industries across the Information Technology and the Electronic Communications Technology sectors". According to the member states, only this will "enable EU companies to compete in local, regional and global markets on equal terms, where their innovative solutions can create new markets and jobs".[5]

It is notable that several member states issuing this statement, are the most advanced in delivering the interoperable services and solutions to their businesses and citizens (e.g. according to the Report, Estonia's NIF is one of the most mature in the EU, with the EIF alignment score of 100%), and as such, their concerns need to be heard. Additionally, the majority of these countries have a strong preference towards Open Standards and Free Software in their national NIF which is a hard proof of the positive interrelation between two.

Recommendation

It is absolutely essential to ensure that no unnecessary and disproportionate barriers are created on the EU level, including by harmful FRAND licensing.

[5] Permanent Representatives Committee (Part 1), Draft Council conclusions on the "Digital Single Market Technologies and Public Services Modernisation" package - Statement by the United Kingdom, Estonia, Belgium, Slovenia, Poland, Latvia and Malta, 8735/16 ADD 1, 26/05/2016.

Conclusion

In conclusion, the draft revision lacks the understanding of national success stories, and of the barriers some of its points can create to achieve better interoperability that in the end will result in even more disparities between member states.

In particular, while the draft promotes "open specifications", the harmonised use of certain models and tools (e.g. EIRA), it can hamper its core principles with the inclusion of FRAND licensing terms, and abandoning the principle of "openness": the idea of collaborative efforts and a common innovative space.

It also completely disregards the obvious correlation between strong promotion of Free Software and higher interoperability which is evident from several NIF across Europe

In order to overcome these shortcomings, the EIF needs to learn from the best and promote solutions that have been proved successful. In particular:

- The promotion of open specifications cannot be hampered by FRAND licensing terms;
- The idea of openness, as in collaborative innovation, should be reintroduced as the core principle of the EIF;
- Free Software which is a key enabler of interoperability need to be acknowledged and promoted at least as a reference implementation of technical standards.