

PROBLEM/OPPORTUNITY STATEMENT

Within the context of Member States interconnecting their National public services in order to establish European Public Services, Member States need to identify, negotiate and coordinate cross-border public service architecture domains and interfaces. An established Member State practice addressing the need of defined cross-organisational interfaces is the provision of lists of recommended formal specifications aka National Interoperability Frameworks, NIFs. The NIFs provide the Member States with a set of tools for identifying, negotiating and coordinating (i) the requirements that the interface is to mandate, (ii) the availability in the standardisation place of formal specifications guaranteed to support those requirements and (iii) the availability in the market place of products likely to conform to those formal specifications. Conformance with the recommendations for formal specifications on the list, reduce unwanted interface varieties and increase the probability for seamless interconnection, interoperability and collaboration.

Decisions on (recommendations of) lists of formal specifications, Interoperability Statements, often call for resource intensive and time consuming assessments, Interoperability Assessments. By sharing and re-using already existing assessments or by coordinating future assessments, the burden of assessment could be partly eased and provide an opportunity of convergence and collaboration among Member States in the area of interoperable European Public Services.

OBJECTIVES

Due to the difference in the nature of the ends, interoperable European Public Services being multilateral, and the nature of the means, Interoperability Statements being bilateral or at worst unilateral, there is an obvious risk of failure, if not special attention is given to the work needed to assure the acceptance of public service architecture domains and interfaces among the European Public Service dependent parties. I.e. not reaching a horizontal agreement between collaborating parties on architecture domains and interfaces is not creating interoperability and reaching a horizontal agreement but failing to reach a vertical agreement on the standardisation and/or the implementation with the supporting parties is neither creating interoperability. To avoid disenfranchisement, this interdependence, created by interoperability, calls for an open and transparent provision process with ample opportunities of horizontally and vertically "interorganisational" negotiations.

The objectives of the proposed CAMSS action are to provide support for an open and transparent yet decisive process (i) facilitating identification, negotiation and coordination of cross-border public service architecture domains and interfaces; (ii) fostering description of public service architecture domains and interfaces in terms of Interoperability Statements and (iii) improving convergence in Interoperability Statements by sharing and re-using Interoperability Assessments.

SCOPE

The Interoperability Architecture activity cluster in the Commission draft, "European Interoperability Strategy", EIS, proposes, inter alia, providing guidance on interoperability architecture domains of shared Member State interest and the need for common interface standards.

Suggestions (a), (b) and (c) of the Commission White Paper on "Modernising ICT Standardisation in the EU - The Way Forward" [1] suggest that "to facilitate the use of the best available standards in support of European legislation and policies it is necessary to lay down requirements, in the form of

a list of attributes, for such standards and their associated standardisation processes"; the White Paper suggest also that, in the context of ICT strategies, architectures and interoperability frameworks, Public Administrations, when acquiring ICT Services, Applications and Products in support of an adequate level of interoperability, can make implementation of standardised interfaces a requirement in public procurement procedures, provided the principles of openness, fairness, objectivity and non-discrimination and the public procurement directives are applied.

This action provides a Framework for Interoperability Assessments, fulfilling the above mentioned objectives, proposals and suggestions. When establishing European Public Services, public administrations should, whenever possible, base interoperability agreements on existing market supported standards/formalised specifications and, when selecting or rejecting formalised specifications, a structured, transparent and objective approach should be followed.

EXPECTED BENEFICIARIES AND ANTICIPATED BENEFITS

Beneficiaries	Anticipated benefits
Member States, Standardisation Bodies, ICT Industry and European Institutions	An open transparent yet decisive process caters for predictable well-founded, fair and non-discriminatory results.
Member States and European Institutions	A transparent agreed list of Interoperability Assessment attributes and a transparent agreed Interoperability Assessment process brings transparency to the selection and rejection of formal specifications/standards in the context of ICT strategies, architectures and interoperability frameworks and ensures the objectivity of European ICT Standardisation and European Public Service Interoperability.
Member States and European Institutions	In part or full re-use and/or sharing of Interoperability Assessments, reduce resources and time needed, when establishing, maintaining and coordinating Interoperability Statements.
Standardisation Bodies	Checking the availability in the standardisation place of formal specifications guaranteed to support European Public Service requirements.
ICT Industry	Checking the availability in the market place of products guaranteed to conform to European Public Service requirements.
ICT Industry	A service for ICT industry on how to select the right requirements when doing European Public Service business.

Indicators - Specific

KPI	Description	Measure	Target
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Interoperability Assessment Reference	Extent of take up of Interoperability Assessments in Member States and European Institution Interoperability Statements	Number of references in Interoperability Statements made to Interoperability Assessments	Member States and European Institutions
Interoperability Assessment Coherence	Extent of coherence between Member State/European Institution Interoperability Assessments	Number of structural differences in Member State Interoperability Assessments	Member States and European Institutions
Interoperability Statement Coherence	Extent of coherence between Member State/European Institution Interoperability Statements	Number of structural differences in Member State Interoperability Statements	Member States and European Institutions
Interoperability Assessment Standardisation Reference	Extent of take up of panEuropean Interoperability Standardisation Assessments in Standardisation Bodies	Number of references in Standardisation Policy made to Interoperability Standardisation Assessment Criteria	Standardisation Bodies
Interoperability Assessment Market Reference	Extent of take up of panEuropean Interoperability Market Assessments by ICT Industry	Number of references in ICT Industry Policy made to Interoperability Market Assessment Criteria	ICT Industry

NEEDS AND FEATURES

Building on the results already established by the IDABC CAMSS action, the ISA CAMSS action will consolidate a clear guideline on methods used when providing and re-using shared Interoperability Assessments. The guidelines should address how interoperability information could be identified using business need concepts and corresponding technology requirements/architecture; partitioned into easily understandable re-usable parts; presented in a structured manner and organised in an interoperability assessment library.

To ensure consensus, the guidelines, being interoperability agreements themselves, need to be communicated, negotiated and agreed by the many stakeholders of Public Services. Successful guidelines would cover interoperability on a relevant level among the relevant stakeholders at a relevant time. To avoid being irrelevant, the guidelines have to allow for flexibility in levels, stakeholders and timing, i.e. at any given time any stakeholder should be able to apply their specific level and still get a relevant result. These requirements are not fulfilled by finalised Interoperability Statements as they reflect a specific level, specific stakeholders at a specific time but could be fulfilled by well-partitioned Interoperability Assessments allowing for the required flexibility hence the ISA CAMSS action is to complement and support the already ongoing work in Member States on Interoperability. Any successful complement to already established practices in Member States have to be developed with consideration to these established practices and environments.

Unlike finalised National Interoperability Statements found in National Interoperability Frameworks, the ISA CAMSS action Will NOT provide finalised Interoperability Statements but preparatory work,

Interoperability Assessments, that organised in Assessment Libraries, coordinated, shared and re-used could save both time and resources needed when preparing finalised Interoperability Statements.

For Member States and the European Institutions, who develop and maintain Interoperability Frameworks, the CAMSS Framework ensure that assessments of formal ICT specifications and interoperability profiles are performed to high and consistent standards and are seen to contribute significantly to confidence in the interoperability of systems implementing these specifications and profiles, to enable the re-use, in whole or in part, of such assessments and to continuously improve the efficiency and effectiveness of the assessment process for ICT formal specifications and interoperability profiles.

ORGANISATIONAL APPROACH AND GOVERNANCE

In the area of Interoperable European Public Services the Union does not have exclusive competence, the principle of subsidiarity requires that “objectives of the proposed action cannot be sufficiently achieved by the Member States ... but can rather ... be better achieved at Union level”. Interoperable European Public Services, characterized by the existence of sizeable network effects, and hence displaying a more than proportional increase in benefits as the market increases, represents a typical case where action at the EU level offers a clear advantage over initiatives at the Member States level. In fact, uncoordinated actions at the national level or the European institutional level may well result in incompatible solutions and in a fragmentation of the market. Therefore, the added value of a coordinated intervention at the Community level lies in the scale economies that can be achieved, making it more effective than any national or institutional intervention. Additional elements reinforcing the case of for intervention at the EU level include (i) the multinational nature of interoperability, (ii) the increasingly global nature of most of its standards and underlying networks; (iii) the need to achieve a critical mass to establish a credible dialogue.

However the coordination at EU level would need to be achieved through convergence, evolution not revolution, in the coordination at Member State national and European institutional level, if not to waste and disrupt the already on-going work and investments made by Member States and the European Institutions. The proposed approach is to achieve European Public Administrative collaboration supported by European Public Service Interoperability by harmonisation of European Interoperability Statements through coordination of European Interoperability Assessments.

The Framework for Interoperability Assessments should be composed of representatives from Member States and Commission services; individual experts or specific stakeholders could be invited on a case by case basis. The ISA programme would provide the chair and the secretariat and operational expenses would be covered by the ISA programme budget.

The Framework would play an advisory role to the Commission mainly on the following issues:

- Support the Commission in the implementation of European Interoperability Strategy and European Interoperability Framework hence interoperable European Public Services;
- Early identification of ICT requirements in support of new interoperable European Public Services and policies and identify their standardisation and market relevance;
- Monitoring and reviewing ICT requirement matters in support of new interoperable European Public Services and policies during their execution;
- Define and maintain the process, Interoperability Statement Provision, based on which sharing and re-use of Interoperability Assessments can be identified; examine its execution and provide advice further to Interoperability Statements;

- Define and maintain the list of attributes, Public Service Attributes, based on which European Public Service architecture domains and interface specifications can be identified; examine their application and provide advice further to Interoperability Assessments;
- Define and maintain the list of attributes, Standardisation Attributes, based on which formal specifications can be identified for referencing; examine their application and provide advice further to Interoperability Assessments;
- Define and maintain the list of attributes, Market Attributes, based on which products guaranteed to conform to those formal specifications can be identified; examine their application and provide advice further to Interoperability Assessments;
- Transposing the work done under IDABC in a clear guideline, organise the consensus building around that guideline, and propose the organisation and governance of the Assessment Library via which the assessments done by individual Member States and/or within the context of specific projects can be re-used.
- Providing advice on the Commission’s multi annual ISA and ICT standardisation work programmes and their priorities.

To ensure that the Framework can execute these tasks, a formal structure would be needed. This structure would be a close collaboration between the Interoperability Architecture Working Group and the Commission Service in charge of ICT Standardisation. In order to effectively discharge some of the functions indicated above, the Framework could establish working committees devoted to the analysis of specific aspects. In such a case, the number of participants is likely to increase. The cost for the functioning of the working committees would also be covered by the Commission.

STAKEHOLDER INVOLVEMENT

The Business Process affected by the proposed Framework is the Interoperability Statement Provision in general and in specific the procedure for Interoperability Assessment.

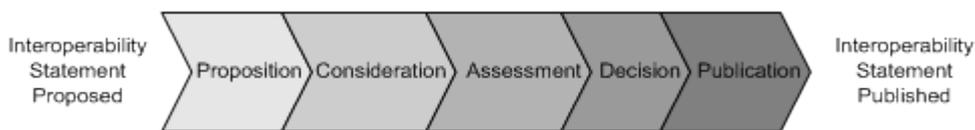


Figure 1. A Generic Interoperability Statement Provision Process

The stakeholders affected by the proposed Framework are the parties involved in Interoperability Statement Provision in general and in specific with the procedures for Interoperability Assessments.

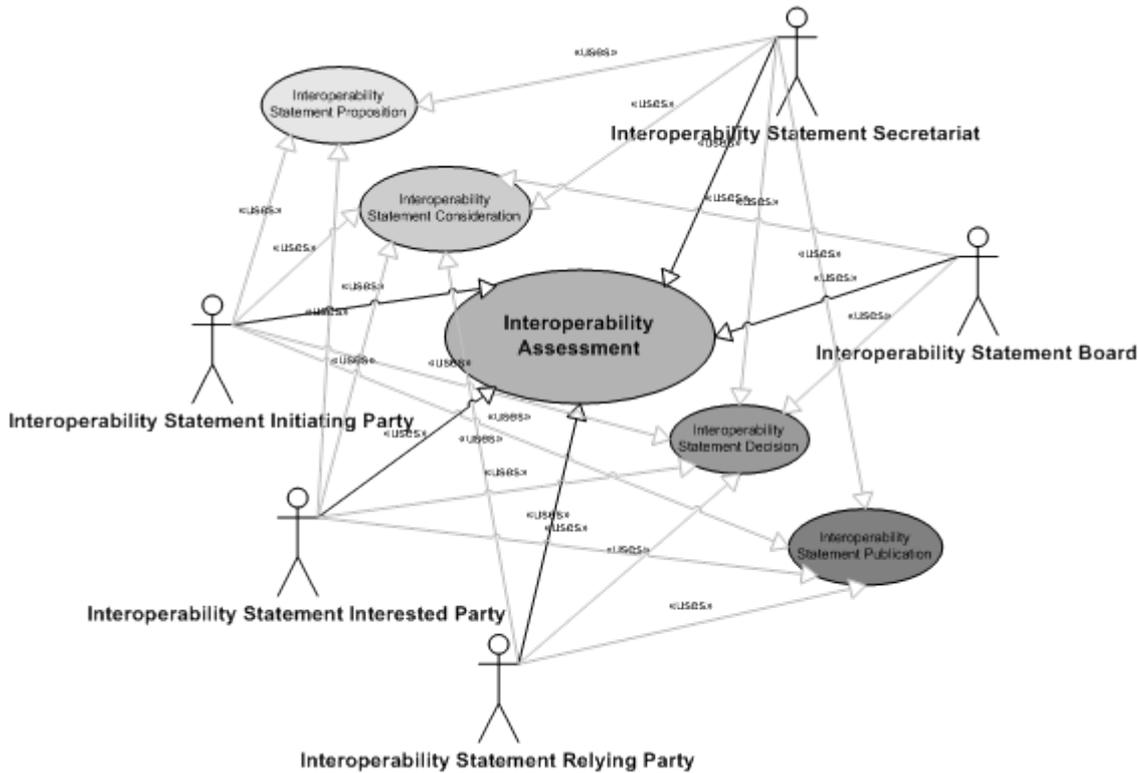


Figure 2. Interoperability Assessment Use Case

The purpose of the Interoperability Assessment is to support a constructive dialogue on the virtues and disadvantages of establishing an Interoperability Statement. If possible the assessment should be based upon the re-use of already established assessments, be done in collaboration with concerned parties and result in deliverables re-usable by others. Given a specific demarcated public business area and the corresponding requirements/architecture, all the relevant interoperability information on relevant standards and specifications assessed in accordance to an interoperability assessment procedures and presented in a structured manner, se below, and in a form easy to understand are called Interoperability Assessments. An Interoperability Assessment should consist of three parts:

- Public Service Assessment - Addresses the extent of why an Interoperability Statement would be of public value.
- Standardisation Assessment - Addresses to which extent standards and specifications of an Interoperability Statement are developed and maintained.
- Market Assessment - Addresses to what extent support can be expected to be found for the Interoperability Statement in the market.

An Interoperability Assessment Procedure should address the following basic course of actions:

1. The Interoperability Statement Board identifies the Public Business Area.
2. Given the Public Business Area the Interoperability Statement Secretariat researches the Assessment Library for already existing relevant assessments
3. The Interoperability Statement Board identifies the Requirements/Architecture
4. Given the Requirements/Architecture the Interoperability Statement Secretariat researches the Assessment Library for already existing relevant assessments
5. A Public Business Need Assessment is established
6. The Interoperability Statement Secretariat identifies relevant standards and specifications
7. For each standard or specification:
 1. The Interoperability Statement Secretariat researches the Assessment Library for

already existing relevant Standardisation and Market Assessments

2. A Standardisation Assessment and Market Assessment is established

8. A compiled Interoperability Assessment is established combining the available Public Business Need, Standardisation and Market Assessments.

In the above described course of action one or more points of consultation/negotiations could be inserted to support the interaction with Interoperability Statement Initiating, Relying and Interested parties.

The following actors are deemed to have a stake in the Interoperability Statement Provision and the proposed Framework:

Name	Interoperability Statement Board, ISB
Description	A Public Administrative Board overseeing the interoperability statement activities of the organisation.
Responsibilities	Interoperability responsibilities delegated to or conferred on the ISB by Member States eGovernment authorities. The ISB is responsible for setting the panEuropean eGovernment interoperability agenda.
Success Criteria	Success defined by extent of take up of panEuropean interoperability statements in Member States panEuropean Public Services. The ISB is rewarded by recognition as the preferred forum for panEuropean interoperability in Public Services.

Name	Interoperability Statement Secretariat, ISS
Description	A Public Administrative Secretariat administrating the day to day interoperability statement activities of the organisation and maintaining the interoperability statement agenda.
Responsibilities	Managing interoperability statements
Success Criteria	Success defined by extent of take up of pan European interoperability statements in Member States pan European Public Services. The ISS is rewarded by recognition of the high and consistent assessments of formal ICT specifications and interoperability profiles and the significant contribution to confidence in the pan European Public Services interoperability.

Name	Interoperability Statement Initiating Party, InitP
Description	Citizens, Businesses and Public Administrations in the European Union
Responsibilities	Propose interoperability statements
Success Criteria	Success defined by approval of proposed interoperability statement and benefits from compliance with the proposed interoperability statement

Name	Interoperability Statement Relying Party, RP
Description	Citizens, Businesses and Public Administrations
Responsibilities	Comply with interoperability statements
Success Criteria	Success defined by extent of less complicated pan European collaboration. Rewarded by ease of collaboration.

Name	Interoperability Statement Interested Party, IntrstP
Description	Citizens, Businesses and Public Administrations
Responsibilities	Providing comments on interoperability statements
Success Criteria	Success defined by extent of influence on panEuropean collaboration. Rewarded by acknowledgement of interest.

TECHNICAL APPROACH

Given the constraints provided earlier in this document, the proposed technical approach will be a federated approach, agreeing upon standards of operation in a collective fashion. The most important requirement, for the format chosen to describe those standards, should be its' ability to complement standards already chosen when describing existing Interoperability Assessments.

CAMSS will be an application of the Resource Description Framework (RDF), as the subject area described - Interoperability Assessments -- have so many competing requirements that a standalone format could not do them all justice. By using RDF, CAMSS gains a powerful extensibility mechanism, allowing CAMSS-based descriptions to be mixed with claims made in any other vocabulary. Consequently using RDF, there are many, many things that might be said about assessments in a complementary federated way.

Annex: references

[1] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009DC0324:EN:NOT>

[2] <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:260:0020:01:EN:HTML>

THE END but still work in progress.