

INTEROPERABILITY OPTIMIZATIONS FOR ADMINISTRATIVE SERVICES

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Abstract

Romania is facing major challenges in the public administration field as a new member of the European Union. It has become a mandatory requirement to adhere to the European dimension of the public administration reform process. In this paper, we are going to discuss how the European Union Services Directive has influenced the reform process, as effectively implementations of a Single Point of Contact (PSC) in Romania is coming to reality. The discussion is based on the experience gained as contributors to the implementation of a PSC prototype in Romania. Therefore we intend to identify several future challenges and possible solutions considering that the service directive implementation is just a first step for aligning the EU countries to the same technical and operational perspective.

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1. INTRODUCTION

In order to develop the European service market and to facilitate the access for both service providers and clients to the opportunities determined by each individual member state, there is a need to establish a common EU legal and technical environment that should deliver the baselines for cross-border scenarios and the means simplify the administrative processes [Constantinescu, 2010, Mina, 2009]. The initial general objectives are the following:

- Simplification of the administrative procedures and formalities applicable to service providers;

- Provision of the possibility to complete procedures at a distance and by electronic means and to make information on national requirements and procedures easily accessible for service providers and service recipients
- Creating „unique desks”, also known as Points of Single Contact (PSC).

Those goals are enforced by the Service Directive that firmly required the establishment of the PSCs. PSCs should enable national or European service providers to cover all the formalities related to the establishment and afterwards to practice the specific activity. A particular activity may be performed either on the premises or from the country of origin. The electronic means should also ease the process of dealing with the administrative requirements.

In order to provide the authorizations for service providers, a Member State (MS) can require specific documents that justifies that the requester may be entitled to perform the specific service/activity. Of course, those kinds of documents may vary from country to country. An inherent requirement will be to set up means/tools which will allow each national administration to interpret and deal with the information they will receive from a service provider from another MS, and even to check their reliability and integrity. This will ease processing the application and making decisions within acceptable time parameters.

This kind of tools requires permanent synchronising from all the MS. Therefore it is a major goal to achieve interoperability between the information systems from all the MS and to create common procedures and standards that will define an interoperability framework. At this moment there are several interoperability architectures that are already developed in the MS. Those solutions should be analysed and integrated in the interoperability framework. Therefore the goal will not be to redefine the administrative services implementations in each country but to use the services already offered in an interconnected EU environment.

Several issues should be addressed when developing an interoperable solution, as we can mention:

- automatically update the rules/formats for each PSC, as new legal and operational challenges appear
- definition of a common document specification for all the e-documents involved;
- data exchange in a secure and interoperable manner.

This paper will discuss the implications of the Service Directive, the existing solutions and optimizations that should be apply on the future interoperability framework.

2. SIMPLIFICATION INITIATIVES FOR ADMINISTRATIVE PROCEDURES

As we already mentioned, in order to improve the administrative processes involving both in-country specific data-flows and pan-European data-flows the European Parliament and the Council adopted the Service Directive on 12 December 2006. The Directive requires each Member State to simplify procedures and formalities that service providers need to comply with. Particularly, it requires Member States to remove unjustified administrative burdens and to facilitate the business establishment - scenarios in which a natural or legal person wants to set up a permanent establishment in a MS - and the provision of cross-border services - scenarios in which a business supplies services across borders in another MS, without setting up an establishment there.

2.1. PSC's scope

Pursuant to the Directive, Member States are obliged to set up points of single contact – PSC's through which service providers can obtain all relevant information and deal with all administrative formalities without the need to contact several authorities. The PSC's have to be accessible at a distance and by electronic means. The Services Directive also aims to strengthen the rights of services' beneficiaries, both consumers and businesses. For example, the Services Directive prohibits discriminatory conditions (tariffs, obligations) based on the nationality or residence of the service beneficiary. The Services Directive promotes a high quality of services and enhances information and transparency relating to service providers and their services. The Services Directive also constrains the Member States to cooperate with each other in order to ensure efficient supervision of providers and their services Europa.eu (2010).

The Services Directive does not limit itself to clarifying and systematizing the freedom of establishment and freedom to provide services. The Directive also provides the baselines for a legislation and administration reform mandatory for each Member State. The most important aspects of this reform are the following:

- administrative and legislative simplification and modernization, also by improving transparency and easing authorization procedures;
- one-stop shops establishment for service providers;
- review and adapt the existing legal requirements that are applicable to services;
- elimination of discriminatory, unnecessary or disproportionate national legal requirements;
- cross-border services may be provided on a temporary basis;
- total bans on commercial communications by regulated professions are prohibited;
- limit the restrictions to the exercise of multidisciplinary activities.

The Services Directive considers also the problem of supervising the business flows in the Single Market, by setting up a system of administrative cooperation among national authorities with an overview on service providers across borders in order to avoid misuse. The Services Directive considers the rights of service recipients by addressing both the non-discrimination against service recipients on the basis of their nationality or place of residence and the comprehensive information rights for service recipients. The stated obligations must be complied by both public administrations and service providers.

2.2. Existing solutions

The Services Directive has had to be fully transposed by Member States into their national systems by 28 December 2009. Romania has delayed this deadline as on the current date the implementation of the Service Directive is not ready. Nevertheless, several PSC prototypes have been developed as we can mention the EUSDRO project that involved E-Caesar Association in which the Academy of Economic Studies and the authors of this paper had a relevant role [Constantinescu, 2009], [Mina, 2009].

Regarding electronic frameworks for e-services, Romania has currently implemented the national electronic system for e-government, named e-Guvernare (<http://formulare.e-guvernare.ro/>). The portal is delivering e-services as: the unique desk for delivering declarations to public authorities, the online payment desk, the online forms (e-forms) area, the e-auction service or the transport authorization system. The National Electronic System (SEN)

facilitates the interoperability in exchanging data among different public administration agencies.

The portal is built on two sections. The first one, E-forms section, allows downloading the standard forms used by various public institutions, which can be further printed, filled in and submitted by classical means to the specific authority. The second one deals with on-line services and implies online filling in the forms, or solving an existing problem with the administration without having to go to the counter or using other means of remittance of the documents.

From the available service we can mention:

- Declaration submitted to National Agency for Employment, declaration submitted to National Agency for Health Insurance, declaration regarding the payment obligations towards social insurance budget, declaration regarding the profit tax or declaration regarding the profit tax.
- The electronic system for issuing licenses for international carriers
- Public procurement electronic system
- Online customs' declarations
- The virtual payment office.

All of these electronic services will be included in the new portal aimed that implements the national PSC (www.edirect.gov.ro). The most important existing service for the Service Directive implementation is the licensing service. The portal is an interface to various administrative processes that are implemented in the back-end.

Taking in consideration the research results that were achieved in the development of the EUSDRO PSC pilot we can mention that the solution should provide:

- Online submission for all the documents required for registering a company. The applicant should not submit any documents at the desk (for the moment the current Romanian legislation states that the dossier submission on paper is mandatory). The documents will be digitally signed.
- Online document management for all the papers submitted by an applicant.
- Online document validation for the entire dossier submitted by an applicant.
- Openness for foreign applicants, not just Romanian ones.
- Online payment for all fees. The fees will be paid after the entire administrative process is over and not in between process tasks.
- Online free assistance for Romanian and foreign applicants in order to understand the administrative process, to complete the necessary documents, to submit the dossier and to follow its course of action.
- The tasks that judges perform in the back office should be automated. The presence of an applicant in the court room should not be mandatory even if the applicant's dossier presents particularities.
- Integration with applications from other institutions in order to diminish the time consumed for pan-institutional feedback.

The EUSDRO pilot facilitates the business opening, change and closure and therefore the solution automates the existing processes from the Trade Office Register.

3. INTEGRATION INITIATIVES

In an ideal scenario, irrespective of the origin and the language of the documents, official documentation submitted in a cross-border application or resulting from the service has

well defined content and structure so that it can be automatically processed. In reality, there are few examples of EU wide common documents. The administrative decisions taken based on aforementioned documents are currently issued by the authorities in charge in a variety of formats and its content depends on national or regional procedural laws and often are not even based on an electronically processing [Constantinescu, 2010, 59-62].

As a result, documentation accompanying an application varies significantly. This raises a major interoperability challenge that should be addressed when implementing the Service Directive. This challenge needs to be solved in the course of the project, as the exchanged documents has to be processed by several parties such as points of single contact, competent authorities and service providers. The documents authenticity should to be validated. For efficiency reasons, document processing should be automated to the largest extend possible to minimize manual processes in extracting data from the documents and feeding it to back-office applications.

Even if at this moment the electronic documents in e-Government are not widely used, the enforcement of the Service Directive determines large efforts for electronic documents standardization. Moreover, the development of interoperability models for electronic documents requires the development of open common specifications for future interoperable electronic documents and open source modules that implement the concepts and common specifications. The models should be tested in real e-Government applications. The common specification will address document schema, representations and security, as we can mention the following items:

- document formats with a structured content that can be automatically processed (such as XML);
- visual representation formats (PDF, XPS, RTF, etc.) with limited information structure;
- document authenticity based on electronic signatures or other means such as back-office or document register access.

There are several issues that should be addressed when creating common specification on electronically documents, as the solution should:

- introduce a multi-layered framework for cross border exchange of electronically documents
- handle all related technologies and formats identified as payload
- not be restricted to support only a subset of formats and standards and technologies;
- introduce optional layers for achieving semantic interoperability;
- provide an authentication layer in addition to the authentication mechanisms provided within the payload documents.

The interoperability will be achieved by creating meta-documents based on specific national electronic documents [Toma, 2010, 94-102]. The meta-documents should be created by adding information regarding the payload and also authentication data. The development of the meta-document framework will suppose the following steps:

1. Analysing e-documents standards, formats and technologies in MS:
 - identifying document types;
 - eliciting document formats;
 - identifying technologies used for creating/validating/delivering/storing the documents.
2. Updating and optimizing the specifications, also referring to specific scenarios and administrative data flows:

- identifying document flow and use cases;
 - identifying validation/generation rules.
 - 3. Modelling a semantic network for electronic documents and developing/updating the specifications for the meta-data layer:
 - modelling documents dependency structure;
 - modelling a semantic network and defining the semantic metadata;
 - 4. Creating processing modules with respect to performance and security issues:
 - creating document processor modules
 - optimize processor modules with respect to performance and security;
- This approach should produce a set of standards that will stay as a foundation of the EU eGovernment interoperability framework.

4. CONCLUSIONS

A critical issue is the composition of existing security-sensitive services in SOA-based infrastructures. This determines a wide range of trust and security issues. This is why a common agreed specification must be established.

We consider that the following issues should be addressed by the member states in order to have interoperable PSC's:

- Syndication of the administrative information, as the information related to e-services should be available in different languages and the changes should be easily acknowledged in all member states.
- Creating common specifications for the documents types formats and interchanges containers. We refer here to creating a unique document model for pan-European document interchanges. The document model will be used only for the communication between PSC's and not for the communication between PSC's and national authorities. The document model will consist on both semantic and security metadata.
- Data exchange mechanisms with focus on security, interoperability and receipt acknowledgement, as considering that the exchange implies different countries with different communication standards.
- European service directories, as repositories that should be used by end-users in order to access e-services.

The PSC interoperability model will support the alignment of the EU eGovernment services to a set of common requirements that will ease the cooperation between both EU companies and EU administration.

In order to achieve a comprehensive acceptance for the future proposed European specification for data models and processing modules, the future solutions should take in consideration a wide area of national administrative processes with the specific documents' standards and technologies involved. An advantage that in Romania the e-Government services are just being put in place is that the interfaces for the pan-European services will be able to be established from the early stages of development or implementation.

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