

# **ANALYSIS OF REQUIREMENTS AND DESIGN APPROACHES FOR ROMANIA FROM THE PERSPECTIVE OF EU SERVICES DIRECTIVE**

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## **Abstract**

The IT implementation of the EU's Services Directive contributes to the goal of creating the most competitive and dynamic knowledge-based economic region in the world by the year 2009. Modernizing public administration is the basis for implementation of the EU directive, and in order to ensure this successfully, collaborative procedures between administrative institutions and countries must be put in place and further developed. This paper will present the concept of points of single contact, cover topics such as the vision for these points in relation to the EU Services Directive, some technical design options and an analysis of necessary requirements for an architectural framework that takes into consideration the specific e-Government background of Romania.

## **1. Introduction**

The objective of the Services Directive is to make progress towards a genuine Internal Market in Services so that, in the largest sector of the European economy, both businesses and consumers can take full advantage of the opportunities it presents. By supporting the development of a truly integrated Internal Market in Services, the Directive will help realize the considerable potential in terms of economic growth and job creation of the services sector in Europe. For this reason, the Services Directive is a central element of the renewed Lisbon Strategy for growth and jobs. Moreover, by providing for administrative simplification, it also supports the better regulation agenda.

The Services Directive is a big step forward in ensuring that both service providers and recipients benefit more easily from the fundamental freedoms guaranteed in Articles 43 and 49 of the Treaty establishing the European Community – the freedom of establishment and the freedom to provide services across borders. In order to achieve this, the provisions of the Directive aim to simplify administrative procedures, remove obstacles for services activities as well as enhance both mutual trust between Member States and the confidence of providers and consumers in the Internal Market.

A thorough implementation of the relevant one-stop government concepts will have a noticeable effect on the entire public sector in all member states (at the national, regional and local level) which will, in turn, influence the entire area of application of European services businesses. Core issues in this process include establishing Points of Single Contact, cross-border electronic administrative transactions, analyzing and optimizing existing administrative processes, as well as the operation, monitoring and continued development of process chains between business and government. Points of single contact and electronic processing will make a considerable contribution to the simplification of structures, processes and formalities.

In each case, the processes inside and between organizations as well as IT architecture options must be analyzed in relation to each other. For this reason, the EU Services Directive implementation confronts e-government with a tremendous challenge.

## **2. European Legislative Context**

The EU Services Directive (Directive 2006/123/EG), which was passed in December 2006, should simplify access to the services market in all member states of the European Union and eliminate existing bureaucratic barriers for service providers, thus promoting cross-border services within Europe.

The concept of “service” is, in line with the EC Treaty and the related case law of the ECJ, defined in a broad manner. It encompasses any self-employed economic activity which is normally provided for remuneration, as referred to in Article 50 of the EC Treaty. Thus, within the meaning of the EC Treaty and the Services Directive, in order to constitute a “service” an activity has to be a self-employed activity, i.e. it has to be supplied by a provider (which could be a natural or a legal person) outside the ties of a contract of employment; some services are however excluded from regulation in this directive.

The directive must become national law in all EU states by December 2009. In order to achieve this, the governments and administrations of the member states have to complete a multitude of tasks associated with comprehensive modifications to business and administrative law.

The articles of the directive provide for the administrative simplification (procedures and formalities, use of Points of Single Contact through which information, assistance and electronic transactions are offered to EU-wide service providers), freedom of establishment and free movement of services for service providers, quality of services, administrative cooperation between member-states, and the review of legislation and mutual evaluation process.

As part of "One Stop Government" it is necessary to set up Points of Single Contact (Article 6) for service providers and to accompany them in all administrative processes during the entire life cycle from the cradle to the grave: from the start up of services activities and during the course of these services activities right through to liquidation (Handbook on Implementation of the Services Directive, EC, 2007).

These points of single contact should keep service providers from other EU member states informed about all relevant guidelines and responsibilities and also help with the processing of procedures and formalities in the public sector (Article 7). It is assumed that points of single contact in many member states will not only be assigned to foreign service providers: this service will also be offered to national businesses for politico-economic reasons (Handbook on Implementation of the Services Directive, EC, 2007).

Furthermore, public authorities at all administrative levels must ensure that the administrative procedures affected by the EU Services Directive can be electronically transacted (Article 8). The authorization procedures and formalities (Article 13) must be simplified so that applications can be processed promptly and within a predetermined and publicized timeframe. If an application is not processed within the time limit, authorization is granted. A legislation screening, in which all governments are required to scrutinize the available rules, procedures and formalities (Article 5) in relation to the directive in terms of necessity, simplicity and optimization should, in addition, have an enduring effect by contributing to the dismantling of bureaucracy (Handbook on Implementation of the Services Directive, EC, 2007).

To support the EU's internal services market, the EU member states must ensure that public administration bodies cooperate with each other. Furthermore, with the internal market information system (IMI), administrative assistance between the member states (Articles 28 and 29) should be guaranteed in electronic form. The Internal Market Information System (IMI) is a database-driven system designed to help the various public administration bodies in the EU member states to work together and exchange information. It is financed and developed by the European Commission. In a first step, the IMI is being realized for the mutual recognition of professional qualifications in accordance with Directive 2005/36/EC. For the pilot phase, which started in March 2008, the respective approbation and licensing agencies of all member countries were registered in the database for the four pilot professions physician, pharmacist, physical

therapist, and tax consultant/certified public accountant (Handbook on Implementation of the Services Directive, EC, 2007); it is planned to expand the IMI gradually to other professions. The goal is not only to foster collaboration, but at the same time to improve the monitoring of service providers by the controlling agencies (e.g. to combat the misclassification of employees as independent contractors) (Handbook on Implementation of the Services Directive, EC, 2007).

### **3. Point of Single Contact: General Requirements and Conceptual Alternatives**

Discussions about how to design Points of Single Contact are occurring in different ways in the various EU member states. The respective national lawmakers are interpreting the EU Services Directive according to their own agendas and their legal framework within national law. The EU Commission produced a handbook (Handbook on Implementation of the Services Directive, EC, 2007) for the implementation of the EU Services Directive in autumn 2007. Nonetheless, within the European Union some of the ideas for the design of points of single contact are quite dissimilar. This stems back to the various players who have been entrusted with implementing this and their visions as well as their financial and personnel capacities.

The vision for points of single contact should be made concrete in terms of the directive from an academic viewpoint and be embedded in existing models. This is important, because all administrative theoretical models and information technology models associated with the service directive are extremely significant for the approaching implementation (von Lucke, Eckert, and Breitenstrom, 2008).

The European Internal Market for services should improve with the EU Services Directive, as it will simplify access to the other member states' markets for service providers and promote cross-border provision of services.

Bureaucratic obstacles which hinder the freedom and establishment of services should be eliminated with the realization process.

Until now, if a service provider wanted to provide services in another member state this may have required multiple administrative paths dependent on the sphere of service activity. As a rule, departments and public authorities are only responsible for very specific tasks and for specific regions. The division of administration into material and localized responsibilities leads to multiple collections and redundant saving of data both from service providers and about services providers. This causes additional work and sometimes creates inconsistent databases. This fragmentation within the public sector creates additional time and energy expenditure. Effort, energy and money are required to overcome this problem. For many service providers a lot of things are unclear, such as which processes and formalities are actually necessary for their services activities and which government departments they must track down for explanations, notifications, authorizations, enrollments and registrations.

With the establishment of points of single contact, the member states should ensure that service providers can carry out all procedures and formalities related to the start up and carrying out of services activities through a point of single contact by the end of 2009.

This should support service providers in bringing their services to other member states by acting as advisor, pilot and mediator of basic information, by preparing, receiving and forwarding procedural correspondence and making it understandable by taking over coordination tasks such as sharing information about changes and notifying them of compulsory notifications that are relevant for the authorization process.

The vision for points of single contact reaches beyond regional and national administrative barriers and responsibilities. Points of single contact must be in the position to help the service providers with information and their procedural correspondence with administration authorities outside their local area of responsibility. Thus a point of single contact should also be in the position to communicate with public authorities. Service providers also wish to be informed about existing advisory, support and qualification services from business, chambers, banks and other organizations.

### **3.1. Integration in Administration Portal Models**

“Portals” should be seen as easy to use, secure and personalisable access systems through which the user, dependent on their respective access authorization, can gain access to information, applications, processes and people that are available on the systems made available through the portal.

Access to the portal can take place via various media and access channels in accordance with the “multi channel principle” (von Lucke, Eckert, and Breitenstrom, 2008) (legitimate alternative usage of e-mail, internet, telephone, regular mail or fax). Mediators of voice based telephony, personal and written channels can access this portal at any time and insert services and applications for their own use. This network of distribution channels enables multi-channel management, allowing all distribution channels to be of a similar quality.

### **3.2. Integration in the One-Stop Paradigm in e-Government**

In theory, customers should be able to complete their requests without any disruptions and in a single transaction. Services proposal will be comfortable, user friendly and designed specifically for customers. For personal customer support, points of contact in the form of customer service agencies should be set up.

These considerations can be taken on by the public sector at a basic level. Here too it would be possible to reduce the number of contacts for citizens and businesses when it comes to administrative matters and offer administrative services from one source. The concept of bundling administrative tasks in one place and in one procedure will be subsumed by the term “One-Stop Government” - OSG irrespective of whether they have been effectively produced or if they were created by more than one organization (von Lucke, Eckert, and Breitenstrom, 2008). With OSG the aim is to integrate various administrative services via one point of contact, irrespective of which administrative agency belongs to which government.



**Figure 1:** OSG related concepts

These points of single contact (“One Shop”/“One Center”) or this “Single Window” in the course of a procedure should be easy to reach for citizens and businesses (“One Convenient Location”), and in a real or virtual place where possible (“One Point of Contact”). A contact person (“One Face to the Customer”) enters various data which is necessary for contact with the administration agency (von Lucke, Eckert, and Breitenstrom, 2008).

Based on these entries, they can either offer citizens specific public services out of one hand which are suitable for their target group („One to Many”) or are tailored to their individual situation („One to One”). No data mismatches, dead time or disconnections should occur during the mutual dialogue, thus in the ideal scenario a singular contact („one stop”).

Thus OSG proposals can be developed for specific target groups or to suit current topics. The temporal and spatial opening up of these proposals allows for greater flexibility. In an ideal scenario, a comprehensive proposal would be available and on call any time and anywhere (von Lucke, Eckert, and Breitenstrom, 2008).

### 3.3. Integration in the Front Office and Back Office

The concept of a point of single contact is also suitable for the “front office” and “back office” models, into which the existing public administration structures can be broken up. A strict separation can be conducted between the front office used for citizens and client contacts on one side and the back office for actual processing and for offered services on the other side.

Traditionally, as the public authorities were the providers of administrative services, they also distributed them (with each public authority having its own distribution channels). As a rule this is done with counter services as well as information and consulting services.

Processes are divided in order to separate front and back offices’ production processes (administrative work and decisions) and distribution.

True interaction between citizens and administrative authorities occurs at counters and front desks. Applicants will receive advice from employees who have been specially trained in customer services. They will help to fill out forms and accept these forms directly from the applicants. If the existing areas of responsibility continue with points of single contact and the EU Services Directive, front offices will simply keep in touch

with the applicant and contact them if there are further queries and requests that have to be verified. When these administrative procedures have been completed, the authorized front office person will inform the applicant of the decision or hand over the administrative office's final product.

Administrative departments in the back office can fully concentrate on their core tasks with the help of these organizational structures.

Front offices, on the other hand, are aimed directly at satisfying citizens' and clients' needs. Separation into front and back offices has further advantages. Front offices create close contact with citizens. They can recognize weaknesses in administrative organizations; make changes to entitlement and sense citizens' dissatisfaction at an early stage. Armed with this knowledge, they can react in a quick and flexible manner. This knowledge of the general public's needs and the needs of businesses makes a kind of holistic support possible (von Lucke, Eckert, and Breitenstrom, 2008).

Preparations for the vision leading towards the creation of points of single contact who will be integrated in administrative portal models, one-stop government and front office/back office models will have a powerful influence on which of the organizational and technical design options will play a role in the 27 national implementations in the European Union (von Lucke, Eckert, and Breitenstrom, 2008).

#### **4. E-Government in Romania**

The Romanian background has to be taken in consideration when reviewing the requirements stated in the previous section. All aspects of e-government (institutions, laws, regulations, interoperability and legacy systems, and other constraints - even of technical nature) must have synergies to the evolving and specific requirements of the Services Directive implementation in Romania.

Therefore, in this section, we depict the main actors and their roles in the implementation, followed by an overview of the legislation to be used and to be changed. Finally, the most relevant e-government systems (in relation to the Directive) are presented.

##### **4.1. Actors and roles**

Generally, the main governmental actors involved in Romanian e-Government are the following (eGovernment Factsheet – Romania):

- MCTI (Ministry for Communications and Information Technology), which is the main actor on policy/strategy, but with attributions also in coordination and implementation area (mainly through its agencies:
  - o ANC – National Authority for Communications - is responsible for creating an institutional regulatory framework in the information technology field, in order to ensure transition to the Information Society and to harmonise national legislation with the EU legislation;
  - o ASSI – Agency for the Services of the Information Society – aims to regulate, implement, operate and manage at national level, the electronic systems that provide eGovernment public services, including the eGovernment Portal (e-

governare.ro), the electronic System for Public Procurement (e-licitatie.ro) and the IT System for the electronic attribution of international goods road transport authorizations(autorizatiiauto.ro);

- o ARS-The National Regulatory and Supervision Authority - has the role of registering and monitoring the providers of certificate services. The authority is obliged to keep online records of providers of such services, available through its web pages);
- MIRA (Ministry of the Interior and Administrative Reform), which has coordination and implementation duties, being at the same time the main beneficiary of e-Government systems;
- MEF (Ministry of Economy and Finances) is one of the beneficiaries of the existing National e-Government system (mainly devoted to collecting taxes and distributing them to agencies);
- MIMMCMA (Ministry for SME, Commerce and Business Environment).

In the case of the EU Services Directive implementation in Romania, the coordinating institution is DAE - Department of European Affairs, which has formed a few months ago 4 Special Work Groups, coordinated respectively by:

Legal Framework	MIMMCTPL
Legal Analysis and Administrative Cooperation	MEF and MIRA
Point of Single Contact	ASSI
Electronic Procedures	MCTI

ASSI is in charge of conceptualization, implementation and operation of Electronic Point(s) of Single Contact.

#### 4.2. Reviewing the Legislation

In recent years the Romanian Government has developed a *legal framework* favoring the development of the Information Society and e-Government (eGovernment Factsheet - Romania):

- Government Decision no 1085/2003 – the application of some provision of Law no. 161/2003 has stipulations concerning the transparency in information management and public services’ administration through electronic means by demanding that financial statements of public officials are published online. It also includes provisions for preventing and fighting cyber crime.
- Freedom of Information Legislation – Law on Free Access to Information of Public Interest (no. 544/2001)
- Law for the Protection of Persons concerning the Processing of Personal Data and the Free Circulation of Such Data (no. 677/2001) allows individuals to access and correct personal information held by public or private bodies and was complemented by recent additions such as law no. 55, (OJ. no. 244/23.03.2005), which ratifies the Additional Protocol to The Convention for the Protection of

Individuals with regard to automatic processing of personal data, referring to control authorities and cross-border data flow. Furthermore, a National Supervisory Authority for Personal Data Processing was established in 2005 by law no. 102/2005 (O.J. no. 391/ 09.05.2005). All of the data protection files previously kept by the Ombudsman have now been handed over to the Authority, which supervises and controls the legality of the personal data processing falling under the law no. 677/2001.

- Law on the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector (no. 506/2004) closely follows the Directive 2002/58/EC on personal data processing and privacy protection in the electronic communications sector.
- Law on electronic commerce was adopted in June 2002 (no. 365/2002) and modified law no. 121/2006. It transposes the main provisions of the directive 2000/31/EC on eCommerce. The main points addressed by the law are the following: free movement of Information Society services, contracts concluded by electronic means, commercial communications through electronic means and ePayments forgery. The law also establishes who can start an eBusiness registered in Romania and how.
- Ordinance on access to the electronic communications networks and to the associated facilities, as well as their interconnection (no. 34/2002). Its provisions are organized around the following points of interest: defining new concepts related to electronic communications, rights and obligations of the operators, powers of the national regulatory authority and possibility for the regulatory authority to impose specific obligations on operators with significant market power. This law transposes the European Directive 2002/19/EC (Access Directive) into national legislation.
- Government emergency ordinance on the general regulatory framework for communications (no. 79/2002) transposes into national legislation the European Directive 2002/20/EC (Authorization Directive) as well as the European Directive 2002/21/EC (Framework Directive).
- Law regarding the Universal Service and the Users' Right related to the Networks and Electronic Communications Services (no. 304/2003) implements principles such as the interdiction to grant any special or exclusive rights for the provision of directory services and transposes the European Universal Service Directive into national legislation.
- Law on the processing of personal data and the protection of privacy in the electronic communications sector (no.506/2004) transposes the European Directive 2002/58/EC on privacy and electronic communications into Romanian law.
- eSignatures Legislation – Law on electronic Signature (no. 455/2001) grants to an eSignature the same legal status as a written one. The Ministry of Communications and Information Technologies (MCTI) is the authority in charge of the regulation of eSignatures. The procedure for approving, delaying and recalling the decision of accreditation of the certification services providers is also defined (OJ no.209/ 11.03.2005).

- Government Emergency Ordinance concerning the Award of Public Contracts, Public Works Concession Contracts and Services Concession Contracts (no. 34/2006) revoked all the previous acts containing provisions on public procurement and merged the two EC eProcurement directives (2004/17/EC and 2004/18/EC) in a sole act.
- Law no. 337/2006 for the approval of the Government Emergency Ordinance no. 34/2006 regarding the award of the public procurement contracts, public works concession contracts and service concession contracts, introducing amendments and supplements.
- Government Decision no 1660/2006, Government Decision no.925/2006, Government Decision no. 1337/2006 – regarding the approval of application norms for the award of public contracts by electronic means from the “Government Emergency Ordinance no. 34/2006 concerning the award of public contracts, public work concession contracts and services concession contracts.”
- Government Ordinance no. 94 on the modification and completion of The Government Emergency Ordinance no. 34/2006 on the award of the public procurement contracts, introducing important changes in the existing eProcurement legal framework.
- Government Decision no 198/2008 is the legislative expression of Manchester Declaration from 2005 of ministers in charge for e-government politics from member states, candidate states and EFTA countries.
- Re-use of Public Sector Information (PSI) – Romanian Public Sector Information Law no. 109 – realize the full transposition of the Directive on the re-use of public sector information (2003/98/EC).
- eTaxation Legislation – Law regarding the electronic payment of local taxes no. 291/2002 regarding the electronic payment of local taxes stipulates that the local public administration authorities have to take all the necessary measures to inform the citizens about the electronic payment of local taxes. As regards preparations for the VAT Information Exchange System, VAT on e-services and the System for Exchange of Excise Data (SEED), significant additional delays occurred in setting up these systems, mainly due to the lack of preparations on the side of the Tax Administration.
- ePayment Legislation – In January 2006, an amendment to an ordinance regulating electronic payments between government and citizens was adopted. As the first stage of the Ministry of Communication and Information Technology’s Virtual Payment Office project, it allows for the electronic payment of fines, taxes and other fiscal obligations.
- Government CIO Office Legislation – The Government Emergency Ordinance no. 25/2007 reshapes the structure of the government. Beside other modifications, the government CIO office is created as Agency for Information Society Services. The organization and functioning of the Agency is regulated by Government Ordinance no.73/2007 which establishes the legal attribution of the agency in the field of providing public services designated for governing by electronic means.

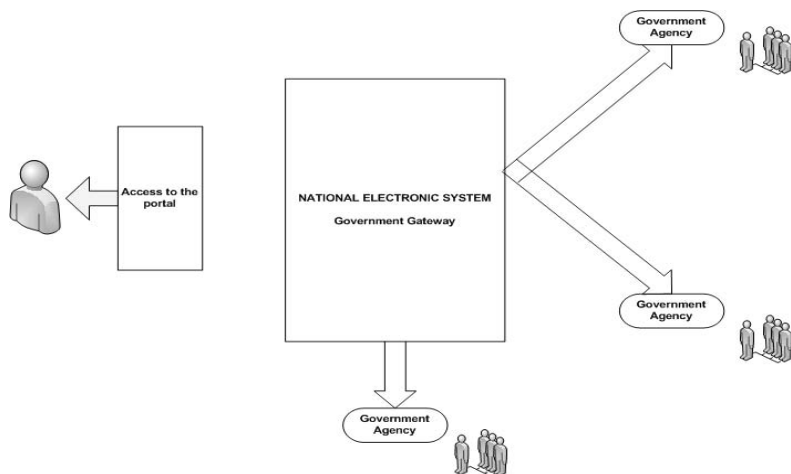
A part of the legislation that must be reviewed or changed under the new circumstances is given below:

- Law 359/2004 regarding the registration procedures with the Trade Registry and for tax purposes of individuals, family partnerships and legal entities and the authorization procedure for legal entities (in force starting October 12, 2004) and its subsequent amendment through Government Emergency Ordinance 75/2004;
- Law no. 343 of 17.07.2006 for the modification and completion of Law no. 571/2003 on the Tax Code;
- Law no. 85/2006 (the "Insolvency Law") regarding the insolvency procedure;
- Government Emergency Ordinance no.27/2003 regarding tacit authorization;
- Government Decision no. 1422/2006 for the modification and completion of Government Decision no. 913/2004 on the approval of taxes and tariffs applied to operations done by the Trade Registry Offices attached to each court.

### 4.3. Relevant e-Government Systems

Relevant Romanian e-Government systems for the Service Directive are: *eGovernment portal, National Electronic System, The Virtual Payment Office, E-forms system and List of taxes.*

The eGovernment portal was launched in September 2003, providing a one-stop shop to central and local public services and forms online, and incorporating a transactional platform.



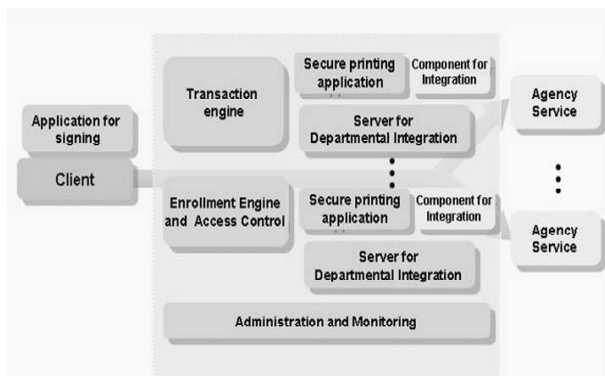
Source: eGovernment Factsheet - Romania

**Figure 2:** SEN architecture.

In order for the portal front-office to be a single point of access to eGovernment services, the *National Electronic System (SEN)* was developed in parallel to serve as the infrastructure of the portal and is operated by ASSI. SEN routes requests to a back-end system using XML-based Web services. It works as a data interchange hub that ensures

interoperability with back-end systems across government (eGovernment Factsheet - Romania).

SEN offers online services for ANOFM, CNAS, CNPAS, Taxes & VAT–MFP. It features are: centralized system for routing documents, centralized security, interoperability, standard communication mechanism, standard messages format (XML). The SEN modules are: Transactions Engine (TE), Enrollment Engine and Access Control (EEAC), The Server for Departmental Integration (SDI), Administration and Monitoring (AM), Applet for Digital Signature (ADS).



Source: eGovernment Factsheet – Romania

**Figure 3:** SEN modules.

SDK is used by the developers in order to create new integrated applications. SEN-SDK is a collection of documents, services and functions. The executable module is available as a.dll file. Client application can be developed in.NET or.non.NET – Java and VB.

“The Virtual Payment Office” (*Ghişeu virtual de plăți*) project aims at facilitating citizens’ interaction with the public administration by allowing for the electronic payment of fines, taxes and other fiscal obligations by means of bank cards (eGovernment Factsheet - Romania).

The *E-forms system* of the *National Trade Register Office* (ONRC) provides access to the intelligent forms (legal changes of the company) that can be electronically signed and sent to the competent authority.

List of taxes from Ministry of Finance give us useful information about the legal taxes and their cost.

### 5. Toward the Architecture Definition for the Point of Single Contact

The architecture for the Directive implementation can be defined only after making choices with regard to the organizational design options. Important issues to be answered include:

- owner of PSCs;
- number of PSCs;

- location of PSCs;
- types and tasks of PSCs;
- targeted audiences;
- level of responsibility;
- business model for PSCs.

Because the first three issues are interrelated, we will first try to present the alternatives in their case. Points of Single Contact can be situated as part of the state administration either on a national level – in existing state authorities such as ASSI in Romania (the existing agency model) or in an autonomous agency (new agency model), or in the 8 development regions of Romania (regional model) or as part of a county or city authority (county/local model). Other possible models are to include PSCs as part of chambers and professional guilds (all chamber model or business chamber model) or by chambers and county authorities together (cooperation model), or even to include private initiatives (open model). When designing the architectural framework the high number of individual points of contact and the fact that all models could be realized simultaneously must be taken into consideration.

In Romania, the preferred solution seems to be the centralized Agency solution (in which case ASSI would be the operator of the IT system).

As a side note, on the regional model the existing „Territorial Offices for SMEs and Cooperative Work” can provide some support.

**Table 1:** Estimation of possible number of PSCs for Romania

PSC-Model	Number	Orientation
Agency	1	National Agency
Regional	8	NUTS II Regions
County	42	NUTS III „Județe”
Local	103/ 211/ 2827	Municipalities/ Cities / Communes
Business Chamber Model	43	Chamber of Commerce and Industry
Profession Chamber Model	15	Chambers for Liberal Professions
Cooperation Model	100	Chambers and Professions and Counties
Open Model	110+	Cooperation plus private initiatives

Within a government the work of the point of single contact can be transferred to business development, business administration, top level management, the citizen’s office, call centers, IT providers or it can be established as an autonomous institution. On the one hand institutions assigned as points of single contact should be fully supported by information technology. On the other hand it should also be possible to prepare and present the complete range of tasks electronically, as with high performance portals. Local agents might use these portals as a shared service, to introduce their own telephonic (call center) and personal (business advisory agency) channels.

The PSC can be classified according to the executed activities in one of the following classes (von Lucke, Eckert, and Breitenstrom, 2008):

<b>Messenger</b>	Messenger services, no insight in applications
<b>Consultant</b>	Messenger, simple inquiries and consulting
<b>Pilot</b>	Messenger, consultant and pilot with an insight, but without a mandate
<b>Intermediary</b>	Intermediary with a mandate for simple decisions
<b>Manager</b>	Instructed manager with a full mandate
<b>Super Agency</b>	Bundling of all responsibilities and tasks in a new agency

**Figure 4:** PSC types by activities and objective responsibilities

<b>Local Responsibilities</b>	<b>1:1</b>	Local directory-based responsibility finder Direct contact only to the responsible agency on the local level (one local area) and to other points of single contacts
<b>Regional Responsibilities</b>	<b>1:n</b>	Regional directory-based responsibility finder Direct contact only to the responsible agencies in the region (several local areas) and to other points of single contact
<b>All Responsibility</b>	<b>m:n</b>	Federation of directory-based responsibility finders Direct contact to all responsible agencies and to the federation of points of single contacts

**Figure 5:** PSC classification according to the means of finding/assigning responsibility

The targeted audiences could include, beside service providers from EU (firms, associations etc.), existing or prospecting investors from Romania (wanting to open a business, a new branch, or a new business domain).

A possible business model for the PSC establishment could be based on the existence of so-called PSC-Light private sector managers (von Lucke, Eckert, and Breitenstrom, 2008); there could be some new private institutions with a limited portfolio that take care of client’s demands. The offered functionalities could be provision of information, helping while preparing applications, handling and checking of applications, forwarding to PSCs.

The existence of this business model is determined by the level of complexity and centralization of the government’s PSC, mainly if the governmental PSC is limited to a Messenger type or has Local-Responsibility or a lower quality of the IT implementation.

The organizational options presented above are only the first milestone to be overcome. Some important technical issues (presented below in a rough chronological order) must also be solved (von Lucke, Eckert, and Breitenstrom, 2008):

- Trust, security, identity management, electronic document safes;
- Knowledge management;

- Accessibility: multilingualism, assistance, multi-channeling;
- Collecting charges;
- Use case identification, process analysis and definition/optimization;
- Services: sharing, storage and communication, aggregation;
- Standardization to provide interoperability on all levels (organizational, technical, semantic).

An important feature is that of *multilingualism*. The most important commercial partners of Romania (as of 2007, EU member states) (National Commission of Prognosis, 2008) are, in decreasing order: Germany, Italy, Hungary, France, Austria, Netherlands, Poland, and Bulgaria. These are first candidates for the translation of the information presented on PSCs. Besides these and the obvious Romanian and English versions, other important non-EU commercial partners such as Russia, Turkey, China, and neighbors (i.e. Serbia, Ukraine) could use a PSC extended with translations in their languages. A comprehensive list of translations must be updated regularly.

The technical implementation demands the *definition of shared services* (in order to eliminate redundancy, inefficient parallel developments and to reduce costs). These could be provided by shared service providers and offered by way of integrated portals.

Shared services for points of single contact (front office)	<ul style="list-style-type: none"> <li>▪ PSC portal (high performance portal)</li> <li>▪ Knowledge management system</li> <li>▪ Case management system</li> <li>▪ Identity management system</li> <li>▪ Basic components</li> </ul>
Shared services for the competent authorities (back office)	<ul style="list-style-type: none"> <li>▪ Public sector software</li> <li>▪ Processes of public sector services</li> <li>▪ Communication components</li> <li>▪ Basic components</li> </ul>
Shared services for the service providers	<ul style="list-style-type: none"> <li>▪ SD portal (PSC entry point portal)</li> <li>▪ European Federation of SD portals</li> <li>▪ Document safe</li> </ul>

**Figure 6:** Opportunities for Shared Services

From a technical viewpoint, there would be at least the following components (von Lucke, Eckert, and Breitenstrom, 2008):

- Electronic data-safes for service providers
- Knowledge Management systems and ontologies (directory based institution –, responsibility – and service-finders, organization of information and human procedures);
- Case Management systems (based on CRMs with multiple channels);
- Basic Components/Services (database, directory, content management services, archival, e-payment, signature, identity management, auditing, virtual mail etc.);
- Shared Services;
- General Processes (automated procedures aggregating separate electronic services).

In Germany, there were a number of successful initiatives (most notably BundOnline and eGovernment 2.0). Deutschland Online (<http://www.deutschland-online.de/>) is the latest defined programme, having 5 prioritized projects (one of which is implementation of Services Directive). In the scope of enhancing business opportunities through e-Government, a classification of business events, and activity areas was defined. The following figure describes the coarse classification of business-events as seen by a service provider, and can be helpful to establish a common ontology for doing business in European countries (von Lucke, Eckert, and Breitenstrom, 2008).

Danger Defense and Security	Company Transfer Company Closure	Preparation for Setting up Business	Business Start-Up and Buildup	Financing
Appeal and Suggestions	Help in Times of Need and Crisis		Promotion	Register, Rolls and Directories
Business Control				Taxes and Duties
Legal Dunning	Investments abroad		Statistics and report duties	Human Resources
Development and Expansion	Acquisitions and Fusions	Public Procurement	Insurance	Real Estate and Transport
Import and Export	Bond Issues	Patents and Brands	Innovation	E-Business and E-Commerce

**Figure 7:** Coarse classification of business-events

On a more granular level, there are some best-practice examples that should be taken into account. For instance, the German land Baden-Württemberg developed a portal (<http://www.service-bw.de>) for the pilot-project of EU-SD implementation that groups applications according to life events and business events, has index and keyword search, online-forms and contact data, notices and application tracking, guides and assistance, forums. The user is helped to filter and decrease the amount of information by specifying his language (from 3 languages), location, and role (8 roles are defined for citizens). For the implementation of the Directive in their land (which was regarded as a kind of pilot-project by the other lands), the Baden-Württemberg Ministry of Interior devised a partner model (with over 40 partners), 3 scientific projects, and 3 Working Groups (Processes, legislation and organization; Portals and information management; IT Architectural Framework). It is important to compare this organization to the 4 Romanian Special Working Groups coordinated by DAE.

Another example is a portal developed by the German Ministry of Economy and Technology (<http://wegweiser.softwarepaket.de>) to ease the creation of firms and organizations in Germany from outside and inside Germany and EU.

Other best-practices go even further with the idea of user-centrism: in Austria (<http://help.gv.at/>) and Estonia (<http://www.eesti.ee/eng/>) most of the administration is online; even the public sector servants use the same portal as the citizens, while being granted various roles and permissions with regard to the applications and documents.

The recommended general steps in Romanian e-Government would be the following:

- standardized and/or recommended document formats for human interchange;
- standardized *data formats for automatic data exchange* (i.e. similar to Germany's OSCI-XÖV-Standards: XMeld, XBau, XDomea, XFinanz, XJustiz, XKasse, XKfz, XPersonenstand, XPlanung, XSozial, XStatistik etc.);
- *standardized protocols for secure communication, routing, document distribution* (e.g. similar to SEN and OSCI-Transport, covering trust, integrity, authentication, non-repudiation);
- *software architectures and frameworks* (similar to the SAGA standards and recommendations, <http://www.kbst.bund.de/saga>);
- *directory of public administration services/software*, analogous to the German DVDV; this would increase private participation together with software/service quality.

The specific technical steps for the implementation of the Directive in Romania (i.e. PSC) would be:

- Usage and extension of Romania's SEN as the "Government Service Bus", analogous to the OSCI-Transport; it is essential not to duplicate previous efforts and to define only the data formats for the interchange
- Use case identification for foreign and national service providers
- Full architecture definition
- Process analysis and definition/optimization
- Creation of a pool of shared services

We made an initial evaluation of the procedures that must be handled by the IT system implementing the Directive, guided by the World Bank's report "Doing Business 2008" (World Bank, 2008) applied to Romania. The basic use-cases are: Starting a Business; Dealing with Licenses; Employing Workers; Registering Property; Getting Credit; Protecting Investors; Paying Taxes; Trading Across Borders; Enforcing Contracts; Closing a Business.

## **6. Conclusions and Outlook**

Besides requiring Member States to take concrete legislative measures, the Services Directive asks them to put in place a variety of practical measures such as points of single contact for service providers, electronic procedures and administrative cooperation. It also introduces innovative instruments, such as the review of national legislation and the process of mutual evaluation. If implemented properly, these will continue to further the development of the Internal Market for Services well beyond the Directive's implementation deadline. It is indeed clear that the Services Directive will not just require a one-off act of implementation but will also trigger a dynamic process, the benefits of which will unfold over the years.

The directive will definitely be extended with complementary measures on other domains (i.e. in the banking, payment and financial domain, taxation etc.). Its complete implementation will probably be followed in 2010-2013 by an even more ambitious

plan in the services area (focused on cross-border identity and trust, and on inter-state cooperation).

EU Services Directive is really important for Romania, given that it is an obligation assumed by each EU member state within a clear time-frame (until end of 2009). Its European dimension and importance is highlighted by the need to avoid pressures from other member-states and from service providers, in case the implementation is delayed. There are also positive outcomes: first, full and timely implementation can give a competitive edge in stimulating the New Economy, in regard to both internal and external service providers; second, the Romanian public administration is forced to document, reform and simplify its procedures.

A newly created association dedicated to applied research on electronic services (e-CAESAR, Center for Advanced Studies on Electronic Services, <http://www.e-caesar.ro/>) was created to strengthen the cooperation between Academy of Economic Studies (ASE), University Politehnica of Bucharest (UPB), and the German Fraunhofer Society. Fraunhofer FOKUS Institute is Germany's leading technological think-tank on major e-Government projects - from requirements, analysis, design, simulation, pilot-project and proof-of-concept implementations, to practical scenarios and tests; having good contacts and close bonds Europe-wide with other research centers, the German Institute brings its expertise on EU-Services Directive and e-Identity Management on national and European level.

The next steps towards the Romanian implementation of the Services Directive, as envisioned by e-CAESAR, are the creation of an exhaustive architecture covering all possible use-cases, and the identification of the use-cases that have the biggest impact in Romania; here close cooperation with DAE, MCTI and ASSI is mandatory. The next logical phase is the definition, modeling and simulation of business processes for the selected use-cases.

Finally, together with industry partners and their technologies, e-CAESAR aims to implement and demonstrate such scenarios for public administration in laboratories and pilot-projects.

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