

The National Interoperability Framework: A new regulatory tool to guarantee interoperability among Spanish Public Administrations

Agustí Cerrillo

Universitat Oberta de Catalunya

Barcelona, Spain

acerrillo@uoc.edu

Abstract

In this paper we describe the Spanish regulation of the National Interoperability Framework which is a new interoperability mechanism in Spanish Public Administrations (State, regions and municipalities) foreseen in the recently passed Act 11/2007, 22nd June, on electronic access of citizens to public services

Keywords

Interoperability, National Interoperability Framework, Spain

INTRODUCTION

Relationship among Public Administrations in e-Government is one of the main motors to promote its development. As it has been stated by the European Commission “failure to put in place interoperable eGovernment systems will have both economic and social costs. These include: static unresponsive public administrations that are expensive to run and incapable of implementing policy promptly; inability to develop value added eGovernment services; higher costs, greater administrative burden and competitive disadvantage relative to local firms (e.g. inability to participate in public e-procurement activities), and hampering the proper functioning of the Internal Market” (European Commission, 2003). Afterwards, the European Commission in its Communication on Interoperability for Pan-European eGovernment Services states that “interoperability is a prerequisite for the delivery of eGovernment services across national and organisational boundaries” (European Commission, 2006).

Different mechanisms have already been used in Spain through which Public Administrations establish and canalize their relations to increase the interchange of data, to facilitate the transaction in administrative procedures and to improve the benefits of the use of electronic means in Public Administrations.

However, the lack of a specific regulation of the relations among Public Administrations regarding the development of e-government, a part from general law principles applied to the relations among Spanish Public Administrations (i.e.,

transparency, coordination or cooperation), has limited the advance of interoperability in Spain.

That is why, as stated later, the regulation of interoperability mechanisms by Act 11/2007, 22nd June, on electronic access of citizens to public services will facilitate the advance in the cooperation and the interoperability of Spanish Public Administrations.

REGULATION OF INTEROPERABILITY IN SPAIN

Nevertheless, the regulation of different mechanisms of cooperation and interoperability may not be sufficient by itself. E-government has a polyhedral character. For that reason, to progress in the relations among Public Administrations in e-government it is necessary to establish technical criteria shared by different Public Administrations that allow the interconnection and interchange of data among them, to count on political leadership that impels the organizational changes necessary to approach this interrelation, and also, to regulate different mechanisms through which advance in the interadministrative cooperation in e-government.

The importance of the regulation of interoperability has not generally been emphasised. In a country like Spain with an administrative law tradition, regulation has an important role to improve interoperability.¹

That is the reason why, on the one hand, a lack of regulation can be an obstacle to interoperability. In this sense, we can take into account the Interoperability Declaration of Valencia when it states as a priority that “Member States, regions or local administrations, according to the different distribution of competencies legally established in each Member State, should incorporate to their own legislation, at an imperative level, the rules, standards, recommendations and instructions related to interoperability that integrate the European Interoperability Framework and the other ones that the European Interoperability Agency could determinate” (ESIIG, 2006).

¹ As it was pointed in the report *Breaking barriers to e-government*, a regulation that promotes open standards, technologies or platforms can become an important mean to improve interoperability” (OII, 2007).

But, on the other hand, excessive regulation can become a brake to the development of interoperability and in general e-government.

Interoperability in Spain has not been specifically regulated until the approval of *Act 11/2007*. However, in the last years different mechanisms have been settled down to allow interoperability between e-government applications developed by Spanish Public Administrations.

In the Spanish Public Administration (state level) the main initiative in the field of interoperability is found in the *Criteria of security, normalization and conservation of the applications used for the exercise of powers*.²

The *Criteria of security, normalization and conservation* have three main purposes:

- To facilitate the adoption by Spanish Public Administration of organizational and technical measures that assure authenticity, confidentiality, integrity, availability and conservation of information and data in the applications used by it in the exercise of its powers.
- To provide a set of organizational and technical measures of security, normalization and conservation that guarantee the fulfillment of the legal requirements for the validity and effectiveness of administrative procedures of Spanish Public Administration, which use electronic means in the exercise of its powers.
- To promote the maximum use of information and communication technologies in the administrative activity, making sure the protection of citizens' information in their relations with Public Administration.

Criteria of security, normalization and conservation are based in a set of technical rules widely accepted that pursue guarantee interoperability among public bodies in the Spanish Public Administration. These *Criteria* are structured in three volumes: security criteria, normalization criteria and conservation criteria.

² The *Criteria of security, normalization and conservation of the applications used for the exercise of powers* has been for a long time the only interoperability mechanism in the Spanish Public Administration at the state level. The *Criteria* were prepared by Consejo Superior de Informática y para el impulso de la Administración Electrónica (CSI) and they were passed by Comisión Interministerial de Adquisición de Bienes y Servicios Informáticos, in June, 24th, 2004.

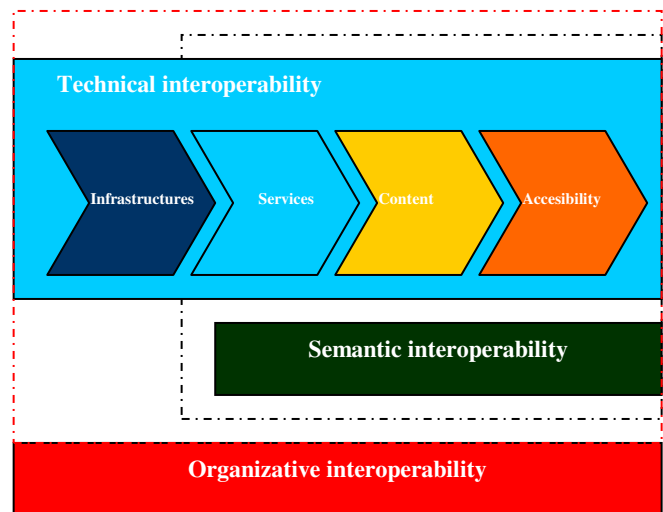


Figure 1. Interoperability levels included in the Criteria of security, normalization and conservation

In addition to *Criteria of security, normalization and conservation* some collaboration agreements have been signed to move forward interconnection among State Public Administration and regional and local ones.³

In the regional and local level, interoperability has been regulated by different instruments. As an example, in Catalonia interoperability has been a public goal of different Public Administrations (not only in the regional level, but also in the local one) during the last few years. In particular, in 2002 Generalitat de Catalunya and municipalities (through Consortium Localret (Consortium for the implementation of telecommunication network and new technologies) created Catalan Consortium for Open Administration (Consortori Administració Oberta de Catalunya- Consorci AOC).

Many of Catalan Public Administrations also signed an agreement in 2006 to promote and develop interoperability among Catalanian Public Administrations information systems.⁴

However, as it has been stated, the main change in the regulation of interoperability mechanisms in Spain will be in the application of *Act 11/2007*. *Act 11/2007* foresees coopera-

³ As an example it can be cited the Collaboration Agreement among Federación Española de Municipios y Provincias, Asociación Española de Banca, Confederación de Cajas de Ahorros, Unión Nacional de Cooperativas de Crédito and Red.es to spread and implement the use of electronic payment service in municipalities.

⁴ Conveni marc de col·laboració entre el Departament de Governació i Administracions Públiques, en nom de l'administració de la Generalitat de Catalunya, el Consorci Localret, l'Ajuntament de Barcelona i el Consorci Administració Oberta Electrònica de Catalunya per a l'impuls i el desenvolupament de la interoperabilitat dels sistemes d'informació de les administracions catalanes. Available in: http://www.aoc.cat/index.php/ezwebin_site/content/view/full/446 (last visit: 21/07/2008).

Further information about the Catalan Interoperability Model in (Albors, Carabante, 2007)

tion in the electronic means used by the public Administrations as general principle.⁵ This principle intends "to guarantee both the interoperability of the systems and the solutions adopted by each of them and the services given to the citizens (...) In particular, the mutual recognition of electronic documents and means of identification and authentication arranged in the present Law will be guaranteed".

From a general point of view, the development of interoperability supposes a precision of the principles of coordination and interadministrative cooperation. In particular, interoperability is defined in *Act 11/2007* as "the capacity of information systems, and therefore the procurements based on them, to share data and to make possible information and knowledge interchange among them".

As it is widely known, Spain is a decentralized State where political and administrative powers are distributed among the State, regions and municipalities. In relation with this, the priorities fixed by Interoperability Declaration of Valencia should be reminded. In particular, when it is stated that "the public administrations, specially the regional and national ones, should specifically incorporate within their plans or programs on Information and Communication Technologies and the Knowledge Society, strategic action lines on the subject of interoperability" (ESIIG, 2006).

The collaboration and the interadministrative cooperation in e-government take shape through different instruments. Interoperability implies the use of different cooperation mechanisms: the creation of public bodies to coordinate Public Administrations (Sectorial Commission of e-government), procedures and agreements. *Act 11/2007* makes reference to all these mechanisms.

Chapter II of Title IV *Act 11/2007* regulates the hard core of the system of interoperability among Spanish Public Administrations. In particular, it defines the interoperability principle and it foresees the passing of the National Interoperability Framework. In addition, it regulates different infrastructures for the interoperability like the Communication network of the Spanish Public Administrations (SARA Network)⁶ and the Integrated Network of Attention to the Citizen (Red 060).⁷

As starting point, article 41 *Act 11/2007* foresees that the relations of the Public Administrations among them and with citizens will be made by electronic means when they have a suitable level of technical, semantic and organizational interoperability and avoid any discrimination to the citizens for reason of their technological election. That is why technological, organizational and security measures that are necessary should be applied.

This way, interoperability as a principle that must govern the relations of the public administrations among them and

with the citizens is added. This interoperability must be applied in the three areas already mentioned (technician, organizational and semantic) and must be implanted through measures of different order necessary to guarantee this principle.

THE NATIONAL INTEROPERABILITY FRAMEWORK

The principles alluded before must guide the development of the Spanish policy of interoperability that will be settled in the National Interoperability Framework as other European State members did impelled by the European Union, when articulating their interoperability policies through the adoption of interoperability frameworks or schemes. As it has been defined by the European Interoperability Framework, an interoperability framework is a "set of standards and guidelines that describes the way in which organisations have agreed, or should agree, to interact with each other" (IDABC, 2004).

In agreement with it, *Act 11/2007*, 22 June, *electronic access of citizens to public services*, foresees that the National Interoperability Framework will include a set of criteria and recommendations in the field of security, conservation and normalization of data, formats and applications.⁸

Spanish Public Administrations (state, regions and local government) should take all these criteria and recommendations into account when making technological decisions that guarantee interoperability. The National Interoperability Framework must be sufficiently detailed to allow the effective interoperability between Public Administrations, but it must as well be flexible enough to allow different Public Administrations to develop an own model of e-Government. Otherwise, the development of this mechanism of cooperation can have a negative impact on the autonomy of Autonomous Communities and Local Government.

The National Interoperability Framework intends to give the rules that must be respected by the information systems developed, to the people in charge of the projects and applications of e-government. In fact everything aims at that, in spite of their technical character, the criteria and recommendations incorporated in the National Interoperability Framework must be respected by all Public Administrations in the development of their projects of e-Government. The writing of the rule that is analyzed ('should be taken into account by Public administrations') seems to confirm this opinion. This follows the same line as in France and United Kingdom where the *Référentiel Général d'Interoperabilité* (RGI) or the *e-Government Interoperability Framework* (e-GIF) foresee that Public Administration have to follow their standards and policies. Whereas, it is different to the German regulation (*Standards and Architectures for e-government applications -SAGA*) which states that Public

⁵ Article 4.e) *Act 11/2007*.

⁶ <http://www.csi.map.es/csi/pg5r12.htm>

⁷ <http://www.060.es/>

⁸ Article 42.1 *Act 11/2007*.

Administrations can follow what it is stated in the National Interoperability Framework. It is also possible to decide if the procedure and act to pass the National Interoperability Framework and the act must be considered. Anyway, the fact that the law foresees that the National Interoperability Framework includes "the set of criteria and recommendations" seems to limit the reach of its normative character (Guijarro, 2007).

Act 11/2007 foresees a procedure for the adoption and passing of the National Interoperability Framework that aims to integrate the opinions of the different public administrations affected. Thus, in particular, article 42.3 establishes that it will be passed by the Spanish Government, through a Royal Decree, after being proposed by the Sectorial Conference of Public Administration and with the previous report of the National Commission of Local Administration.⁹

The establishment of this complex procedure that intends to integrate the different territorial levels in the elaboration of the National Interoperability Framework is significantly important considering its importance in the development of the e-government at a state, regional and local level. Anyway, we should also notice that the leadership of the process of elaboration of the National Interoperability Framework, as well as its definitive passing, corresponds to the Spanish Public Administration, which should take a sensitive attitude towards regional and local points of view.

As it has been defined by the European Interoperability Framework, an interoperability framework "is not a static document and may have to be adapted over time as technologies, standards and administrative requirements change" (IDABC, 2004). *Act 11/2007* is conscious of the dynamic character of the regulation of interoperability. For that reason, it anticipates that the National Interoperability Framework should be permanently updated. In spite of the dynamic character of the National Interoperability Framework, *Act 11/2007* does not establish any mechanism for its revision and periodic update. Neither does it anticipate any mechanism to check its fulfillment as it is done in the United Kingdom where mechanism of acceptance and implementation have been established.¹⁰ Perhaps a regulation of these aspects corresponds rather to a norm of prescribed character than to the own *Act 11/2007*. Nevertheless, *Act 11/2007* could have mentioned the application of the National Interoperability Framework which would have reinforced its normative character.

⁹ National Commission of Local Authorities (Comisión Nacional de Administración Local) is a permanent public body to canalize collaboration among State and local authorities which includes representatives from the State and Spanish municipalities in the same proportion. It has been regulated by articles 117-119 Local Regime Law passed in April, 2nd, 1985 and Royal Decree 427/2005, April, 15th.

¹⁰ *e-GIF Compliance Assessment Service*, accessible in <http://www.egifcompliance.org/> and e-GIF Accreditation Authority, accessible in <http://www.egifaccreditation.org/> (last visit: 18/09/2007).

Regarding the specific content of the National Interoperability Framework, *Act 11/2007* gives nothing more than some directions or recommendations that must be taken into account. Thus, in particular, it is expected that in the elaboration of the National Interoperability Framework the recommendations of the European Union will be considered. Also, *Act 11/2007* expects that the existing electronic services will also be taken into account.

Finally, *Act 11/2007* establishes that the National Interoperability Framework must consider the use of open standards. So, as it has been pointed in the previous pages, this aspect is crucial to assure the advance of interoperability. Nevertheless, it must be observed how *Act 11/2007* by open standards has not been total when considering, of complementary way, the possibility of resorting to the standards that are of use generalized by the citizens.

CONCLUDING REMARKS

National Interoperability Framework is widespread mechanism to promote interoperability in e-government. In Spain there is no previous experience in the adoption of an interoperability framework further than *Criteria of security, normalization and conservation of the applications used for the exercise of powers*.

Act 11/2007 foresees the adoption of a Spanish National Interoperability Framework. The rules, standards and recommendations included in the Spanish National Interoperability Framework must be respected by all Public Administrations (State, regions and municipalities).

The adoption of a National Interoperability Framework can promote that interoperability will be easier reached among Spanish Public Administrations. However, a detailed framework can restrict autonomy both from regions and municipalities. That is the reason why the procedure followed to pass the National Interoperability Framework acquire an special importance in order to guarantee the participation of all affected Public Administrations.

REFERENCES

Albors, I.; Carabante, S., The Catalan Interoperability Model. eGovernment Interoperability Campus. 2007. 10 & 11 October 2007 - Paris (France). Available at <http://www.egovinterop.net/Res/10/Albors%20paper.pdf>> Last visit: 21/07/2008 (2007)

European Commission, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions about "The Role of eGovernment for Europe's Future", September, 26th, 2003 [COM(2003) 567 final] (2003)

European Commission, Communication From The Commission to the Council and the European Parliament Inter-

operability for Pan-European eGovernment Services, February, 13th, 2006 [COM(2006) 45 final], (2006)

Guijarro, L., Interoperability frameworks and enterprise architectures in e-government initiatives in Europe and the United States”, *Government Information Quarterly*, núm.24 (2007)

IDABC, European Interoperability Framework for Pan-european eGovernment Services (ver. 1), available at: <<http://ec.europa.eu/idabc/servlets/Doc?id=19528>> (last visit: 18/09/2007) (2004)

Interoperability Declaration of Valencia, I European Summit on Interoperability in the iGovernment, Valencia, November, 22-24th, 2006

Oxford Internet Institute, Breaking barriers to E-Government. Overcoming Obstacles to Improving European Public Services. Online survey of barriers to E-Government, available at: <<http://www.egovbarriers.org/?view=survey> >(last visit: 18/09/2007) (2007).