

IFPortal:

A Web Portal for the Characterization and Comparison of Government Interoperability Frameworks

Luis Campos, Centro ALGORITMI, University of Minho, Braga, Portugal

Delfina Soares, Centro ALGORITMI, University of Minho, Braga, Portugal

ABSTRACT

The search for better and more adequate levels of government information systems interoperability led many governments all over the world to develop, adopt and publish what is known as e-government interoperability frameworks – documents that specify a set of common elements such as vocabularies, concepts, principles, policies, guidelines, recommendations, standards, and practices for agencies that wish to work together, towards the joint delivery of public services. The central purpose of this paper is to present a detailed description of a portal — IFPortal — that could provide a simple and appropriate way to aggregate, analyze, compare, and display information about e-government interoperability frameworks. Such a portal will enable the registration, search, visualization, analysis, and comparison of interoperability frameworks' content, structure and scope, thus allowing for the identification of similarities and differences among them. An IFPortal prototype, already developed, is also presented and may be accessed in order to exemplify the IFPortal concept.

Keywords: *E-Government, E-Government Interoperability Framework, Interoperability, Interoperability Framework, Public Administration, Web Portal*

INTRODUCTION

Along the last decades Information Systems and Technology (IST) have assumed an increasing role in the development, progress and well-being of individuals, organizations, and society.

Public sector and government agencies are not an exception to this phenomenon. Indeed, and more markedly since the end of 90's, IST have been intensively used by governments to renew and transform the way they conduct their

multiple State governance activities (Soares & Amaral, 2013).

Despite the huge amount of money spent and the many efforts done by governments so far, the ideal vision of e-government — a government that operates 24 hours a day, 365 days a year, in a citizen-centered and streamlined way, communicating with citizens through multiple integrated access channels — hasn't yet been fully achieved. One of the major justifications for that situation is the lack of interoperability

DOI: 10.4018/ijwp.2014040102

that still persists among government information systems (IS).

To strive against and overcome this problem, and be able to achieve bigger, better and more adequate levels of interoperability, many governments around the globe have been developing and publishing what is currently termed as interoperability frameworks (IFs).

An e-government interoperability framework (IF) is a document that sets “an agreed approach to interoperability for organizations that wish to work together, towards the joint delivery of public services. Within its scope of applicability, it specifies a set of common elements such as vocabularies, concepts, principles, policies, guidelines, recommendations, standards, specifications, and practices” (EC, 2010, p. 2).

By outlining the essential prerequisites and basic technical specifications that all public agencies should adopt (Guijarro, 2007), IFs are considered indispensable instruments to the successful implementation of a country e-government strategy and, consequently, to the delivery of enhanced services to citizens and businesses, to the achievement of better decision-making processes, and to cost savings or cost avoidance (Lallana, 2007b).

According to a worldwide survey conducted by Lisboa (2012), at least 44 countries have already developed their national IF (NIF), 19 of which are European countries, as shown in Figure 1.

The development of IFs has elapsed not only at a country/national level, but also at a

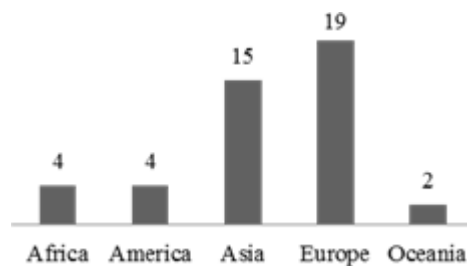
wide-regional level. For example, the European Commission (EC), through its research and development programs IDABC (<http://ec.europa.eu/idabc/>) and ISA (<http://ec.europa.eu/isa/>), developed and published the *European Interoperability Framework* (EIF), which aims broadly (i) to promote and support the delivery of European public services, (ii) to guide the government in its pursuit of delivery of European public services to citizens and businesses, and (iii) to help in the achievement of the alignment between the NIF of each member state and the EIF (EC, 2010).

In most countries the IFs have been developed through a consultative process in which citizens, agencies, and companies have the opportunity to participate, through comments made in discussion forums and through participation in working groups.

An IF document is typically organized into five sections (Charalabidis et al., 2010; Lallana, 2007a):

- *Context* that includes the aims, objectives, background, definitions, principles, audience, scope, benefits, limitations, and relationship of the IF with other initiatives;
- *Technical content* that contains key technical policy statements, standards, standards categories, standards selection criteria, and standards status;
- *Development process* that describes the IF creation, approval and revision processes, actors involved and their responsibilities, and mechanisms for consultation;

Figure 1. Number of IFs identified by continent (adapted from Lisboa, 2012)



10 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/article/ifportal/123171

Related Content

Generalized Evidential Processing in Multiple Simultaneous Threat Detection in UNIX

Zafar Sultanand Paul Kwan (2012). *Enhancing Enterprise and Service-Oriented Architectures with Advanced Web Portal Technologies* (pp. 104-120).

www.irma-international.org/chapter/generalized-evidential-processing-multiple-simultaneous/63948

Part of the Tool Kit

Kee Wongand Greg Adamson (2010). *International Journal of Web Portals* (pp. 37-44).

www.irma-international.org/article/part-tool-kit/40317

Ubiquitous Access to Information Through Portable, Mobile, and Handheld Devices

Ch. Z. Patrikakis (2007). *Encyclopedia of Portal Technologies and Applications* (pp. 1033-1039).

www.irma-international.org/chapter/ubiquitous-access-information-through-portable/18004

Efficient Incremental Algorithm for Building Swiftly Concepts Lattices

Bakhta Amrane, Ghalem Belalem, Sarra Branciand Yahya Slimani (2014). *International Journal of Web Portals* (pp. 21-34).

www.irma-international.org/article/efficient-incremental-algorithm-for-building-swiftly-concepts-lattices/110885

Towards Ontology Driven Semantic Conflicts Detection in Web services at Message Level

Ibrahim Ahmed Al-Baltahand Abdul Azim Abdul Ghani (2013). *International Journal of Web Portals* (pp. 71-80).

www.irma-international.org/article/towards-ontology-driven-semantic-conflicts-detection-in-web-services-at-message-level/101805