Chapter 12

Measuring Interoperability Readiness in South Eastern Europe and the Mediterranean: The Interoperability Observatory

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ABSTRACT

This paper introduces the Interoperability Observatory, a structured research effort for measuring interoperability readiness in the regions of South Eastern Europe and the Mediterranean, supported by the Greek Interoperability Centre. The motivation for this effort derives from the fact that, although interoperability is a key element for public administration and enterprises effective operation, and an important enabler for cross-country cooperation, a standard framework for benchmarking interoperability developments at country level is currently not in place. Interoperability-related information is highly fragmented in different ICT, e-Government and e-Business reports. In this context, in the core of the Interoperability Observatory lies the definition of a structured collection of metrics and indicators, associated with the dimension of interoperability-governance, and a mechanism for gathering with regard to the latter suitable information for a number of countries from various sources. The ultimate goal is the use of this information towards the directions of raising awareness on the countries’ interoperability status, promoting best practice cases and benchmarking.

DOI: 10.4018/978-1-4666-2654-6.ch012
INTRODUCTION

During the last few years, interoperability has been recognized as a critical factor for achieving true one-stop service provision for citizens and businesses, fostering collaboration among organizations and achieving efficiency and productivity gains in both the public and private sector. Additionally, it has been established as an important enabler for cross-country G2G (Government-to-Government) cooperation and cross-border service delivery (Commission of the European Communities, 2003; Charalabidis, Askounis, & Gionis, 2007). Thus, it has emerged as one of the most vivid research areas in the fields of electronic governance and electronic business (Charalabidis, Panetto, Loukis, & Mertins, 2008) and has become a key issue in the agenda of the respective research and practice communities (Codagnone & Wimmer, 2007; Information Society Technologies, 2008), leading to the uptake of various projects and initiatives. More importantly, researchers and practitioners have started to realize that when it comes to attempts related with aligning organization and processes, tackling semantic and technical shortcomings, building architectures, achieving legal interconnection and co-operation of systems or even developing standardization frameworks, there exist common practices and knowledge to be shared (Charalabidis et al., 2008; Laudi, 2010). Once identified, such practices can lead to an enhanced exploitation and reuse of real life cases and paradigms by the stakeholders interested, facilitating thus endeavors for promoting interoperability.

On the other hand, following the uptake of relevant activities, interoperability research has been extended so as to deal - besides the actual interconnection of diverse services, systems or organizations – with the development of methods and frameworks for reviewing or assessing the status of interoperability practice and for guiding the implementation of future endeavors. In this context, several researchers have proposed frameworks for assessing interoperability readiness, based on interoperability maturity levels (De Soria, Alonso, Orue-Echevarria, & Vergara, 2009; Gottschalk, 2008; Kasunic & Anderson, 2004; Pardo & Burke, 2008; Sarantis, Charalabidis, & Psarras, 2008). Additionally, interoperability research and practice have been enriched with the creation of mechanisms enabling the dissemination of research outcomes and best practices, and the creation of awareness among the communities involved (IDABC, 2009; SEMIC, n.d.). In fact, such developments have also rendered clear the value and usability of interoperability-related information (e.g. statistics, implicit performance evaluation information, best practices, policy material etc.), for the purposes of awareness raising in the field, benchmarking, carrying out comparative analyses, providing recommendations to tackle possible weaknesses and challenges and enabling more informed decisions about the allocation of scarce resources to solve interoperability problems.

Yet, the relevant evaluation approaches have been addressing only specific interoperability dimensions (e.g. technical, semantic, organizational, etc.) and have been focusing mainly at system (Kasunic & Anderson, 2004) or enterprise/organization level (De Soria et al., 2009; Pardo & Burke, 2008; Sarantis et al., 2008). As a result, they have failed to provide a structured framework for reviewing interoperability advancements at country level and to examine interoperability from a wider institutional perspective. Such a perspective, coined by the European Public Administration Network (2004) as interoperability governance, should be concerned with the political, legal and infrastructural conditions that are relevant for developing and using interoperable systems that span both intra- and inter-organizational boundaries (MODINIS, 2007), and should be viewed as an issue that cuts across all other interoperability dimensions.

Systematic approaches that have indeed addressed interoperability at a country level have