Introduction to E-Government Architecture, Infrastructure, and Integration Minitrack

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The fulfillment of e-government visions is dependent on and leads to increased vertical and horizontal integration of government operations and services. E-government information systems (EGIS) are increasingly interlinked, and the IT architecture and infrastructure contain more and more services for supporting interoperability and communication. Therefore, business processes and supporting IT architectures and infrastructures need to be enhanced, redesigned, streamlined, interfaced, and integrated across various governmental levels and branches presumably. To meet this challenge, e-government architectures and infrastructures are designed and introduced, leading to gains in internal effectiveness and efficiency as well as to improved internal and external services.

The goal of this track is to explore the challenges, issues and opportunities related to e-government architecture, infrastructure and integration services. There are many visions on the future on e-government, and all these visions require an infrastructure and architecture relating interoperable and integrated systems. Vice versa, poorly designed architectures and insufficient infrastructures can block the ambition towards improving e-government.

Therefore, many governments have the creation of a flexible and adaptive infrastructure high on their agenda, however, realization proves to be not an easy task. The infrastructure, architecture and integration development poses still many technical, semantic, organizational, managerial, and also statutory and constitutional challenges. In this minitrack we have three papers discussing and researching various challenges of e-government architecture, infrastructure and interoperability:

The first paper “InterDataNet: Interoperability Middleware Infrastructure to Support Collaborative Creation and Management of Official Documents in e-Government Processes” authored by Michela Paolucci, Franco Pirri, and Samuele Innocenti presents a distributed architecture for document management. Documents are defined in terms of a set of information units and links among the units. Each of the information units can be managed independently of the physical location which enables reuse of information units.

The second paper “Conceiving Interoperability between Public Authorities—A Methodical Framework” by Jörg Ziemann, Thomas Matheis, and Dirk Werth presents a method for analyzing interoperability in public sector information systems. This method models cross-organizational processes and explains how they can be transformed to implementation models based on web services technology.

In “Interoperability Registries in eGovernment: Developing a Semantically Rich Repository for Electronic Services and Documents of the new Public Administration”, Charalabidis and Askounis present a service registry system with an integrated schema to describe and publish electronic public services together with the relevant documents and process descriptions.

These three papers embrace the service-concept and consider this as a step forward to address the challenges and to enable interoperability solutions. Once again, we expect that HICSS will again be an ideal venue for discussing, meeting with peers and exchanging ideas in the field of e-government architecture, infrastructure and integration.