

E-Government Infrastructure and Interoperability: Minitrack introduction

Marijn Janssen

*Faculty of Technology, Policy
and Management
Delft University of Technology
Jaffalaan 5
NL-2600 GA Delft, The
Netherlands
Phone: +31 (15) 2781140
Fax: +31 (15) 2783741
M.F.W.H.A.Janssen@tudelft.nl*

Ralf Klischewski

*Faculty of Management
Technology
German University in Cairo
Al Tagamoa Al Khames
New Cairo City, Egypt
Phone: +20 -2-75890628
Fax: +20-2-7581041
ralf.klischewski@guc.edu.eg*

Haluk Demirkan

*W. Carey School of Business
Department of information
systems
Arizona State University
PO Box 874606
Tempe, AZ 85287-4606, USA
Phone: +1-480-965-9067
Fax: +1-480-965-8392
Haluk.demirkan@asu.edu*

The fulfillment of e-Government visions is dependent of and leads to increased vertical and horizontal integration of government operations and services. E-government leverages the IT infrastructures to create new kinds of applications and services. A poorly designed infrastructure can block interoperability and severely hinder the migration towards e-government.

E-Government information systems (EGIS) are increasingly interlinked using the physical network infrastructure. In addition, the IT infrastructure contains more and more services for supporting interoperability and communication. The demand for communication and collaboration between organizations as well as interoperability among systems is steadily increasing. Therefore, business processes and supporting IT infrastructures need to be enhanced, redesigned, streamlined, interfaced, and integrated across various governmental levels and branches presumably leading to gains in internal effectiveness and efficiency as well as to improved internal and external services.

The infrastructure and interoperability development poses many technical, semantic, organizational, managerial, and also statutory and constitutional challenges. Furthermore, there is little guidance how to meet these challenges as we face a lack of experience reports, literature and case studies. In this minitrack we have three papers discussing and researching various types of challenges in the field of e-government infrastructure and interoperability.

The first paper "*Government-Enterprise Ecosystem Gateway (G-EEG) for Seamless e-Government*" authored by Elsa Estevez and Tomasz Janowski identifies challenges to seamless e-government and presents the design of a gateway to address these

challenges. The design consists of a communication and coordination framework enabling multi-organizational processes and applications to build and execute. The framework encompasses complex communication structures for asynchronous messaging. Although not tested yet, the authors claim that the framework fulfills minimalist, extensible, dynamic and reliable requirements.

The second paper "*Effective e-Government Process monitoring and Interoperation: A Case Study on the Removal of Unauthorized Building Works in Hong Kong*" by Jenny Y.Y. Wong, Dickson K.W. Chiu, and Kai Pan Mark analyze the existing workflow arrangement for the removal of unauthorized building works in Hong Kong. The authors propose to improve the performance of e-government process monitoring and interoperation through more efficient inter-organizational collaboration by deploying web services and alert management mechanisms.

Vassilios Peristeras, Nikos Loutas, Konstantinos Tarabanis, Arnold van Overeem and Johan Witters describe semantic interoperability patterns in Pan-European Public Service provisioning in the paper named "*Semantic Interoperability in Pan-European Public Services*". In this paper a layered topology model and typology of cross-border services is developed. Furthermore the authors identify recurring patterns of semantic interoperability conflicts in cross-border public service provision.

All by all, we have three papers covering important challenges in the field of e-government infrastructure and interoperability. We hope that HICSS will again be an ideal venue for discussing, meeting with peers and exchanging ideas in the field of IT-infrastructure and interoperability.