E-government refers to the delivery of information and services online through the Internet or other digital means. Governments worldwide have been embracing e-government implementations for offering cost effective government services and a better relationship between citizens and government. From Europe to Asia to South America to Africa, countries are taking more innovative approaches to e-government, e-service delivery, e-participation and e-voting and paving the way for e-democracy.

The papers included in this issue are the selected from the I3E 2009 IFIP conference on e-Business, e-Services, and e-Society sponsored by IFIP WG 6.11 in cooperation with TC11 and TC8 which was hosted in Nancy, France, from September 23-25, 2009. This International Journal of e-Adoption is dedicated to various cases of e-government implementation. This issue of the International Journal of E-adoption (IJEA) reports findings of some of the research studies that are conducted for e-government implementation particularly for e-voting and e-service delivery. The summaries of the studies included in this issue are given below.

**Electronic Voting by Means of Digital Terrestrial Television: the Infrastructure, Security Issues and a Real Test-bed.**

**Roberto Caldelli, MICC, University of Florence, Florence, Italy**

**Rudy Becarelli, MICC, University of Florence, Florence, Italy**

**Francesco Filippini, MICC, University of Florence, Florence, Italy**

**Francesco Picchioni, MICC, University of Florence, Florence, Italy**

**Riccardo Giorgetti, MICC, University of Florence, Florence, Italy**

Electronic voting has been largely studied in different forms and applications. Typical objectives of electronic voting are to enhance security and to grant easy accessibility. Security can be pursued by means of several strategies oriented to secrete the vote, to check the voter identity, to decouple the voter from his choice and to allow the ballot to be audited. On the other hand, accessibility too can be greatly improved by providing the opportunity to vote remotely or by using voting machines, located at polling stations, equipped with appropriate interfaces for disabled people. In this paper a Digital Terrestrial Television (DTT) based voting system is presented. This kind of electronic voting technology allows disabled users (especially people with mobility problems), but not only, to cast their vote from home and, above all, by using common well-known devices. The communication between
the client application and the server takes place by means of a secured channel (using HTTPS), established over the common telephone line, while the voting operations are secured with the help of asymmetric keys encryption. The whole infrastructure has been proven in laboratory tests and also in a public demonstration for USA Presidential Election on 2008 November 4th.

Towards E-Society Policy Interoperability for Social Web Networks
Renato Iannella, NICTA, Australia

The move towards the Policy-Oriented Web is destined to provide support for policy expression and management in the core web layers. One of the most promising areas that can drive this new technology adoption is e-Society communities. With so much user-generated content being shared by these social networks, there is the real danger that the implicit sharing rules that communities have developed over time will be lost in translation in the new digital communities. This will lead to a corresponding loss in confidence in e-Society sites. The Policy-Oriented Web attempts to turn the implicit into the explicit with a common framework for policy language interoperability and awareness. This paper reports on the policy driving factors from the Social Networks experiences using real-world use cases and scenarios. In particular, the key functions of policy-awareness - for privacy, rights, and identity - will be the driving force that enables the e-Society to appreciate new interoperable policy regimes.

Electronic Voting using Identity Domain Separation and Hardware Security Modules
Thomas Rössler, Secure Information Technology Center Austria (A-SIT), Austria

E-voting increasingly gains interest in e-Democracy and e-Government movements. Not only the technical security issues of electronic voting systems are of paramount importance, but also the necessity of following an all-embracing approach is challenging and needs to be addressed. This paper discusses e-voting as being a supreme discipline of e-Government. It introduces an innovative e-voting concept using the Internet as the voting channel. The concept introduced is based on Austrian e-Government elements and the Austrian identity management concept in particular. As a result, this paper presents a novel approach of building an e-voting system relying on two core principles: strong end-to-end encryption and stringent identity domain separation.

Requirements and Properties of Qualified Electronic Delivery Systems in eGovernment – an Austrian Experience
Arne Tauber, E-Government Innovation Center (EGIZ), Austria

Electronic mailing systems are the dominant communication systems in private and business matters. Public administrations deliver documents to citizens and businesses – subpoenas, legal verdicts, notifications, administrative penalties etc. However, official activities are more strongly bound to legal regulations than in civil law. Delivery of crucial and personal documents raises the demand for qualified identification and non-repudiation services as featured by registered and certified mail in the paper world. Legal requirements for electronic delivery carried out by public administrations (eDelivery) cannot be fulfilled by standard mailing systems. Although the requirements for eDelivery systems may differ due to national legal regulations, this paper discusses common requirements and properties on an abstract level. Moreover, we show how these requirements have been addressed by introducing the Austrian eDelivery system for eGovernment applications.

Employees’ Perceptions of Biometric Technology Adoption in E-Government: an Exploratory Study in the Kingdom of Saudi Arabia
Thamer Alhussain, School of ICT, Griffith University, Qld, Australia
Steve Drew, School of ICT, Griffith University, Qld, Australia

The paper discusses an exploratory study of government employees’ perceptions of the introduction of biometric authentication at the workplace in the Kingdom of Saudi Arabia. A combination of survey and interviews was used to collect the required data. Interviews were conducted with managers and questionnaires were given to employees from two different government organizations in the Kingdom of Saudi Arabia to investigate the employees’ perceptions of using biometrics. The results of this study indicate a significant digital and cultural gap between the technological awareness of employees and the preferred authentication solutions promoted by management. Authors recommend that an awareness and orientation process about biometrics should take place before the technology is introduced into the organization.

Sushil K. Sharma is currently a professor and Department Chair of Information Systems and Operations Management at Ball State University (Muncie, Indiana, USA). He co-edited five books that include the Handbook of Research on Information Assurance and Security and Creating Knowledge-based Healthcare Organizations. He is also the co-editor of the book: Managing E-Business (Heidelberg Press, Australia). Dr. Sharma has authored over 100 refereed research papers in many peer-reviewed national and international MIS and management journals, conferences proceedings, and books. He serves on editorial boards of several national and international journals and has also edited special issues. He is the founding Editor-in-Chief of the International Journal of E-Adoption. His primary teaching and research interests are in e-commerce, computer-mediated communications, community and social informatics, information systems security, e-government, ERP systems, database management systems, cluster computing, Web services, and knowledge management. He has a wide consulting experience in information systems and e-commerce, and he has served as an advisor and consultant to several government and private organizations including projects funded by the World Bank.