eGovernment Architecture & Interoperability approach in Austria

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Facts about eGovernment in Austria

After the successful implementation of the 'eGovernment Offensive' launched 2003 by the Federal Government, the coordination structure for eGovernment has been consolidated in autumn 2005 with the establishment of the Platform 'Digital Austria'. The Platform pools together the former eGovernment Platform set up in 2003 as part of the 'eGovernment Offensive' and the ICT Board created in 2001. 'Digital Austria' is a strategic Platform that ensures the active participation of all levels of Government. It is composed of representatives of the federal government, regions, cities, municipalities, private and public sector bodies. The main tasks of the Platform are strategic decision-making, priority setting regarding the implementation of common eGovernment projects, their coordination and monitoring and the communication of these activities. The Platform is headed by the Chief Information Officer and supported by the ICT Strategy Unit based in the Federal Chancellery and a public relation officer. The Platform provides the operational umbrella for various task forces already active under the former ICT Board and eCooperation Board and specific thematic working groups. The participation to all these groups is open to representatives of all levels of government. The workload is shared between its members. The Platform 'Digital Austria' strengthens the generated culture of cooperation and coordination between all stakeholders and guarantees a sustainable development of eGovernment in Austria through large-scale implementation of interoperable and secure solutions as well as the participation on various large-scale pilots on the European level.

eGovernment architecture & interoperability

In recent years, interoperability has become an important key word. The EU defines interoperability as 'the means by which the inter-linking of systems, information and ways of working, whether within or between administrations, nationally or across Europe, or with the enterprise sector, occurs' . The EU started several programs to work with interoperability (e.g., Interchange of Data between Administrations (IDA and IDABC respectively), MODINIS). The European Interoperability Framework (EIF) was developed from the IDA program.

Within the scope of the Austrian eGovernment offensive, the main parts of eGovernment are developed with interoperable communication in mind. The main objective was to avoid incompatible solutions and divergent parallel developments. The implementation of different interfaces in eGovernment applications will result in enormous effort and not so optimal quality if sub-functions are integrated.

Several working groups were initially set up and already restructured according to actual needs and challenges with the task of adapting the different interface components between the Federal Administration, Federal States and municipalities and also including efforts and requirements coming out of the field of eHealth, eBusiness, eLearning. They approach interoperability from different point of views:

- From organization via semantics to technical interoperability.
- From the first contact of a customer, the online request, through electronic processing to electronic delivery and archiving.
- From the general solution to the specification for e.g., municipalities, federal states, federal administration as well as common concepts for business, health.

The working group Infrastructure – Interoperability (follow up of former working group Communication Architecture and other semantic & technical oriented working groups) is developing specifications for the interoperability of Austrian eGovernment based on existing and international standards (XML, web services, SOAP, etc.). These standards operate then in system-independent interfaces. The working group is therefore cooperating closely with other related working groups and their outcome.

The results of the various working groups are published according to the agreed cooperation-methodology between federal, country, city and community level on the reference server. Target groups of these specifications are primarily the corresponding project managers of the authorities and IT service providers as well as people involved in the development of e-government projects and also outside the field of eGovernment.

A various list of specifications according a to Austrians 'Big picture' of eGovernment have been agreed in this common sense and put into real project implementation on national as well as international level.

The following specifications of the main building blocks have already been developed but showing up only a subset of the overall existing specifications and implementations:

• MOA-ID (identification) (MOA = Module for Online Applications)

• MOA-SS/SP (electronic signature & electronic signature proofing)

• MOA-ZS (electronic delivery)

• Internet Policies (domains, e-mail, signatures, certificates, etc.)

• Final/Closing dialog for online requests

• Consistent description of errors and standardized error messages during SOAP transmissions (SOAP faults)

• Form style guide for the consistent design of online forms

• Standard data blocks within the consistent design of online forms

• EPS2 standard for electronic online payment

• XML specifications for:

  •Searching with Web services (XML-sw)

  •OnLine Dialoge Entry protocol (XML entry protocol)

  •Consistent schema for the electronic exchange of records / data & process elements (EDIAKT)

  •Consistent schema for personal data and organizational data (XML-person data)

  •Electronic notification (XML notification)

An overview of the agreed recommendations and specifications is therefore available at:

http://reference.e-government.gv.at/.

As an example of an asset used within the discussion in semic.eu the PERSONAL DATA structure has been chosen.

Personal Data Structure

The first XML specification analysed, defined and agreed was the personal data structure , which was drawn up jointly by the federal, regional and local authorities in January 2002 in a first version and redesigned according to some semantic needs in a version 2 in 2004; this is also an example for although relying on international approaches (www.hr-xml.org) some national specialities (Stairway of a Viennese address) are necessary to consider and include if you want to achieve interoperability between registers, applications & e.g. forms. The personal data structure serves to describe persons uniquely and is used in all e-government processes concerning persons. The XML specification describes the information cluster of the personal data structure. In order to satisfy the specific requirements of applications, an identification type was introduced which is able to represent various expressions of identification data. Since not all elements need be used, it is less a data model than an information model. Applications based on the XML structure can derive, restrict or enhance these data according to their needs:

• Standard data types were used for type definition (xs:anyURI, xs:string, xs:token).

• In accordance with the XML standard, the information in the personal data structure is in Unicode. Applications should support encoding in documents (ISO-8859-1, ISO-8859-15, UTF-8).

• The information cluster used to identify the person consists of several identification features (value, type of identification, competent authority responsible for the value and type and additional information).

• The generic concept 'person" used for natural and legal persons contains elements common to both structures. It can be used in other schemas as a stand-in for the concept of natural or legal persons.

• The element containing the personal details defines the name, alternative names (e.g. stage name), marital status, sex, birthplace, date of birth, nationality, etc.

• The identification element for legal persons contains its classification, full name, alternative names, organisational form according to X.500 definition, etc.

• The generic address element describes the identification features of the address, group definition and identification type.

• The identification cluster for addresses contains the specific address and permits categorisation according to geographical and functional criteria.

• A further element contains the specific telephone number and permits its categorisation.

• The structure for Internet addresses is defined. It permits the administration of certificates for encryption and signature purposes.

• The information cluster of the signed data structure contains information blocks of associated material (person, address and signature). Data not contained in the elements can be added.

The equivalence list of the personal data structure contains a German description of the various identification elements. Documentation on the XML specification can be downloaded in a packed format.

But not only the definition and agreement on an 'information' asset assures the need of quality and implementation, therefore it needs some additional instruments or mechanism introduced within the following section.

eGovernment Quality Mark

Public administration procedures can be processed completely electronically using the citizen card, electronic signatures, electronic payment and delivery. When all these technical possibilities are used, the users of electronic authorities practices trust in the fact that all existing technical and organisational obligations, including those regarding privacy law, have been considered.

The eGovernment Quality Mark promotes a high-quality implementation of e-government and offers a quality mark that may be displayed. Applications, procedures or products that display the e-government quality mark, must fulfill the determined criteria. This quality mark gives the

assurance to citizens and businesses that they are dealing with services and products that conform to standards. Quality, transparency and security are the basic values of the Austrian eGovernment. The e-government quality mark contributes to securing these values in the long term.

The e-government quality mark is trademarked. This quality mark is awarded by the Federal Chancellery, which is responsible for issues regarding eGovernment. The administration is carried out by the Federal Chancellery/ICT strategy.

The awarding criteria define common regulations, requirements regarding the holder of the quality mark, and details on awarding and removing the mark:

• The quality mark can be awarded to software, hardware and middleware products that have been registered according to the defined criteria and standards.

• Quality mark holders commit themselves to continuously adapt their marked procedures and products to valid technical criteria and quality characteristics.

• Procedures and products must display certain identification data of the quality mark holder in a clear and visible way. If the quality mark is held by online procedures, a link to this data must be provided.

• An examination or audit of the quality mark holder can be carried out at any time, and must be cooperated with by the holder.

• The technical criteria to which the quality mark holders must adhere are described in a list that is continually updated.

• Any holder violating these technical criteria can have the quality mark withdrawn at any time.

Although many results have been reached in the implementation of the Austrian eGovernment strategy, there still lay a 'few' more challenges in front of us which need to be solved in a collaborative way and assured in the quality of the implementation. Therefore: e-government – it's a journey and not a destination and maybe finally we will 'loose' the 'e' in front of the term 'eGovernment' also across border.