

e-government at the service of Austria's

The Austrian public administration was ranked fourth in the 2003 benchmarking of basic e-government services in the European Union. In the category of full electronic transactional e-government services, it ranked second.

In the late 1990s, the different levels of government (federal, regional and local) stepped up their cooperation with a view to harmonise and streamline their activities. This led to the establishment of the ICT Board in the year 2000 which was to track, document and support all e-government activities.

The e-government activities prompted legal amendments to accommodate the development of e-government applications and an all-encompassing central IT landscape. The E-Government Act and the Signature Act are considered legislative milestones.

A number of centrally maintained registers and data bases have been electronically implemented as a basis for joint e-government applications. Special focus was placed on the interfaces between the different levels of government in order to assure authentic data transmission, as well as uniform data structures without multiple data recording.

Smaller units such as communities are provided with the basic elements to ensure uniformity across the different levels of government and to simplify the introduction of e-government. This will contribute to the further spread of e-government, create synergies and an environment that is compatible with other public bodies, citizens and the business community.

Coordination of e-government Activities

In the late 1990s, the Austrian territorial entities pushed for and implemented the use of information and communication technologies (ICT). These efforts accelerated the pace at which administrative transactions could be handled. However, a number of entities developed and implemented their own ICT applications without considering synergies or the exchange of data with other territorial entities.

In the year 2000, the ICT Board (www.cio.gv.at) was set up to coordinate the activities at the federal level, as well as between the federal, regional and local levels. Apart from communication with government administration, communication with citizens and business is essential for a reliable and implementable design of the technical interfaces.

The platform Digital Austria was set up in late 2005. This platform comprises the ICT Board and a joint venture of the federal, regional and local levels. It will intensify cooperation between the territorial entities. Task forces under the umbrella of the platform including representatives of all stakeholders will elaborate draft projects. These are grouped by and implemented according to broad thematic priorities such as long-term archiving, standard communication architectures, widening the range of information offered, uniform surfaces, and process optimisation in projects as well as know-how transfer from projects.

Legal bases

The E-Government Act and the Signature Act constitute the legal underpinning for e-government in Austria.



government administration

E-Government Act

The first part of the act contains a definition of terms:

- Identity: designation of a specific person by means of data which is particularly suitable to distinguish persons from each other, such as in particular name, date of birth and place of birth, but also, for example company name or (alpha)numerical designations;
- Authenticity: the genuine nature of a declaration of intent or act in the sense that the purported author of that statement or act is in fact the actual author;
- Identification: a process required to determine the identity;
- Source identification number: A number used to identify natural and legal persons and other data subjects which is unmistakably attributable to the data subject and which, in the case of natural persons, also serves as the basis for generating private sector-specific personal identifiers;

The second part of the act describes procedures:

- Administrative procedural law: This Act contains amendments to administrative procedural law to ensure maximum process efficiency in electronic administrative transactions.
- Law on the service of official documents: Reform of the law on the service of official documents applicable to electronic service.

- Citizen Card: Another new legal provision governs the Citizen Card which, in complement to any existing procedure, is a new procedure allowing for the electronic validation of identity and authenticity whilst protecting data privacy by using sector-specific personal identifiers. The Citizen Card can also be used in e-commerce where demand for reliable validation of the identity of internet customers is growing.
- Standard documentation register: Electronic data validation ("standard documentation register") will allow for the electronic submission of documents by electronic query in the Central Register of Residents or Fiscal Administration Register. Concurrently, the type of data contained in the Fiscal Administration Register meets the requirements for the electronic identification of persons and institutions.

Signature Act

The Signature Act sets out the legal framework for the generation and use of electronic signatures and for the provision of signature and certification services.

In order to be able to use electronic media in legal and business transactions it is necessary to establish the identity of the communication or business partners involved in communication or the legal and economic transactions. Moreover, there must be a guarantee that data being sent and received is neither altered nor falsified. Electronic signatures are suitable technologies to ensure the authenticity and integrity of electronic data.



The Austrian Communications Authority (KommAustria, www.rtr.at) was entrusted with monitoring the technical performance ability of the suppliers of electronic signatures. To comply with the provisions of the pertaining EU Directive, facilities to verify the security requirements (called "confirmation bodies" in the law) need to be set up.

Ordinances

A number of ordinances were issued on e-government to spell out the basic legislative texts at greater detail, including the E-Procurement Ordinance, Source Identification Number Ordinance, Sector Definition Ordinance, Address Register Ordinance, Service Delivery Ordinance, Signature Ordinance, Administrative Signature Ordinance.

Integrity, Authenticity, Identification

Until now, citizens used to initiate dealings with the authorities by making a personal appearance. Three formal requirements had to be met to set off the process:

- Identification: the process necessary to validate or recognise identity;
- Integrity: the completeness and correctness of the data submitted;
- Authenticity: the genuine nature and trustworthiness of the request stated.

In e-government, these elemental formal requirements characteristic of administrative procedure must be substituted by equivalent electronic procedures.

Citizen Card

The Citizen Card defines the framework for electronic communication, authentication and data storage. The requirements relevant for citizens are identification and electronic signature. In addition to several types of chip cards, the mobile telephone may be used as a medium provided that the security requirements specified by the Citizen Card are complied with.

Sector Boundaries

Any use of data by a public sector must be attributed to a sector of government activity under the terms of the E-Government Act. Sector-specific personal identifiers are calculated from the citizen's source identifications number to avoid different sectors of government administration being able to match their data for one and the same person.

Provisional Administrative Signature

As the number of providers of safe electronic signatures on the market is still insufficient, the use of administrative signatures has been allowed for a transition period. The generation of administrative signatures largely conforms with the requirements of a safe signature, but need not be based on a qualified certificate. Administrative signatures are provisionally valid until 2007.

Official Signature

With queries now being submitted and responses received electronically, identifying the official character of documents may sometimes pose difficulties. This legally problematic status is remedied by what is called the official signature.

The official signature is a secure signature which replaces a personal signature and is used as a standard signature by any authority as an indication of origin. It enables the authorities to issue electronic documents.

Joint Cross-Governmental Infrastructure

Federal and decentralised structures lead to a parallel storage and administration of data. A number of central registers which are accessible to any authorised organisation have been set up to avoid the multiple storage of inconsistent data.

Central Register of Residents

In the central Register of Residents, the data of every natural person is attributed to a unique central residency register number. From this the source identification number can be deduced as necessary, which in turn is used as a basis for calculating the sector-specific personal identifier. This allows to unmistakably identify any natural person for electronic legal transactions.

The Register of Residents is maintained by the Austrian Federal Ministry of the Interior. Residency data is updated in real-time mode by the 2,359 communities. On 1 March 2002, the new Residency Registration Act entered into force and the central Register of Residents went into operation.

Address Register

The Register of Addresses is to maintain an authentic stock of data of geo-coded addresses on a nation-wide basis. Through geo-coding, geographical coordinates are attributed to data which is relevant not only for government, business or private users, but also for fire-fighting and emergency rescue services. Government authorities enjoy free access to be able to deliver their statutory tasks. The Register of Addresses is maintained by the Federal Calibration and Surveying Office and has been in operation on 1 July 2004.

Register of Residential Buildings

The Register of Residential Buildings records the address and structure data of residential buildings and other units in a geo-coded format. The local communities and the district governor's offices are under a duty to report this data. Access to the Register of Residential Buildings is granted to:

- Local governments for register data within their remit;
- District governor's offices and the local construction supervisory authorities to the extent this is necessary for the discharge of their duties;
- The Central Register of Residency for residential addresses.

The Register of Residential Buildings is furthermore used for the compilation of federal statistics and as a basis for the national census. This will replace the 10 yearly population census that is carried out manually to date. The Register of Residential Buildings is maintained by the Federal Calibration and Surveying Office and has been in operation since 1 July 2004.

Register of Source Identification Numbers

The Register of Source Identification Numbers is a virtual register of natural persons which generates the source identification number of a citizen from the Central Residency Register number for the sole purpose of calculating the sector-specific personal identifier. For security reasons, permanent storage is not allowed. The Austrian Data Privacy Board is the competent authority for matters relating to the Register of Source Identification Numbers. The Source identification number for legal persons is generated from the Register of Companies or the Register of Associations. All other natural or legal persons are recorded in the Supplementary Register.

Register of Standard Documents

Standard documents such as birth certificates, certificates of nationality or diplomas can be stored electronically in the Register of Standard Documents and viewed by the authorities as necessary. The documents are stored as part of the register of residents. The data is recorded by the local registry authorities after presentation of the paper-based document.

Company Register

The Company Register is a public register of all incorporated companies and includes relevant corporate data which is recorded by the appropriate courts of law. Since 1991, the Company Register has been maintained electronically. Since 11 July 2005 the collection of documents of all company register courts is maintained electronically by the Federal Computing Centre.

Supplementary Register

The Supplementary Register records all natural persons who are not recorded in the Register of Residents, as well as all legal persons which are not recorded in the Register of Companies or the Register of Associations. Like the Procurator Register and the Register of Associations, the Supplementary Register is maintained together with the Register of Companies.

Property Data Base

The data from the Property Register is stored centrally for all of Austria together with the records of the Land Register in the property data base. The Register is maintained by the Federal Calibration and Surveying Office in cooperation with the surveying offices in a geo-coded format. Since 1987 the Property Data Base has been viewable directly. On-line queries have been possible since 1 July 1999.

Law Information System

The Law Information Systems is used for promulgating laws to be published in the Federal Law Gazette. It is a reference source for legislative texts in the Republic of Austria. Authentic legal texts can be viewed on-line.

The new Federal Law Information System which can be accessed via the Internet (ris.bka.gv.at) has been maintained by the Federal Chancellery since 1997 as an electronic data base.

Interfaces between the Government Levels

Uniform electronic access to government services and standardised interfaces are a prerequisite for electronic communication between government bodies and citizens. An example is the integrated portal of government entities and interfaces of the electronic file system in federal administration to external and internal administrative processes.

Integrated Portal

The integrated portal makes the data applications generated by the individual authorities available to all interested government bodies. The definition of user access rights is task driven.

The integrated system allows the participating organisations to use their own user administration also for external applications. The application providers do not need to administer the external users. These applications are web-based.

Among the first applications in the integrated portal (www.portal.gv.at) were the Central Register of Residents, the Register of Companies, the Trade Register, the Register of Associations and the Property Data Base. The Help Portal (www.help.gv.at) is the central access portal to all areas of government administration.

Interfaces with the Electronic File System

The electronic file system (ELAK) is the cornerstone of the federal administration. The electronic file system has unambiguously defined interfaces to ensure an electronic data transfer also to other government bodies, businesses or citizens.



Electronic requests

Electronic requests are filed using a web form and taken directly into the electronic file system based on a standardised data structure (XML). They can be processed without scanning, data entry or print-out. The data is automatically forwarded to the responsible unit for direct processing.

Electronic service delivery

Electronic service is not delivered directly to the recipient but to an electronic service delivery provider who will inform the recipient of any official documents ready for delivery and store the data pending collection.

Interfaces between applications

Administrative proceedings often rely on data from other government applications such as budget accounting, payroll accounting, directory services, registers etc. This information can be directly imported into the electronic file system via interfaces.

Electronic payment

The electronic submission of a query to an administrative unit often creates the need for electronic payment. The "EPS 2" interface enables online-banking by credit card or mobile phone. Confirmation of payment is transmitted directly to the competent authority and is included in the file. The authorities no longer need to verify a confirmation of payment, since it is automatically imported into the electronic file system.

Basic Elements

The Austrian E-government moreover wants to define and implement basic services for the Austrian administration. These services are to be used at all levels of government and establish electronic communication as a standard process. The basic services include among other activities the Style Guide form, the Directory Service, the on-line application modules and the showcase community approach.

Style Guide Form

Until now, government administration forms were available on paper or over the Internet. In the future, it will be possible to fill in forms on-line and subsequently return them to the government authority with an electronic signature. These documents will then be directly imported into electronic administrative procedures.

The Style Guide form will also be used for the standardised design of Internet forms, in that the authorities will align their specific forms to the requirements of the new Style Guide. With a consistent use throughout government administration, the government administration will be able to give itself a standard corporate identity. In parallel, synergies may be used in the generation of forms.

The Style Guide is being continuously extended and updated by a working group composed of representatives of the different public bodies. Together with the description of standard data in e-government forms, the Style Guide is the basis for a standard layout of electronic forms used in government administration.

Directory Service

A national directory service (ldap.gv.at) has been set up for the Austrian government administration. Decentralised administrators are set up for decentralised user administration via a central directory tree of the organisation of the participating administrative units, with a description of the portal-relevant information on users, applications and rights.

On-line Application Modules

The implementation of new e-government services is promoted by the provision of basic modules which are specified and developed by the Federal Chancellery and the Federal Ministry of Finance. The joint development process was launched with the on-line application modules and the email components. The modules for on-line application serve as a tool for generating e-government applications in an efficient and secure manner. The first online application modules which were developed enable signature validation, signature generation as well as the identification and authentication of persons. They are aligned to new requirements and extended on an on-going basis.

Showcase Communities

In addition to the basic features, sample applications have been created which are being tested in the designated areas. Showcase communities have specified, implemented, installed and tested e.g. programmes for the administration of construction permits, of mooring areas, for subsidies granted to associations, parking space management, waste management or event registration. Once these applications have been tried and tested in the showcase communities, they will be made available to all other local governments.



Author

Johann Vilanek (vilanek@rechnungshof.gv.at) has been an audit director, and member of the Organisation, Personnel and IT group within the Austrian court of audit since 2004. Previously he was an associate professor in the technical university of Vienna for seven years. His research and teaching field was processor architecture and hardware design.

He has a degree in Electronic Engineering from the Higher Technical School of Klagenfurt, a Master of Business Administration, a Master of Computer Science and a PHD in Computer Science from the Technical University of Vienna.

