

Public Administration Interoperability Platform (iAP)

Published On: 17 June 2014

Organisation: Agência para a Modernização Administrativa (AMA) (Agency for the Administrative Modernisation)

Country: Portugal

Level of government: Central government

Sector: Economic affairs, General public services

Type: Digital, Public Service

Launched in: 2007

Link to the innovation's website

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Description

iAP is a service-oriented, central platform that provides cross-sector electronic services to the Portuguese public administration entities across all levels of government. It facilitates the provision of multichannel services for citizens and enterprises through a shared electronic infrastructure. iAP contains the following main components:

- Integration Platform: Provides a simple and integrated delivery of cross-sector electronic services, becoming a cornerstone in the administrative modernisation process.
- Identity Provider: Allows electronic authentication for citizens using the Citizen's Card in accredited portals.
- Payments Platform: Permits the integrated management of multiple payment methods for different channels.
- SMS Gateway: Enables sending and receiving of SMS between citizens and public administration bodies, thus enlarging the number of available contact channels for managing the relationship with citizens.

The Agency for the Administrative Modernisation (AMA) is responsible for the administration and maintenance of the platform.

Why the innovation was developed

The interoperability between information systems in the public administration has long been viewed as a challenge. Government entities all used different ICT approaches to establish an online presence and deliver services. Furthermore, more than 70% of the Portuguese population use the Citizen's Card (electronic ID), which comprises citizens' identity number, social security number, health identification number, tax identification number and voting number, and enables the citizen to use a wide range of electronic public services. This also highlighted the need to get the IT systems of public administration "talking to each other", exchanging information and sharing resources and features. The interoperability platform was the answer to this major goal.

Objectives

Improve access, Improve effectiveness, Improve efficiency, Improve service quality, Improve user satisfaction, Support economic growth

- Provide citizens and businesses with a more convenient and faster way to obtain public services.
 - Reduce costs for IT systems for public entities through shared services instead of individual solutions.
 - Enable a "shared sustainability", where the costs will be supported by the involved entities, according to the services' real and fair cost.
 - Provide public officials with easy to use means to communicate with citizens.
 - Meet the goals of the Portuguese and EU's government strategy for better ICT services outlined in "Digital Agenda for Europe" and "eGovernment Action Plan 2011-2015".
 - Meet criteria of the European interoperability standards.
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Main beneficiaries

Businesses, Civil Society, General population, Government bodies, Government staff

- Portuguese citizens and enterprises.
 - Public administrative entities that use the platform.
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Existing similar practices

X - Road

In other countries' public administrations
Estonian Government

<http://e-estonia.com/components/x-road>

PAe

In other countries' public administrations
Spanish government

http://administracionelectronica.gob.es/pae_Home/pae_Actualidad/pae_Noticias/Anio2013/Octubre/Noticia_CTT_2013-10-02_Nuevos_servicios_plataforma_intermediacion.html#.UnFTVKOp2M-

Federal Service Bus

In other countries' public administrations
FSB - Belgium

Results

Efficiency

- Cost savings for public entities through shared services.
 - Predicted to save EUR 36 million within a 5 year period.
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Service quality

Accessibility:

More convenient access to government services for citizens. For example, the service provided by social security to indicate which of the clients of energy supply companies are eligible for the benefit of energy fare reduction. Services and companies that use this services can be found at www.iap.gov.pt.

Reliability:

Implementation of WS-reliable Messaging.

Evaluation

The methodology consisted of the following steps:

- Impact of the implementation of Guidelines for Electronic Integration: Explanation of the impacts arising from the implementation of guidelines for the electronic integration, described according to the following vectors:
 - Organisational impacts.
 - Technical impacts.
 - Impacts on human resources.
 - Financial impacts.
 - Impacts on service levels.
- Formulation and financial evaluation of alternative scenarios: Identification of the different scenarios for financial evaluation, by analysing questionnaires filled out by public officials.
- Evaluation of integration processes regarding the interoperability platform: Presentation of prioritised processes to be made available in the iAP as well as a presentation of a detailed study on some reference integration processes in order to evaluate the cost-benefit of the transfer of such processes to the interoperability platform.

Development

Design

- Public entities involved in the Citizen Card project contributed to conceptualisation.
- The necessity of information exchange had been discussed before. The introduction of the citizens card made it inevitable.

Design time: 6 months.

Testing

A service-oriented architecture (SOA) solution was designed according to best practices (integration patterns, web services, identity federation, etc.). The pilot evolved an architecture that used Biz Talk as the message queue and an orchestration engine. However, Biz Talk problems prevented the solution to pass the pilot stage and a new solution was developed. This solution does not use any commercial orchestration engine or message queue system, but it complies with all requisites that were already defined in the design phase.

Testing time: 6 months.

Implementation

Tools used:

- Best practices followed in technical requisite definition.
- Involvement of public entities in the citizen card business process definition.
- Creation of Citizen Card Law.
- Political involvement at the highest level.
- All technical difficulties were resolved.
- Minor fixes needed as the project went into productive stage.

Resources used:

- Human Resources costs: EUR 2 604 766
- Hardware costs: EUR 300 000
- Licensing software costs: EUR 84 730
- For maintenance, two employees or 352 monthly hours are dedicated to the project.

Implementation time: 12 months.

Diffusion

Promotion of iAP in different seminars and conferences. Contacts with the main information sources to adopt iAP as the interoperability platform with other entities. Integration of iAP in the “Global Strategic Plan” to rationalise and decrease ICT costs in public administration. This plan includes general governance measures and a specific measure to make mandatory the use of iAP in all information exchange between entities of different ministries through enforcing legislation. Study to evaluate the needs of different entities.

Diffusion time: On going.

Challenges and solutions

The main challenges were semantic and organisational interoperability. Both challenges were overcome with political involvement and technical solutions (for example the creation of identity federation mechanism so that there wouldn't be a database with all sectorial identifications and the canonical data model that enables semantic normalisation in the central platform thus allowing different data models in the entities information systems).

Partnerships

Public entities within the Justice, Health, Finance, Social Welfare and Voting Commission

Other Public Sector

Accenture

Private sector

The consulting firm helped in process definition in the Citizen card project and was responsible for developing the solution according to our requirements.

Lessons Learned

Lessons Learned

1. Such an innovative practice demands for strong political and legal support. This must be assured prior to the implementation phase by creation of new legislation and a well-defined governance structure.
 2. In order to succeed, the project must involve and engage all stakeholders from the beginning.
 3. Technical specifications must be detailed and completed so the integration is done successfully.
 4. Advice: a very good approach to solve major interoperability questions is needed.
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Other information

The iAP was implemented in 2007, allowing the exchange of information between information systems involved in the Citizen Card project. Since then, it has continually evolved through the availability of new services, new features and integration of new information systems.

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