 Coördinatiefel Vlaams e-government	Project:	UNPAN Compendium	Status:	final
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VIP Case Study

1.1 Project Description

Currently, the different administrative entities within the Flemish administration (more than 80 in total) use their own data sources and have their own administrative procedures and IT processes for collecting commonly used information on citizens and companies.

This results in a large number of inconsistencies in these data and the presence of a lot of out of date information, which is then used within different applications in different administrative entities, resulting in major operational problems. It means also that citizens and companies are required to provide information to one government agency which often is already known in an other part of the administration.

In order to avoid these problems, one of the key priorities of the Flemish e-government programme is to set up authentic information sources, and to provide the necessary infrastructure to use these sources for data exchange and application integration between administrations.

The Co-ordination Cell Flemish e-Government (CORVE) has as its main activity the creation of the necessary back-office components to support the e-government back-office cooperation between the administrative entities of the Flemish Government. In this role, CORVE coordinates and stimulates the exchange and re-use of data by creating a generic enterprise application integration (EAI) platform called the "Vlaams Integratie Platform" (VIP, Flemish Integration Platform).

1.2 Objectives

The objective of the VIP project is to provide Flemish administrative entities and administrative entities at other levels of government with:

- a set of authentic information sources with data on citizens, companies, ..., in order to eliminate data duplication and the manual re-entry of data within applications
- a technological platform for the exchange of data and integration of applications
- a set of services that will stimulate these administrative entities to exchange and re-use data

1.3 Solution

1.3.1 VIP Services Offering

The VIP platform offers a set of **business integration services** that primarily focus on providing authentic information about:

- **Citizens**

Authentic information about citizens who are serviced by the Flemish administration, using the so-called VKBP (Verrijkte KruispuntBank voor Personen – Enriched Crossroads Bank for Persons)

- **Companies**

Authentic information about companies who are serviced by the Flemish administration, using the so-called VKBO (Verrijkte KruispuntBank voor Ondernemingen – Enriched Crossroads Bank for Companies)



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- **Addresses**

Authentic information about addresses of persons and companies within Flanders, including the exact geographic location, using the so-called CRAB (Centraal Referentie Adressen Bestand)

- **Miscellaneous**

Other sources of authentic information, such as geographic data on buildings or protected environments

These Flemish authentic information sources will receive part of their data from the corresponding authentic information sources that already exist at the federal government level: the Kruispuntbank Sociale Zekerheid (KSZ - Crossroads Bank for Social Security), the Rijksregister (RR – the National Register for private individuals) and the Kruispuntbank Ondernemingen (KBO - Crossroads Bank for Enterprises). The exchange of data between the Flemish and the federal authentic information sources will pass through the federal UME (Universal Messaging Engine, the federal enterprise service bus).

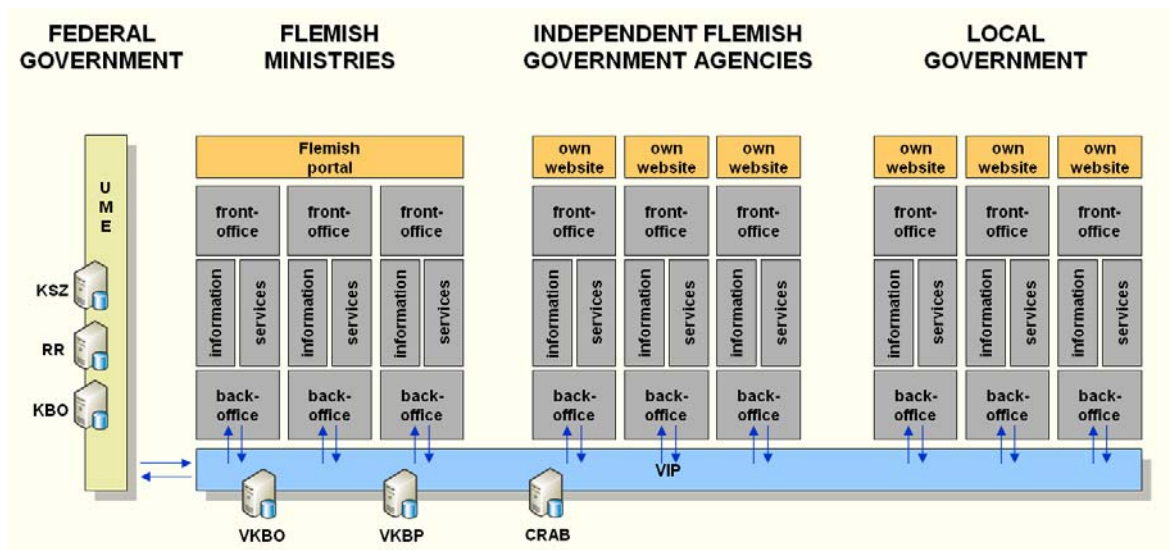


Figure 1. Vlaams Integratie Platform – Services Offering

Setting up these Flemish authentic information sources and making their data available is a very important step in the integration of the back-offices of the different Flemish administrative entities. The VIP project is therefore a key project in the Flemish e-government programme. The VIP platform is also a necessary technological building block to allow the Flemish administration to adhere to the principle of “single collection, maximum re-use of data”, resulting in a significant reduction of the administrative burden for citizens and enterprises.

The VIP platform also provides a set of **technical integration services** for administrative entities that do not require access to authentic information sources, but still have other data exchange & application integration needs. By offering a common set of technical integration services it is possible to avoid “islands of integration”, shorten the duration of integration projects, reduce project costs, avoid redundancy in systems & solutions and centralise the necessary integration expertise.

Both sets of services, the business integration services and the technical integration services, together constitute the “**VIP services offering**” of the VIP platform that is offered by the Co-ordination Cell Flemish e-Government to interested administrative entities.



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1.3.2 Architecture

The figure below provides an overview of the VIP Logical Architecture and shows the different layers that were defined to fulfil the requirements of providing access to authentic information sources (business integration services) and enabling data exchange & application integration between administrative entities (technical integration services).

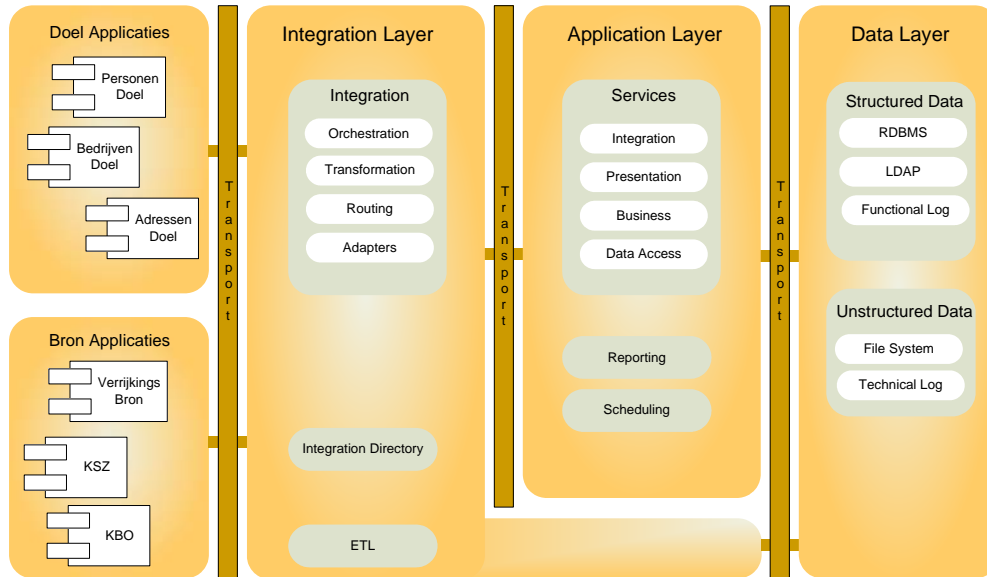


Figure 2. Vlaams Integratie Platform – Logical Architecture

1.3.3 Integration Competence Center

In order to effectively manage, architecture, develop, support and govern the VIP platform, a Flemish Integration Competence Centre (VICC – Vlaams Integratie Competentie Center) was set up which is responsible for handling the different tasks that need to be tackled in such a major EAI project (the so-called VICC framework). The VICC team is composed of civil servants from within the Flemish administration (with the necessary business competences and domain knowledge) and technical specialists from the administration's IT outsourcer (with the necessary technological competences).

Governance	Funding	Management		
		Business Alignment	Authority	EAI Strategy
		Financial Mgmt	Governance Mgmt	
		Resource/Skills Mgmt	Evangelism	Vendor Mgmt
	Structure	Architecture		
		Technology Assessment	EAI Architecture	Standards
		Design Patterns	Repository Mgmt	
		Metadata Definition	Data Modelling and Business	Process Workflow
	Processes & Procedures	Development		
		Analysis & Design	Coding	
		Implementation	Testing	
		Production Support		
		Administration	SLA Mgmt	Deployment
		Optimisation	Install/config	
		Environment Mgmt	Post-implementation support	




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Figure 3. VICC Framework

1.4 Impact / Results

1.4.1 Benefits

The main benefits of creating the VIP platform, and offering a set of business and technical integration services to interested administrative entities are:

- Elimination of data duplication, avoiding manual re-entry of information, re-use of the same authentic information sources within different applications
- Possibility to use business process modelling tools to identify, model and re-engineer operational work practices, by developing and deploying new IT systems and procedures, so as to provide service and productivity enhancements throughout the administrative service chain
- Increased operational efficiency, enhanced functionality, improved customer service and a solid technological foundation on which to base future e-government services
- In the end, the citizens and companies will benefit the most because the requests for information will diminish, the possibilities to grant benefits pro-actively increase and the response time and accuracy of the public service will improve remarkably

1.5 Key Issues

- **Overcoming the “chicken and egg” problem**

Taking the decision to start with the “VIP” project was like trying to solve the classical “chicken and egg” problem: when the project was started there was no clear view yet on who would use the initial services offering, so it was not certain that an actual demand existed for the VIP services. On the other hand, we clearly needed a strong demand from actual users to justify the considerable financial investments required for setting up the VIP project. These first investments were made by the E-government cell anyway, and only when the formal go-ahead was given for the project, the first users presented themselves. From that point onwards, the next set of VIP services will be created on demand of the users.


- **Determining the priority information flows**

A big challenge was getting to know the priority information flows across the different administrative entities, i.e. the data exchanges with the biggest potential beneficial impact on the operation of the e-government back-office. These were the information flows that needed to be implemented first as part of the VIP services offering. A special support programme was set up to determine these priority information flows. As part of this programme, special workgroups were set up with representatives of each administrative entity to determine the key business processes within the Flemish administration that use authentic information sources and to prioritise the implementation of the required VIP services to access and use these sources.

- **Handling the legal aspects**

The legal aspects of sharing and exchanging authentic information can not be underestimated. If you have services that offer authentic information which sometimes can contain personal data, strict legal guidelines on protection of privacy and security need to be followed (such as Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of personal data). E.g. it must be assured that each user of this type of information is allowed to see the information prior to



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using it. Strict conditions of usage have to be defined and need to be signed off by each user/entity when they want to use VIP services that access authentic information on citizens. The necessary organizational measures had to be set up to guarantee that these conditions were indeed adhered to.

- **Building an open architecture**

Integrating the different back-offices of different administrative entities and giving them access to authentic information sources is a major technological challenge. The heterogeneity in IT systems and solutions, the presence of legacy systems and outdated ways of processing data, etc. all needed to be taken into account by designing and building an open architecture for the VIP platform. By using a service-oriented architecture (SOA) and by adhering as best as possible to well-chosen set of open standards it was possible to build an integration platform capable of integrating most of the information sources and applications used in the Flemish administration.

1.6 Lessons Learned

- **Keep the lines of communication open**

The key to success in any major back-office integration project is to realize that business integration must be a top-down strategic priority, but also be driven from bottom-up operational needs. Get buy-in from the top management levels of your administration as well as from the key operational people throughout the organization.

This can only be accomplished with a sustained commitment to communicate early and often to everyone. This is one of the key tasks of the VICC. Good practices here are e.g. sharing your story with clear documentation. Try to keep the documentation as condensed as possible and adjust the content to the intended audience.

- **Think strategically, act tactically**

No matter what practical technical solution you implement today, you still need to keep up with new technological developments and understand the potential implications it might have for your business operations. Good practices here are to build a technological foundation with generic solutions, repeatable processes, and re-usable code.

To deliver a positive outcome, try to keep it simple, by starting small and building the whole solution only after you have achieved a first set of quick wins. Remember to start communicating early and to everyone who will listen. Keep your eye on future trends, collaborate as much as possible and focus on reuse. Finally, don't forget, the quality of implementation is everything.

- **Use the right tools for the right purpose**

Don't think that one single IT tool or product will provide the answer for every functional requirement within your administration. Consider first which tool or product best fits the requirements prior to the start of any implementation. Clearly document why certain tools/products/solutions were chosen or rejected and re-use this valuable information for future projects.

