



Digital government toolkit



Digital Government Strategies: Good Practices



Colombia:

Government Enterprise Architecture Framework

The OECD Council adopted on 15 July 2014 the Recommendation on Digital Government Strategies. The Recommendation provides a set of 12 principles structured around 3 pillars. The OECD Secretariat is developing a Digital Government Policy Toolkit to support OECD member countries and non-member adhering countries with the implementation of the Recommendation. This practice was submitted by the government of Colombia to be considered as a good practice in the implementation of one or more of the principles contained in the Recommendation.

Description of the practice:

- Organisation:** Ministry of Information Technology and Communications
- Name of the practice:** Colombian Government Enterprise Architecture Framework
- Principles implemented:** Principle 5 - Leadership and political commitment.
Principle 6 - Coherent use of digital technology across policy areas
Principle 7 - Effective organization and governance frameworks
Principle 10 - Reinforce institutional capacities to manage and monitor projects' implementation.

Description: Colombia defined and structured an Government Enterprise Architecture framework for the management of information and communication technologies in the State. This framework is the instrument that establishes the conceptual structure, defines guidelines and standards, and incorporates best practices to materialize the Colombia Digital Political (before Online Government Strategy). The framework allows the standardization of IT management in State agencies and establishes groundwork for generating continuous improvement of processes and measurements become guides to the IT strategic vision in Colombia. This tool's main objective is to achieve excellence in public management, through the strategic use of ICTs.

The framework is made up of 93 guidelines, 23 guides, 1 technical specification, 12 general principles, 6 domains or dimensions, four architecture points of view and one model, the Information Security and Privacy Model.



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Results

- The design, formulation and publication of the Enterprise Architecture Framework for public agencies of Colombian State.
- The adoption and implementation of the guidelines of the Enterprise Architecture Framework.

Formal Evaluation

The adoption of the Colombian Government Enterprise Architecture Framework is measured through a unique form (known in Spanish as FURAG -Single Form for Progress and Management Report), which is to fill out annually by public administration agencies, through Internet. The results of the measurement of the year 2017, found that 100 public agencies of the national level and 536 territorial level agencies are applying the Colombian Government Enterprise Architecture Framework to strengthen the institutional capacities and to add greater value. This number of agencies corresponds to 24% of the total evaluated agencies, which indicates the great challenge of continuing to carry out strategies of accompaniment, use and appropriation of the Enterprise Architecture Framework.

Development

Design:

The Architecture Framework's design was done with the participation of 22 sectors, 53 public agencies, 4 universities, 12 industry representatives and 98 IT officials.

Testing:

The Enterprise Architecture Framework's guidelines were validated and adjusted through the realization of pilots in the health and social inclusion sectors. A project and/or process was selected in each sector and the guidelines were applied in order to validate their applicability and pertinence.

Implementation:

In the framework's design, co-creation exercises with the academia, the industry and state agencies were organized.

The framework also incorporated elements COBIT, ITIL, ISO 27000, PMBok, TOGAF y Zatchman and Government Enterprise Architecture Frameworks such as FEAF, DoDAF.

During the conceptualization and development of the Enterprise Architecture Framework, the Ministry of Information and Communications Technologies carried out a benchmark of enterprise architecture frameworks in other countries as well as focus groups with the academia, the IT industry and public agencies took place.



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Currently, the Colombian Government Enterprise Architecture Framework is available for consultation and use in the web Portal: <https://www.mintic.gov.co/arquiteturati/630/w3-channel.html>. The Digital Government Directorate of the Ministry of ICT is responsible for updating and adjusting the Enterprise Architecture Framework. To do this, a government protocol was defined. This protocol establishes co-creation spaces in which the academy, private industry and public agencies dialogue and discuss the viability and relevance of proposals on adjustments, improvements, impact evaluation, and development of new instruments.

Resources

The Framework's design cost was US\$1.500.000 and it was developed over 15 months.

15 consultants worked on the design including, application architects, enterprise architects, information architects, IT Government, as well as IT Strategy and Change management specialists.

In the Digital Government Directorate of the Ministry of ICT, 2 people work in updating, improving and designing Enterprise Architecture Framework instruments. They also lead the processes of appropriation and support to public agencies.

Since the year 2015, more than \$800,000 have been invested in sensibilisation strategies and specialized accompaniment through external operators, in order to achieve that a greater number of agencies adopt the Government Enterprise Architecture Framework, and IT management in public agencies generates greater public value.

Diffusion and scaling: The diffusion and scaling of the Enterprise Architecture Framework has been made through different ways. One of them is the CIO summit organized annually by the Ministry of ICT and Digital Government Week. In the different editions of these events have been presented aspects related to the framework such as: its structure, components, relevance, benefits, updates, etc.

During 2015 and 2016, an accompaniment and implementation plan for the Digital Government policy was structured. It incorporates the adoption of the Enterprise Architecture Framework and it is divided in 4 stages: Informing, Understanding, Locating and Acting.

This strategy was supported by an external operator who had a team of specialized accompaniment professionals. This strategy had the following 4 stages:

- **Informing stage:** The objective of this stage was for public agencies to know the Digital Government Policy and its accompaniment scheme. To achieve this, sectors and regions were invited to socialization meetings.
- **Understanding Stage:** The objective of this stage was for public agencies to appropriate the digital Government policy through practical examples related to digital government projects with impact in their sector or region. In this stage, public agencies had a person assigned to



Digital government toolkit



guide them in the implementation of the activities related with the adoption and fulfilment of the Enterprise Architecture Framework as well as to provide counselling to align needs and projects with the Digital Government Policy.

During this stage 24 sectors of the public administration have received specialized support in the adoption of the Enterprise Architecture Framework, through the head of the sector (Foreign Affairs, Information and Communications Technologies, Environment, Health, Justice, Education, Defense, among others).

3 years after publishing the Framework, more than 1000 agencies have been accompanied. During this period, the Ministry of ICT has carried out face-to-face and virtual workshops to train and strengthen capacities of CIOs and IT professionals related with the implementation of the Colombian Government Enterprise Architecture Framework.

- **Locating Stage:** The objective of this stage was for public agencies to identify their actual state in regards to the fulfilment of the framework's guidelines in order to establish the technology strategic action plan and prioritize the activities to take place. To do so, agencies used diagnostic tools.
- **Acting Stage:** This stage's objective is to provide advice to agencies in order to materialize technology projects defined in their strategic plan, aimed at meeting the objectives of the Enterprise Architecture Framework.

During the year 2017 and 2018, was carried out specialized accompaniment on demand on issues related to the implementation of the Colombian Government Enterprise Architecture Reference Framework for the public entities through webinars, workshops and face to face meetings.

At the sectoral level through the head of the sector and an external accompaniment operator to the ICT Ministry, took place an accompanied in the structuring of the sectoral IT architectures aligned to the Colombian Government Enterprise Architecture Reference Framework.

Expansion to other areas

This practice should be adopted and is mandatory for all the public agencies in the executive branch of the national and territorial level.

Partnerships: Private Sector, Public Sector Organisations

- Everis- TecnoCom Joint Venture
- EY Auditing
- Corporación Colombia Digital
- Ministry of Health and Social Protection
- Social Protection Department
- Colombian Digital Corporation



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Lessons learned

- The definition of an Enterprise Architecture Framework for public agencies requires the cooperation and participation of the academia, the private sector and the public sector.
- It is necessary to elaborate a preparation campaign ahead of the information gathering processes in order to obtain the agencies commitment and participation.
- Projects with very complex technical language require creative communication strategies, oriented to highlighting the project / programme benefits.
- Given the dissimilar conditions and characteristics between the public agencies of the national level and the territorial level, Colombian Government Enterprise Architecture Framework must be adapted for the agencies of the territorial level according to the realities and conditions of this type of agencies.

Conditions for successful implementation

- A high level of commitment and leadership is required from the directors' level in the State agencies in order to fulfill the implementation of the Enterprise Architecture framework since this particular exercise implies allocating financial and human resources.
- The empowerment and establishment of the IT Leader (CIO) figure within the State agencies.
- Officials and consultants with high competencies in leadership and enterprise architecture.
- The adoption of the Framework is not an issue that is only the responsibility of the IT area, but also the missionary areas. Therefore senior management awareness and appropriation of these issues becomes a critical success factor.
- The use of the framework's appropriation thematic should be part of the training plans of public agencies and not only the responsibility of the entity generating the public policy.