





Supporting Service-Oriented e-Government Interoperability in Kyrgyz Republic



Introduction

The Kyrgyz Republic's National Sustainable Development Strategy for 2013-2017 prioritizes the radical improvement of information and communication technologies in state bodies of executive power and local self-government in order to improve their efficiency, transparency, and accountability to citizens. It envisages the expansion of a range of electronic services and more cost-effective public administration, highlighting e-governance as a key tool in the fight against corruption, which will minimize and streamline interactions between citizens and state and municipal institutions.

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Promotion of electronic governance in the Kyrgyz Republic



The Government of the Kyrgyz Republic has adopted by its resolution the Program of the Government of the Kyrgyz Republic for the introduction of electronic governance (electronic government) in the state executive authorities and local authori-

ties of the Kyrgyz Republic for 2014–2017 (hereinafter the Program) with a view to facilitating broad application of information and communications technology (ICT) in the state executive authorities and local authorities of the Kyrgyz Republic, improving the effectiveness of their operation, and enhancing their visibility, expanding the range of available electronic services, and promoting more cost-efficient administration.

Importantly, the introduction of electronic governance in the Kyrgyz Republic is a priority dimension of the National Sustainable Development Strategy of the Kyrgyz Republic for 2013–2017.

The Program of the Government of the Kyrgyz Republic identifies seven priority areas, including the provision of electronic government services, establishment of the nationwide system of electronic governance, and improvement in the regulatory framework, arrangements to ensure the financial and economic effectiveness of ICT projects, promotion of human capacity, and support for the governance structure. As a result of the implementation of the Program, 26 government services will be provided in electronic format by 2017.

As of today, priority tasks for the country include the introduction of base data registers, such as the state population register, register of legal entities, transport, addresses, movable and real property, etc., and activities to effectively address the challenge of interagency electronic interaction.

Taalai Bayterekov, Director e-Government Coordination Center under the Government of the Kyrqyz Republic



Objective

The main objective of the project is to learn from and incorporate Estonian expertise and experience with e-government, especially on interoperability solutions development. Estonian and Kyrgyz experts will cooperate to build an interoperability solution (using X-road as the prototype), allowing the provision of automated e-services to be piloted.

The project will be implemented in cooperation with the e-Government Coordination Center under the Government of the Kyrgyz Republic.

The leading partner of the project is the e-Governance Academy (eGA) of Estonia. The project is supported by USAID and the Estonian Ministry of Foreign Affairs. The eGA will grant the Kyrgyz government a free license for X-Road and will train the necessary technical staff

Project objectives are:

- To improve the capacity to handle digital information;
- To implement the interoperability solution, allowing data exchange between government databases for online services;
- To develop an interoperability framework consisting of organizational, legislative, and fiscal frameworks in addition to technical architecture, enabling fast development of e-services offered by the government.

The First Phase (Feb 2015 - Feb 2016)

The first phase will focus on the institutional development of e-governance coordination and interoperability systems management.

During this period the team will complete following tasks:

- At this phase, the establishment of the e-Government Central Coordination Unit and Interoperability Implementation Center (Operator) will be supported. The staff of the e-Government Central Coordination Unit and Implementation Center will undertake capacity building training while an action plan for the implementation of the interoperability framework is being developed.
- The training of government representatives on the interoperability framework and the development of secure online public services;
- The drafting of an action plan for the implementation of the interoperability framework.

The Second Phase (Sep 2015 - Jul 2016)

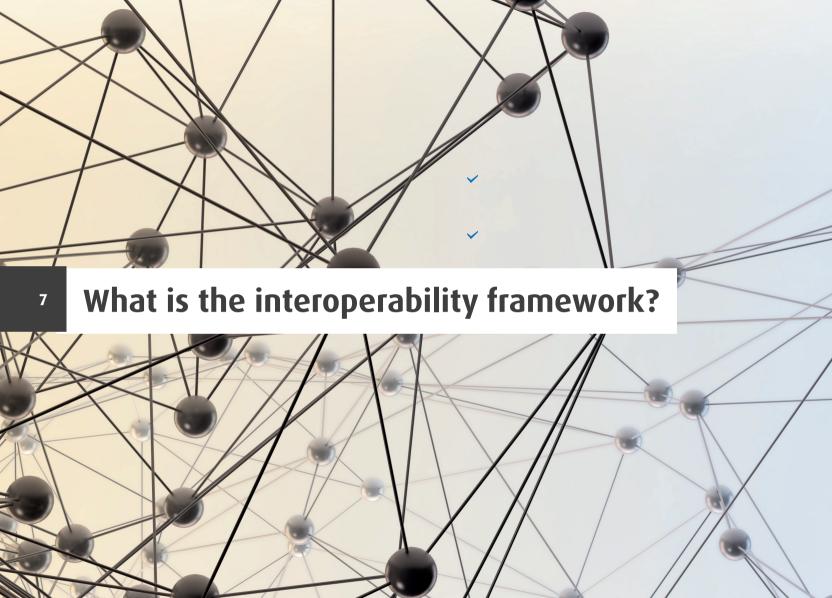
The second phase will focus on transfer of knowledge and capacity building for using the interoperability solution to develop secure online public services.

At this phase, development of the interoperability framework strategy and e-government architecture document, acquisition and installation of the necessary equipment, and training for key government stakeholders on the interoperability solution will take place.

Trained Kyrgyz and Estonian experts will cooperate to develop the prototype of the Kyrgyz X-Road. Three to four government databases will be integrated with the prototype and an interoperability solution with four to six e-services will be piloted. The created interoperability framework will be 100% controlled by the Kyrgyz experts, and if necessary, they will be able to further develop the system.

Trained Kyrgyz and Estonian experts will cooperate to develop the prototype of the Kyrgyz catalogue of interoperability assets and solutions.

In the second phase of the project, the partners will be the E-Governance Academy (experts having experience in developing the Estonian X-Road), the Ministry of Economy of the Kyrgyz Republic, and the E-Government Central Coordination Unit and Implementation Center (Operator).



X-GIS

User Interfaces

X-ROAD certification server

X-road Center

e-ID

Certification Centre

Estonia has been one of the most successful e-government developers in the world for 14 years. At present almost all public services are provided as e-services. The backbone of the Estonian e-government is the data exchange layer called X-Road. X-Road is an interaction platform for citizen e-services as well as an online platform for governmental data exchange and business process automation. The technology used is scalable and secure and it supports collaboration and cooperation within the e-society.

The benefits of X-road for the Kyrgyz Republic are the following:

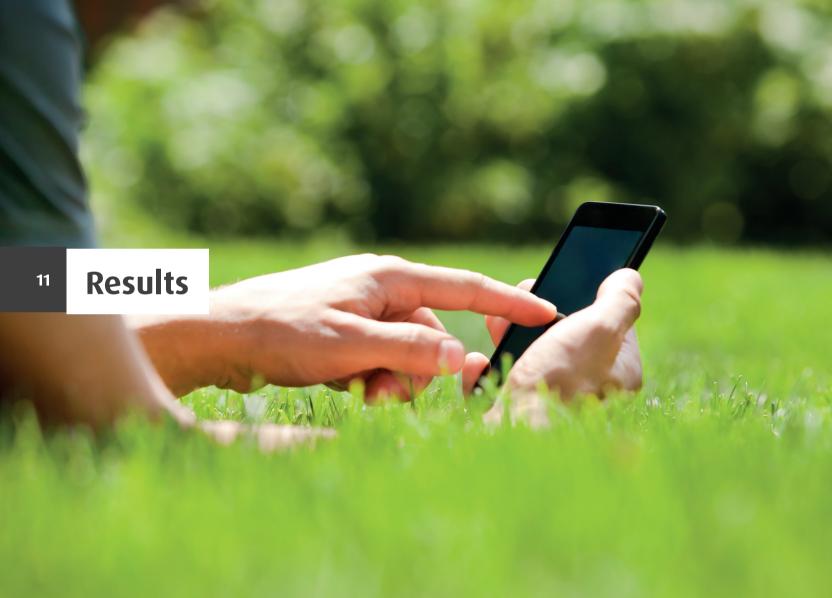
- It allows databases to interact, making integrated e-services possible
- Institutions are not locked into any one type of database or software provider
- All outgoing data from X-road is digitally signed and encrypted. All incoming data from authenticated, authorized and accredited sources are non-repudiated and legally binding.

X-road is decentralized, which means: There is no single owner or controller. Every government agency or business can choose the product that is right for them. Services can be added one at a time, as they are ready. Through its distributed architecture, X-Road is resilient and scalable with 24/7 availability, connecting independent ministries, agencies and businesses. X-Road is message-agnostic: the X-Road center and outside parties have no knowledge of the message structure or processes.

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- The registration of information systems and databases;
- The registration of services;
- The registration of connections with X-Road;
- The administration of reusable components (XML assets, classification systems, dictionaries and ontologies).
- The registration of contact persons responsible for management interoperability solutions.



- Beneficial resources on e-governance for Kyrgyz institutions, including manuals, training equipment, and recommendations on legal, organizational, and managerial procedures.
- An approved action plan for future interoperability framework development.
- An established E-Government Central Coordination Unit and Implementation Center in Kyrgyz Republic.
- Trained permanent staff for the e-governance unit with the knowledge and resources necessary to maintain and expand the country's e-governance capabilities.

- Greater awareness of major e-governance issues among key government representatives and stakeholders.
- Four government agencies will be connected and the first e-services for the country will be tested.
- The key agencies will be described in the created catalogue of interoperability assets and solutions.

Conclusion

At the conclusion of this project, the e-Government Central Coordination Unit and Implementation Center will have appointed, trained, and motivated permanent staff with a clear understanding of the feasibility of the interoperability solution. These institutions will also have an accepted action plan and budget as well as architecture documents. This e-government team will be able to manage continuing technical integration and solve any future technical problems so that the Kyrgyz Republic can continue to advance its e-governance capacities and improve its efficiency as a whole.

