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## FEATURES OF E-GOVERNING FUNCTIONAL MODEL REALIZATION IN UKRAINE

**Abstract:** The article presents the results of the research functional model of e-governing. The attention was paid to the classical (theoretical) and to the three basic (practical) models of e-governing: Continental-European, Anglo-American and Asian models. The stages of the description methodology proposed in the choice of architecture (construction) of the information system in Ukraine. The architecture of the e-governing is considered and aspects of its implementation efficiency for Ukraine. A reference model of e-governing singled out. Next steps are taken to introduce e-governing in Ukraine and to develop it to international standards.

**Keywords:** e-governing, e-government, e-democracy, e-Ukraine, functional model of e-governing.

**JEL Classification:** H41, L88.

### Introduction

In the conditions of the construction information society, the model of public administration should correspond to the technology of e-governing. The mechanistic imposition of information technology on the administrative-bureaucratic apparatus with its functioning procedures will not give the expected effect.

Implementation of technological solutions for e-governing requires some adaptation of the public administration system to new operating conditions. On the one hand, the role of the authorities must be reviewed with the approach of their activities to market conditions, competition and service to citizens. New concept of public management changes the role of the state and delegates the share of managerial functions to communities and citizens. On the other hand, it retains the functions of protecting the rights and freedoms of citizens, monitoring compliance with the norms and requirements of the current legislation. In these conditions, public administration becomes more flexible. New ties are being established between government, civil society and business.

Among the major scientific papers from research questions of e-governing and its functional model, both in Ukraine and in other countries of the world, the following scientists should be noted: E. Arkhipova. A. Bari-

kova, V. Druk, P. Klymushin, K. Linov, V. Lurie, A. Nedilko, N. Pavlyutenko I. Semchuk.

## Results

There are different approaches to determining the model of e-governing. The most common and simple (classical) of them describes the connections between the main subjects of e-governing and includes such components as (Figure 1):

"Government to Government" (G2G) - electronic interaction of government departments among themselves, primarily with a view to providing electronic services by one government to another;

"Government to Business" (G2B) - electronic interaction of government departments with business entities in order to provide the latter with administrative and other services, participation of business in the formation and implementation of state policy, in public procurement, etc.;

"Government to Citizens" (G2C) - electronic interaction of government departments with citizens in order to provide citizens with services, participation of citizens in the formation of state policy and election process, assessment and monitoring of government activities, etc. Access to electronic administrative services in the 24/7/365 mode (24 hours a day, 7 days a week, 365 days a year).

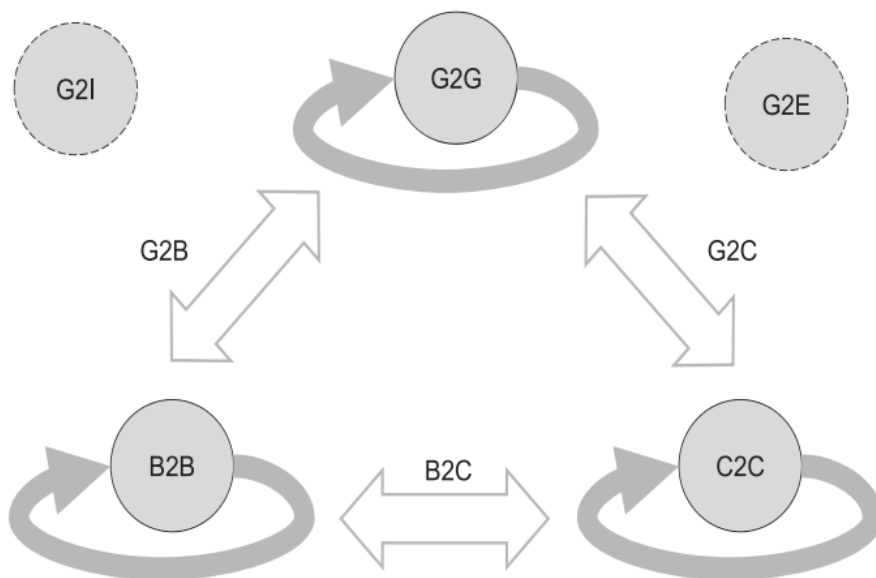


Figure 1. **Model of e-governing**

Source: Agarmizyan, 2002

Other subjects of e-governing and relevant power relations with them are complementing this classical model of e-governing in some countries. For example, in the United Kingdom, an entity is further identified as "civil servants" and the corresponding interaction with government agencies "Government to employers" (G2E), in other countries the e-governing model adds "International organizations and other states" ("G2I -" government to international organizations"), which emphasizes the importance and peculiarities of the interaction of power with these actors in e-governing.

From the point of view of the content of electronic interaction between the subjects of e-governing, there are three main (practical) models of e-governing: Continental-European, Anglo-American and Asian models (Dzjunjyuk, 2016).

The Continental-European model is being characterized by:

- the presence of supranational structures (European Parliament, European Commission, European Court) whose recommendations are binding on all EU countries;
- a high degree of integration of European countries and peoples;
- clear legislation regulating information relations in the European information space.

The governance and activities of government bodies and supranational structures in this model are directed primarily at the needs of citizens - users of information systems and networks (access to public information, prompt reception of quality services, and participation in the formation of public policy).

Anglo-American model (USA, Canada, Great Britain).

In the United States, the main emphasis is on openness, transparency and accountability of the authorities towards citizens. The US Government, namely the Partnership, reflected this in recent international initiatives.

In the UK, the emphasis is on:

- expansion of the range of services provided by the authorities to citizens and business entities;
- improving the efficiency of government bodies;
- creation of technical and educational conditions for the full coverage of citizens by administrative services.

At the same time, one of the main goals is the release of civil servants from routine procedures for interaction with the public.

The Asian model of e-governing, taking into account the peculiarities of a specific management style, the Asian type of corporate culture and the multi-level system of public administration. In this model, the main efforts are aimed at introducing modern information and communication technologies into the field of education and culture (Zahran, Al-nuaim, Rutter, Benyon, 2015).

The most important direction of communication is the interaction of public authorities using electronic document circulation and digital signature (G2G), interaction between government authorities with citizens (G2C) and business (G2B). Through the mechanisms of public administration, taking into account the new challenges of the information society, a number of state functions are being implemented on issues of organization, coordination, regulatory activity and control.

In modern conditions of the parliamentary-presidential model of governance in Ukraine, political levers of influence on the government and technology of decision-making on the main issues of development of society play a significant role. Under these conditions, the role and participation of citizens as the electorate of political forces increases, which in turn involves organizing a dialogue between government and society and the creation of adequate mechanisms for such interaction. The model of " e-governing ", thanks to the capabilities of information technology, most satisfies the new requirements of social development.

An effective means of ensuring prompt and sustainable implementation of e-governing in Ukraine is to improve feedback and implement information and analytical support for public administration. Such management, based on the analysis of available information and mathematical modeling of development processes, can make forecasts; compensate for the delay in the control circuit; form managerial decisions.

The current state of informational and analytical support for making managerial decisions and the use of analytical models by the authorities is at a rather low level, including in the field of management of the implementation of e-governing. (Fesenko, Fesenko, 2016).

When choosing the architecture (construction) of an information system in Ukraine, it is necessary to identify the following stages of the description methodology.

Step 1. Determine how the information system architecture will be used. Architecture should be designed with a specific purpose (process reorganization, introduction of new technologies, migration or integration of complex systems, user training, assessment of compatibility, etc.).

Step 2. Define the boundaries and scale of the architecture. After setting the goal of the development of architecture, it is necessary to define in its general terms its content: the boundaries of architecture (described functions, organizational units, periods, etc.), the level of detail of information. Factors to consider in this case:

- activity only within the organization or outside its borders (information interaction with other organizations);
- scenarios for the implementation of operations, geographic areas;
- forecasted economic effect and risks;

- predicted availability and functionality of specific technologies within the range of time considered.

Step 3. Determine the degree of detail of the architecture. Depending on the design goals and the boundaries of the architecture, a balanced degree of detail must be defined.

Step 4: Choose products and architectural design models. Architectural description products are tools whose aggregate use provides an integrated look at the description of the organization's operation. Product descriptions of architecture can be functional, informational and organizational models.

Practically all known methods of constructing the architecture of information systems in public organizations are divided into two groups: the state architecture (state functions), which is based on the organization's goals and the description of the processes necessary for the implementation of architecture, and the architecture of information systems - all technological infrastructure needed for the implementation of architecture state.

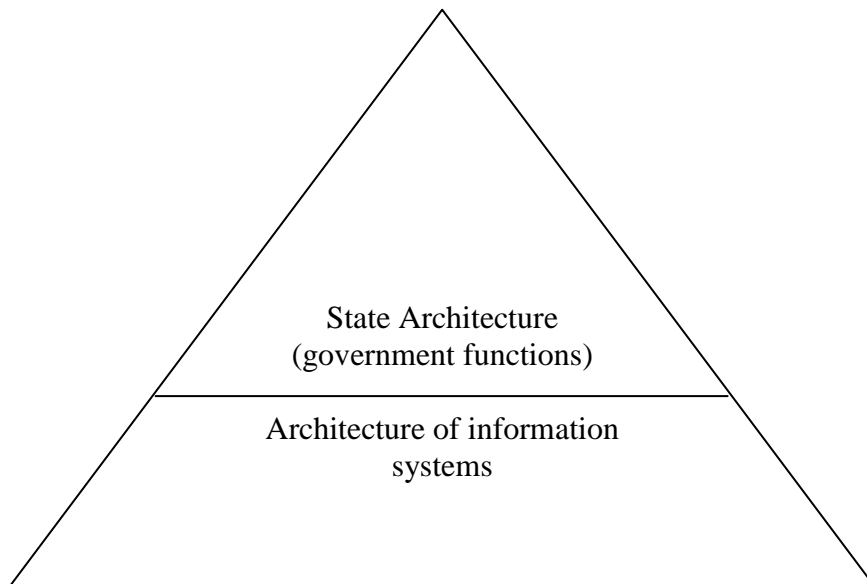


Figure 2. **Architecture of information systems in public organizations**

Source: Author's work

The architecture of e-governing can submit as a set of state-owned architectural structures and information technologies. Together, the architecture of government functions (administrative regulations) and the architecture of information technology form the basis of the architecture of e-governing, which makes information technology one of the foundations of the entire modern state-of-the-art program. At the same time, it is necessary to add vertical elements that are used at several levels to this model of e-governing architecture. Such elements at the state level include methods of modeling

state processes that relate to such industries as systematic, standardized description of processes within the e-governing as whole and separate components of these processes.

The architecture of e-governing is a holistic view of how the state operates, in particular its individual institutions, and how information and communication technologies provide the necessary support for their functioning.

Consider some aspects of e-governing efficiency. Thus, the main goal of e-governing is to provide conditions for the joint development of processes, standards of interoperability and the exchange of information between public authorities and organizations (Barikova, 2016). The main ideas embodied in the design of architecture

1) functional approach, based on business processes of state organizations (this applies not only to information technology);

2) a general structural approach that considers the state's activities in terms of business processes and is aimed at increasing the efficiency of the state through interagency cooperation;

3) state agencies receive a new way of describing, analyzing and improving the government, its ability to provide services to citizens;

4) orientation to overcome restraining organizational barriers, without administrative imposing reorganization;

5) framework for improvement in key areas: budget distribution; horizontal and vertical dissemination of information; performance analysis and integration of budgeting with performance indicators; interdepartmental interaction; Improving the provision of services to citizens; e-government; component architecture, etc.

The purpose of the development of architecture is to ensure:

- general understanding of the principles of the creation of IT architectures (information technologies) of individual institutions for all state organizations;

- general processes, principles of interoperability and the exchange of information between public organizations;

- interactions at the state level;

- sharing resources;

- reducing costs at the state level and at the level of individual ministries and institutions;

- opportunities for sharing information;

- Establish the basis for the process of planning investment in IT at the state level and at the level of individual ministries and institutions.

The reference model is, in fact, an instrument that provides:

- general architectural principles in the implementation of interdepartmental projects;

- unified methodology for all government organizations in developing their own IT architectures (corporate architectures).

The reference model describes the activities of government organizations (government) in terms of functionality, regardless of which institution performs this or that function (Arkhypova, 2015). Consequently, the basis for describing the activities of the state and state organizations are business processes. Areas of activity are key in terms of identifying government services and providing these services to citizens and other services.

II Examples of some areas of activity:

- services for citizens: economic development, education, science and innovation, law and order, tax collection, energy, actions in emergencies;
- methods of providing services: financial assistance, supervision, regulation;
- support of the service delivery process: lawmaking, public relations, tax and payment collection;
- management of public resources: procurement, information, technologies.

The main idea of this model is that the various activities of the state are grouped according to the functional principle, regardless of which institutions are responsible for them. This creates a classification that allows you to understand what the state is doing or should do, and which is the ultimate goal of government and various government programs.

**Table 1. A model for the effective architecture of e-governing for Ukraine**

Element of the model	Categories included in the item
Services for citizens	Defense, national security, internal security, intelligence, law enforcement, international relations and trade, law and justice, corrective action, education, energy, health, transport, taxes, environmental protection, natural resources, emergency management, social services, economic development, labor resources, science and innovation.
Service Providers	Mechanisms for providing public services: direct services to citizens, creation and management of knowledge, creation and management of public goods, supervision and regulation. Financial mechanisms: financial assistance, loans and insurance, transfers to local authorities.
Support for providing services	Lawmaking, public relations, regulatory functions, planning and resource allocation, control and supervision, tax and payment collection, internal risk management (general government functions).
Management of public resources	Purchasing management, government personnel, finance, information and technology, general administration.

Source: Author's work on the basis of Drigas, Koukianakis, 2013

It is worth noting that the process of creating an information system "E-Government" requires scientific innovative approaches to develop conceptual provisions for the creation and further modernization of the system, the

construction of basic theoretical models and programmatic mechanisms for its functioning taking into account international experience, as well as forecasting the results and consequences in the process of its implementation and exploitation. The basic complexity of implementing projects in the field of e-governing and inter-agency projects is to organize the process of adoption of relevant standards and harmonization of the architecture of information technologies of different organizations and agencies. E-governing projects include the following types of standards: data, inter-agency information exchange, metadata, and information retrieval, security.

### Conclusion

Thus, it can be argued that the most practical implementation for Ukraine is the Anglo-American model of e-governing, taking into account the specifics of the state and the needs of citizens and business. One of the basic principles for implementing and maintaining e-governing in Ukraine should be decentralized implementation with centralized monitoring and support, as well as a general assessment of the initiative in terms of services offered by the state. It involves the following aspects:

- centrally designed, but locally implemented, basic (common) components;
- standards and architecture of IT;
- local application systems (ministries and regions): applications that are used by individual agencies to provide specific services;
- adaptation of state processes and regulations to needs;
- centralized coordination and accumulation of information.

A two-year period is considered to be the maximum for the implementation of a new project within the e-governing, otherwise its scope and boundaries are overestimated. With plans to implement services and processes online in Ukraine it is necessary to link and synchronize plans of the corresponding legislative support: introduction of necessary amendments to the law on digital signature, adoption of regulatory legal acts regulating electronic forms of service provision, interaction of state authorities etc.

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