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NATIONAL INFOCOMMUNICATION HOLDING

Service integrator of "electronic government" of the Republic of Kazakhstan

Definition of the service integrator of "electronic government"

Service integrator of "electronic government" - a legal entity determined by the Government of the Republic of Kazakhstan, which is entrusted with the functions of methodological support for the development of the architecture of "electronic government" and the typical architecture of "electronic akimat" , as well as other functions

Personnel of the service integrator of "electronic government"

Number of employees

50 employees

Competencies

Enterprise architecture, Solution architecture, business and system analysis, technical documentation expertise, data management , project management

Certification/Education

TOGAF, OMG, IIBA, PMI….

Functions of the service integrator of "electronic government"

- provides methodological support for the development of the architecture of "electronic government"
- develops a typical architecture of "electronic akimat" and makes proposals for its development
- develops, accompanies the implementation and develops the architecture of state bodies;
- develops a technical requirements for the design of information and communication services;
- organizing the creation or development and testing of service software products for the implementation of information and communication services;
- conducts an examination in the field of informatization of an investment proposal, a financial and economic justification of budget investments, as well as a technical assignment for the creation and development of an object of informatization of "electronic government" for compliance with the requirements for the development of the architecture of "electronic government", the approved architecture of the state body, the typical architecture of the "electronic akimat" » and the availability of the possibility of using standard solutions in the creation and development of the object of informatization of «electronic government»;
- carries out accounting of information about the objects of informatization of the "electronic government" and storage of electronic copies of the technical documentation of the objects of informatization of the "electronic government" on the architectural portal of the "electronic government";
- carries out reengineering of business processes of public administration;

Normative and methodological support of the service integrator of "electronic government"

Law of the Republic of Kazakhstan dated November 24, 2015, No. 418-V "About Informatization "

Rules for the implementation of the service model of informatization

Rules for the classification of informatization objects and the classifier of informatization objects

Rules for conducting expertise in the field of informatization of investment proposals, financial and economic justifications for budget investments

Rules for the development, support for the implementation, and development of the architecture of state bodies

Methodology for developing the architecture of state bodies

Business Process Reengineering Methodology

What has been done on the architecture of state bodies and "electronic akimat"

1

26 architectures of state bodies and local executive bodies have been developed (activities, data, information systems, infrastructure are described)

2

A unified architecture of state bodies has been formed

3

Basic components of "electronic government" has been formed

4

A typical architecture of the "electronic akimat" has been developed (functions, processes, data, information systems)

What has been done to address the service model of informatization

1

31 information and communication services have been designed (technical requirements for the design have been approved by the authorized state body)

2

With the involvement of the IT market, **21 information and communication services** for government bodies have been implemented and put into commercial operation (10 in progress);

3

About **10 information and communication services** are projects of a republican scale.

What has been done on the examination of technical documentation

1

From 2016 to 2021, **530 examinations of unique (non-recurring) projects** were carried out:

2

Technical requirements - **345**

3

Investment offers - **118**

4

Feasibility studies - **67**

What has been done on business process reengineering

1

In 2020, reengineering of **9 process groups** was carried out :
MH - 7 process groups, MLSPP - 1 process group, MES - 1 process group. Target models are transferred to public authorities for implementation

2

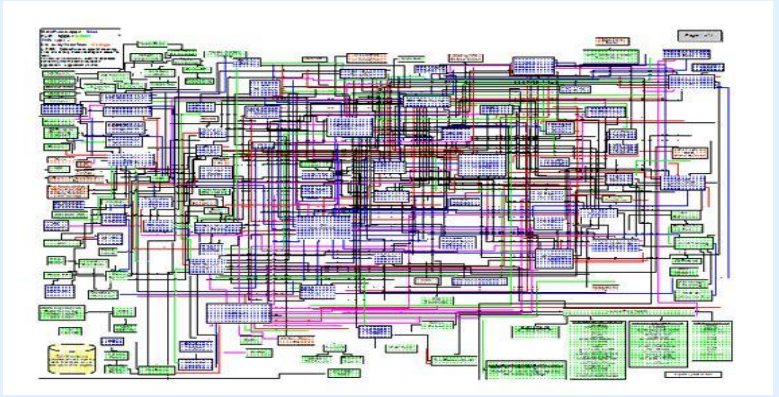
In 2021, **110 business processes** (BP) were re-engineered within **24 life situations** (LS):

- MA - 61 BP / 4 LS
- MD - 4 BP / 1 LS
- MF - 13 BP / 8 LS
- MJ - 13 BP / 3 LS
- MNE - 2 BP / 3 LS
- MES- 1 BP / 1 LS
- MIA- 9 BP / 4 LS
- MIID - 4 BP / 2 LS
- MEGNR - 2 BP / 2 LS
- MTI - 1 BP / 1 LS

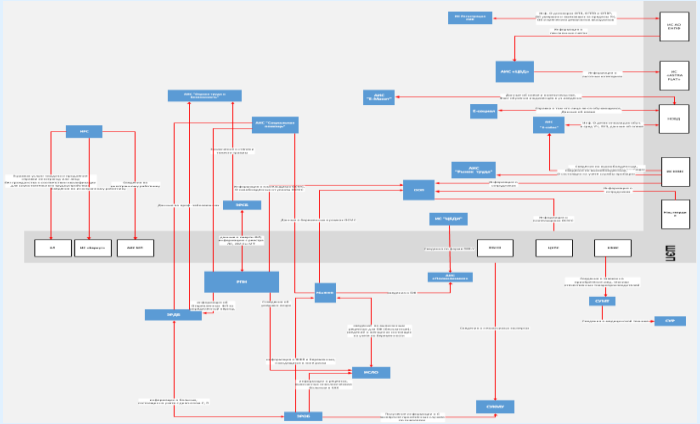
Architectural approach

Urban landscape without an architectural plan

Architectural approach to the urban landscape



IT landscape without an architectural plan



An architectural approach to the IT landscape

Purpose of the architecture of the state body

Architecture should create common ideas about the activities of state bodies and its informatization and digital transformation for all participants of state bodies

The architecture helps participants to distribute the target picture of informatization and digital transformation across IT projects, link the goals of these projects with the goals of IT and state bodies development, form a unified program of informatization and digital transformation and determine project priorities

The architecture ensures the coordination of projects and the implementation of individual changes in IT and state bodies with a focus on the target state of the organization

Interrelations of layers of the architecture of the state body

1	**Activity architecture**	Models describing the activities of state bosies in terms of functions, divisions, goals, objectives and benchmarks. They allow to identify "weak points", perform optimization and set priorities for the implementation of the architecture
2	**Data architecture**	Models describing the types of data (unambiguously interpreted sets of information with which systems of certain classes operate) necessary for the formation of information support. Determine the interaction of systems, approaches to integration and management of RRI
3	**Architecture of information systems**	Models describing specific systems needed to work with data, platforms used, statuses and implementation options. Define the requirements for the physical interaction of systems and technical architecture
4	**Architecture of information and communication infrastructure**	Models describing system-wide services, operating environments, computing and communication components, user devices, engineering equipment and platforms necessary for the required operation of systems

Transition of state bodies to the platform model of digitalization

In order to implement the initiative of the Prime Minister of the Republic of Kazakhstan A. Mamin dated March 25, 2021 No. B-208 regarding **"The transition in the near future to a platform model of digitalization of state bodies of the Republic of Kazakhstan, following global trends,"** a large-scale survey was conducted:

- Subjects of informatization of electronic government;
- Objects of informatization of electronic government;
- Recommendations for the transition to a platform model of digitalization have been developed;
- The needs of telecommunications, informatization in terms of the bandwidth of communication channels and the volume of stored/transmitted data have been identified;
- Assessment of digital maturity of central state bodies and local executive bodies;
- Formation of an integral architecture of central state bodies/state bodies;
- Survey of the current state of the technology and infrastructure of the electronic government of the Republic of Kazakhstan;
- Survey of IT systems of the electronic government of the Republic of Kazakhstan.

26 central state bodies

17 local executive bodies

22 subjects of quasi-public sector

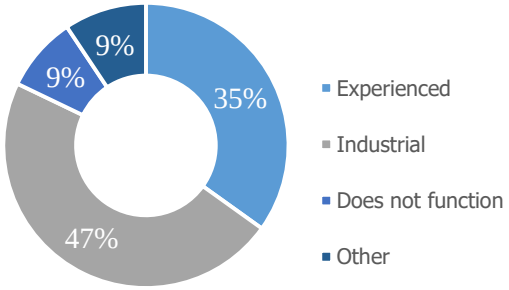
572 objects of informatization of electronic government

3138 identified equipments

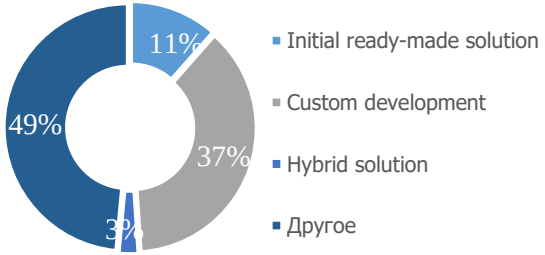
Survey of subjects of informatization of electronic government

DISTRIBUTION BY OBJECTS OF INFORMATIZATION

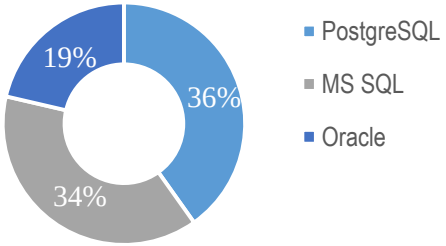
LIFE CYCLE STAGES



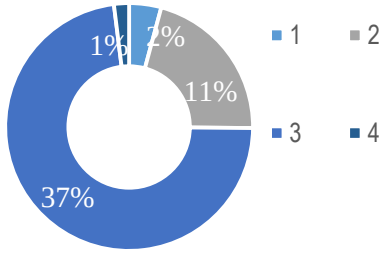
IMPLEMENTATION METHOD



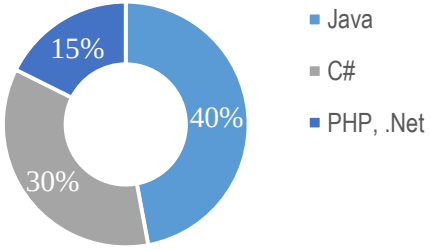
DATABASE TECHNOLOGY STACK



SOLUTION CLASSES



LANGUAGES AND DEVELOPMENT PLATFORM



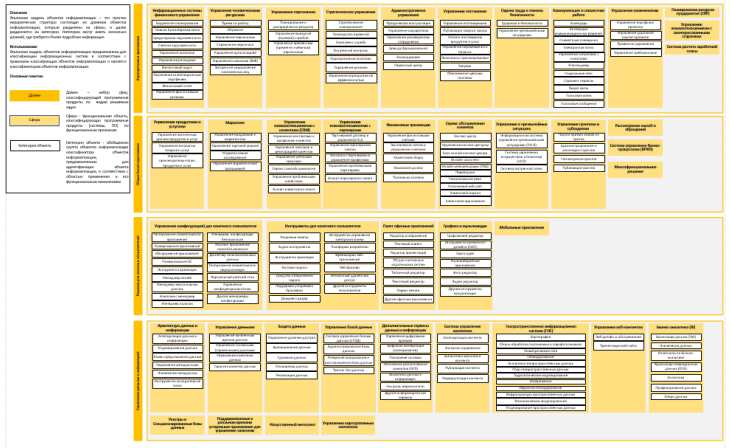
MAIN DISADVANTAGES:

- Not all process groups are automated;
- The presence of disparate systems with duplicate functionality, duplication of directories;
- Formation of a large number of paper documents;
- The presence of information systems that have not been put into industrial operation, have not been tested for compliance with information security;
- The presence of information systems requiring decommissioning;
- Large infrastructure costs and its maintenance.

Reference architecture of electronic government

1. Business reference model (BRM)

2. Data reference model (DRM)

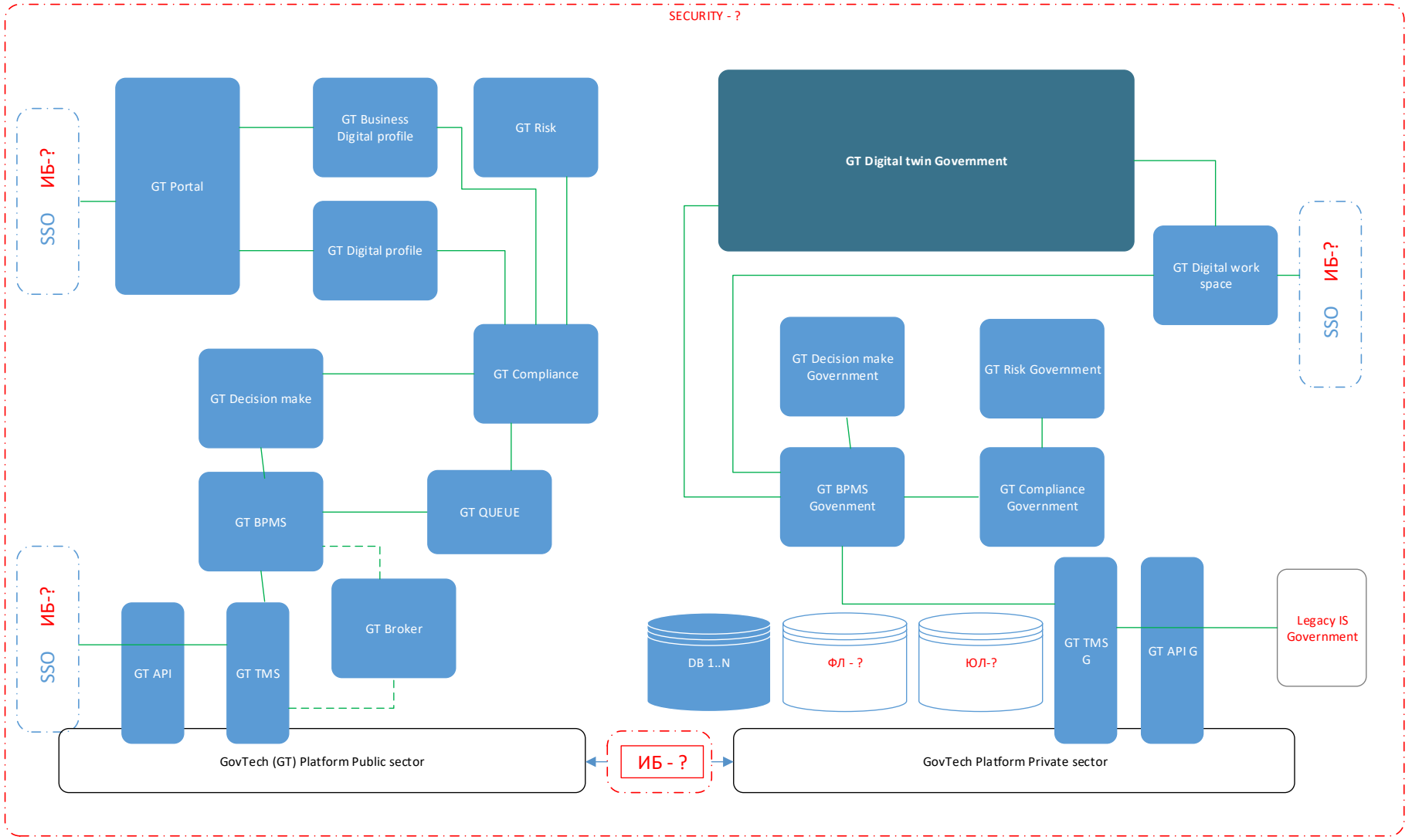


3. Application/IS reference model(ARM)

4. IC infrastructure reference model (IRM)

Basic components of electronic government

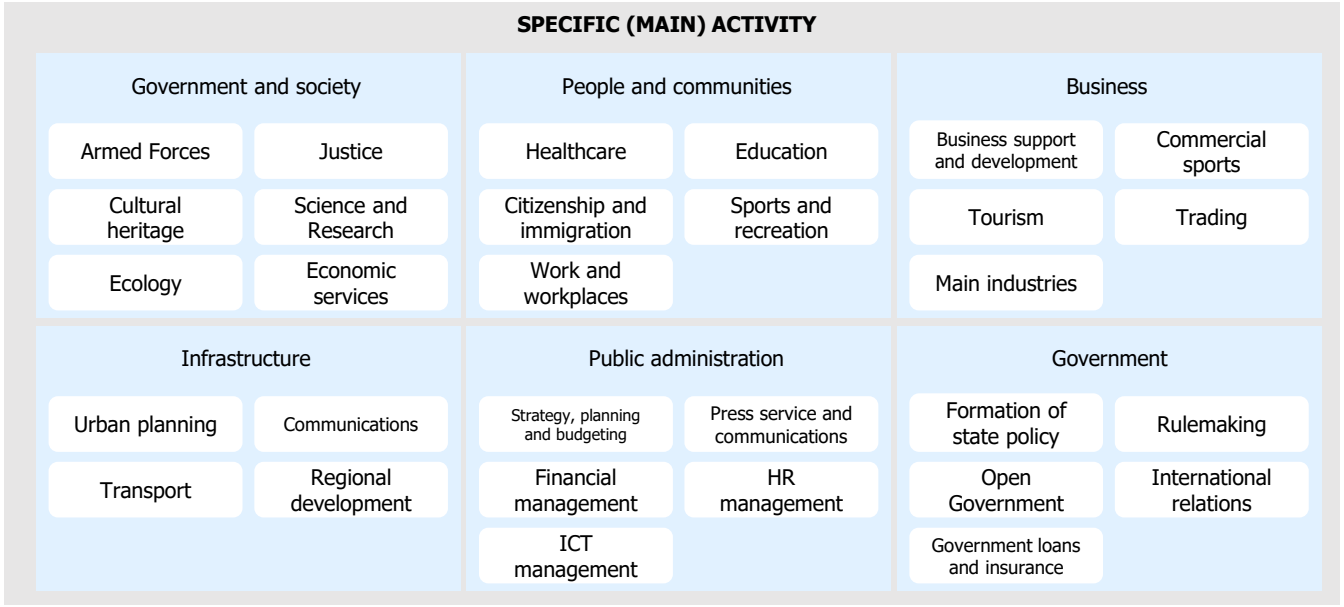
The components of the **external circuit** are focused on improving the quality of public services and improving interaction with all participants of electronic government



The components of the **internal circuit** are designed to form a digital government and are aimed at improving interaction between government agencies, improving the quality of information and, accordingly, planning

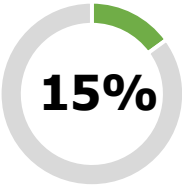
Reference architecture of electronic government

Typical organizational structure of a state body



CIVIL SERVANTS ENGAGED IN STANDARD SUPPORT ACTIVITIES

There are **9,713** civil servants in central office



1 457 employees

there are **43,085** civil servants in Territorial divisions

4 308 employees

BUDGET OPTIMIZATION:

Reduction of **5,765** civil servants,
or **1 631 281 695** tenge per month,
or **19 575 380 340** tenge per year.

For reference: ***282 963 тг*** *tenge median salary of a civil servant*

INSTALLED:

- Specific (main) functions are distributed across **6** domains and **59** areas of activity in the BRM taxonomy
- Typical supporting functions are being implemented – **13** services that are being considered for transfer to a competitive environment or their centralization in authorized bodies

THANK YOU FOR YOUR ATTENTION!

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