On approval of the Rules for the formation and monitoring of the implementation of the " electronic government" architecture

Unofficial translation

Order No.193/HK of the Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan as of August 12, 2019. Registered with the Ministry of Justice of the Republic of Kazakhstan on August 15, 2019, No. 19249.

Unofficial translation

Footnote. The headline is in the wording of the order of the Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan dated 28.11.2022 № 464/НҚ (shall be enforced from 01.01.2023).

1. To approve the attached Rules for the formation and monitoring of the implementation of the "electronic government" architecture.

Footnote. Paragraph 1 is in the wording of the order of the Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan dated 28.11.2022 № 464/НҚ (shall be enforced from 01.01.2023).

2. To invalidate Order № 159 of the Minister of Information and Communications of the Republic of Kazakhstan "On approval of the Rules for the development, support of the implementation and development of the architecture of state bodies" as of September 19, 2016 (registered in the State Registration Register of Regulatory Legal Acts under № 14523, published in the "Adilet" legal information system on January 12, 2017).

3. The Digitalization Department of the Ministry of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan shall:

1) ensure state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

2) within ten calendar days of the state registration of this order, send it in Kazakh and Russian to the Republican State Enterprise with the Right of Economic Management " Institute of Legislation and Legal Information of the Republic of Kazakhstan" for its official publication and inclusion into the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan;

3) place this order on the website of the Ministry of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan;

4) within ten working days of the state registration of this order, submit information on the implementation of measures, provided for in subparagraphs 1), 2) and 3) of this paragraph , to the Legal Department of the Ministry of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan.

4. The control over the execution of this order shall be assigned to the supervising vice-minister of digital development, innovations and aerospace industry of the Republic of Kazakhstan.

5. This order shall take effect ten calendar days after its first official publication.

Minister of Digital Development,
Innovations and Aerospace Industry of
the Republic Kazakhstan

Approved by
Order № 193/HK of the
Minister of Digital
Development, Innovations and
Aerospace Industry of the
Republic of Kazakhstan
as of August 12, 2019

Rules for the formation and monitoring of the implementation of the "electronic government" architecture

Footnote. The Rules are in the wording of the order of the Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan dated 28.11.2022 № 464/НҚ (shall be enforced from 01.01.2023).

Chapter 1. General provisions

1. These Rules for the formation and monitoring of the implementation of the "electronic government" architecture (hereinafter - the Rules) have been developed in accordance with subparagraph 17) of Article 7 of the Law of the Republic of Kazakhstan "On Informatization" (hereinafter - the Law) and shall determine the procedure for the formation and monitoring of the implementation of the "electronic government" architecture".

2. These Rules use the following basic concepts:

1) an authorized body in the field of informatization (hereinafter - the authorized body) - the central executive body, carrying out management and intersectoral coordination in the field of informatization and "electronic government";

2) the architecture of information systems - a layer of the "electronic government" architecture, which is a description of the information systems of state bodies (application software) that automate state functions and the public services provided resulting from them, the processes of their interaction and relationships to the functional capabilities of the relevant branches (spheres) of public administration;

3) the architecture of information and communication infrastructure - a layer of the architecture of "electronic government", which is a description of system–wide software, hardware and software complexes, telecommunications networks, means of information security and engineering infrastructure;

4) an interested party in the architecture of “electronic government” and a project in the field of information and communication technologies (hereinafter - the interested party) - a legal entity (state legal entity, government enterprise, state enterprise with the right of economic management, quasi-public sector entity), whose activities will be affected with an influence of the formation of the “electronic government” architecture which has expectations and interests in relation to the objects of informatization of “electronic government”;

5) a project in the field of information and communication technologies (hereinafter - the ICT project) - a set of interrelated measures for the creation and development of “electronic government” informatization objects, the financing of which is carried out from budgetary funds, including other sources of financing not prohibited by the legislation of the Republic Kazakhstan in the field of informatization;

6) information interaction - the process of exchange of data and information between structural units of SB, SB with subordinate organizations, other SB individuals and legal entities;

7) the context of the "electronic government" architecture – the internal environment and external conditions of functioning of the "electronic government", within which the formation of the architecture of "electronic government" is carried out;

8) the architecture of data – a layer of the “electronic government” architecture, which is a description of information resources, the data they contain, information interaction, including approaches and means of data management;

9) client–oriented architecture - an architecture formed using a client-oriented approach through the design of a variety of client paths arising from domain service recipients (several domains), built around the needs of service recipients;

10) client-oriented approach - an approach used in the design and reengineering of business processes in order to maximize their adaptation for the service recipient, taking into account his/her personal characteristics;

11) the architecture of activity – a layer of the “electronic government” architecture, which is a description of strategic priorities, goals, objectives, functions, business processes and services in the context of relevant domains;

12) a state body (hereinafter - SB) - a central state body and a state body directly subordinate and accountable to the President of the Republic of Kazakhstan, as well as local executive bodies of the region, city of republican significance, capital;

13) technical documentation - a set of documentation for an informatization object, on the basis of which the creation and development of an informatization object is carried out, as well as its trial and industrial operation;

14) information and communication platform of “electronic government” (hereinafter - ICP EG) – a technological platform designed to automate the activities of a state body,

including the automation of state functions and the provision of public services arising from them, as well as the centralized collection, processing, storage of state electronic information resources;

15) the architecture of "electronic government" – description of the objects of informatization of "electronic government", including tasks, functions of public administration in the context of relevant branches (spheres) in digital form;

16) layer of the "electronic government" architecture – an integral part of the "electronic government" architecture, characterizing the state of electronic government from one perspective, describing activities, data, information systems and information and communication infrastructure;

17) a 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 "electronic government" architecture, as well as other functions provided for by the Law.

3. The architecture of "electronic government" is intended for the formation of a target client-oriented architecture of the state based on the domain model for the purpose of effective management of ICT projects and their implementation on the ICP EG.

The architecture of the ICP EG shall be formed and approved by the operator of the information and communication infrastructure of the "electronic government" in agreement with the service integrator of the "electronic government" and an authorized body.

Footnote. Paragraph 3 is in the wording of the order of acting Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan dated 01.08.2023 № 310/НҚ (shall be enforced upon expiry of ten calendar days after the day of its first official publication).

Chapter 2. The procedure for forming the architecture of "electronic government"

4. The e-government service integrator shall ensure the formation and development of the e-government architecture.

5. Planning of expenses for providing services on the formation and monitoring of the architecture implementation shall be carried out by the authorized body in accordance with the Instructions for the preparation, submission and consideration of the expenses calculation for public procurement of goods, works, services in the field of information, approved by the order of acting Minister for Investments and Development of the Republic Kazakhstan dated March 16, 2016 № 274 (registered in the Register of state registration of regulatory legal acts under № 13631) and the Rules for the preparation and submission of a budget request, approved by the order of the Minister of Finance of the Republic of Kazakhstan dated November 24, 2014 № 511 (registered in the Register of state registration of regulatory legal acts № 10007).

6. The development of the "e-government" architecture shall be carried out in accordance with unified requirements in the field of information and communication technologies and information security, approved by the resolution of the Government of the Republic of Kazakhstan dated December 20, 2016 № 832.

Footnote. Clause 6 is in the wording of the order of the Minister of Digital Development, Innovations, and Aerospace Industry of the Republic of Kazakhstan dated 26.06.2024 № 371/ NҚ (shall be enforced from 22.07.2024).

7. The process of formation and development of the “electronic government” architecture includes the following stages:

1) determination of the current architecture of “electronic government”;

2) description of strategic goals, target indicators, tasks, indicators of public administration in the context of branches (spheres);

3) formation of the target architecture of “electronic government”.

8. Within the framework of the current “electronic government” architecture, the “ electronic government” service integrator shall:

1) determine and describe the domains of public administration activities and the specific state functions carried out within their framework and the public services resulting from them, taking into account the developed architectures of SB and the standard architecture of the “ electronic akimat”;

2) analyze the architecture of SB, the standard architecture of the “electronic akimat”, organizational structures, regulations of state bodies and state functions, and based on the results, group state functions and services into a list of functional capabilities of public administration;

3) form a functional model of “electronic government” from the list of functional capabilities;

4) conduct, within the scope of the “electronic government” architecture, a survey and description of the “electronic government” informatization objects, including using information from the “electronic government” architectural portal;

5) form and maintain a conceptual model of domain data based on a data catalog formed in accordance with the data management Requirements approved by the order of the Minister of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan dated October 14, 2022 № 385/НҚ (registered in the Register of state registration of regulatory legal acts № 30186) (hereinafter - the data management Requirements), and also describe the flows of information interaction between participants of the branches of activity;

6) conduct an analysis of existing ICT projects of SB and the dependence between intradepartmental, industry and interdepartmental ICT projects.

9. As part of description of strategic goals, target indicators, tasks and indicators, problems and opportunities of public administration in branches (spheres), the “electronic government” service integrator shall:

1) describe the list of goals, objectives, target indicators and indicators of the SB reflected in the laws of the Republic of Kazakhstan and documents of the state planning System, corresponding to the context of the "electronic government" architecture being developed;

2) define existing problems (shortcomings and limitations) of activities, identify possible causes of their occurrence, including considering the possibility of solving them through reengineering of business processes and the use of information and communication technologies in branches (spheres) of public administration;

3) ensure the formation and maintenance of a SB electronic register of business processes, the reengineering of which will be carried out in accordance with the rules of digital transformation.

10. As part of formation of the target architecture of "electronic government", the service integrator of "electronic government" shall:

1) describe the target state of business processes of public administration in regulated areas (branches);

2) determine reference data based on data passports posted on the architectural portal in accordance with data management requirements;

3) form a model of information systems;

4) form a model of information and communication infrastructure;

5) form a list of open source software and information and communication technologies (list of guidelines (set of specifications) used in the creation and development of "electronic government" informatization objects;

6) form and prioritize a list of initiatives for the creation, development, acquisition of " electronic government" informatization objects and information and communication services in the relevant domains of activity, recommendations for decommissioning, replacement, putting on the balance sheet, migration to ICP EG, accounting and updating of information about objects of informatization of "electronic government", including writing-off the objects of informatization.

Construction of the target architecture of "electronic government" based on the domain model shall be based on the following principles:

1) construction of the "electronic government" architecture based on client-oriented processes aimed at meeting the needs of citizens and organizations;

2) deduplication of master data within several authorities included in one domain.

11. The service integrator of "electronic government" as part of development of each layer of the architecture of "electronic government" shall:

1) provide a comparison of models of the "electronic government" architecture to identify components of the e-government architecture for which there are no recommendations;

2) ensure verification of the completeness, integrity and effectiveness of the "electronic government" architecture in order to determine intersections and conflicts between the

components of the “electronic government” architecture, including missing and redundant components of the “electronic government” architecture;

3) identify the opportunities to eliminate duplication of “electronic government” informatization objects and create opportunities for joint and reuse of “electronic government ” informatization objects in branches (spheres) of public administration and at the interdepartmental level.

12. Upon completion of works on all layers of the “electronic government” architecture, the results of works shall be formalized by the “electronic government” service integrator in digital form in accordance with its methodological support and provided to the authorized body for approval.

The authorized body, no later than 10 (ten) working days from the date of receipt of the draft architecture of the “electronic government”, shall approve it, and in the case of reasoned comments and proposals, refuse approval.

The “electronic government” service integrator, based on the comments and suggestions of the authorized body, shall finalize and make the necessary changes to the “electronic government” architecture project.

The finalized “electronic government” architecture shall be placed in digital form on the architectural portal.

13. The “electronic government” service integrator, when forming the “electronic government” architecture, shall ensure compliance with legislation in the field of information technology.

14. Based on the formed “electronic government” architecture, the SB shall make changes to the digital transformation roadmap of the SB and documents of the state planning System of the sixth level in order to reflect the targeted ICT projects of the “electronic government” architecture in them, measures and activities for the implementation of the “electronic government” architecture, aimed at achieving the goals and objectives determined in the branches (spheres) of public administration.

Chapter 3. Monitoring the implementation of the “electronic government” architecture Paragraph 1 . Implementation of the “electronic government” architecture

15. The SB shall ensure the implementation of the “electronic government” architecture in accordance with subparagraph 2) of Article 9 of the Law.

Automation of activities of the SB, including state functions and the provision of public services arising from them shall be carried out through the creation and development of “ electronic government” informatization objects or through the acquisition of “electronic government” informatization objects and information and communication services in accordance with the approved “electronic government” architecture and taking into account the conducted reengineering.

16. The SB shall ensure the realization of the “electronic government” architecture through the implementation of activities of the roadmap for the digital transformation of SB and documents of the state planning System of the sixth level, including through the implementation of ICT projects, recommendations for decommissioning, putting on the balance sheet, migration to ICP EG, accounting and updating of information about the objects of informatization of “electronic government”, including on writing-off the objects of informatization.

17. The state body (SB) implements ICT projects defined by the "e-government" architecture in accordance with the Rules for the creation, development, operation, and acquisition of informatization objects of "e-government," as well as information and communication services, approved by the order of the Acting Minister for Investments and Development of the Republic of Kazakhstan dated January 28, 2016 № 129 (registered in the Register of state registration of regulatory legal acts under № 13282) (hereinafter - the Rules for project management).

Footnote. Clause 17 is in the wording of the order of the Minister of Digital Development, Innovations, and Aerospace Industry of the Republic of Kazakhstan dated 26.06.2024 № 371/ NQ (shall be enforced upon expiry of ten calendar days after the date of its first official publication).

18. For the purpose of conducting reliable and objective assessment of the efficiency, effectiveness, and risks of implementing the "e-government" architecture and individual ICT projects, the state body shall ensure the recording of information about the "e-government" informatization objects on the architectural portal in accordance with these Rules.

Footnote. Clause 18 is in the wording of the order of the Minister of Digital Development, Innovations, and Aerospace Industry of the Republic of Kazakhstan dated 26.06.2024 № 371/ NQ (shall be enforced upon expiry of ten calendar days after the date of its first official publication).

Paragraph 2. Monitoring the implementation of the “electronic government” architecture

19. Monitoring of implementation of the “electronic government” architecture shall be carried out on an ongoing basis in order to identify, coordinate and justify changes in the requirements for the created and developed “electronic government” informatization objects in the “electronic government” architecture.

20. As part of monitoring the implementation of the “electronic government” architecture, the “electronic government” service integrator shall:

1) assess the compliance of the implementation of ICT projects and activities for the implementation of ICT projects with the provisions and recommendations of the “electronic government” architecture;

2) provide consulting and methodological support on the isuues of the “electronic government” architecture;

3) determine the need and level of scale of changes in the “electronic government” architecture;

4) form recommendations for the SB and the authorized body to eliminate inconsistencies between ongoing ICT projects and activities and the provisions of the “electronic government ” architecture;

5) carry out adjustments to the “electronic government” architecture based on the results of monitoring of the implementation of the “electronic government” architecture.

Monitoring the progress of implementation of the e-government architecture shall be carried out by the “electronic government” service integrator and include the works on the assessment of compliance with the “electronic government” architecture.

21. The assessment of compliance with the “electronic government” architecture identifies inconsistencies of ICT projects with the requirements of the “electronic government” architecture at the stages of:

1) planning the ICT project;

2) investment period of the ICT project;

3) post-investment period of the ICT project.

22. The assessiment of compliance with the “electronic government” architecture at the planning stage of an ICT project shall be carried out by:

1) expertise of technical documentation for compliance with the Rules for the preparation and review of technical specifications for the creation and development of "e-government" informatization objects, approved by the order of the Minister of Digital Development, Innovations, and Aerospace Industry of the Republic of Kazakhstan dated June 29, 2019 № 143/NQ (registered in the Register of state registration of regulatory legal acts under № 18950) and the approved "e-government" architecture.

2) examination of the calculation of costs for public procurement of goods, works and services in the field of informatization.

Footnote. Clause 22 as amended by the order of the Minister of Digital Development, Innovations, and Aerospace Industry of the Republic of Kazakhstan dated 26.06.2024 № 371/ NQ (shall be enforced upon expiry of ten calendar days after the date of its first official publication).

23. The assessment of compliance with the “electronic government” architecture in the investment period of an ICT project shall be carried out by:

1) assessment of public procurement plans for ICT projects, technical specifications and facts of public procurement for compliance of the acquired informatization objects with the “ electronic government” architecture;

2) assessment of the characteristics, composition and content of results of ICT projects at the stages of putting informatization objects into operation;

3) architectural control, within the framework of which the feasibility of creating a new informatization object in accordance with the architecture of “electronic government” is

decided, including checking the absence of duplicative functions, components, and the possibility of reusing elements of the informatization object.

Activities within the framework of monitoring the implementation of the “electronic government” architecture shall be architectural control. Architectural control operates end-to-end at all stages in order to avoid duplication of similar, repeating domain elements, including components, information systems that will be developed during the domain automation process.

24. The assessment of compliance with the architecture of the "electronic government" in the post-investment period of the ICT project shall be carried out by:

1) assessing the compliance of the goals and outcome indicators of ICT projects with the existing goals, objectives and target indicators of the state planning System;

2) assessing the presence of technological risks of informatization objects, including innovative promising technologies to improve operational efficiency;

3) assessing the state of functional capabilities;

4) assessing the compliance of results of the implementation of the ICT project with the existing expectations of stakeholders and the declared effects.

25. In case of inconsistency and partial compliance of the results of implementation of the ICT project with the architecture of the “electronic government”, the service integrator of the “electronic government” shall formulate recommendations for finalizing the results of implementation of the ICT projects.

26. Based on the results of assessing compliance with the “electronic government” architecture, the “electronic government” service integrator shall issue a conclusion on the level of compliance of the ICT project and architectural components, including:

1) does not comply with the architecture of “electronic government”;

2) partially complies with the architecture of “electronic government”;

3) fully complies with the “electronic government” architecture.

The results of monitoring the implementation of the “electronic government” architecture shall be formalized by the “electronic government” service integrator in the form of an implementation report for the corresponding period and provided to the authorized body.

27. The authorized body shall coordinate the monitoring of the implementation of the “ electronic government” architecture.

When monitoring the implementation of the “electronic government” architecture, project management methods and approaches shall be used, determined by the rules for implementing project management.

28. In order to monitor the implementation of ICT projects within the framework of the “ electronic government” architecture, the authorized body shall ensure an assessment of the effectiveness, efficiency and risks of non-fulfillment of ICT projects at all stages of implementation:

1) untimely/defective performance of work;

2) failure to implement recommendations;

3) significant exceeding of budgets;

4) failure to achieve, partial achievement of goals and outcome indicators;

5) inconsistency of implemented ICT projects with the functional requirements of the " electronic government" architecture.

29. The authorized body displays the results of monitoring the implementation of the " electronic government" architecture, assessing the degree of achievement of the results of ICT projects in conclusions on assessing the effectiveness of the SB activities in the use of information and communication technologies and assessing the quality of public services.

© 2012. «Institute of legislation and legal information of the Republic of Kazakhstan» of the Ministry of Justice of the Republic of Kazakhstan