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УДК 338.28

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APPROACHES TO DIGITALIZATION OF ADMINISTRATIVE SERVICES

Abstract.

In the article, going is considered near determination of concept "administrative services" different home scientists. Description of the basic stages of introduction of electronic management is carried out in Ukraine as a key process in direction of digitalization of administrative services that get to the physical and legal persons the representatives of executive bodies. Basic problems that arise up during using electronic administrative services are outlined. The features of work of state e-services that belong to the different executive bodies are represented. A list and features of electronic administrative services, that is given with application of only portal of state services "Diya", are considered in detail. Influence of basic factors that characterize efficiency of functioning of electronic government is investigational, and accordingly, level of grant of electronic administrative services.

Keywords: administrative services, electronic services, public services, portal of state services.

One of major questions of becoming of modern society there are development and increase of level of participation of citizens in the questions of creation of the state by means of informatively-communication technologies. Level of development of informativelycommunication technologies in a country by basis for digital transformations that collect swift turns in world scales. World progress of information technologies trends and them wide application in all spheres of life assisted converting of state services into accordance with modern terms, in particular it touches and grant of administrative services in an electronic form. Administrative services, in opinion of Kharchuk O.G., provide regulation of vital functions of man(edition of different documents, permissions, certificates, public organs, registration of residence and others like that), but they can be attributed both to state and to municipal [1].

OleksandrBernasyuk characterizes administrative service as a result publicly imperious activity of corresponding subjects, that are purposeful on conditioning(legal registration) for realization of rights for physical or legal personality, that is always given on the statement of person, that needs(educed intention) realization of corresponding right [2].

Grant of administrative services in comfortable for users and providers of this type of services format is one of main tasks, the organs of self-government read the decision of that with the aim of providing of the maximally comfort co-operating with citizens and increase of level of their satisfaction.

The input of process of grant of administrative services in an electronic form assisted substantial reduction of terms of implementation of this type of services (maximum term of grant administratively of service by Law of Ukraine "On administrative services" №5203 - VI presents 30 days) also, information about that registers in the technological card of certain service and is accessible for the subjects of appeal.

Politansky V. in the researches marks that an egovernment is the form of communication of citizens with the state and innovative method of organization of state power by means of informatively-communication technologies and segments of global informative network, that, in turn, provides functioning of government bodies real-time and does the daily intermingling of citizens with official establishments maximally simple and accessible. Such form of communication assists more effective and less expense administration, and also to the cardinal changes in the mutual relations of citizens and power [7].

PogrebnyakI.marks that efficiency of creation of e-government of the certain state is determined by the achievement of balance between the given service for the citizens of this country and economic factors. Achievement of the greatest level of balance, when a political return provides stability and complete consensus in society, when efficiency of activity gives at most additional profits, and services that is given accompanied by high level service, characterizes strategy of egovernment as most successful and rational. Among basic actions that give an opportunity to realize this successful strategy, an important place is occupied by such events, as:

- analysis of present own experience and sufferet errors;
- the use of pilot strategies and experiments with new financial and skilled models;
- bringing in of specialists on information technologies to the acceptance of political decisions;
- acceptance in all spheres of the clear programs with the clear forecast aims and other [8].

For providing of legal definiteness of grant of electronic administrative services, what accessible to Ukrainians, for today it is yet necessary to settle next important aspects:

- ✓ fixing of time of appeal and receipt of administrative service in an order to define what legislative acts it is needed to follow during the grant of such services;
- ✓ determination of geographical location of providers and recipients of electronic administrative services, with the aim of determination of jurisdiction of the state, that has attitude toward the process of grant of service;

- ✓ determination of rights, duties and responsibility of parties and public servants that take part in the process of grant of electronic administrative services;
- ✓ organization and differentiation of responsibility for the grant of services to the users between different executive bodies that is involved in this process.

Next to it for the construction of the legal state and development of informative society there is a necessity of providing of defence of these personal recipients of electronic administrative services.

At determination of terms of grant of administrative services principles on that on that a public policy is based in the field of the grant of administrative services must be taken into account, namely: to the operationability and timeliness [3].

Both physical and legal person that has a requirement in the receipt of certain type of services from executive, executive branches of local self-government and other authorized subjects bodies can come forward as an user of administrative services.

At the end of 2020 the minister of digital transformation MykhajloFedorovdeclared intentions Ministries 2024 to carry out translation of 100% of public services in on-line, having regard to that for the state is extremely important, that every Ukrainian had equal possibilities and equal access to state services. With the aim of support of this project the system of the only monitoring of quality of grant of administrative services is created. Already several hundred ASC provide information to Ministry of digital transformation for creation of such system. and due to determined by priority services that it is planned to digitise first of all.

The collaboration of Ministry of digital transformation with Program "U - LEAD with Europe" improves the process of introduction of technical requirements for development of public electronic services, modernisation of ASC and creation of the informative systems «Vulyk» and «Trembita». Next to an aim to render administrative services maximally near and territorial accessible for people Ministry plans also to enter principle of "only window", that Ukrainians could get all necessary administrative services on one platform. Among other aims Ministries of digital transformation, that will help to reform administrative service business and do it accessible for all Ukrainians - connection of objects of social infrastructure to the fixed internet and bringing in of Ukrainians to the programs of digital literacy [9].

The programmatic complex of automation of centers of grant of administrative services(Informative system «Vulyk») as subsystem of System of electronic cooperation of executive(CEBOBB) bodies is worked out within the framework project of EGOV4UKRAINE (project support of the program ULEAD with Europe) together with the State agency on questions an electronic management(by resolution of Cabinet of Ministers of Ukraine from Septembers, 2, 2019 № 829 the State agency on questions the electronic management of Ukraine was reorganized and created Ministry of digital transformation of Ukraine) for the centers of grant of administrative services(ASC). A «Vulyk»must accelerate work of administrators of ASC due to passing to work with the requests of citizens in an electronic

kind and simplified co-operating with state registers real-time [10].

System of electronic cooperation of state electronic informative resources, (system of interoperability in Ukraine "Trembita") is a modern organizationally-technical decision that allows to build safe informative interdepartmental cooperations to the public organs and organs of local self-government over the internet by electronic exchange messages between their informative systems. This system certainly one of key elements of infrastructure of grant of electronic services to the citizens and business that provides comfortable compatible access to these state registers. Her basis is presented by the improved Estonian platform of exchange of data of X - ROAD, that is foundation of Estonian digital society. To basic descriptions of the system "Trembita" it is possible to take the following:

- ✓ fault tolerant system is fully up-diffused, her use does not envisage centralization of data and change of their proprietor;
- ✓ receipt of access to these state registers by different establishments in accordance with the set plenary powers, that improves quality grant of electronic public services to the citizens and business;
- ✓ compatible creation of cooperations between the informative systems due to drawing on the only set of rules and formats;
- ✓ firmness to the refuses because of decentralizing establishment of components for participants and exchange of data directly between participants, without passing through intermediate knots;
- ✓ high level of security due to signing and enciphering of all data that is passed, and also protocolling of events, access control to web services and acceptance of measures that is sent to counteraction to the attacks as a "refuse in service" the electronic printing [11].

Participants of the Trembita system are bodies of state power and local self-government, which may use it in accordance with the requirements: Regulations on the electronic interaction of state electronic information resources and the procedure for organizing electronic information interaction of state electronic information resources.

The functioning of a unified state portal of electronic services "Diya" is regulated by the provisions approved by the Resolution of the Cabinet of Ministers of Ukraine "The question of a unified state web portal of electronic services and the only state portal of administrative services" from December 4, 2019 № 1137.

The peculiarity of the development and functioning of a unified portal "Diya" is that budget funds were not spent. Involved development, design and protection of the portal funds received from international donors and partners: within the framework of USAID / UK AID projects, "Transparency and accountability in public administration and services / Tapas", USAID "Supporting organizations-leaders in combating corruption in Ukraine" Interaction. », Egov4UKRAINE U'-Lead programs with Europe and the EGAP program funded by the Swiss Development and Cooperation Agency and is implemented by the Eastern Europe and Innovabridge Foundation.

The development of the Ukrainian system of provision of electronic administrative services began with the creation of a number of electronic services, which, in particular, include:

Unified state portal of administrative services (Fig. 1);

Cabinet of electronic services (Fig. 2); On-line House of Justice (Fig. 3);

Portal of state services iGov (Fig. 4);

Unified state electronic database on education issues (Fig. 5) and others.

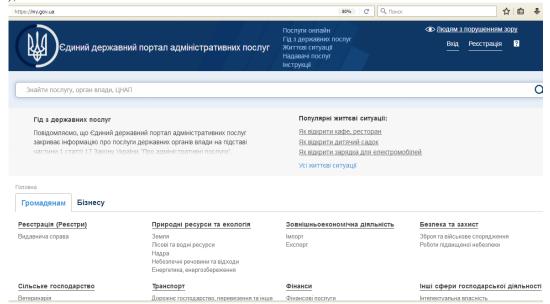


Figure - 1. Unified state portal of administrative services

A complete list of state electronic information resources can be viewed on the website of the National Register of Electronic Information Resources [12] (Fig. 6), which was created with the assistance of the ministry of digital transformation on demand of the Law of Ukraine "About access to public information" and the ruling of the Cabinet of Ministers of Ukraine

dated October 21, 2015 №835 "On Approval of the Regulation on Data Sets, which are subject to disclosure in the form of open data". The portal is designed to provide access to public information in the form of open data and provides access to information of the authorities with the possibility of its next use.

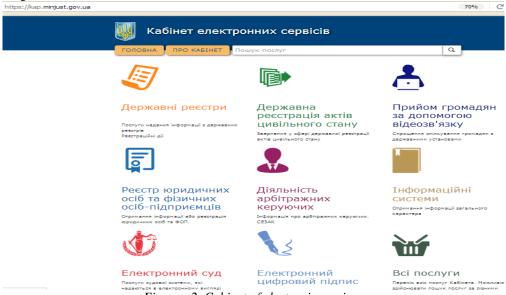


Figure - 2. Cabinet of electronic services

The only state portal of administrative services (https://my.gov.ua) is created in order to order and provide comprehensive information on administrative services as well as the introduction and improvement of methodological mechanisms of providing

administrative services and functional elements of the portal, among which: Personal cabinet, systems User identification, interaction with other administrative services providers.

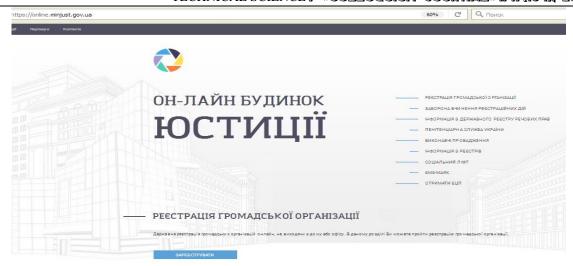


Figure - 3. On-line House of Justice

Cabinet of electronic services (https://kap.minjust.gov.ua) Provides Ukrainians with the ability to book an electronic digital signature, get services on electronic court, taking citizens through video communication, e-commerce, information systems, arbitration management activities, state registration Civil acts as well as access to information from 13 state registers:

- 1. State register of real rights to real estate.
- 2. Unified register of enterprises relating to the proceedings in the case of

bankruptcy.

- 3. Unified state register of legal entities and individuals-entrepreneurs.
 - 4. Register of public associations.

5. State Register of Purposed Mass Media and Information

agencies as subjects of information activity.

- 6. Unified registry of public formations.
- 7. Unified registry of arbitration managers.
- 8. Unified e-mail database, fax numbers (telefaxes) subjects

Powered authority.

- 9. The only state registry of court decisions.
- 10. Electronic Registry of Apostils.
- 11. Unified State Register of persons who committed corruption offenses.
- 12. Unified state register of persons regarding the provisions of the Law of Ukraine "On Purpose of Power".
 - 13. Unified registry of notaries.

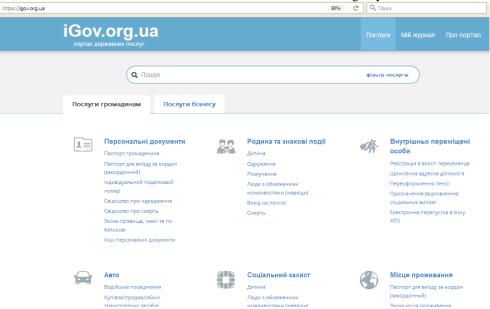


Figure - 4 Portal of Public Services iGov

Online House of Justice (https://online.minjust.gov.ua) Provides the opportunity to hold repeated documents on the state registration of civilian acts: birth certificates, marriage, termination of marriage, death, change of the name, as well as relevant extracts from the state Register of acts of civil status of citizens; to carry out state registration

of a public organization, with the status of a legal entity. Also, this service implements access to 15 registers and enables registration, registering acts of civil status, register as a legal entity or an individual entrepreneur, find information about the activities of arbitration governing, to receive information on court decisions,

pay a litigation, get a digital signature and get other services [4].



Figure - 5. Unified State Electronic Base on Education

Portal of public services *iGov* (https://igov.org.ua), the development and launch of which was occupied by a team of Ukrainian and foreign IT volunteers; The main purpose of the functioning of the portal was the fight against corruption in Ukraine and improving business processes. In 2018, the portal

was transferred to the state, but the lack of sufficient funding for improvement and support has led to the fact that in 2019 the portal actually stopped performing its functions after the announcement of launching a single portal of public services "Diya".

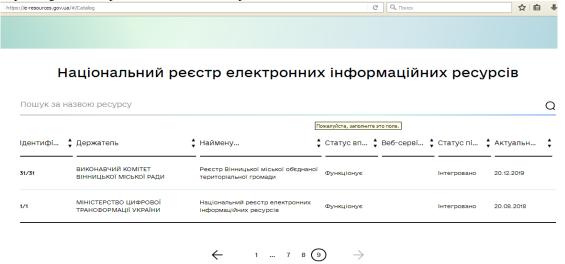


Figure - 6. The site of the National Register of Electronic Information Resources

The only state electronic database on education (EDOBU) (https://info.edbo.gov.ua) is a public educational electronic register, which is determined by the provision of public authorities, local self-government bodies, individuals and legal entities in the field of education Regarding educational institutions, education documents and scientific degrees, outcomes of external independent evaluation, course of an introductory campaign to educational institutions, student (student) tickets for a state model, other information in education [13].

The only portal of public services "Diya" (https://diia.gov.ua) (Fig. 7) combines the following basic functions:

- ✓ online service of public services;
- ✓ mobile applications with electronic documents;
- ✓ mobile application that provides access to information from a variety of registers;
- ✓ assistance in the functioning of small and medium-sized businesses;
- ✓ association of existing centers for providing administrative services to a single network;
- ✓ providing special legal regime and functioning of the IT industry in Ukraine.

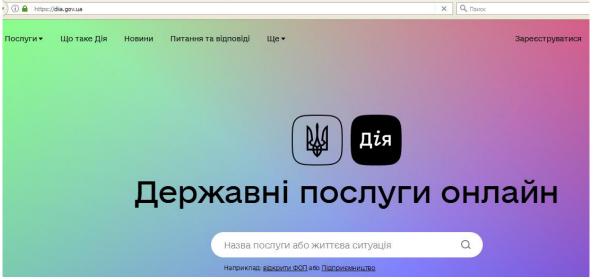


Figure - 7. The site of a single portal of public services "Diya"

For registration by the user on the portal "Diya", it is necessary to pass the authorization process that can be done using ID GOV UA, BankID, MobileID or with a personal key (it has the appearance of a separate file or stored on a protected medium, or may be recorded on the ID card). The system automatically checks your

electronic signature and certificate status for information from the accredited certification center of keys, which allows you to identify.

The list of services available to users of a single portal of state-owned "Diya" are given in Table 2.

List of services for users of a single portal of state services "Diya" (as of 01.06.2021)

Table 2

Sequential number	Name of service	Brief description	Service cost	
1	RegistrationCancellation of resolution of construction works	Ability to register an individual entrepreneur, choose a general or simplified tax system (automatically without the participation of a state registrar)	Free	
2	Reservations for international cargo transportation permits	Submission of an application for cancellation of construction work permit for objects belonging to the Responsibility class SS2 / SS3	free	
3	Verification of the driver's lifetime	Reservation of permission for international cargo transportation (e-booking guarantees a reserve of a transmission form for a carrier).	Cost of permit document – 49,16 UAH, Online reservation service for one permit document – 20 UAH.	
4	Verification of a technical passport	Clarification data displayed in driver's licenses in mobile application or driver's electronic office	free	
5	Issuing a construction passport	Application for the issuance of a construction passport for the development of a land plot	Free	
6	Extract a land plot	Ability to receive an extraction with information from a state land cadastre that is valid for three months from the moment of issuing.	From January 1, 2021 – 113,50 UAH, dated July 1 – 118,95 UAH, from December 1 – 124,5 UAH	
7	Extracting a normative monetary estimate	Issuing the extraction of technical documentation on the normative monetary assessment of the land plot	free	

	•	IN BOBI F TECHNICIE SCIENCE	
8	Recovery and Exchange License Driver	Ability to restore a stolen, lost or damaged identity document. Special status in the confirmation of the owner's right to control vehicles or exchange a document that has been issued for the first time, after the end of the 2-year period or in connection with the change of personal data.	219,00 UAH.
9	Information about land ownerAmends a FOP	Getting information on land ownership from the State Land Cadastre.	free
10	Information about land ownerAmends a FOP	Change in FOP information stored in a single state register (amending citizenship, types of economic activity, contact information FOP). Make changes to the taxpayer number (passport data), surname, name, patronymic, accommodation / location is currently available online.	free
11	Amends to permit for construction work	Application for a data change or a technical error correction in a permit for construction works for objects belonging to the Responsibility Class SS2 / SS3 (will require a number of permits that changes and copies of documents confirming such changes or a technical error)	free
12	Declaration of a single tax payerWaste Declaration	The ability to file a single tax payer's tax return - a physical person-entrepreneur. Once the FOP payers of a single tax is 1-3 groups that are not hired by employees; are not VAT payers; did not change the tax group since the beginning of 2021; are not in the process of termination of entrepreneurial activity.	free
13	Declaration of a single tax payerWaste Declaration	Ability to file a declaration of waste by subjects of economic activity in the field of waste management, which leads exclusively to the formation of waste, and which are obliged to submit this declaration annually.	free
14	Declaration on readiness for operation of SS1 objects	Submission of the Declaration on readiness for the object exploitation, which by class of consequences (responsibilities) belongs to objects with minor consequences (SS1)	free
15	Declaration on the readiness of the object to exploitation on the basis of a construction passport	Submission of the Declaration on readiness for the object exploitation, which by class of consequences (responsibilities) belongs to objects with minor consequences (SS1)	free
16	Declaration of price prices for goods	Submission of the Declaration for those who implements goods that have a significant social significance or relate to anti-epidemic goods and plans to increase retail prices by 5 or more percent.	free
17	State registration of rights to real estate	Ability to carry out state registration of property rights to an object of immovable property that arose and registered in accordance with the procedure established by law by January 1, 2013, to the introduction of the State Register of Fund Rights to Real Estate in 2013 (Service is available in Kharkiv)	free
18	Diya.qr.	Ability to create a QR code that you can receive electronic copies of digital user documents to your e-mail.	free

Можливість оформити заяву на видачу ліце-

нзії для виробництва лікарських засобів в

1,2021,

UAH, from July

1,2379 UAH, from

2270

License

production

33

for

drug

умовах аптеки.

		AU ZUZI / TECHNICAL SCIENCE	23
			December 1,2021 1,2481 UAH.
34	License for the import of medicines	Registration of a license application for the import of medicines, except for active pharmaceutical ingredients.	From January 1,2021, 2270 UAH, from July 1,2379 UAH, from December 1,2021 1,2481 UAH.
35	License for auto road transport services	Ability to obtain, expand, narrow or cancel a license for domestic or international transportation of passengers, hazardous cargoes and hazardous waste by motor transport.	From January 1, 2021 - 2102 UAH., From July 1 - 2379 UAH, from December 1 - 2481 UAH. Change data, reregistration and cancellation of a license - for free.
36	License for the sale of medicines	Ability to arrange a license for retail or wholesale trade in medicinal products	From January 1, 2021 - 2270 UAH., from July 1 - 2379 UAH, from December 1 - 2481 UAH.
37	Municipal Nyanya	Ability to arrange a monthly reimbursement of the cost of care for a child to three years.	free
38	One-time assistance to FOPs and hired employees	Application for assistance in the amount of 8000 UAH from the State Budget of Ukraine. Ability to receive payment at the expense of the local budget. The decision to appoint this assistance and its size is taken by local self-government bodies. You can use the service within 30 days from the date of introduction of a "red" zone in the area where the activity is carried out	free
39	Obtaining permits for oversized transportation	Ability to obtain permission for oversized transportation. Large and large-sized vehicles can move road roads, streets and rail crossings only on the basis of permission.	95 UAH. or urgent - 190 UAH.
40	Verification of a vehicle	Ability to check the current license of the corresponding type for passengers, contact details and the list of other vehicles used by the carrier.	free
41	Transition of a legal entity on activities based on a model statute	Ability to register a transition of a legal entity on activities based on a model statute.	free
42	Signing of documents	Ability to sign a document using an electronic signature. The content of the document is not transferred. It remains in the browser, so confidentiality can not be violated.	free
43	Notice of the start of construction work on the basis of a construction passport	Submission of a message about the start of construction works on objects, the construction of which is carried out on the basis of a construction passport.	free
44	Message to start construction works SS1	Submission of a message about the start of construction work on objects that, according to the class of consequences (responsibilities) belong to objects with minor consequences (SS1).	free
45	Notification of starting preparatory works	Submitting a notice of starting preparatory work.	free
46	Appointment of an appropriate user	The service allows you to assign a proper user vehicle. The proper user is a person who is legally used by a vehicle that does not belong.	free

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		To bear responsibility behavior on the road will be directly by the driver of the car, and not its owner.						
47	Fire-prevention declaration	Ability to register a declaration of compliance with the material and technical base of the enterprise or economy requirements for fire safety legislation.	free					
48	Registration of a place of residence	Submission of an application for registration of a place of residence at the address of your property or at the address of another property, subject to the consent of the owner (including with the simultaneous removal from the previous place of residence), withdrawal from the place of residence. In order to successfully submit an application, information about the property should be placed in the real estate register (except for the residence of persons of 14 to 18 years of age at the address of parents or one), it should not be in mortgage or confidence property. The service is available in Kharkiv, Vinnitsa, Lutsk, Kyiv, Rivne	13.6 UAH, 40.8 UAH.					
49	Registration of a child's place of residence	Ability to apply for a place of residence of your child under 14 at the address of one parent with simultaneous removal from registration from a previous residence. The service is available in Kharkiv, Lutsk, Rivne, Vinnitsa, Mariupol, Kryvy Rih, Khmelnitsky, Lviv	13.6 UAH.					
50	Registration of the market operator's capacity	Ability to submit to the State Property Service Application for registration of power operator of food products, if your capacity does not require operating permission.	free					
51	Registration Ltd. based on a model statute	Ability to register a limited liability company based on a model statute, as well as select a simplified taxation system and apply for a taxpayer-added taxpayer (VAT).	free					
52	Certificate of acceptance of an object into operation	Ability to apply for acceptance of completed construction of an object belonging to the Responsibility Class SS2 / SS3, and the issuance of a certificate	with average (SS2) consequences: from January 1, 2021, 10442 UAH., from July 1, 10943.4 UAH, from December 1, 11412.2 UAH.With significant (SS3) consequences: from January 1, 2021, 11804 UAH, from July 1, 12370.8 UAH, from December 1, 12901.2 UAH.					
53	Canceling a notice of starting preparatory or construction work	Ability to apply for cancellation of preparatory or construction work.	free					

Further step in improving the process of providing administrative services with the help of a single portal of public services was the creation of DiyaCITY. The purpose of its development is to create a powerful IT-

hub in Ukraine, which will combine investment development, promoting new jobs and the development of latest technologies that will satisfy the rapid development of business in the field of IT.

The main directions of project development DiyaCITY [5] are:

- ✓ development and testing of software;
- ✓ edition and distribution of software (in particular SAAS);
- ✓ training computer literacy, programming, testing and software support;
- ✓ digital marketing and advertising using software developed by residents;
- ✓ implementation of the latest development of development in the field of information technologies and telecommunications:
 - ✓ cyber-sport;
- ✓ supply of services that are related to circulation of virtual assets.

It is worth noting that in the process of digitalization of administrative services, in addition to the development of communication between the provider and the user of this type of service, there is a need to improve the process of work by executive representatives, since the application for a certain service enters a particular Center for Provision of Administrative Services (CNAP) and executed by its representatives from the a reflection of the relevant information in public regards.

The main areas of application and improvement of information technologies for CNAP are: electronic management, maintenance of the registry of the territorial community, providing document circulation at the proper level.

To date, the following IT solutions can be noted for the automated control system:

• QMOTION SUITE (https://qlogic.com.ua);

- Human Queue Pro (http://www.alfametric.com.ua);
 - ASCOD Electronic Queue (https://infoplus.ua);
- Customer stream management system from Mellon Ukraine (https://www.mellon.com.ua);
 - Electronic queue from letters (https://later.com);
- Q-mate from SERVUS SYSTEMS INTEGRATION (https://www.qmate.net);
- Automated electronic control system from NPP "HARTRON-INCOR" (https://hartron-inkor.com);
- Electronic queue from Renomesmart (https://renomesmart.com);
- Electronic queue from Waltec (https://valtek.com.ua);
- Electronic control system from the sensory systems of Ukraine (https://touch.ua);
- Queue Management System from Kyiv-PTS-Center (http://pts-centre.kiev.ua) and others.

In the world, one of the main factors that characterizes the effectiveness of electronic governance, and, accordingly, the level of electronic administrative services is the E-Government Development indexes (e-government development index in the country) and E-Participation (eparticipation index). These indicators evaluate the level of functioning of the government in the field of egovernment development and the level of access of citizens to information and public services online. Table 1 shows the values of these indexes according to the UN research data since 2003 (at present, the study is carried out once every two years), and in Table 2 the position of Ukraine by mentioned indices in the world ranking.

Table 1
Indices of «e-government development» index and «e-participation» index in Ukraine for 2003-2020

IIIu	marces of we government development, mack and we participation, mack in extrame for 2005 2020										
Ind	licator	2003	2004	2005	2008	2010	2012	2014	2016	2018	2020
Inc	lex E-										
Gove	ernment	0,4617	0,5326	0,5456	0,5728	0,5181	0,5653	0,5032	0,6076	0,6165	0,7119
Deve	lopment										
-	lex E- cipation	0,3966	0,3443	0,3651	0,5682	0,2571	0,1579	0,4314	0,7458	0,6854	0,8095

Table 2 Rating of Ukraine by «e-government development» index and «e-participation» index in 2003-2020

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Indicator	2003	2004	2005	2008	2010	2012	2014	2016	2018	2020
Index E-Government Development	54	45	48	41	54	68	87	62	82	69
Index E- participation	24	24	28	14	48	83	77	32	75	46

When constructing the forecast the value of the index "E-Government Development" in Ukraine (Fig. 8) for the use of a polynomial mathematical model 3, the expected growth of this indicator was obtained in

2022 to a value of ~ 0.82, which will characterize the approximation of the level of development of electronic governance in the country. to the level of developed EU countries and the world.

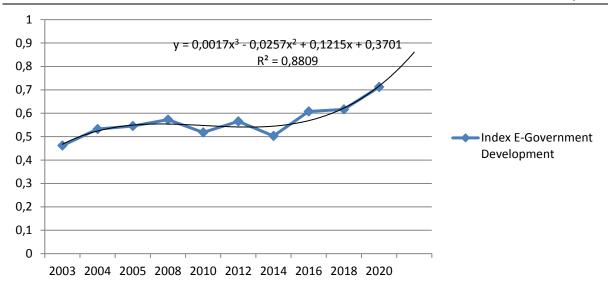


Figure - 8. Trends for changing the value of the index "E-Government Development" in Ukraine

When constructing a regression forecast for the E-Participation index, none of the standard mathematical models has given a sufficient explanation of the variation of this indicator. Therefore, given the significant fluctuations in the value of this index for the period under study (Fig. 9) and, given the intensification of the Government's actions in building and supporting the functioning of e-governance in Ukraine, we can talk about fixation on the index level reached in 2020 at a mark of 0.81 and insignificant Growing, characterizing

a fairly high level of interaction between Ukrainians with executive authorities by using online services.

As noted in their studies [6], there is a close relationship between economic growth and development of information technology, which characterizes the impact of growth of gross national revenue to concentrate resources in this area and promote digital break with countries that occupy leading places in world rankings of economic development.

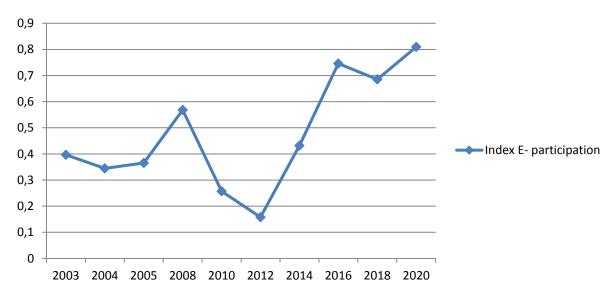


Figure - 9. Trends in the value of the E-Participation index in Ukraine

Conclusions. The main purpose of transferring administrative services to the electronic format was a significant increase in the efficiency of public administration. The transfer of administrative services to an online format contributed to their optimization, reviewing the processes of interaction between executive authorities and services, to establish electronic interaction between state registers, etc.

Further development of the system of provision of electronic administrative services is to improve the le-

gal regulation of providing this type of services, transferring all types of administrative services to electronic format, ensuring a high level of protection of personal data of users of these services. Also, an important step was the development of an IT-hub DiyaCity performance to combine that will contribute to the development of investments, creating new jobs and the development of the latest technologies that will satisfy the rapid development of business in the field of IT.

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TECHNOLOGICAL ASPECTS OF CORN SOWING

Abstract.

Practical significance of the elements of technologies of sowing corn for grain is investigated in the article. It is revealed that a positive effect in the form of an increase in productivity and reduction of expenses as a result of application of modern sowing complexes of precision sowing of corn is possible when bringing all components of the sowing technology to perfection. Factors of soil preparation for sowing in order to preserve spring moisture in the soil, ensure soil leveling and prepare high-quality seedbed are analyzed. The importance of choosing sowing dates in order to obtain simultaneous germination of corn is emphasized. Possibilities of modern computerized sowing complexes as an element of precision sowing are clarifired.

Keywords: corn, precision sowing, soil, planter, Precision Planting, singulation, seedlings, quality, depth, density, method of sowing.

Formulation of the problem. In recent years, corn has been and remains a strategic crop for Ukraine, which is grown in almost all regions, regardless of climatic conditions and farm sizes. It is sometimes believed that corn is quite easy to grow and unpretentious, but in fact to get high and stable yields it still needs to be able to grow and constantly learn in the process. After all, conditions are changing, so are hybrids, new pests and diseases are emerging. So you always need to prepare for this in advance.

Corn is very demanding for quality soil preparation. Sowing is the mainspring event in the cultivation of corn. It completes all the preparatory work carried out in the autumn and spring. It is a multifactorial process with several successive technological operations. The issue of determining the optimal sowing dates has been studied for a long time, but every year in the State Register of Plant Varieties Suitable for Distribution in Ukraine, new maize hybrids appear, which differ not only in precocity and a number of morphological features, but also respond differently to day length and quality, sunlight, humidity, air temperature, and other environmental conditions.

When determining the optimal sowing dates, it is necessary, first of all, to take into account the requirements of corn for germination conditions and the peculiarities of agro-ecological conditions of spring. Homeland corn in South America. This origin explains its need for sufficient heat for growth and development. Therefore, the study of corn sowing technology is of great importance.