

Digital Transformation of the Public Service Delivery System in Uzbekistan

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Abstract—In the meantime, e-government has evolved through the constant interaction between technology development and social change. Social issues that become increasingly complex are solved by the capacity of the department, and it is time to solve creative problems by opening and communicating on the basis of ICT. Digital transformation of public services should precede "administrative reform of government. As a new e-government model, which is an alternative to the paradigm shift of e-government, 100% digitization of government services is proposed as a vision to realize sustainable development of society as a whole. The Uzbekistan government intends to achieve governance and administrative unit optimization to create a digital government, to promote the decentralization of the administration, and to create a "single center" that serves individuals and businesses based on "single window". Specifically, it proposes to improve infrastructure, increase human resources, and improve public services. In particular, by introducing interactive portals for public services, digital government is being planned after e-government.

Keyword—e-Government, d-Government, Digital Government, Digital Economy, Digital Transformation, Public Service, Interactive Public Service.

I. INTRODUCTION

In Uzbekistan, there have been many massive measures to simplify citizen access to public services. These measures are moving public services to the digital sector. This is very important because the pace of modern life is so important that the government should simplify the residents' lives in this way as much as possible.

The development of today's technology allows us to continually modernize and interact with processes that provide public services. Electronic governments are, abstractly speaking, the process of converting public services into electronic formats. Some services are already available online, others are still in development / release, or semi-automated (ie, applied first, and later visited by government agencies).

On the other hand, digital governments in the future refer to the services that the public service has already been fully converted into the digital sector and that the government successfully

supports citizens' lifetime.

As for the digital transition of public services, we must first mention the concept of "governmental administrative reform" in the Public Service Center. This concept implies the optimization of the structures and administrative units of government and public institutions, as well as inter-ministerial cooperation.

At the same time, this may include the decentralization of the administration, one of which is to create a single point of contact that provides public services to individuals and businesses based on a "single window" center.

According to the Digital Government definition of OECD Recommendation on Digital Government Strategies published in OECD in 2014, E-Government means that governments use ICT, especially the Internet, as a tool to go to a better government.

Digital Government is to create public value. For example, based on digital ecosystem which is composed of government agencies, non-governmental organizations, corporations, civic groups and individuals to support production and access data. Based on digital ecosystem, it means a kind of government using integrated digital technology in the way of government service.

Public Value refers to the public interest for a society that can be diversified by perspective or role.

- ✓ Let's list the specific areas that are implied.
- ✓ Goods or services that meet the needs of citizens and citizens
- ✓ Product selectivity that meets citizen expectations in terms of justice, fairness and efficiency
- ✓ An orderly and productive public institution that reflects citizens' desires and preferences
- ✓ Fairness and efficiency of distribution
- ✓ Legitimate use of resources to achieve public purposes
- ✓ Demand innovation and adaptability to changing preferences

In Uzbekistan, public service is defined as a service provided by a state agency in order to fulfill its function in accordance with the complainant (request) of the applicant. As defined by law, public service may be provided by several different ministries.

II. CURRENT STATUS – PUBLIC SERVICES AND INFRASTRUCTURE

A. Public Service

1) OneID

EPIGU has been implemented under Decree which is "On measures to further improve the activities of the Governmental portal of the Republic of Uzbekistan on the Internet, taking into account the provision of interactive public services (July 1, 2013)" by the Cabinet of Ministries. EPIGU stands for Interactive Public Service in Uzbekistan.

To use e-government services, you must obtain an approved account from the OneID system. The OneID system allows access to all public systems, including EPIGU. In addition, after the Electronic Digital Signature is linked to the Unified Identification System (id.gov.uz), you will be able to log in to the app using EDS to get more extended services. To date, the portal has received 1.6 million applications for ID and 120 services are being provided to citizens and businesses.

2) e-Licensing Portal

The government is using a somewhat complicated information system, "license", to provide interactive services.

The first reason for developing an IP "license" is to improve the quality of IT support for the activities of the ministries that provide the licenses. Second, various services for licensing and permitting such as transportation, trade, health, education, finance, customs, etc. are converted into electronic form. As a side effect, it improves the productivity of the staff of the agency engaged in portal licensing activities.

To date, more than 2,300 license applications have been received through the portal. On the portal screen, there are a few differences in the number of applications being submitted, the completed application and the application already under consideration because it is not sent immediately for review.

The e-licensing portal (<https://license.gov.uz>) was developed in December 2016. In April 2017, an information system "licensing" service was launched to provide interactive services for licenses to companies.

3) One Stop Center¹

Let's talk about MITC¹'s "One Stop Center".

The Center was established under the "Measures to Ensure the Safeguarding and Growth of Private Property, Small and Medium-Sized and Private Enterprise Spirit, and the Barriers to Development" which came into effect on May 15, 2015.

Thereafter, on September 28, 2015, by action to further improve the process of providing state projects to business entities in accordance with the presidential decree "one window", Starting January 1, 2016, khokimiyats (municipal directors) of 194 districts (cities) single centers established inspection criteria for business registration in order to provide public services to enterprises in accordance with the "one window" principle.

In order to further develop this, in accordance with the "Additional Measures to Improve the Mechanisms of Providing State Services to Business Entities. From February 1, 2017, it

was transferred from khokimiyats to Unified Center to allow the Ministry of Justice's vertical management style and efficient activities within Uzbekistan.

By studying the world experience in this field, e-Government has decided to expand the list of services and personnel to be provided by the public service.

On December 12, 2017, a separate state body was established by the Presidential Decree "On Measures for the Root Reforming of the National System of Public Services to the Population". In January 2018, the Public Service Centers (201 units) under the "one-stop shop" principle were transferred to the Unified Center to provide public services to businesses. The center has a legitimate basis for providing single-window services to citizens.

As of April 1, 2017, more than 27,000 (11% or more) of the individual companies registered in the portal birdirda.uz have been registered through the portal. Approximately 13,000 (almost 14%) of the more than 94,000 registered entities have been registered via the Internet.

To date, the Republic has created 201 centers to simplify the interaction mechanism between citizens and governments, based on the principle "document moves, citizens do not move". In other words, it is to eliminate very annoying bureaucratic delays.

4) KIOSK

On November 16, 2015, a kiosk installation project titled "Promoting the Implementation of the Agreed Measures at the Tashkent International Investment Forum" began to be completed within 2016-2019. It has installed "Info Kiosks" at 205 public service centers across the country to enable citizens and businesses, including remote areas, to obtain a wide range of interactive public services. Through these devices, people can receive electronic public services.

Citizens were able to fill out the form, set a commitment to accept complaints and pay fees and fines.

B. IT Infrastructure

Overall, Internet / communication environment in Uzbekistan is on a par with the world average. There is more wireless than cable, and the speed is slower. Optical fiber distribution is very low at home, and most of them use ADSL lines using telephone lines. In particular, the global "search environment" is vulnerable because the bandwidth of the overseas trunk is low and the route is only via Russia.



¹ MITC : The Ministry for Development of Information Technologies and Communications of the Republic of Uzbekistan

Moreover, since it is a cash-oriented market, the use of cards is so low that e-commerce cannot be activated. Online transactions and free deposit and withdrawal are still difficult environments. E-government services are being supported, but there is still no online reporting / approval function. It issues a paper document, signs it by hand, and sends the scanned file.

1) Wired / mobile communication environment

Since independence from the Soviet Union, foreign telecom companies are actively accepting investment, and the market is developing at a high speed. Wireless subscription rate is very high compared to fixed line subscription rate. In 2017, the current 3G coverage is 45.3% and the LTE / WiMAX coverage is 16.9%. Mobile broadband penetration has increased very rapidly over the past five years. The market is dominated by the state-owned Uztelecom, and Korean companies that have entered the Uzbek market include ET (cable, 14%) and EVO (wireless, 7%) and etc.

After the advent of the first mobile operator in 1991, it was competing with five operators in 1997. Recently, all operators are introducing or considering 4G LTE service. As of 2018, there are 22,170 base stations, and the mobile market is relatively underdeveloped and slowed down over the past five years. As of the end of 2017, there are Beeline (51%) and UCell (41%) in the mobile market. As of December 2018, Uzmobil, UCell and UMS have been merged into state-owned enterprises.

Mobile app services are relatively well developed, for example, by paying utility bills such as electricity and gas using mobile phones.

Computer penetration rate per household (43.9%) and Internet access (75.4%) were close to the world average of 46.6% / 51.5% announced by the ITU in 2018.

item	2014	2016	2018
Internet channel speed (Mbit/s)	13	29	1,200
Coverage of the population with digital TV (%)	45	(60)	100%
Internet penetration (ITU)	35.5%	46.8%	N/A
Mobile penetration (ITU)	73%	77%	N/A
Internet subscribers	36.5%/100HH	14 mil	15.5 mil
The number of Internet domain	-	29,000	52,000
Mobile phones	8.2%/100HH 2.5 mil	10.9%/100HH 3.4 mil	10.8%/100HH 3.4mil('17)
Mobile subscribers	66%/100HH -	74% 20.8 mil	76%('17) 22.7 mil
Fixed broadband penetration	2.7%/100HH 0.8 mil	8.7%/100HH 2.7 mil	10.4%/100(17) 3.3 mil
Real Mobile Internet subscribers	-	-	9.5 mil
E-Govt Development Index	N/A	80	81
E-Gov online participation index	N/A	47	59

2) Internet environment

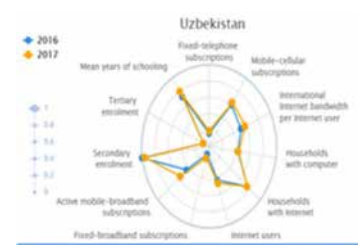
The Internet Development Index (IDI) announced by the ITU in 2017 was 95th out of 175 countries. Mobile penetration rate (77.33) and enrollment rate (95.92) were high, but the rate of wired broadband participation (9.13) and computer penetration rate (43.87) were low. However, Uzbek data were not collected in the Networked Readiness and National Competitiveness

Ranking of the World Economic Forum published in October 2018.

According to the most recent ITU data released every other year (2016), Internet penetration is 46.8% and mobile penetration is 77%, which is expected to increase somewhat at the end of 2018. Private Internet services began in the late 1990s, and the number of Internet users increased from 855,000 in February 2006 to 7.7 million in 2011. As of 2018, there are 15.5 million people (48%).

According to the MITC announcement, the number of registered domains increased to 29,000 as of August 2016 and to 51,000 as of the end of 2017. UZINFOCOM had joined the APTLD on October 22, 2017. In September 2018, the first APTLD event was held. However, as of December 2018, the government has announced plans to distribute this functionality to multiple carriers. This may be a sign that the government is going to be led by the private sector.

Rank	Nat.	Value (2017)	Value (2016)
1	Korea	8.84	8.78
2	Iceland	8.83	8.66
3	Holland	8.74	8.77
4	Swiss	8.68	8.50
5	UK	8.57	8.54
103	Uzbek	4.90	4.48



3) Oversea network and infrastructure market environment

International Network Gate has 1,200GB capacity as of Dec. 18, and completed telecommunication backbone by constructing fiber optic cable of 22,350 kilometers across the country.

With the support of Huawei in August 2016, Uztelecom announced plans to establish UzCloud, a 1-peta cloud data center. In February 2017, Oracle opened the Oracle Academy at Inha University in Tashkent.

Telecommunication (Internet) · Computer · software is a fast growing trend. Currently, the Internet and telecommunication markets have recorded growth of more than 30% per year (KOTRA) and the growth rate of computer and software service was 12.2% (MIC, KOTRA) among them. By the end of 2017, the number of SMEs was 230,000, and the number of IT-related enterprises was 149.

III. EVALUATIONS

A. e-Government Index of UN

The UN e-government rating is considered one of the key indicators that determine how well the information society is developing. The study is ranked based on a weighted index of three key factors: coverage and quality of Internet services, ICT infrastructure level, and human capital. Uzbekistan ranked 174th in the 2004 rating, but ranked 81st in the 2018 ranking.

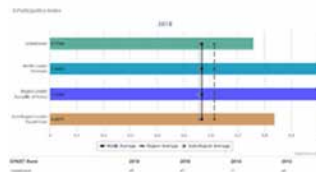
- ✓ Electronic participation index - Facilitating citizen participation in government decision making is the cornerstone of societal governance. The goal of e-participation initiatives is to improve citizens' access

to information and public services. From 2004 onwards, it has risen from 123 to 59.

- ✓ E-Government Development index - Information and communication technology is a comprehensive indicator that characterizes the rankings of countries around the world in terms of the development of ICT. In 2017, Uzbekistan was ranked 95th out of 176 countries.

The best e-Government portal sites for the 2018 UN evaluation were the State Tax Commission, EPIGU (Interactive Public Services) and Uzbekneftegaz. The sites with the lowest ratings were the Ministry of Labor and the Government Portal of Uzbekistan..

eParticipation Index			
Uzbekistan	2014	2016	2018
eParticipation	43.1	68.3	76.63
Stage 1 (Online information)	77.8	86.2	93.33
Stage 2 (e-Consultation)	18.15	57.9	66.96
Stage 3 (e-Decision making)	0	0	45.45



	Inform.	function	Inter-active	result
State Tax Committee	12,50%	37,50%	10,00%	60,0%
Single portal of interactive public services (EPIU)	14,71%	29,41%	14,71%	58,8%
JSC "Uzbekenergo"	17,50%	32,50%	12,50%	58,8%
Ministry of Finance	25,00%	29,17%	2,08%	56,3%
Ministry of the Interior	16,00%	26,0%	12,0%	54,0%
Portal of municipal services and housing stock	8,70%	34,78%	8,70%	52,2%
State Customs Committee	7,14%	30,95%	11,90%	50,0%
Ministry of Justice	13,95%	25,58%	9,30%	48,8%
Extrabudgetary pension fund with the Ministry of Finance	8,00%	36,00%	4,00%	48,0%
Ministry of Higher and Secondary Special Education	7,41%	35,19%	3,70%	46,3%
Ministry of Health	13,46%	28,85%	1,92%	44,2%
Ministry of Employment and Labor Relations	12,73%	29,09%	1,82%	43,6%
Ministry of Public Education	9,62%	30,77%	0,00%	40,4%
Portal of electronic state services of tax authorities	4,35%	30,43%	4,35%	39,1%
Single Window Centers	6,45%	19,35%	9,68%	35,5%
State Committee for Nature Protection	6,38%	21,28%	4,26%	31,9%
Portal Transportation (Maxsustrans)	9,09%	18,18%	4,55%	31,8%
National vacancy database of the Ministry of Employment and Labor Relations	4,00%	24,00%	0,00%	28,0%
Gov'tal portal of the Republic of Uz	3,67%	12,84%	0,00%	16,5%

B. Open Data Ranking

The Global Open Data Index (GODI 2017) represents the results of a global benchmark for government data disclosure and is operated by the Open Knowledge Network. Sadly, Uzbekistan's indexes are missing due to lack of data collection in this report.

The OECD's Open Government Index 2017 also evaluates open data levels for availability, accessibility, reusability, and data dissemination. However, the Uzbek index is also missing due to lack of data collection.

Recently, the e-government center in Uzbekistan has been striving to revitalize open data and held the "Open data Hackathon" event for two nights and three days at the end of November 2018.

C. Result of Self-Assessment

The level of electronic public services of state / local agencies, local authorities and other organizations is being assessed annually by PKM353 (Approved Methodology for Evaluating the Quality of Electronic Public Services) on October 20, 2016. For example, according to the "conduct an online survey on improving electronic public services" indicator, an online survey was conducted and published annually (January of the last fiscal year) to improve the level of services provided on the website for government agencies or other organizations. The results of this study are influencing the overall evaluation of the national institution in terms of service.

As shown in the table below, to meet this requirement as much as possible, an online survey should be conducted at least once a month and the result should be shared.

(N)	Indicators	Specific weight indicator (point)
1	The existence of published regulations for electronic services	2
2	Having the ability to track the progress of the provision of e-services	10
3	Conducting online surveys to improve electronic services	8
4	Availability of applicant assessment tool for the result of obtaining e-services	5
5	Degree of optimization of electronic public services	13
6	Degree of automation of electronic government service	10
7	Compliance with the timing of electronic public services	20
8	Satisfaction of users' needs for electronic public services	30
9	share of electronic public services registered in the Unified Register	2
Final rating		100

IV. ISSUES, ALTERNATIVES AND IMPROVEMENT DIRECTION

A. Issues and Alternatives

Despite very positive statistics, Uzbekistan still faces a number of challenges that will have a significant impact on growth in terms of ICT adoption and application. All these challenges are "weaknesses" when evaluating the Republic of Uzbekistan in international rankings.

These problems can largely list interactive public services, human resources, and telecommunications infrastructure.

Developing countries, which lack ICT technology and investment funds, need to establish a cooperative system with developed countries and companies in their fields to develop their own e-government. In addition, they should focus on attracting financial resources through various ODA programs such as the World Bank and ADB. Recently, the World Bank's new ICT strategy focuses on the development of various services and IT ecosystems in the public and private sectors through the promotion of ICT utilization in developing countries. It is also promoting the development of ICT industry

through voluntary efforts. For countries like Korea, they have advanced technology in the fields of e-government, telecommunication network construction and related services, so Uzbekistan should consider establishing a strategic partnership with them.

Problem	Solving
Interactive Public Services	
Implementation of interactive public services. The current problem concerns the distribution of online services that are offered on the Internet resources of government agencies. The agencies pay little attention to this. Low speed of transfer of public services to the digital field. At the moment, as mentioned above, only 119 interactive public services have been launched. For comparison, there are more than 400 in Georgia.	Systematic analysis of official government websites on the basis of a new methodology. The methodology is being developed at the CEP and will be introduced in this year; Regular analysis of government websites on the basis of updated UN criteria (UN-EGDI): information, functional, iterative criteria; Increased control over the implementation of online services; Unification under the unified domain name of the Governmental portal of the Republic of Uzbekistan (gov.uz) and the Single Portal for Interactive Public Services.
Human Resource	
Low level of computer literacy. Especially in this direction remote areas of the republic lag behind. At what, unfortunately, lag behind in the level of education as a whole. Only 7 out of 10 citizens are involved in the process of obtaining knowledge and only 1 in 10 (9%) has higher education (in Kazakhstan and England, this figure is 46% and 56% respectively). The digital divide between cities and remote areas. Obviously, that the city is the most developed in terms of its aspects. This, self-contained, applies to the use of computer equipment. So, the share of households that have computers with an average 44 per cent of the republic's population, of which only three quarters have Internet access.	Organization of computer literacy courses in the Computerization Centers with khokimiyats (mayors) for the poor, housewives and pensioners; Increase the number of academic hours of the subject "Informatics" in general education institutions; Improving the technical equipment of schools; Increase of quotas on receipt Expansion of the network of branches of the educational institutions; Systematic monitoring and surveys of graduates of general education institutions about their intention to continue their education in higher education institutions.
Telecommunication Infrastructure	
Low coverage of broadband Internet access. This is the most painful point. At the moment, according to the UN, the level of broadband access coverage in the country is at the level of 9%. For example, if compared with other CIS countries, in Belarus this indicator is 3.7 times higher; Low penetration of fixed telephone communication. According to the same UN data, the number of basic telephone networks covers about 11% of the country's population.	An increase in the number of fixed broadband Internet access ports to the Internet through the widespread distribution of fiber-optic networks and the gradual replacement of Internet access through the telephone network; Modernization of the last mile and local telephone networks, updating of technological equipment. This is a technical matter, involving large monetary investments, which, later, will certainly pay off.

B. Improvement directions

There are 12 recommendations and proposals for the strategic implementation of the digital government by the OECD.

- ✓ Ensure transparency, openness and inclusiveness of government processes. In particular, what this means is that not only must government's digitalization goals, process transparency, and digital messages be constantly updated to be reliable, this means that people should be careful not to be alienated from the people who have difficulties in accessing digital information.
- ✓ Encourage participation of public, private and civil

society stakeholders in policy making and public service design and delivery.

- ✓ Create a data driven culture in the public sector.
- ✓ Increase confidence in government services by improving risk management practices to address digital security and privacy issues using effective and appropriate security measures.
- ✓ Demonstrate solid leadership and political will to strategy.
- ✓ Apply digital technology to government policy consistently.
- ✓ Build a framework of effective governance to implement government-level digital strategies.
- ✓ Strengthen international cooperation with other governments.
- ✓ Develop clear business cases that enable continuous funding and focus on digital projects.
- ✓ Strengthen institutional capacity to manage and monitor digital project implementation.
- ✓ Introduce new digital technologies based on evaluation of existing digital assets.
- ✓ Ensure that laws and regulatory frameworks allow digital.

Open data policy should be strengthened while ensuring transparency and openness among them. To do this, it needs to have solid leadership and political will to strategy, as well as ongoing funding and concentration.

To date, the government has established 201 centers to simplify the interaction mechanism between citizens and government based on the principle of "documents move, citizens do not move" to eliminate very annoying bureaucratic delays.

The main goals of this reform are as follows.

a) Improvement of institutional, organizational and legal systems for executive agency activities - Development of administrative judicial system; Further introduction of "e-gov't" systems, improvement of systems providing public services and other services.

b) Improving implementation and accountability mechanisms of executive agencies and enhancing the coordination and interaction processes through the specification of the work – Introduction of modern ministry's work organization (quality control, index planning, outsourcing), and modern mechanisms for interaction with the public and others.

c) Expansion of market management mechanism, further reduce the administrative impact on the economy. - Transferring certain national functions to the private sector for the development of clear market mechanisms for government participation in economic activities with the introduction of national control mechanisms for appropriate implementation.

d) Improvement of the mechanism of the vertical management system.

Interaction between enforcement authorities - Increased public administration decentralization, increased role of citizen self-governing bodies to solve socio-economic development problems, and so on.

e) The introduction of modern strategic planning, innovative ideas, development and technology into the public administration system - the creation of a mechanism to introduce recent achievements in research and innovation.

Environment, resources and energy-saving technology and a wide range of other implementations.

f) the formation of an effective public service system, the introduction of effective mechanisms for corruption of the executive agency system, and - the transparency and openness of the activities of the administrative authorities. Fundamental improvement of the business system with the appeal of individuals, corporations and others.

In another effort, here is business process optimization.

Having implemented the measures outlined in the Improvement of Delivery Procedures for Electronic Public Services (June 2, 2016), important results such as operations and functional process optimization in business process optimization have been achieved.

In particular, the number of documents requested by the applicant for the duration of service delivery and citizenship, education, social security, licenses, ecology, taxes, customs and many other complaints has decreased to an average of half.

Optimization of business processes will continue, the list of services will be expanded, and the terms and requirements of the articles will be gradually minimized.

The best practice of BPR has been suggested now.

To create favorable conditions for business activities, all government services in the customs / tax field are converted to electronic format. In particular, one of the most widely used services is to present data on foreign trade contracts in the Integrated Electronic Information System (EEMSO) for foreign trade operations. To date, about 109,000 transactions have been processed to provide data for EHS's foreign trade contracts.

In the field of child and family support, there is an interactive service for children's kindergarten admission through electronic application. There have been approximately 525,000 applications in the seven months since the service was transitioned.

In addition, there is a service that receives a lump sum at the time of birth and has more than 15,000 applications.

For the sake of understanding, it is possible to present the optimization result of "grant licenses to non-governmental educational institutions in curriculum for foreign language learning" service. It took 30 days to submit 9 documents to 4 agencies in the past, but now it has been reduced to 10 days, 4 to 2 institutions.

The Center is currently optimizing the following four services:

- Statement of Military Registrations (Ministry of National Defense)
- The Consulate (Statement to the consular account)
- Requests for documents from the Republic of Uzbekistan (MFA)
- Child enrollment and transfer to the general education institution (INE)

According to the special order of the President directed in January 2018, the network was presented with 10 times faster internet speed and 50% usage rate from December 1st. The bandwidth of the international line has also been increased from 165G/s to 1,200G/s, and the establishment of various routes such as China in Russia single line is considered.

Uztelecom's monopoly wired network business will also allow

multiple telecommunication carriers from 2019. By nationalizing UMS and UCell as mobile telecommunication carriers, linking networks from 2G to 4G, it is making economies of scale with the existing state-owned company - Uzmobile.

As the bandwidth of the communication is increased, the demand for the use of the population will surge, and the traffic will soon be bottled again. However, with the president's great interest in improving the speed, Internet speed is expected to continue to improve.

V.CONCLUSION

Uzbekistan has many unresolved problems and disadvantages that impede the provision of digitization and the transition to the digital economy. The Internet and telecommunication infrastructure of the world average has been established, and full-scale e-government building has been promoted since 2013, and there are still many improvements in this area. There are reasons for this.

The unified principles for e-government development have been changed frequently, the ministry's systems have been implemented without interoperability, and the infrastructure of the e-government system has not been fully developed. Eventually there was a limit to the widespread use of new ICT technologies in linking public services and ministries.

As the e-government paradigm shifts, digital government has been pursuing digital technology as a new e-government model. Digital Technology is a technology that not only includes data analysis techniques used to improve data collection, exchange, aggregation, search, combination, access and analysis, but also the development of services or apps that actually show digital content.

As I have summarized in this paper, the Uzbekistan government intends to achieve governance and optimization of administrative units, aiming at the decentralization of the administration, and creating a single center that serves individuals and businesses based on "single windows". With the 100% digitization of government services, it is becoming possible to present the vision of sustainable development for society as a whole, Data driven, Disruptive innovation, and Desirable value creation are being considered as driving strategies. Digital government is being planned after e-government by improving infrastructure and introducing interactive public services.

In particular, by the Presidential Decree on December 13, 2018, the e-government services are managed by NPA, it has been totally managed that it was promoted by silo system separately for each department. In the meantime, this is expected to accelerate the digital government properly.

The government will take consistent measures to modernize and develop d-government including public service systems aimed at streamlining administrative procedures, improving the quality of life of the population, and improving the investment environment and business environment in the future.

Digital transformation of public services should precede "administrative reform of government". Uzbekistan has been

trying to optimize business processes for various government services since 2016. While individual ministries are still in the process of being informed by the ministries and the management focus of the strong government and financial resources are being blurred, citizens' desire for online services is growing.

Although there are still issues of paper document issuance, handwriting approval, inter-departmental interoperability work, it is doubtful that it will be gradually improved.

Government data is constantly open and shared. The introduction of bus card systems in everyday life and the challenge of local governments to build smart cities will advance another digital society in CIS countries.

According to the goals of action strategy in the five priority sectors of Uzbekistan's development in 2017-2021, it is expected that the implementation of the "e-government" system will be implemented and efficient interactions between national projects and ministries will be established in order to create additional conditions for digital economic development.



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