REQUEST FOR PROPOSAL (RFP)

All interested	DATE: March 24, 2022
	REFERENCE: 122-2022-UNDP-UKR-RFP-RPP

Dear Sir / Madam:

We kindly request you to submit your Proposal for conducting services of

Creation of a system of preliminary registration of subjects of application for reception to employees of the centers of administrative services with the possibility of expansion to the whole territory of Ukraine by electronic registration using the Platform of Diia Centers (conditional name - Single electronic queue)

Please be guided by the form attached hereto as Annex 2, in preparing your Proposal.

Proposals may be submitted on or before **11:59 AM (Kyiv time) Friday, April 01, 2022** and via email to the address below:

United Nations Development Programme
tenders.ua@undp.org
Procurement Unit

Your Proposal must be expressed in the **English or Ukrainian or Russian**, and valid for a minimum period of **90 days.**

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

NB. The Offeror shall create 2 archive files (*.zip format only!): one should include *technical proposal*; another one should include *financial proposal* and be encrypted with password. Both files should be attached to the email letter.

During evaluation process only technically compliant companies will be officially asked by UNDP procurement unit via email to provide password to archive with financial proposal. Please do not include the password either to email letter or technical proposal and disclose before official request.

Messages should **not exceed 20 MB in size**. Offers larger than 20 MB should be split into several messages and each message subject should indicate "part x of y" besides the marking mentioned in the announcement and the solicitation documents. Messages larger than 20 Mb may not be delivered. *All electronic submissions are confirmed by an automatic reply*.

The Offeror shall mark the email letter/s:

Subject of the message should include: **"122-2022-UNDP-UKR-RFP-RPP" Creation of a system of preliminary registration of subjects of application for reception to employees of the centers of administrative services with the possibility of expansion to the whole territory of Ukraine by electronic registration using the Platform of Diia Centers (conditional name - Single electronic queue)**

Body of the message should include: **Name of the offeror**

Archive files should be marked as: **Technical proposal** and **Financial proposal**

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal.   At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:
http://www.undp.org/content/undp/en/home/operations/procurement/business/protest-and-sanctions.html

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link:

http://www.undp.org/content/dam/undp/img/corporate/procurement/UN%20Supplier%20Code%20of%20Conduct.pdf

Thank you and we look forward to receiving your Proposal.

DocuSigned by:

Manal Fouani

2704DC6CA0AF4A9…

Sincerely yours,

Ms. Manal Fouani,
Deputy Resident
Representative
UNDP Ukraine
24-Mar-22

Description of Requirements

Project name:	UN Recovery and Peacebuilding Programme
Brief Description of the Required Services	UNDP is looking for a Contractor who will provide quality experience in the development, implementation, maintenance and modification of the "Single Electronic Queue" technology on the system of pre-registration for reception of entities applying to employees of administrative centers with the possibility of expansion to the entire territory of Ukraine by electronic registration using the Platform of Diia Centers.
The overall objective	The Contractor will be responsible for creating a System that will have a modern design, most comfortable for people with different levels of gadget skills and filled with all the necessary data to ensure all the tasks assigned to the System, etc. General requirements and tasks for the organization of the System.
Person to Supervise the Work/Performance of the Service Provider	Programme Coordinator (Local Governance and Decentralization Reform)
Frequency of Reporting	According to TOR attached
Progress Reporting Requirements	According to TOR attached
Location of work	According to TOR attached
Expected duration of work	According to the proposed timeframe specified in the attached TOR
Target start date	April 2022
Target completion date	September 2022
Travels Expected	According to TOR attached
Special Security Requirements	n/a
Facilities to be Provided by UNDP (i.e., must be excluded from Price Proposal)	The Program does not provide premises, equipment, supporting personnel, services or logistic support
Implementation Schedule indicating breakdown and timing of activities/sub-activities	☒ Required ☐ Not Required
Names and curriculum vitae of individuals who will be involved in completing the services	☒ Required ☐ Not Required
Currency of Proposal	☒ United States Dollars (USD) – strongly advised to use as a risk mitigation measure against the impact of the local currency devaluation. UNDP shall arrange the payment in local currency based on the UN Operational Exchange Rate prevailing at the time of invoicing. For details please see: http://treasury.un.org ☐ Euro ☒ UAH
Value Added Tax on Price Proposal	☐ must be inclusive of VAT and other applicable indirect taxes (VAT should be clearly indicated in separate line), if applicable ☒ must be exclusive of VAT and other applicable indirect taxes
Validity Period of Proposals *(Counting for the last day of submission of quotes)*	☐ 30 days ☐ 60 days ☒ 90 days ☐ 120 days In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this

	RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.
Partial Quotes	☒ Not permitted ☐ Permitted
A pre-proposal conference will be held on:	**Question, if any, should be sent to:** **procurement.rpp.ua@undp.org** **Questions should be sent no later than 48 hours till the deadline for bids submission.**
Payment Terms	The schedule of payments for the services will be agreed with the Contractor before the start of the assignment. Payments will be linked to deliverables and executed upon submission of Interim and Completion reports. A preliminary schedule is provided below: - After achieving of the result of the Deliverable 1 and submission of the Inception Report – 20%; - After achieving of the result of the Deliverable 2 and submission of the First Interim Report – 70%; - After achieving of the result of the Deliverable 3 and submission of the Final Report– 10%; Payment terms: Not later than thirty (30) days as of meeting the following conditions: a) UNDP's written acceptance (i.e., not mere receipt) of the quality of the outputs; b) Receipt of invoice from the Contractor.
Person(s) to review/inspect/ approve outputs/completed services and authorize the disbursement of payment	Programme Coordinator (Local Governance and Decentralization Reform)
Type of Contract to be Signed	☐ Purchase Order ☐ Institutional Contract ☒ Contract for Goods and/or Services ☐ Long-Term Agreement ☐ Other Type of Contract
Criteria for Contract Award	☐ Lowest Price Quote among technically responsive offers ☒ Highest Combined Score (based on the 70% technical offer and 30% price weight distribution) ☒ Full acceptance of the UNDP Contract General Terms and Conditions (GTC). This is a mandatory criterion and cannot be deleted regardless of the nature of services required. Non-acceptance of the GTC may be grounds for the rejection of the Proposal.
Criteria for the Assessment of Proposal	**Technical Proposal (70%)** ☒ Experience of the company/organization submitting the proposal – 25.71% ☒ Proposed work plan, methodology and approach – 38.57% ☒ Personnel and invited experts/consultants – 35.71% **Financial Proposal (30%)** To be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP.
UNDP will award the contract to:	☒ **One supplier** ☐ One or more Supplier, depending on the following factors (according to Lots): ☐ Respectively per each LOT ☐ The general combination of the lowest prices for all lots, based on different combinations of award contracts

	☐ Regardless of the ability to execute work on more than one lot, UNDP can at its discretion to award a contract to other parties for the purpose of reduce the risk of work. ☐ If Bidder submits proposal for more than one LOT, UNDP keeps it's right for request of additional information, which could confirm ability of supply lots a per each lots.
Annexes to this RFP	☒ Form for Submission of Proposal (Annex 2) ☒ General Terms and Conditions / Special Conditions - Available through the Link: https://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html ☒ Detailed TOR and Evaluation Criteria (Annex 3) ☒ Contract for Goods and/or Services (Annex 4)
Contact Person for Inquiries (Written inquiries only)[1]	*Procurement Unit* *UNDP Ukraine* **procurement.rpp.ua@undp.org** Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Documents to be submitted in proposal	☒ Dully filled in and Signed Form for Submission of Proposal (Annex 2) ☒ Registration documents ☒ Organization's profile (date of creation, size, number of staff, description of key staff) ☒ A letter of interest/letter of offer, which outlines previous experience in implementing similar programmes and competitive advantages of the applicant company ☒ A work plan with the proposed work schedule indicating the persons responsible for each area of activity ☒ Information on methodology and clear identification of implementation steps / Brief approach for assignment completion per stages as of TOR (Ukrainian, Times New Roman, 14 no more than 2 A4 pages) ☒ Filled Annex A of the Terms of Reference ☒ Documentary evidence of at least 2 developed public resources ☒ Personal CVs of the Project Team, including information about past experience in similar projects / assignments, as well as confirmation of their availability if selected for this project ☒ At least 2 letters of recommendation from previous clients / clients / partners reflecting the nature of the projects implemented, their results and the role of the applicant ☒ **Financial proposal (must be password protected and provided in separate archive. Don't provide password unless requested and don't include password to letter with technical proposal part).**
Other Information Related to the RFP	**Administrative Requirements:** Submitted offers will be reviewed on "Pass" or "Fail" basis to determine compliance with the below formal criteria/ requirement/s: ✓ Offers must be submitted within the stipulated deadline ✓ Offers must meet required Offer Validity ✓ Offers have been signed by the proper authority ✓ Offers include requested company/organization documentation, including documentation regarding the company/organization's legal status and registration

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[1] *This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.*

Offers must comply with general administrative requirements:

The company/organization submitting the proposal:
1) Officially registered on the Government controlled territory of Ukraine organization/company
2) At least 3 years of experience in development and implementation of software solutions (in particular, in the development and implementation of SED (System Electronic Document, web platforms, web portalis, content management systems, web design, intranets, programming, etc.);
3) At least 2 complex projects for the development and implementation of relevant software solutions, including technical support / maintenance, training, development of a guide / user manual implemented with local or state authorities;
4) Availability of qualified experts team to perform the work.

Contractor's Personnel (Key Personnel/Experts)
The contractor shall ensure that all personnel assigned to this contract meet the following minimum standards:

Project Manager/Team lead:
1) At least Bachelor's degree in such fields as Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other ICT-related;
2) At least 2 years of experience in management of IT projects;
3) At least 2 similar projects successfully implemented;

Database Architect/Database Developer
1) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
2) At least 2 years of experience in the field of software development;
3) Strong knowledge and extensive skills in database design proved through participation in at least one similar project, in which he/she held a position of Database Architect, Database Developer or similar;
4) Language Requirements: Fluent Ukrainian and/or Russian

Software development engineer
1) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
2) At least 2 years of experience in the field of software development;
3) Specific professional experience proved through participating in at least one similar project, in which he/she held a position or Programmer, Developer, Software development engineer or similar;
4) Language Requirements: Fluent Ukrainian and/or Russian language

Software Tester/Quality Assurance Engineer

1) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
2) At least 2 years of experience in the field of software development;
3) Experience on various performance and load assurance methodology and practices, including performance Testing/Profiling/Tuning, proved through participating in at least one similar project;
4) Language Requirements: Fluent Ukrainian and/or Russian language.

Technical Writer

1) At least Bachelor's degree in such fields as Linguistics, Journalism, Communications, Marketing, Social Sciences, Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other related.
2) At least 2 years of prior experience in eliciting user requirements, writing technical documentation and procedural materials for multiple audiences or similar.
3) Specific professional experience proved through participating in at least one similar project, within which he/she held a similar position/similar functions.
4) Language Requirements: Fluent Ukrainian and/or Russian language

Other information is available on http://procurement-notices.undp.org
For the information, please contact **procurement.rpp.ua@undp.org**

** Dear partners!

The United Nations Office in Ukraine would like to inform you that the purchase of goods and services announced in the tender will be carried out within the project of international technical assistance.

According to the provisions of the Tax Code of Ukraine (paragraph 197.11), an exemption from VAT is provided for operations that are financed through material and technical assistance.

The procedure for obtaining the right to exemption from taxation for operations that are made within international technical assistance projects is regulated by the Decree of the Cabinet of Ministers of Ukraine No.153 dated February 15, 2002.

According to this procedure, the price of the contract is determined "without VAT" and the tax invoice is drawn up in accordance with paragraph 2 of Order No. 1307. In the left part of this invoice, the corresponding mark "X" should be made and the type of reason 12 should be indicated. At the same time in the column "Recipient" (buyer) the name of the legal entity (UN Office in Ukraine) should be indicated, and in the column "Individual tax number of the beneficiary" (buyer) should be indicated conventional TIN (taxpayer reg. No.) "200000000000".

Based on the above stated, we request that you prepare your bid proposals / invoices for payment without VAT taking into account the provisions of the Ukrainian legislation stated in the above-mentioned normative acts.

If you have any additional questions, please contact the offices of the State Fiscal Service of Ukraine at the place of registration of your company for additional advice within the Article 52 of the Tax Code of Ukraine.

** Уважаемые партнеры!

Представительство ООН в Украине информирует Вас, что приобретение товаров и услуг объявленных в тендере   производится в рамках выполнения проекта международной технической помощи. Согласно положений Налогового Кодекса Украины (п. 197.11) предусмотрено освобождение от налогообложения НДС операций, которые финансируются за счет материально-технической помощи.

Порядок получения права на освобождение от налогообложения операций, которые производятся в рамках проектов международной технической помощи регламентируется постановлением Кабинета Министров Украины от 15 февраля 2002 года №153. В случае наличия права на применение этой НДСной льготы на дату получения аванса от ПРООН вы должны составить и зарегистрировать в ЕРНН налоговую накладную (далее — НН), которая заполняется следующим образом:

• в графе «Складена на операції, звільнені від оподаткування» верхней левой части делается пометка «Без ПДВ»;
• в раздел А табличной части НН (строки I - X) вносятся обобщающие данные по операциям, на которые складывается такая НН, а именно: в строке I указывается общая сумма средств, подлежащих уплате с учетом НДС; в строке IX — общий объем поставки товаров/услуг. Строки II - VIII раздела А не заполняются;
• в графе 2 раздела В указывается номенклатура услуг поставщика (продавца);
• в графа 3.3 раздела В — код услуги согласно ГКПУ. Графа 3.3 заполняются на всех этапах поставки услуг;
• в графе 4 и 5 — единица измерения услуг;
• в графе 6 — количество (объем) поставки услуг;
• в графе 7 — цена поставки единицы услуги без учета НДС;
• в графе 8 — указывается код ставки НДС 903;
• в графе 9 — код льготы согласно Справочнику других налоговых льгот налоговых льгот, утвержденному ГФС по состоянию на дату составления НН — «14060523»;
• в графе 10 — объем поставки без учета НДС (сумма аванса). Детально — в материалах «Налоговая накладная – 2017: порядок заполнения» и «Новая налоговая накладная в образцах».

Что касается налогового кредита с НДС по покупкам материалов для выполнения соответствующих строительных работ, то здесь правила его компенсации, предусмотренные п. 198.5 НКУ, не действуют. Ведь согласно п. 198.5 НКУ на операции по поставке товаров и услуг, освобождение от налогообложения НДС которых предусмотрено п. 197.11 НКУ, правила начисления налоговых обязательств не распространяются.

Это значит, что в ходе использования материалов, которые покупались с НДС, для выполнения данных работ налоговый кредит компенсировать не нужно, соответственно не нужно и начислять для этого налоговые обязательства.

Исходя из вышесказанного, просим Вас формировать Ваши тендерные заявки/счета на оплату без НДС учитывая положения украинского законодательства, изложенного в перечисленных нормативных актах.

В случае возникновения дополнительных вопросов просим Вас обращаться в отделения Государственной Фискальной Службы Украины по месту регистрации Вашего предприятия для получения дополнительной консультации в рамках статьи 52 Налогового Кодекса Украины.

FORM FOR SUBMITTING SERVICE PROVIDER'S PROPOSAL²

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery³)

<div align="right">

[insert: *Location*].
[insert: *Date*]

</div>

To: [*insert: Name and Address of UNDP focal point*]

Dear Sir/Madam:

      We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the **122-2022-UNDP-UKR-RFP-RPP** dated 3/24/2022, and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions:

A.   **Qualifications of the Service Provider**

BRIEF COMPANY PROFILE	
The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating the following:	
Full registration name	
Year of foundation	
Legal status	If Consortium, please provide written confirmation from each member
Legal address	
Actual address	
Bank information	
VAT payer status	
Contact person name	
Contact person email	
Contact person phone	
Company/Organization's core activities	
Profile – describing the nature of business, field of expertise, licenses, certifications, accreditations (If any);	Please indicate here
Business Licenses – Registration Papers, Tax Payment Certification, etc	EDRPOU, ID tax number Copies of State registration and Tax registration should be attached

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² *This serves as a guide to the Service Provider in preparing the Proposal.*
³ *Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes*

Certificates and Accreditation	Please indicate here applicable including Quality Certificates, Patent Registrations, Environmental Sustainability Certificates, etc.
Please provide contact details of at least 2 previous partners for reference	Please attach the signed reference letters *if any.*
Company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.	Yes/No (Please choose)
Other relevant information	

B.   **Proposed Methodology for the Completion of Services**

> *The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology, and expected deliverables, implementation schedule for each deliverable/output will be appropriate to the local conditions and context of the work.*
>
> *Must include:*
>
> 1. *A highly-detailed methodology with clear identification of implementation steps.*
>
> 2. *A work plan with the proposed project stage based work schedule indicating the persons responsible for each area of activity.*
>
> 3. *A timeline detailing how the required results will be achieved/completed within the required timeframe (not to exceed 180 calendar days as per the TOR requirements).*
>
> 4. *Filled Annex A of the Terms of Reference.*

C.   **Qualifications of Key Personnel**

> *If required by the RFP, the Service Provider must provide:*
>
> *a) Names and qualifications of the key personnel that will perform the services; description of roles of key personnel (Project Manager/Team Lead, Database Architect/Database Developer; Software development engineer; Software Tester/Quality Assurance Engineer; Technical Writer);*
>
> *b) CVs demonstrating qualifications, experience and language skills of Project Manager/Team Lead, Database Architect/Database Developer Software development engineer; Software Tester/Quality Assurance Engineer; Technical Writer as well as contact details for referees;*
>
> *c) Written confirmation in a free form, from each team member that they are available for the entire duration of the contract.*

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Financial Proposal

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category.

Any estimates for cost-reimbursable items, such as travel and out-of-pocket expenses, should be listed separately.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. Cost Breakdown per Deliverables*

The key steps and a description of the results that must be obtained in the specified time frames are listed below.

The contractor is invited to assess the complexity of work on the implementation by each of these stages, and to offer the customer the preferred percentage of the total proposed value of the agreement.

No.	Deliverables' short description	TOTAL without VAT (indicate currency)
1	Collection, analysis, consultation and systematization of information on the necessary input data for the development of the System. Approval of the terms of Reference, system design.	
2	Development and launch of a test version of the System in accordance with the specifications and Technical Specifications contained in Annex A. Selection of Administrative Service Centers for test work.	
3	Testing and correction of possible problems in the System. Provide technical training for staff to manage System The final version of the System has been launched.	
	Total all-inclusive price, without VAT (indicate currency)	

*This shall be the basis of the payment tranches

B. Cost Breakdown by Cost Component

The Proposers are requested to provide the cost breakdown for the above given prices for each deliverable based on the following format. UNDP shall use the cost breakdown for the price reasonability assessment purposes as well as the calculation of price in the event that both parties have agreed to add new deliverables to the scope of Services.

№	Activity/Costs	Unit	Number	Cost per unit, currency	Amount, excl. VAT, currency
1	Personnel				
1.1	Project Manager/Team Lead	1 month of work			
1.2	Database Architect/Database developer	1 month of work			
1.3	Software development engineer	1 month of work			
1.4	Software Tester/Quality Assurance Engineer	1 month of work			

1.5	**Technical Writer**	1 month of work			
…	…				
2	**Administration Costs (if necessary)**				
2.1	Communications (telephone/Internet)				
2.2	Other (if any - to define clearly activities/costs)				
…					
3	**Travel and Lodging**				
3.1	Daily Allowance	Day			
…	…				
4	**Other costs (if any - to define clearly activities/costs)**				
4.1	Development of the Integrated Information protection System (IIPS)				
…	…				
	Total (please indicate currency)				

*[Name and Signature of the Service
Provider's Authorized Person]
[Designation]
[Date]*

Terms of Reference

Project Title: United Nations Recovery and Peacebuilding Program, Local Governance and Decentralization Reform Component
Description of the assignment: Creation of a system of preliminary registration of subjects of application for reception to employees of the centers of administrative services with the possibility of expansion to the whole territory of Ukraine by electronic registration using the Platform of Diia Centers (conditional name - Single electronic queue)
Expected Places of Travel: Ukraine, to be determined.
Secondary Supervisor's name and functional post: Programme Coordinator (Local Governance and Decentralization Reform)
Starting /Date of Assignment: April 2022
Duration of Assignment: 6 months

1. BACKGROUND

The United Nations Development Programme (UNDP) has been actively working in eastern Ukraine for the past decade, prior to the conflict, focusing on community and civil society development, and environmental protection.

Since 2015, upon request from the Government of Ukraine, UNDP started its work on addressing conflict-related challenges by early engagement, establishing partnerships through the United Nations Recovery and Peacebuilding Programme (UN RPP). The UN RPP is a multi-donor funded framework programme, jointly implemented by four UN partnering agencies: UNDP, UN Women, FAO, and UNFPA in cooperation with the government of Ukraine.

The UN RPP was designed to respond to and mitigate the causes and effects of the conflict. The UN RPP is an integral component of the UNDP Country Programme. It is fully aligned with the United Nations Partnership Framework (UNPF), closely interlinked with the Democratic Governance and Reform Programme, operating national wide and in all of Ukraine's regions.

The Programme's interventions are grouped under the following key Programme components, which reflect the region's priority needs:

Component 1: Economic Recovery and Restoration of Critical Infrastructure
Component 2: Local Governance and Decentralization Reform
Component 3: Community Security and Social Cohesion.

The Programme is pooling funds employing a multi-sectoral programme-based approach and is implementing using an area-based methodology and unifying interventions framework for 12 projects funded by 12 international partners.

In October 2018, four UN agencies (UNDP, UN Women, FAO and the UNFPA) had countersigned a new joint project document, funded by the EU. The overall objective of the project is to restore effective governance and promote reconciliation in the crisis-affected communities of Donetsk and Luhansk oblasts of Ukraine, thereby enhancing the credibility and legitimacy of local governments in the government-controlled areas (GCAs) of the oblasts. It will contribute to peacebuilding and prevent further escalation of conflict in Ukraine through effective and accountable decentralization, gender-responsive recovery planning and equal access to services, as well as enhanced community security and social cohesion.

This endeavor will be achieved through the pursuit of the following specific objectives

1. To enhance local capacity for gender-responsive decentralization and administrative reforms to improve governance, local development and the delivery of services.
2. To stimulate employment and economic growth by assisting in Micro-, Small- and Medium Enterprise (MSME) development through demand-driven business development services and professional skills training.
3. To enhance social cohesion and reconciliation through the promotion of civic initiatives.
4. To support sector reforms and structural adjustments in health, education and critical public infrastructure to mitigate the direct impacts of the conflict.

Comprehensive digital transformation reform is a priority of Ukraine. Today, 50 convenient online services are available on the public services portal Diia. However, the issue of the work of the Administrative Services Centers (ASC/s) remains relevant, namely the introduction of a convenient pre-registration system, which will allow the applicant to make an appointment at the Center regardless of his location.

Making life of the citizens more comfortable the state must provide conditions under which a person will not spend his own time waiting for admission in any queue, including the "Electronic Queue". As of today, modern information technologies have already allowed the introduction of a system of pre-registration for an appointment. For example, using technology as "Just in time", with a pre-registration accuracy of one minute, allow to escape such things as "waiting time".
- The system is designed to automate the process of pre-registration of subjects applying for an appointment with an accuracy of one minute to the staff of the ASCs by electronic registration using the Platform of Diia Centers.
- The purpose of the System is to introduce a convenient tool for pre-registration of subjects applying to the staff of the ASCs, as well as the elimination of live queues and crowds of visitors in the waiting area of the Centers.

In this regard, UNDP is looking for a Contractor who will provide quality experience in the development, implementation, maintenance and modification of the "Single Electronic Queue" technology on the system of pre-registration for reception of entities applying to employees of administrative centers with the possibility of expansion to the entire territory of Ukraine by electronic registration using the Platform of Diia Centers (hereinafter - the System)

2. MAIN GOALS AND OBJECTIVES

The Contractor will be responsible for creating a System, that will have a modern design, most comfortable for people with different levels of gadget skills and filled with all the necessary data to ensure all the tasks assigned to the System, etc. General requirements and tasks for the organization of the System (available in Annex A below).

3. SCOPE OF WORK

The contractor must provide the following services:
- Clarification of the technical task, creation of the project of the system layout. Discussion with representatives of the State Enterprise "Diia" and an expert from the UN RPP of the Terms of Reference and the layout of the System. Approval of terms of reference and layout.
- Development, approval and testing of design layouts, templates and layout of the System.
  - Completion of testing, training of administrators to work with the System. Development of electronic instructions for working with the System for administrators and users.

The Contractor is obliged to provide software implementation services according to the stages below:

Stage 1. Preparatory activities.
Collection, analysis, consultation and systematization of information on the necessary input data for the

development of the System. Approval of the developed technical task of the System.

The initial report provided and approved by UNDP.
Expected implementation period: up to 30 calendar days after the start date of the contract.

Stage 2. Development and test launch of the System.
2.1 The development of the System, as well as the launch should be carried out in full compliance with

applicable national standards and regulations, p.1.7 Regulatory framework and in accordance with the

General requirements for the organization of the System, specified in Annex A.

2.2. Run a test version of the System. Selection of Administrative Service Centers and launch of a testing
system (at least 10 Centers). The centers are selected by the system developer.

The second report was submitted and approved by UNDP
Expected implementation period: up to 120 calendar days after the start date of the contract.

Stage 3. Testing and correction of possible problems in the System. Technical advice for staff and development of user instructions. Conducting System management training sessions for administrators.

3.1 The system is implemented in most (not less than 80%) Centers for administrative, as well as up to
10 Centers of other regions of Ukraine. The centers are selected by the system developer.
3.2 Provide technical training for staff to manage the System

The Contractor must develop technical instructions and conduct 2 online-trainings (2 hours each) for
administrators of SE "Diia" on the operation of the System. (minimum 10 person)
Trainings topics should include but not limited to:
-    formation of users' understanding of the general process of system management;

-    formation of practical skills necessary for system administrators to create a system, create

new users, connect organizational units, configure new services, configure access to new

electronic services, create reports, etc;

-    analysis of common mistakes and their consequences that occur when setting of the System.

-    Conducting advices on the transfer of practical skills to maintain and administer of the

System;

-    ensuring the appropriate level of automation, full use of functionality and high quality of

information and services provided to the Customer;

3.3 Develop a user manual (at least 5 pages) (electronic version)

- the instructions should contain information about the methods of administration and technical
capabilities of the System;

Expected implementation period: up to 180 calendar days after the start date of the contract.

4. **Acceptance of work**

The System is considered accepted after the Customer has checked and approved the Executor's
work completion report. The fact of acceptance must be confirmed by signing the relevant acts by the
authorized representatives of the Parties: Contractor, Customer, Representatives of SE "Diia"
(Beneficiary).
Works on implementation and adjustment of the System must be carried out by the Executor in

stages in line with the calendar plan agreed by the parties according to technical requirements. The fact of transfer-acceptance of the Works/Services at each stage will be considered the moment of signing of the bilateral act of the performed Works/provided Services between UNDP and the Executor and transferring of the source program code related to the Works/Services. During the project, the Contractor must provide the Customer (for the benefit of the Beneficiaries) with comprehensive and relevant documentation/information, that the latter may need for efficient use and maintenance of the resource: Description of the program, instructions for users/system administrators etc.

5. Requirements for warranty support of the system

The Contractor undertakes to provide guarantees of the quality of services rendered in the form of warranty (technical) support within 24 (twenty-four) months from the date of signing of the final act of delivery-acceptance of rendered services, which includes technical support, elimination of errors, software malfunctions, consulting support, including when configuring software subsystems in customer units that open during the warranty period.
The warranty technical support does not imply additional financial costs of the Customer and the Beneficiary.

Guarantee term refers to the period that begins from the moment of completion of the provision of services under the Contract, during which the Contractor undertakes to provide the services for the elimination of the detected technical errors (defects), elimination of abnormal situations (failures and failures) on incidents with the implemented Customer software in the following extent:
- organization of a hotline by telephone and e-mail to receive and process information about incidents (technical errors, defects) and emergencies in the system during the working days from 9 to 18 hours;
- analysis and classification of information about incidents (technical errors, defects) and emergency situations in the work of the system, development with the responsible employee of the object of introduction of software proposals on terms and ways of their elimination;
- if necessary, to make changes to the System to eliminate identified technical errors (defects) and to provide the Customer with updates of the System, designed following the requirements of this technical task;

Warranty support includes the following services:
a) Explanation regarding:
- general approaches to software launch;
- general approaches to software administration;
- general approaches to the work of software users.
b) Technical Support Consultations:
- general software setup recommendations;
- services for checking the correctness of filling in the software settings.
c) Individual consultations of the technical support analyst on filling the launched software with information:
- to set up the process of service provision;
- according to the description and content of the software directories and classifiers (general recommendations).
d) Remote administration of the software, in case of problems of its functioning, if these problems could not be solved by consulting a technical support engineer (remote access should be provided by the representative of the Customer responsible for solving this issue), while in the duties of the Contractor not includes system and third-party software administration tasks;
e) Individual consultations of the Customer's specialists on the refinement of the decision, which does not lead to the change of the mode of operation of the System as a whole.
Throughout the life of the technical support, the Contractor is obliged to consider the Customer or the Beneficiary remarks to the System (within the requirements set out in this document) and to take measures to eliminate software errors or its settings made during the performance of the contract and which are the result of the poor performance of the Contractor's services.

In the event of software malfunction during the warranty period, the Contractor shall, within 10 days, remove Customer's remarks about the System's functions and within 24 (twenty-four) hours, if technically feasible, from the time of system failure detection, shall be obliged to restore its efficiency.

6. EXPECTED OUTPUTS OF THE PROJECT /DELIVERABLES

The duration of work should not exceed 6months from the date of signing the contract by both parties. The following results will be achieved by the Contractor:

№	Deliverables	Period of completion (as from the start of the assignment)
1.	Collection, analysis, consultation and systematization of information on the necessary input data for the development of the System. Approval of the terms of Reference, system design. The first report was adopted and approved by UNDP.	30 calendar days after the start of the task
2.	Development and launch of a test version of the System in accordance with the specifications and Technical Specifications contained in Annex A. Selection of Administrative Service Centers for test workю The second report was submitted and approved by UNDP	120 calendar days after the start of the task
3.	Testing and correction of possible problems in the System. Provide technical training for staff to manage System The final version of the System has been launched. The final report was submitted and approved by UNDP	180 calendar days weeks after the start of the task

7. PROPOSED PAYMENT SCHEDULE:

The schedule of payments for the services will be agreed with the Contractor before the start of the assignment. Payments will be linked to deliverables and executed upon submission of Interim and Completion reports. A preliminary schedule is provided below.

- After achieving of the result of the Deliverable 1 and submission of the Inception Report – 20%;
- After achieving of the result of the Deliverable 2 and submission of the First Interim Report – 70%;
- After achieving of the result of the Deliverable 3 and submission of the Final Report– 10%;

8. REQUIREMENTS FOR MONITORING/REPORTING

The organization will report within the UN Recovery and Peacebuilding Programme to the Administrative Decentralization Specialist under the Component II "Local Governance and Decentralization Reform in Ukraine."
The format of the reports must be agreed at the first stage of the contract, but UNDP reserves the right to make further changes and clarifications to the report's format.
All reports and studies are submitted to UNDP in electronic form (*.docx, *.xlsx, *.pptx, *.pdf formats) on electronic media or in the form of electronic communication with the final products attached, which are also accompanied by a paper version of an official letter from the Contractor on transferring these products to UNDP. The documents must be written in Ukrainian.
The Contractor must adhere to the monitoring, evaluation, and control system implemented by UNDP, as well as provide the necessary information, reports, and statistics according to a pre-established schedule or as quickly as possible (within an acceptable period).
Upon completion of all work, the Contractor submits to UNDP a final report containing a full description of the work performed and the results obtained.

9. EXPERIENCE AND QUALIFICATION REQUIREMENTS

The company/organization submitting the proposal:
5) Officially registered on the Government controlled territory of Ukraine organization/company
6) At least 3 years of experience in development and implementation of software solutions (in particular, in the development and implementation of SED (System Electronic Document, web platforms, web portalis, content management systems, web design, intranets, programming, etc.);
7) At least 2 complex projects for the development and implementation of relevant software solutions, including technical support / maintenance, training, development of a guide / user manual implemented with local or state authorities;
8) Availability of qualified experts team to perform the work.

Contractor's Personnel (Key Personnel/Experts)

The contractor shall ensure that all personnel assigned to this contract meet the following minimum standards:

Project Manager/Team lead:
4) At least Bachelor's degree in such fields as Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other ICT-related;
5) At least 2 years of experience in management of IT projects;
6) At least 2 similar projects successfully implemented;

Database Architect/Database Developer
5) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
6) At least 2 years of experience in the field of software development;
7) Strong knowledge and extensive skills in database design proved through participation in at least one similar project, in which he/she held a position of Database Architect, Database Developer or similar;
8) Language Requirements: Fluent Ukrainian and/or Russian

Software development engineer
5) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
6) At least 2 years of experience in the field of software development;
7) Specific professional experience proved through participating in at least one similar project, in which he/she held a position or Programmer, Developer, Software development engineer or similar;
8) Language Requirements: Fluent Ukrainian and/or Russian language

Software Tester/Quality Assurance Engineer
5) At least has special software development courses or Bachelor's/higher degree in such fields as Computer Science, Computer Engineering, Telecommunications, mathematics, Information and Communication Technology or other ICT-related;
6) At least 2 years of experience in the field of software development;
7) Experience on various performance and load assurance methodology and practices, including performance Testing/Profiling/Tuning, proved through participating in at least one similar project;
8) Language Requirements: Fluent Ukrainian and/or Russian language.

Technical Writer

5) At least Bachelor's degree in such fields as Linguistics, Journalism, Communications, Marketing, Social Sciences, Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other related.
6) At least 2 years of prior experience in eliciting user requirements, writing technical documentation and procedural materials for multiple audiences or similar.
7) Specific professional experience proved through participating in at least one similar project, within which he/she held a similar position/similar functions.
8) Language Requirements: Fluent Ukrainian and/or Russian language

10. INFORMATION AND DOCUMENTS TO BE INCLUDED WHEN SUBMITTING THE PROPOSALS

☒	Organization's profile (date of creation, size, number of staff, description of key staff);
☒	A letter of interest/letter of offer, which outlines previous experience in implementing similar programmes and competitive advantages of the applicant company;
☒	A work plan with the proposed work schedule indicating the persons responsible for each area of activity;
☒	Information on methodology and clear identification of implementation steps / Brief approach for assignment completion per stages as of TOR (Ukrainian, Times New Roman, 14 no more than 2 A4 pages)
☒	Filled Annex A of this Terms of Reference
☒	Documentary evidence of at least 2 developed public resources
☒	Personal CVs of the Project Team, including information about past experience in similar projects / assignments, as well as confirmation of their availability if selected for this project;
☒	At least 2 letters of recommendation from previous clients / clients / partners reflecting the nature of the projects implemented, their results and the role of the applicant;
☒	Financial proposal.

11. EVALUATION CRITERIA

Evaluation and comparison of proposals
A two-stage procedure is utilized in evaluating the proposals, with evaluation of the technical proposal being completed prior to any price proposal being opened and compared. The price proposals will be opened only for submissions that passed the minimum technical score of 70% (or 490 points) of the obtainable score of 700 points in the evaluation of the technical proposals.

In the First Stage, the technical proposal is evaluated based on its responsiveness to the Terms of Reference (TOR) and as per below Evaluation Criteria. In the Second Stage, the price proposals of all offerors, who have attained minimum 70% score in the technical evaluation, will be reviewed. Overall evaluation will be completed in accordance with cumulative analysis scheme, under which the technical and financial aspects will have pre-assigned weights on 70% and 30% of the overall score respectively. The lowest cost financial proposal (out of technically compliant) will be selected as a baseline and allocated the maximum number of points obtainable for financial part (i.e. 300). All other financial proposals will receive a number of points inversely proportional to their quoted price; e.g. 300 points x lowest price / quoted price.

The winning proposal will be the one with the highest number of points after the points obtained in both technical and financial evaluations, respectively, are added up. The contract will be devoted to the bidder that submitted the winning proposal.

Evaluation and comparison of proposals

Summary of Technical Proposal Evaluation Form	Score Weight	Max Points obtainable
Form 1. Experience of the firm / organization submitting the proposal	25.71%	180
Form 2. Proposed work plan, methodology and approach	38,57%	270
Form 3. Personnel	35,71%	250
Total	**100%**	**700**

Technical evaluation forms are provided at the next pages. The maximal points obtainable as per each criterion indicate the relative importance or score weight in general evaluation process.

Technical Evaluation Forms:
 Form 1. Experience of the firm / organization submitting the proposal
 Form 2. Proposed work plan, methodology and approach
 Form 3. Personnel

Technical Evaluation Criteria

Experience of the firm / organization submitting the proposal Form 1		Maximum score
1.1	Experience in development and implementation of software solutions (in particular, in the development and implementation of SED, web platforms, web portals, content management systems, web design, intranets, programming, etc.): at least 3 years - 45 points, 3-4 years - 55 points, 5 and more years - 60 points	60
1.2	At least 2 complex projects for the development and implementation of relevant software solutions, including technical support / maintenance, training, development of a guide / user manual implemented with local or state authorities;;- at least 2 projects -45 points, 3 projects - 55 points, more than 3 projects - 60 points	60
1.3	Letters of recommendation from customers for the successful completion of such projects: at least 2 letter - 45 points, 3 letters - 55 points, more than 3 letters - 60 points	60
	Overall score on Form 1	**180**

Proposed work plan, methodology and approach **Form 2** Proposed work plan, methodology and approach		Maximum score
2.1	Project timeframe: maximum allowed period for implementation of the project is 180 calendar days (= 6 months). For a proposed timeframe up to 180 calendar days – 56 points; up to 165 calendar days (=5,5 months) – 65 pts, up to 150 calendar days (=5 months) – 75 points	75

2.2	Work plan and timelines: - Work plan is well elaborated, feasible, envisages all the stages, activities and deliverables outlined in ToR – 6 points; - Work plan includes visualized work schedule –4 points; - Key activities in the work plan developed in the optimal sequence for the most efficient completion of works - 5 points	15
2.3	Clarity and relevance of the proposed approach: • Highly-detailed methodology and clear identification of implementation steps – 60 points; • Demonstrated understanding of all necessary stages and complexity of the assignment - 45 points; • Proposed approach requires clarifications and further development - 30 points.	60
2.4	Annex A of this Terms of Reference is filled. 100% match - 70points; 92,3 % match to task - 50points;	70
2.5	Evaluation of previous experience in the development of such public resources - The public resource fully meets the technical task and has a similar result - 50 points; -The public resource has elements of the technical task and has partial decisions - 40 points; The public resource has elements of the technical task, but needs completion - 30 points;	50
	Total Section 2	**270**

Form 3 **Personnel**	**Maximum score**

3.1   **Project Manager/Team Lead**
 	
    1.   Education: Bachelor's degree in Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other ICT-related – 4 points, Master's/Specialist's degree – 5 points;
    2.   At least 2 years of experience in management of IT projects – 10 points, 3 years – 12 points, more than 3 years – 15 points;
    3.   At least 2 similar or more complex projects successfully implemented – 15 points, 3-5 projects – 25 points, more than 5 projects –30 points;
	50

3.2	**Database Architect/Database developer** 1. Education: special software development courses or Bachelor's degree in Computer Science, Computer Engineering, Telecommunications, Information, mathematics and Communication Technology or other ICT-related – 4 points, Master's/Specialist's degree – 5 points; 2. At least 2 years of experience in the field of software development - 15 points, 3-4 years – 20 points, more than 4 years – 25 points; 3. Strong knowledge and extensive skills in database design, proved by participation in at least one similar project, in which he/she held a position of Database Architect, Database Developer or similar - 10 points, 2 projects – 12 points, more than 3 projects – 15 points; 4. Language Requirements: Fluent Ukrainian and/or Russian language– 5 points		50
3.3	**Software development engineer** 1. Education: special software development courses or Bachelor's degree in Computer Science, Computer Engineering, Telecommunications, Information, mathematics and Communication Technology or other ICT-related – 4 points, Master's/Specialist's degree – 5 points; 2. At least 2 years of experience in the field of software development - 15 points, 3-4 years – 18 points, more than 4 years – 20 points; 3. Specific professional experience , proved through participating in at least one similar project in which he/she held a position or Programmer, Developer, Software development engineer or similar - 10 points, 2 projects– 12 points, more than 3 projects – 15 points; 4. Language Requirements: Fluent Ukrainian and/or Russian language– 10 points		50
3.4	**Software Tester/Quality Assurance Engineer** 1. Education: Bachelor's degree in Computer Science, Computer Engineering, Telecommunications, Information,mathematics and Communication Technology or other higher education– 4 points, Master's/Specialist's degree – 5 points; 2. At least 2 years of experience in the field of software solutions development - 15 points, 3-4 years – 18 points, more than 4 years – 20 points; 3. Experience on various performance and load assurance methodology and practices, including performance Testing/Profiling/Tuning, proved through participating in at least one similar project - 10 points, 2 projects – 12points, 3 and more projects – 15 points; 4. Language Requirements: Fluent Ukrainian and/or Russian language– 10 points		**50**

3.5	**Technical Writer**	**50**
	1. Education: Bachelor's degree in Linguistics, Journalism, Communications, Marketing, Social Sciences, Computer Science, Computer Engineering, Telecommunications, Information and Communication Technology or other related – 4 points, Master's/Specialist's degree – 5 points; 2. At least 2 years of prior experience in eliciting user requirements, writing technical documentation and procedural materials for multiple audiences or similar - 10 points, 3-4 years – 12 points, more than 4 years – 15 points; 3. Specific professional experience proved through participating in at least one similar project within which he/she held a similar position/similar functions - 15 points, 3 projects and more – 20 points; 4. Language Requirements: Fluent Ukrainian and/or Russian language – 10 points	
	Overall score on Form 3	**250**

12. ESTIMATED COST OF ASSIGNMENT

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category.

Any estimates for cost-reimbursable items, such as travel and out-of-pocket expenses, should be listed separately.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. Cost Breakdown per Deliverables*

The key steps and a description of the results that must be obtained in the specified time frames are listed below.

The contractor is invited to assess the complexity of work on the implementation by each of these stages, and to offer the customer the preferred percentage of the total proposed value of the agreement.

No.	Deliverables' short description	TOTAL (indicate currency), without VAT
4	Collection, analysis, consultation and systematization of information on the necessary input data for the development of the System. Approval of the terms of Reference, system design.	
5	Development and launch of a test version of the System in accordance with the specifications and Technical Specifications contained in Annex A. Selection of Administrative Service Centers for test work.	
6	Testing and correction of possible problems in the System. Provide technical training for staff to manage System The final version of the System has been launched.	
Total all-inclusive price, (indicate currency), without VAT		

B. Cost Breakdown by Cost Component:

The Proposers are requested to provide the cost breakdown for the above given prices for each deliverable based on the following format. UNDP shall use the cost breakdown for the price reasonability assessment purposes as well as the calculation of price in the event that both parties have agreed to add new deliverables to the scope of Services.

№	Activity/Costs	Unit	Number	Cost per unit, currency	Amount, currency excl. VAT
1	**Personnel**				
1.1	**Project Manager/Team Lead**	1 month of work			
1.2	**Database Architect/Database developer**	1 month of work			
1.3	**Software development engineer**	1 month of work			
1.4	**Software Tester/Quality Assurance Engineer**	1 month of work			
1.5	**Technical Writer**	1 month of work			
…	…				
2	**Administration Costs (if necessary)**				
2.1	Communications (telephone/Internet)				
2.2	Other (if any - to define clearly activities/costs)				
…					
3	**Travel and Lodging**				
3.1	Daily Allowance	Day			
…	**…**				
4	**Other costs (if any - to define clearly activities/costs)**				
4.1	Development of the Integrated Information protection System (IIPS)				
…	…				
	Total (please indicate currency)				

Annex A

List of abbreviations and terms

API – Application Programming Interface

Authorization - granting the right to use the System by phone number or e-mail ;

Authentication - the procedure for determining the availability of access rights to the System for employees of the Centers

QES– Qualified Electronic Signature

System - The system of pre-registration of the subjects of application for admission to the employees of the Centers by electronic registration using the Platform of Action Centers (also the conditional name "Single electronic queue" is used);

Sw - software;

PDC - National Web Platform of Administrative Service Centers (Platform of DIIA Centers);

ToR– Terms of Reference;

Centers —- subjects of administrative services, administrative service centers (head office), territorial subdivisions (TS) and remote workplaces of administrators (RW);

AIC – Automated Information System

IIPS - a set of organizational and engineering measures, software and hardware that ensure the protection of information in the System.

Designations on schemes:

Symbol	Label
⏱	Таймер
⊗	Скасування
▲	Сигнал
⬠	Проміжна подія, декілька одночаних подій
▤	Проміжна подія, умова
✉	Проміжна подія, повідомлення

General requirements for the organization of the System

Customer requirements	Participant's comment (YES or NO)
1. **GENERAL INFORMATION**	
1.1. This document regulates the main objectives, system, functional, and non-functional requirements for the development of the Systems of preliminary registration of subjects of application for reception to employees of the Centers by electronic registration by means of the Diia Centers Platform for the Centers with the possibility of further use throughout the territory of Ukraine. 1.2. The full name of the software is Pre-registration System for the Appointment on the Diia Centers' Platform. 1.3. The abbreviated name of the software is the Pre-appointment system (hereinafter – the System). 1.4. Customer: UNDP. 1.5. Beneficiary: Ministry of Digital Transformation of Ukraine. Location: 24, Dilova str., Kyiv, 03150, Ukraine; EDRPOU Code: 4322085. 1.6. Recipient: State Enterprise "Diia". Location: 24, Dilova str., Kyiv, 03150, Ukraine; EDRPOU Code: 43395033, E-mail: inbox@diia.gov.ua. 1.7. Executor: winner of the tender procedure.	

1.8. Developer - is determined on the basis of the decision on the results of the procurement of works and services in the manner prescribed by applicable law.

1.9. Legal and regulatory framework.

The System software should comply with the requirements of the following current regulatory documents:

- Constitution of Ukraine;
- Law of Ukraine "On Electronic Trust Services";
- Law of Ukraine "On Information";
- Law of Ukraine "On Electronic Documents and Electronic Document Management";
- Law of Ukraine "On Personal Data Protection";
- Law of Ukraine "On Information Protection in Information and Telecommunication Systems";
-Law of Ukraine "On Administrative Services";
- Resolution of the Cabinet of Ministers of Ukraine of January 4, 2002, No. 3 "On the Procedure for Disclosure of Information on the Activities of Executive Bodies on the Internet";
- Resolution of the Cabinet of Ministers of Ukraine of September 8, 2016, No. 606 "On Some Issues of Electronic Interaction of Electronic Information Resources";
- Resolution of the Cabinet of Ministers of Ukraine of September 19, 2018, No. 749 "On Approval of the Procedure for Using Electronic Trust Services in Public and Local Authorities, Enterprises, Institutions, and Organizations of State Ownership";
- Resolution of the Cabinet of Ministers of Ukraine of December 4, 2019, No. 1137 "On Issues of the Unified State Web Portal of Electronic Services and the Unified State Portal of Administrative Services";
- Resolution of the Cabinet of Ministers of Ukraine of February 3, 2021, No. 72 "On the National Web Platform of Administrative Service Centers";
- DSTU ISO/IEC 25010: 2016 "Systems and software engineering. Systems and software quality. Requirements and evaluation (SQuaRE), System and software quality models";
- GOST 34.602-89 "Information technology. Set of standards for automated systems. Terms of reference for the creation of an automated system and other existing standards"; and
- DSTU 3321:2003 "Systems of design documentation. Terms and definitions of basic concepts";

This list is not exhaustive. The requirements of Ukrainian legislation, regulatory and guidance documents relating to the goal and objectives of these ToR may be specified.

2. INTENDED PURPOSE FOR CREATING THE SYSTEM

2.1 The System is designed to automate the process of pre-registration of subjects applying to the staff of the Centers by electronic registration using the DIIA Centers' Platform.

2.2 The goal of the System is to introduce a convenient tool for pre-registration of subjects applying to the staff of the Centers, as well as the elimination of 'first-come-first-served' queues and crowds of visitors in the waiting area of the Centers.

2.3 Requirements for the intended purpose of the System may be specified at the stage of technical design.

3. CHARACTERISTICS OF THE AUTOMATION OBJECT

3.1 The object of automation should be the regulatory procedures for automating the process of pre-registration of subjects applying to the staff of the Centers by electronic registration using the DIA Centers' Platform.

The subject of automation is the technological processes that are necessary to

ensure full automation of the procedure of interaction between citizens and Centers during pre-registration.

3.2 The interaction objects of the System are defined as:
- DIA Centers' Platform
- Information systems of the Centers
- Information systems of subjects providing administrative services
- The information systems of the State Enterprise "DIA" regarding the service of connecting the information and telecommunication system of the Centers to the integrated system of electronic identification.

3.3 The participants of the regulatory procedures and processes subject to automation (interaction subjects) are authorized and unauthorized users, including those visually and hearing impaired. Authorized users are employees of the ASC, non-authorized users are the subjects of appeals who register with the ASC.

Unauthorized users have access to the publicly available part of the System.

A detailed description of the user environment is given below.
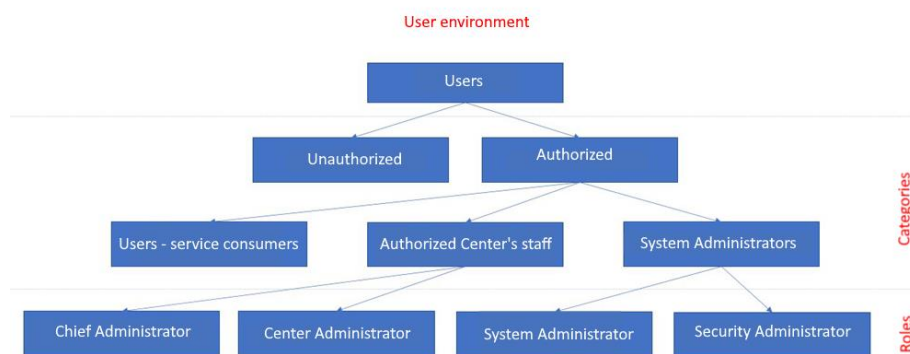
3.4 The created System should ensure the implementation of the following components (modules) of the intended purpose:

– The publicly available part of the PDC, which hosts the web module "Sign up for the Center" designed for pre-registration at the Center;

– Database of the notification service;

– The web module "Sign up for the Center" should be hosted on the publicly available part of the PDC (center.diia.gov.ua) and perform URL-redirection to the System;

The module for registration for a reception at the Center via a chatbot(Viber and Telegram) ;

–The module for registration for a reception at the Center using Infomat;

- web module "Registration for reception" for registration of a citizen who addresses the Center by phone or in the premises of the center (in the absence of Infomat);

– A module that consolidates information and data about authorized users and pre-registration for applying to the selected Center;

– A module designed to display on the electronic board (TV) the status of the appointment in the Center;

– System Management module;

– A module designed to display statistical information online and generate reports;

– integration with the ASC Register and the Register of Administrative Services must be executed using the API. The API parameters of the ASC Register and the Register of Administrative Services are provided by the Ministry of Finance.

3.5 Operating conditions of the System are stationary in the context of its technological infrastructure and mobile in the context of means of access to the System resources by the subjects of interaction.

3.6 Operation of the System must be carried out in the mode of 24-hour

technical support by its technical administrator. The technical administrator of the System should be a state enterprise subordinate to the Ministry of Digital Transformation of Ukraine.
      3.7 The requirements for the technological infrastructure operating environment are defined in the relevant sections of these Terms of Reference (ToR).
      3.8 The System must ensure the processing of open information relating to public and other information resources, personal data, and other information, which should be protected by law.
      3.9 The list of automation points (platforms) where system components are deployed is determined by these ToR and may be specified at the design stage of the System.	

4. **SYSTEM REQUIREMENTS**	

4.1 General system requirements
 	
      4.1.1. Requirements for the structure and functioning of the System:
      4.1.1.1.   The three-level client-server architecture of the data processing model in the context of goals and objectives with the possibility of information interaction with the information systems of the subjects of interaction should be chosen as the basis for the implementation of the System.
      4.1.1.2.   The System must have an adaptive design for mobile devices.
      4.1.1.3.   The system must provide integration with existing pre-registration systems in the Centers.
      4.1.1.4.   Modern programming languages and frameworks that have a wide community of developers and are being actively developed (.Net core, RubyOnRails, PHP, Node.js, and Python) must be used to create the System.
      4.1.1.5.   The solution must be implemented exclusively using Open-source technologies and components.
      4.1.1.6.   The External Resource Interaction Module should be implemented for all functions of the System to ensure integration with external systems.
      4.1.1.7.   For the purpose of automated processing of identity and other sensitive data of users, the server part (backend) of the System must interact with the information and telecommunication systems of interaction subjects via software interaction interfaces (API) in accordance with approved regulations, protocols, interfaces, etc.
      4.1.1.8.   The System must provide users with access to the system interface via the existing Internet network without the use of additional software packages and services.
      4.1.1.9.   Protection of information contained in the System against unauthorized access must be ensured using the following information protection mechanisms and tools:
    - Identification and authentication of users;
    - Differentiation of users;
    - Management of users' access rights to data, as well as the organization of physical protection of the server equipment by specialists of the Customer;
    - Differentiation of user access to information objects;
    - Setting up the user interface so that it contains only the objects and functions provided to the user for access; and
    - Keeping a log recording individual user actions.
      4.1.1.10. The basis for implementation of the System is to provide the functionality of the constituent modules required for the full operation of the Pre-registration System of the DIA Centers' Platform.
      4.1.1.11. The system must allow automatic archiving and storage of information about the appointment for at least six months from the date of completion of the pre-appointment registration process.
      4.1.1.12. The system must have two main components:
    - frontend
    - backend	

4.1.1.13. The architecture of the System must meet the following requirements:

- Modularity, i.e. each part of the System is self-sufficient and operates separately and independently of the others after implementation;

- Integration, i.e. all elements of the System must be developed and implemented in such a way as to be easily integrated with other modules (components) of the System;

- Inclusiveness, i.e. the needs of users with visual and hearing impairments to be considered;

- Architecture accounts for all remote services;

- Security provided by the architecture of the System;

- Privacy by design; Requirement to create a system with built-in personal data protection system (GDPR);

- All components defined in terms of business logic and/or security;

- A threat model generated for all components of the System for identifying potential threats and the required preventive measures; There should be a comprehensive method of prevention and timely detection of typical threats and taking organizational measures to eliminate them.

- All security checks centrally implemented;

- A policy for managing cryptographic keys and their lifecycle; See ISO / IEC 27001: 2013;

- Security provided for in all stages of the software development lifecycle; and

- Security checks implemented both at the frontend and backend.

4.1.1.14. The architecture of the System should provide the possibility of changing the number of levels of its hierarchy according to the user load. Changing the number of levels of the System hierarchy should not affect the functionality of the components of the System and the quality of service provision.

4.1.1.15. The System should consist of a set of functionally related subsystems and modules shown in Figure 1.
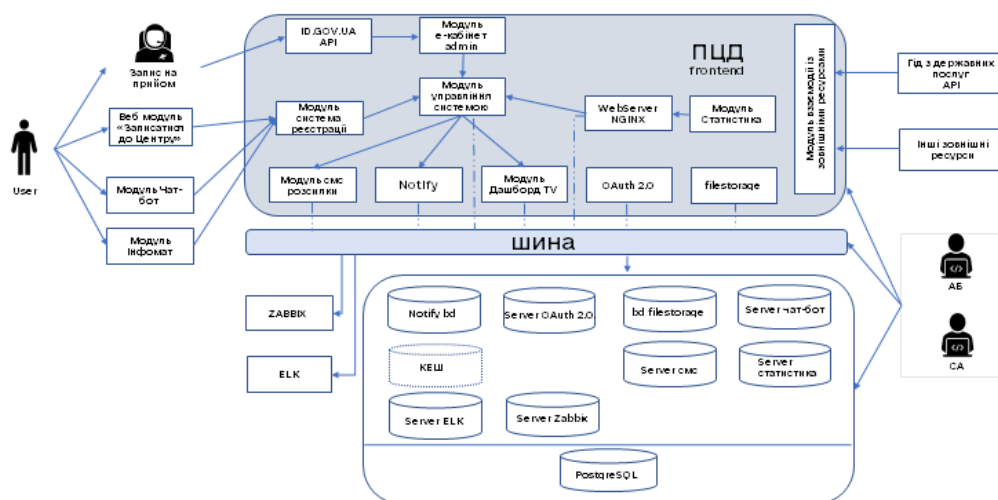
Figure 1. High-Level System Architecture (HighLevelArchitecture)

4.1.1.16. The DCP frontend is a publicly available part of the National Web Platform of Administrative Service Centers, which hosts the web module "Make an appointment" designed for pre-registration at the Center.

4.1.1.17. A User is an external authenticated (authorized) customer of services, who uses the System for the purpose of pre-registration for applying to the Center.

4.1.1.18. Notify db is notification service database. Service messages of the system, the database of the notification service is designed at the stage and in the process of technical design of the system.

4.1.1.19. The Center Administrator is an official of the Center, who performs pre-registration at the Center by phone call of the User.

4.1.1.20. The module "Make an appointment" is a service module hosted on the publicly available part of the National Web Platform of Administrative Service Centers (center.diia.gov.ua), which performs URL-redirection to the EQS.

4.1.1.21. Chatbot is a module designed to make an appointment at the Center via a chatbot.

4.1.1.22. Infomat is a module designed to make an appointment at the Center via Infomat.

4.1.1.23. Admin Account is a module containing user account functionality for authenticated (authorized) users, in particular, the officials of the Center.

4.1.1.24. Reception Registration Module is a module for entering, storing, and processing information about citizens applying to the Center by phone.

4.1.1.25. Registration System is a module that consolidates information and data about authorized users and pre-registration for applying to the selected Center.

4.1.1.26. Dashboard TV is a module designed for displaying the status of appointments at the Center on the electronic board.

4.1.1.27. System Management is a module designed to process function commands from user accounts of the System and pre-recording schedule models depending on priority settings and data transfer to the database.

4.1.1.28. Statistics is a module designed to display statistical information online and generate reports.

4.1.1.29. WebServer NGINX is a EQS web server.

4.1.1.30. ELK is a logging subsystem (Elastic+Logstash+Kibana).

4.1.1.31. ZABBIX is a subsystem for monitoring the technical state of the hardware and software complex.

4.1.1.32. PostgreSQL is a database management system.

4.1.1.33. CACHE is a data cache management subsystem.

4.1.1.34. Notify is a user notification service, which notifies users about system events by sending messages to message feeds, as well as by e-mails, push notifications, and SMS messages.

4.1.1.35. External Resource Interaction module.

4.1.1.36. Administrative Service Monitoring System of the Unified State Web Portal of Electronic Services "DIA Portal" API is an integrated system for monitoring administrative services.

4.1.1.37. API Public Services Guide - portal on which the Register of ASC and the Register of administrative services are placed

4.1.1.38. Server Module of interaction with external resources.

4.1.1.39. OAuth 2.0. server.

4.1.1.40. Chatbot server - a server for the Chatbot module.

4.1.1.41. Statistics server is a server for the Statistics module.

4.1.1.42. SMS server is a server for the SMS module.

4.1.1.43. filestorage-db is a database of the file storage service.

4.1.1.44. Filestorage is a file processing service, which provides storage and access to files generated by the System attached by a user or received from external systems. It also saves the electronic signatures applied on files.

4.1.1.45. SysAdmin is a System Administrator.

4.1.1.46. SA is a Security Administrator.

4.1.1.47. OAuth 2.0. - user authorization service.

4.1.1.48. Quality Assessment Module - A module for assessing the satisfaction of the subjects of the quality of administrative services

4.1.2. The System must provide the following functions:
- An option to authenticate (authorize) users- Centers administrators;
- An option to differentiate and grant the rights to perform regulatory actions to the authorized users and administrators of the Center;

- the ability to pre-register for an appointment at the Center with the choice of date and time through:

- the Web module "Sign up for the Center" on the PDC, which performs URL redirection to the System;

- Chatbot module;

- Make an appointment module for registering the citizen who applied to the Center by phone (recording is made by the Center's employee);

- Infomat module for registering in the premises of the Center using infomat.

- Automated generation and systematization of appointment schedules in the Centers (duration of appointments for each individual administrative service and formation of an individual schedule for each administrator), as well as entering the required number of time slots for various services into reserve or withdrawing from the reserve at any time;

- The web module "Make an appointment" should display all the time slots of the generated appointment schedule model; and

- Automated acquisition of appointment results, including an electronic ticket (in PDF), SMS notification to the mobile device, message in the user account, barcode and QR-code generation with an option for its printing.

- - The system as a whole (all its modules) can fully work only with the use of a personal computer of the automated workplace of the Center employee in the absence of special additional equipment (Infomat, TV, laser barcode scanner and thermal printer for printing coupons). The system should not require the server equipment of the Centers.

4.1.3.   The status display for the reception of visitors should be carried out via the "TV Dashboard" module, which opens in the TV browser, in the waiting area of the Center, and is designed to monitor the calls of the subjects of appeals.

Electronic boards, which are placed at workplaces, should be used to display information about the ticket number (ID number) and the number of the Center's workplace.

The software developer should provide recommendations on the electronic board specification. Protocols for connecting the electronic boards at the workplaces of the administrators should be provided by the developer of the System software.

4.1.4.   Generation and systematization of the appointment schedule must be carried out via the System Management module.

4.1.5.   The Statistics module must generate statistical data (number of appointments, duration of appointments, and name of the service provided by the administrator) and success rate indicators of the Center's administrators.

4.1.6.   Assessment of the quality of reception should be carried out on the web module "Sign up for the Center" PCD, Infomat and chatbots (for details, see section 5.14.).

4.1.7.   The Chatbot module should receive a message after the end of the reception to assess the quality.

4.1.8.   The technical administrator of the System should be responsible for the protection of the information in the System.

4.1.9.   Information protection in the System must be carried out by implementation and operation of the Integrated Information Protection System (IIPS), under a separate contract, with confirmed compliance with the requirements of the legislation in terms of technical and cryptographic protection of information. These ToR does not provide for the implementation of the IIPS.

4.1.10.   **The developer ensures the creation of IIPS, for the System in accordance with a separate ToR and agrees with the administration of the State Service of Special Communication and Informatio Protection of Ukraine.**

4.1.11.   Information exchange between components of the System's backend should be performed via twisted pair or fiber optic communication lines.

4.1.12.   Users of the System's frontend should use GSM or UMTS standard

mobile terminals (Android and iOS) as means and lines of communication in the frequency range determined by the Plan for the Use of the Radio Frequency Resource of Ukraine.

4.1.13. Interconnection of components of the System both with each other and with adjacent systems must provide automatic data exchange via standard protocols of TCP/IP stack.

4.1.14. During the design of the System, the compliance of the application layer protocols of the System components with the protocols defined by the current standards and recommendations must be ensured.

4.1.15. The development and implementation of the System must comply with the following principles of interoperability:

- The tools of electronic interaction must comply with applicable laws, regulations, standards, and recommendations.

- If an individual provides valid and verified identity data via the software interface of a mobile application, any authorized subject of interaction must accept these data as means of authorization and identity verification.

4.1.16. The development and implementation of the System must ensure the following levels of interoperability:

− Technical interoperability (compatible functionality) is the ability to interact and exchange data between different technologies based on defined and widely accepted standards, formats, protocols, and interfaces.

− Semantic interoperability is the ability of each party to transmit data and the recipient's understanding of the essence and meaning of the received message.

− Policy interoperability is the compatibility of common business rules and processes related to the transmission, reception, and acceptance of data between systems, which are supported by an appropriate regulatory framework.

− Organizational interoperability is the compatibility of business and organizational processes of the subjects of interaction built in accordance with the requirements of regulations and other normative documents.

4.1.17. The System must operate in a 24-hour service mode for the objects and subjects of interaction specified in this document.

4.1.18. The design of the System should provide the following modes of operation:
- Regular Mode
- Maintenance Mode

The Regular Mode should be the main mode of operation and ensure the performance of all functions of the components of the System and its interaction with related systems, i.e. Objects of Interaction.

4.1.19. The Maintenance Mode must be a technological mode of the System maintenance by its administrator with the following options:
- changes in the configuration of the System
- scaling of the System
- operational testing of new components of the System
- scheduled maintenance of hardware and software of the System
- recovery after failures of the System

4.1.20. All technical tools of the System must provide an option to diagnose and obtain information about the state of their operation.

4.1.21. In case of failures or malfunctions during operation of the System, an option to signal the occurrence of an emergency situation (the components of the complex must generate the appropriate return codes or send a message to the operator) should be provided.

4.1.22. The design of the System should provide perspectives for its development and modernization.

4.1.23. Development of the System must be planned, taking into account the following options:
- changes in the architecture of the System

- implementation of new electronic identification schemes and tools
- expansion of categories of objects and subjects of interaction

4.1.24.   Modernization of the System must be carried out taking into account the following options:

- Increasing the number of objects and subjects of interaction;
- The need to increase and update the System's technical tools;
- The need to update versions of system-wide, application, and special software of the System;
- Passing the procedures for attestation of the IIPS and/or information security audit; and
- Adoption and implementation of new information interaction algorithms and protocols, standards, and recommendations.

4.1.25.   Modernization and development of the System must be aimed at supporting and improving the system performance and carried out without affecting the system operability and quality of services.

4.2 Requirements for the intended purpose indicators

4.2.1.   The indicators of the intended purpose of the System must meet the following requirements:

-    The System must provide a response time per request or operation of no more than 3 seconds for 99% of requests to the System.

-    The System must have Zabbix-type monitoring modules configured for its performance.

-    The System must ensure uninterrupted functioning due to the following characteristics (or higher):

- 500 thousand registered users of the System
- 5 operations per second for one user
- 100 automated processes in the System

4.2.2. The System must be horizontally scalable with an option to increase the number of users without affecting the performance of the System if the server has additional capacity reserves.

4.2.3.   Adaptability of the System should be performed by automated control:

-    Timeliness of administration;

-    Upgrading the data collection, processing, and loading in accordance with the new requirements (with no changes in the source code of the software and subject to the settings limited by configuration files of the System); and

-    Modification of procedures for accessing and presenting data to end users.

4.2.4. Reliability and stability will be assessed by the following parameters:

-    Uptime/Availability (99.9%) is the uninterrupted uptime or availability of the System.

-    RTO (Recovery time objective). In case of any software or hardware failure, the System must be restored to a functional state. Recovery time and algorithm must be defined at the stage of technical design and specified in the operational documentation.

-    MTPD (maximum tolerable period of disruption within 12 hours) is a maximum allowable period of disruption, during which the System can be unavailable without unacceptable consequences. The incident response algorithm must be defined at the stage of technical design and specified in the operational documentation.

-    RPO (recovery point objective). In case of data corruption, the Platform must be restored from an archive/backup not older than 24 hours.

4.2.5.   The implemented System must provide continuous availability of all services in a 24x7 mode, except for cases when the System is on service maintenance (maximum 5 hours per month) or is stopped for updating, if such stops are scheduled.

4.2.6.   The indicators of the intended purpose of the System may be specified at the stage of development of its technical design.

4.3 Reliability requirements

4.3.1. Architectural and technical solutions of the System must be resistant to software errors, technical and software failures with the possibility to restore the system performance and the integrity of information resources.

4.3.2. Organizational measures to ensure the reliability of the System should include:

— Periodic analysis of the reliability of the System's technical tools;

—Detection and elimination of failures of the System's elements caused by defects in design and technological solutions;

—Determination of the operating factors which have the greatest impact on the performance of the System's elements;

—Assessment of reliability indicators of the System's elements, optimization of modes and scope of scheduled works; These requirements will be specified by the winner at the first stage of work "Clarification of the technical task";

—Development of measures to improve maintenance and reliability of technical tools, etc.

4.3.3. Reliability should be ensured in the following areas:
- operability of the software and hardware platform components
- data retention

In this case, the System Administrator should pay minimal attention to the need of response to the consequences of component failures, as well as software and hardware should ensure data retention.

4.3.4. The software must provide fault-tolerant operation in a 24x7x365 mode and guarantee the availability to end users at the level of at least 99%.

The software capacity must be designed to handle the appropriate number of requests and report downloads.

Preliminary data for calculating the AIS load are as follows:
- appeals per day: ~ 100,000
- appeals per hour (average): ~ 5,000
- appeals per hour (peak x4): ~ 10,000
- report downloads/hour: ~ 1,000

4.3.5. The AIS should be protected from physical hardware failures by means of logical redundancy of data and subsystem components, using appropriate protocols and containerization and virtualization tools. Data integrity in case of hardware and software failures and errors must be ensured using appropriate hardware and software tools, solutions, and backup. The backup system should be created to quickly restore the software working configurations from backup copies.

Data retention must be ensured in the following cases:
- Power down;
- Hardware failures;
- Software errors, failures, or destruction; and
- Temporary failure of communication links.

The maximum software recovery time should not exceed 30 minutes. The information safety in case of accidents must be ensured in full. The backup should be provided by the functionality implemented within the AIS software and at the same time by the regular tools of the Database Management System used.

In case of failures, separate wide-area storages (storage) should be created from the Data Processing Center (DPC) to provide backup copying of the information. The backup copying should be performed with the periodicity which ensures complete data retention and recovery. The time required to restore the System, taking into account technical delays, connection to the reserve DPC, and the operation control, should be minimal to ensure continuous operation, not exceeding one day. Data retention must be ensured in the following cases:
- Power down;
- Hardware failures; and
- Software errors, failures, or destruction.

4.3.6.   Detailed reliability requirements.

The System must provide a response time per request or operation of no more than 5 seconds for 99% of requests to the System.

The System must have a performance monitoring system configured via Zabbix software.

The System must ensure uninterrupted functioning due to the following characteristics (or higher):

-     5 operations per second for one user
-     100 automated processes in the System

The System must be horizontally scalable with an option to increase the number of users without affecting the performance of the System if the server has additional capacity reserves.

Adaptability of the System should be performed by automated control:

-     Timeliness of administration;
-     Upgrading the data collection, processing, and loading in accordance with the new requirements; and
-     Modification of procedures for accessing and presenting data to end users.

Reliability and stability will be assessed by the following parameters:

- Uptime/Availability (99.9%) is the uninterrupted uptime or availability of the System.

- RTO (Recovery time objective). In case of any software or hardware failure the System must be restored to a functional state within not more than 48 hours from the moment the hardware is put into operation. Recovery time and algorithm must be defined at the stage of technical design and specified in the operational documentation.

- MTPD (maximum tolerable period of disruption within 12 hours) is a maximum allowable period of disruption during which the System can be unavailable without unacceptable consequences. The algorithm of response to incidents must be defined at the stage of technical design and specified in the operational documentation.

- RPO (recovery point objective). In case of data corruption, the System must be restored from an archive/backup not older than 24 hours.

Stability of operation must be ensured in the following emergency situations:

-     Hardware failure
-     Network infrastructure failure
-     Power loss on the DPC
-     Unsuccessful system software update
-     Temporary data loss

The incident response algorithm must be defined at the stage of technical design and specified in the operational documentation.

The main indicators of system reliability will be measured at the stage of testing and commissioning of the System. The method of research and assessment is experimental, i.e. the main emergency situations must be reproduced in the test mode, in which the indicators of reliability and recovery of the System must be confirmed.

The implemented System must provide continuous availability of all services in a 24x7 mode, except for cases when the System is on service maintenance (maximum 5 hours per month) or is stopped for updating, if such stops are scheduled.

The maintenance procedure must be specified in the operational documentation.

4.3.7.   Requirements for reliability indicators of the System may be specified at the stage of technical design.

4.4 Safety requirements

4.4.1   The System should use the following set of software tools united by a common

security concept:

-   administrative section protection
-   user session protection

- integrity control technology
- data encryption technology
- group security policies
- protection during registration and authorization
- event logging

4.5 Requirements for ergonomics and technical aesthetics

4.5.1. Communication hardware, server tools, and other system equipment are not manufactured during the works and the requirements for ergonomics and technical aesthetics must be provided by the relevant manufacturers of the equipment used.

4.5.2 The software of the System should have a user-friendly interface that meets the following requirements:
- Localization in Ukrainian;
- Uniformity of displaying forms;
- Uniformity of data processing mechanisms (for fields of the same type, for the same type of operations, etc.);
- Minimum use of graphic images to speed up loading speed; and
- For operations that require waiting, a notification of the process operation should appear.

In terms of the dialogue with the user:
- Use of hotkeys to perform a set of frequent operations
- Short message about errors with instructions for their correction

In terms of data input/output:
- Formation and submission for review of the checking protocol.

Services should provide the use of a single design and a single ideology of information placement consistent with the PDC design system. The use of common fonts and colors, consistency of design solutions, etc. must be also provided. Graphic design of the System should be sub-branded in relation to the overall DIA brand and consistent with the brand logo, font (e-Ukraine typeface), color spectrum, and UX/UI interface.

The user interface should provide support for user actions, allow the user to start work without special knowledge and skills and the need for special training. All interface elements should be easily recognizable on monitors of any contrast and brightness. The frontend of the System should be supported by Mozilla Firefox, Google Chrome, Safari, Explorer, Edge browsers, the latest versions based on Windows 7, 8, 10, 32/64, and systems based on MacOS, Android, iOS, and Linux.

The information forms should have tips on how to fill in the fields and the format of their filling in. The interface of all subsystems should be easy to use from mobile devices (tablets and smartphones) with a minimal number of actions to perform simple operations.

The user's interaction with the System must be performed in Ukrainian, except for system messages that cannot be translated. Information entry forms should reduce the likelihood of user errors when working with the System and provide for context-sensitive help, in particular, but not exclusively, on the field mapping in data entry forms.

4.6 Requirements for operation, maintenance, repair, and storage

4.6.1 The procedure of storing a set of spare hardware and software installation packages must be specified in the relevant instructions from the operational documentation for the System.

4.6.2 Detailed requirements for storing a set of spare technical means must be defined in the ToR for the IIPS of the System.

4.7. Requirements for information protection against unauthorized access

4.7.1 The IIPS should be developed in accordance with separate ToR for the

System IIPS, which must be agreed with the Administration of the State Service of Special Communications and Information Protection of Ukraine.

4.7.2 The IIPS must comply with the requirements of the ND TZI and provide the following main functions:

−Implementation of the information security policy specified for the System;

−Ensuring confidentiality, integrity, and availability of information during its processing;

−Differentiation of user access to the protected resources and services of the System and control over the work of service personnel by those responsible for information security of the System;

−Verification of users' powers with their right to perform certain actions on processing protected resources and use certain services of the System in accordance with its specified security policy;

−Identification and authentication of the System users;

−Registering events related to access to the System's protected resources and services and actions within the System, results of identification and authentication of users, changes in users' permissions, results of checking the integrity of information protection means, etc.;

−Blocking of unauthorized actions on the protected resources of the System;

−Protection of information resources and components of the System from attacks of external telecommunication networks and other networks interacting with the System;

−Protection of the System's objects during their transmission through an unprotected environment; These requirements will be clarified at the stage of technical design of the technical task for the creation of IIPS;

−Antivirus protection of the System;

−Ensuring the integrity of the System's software;

−Creating a mechanism and conditions for prompt response to external and internal threats to ensure information security;

−Management of information security tools (IST);

−Creating conditions to ensure the highest possible level of localization of negative consequences caused by inappropriate and unauthorized actions of intruders, reducing the negative impact of security breaches on the functioning of the System;

−Recording, collecting, storing, and processing data about all events in the System that are related to the information security;

−Ensuring availability of the System's resources to users;

−Information protection from external influences; and

−Other functions defined by the security policy of the System.

4.7.3 Registration data (audit records) of components of the System must be protected against unauthorized modification and destruction.

4.7.4 Sets of Security Tools (SST) of components of the System should provide:

−confidentiality and integrity of information stored, processed, and transmitted within the components of the System;

−confidentiality of private keys used in the System and by its individual users;

− confidentiality of technological information that ensures functioning of the SST of the System;

−access to information and resources of the System to the System's users in accordance with the rules established by the security policy (in particular, access rights); and

−monitoring the actions of users by implementing mechanisms and procedures for control, registration, and audit of the registered events.

4.7.5 Security services implemented in the SST of the System's components must be implemented within the G-2 Warranty. Specifications for all guarantee criteria must fully meet the criteria for assessing the security of information in computer systems against unauthorized access (ND TZI 2.5-004-99).

4.7.6 In the case of interaction of the System with other information and telecommunication systems, information protection requirements in the systems must be coordinated and approved in the relevant interaction protocols.

4.7.7 The information protection system must be built with due consideration of the possibility of auditing information security issues in accordance with the procedure established by law.

4.7.9 The requirements for the information security subsystem must be specified in the ToR for the IIPS of the System.

4.7.10 In case of placing the server component of the System in a third-party DPC, the latter must have a built-in IIPS and have a valid certificate of conformity.

4.8. Data storage and recovery requirements

4.8.1 Third-party DPC server equipment and data storage system must support automatic backup of registries and databases to optical CDs or magnetic tape cassettes, or other storage media.

4.8.2 Storage of backup copies must be performed in premises, which are territorially separated from the premises, where the System equipment is located, with provision of protection against unauthorized access.

4.8.3 The procedure for backup and storage of backup copies must be specified in the relevant instructions from the operational documentation for the System.

4.8.4 Detailed requirements for data storage and recovery must be defined in the ToR for the IIPS.

4.9. Requirements for protection against external influences

4.9.1 Technical tools of the server component of the System should be resistant to external influences and factors in accordance with the requirements imposed on ground equipment of class 1, the category of technical means intended for operation in ground stationary premises and structures in the climatic version of Temperate Cold Climate Group 1.1, in accordance with GOST 21552-84.

4.10. Novelty requirements

4.10.1 The System should include only those software or hardware elements which are not restricted for use within the territory of Ukraine, as well as software or hardware elements not originated from the territories recognized by the Verkhovna Rada of Ukraine as aggressor states, the territories of states against which sanctions are imposed in accordance with the Law of Ukraine "On Sanctions", and the territories of states that are members of customs unions with these states.

4.10.2 In case the components of the System are found to be connected to other systems at the stage of the technical design via an exchange protocol or algorithm restricted in Ukraine, a permission to use such protocol or algorithm should be obtained from the competent public authorities before the implementation of the trunk interface and commissioning.

4.11. Requirements for standardization and unification

4.11.1 When designing the System, the maximum degree of using standard and unified methods of implementation of the System's functions (tasks), software, standard design solutions, and unified forms of operational documentation should be achieved.

4.11.2 Information exchange within the System should be performed via exchange protocols and algorithms provided in national and international standards and recommendations.

4.11.3 Standard components and sets should be used for the System's components to meet the requirements for scaling and development of the System.

4.11.4 The workstations of service personnel of the System's technical administrator must be based on typical solutions for composition, software, and peripheral equipment.

4.12. Interoperability requirements

4.12.1 Interoperability must ensure mobility and portability of information processing tools and allow users to use different models of smartphones.

4.12.2 The design and implementation of the System must meet the following interoperability principles:
- The information processing tools must comply with open standards.
- If an individual or entity, software or hardware provides valid and verified identity data, any relying party must accept this data as a means of authorization and identity verification.

4.12.4 Technical and software elements of the System must be modular, which will allow providers of administrative and other types of electronic services to use complex identification systems. This will ensure flexibility, reliability, and reusability of such systems, as well as simplicity and efficiency in change management.

4.13 System diagnostics and monitoring requirements (MON)

4.13.1 When diagnosing the System by monitoring tools, the following indicators (metrics) shall be minimally analyzed:
- Service availability;
- State of services;
- Availability of hosts;
- CPU load, percentage of RAM usage, and free disk space; and
- Average time of processing requests by each service.

4.13.2 The control panel of the monitoring system should provide the following options:
- Configuring alerts when certain metrics are exceeded;
- Reviewing and uploading monitoring indicators; and
- Graphical imaging of monitoring indicators.

4.14 Change management (CM) requirements

4.14.1 Adaptability of the System should be performed by automated control:
- Timeliness of administration;
- Upgrading the data collection, processing, and loading in accordance with the new requirements (with no changes in the source code of the software and subject to the settings limited by configuration files of the System) ; and
- Modification of procedures for accessing and presenting data to end users.

4.14.2 The presence in Ukraine of a support team of the Contractor is a prerequisite for ensuring flexible changes in the System if the legal field to be changed or additional requirements for functionality to be developed.

4.14.3 Online support (with a period of response to requests depending on the criticality of the error and the established SLA requirements), access to documents online, and user forums.

4.14.4 The System must be upgraded with control of releases and code versions, entering a code repository, and an option to return to a previous version.

4.14.5 The following events must be minimally stored in the event log:
- requests to services and components
- errors occurred during the work

4.14.6 The Contractor must ensure the System to be updated if business process requirements changed.

4.14.7 Revisions in accordance with the requirements of the legislation should be

performed within a separate contract for the provision of technical support.

4.15 Requirements for methods and means of information exchange between the components (IOP)

4.15.1 The System should have mechanisms for integration with other information systems (API).

4.15.2 The System should provide data import and export. Import of ASC data (GeoJSON). For all reports of the module "Statistics" must be implemented functionality to export statistics to a file format - xls.

4.15.3 Data exchange between the System's components should be performed automatically (REST, SOAP, RabbitMQ, etc.), i.e. without user intervention.

4.15.4 The use of internal interfaces (PostgreSQL, Redis, RabbitMQ) provided by the manufacturer should be allowed.

4.16 Requirements for maintenance personnel

4.16.1 The following categories of officials (maintenance personnel) of the Technical Support Unit of the State Enterprise "DIA" should be involved in the operation of the System:
- Head of the technical unit
- System administrator
- Security administrator
- Engineer on duty

4.16.2 The general requirements for job responsibilities of the above persons must comply with the requirements for the personnel of a modern enterprise providing telecommunication services (provider). The requirements for job responsibilities of the Security Administrator must be defined in the Regulation on the System's Information Security and a separate Job Description of the Security Administrator.

4.16.3 Support for the System's operation should provide normal staff working hours (40-hour work week) for regular operation.

4.16.4 The technical administrator must provide 24-hour duty shifts for technical personnel.

4.16.5 Operation instructions for technical tools of the specified categories of maintenance personnel should be given in the corresponding job descriptions of the operational documentation for the System.

4.16.6 Requirements for the training of maintenance personnel and job responsibilities should be specified in the operational documentation for the System.

4.17 Additional requirements

4.17.1 The System must contain the mode of preparation (training) of service personnel for practical work. This mode is intended for qualitative training of technical personnel to perform their job descriptions.

4.17.2 Preparation and training processes must be provided with appropriate technical equipment (workstations and system layout) and operational documentation.

4.17.3 The design and deployment of the System for commercial operation must be preceded by the creation of a test sample of the System.

5	REQUIREMENTS FOR FUNCTIONS AND TASKS OF THE SYSTEM

5.1 General requirements for functions and tasks of the System

5.1.1 A general and detailed list of functions of the System is given in these ToR. The requirements for the functions and tasks of the System may be adjusted at the stage of technical design (development) of the System.

5.1.2 Time specifications for the implementation of all functions and tasks,

requirements for the quality of each function, characteristics of accuracy and execution time, and requirements for simultaneous execution of groups of functions should be decided at the stage of technical design based on testing results of the System's prototype.

5.1.3   Requirements for failure criteria in the context of reliability of the System should be described in the reliability requirements. The values of indicators must be specified at the stage of technical design based on testing results of the System's prototype.

5.1.4   The Developer of the System agrees with the Ministry of Digital Transformation of Ukraine on user interfaces, text data embedded in the interfaces of the System.

5.1.5   At the stage of technical design the implementation of the following requirements must be ensured:

- support for the technology of open system of automatic deployment, scaling and management of applications in Kubernetes containers;
- monitoring of critical events, services and states of the computer network based on Zabbix technology;
- analysis of system event logs based on the ELK stack;
- integration with CI / CD services based on the GitLab code repository management system in the Recipient environment.

5.2 System design requirements

5.2.1   The System should ensure the correct and uninterrupted operation of at least 2,000 remote points with the subsequent possibility of increasing their number up to 4,000. The structure of the System is specified in **Annex 1.**

5.2.2   The system must support the ability to simultaneously display information content of the pre-recording status.

5.2.3   In terms of maintaining the System functionality, the following options should be provided:

   - centralized management of information content of the Pre-registration system for reception, including prompt changes in the online mode;
      - Displaying the information content on the electronic board;
      - the possibility for the subjects of appeals to choose the date and time for registration with the Center;
      - Prompt redistribution of the workload of the Centers' employees depending on the queue status;
      - providing information on the status of the record to the staff-administrators of the Centers;
      - Informing users about the possibility to be served by the Center's administrator via electronic boards in the user account;
      - Providing statistics and reports on the efficiency of the Centers' employees;
      - Generating reports on the queue parameters in the Centers and the analysis of the users' behaviour;
      - Synchronizing data between the System's centralized database and the Centers' regional systems;

5.3 The "Sign up for the center" module hosted on the publicly available part of the National Web Platform of Administrative Service Centers (center.diia.gov.ua)

should perform the URL-redirection to the System which allows users to pre-register for an appointment via the Internet.

The main functions of the web module are as follows:
- selecting the Center
- selecting a group of services or a specific service
- selecting a convenient day and time for visiting the Center
- selecting another Center in case there is no available time range in the selected period
- cancelling an appointment

It is assumed that the redirection to the "Sign up for the Center" module will also be performed via the Centers' Interactive Map (Pop-up windows) located on the PDC platform.

5.4 The "Sign up for the center" module PDC

The web module "Make an Appointment" from the public part of the PDC transitions to:
- The "Search for a service or life event" performs a search from the Register of administrative services, the search result provides the ability to select services (must be morphological search, part of the word).

If there is no data found in the "Search for service or life event" field, a visual message should appear:
1. Make sure all words are spelled correctly.
2. Try other keywords.
4. Make a phone call or contact the Center via E-mail.
- buttons "Select thematic area" - displays a list of values of the Register of administrative services and after selecting the value goes to the list of categories of services and specific services. Services should reflect extraterritoriality information from the Register of Administrative Services. The developer is finalizing the Register of administrative services on the possibility of making a note on the extraterritoriality of the service.

After selecting the service, the System offers the user a date selection (date range), and goes to the center map where the Centers are displayed in which there are unreserved time slots for the specified date (date range). Clicking on a Center point on the map opens a pop-up window with free time slots on the specified date. By default, the time slots of the 1st number of the specified date range are displayed. It should be possible to choose any date. The filter for selection of the region, territorial community and morphological search of the settlement should be implemented on the map.

A description of the registration process with the Center through the PCD is provided in **Annex 2.**

Recording may not be performed if:
- The time slot lock time (2 minutes) has expired and the time slot has been reserved by another user. There should be a visual notification of the event "Time slot reserve time is up" and go to the button "Select time";
- the applicant re-registers for the same service at another time on one day. Visual notification "1 coupon per day is available for one service. To register for another time, cancel the previous registration ", then go to the button" Cancel previous registration. You must check the phone number for booking a service in a particular Center on the selected day. Re-booking for one phone number in one day Center, one service is not allowed.

Confirmation of the entered data on receiving the service is carried out using Google reCAPTCHA adapted for people with disabilities, including the visually impaired.

After clicking the button "Confirm the entered data on receiving the service" in

case of successful execution of the record, a transition to the page with the following information and functionality should be performed:

Text message "Registration to the selected Center completed successfully":
- name of the Center
- address of the Center
- name of the service
- date of appointment
- time of appointment
- ticket number
- workplace number *;
- surname, name of the subject of the appeal;
- barcode
- barcode ID (unique identifier of the ticket barcode number).

The System must have the function of setting the coupon format for printing, the ability to add for printing on the coupon № workplace in the settings (show \ do not show) (display № workplace on the coupon is relevant for Centers where there is no TV. any administrator).

- The button "Send to e-mail", provides for entering an e-mail address and e-mail notification about the reminder of the appointment. It is necessary to set the condition not to send reminders in the time range [22:00, 07:00]. Reminders that fall at this time should arrive at 7:00. The text of the letter sent to the e-mail address should contain a button that contains a link to cancel this entry.

- The "Cancel pre-registration" button is used to cancel the pre-registration for the reception at the Center by entering the choice: barcode number on the coupon or phone number or last name and first name. Confirmation of cancellation is made using Google reCAPTCHA.

If you choose to cancel the barcode entry, after entering it, the coupon data should be displayed and proceed to confirm the cancellation.

If you choose to cancel the phone number entry, after entering it, the coupon data (in case of one previous entry in the subject) or a list of previous entries and the possibility to select a specific entry for cancellation in case of more than one previous entry in the sub the subject of the appeal) and the transition to confirmation of revocation.

If you choose to cancel the record of last name and first name, after entering them, you must go to the map of Centers to select the Center to which the previous entry was made. If 1 unique user with active previous record (s) is found in the search results, the coupon data (in case of one previous record of the subject of the application) or the list of previous records can be selected with the possibility to select a specific record for cancellation than one previous record of the subject of the application) and the transition to confirmation of cancellation. If the search results find more than 1 unique user with that last name and first name, go to the field for entering the phone number, then go to the coupon data (in the case of one previous entry with the subject) or a list of previous entries from the ability to select a specific record for cancellation (in the case of more than one previous record in the subject of the application) and move on to confirm the cancellation.

The canceled time slot is displayed in the general queue after a random period of 1 to 120 minutes.

- button "Assess the quality of service", which goes to the field to enter in the appropriate field the phone number of the subject of the request, after which the transition to the module for assessing the quality of administrative services. For more information on assessing the quality of service, see § 5.14.

- "Select Center" button, then go to the interactive map with the Centers (auto zoom, geolocation) to search for a service or life event, select a subject area, service category, specific service, date and time. Regardless of zooming, all Centers on the map should be displayed (using JavaScript Leaflet, OpenLayers). The "Sign up for the Center" button via the Interactive Center Map (via Pop-up windows) after switching to the time

slot selection has the same scenario as the "Sign up for an appointment" button via the "Sign up for the Center" module from the public part of the PCD **(Annex 2) .**

The service "Automatic reminder of the applicant 24 hours before admission to the Center" (highlighted in dotted line on the diagram above) is an additional feature and can be arranged with the allocated funding (budget expenditures) for messaging services: SMS, Viber, Telegram. The module should provide automatic reminder of the subject of the application for a preliminary registration 24 hours before admission to the Center using the service Viber, Telegram, SMS, as well as automatic sending of messages with information about the name of the Center, address, date, time and number coupon in case of recording via the module "Recording on reception" (by phone call) (70 characters for Cyrillic, 124 for Latin. .

Messages should be sent through a centralized mailing service integrated with the System (in case of allocation of budget expenditures to the Technical Administrator of the System to ensure mailing of applications to applicants for pre-registration at the Center) or mailing services with which the Centers enter into contracts. Technical Administrator). The Contractor / Developer provides such integration and use of services that are integrated with the System. In the absence of relevant costs from the Technical Administrator, the Centers enter into agreements with such fork services and enter the alphanumeric name and access identifiers in the "System Management" module. The status of the message must be available in the client interface in the minimized menu of the module "Record on reception". It is necessary to set the condition not to send reminders in the time range [22:00, 07:00]. Reminders that fall at this time should arrive at 7:00. After selecting the date, the time slots available for booking should be displayed. For certain services in the user interface of the e-cabinet it should be possible to specify the number [1, 20] of minors who will receive the service together with an adult family member (parents or guardians). The scheme of the recording process is shown in **Annex 3**

5.5 Chatbot module is designed to make an appointment, cancel an appointment, and get a reminder about an appointment 24 hours in advance via chatbot**.**

Scheme of the recording process in **Annex 4.**

The main functions of the module are as follows:
- selecting the Center
- selecting a group of services and a specific service
- selecting a convenient day and time for visiting the Center
- selecting another Center (with the nearest geolocation) in case there is no available time range in the selected period
- cancelling the appointment
- receiving a reminder 24 hours before the appointment
- assessment of the quality of service.

5.6 The Make an appointment module is intended for registration with the Center by phone or in the premises of the Center (in case of temporary absence of special equipment in the Center – Infomat (touch screen). Scheme of the recording process in **Annex 5.**

The main functions of the module are as follows:
 - registration for admission to the Center by phone call of the applicant or in the premises of the Center (in case of temporary absence of special equipment - infomat (touch monitor), as well as monitoring the status of the queue, recording the presence of a person in the waiting area of the Center for registration the Center:
-the settings should have their own Center, it should be possible to choose another Center within the community and another Center in any other community in Ukraine.

Selecting another Community Center is done by opening a drop-down list of Community Centers. The contextual service search field and the "Service category selection" button move to select a specific service and select a date (date range). Services should reflect extraterritoriality information from the Register of Administrative Services. The service context search field and the "Service category selection" button must have a selection filter:

1) "All services" (all services from the Register of administrative services are displayed);

2) "Community Center Services" (community Center services are displayed).

If the value of the Community Centers Services filter is set, after selecting the service and date (date range), the time slot of the specified Community Center is selected.

If you set the All Services filter after selecting a service and date (date range), you can switch to selecting your Community Center or Center Map, which displays Centers that have unreserved time slots for the specified date (date range). Clicking on a Center point on the map opens a pop-up window with free time slots on the specified date. By default, the time slots of the 1st number of the specified date range are displayed. It should be possible to choose any date. The filter for selection of the region, territorial community and morphological search of the settlement should be implemented on the map. Then enter the name and surname of the person, phone number;

- notification to the user of the coupon number, date and time of reception;

- recording the presence of the subject of the application in the waiting area of the Center in the software or by scanning the coupon.

The Make an appointment module should collect and process information about the users' personal data, the selected service (services), the selected time of registration for the appointment from the System Management module and the admin account, as well as data about the time interval of phone calls and their audio recording.

Functional buttons:
- Selection of date range;
- Search by telephone number, ticket number, and last name;
- Marking the citizen's waiting by name, phone number, or ticket number;
- "Register for an appointment";
- "Cancel appointment";
- "Send message" (choice of destination): Viber, Telegram, SMS, and E-mail; and
- "Print a ticket".

The registration with the Center by phone call should be completed by informing the user about the ticket number, and the date and time of the appointment. If connected to the messaging service, the user must be informed about the possibility to receive the message about the appointment in a convenient way (Viber, Telegram, SMS, and E-mail).

Scenario of making an appointment for receiving the service by an adult person and minor children (family members) is similar to the one described above and the recording process is described in **Annex 6.**

5.7 Informat module

The module should be adapted for touch screen monitors (touch screen terminals) and designed to register and print a ticket directly in the Center. To register for an appointment, a citizen should select a group of services or service, date, time, enter his/her phone number, name and surname, and transmit this information to the System Management module via the Registration System module.

This module is designed to make an appointment with the Center using special equipment - Infomat (touch screen) in the Center's premises. Scheme of the recording process in **Annex 7**

The registration procedure should start by clicking the "Register to Center" button, which goes to the buttons "To this Center", "Choose another Center (within the community)", "Select Center to another community".

The "Choose another Center (within the community)" button moves to the list of Centers within the local community.

The "Choose a center in another community" button moves to the context search field of the service and buttons: "Select subject area", "Select service category", select a specific service, select a date (date range), maps of centers where Centers are displayed. time slots for the specified date (date range). Clicking on a Center point on the map opens a pop-up window with free time slots on the specified date. By default, the time slots of the 1st number of the specified date range are displayed. It should be possible to choose any date. The filter for selection of the region, territorial community and morphological search of the settlement should be implemented on the map. Services should reflect extraterritoriality information from the Register of Administrative Services.

After selecting the Center, the user selects the desired service, date and time to make an appointment with an employee of the Center, enter the name, first name and phone number. The module displays the entire time slot of the time slots of the generated reception schedule model. As a result, the user receives a coupon with the name of the Center, the address of the Center, number, service name, date and time of registration, surname and name, unique barcode ID (if this barcode display function is activated on the coupon) and a notice of the opportunity to assess the quality of service after receipt. This information is immediately displayed in the System Management and Dashboard TV module.

The client interface module should have functions for printing a coupon, notifying the administrator of the expectations of the subject of the request, cancel the pre-registration and assess the quality of service.

5.8 Registration System module

The module is designed to consolidate information about the personal data of the user (who write to the System through the Chatbot module, module Infomat), the selected Center, the selected service, and the appointment date and time.

The registration system module must transmit the data to the Chatbot module and the Infomat module to the System Management module.

5.9 Dashboard TV module

The electronic board (TV) with built-in browser must display the numbers of tables and numbers of tickets that are invited to the appointment and sound the number of the ticket and the number of the administrator's workplace where the service to be provided.

Dashboard TV Web Interface Schematic

Лого *png	Назва Центру надання адміністративних послуг					Час
№ Талона	Стіл		Кабінет	№ Талона	Стіл	Кабіне
25		4	1	27	1	

	Поле	Опис	Примітка
1	Лого *png	*png	логотипу Центру у форматі повинно автоматично розміщув по центру блока.
2	Назва Центру	Текст	Автоматично повинен розміщув по центру блока

3	Час	Серверний час	Автоматично повинен розміщув[...] ліворуч в блоці по центру горизон[...]
4	Кабінет	Системне поле	Відображає номер кабінету, закріплений за адміністратором
5	Стіл	Системне поле	Відображає номер столу роб[...] місця адміністратора, який обслу[...] цей талон
6	Номер Талону	Системне поле	Відображає номер таймслоту

Web interface settings must meet at least the following parameters:

- number of screens from 1 to 2.

- number of columns from 1 to 3. One column is the field № of the coupon + Table;

- enable or disable the additional column "Cabinet";

- download the Center logo (* png);

- entering the name of the Center;

- enable / disable sounding coupon number, administrator's workplace number;

- enable / disable sounding coupon number, administrator's workplace number;

- Copy the URL of the Dashboard TV Web Interface.

Number of horizontal fields with values (№ coupon, Table, Cabinet) (if available) - 6.

If more than 18 visitors are called at the same time, each subsequent line is displayed on the screen by replacing another at the beginning of the sound and with a visual blink.

The line with the coupon number from the first second of the call in automatic mode or from the moment of setting the status "Take into service" should flash in a color different from the background before setting the status "Start service" or "Cancel". If you change the status of "Start Service" or "Cancel", the data of the line with the coupon number should disappear from the Web Interface "Dashboard TV".

In case of non-appearance of the subject of the request within one minute from the moment of the invitation to the workplace where the service will be provided, the invitation must be repeated by sound and visual notification every minute up to 4 minutes inclusive. If the subject does not appear at the 5th minute, the ticket should be returned to the general system of the Pre-registration system and become available for other visitors. This process is regulated by the Callcenter (reception) of the Center or a person authorized to perform the functions of the reception.

Accessibility of the Center's employee to the service provision must be confirmed by displaying the workstation number. In case of inaccessibility, the workstation number must not be displayed, whereas displaying the workstation activity is mandatory.

The electronic board must have an individual ID-address (displaying the ID number on the electronic board is mandatory).

5.10   Center's Administrator module

The main functions of the Center's Administrator module are as follows:

- Performing a comprehensive personal analysis of statistical information on daily,

weekly, monthly, semi-annual, or annual statistical and analytical data about the number of accepted applications for appointments and the ways of their reception (chatbot, phone call, web module "Sign up for the Center", and Infomat);

  - Making export of tabular reports in *.xls format;

  The Center's Administrator must have access to the following information:

-   Appointment schedule (free and reserved time slots);
-   Appointment status (pending, accepted, completed, and cancelled); and
-   Group of services (service).

  In the module Administrator of the Center there should be settings of automatic or manual mode of completion of reception and call of the next visitor, possibility of viewing of the schedule of own working day with indication of a range of dates.

  Authorization of Center Administrators must be carried out using a login and password.

5.11 Admin Account module

  The module is intended for the Chief Administrator and the Center's Administrator, who must perform authentication (authorization) via QES and the Integrated Electronic Identification System (id.gov.ua).

  The Admin Account should have the following structure:

- Profile;
- Access to information:
  - Appointment schedule (free and reserved time slots);
  - Appointment status (pending, accepted, completed, and cancelled); and
  - Group of services (service).

  For the Chief Administrator, an additional functionality "Modelling an appointment schedule" should be provided.

  Functional buttons:

- Selection of date
-- choice of services;
- "Set the duration of admission"
- "Add"
- "Edit*"
- "Save"
- "Delete"
- Selection of date range

  * Editing is available for unreserved time slots only in its Center. The Chief Administrator of the Center can assign a role to create a model of scheduling (editing) in the TS, RW within the community. The Chief TS Administrator cannot edit the Centre's schedule model.

  In the System of services should reflect the information from the Registers of administrative services about the recommended norm of duration of reception of subjects of addresses. The developer is finalizing the Register of administrative services on the possibility of entering the value of the recommended norm of the duration of the reception of the subjects of appeals (min.) For each service:

  - norm of duration of reception of documents;

  - norm of duration of reception of documents and rendering of service.

  The centers can independently set the value (min) of the duration of reception of the subjects of treatment, which is less than the recommended norm. Establishment of value (min) of duration of reception of subjects of the address which is more than the recommended norm carries out transition to function of sending of inquiry to the Technical administrator. There should be a window for entering text justifying the increase. The Technical Administrator confirms the request or rejection with justification, after which the requested value or the recommended rate is set in the settings of the Center's schedule model, respectively.

5.12   System Management module

This module is designed to administer the System and must have tools for assigning access rights (roles) to users, setting up an appointment model (forming an appointment schedule), and storing and transmitting data.

The System Management module should consolidate all available information from the Admin Account, User Account, "Register to the Center" (via PDC) "Registration for an appointment" (by phone call or in the Center), "Infomat", "Chat-bot", registration system, Statistics.

The System Management module should transmit information to the Module "Register to the Center" (via PDC) "Registration for an appointment" (by phone call or in the Center), "Infomat", "Chat-bot", Notify db, Dashboard TV, and SMS modules.

5.13   Module of interaction with external resources

The architecture of the System should provide for the possibility of integration with external resources, in particular, with the Integrated Electronic Identification System (ID.GOV.UA), the program "Guide to Public Services", the public part of the National Web Platform of Administrative Service Centers and electronic information resources of the Centers, which are used to pre-register the subjects of application for API reception to the Centers (see **Annex 8**). This list of integrations is not exhaustive. Therefore, it is necessary to provide the possibility of integrating additional information systems, sites, portals, etc. All integrations should be performed at the level of exchanging standardized data packages with the backend parts of the interacting systems and registries.

A description of the API, its structure and parameters must be provided by the software developer.

5.14   Module for assessing the satisfaction of the subjects of the application with

   the quality of administrative services

The module is designed to assess the satisfaction of the subjects of the quality of administrative services.

The module for assessing the satisfaction of the subjects of the application should interact with the web modules: "Sign up to the Center" of the PCD, "Infomat" and "Chat-bot" through the button "Evaluate the quality of public service" after entering the phone number of the applicant.

In the "Chatbot" module, after the reception at the Center, the user should receive a message with a proposal to evaluate the quality of administrative services through the "Chatbot". If the user wants to assess the quality of service provision (button "Assess the quality of public service"), then in the module "Chat-bot" there is a transition to the questions of block 1 of the questionnaire (Annex 7) with questions on assessing the satisfaction of subjects treatment of the quality of administrative services.

After entering the phone number in the appropriate field (for the modules "Register for the Center" of the PCD, "Infomat") the transition to the web page with the questions of block 1 of the questionnaire form (questionnaire) is performed (Annex 7).

It is assumed that the assessment is available only to the subjects of appeals who have registered with the System and were served in the Center. At the same time, it is possible to evaluate only the results of the last appeal to the Center, which the subject is informed after entering the phone number by visual message and information about the name of the Center, address, service name, date and time of visit to the Center.

An entity that has never been to the reception of the administrator can not assess the quality of administrative services, about which when trying to evaluate the subject is informed by a visual message: .

The functionality of the System should provide for the functionality of the module

"Assessment of satisfaction of the subjects of the quality of administrative services" through the API with the system of monitoring the quality of administrative services.

5.15   Statistics module

This module should display statistical information on the main parameters.

The data to be displayed in real time:

- access to comprehensive analysis and reports on the subjects of administrative services;

- analysis of statistical information on the formation of daily, weekly, monthly, semi-annual or annual statistical and analytical information on the number of applications for admission and ways of their receipt (chatbot, recording by phone call, web module "Sign up for the Center", Infomat);

- selection of time generation of reports, analytics (selection of date range)

- total number of tickets (excluding technical breaks and reserve)

- number of tickets issued

- number of tickets processed (status "Completed")

- number of tickets in service in real time

- number of tickets cancelled (by the System and by the Center's Administrator)

It must be possible to generate an analytical report in the context of each Center's Administrator and records made for a certain date range with the following data:

- selection of the Center's Administrator

- number of records by phone

- number of cancelled tickets

- average service time

- assessment of the quality of administrative services in terms of Centers and data of the module "Module for assessing the satisfaction of the subjects of the quality of administrative services"

- minimum/maximum service time

- statistics on the number of clicks, including unique clicks to select a service for recording in terms of the number of actual records.

The possibility of generating the following statistical information should be provided:

generation of reports on the number of receptions, the list of selected services, the list of the most requested services by users;

- dynamics of records by phone, recording of peak loads, generation of reports for each Center and the selected time period (from 1 minute);

- collection of prompt, complete and reliable information on the quality of processing of incoming and outgoing telephone calls;

It is possible to export reports in tabular form in * .xls format.

Role - "Chief Administrator of the Center".

Data to be displayed in real time for the role of "Chief Administrator of the Center":

- selection of date range;

- total number of coupons (excluding technical breaks and reserve);

- number of coupons in the reserve;

- number of free coupons;

- number of processed coupons (status "Completed");

- the number of coupons in service now;

- the number of coupons registered / canceled (by the system and the administrator) / missed receptions (in terms of recording through the modules "Sign up for the Center" on the PDC, "Sign up through the Center" by phone, "Chat-bot", "Infomat"

- number of administrators present;

- number of employed administrators (statuses "Take over", "Start service" to "Finish"). From the moment of setting the status "Take on service", "Start service" to show the countdown for each administrator in order to control the

working hours of administrators;
- data on the quality of service of the center.
It should be possible to generate analytical reports in the context of each administrator and the records made for a certain date range with the following data:
    - administrator selection:
        - number of receptions;
        - the number of canceled coupons (in terms of DCP, Call Center, Infomat, chatbot, administrator);
        - groups of services assigned to the administrator;
        - average service time;
        - assessment of service quality by category of services \ service;
        - average assessment of service quality;
        - minimum service time indicating the service;
        - maximum service time.
        - data of the module "Module for assessing the satisfaction of the subjects of the quality of administrative services" in relation to the services provided
    - choice of service group:
        - choice of service;
        - average time for service;
        - average service time by each administrator;
        - the number of records in terms of each service;
        - the number of cancellations of records (in terms of DCP, call center, Infomat, chatbot, administrator).
Role - "Administrator of the Ministry of Digital Transformation"
It should be possible to generate an analytical report (and export xlsx) for each service.
Data to be displayed in real time for the role of "Administrator of the Ministry of Digital ":
- selection of the Center (s) by the name and internal identifier of the ASC in accordance with the ASC Register;
    - choice of thematic area:
    - choice of service category (s):
        - (choice of service according to the unique identifier of services specified in the Register of administrative services);
        - average time for service;
    - scheduled service time;
    - actual service time;
    - average assessment of service quality;
    - assessment of service quality by thematic area / category / service;
     - the number of records in terms of each service;
  - number of coupons registered / canceled (by the system and the administrator) / missed receptions / actual receptions (in terms of recording through the modules "Sign up to the Center" on the DCP, "Sign up through the Center" by phone call, "Chat bot", "Infomat");
- statistics on the number of clicks, including unique clicks to select a service for recording in terms of the number of actual records
- statistics of connection of centers;
- statistics of connected center administrators;
- data of the service quality assessment of the center /
For all the above reports must be implemented functionality to export statistics to a file format - xls.
For fields that are implemented in drop-down lists, you must be able to select all values of the query parameter.

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5.16   SMS module

This module must provide an automatic reminder to the applicant about the pre-registration 24 hours before the appointment in the Center, using the messaging services such as Viber, Telegram, and SMS. Massaging should be done on the basis of requests received from users. The System developer must provide recommendations on the use of mailing services integrated with System. The "Receive reminder" status should be available in the user interface of the user account. It is necessary to set the condition not to send reminders in the time range from 10 p.m. to 7 a.m. Reminders falling within this time range should be sent at 7 a.m.

5.17   Logging of user actions:

The System must ensure the storage of data on the history of changes in the information content of the electronic queue made by users to ensure responsibility for making changes.

The section must display the following information:
- user E-mail or phone number
- user role
- section (list of sections)
- type of action (create/edit/delete)
- time of action in 00: 00 format
- date of action in DD/MM/YYYY format

To ensure optimal use of server equipment capacity, the user change history that is stored for more than 6 months must be unloaded and automatically cleared.

The system should be integrated with the ELK logging subsystem and ensure the implementation of the principle of single-sign-on and distribution of user powers according to the role model, full logging of events should be provided to control over the state of protection of the System.

5.18   System role model

The following role model must be provided in the administrative part of the System:
- Security and Audit Administrator
- System Administrator
- Head of the Center;
- Administrator of the Center;
- Reception administrator;
- User;

5.18.1 Security and Audit Administrator

The Security and Audit Administrator (SAA) is a representative of the SE "DIA", which is responsible for the proper functioning of the IIPS and inspectioning the employees' compliance with the requirements of internal organizational and administrative documentation, as well as the IIPS documentation.

The main responsibilities of the Security and Audit Administrator are:
- Differentiating access to the resources of the System;
- Monitoring the IIPS functioning (recording events in the System, monitoring events, etc.)
- Organizing and carrying out activities to modernize, test, and promptly restore the IIPS functioning after failures, malfunctions, and accidents of the System;
- Ensuring access to the premises where technical equipment of the System is located;
- Keeping logs of the Security and Audit Administrator provided by the IIPS

documentation;

- Checking audit logs recording technical means of the platform;

- Checking for compliance of the internal organizational and administrative documentation of the technical administrator of the platform and the IIPS documentation; and

- Monitoring the compliance of hired employees with regulations of the internal organizational and administrative documentation of the technical administrator of the platform and the IIPS documentation.

Business processes available to the Security and Audit Administrator:

- Log review

- Saving database backups

- Administration of the System Administrator role.

Sections available to the Security and Audit Administrator:

- Logs

- Users

Authorization in the Administrative part of the System must be done with the use of an electronic signature.

5.18.2 System Administrator

The System Administrator (SA) is a representative of the SE "DIIA", who is responsible for the functioning of the technical means of the System.

The main responsibilities of the System Administrator are:

- Organizing the operation and maintenance of the System and administration of its technical tools;

- Ensuring the System functioning;

- Participating in the IIPS implementation and operation;

- Setting up audit logs recording the technical means of the System;

- Installing, configuring, and ensuring the operability of the system-wide and special platform software;

- Installing and configuring the regular backup subsystem of the platform data; and

- Updating data created and processed in the System after failures.

Business processes available to the System Administrator:

- Log review;

- Administering the role of the Chief Administrator and the Center's Administrator; and

- Providing access to the Chief Administrators and Centers' Administrators to the modules of the System in accordance with the connection agreements, etc.

Sections available to the System Administrator:

- Logs

- Users

- Authorization in the Administrative part of the System must be done with the use of an electronic signature.

5.18.3 The role of the "Head of the Center"

Head - an official who is appointed to the position of head of the Center and performs management functions, is responsible for organizing the activities of the Center.

Opportunities and rights Roles:

- appointment / deactivation of access rights to the employees of the Center;

- blocking access rights to the e-cabinet admin of the respective user by his login and password;

- access to the modules: "e-office admin", "Registration for an appointment" (by

phone call or in the premises of the Center), "Administrator of the Center", "Statistics".

5.18.4   The role of the Chief Administrator

Logging in the System must be carried out according to the QES of the Chief Administrator specified in the application for connection.

Role capabilities and rights:

- Assigning or deactivating access rights to the Chief Administrator and Center's Administrator roles;

- Assigning or deactivating the role of Chief administrator and Center's administrator to another employee;

- Creating an appointment schedule module for the Center;

- Setting up the display of an appointment status on the electronic board; and

- Reviewing statistical and reporting information.

The Admin Account should be provided with a "Schedule modelling" interface to adjust the appointment schedule of the Center's employee.

5.18.5   Role - "Chief Administrator of the Center".

Chief Administrator - an employee of the Center, who is delegated the authority to create / deactivate employee profiles, assign / deactivate access rights to roles, set the reception schedule, register TS and RW, appoint / deactivate access rights to the role of "Chief Administrator" to TP and RW employees.

Login to the System must be done through the main page of the Web resource of the System using a login and password.

Opportunities and rights Roles:

- access to the modules: "e-office admin", "Registration for an appointment" (by phone call or in the premises of the Center), "Administrator of the Center", "Statistics;

- assignment or deactivation of access rights to the e-cabinet admin of the respective user by his login and password;

- formation of the model of the schedule of reception of the Center;

- registration of the territorial subdivision or RW;

- assignment or deactivation of access rights to the roles of employees of territorial divisions or RW, the possibility of generating a model of the schedule of territorial divisions or RW;

- generation or deactivation of the access code to the Infomat module;

- settings for displaying the reception status on the electronic scoreboard;

- review of statistical and reporting information.

In the e-office admin has an interface "Schedule Modeling", which adjusts the schedule of reception of employees of the Center.

 Role - The "Chief Administrator of the Center" should provide access to the following statistics.

Data to be displayed in real time for the role of "Chief Administrator of the Center":

- selection of date range;
- total number of coupons (excluding technical breaks and reserve);
- number of coupons in reserve;
- number of free coupons;
- number of processed coupons (status "Completed");
- the number of coupons in service now;

- the number of coupons registered / canceled (by the system and the administrator) / missed receptions (in terms of recording through the modules "Sign up for the Center" on the DCP, "Sign up through the Center" by phone, "Chat-bot", "Infomat"

- number of administrators present;
- number of employed administrators (statuses "Take over", "Start service" to

"Finish"). From the moment of setting the status "Take on service", "Start service" to show the countdown for each administrator in order to control the working hours of administrators;
- data on the quality of service of the center.

It should be possible to generate analytical reports in the context of each administrator and the records made for a certain date range with the following data:
- administrator selection:
- number of receptions;
- the number of canceled coupons (in terms of DCP, Call Center, Infomat, chatbot, administrator);
- groups of services assigned to the administrator;
- average service time;
- assessment of service quality by category of services \ service;
- average assessment of service quality;
- minimum service time indicating the service;
- maximum service time.
- choice of service group:
- choice of service;
- average time for service;
- average service time by each administrator;
- the number of records in terms of each service;
- the number of cancellations of records (in terms of DCP, call center, Infomat, chatbot, administrator).

The above functions are available to the Chief Administrator for his Center. Activation of TS and RW is carried out by the "Chief Administrator" of the Center. "Chief Administrator" assigns / blocks access rights to the role of "Chief Administrator" to TS and RW employees. The Chief Administrator of the Center can assign himself a role to create a model of schedule (editing) TS and RW. The Chief TS Administrator cannot manage the Centre's schedule model. The RW employee cannot manage the TS and Center schedule model.

5.18.6 Admission Record Administrator Role

The receptionist is a ASC employee who makes a preliminary appointment at the Center by phone call of the subject of the application or at the Center, in case of temporary absence of special equipment - infomat (touch monitor), as well as monitoring the status of the queue, recording attendance people in the waiting area of the Center in the module "Registration for the reception".
The role of "Admission Record Administrator" is designed to register a preliminary appointment with the Center, has access to the module "Admission Record".

5.18.7 User

User - an individual who uses the System to register for an appointment with the administrators of the Center
Each user authenticated (authorized) in the System should have the role of the Authorized User by default.
An authenticated and authorized user is a natural person who has registered for the reception by his / her last name, first name and telephone number.

5.18.8 Administrator of the Ministry of Digital Transformation

The role of Administrator of the Ministry is intended for viewing statistical information and generating reports and has access to the module "Statistics" .
It should be possible to generate an analytical report (and export xlsx) for each service.

Data to be displayed in real time for the role of "Ministry Administrator":
 - selection of the Center (s)
    - choice of thematic area:
    - choice of service category (s):
        - (choice of service);
        - average time for service;
 - scheduled service time;
 - actual service time;
        - average assessment of service quality;
 - assessment of service quality by thematic area / category / service;
 - number of records in the context of each service;
 - number of coupons of registered / canceled (system and administrator) / missed receptions / actual receptions (in the context of recording through the modules "Sign up to the Center" on the DCP, "Sign up through the Center" by phone call, "Chatbot", "Infomat" "
 - statistics of connection of centers;
 - statistics of connected center administrators;
 For all the above reports must be implemented functionality to export statistics to a file format - xls.
 For fields that are implemented by drop-down lists, you must be able to select all values of the query parameter.
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6   REQUIREMENTS FOR INTEGRATION WITH OTHER SYSTEMS

6.1.   Mathematical support requirements:

6.1.1.   Requirements for the content, scope, restrictions, and methods of use of mathematical algorithms and models in the System, except for those specified in the standards and guidelines, which are referenced in this document, are not put forward.

6.1.1.2. Necessity and decisions on determining the use of individual mathematical algorithms, methods, and modelling systems are made at the stage of system development.

6.1.2.   Information support requirements

6.1.2.1. All data processed in the System must be systematized in the information base of the system, i.e. a set of organized information used in the operation of the System.

6.1.2.2.   The information base should include regulatory and reference data constituting the information base of the System, current information about the state of controlled objects or processes, and current information coming from outside the System and requiring appropriate response of the System or affecting the decision-making algorithm, and accounting and archive data required for planning and development of the System.

6.1.2.3.   Machine information base of the System should consist of information arrays organized as a database under control of the Database Management System (DBMS).

6.1.2.4.   According to the semantic content, the following arrays should be organized in the system:

- arrays of information necessary to maintain the given performance characteristics of the computer system;

- subprograms of operating systems and programs;

- standard programs used to solve the tasks defined in this document by the system and its subsystems (standard library);

- programs used to solve individual tasks of service personnel; and

- identification data processed by the system and used in the process of its operation.

6.1.2.5.   Non-machine information base of the System should form a set of documents intended for direct human perception without the use of the computer equipment.

6.1.2.6. The non-machine information base of the System should include regulations, standards, recommendations, and operational documentation necessary for the creation and operation of the System.

6.1.2.7. Information exchange between system components should be carried out using unified algorithms and protocols and structured query language (SQL) for users to interact with a database used to generate requests, update, and manage databases, create and modify a database scheme and a database access control system.

6.1.2.8. Data collection and processing by the components that embody the system functionality must be performed with saving intermediate calculations data to the database for their recovery in case of system failure.

6.1.2.9. If it is technologically impossible to combine the System's components, the interoperability is ensured via the use of converter programs.

6.1.2.10. Data protection of the System's information support component against destruction in case of accidents and failures must be performed in accordance with the following requirements:

- Power supply must be restored from additional sources without affecting the performance of the System.

- Automatic data storage should be provided for correct shutdown without data loss in case of impossibility to switch to alternative power sources.

- The use of a fault-tolerant array of hard disks should be provided.

- Data should be backed up (to magnetic tape and/or other media).

- Control of input data coming to the System must take place at the time of their input.

6.1.2.11. Data recovery in terms of system information support must be performed in accordance with the requirements of this document.

6.1.3. Language support requirements

6.1.3.1. The choice of high-level programming languages must be assigned to the Contractor depending on the tasks to be performed when designing the System.

6.1.3.2. The components of the System must have support for Ukrainian or English.

6.1.3.3. Only Ukrainian should be used in the following cases:

- in user interfaces;

- in error messages to users, except for parts of messages necessary to diagnose the OS and DBMS; and

- in the operational documentation.

6.1.4. technical support requirements (a set of hardware)

6.1.4.1. Composition, functional parameters, and quantity of server equipment and data storage systems must meet the requirements for the intended purpose of the System specified in this document.

6.1.4.2. Active network equipment should have the capacity and computing power to meet the system performance requirements specified in this document.

6.1.4.3. Active network equipment with technical protection functions should have a valid expert opinion on the results of state expertise in technical protection of information at the stage of delivery or putting the System into commercial operation.

6.1.4.4. According to the characteristics specified in the manufacturer's documentation, the UPS must ensure compliance with the requirements for power supply, electrical strength, and insulation resistance specified in this document.

6.1.4.5. Switching cabinets should be equipped with a sufficient number of connection points to the Power System, grounding devices, and patch panels to provide connections via twisted pair and fiber optic cables.

6.1.4.6. A workstation for service personnel should be supplied complete with a monitor, a keyboard, and a mouse manipulator.

6.1.4.7. Technical devices should comply with the requirements of this document on reliability, safety, ergonomics and technical aesthetics, operation, maintenance, repair, and storage by their performance characteristics specified in the manufacturer's documentation.

6.1.4.8. All technical facilities of the System's backend, except for service personnel PCs, should be located in server cabinets of a third-party DPC.

6.1.5. Software requirements

6.1.5.1. The software used in the System must be compatible with the hardware of the server equipment and workstations of the ITS personnel of the System and operate in Microsoft Windows 7–10 operating systems for PC and Linux of server equipment (servers).

6.1.5.2. The software used by the users of the System must be compatible with as many Android and iOS terminals as possible.

6.1.5.3. The software code within the System components should be implemented in a way and have settings that will ensure the absence of code areas, which cause recurrent or static memory leaks and ensure the absence of System errors leading to partial or complete failure of the System components.

6.1.5.4. The software quality and control should be ensured by testing outside the operating environment of the System's components that are put into commercial operation.

6.1.6. Metrological support requirements

6.1.6.1. Requirements for this type of the System's support are not set.

6.1.7. Organizational support requirements

6.1.7.1. The organizational support of the System should include the presence of the following units in the System's Administrator part:
- Project Management Unit
- Technical Support Unit
- Research and Development Unit
- Material Support Unit
- Financial Support Unit

6.2. Developer / Executor develops API open source for connection of IS of subjects of providing administrative services (Centers) to the System, performs such connection, and also provides integration of all modules of the System, Web module "Register to the Center", Chatbot module, Infomat module, Admission Registration Module, Registration System Module, Dashboard TV Module, Administrative Services Monitoring System of the Unified State Web Portal of Electronic Services "Action Portal" API is an integrated system of monitoring administrative services, API Public Services Guide is a portal with: ASC Register and the Register of Administrative Services, Module for assessing the satisfaction of the subjects of the quality of administrative services) with the IP of all subjects of administrative services (Centers).

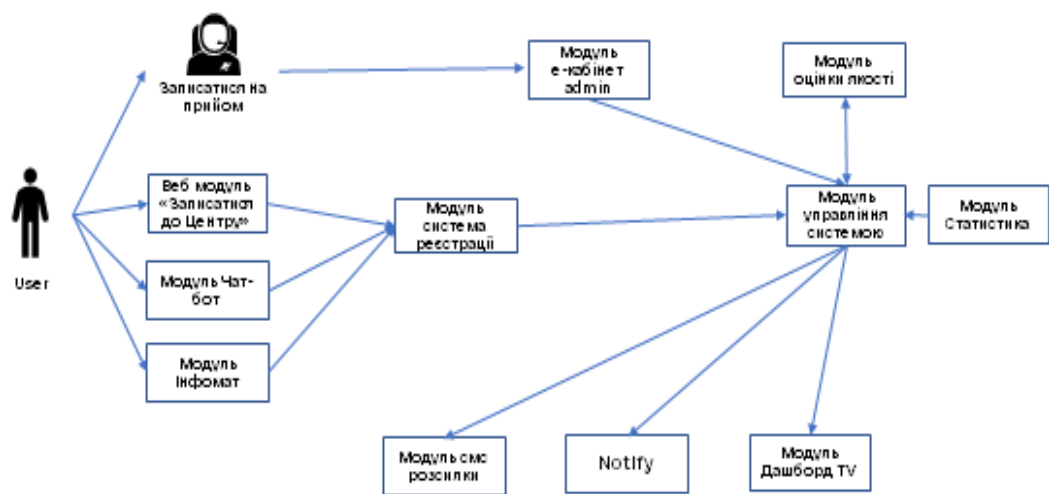|	
7 SCOPE OF WORK FOR CREATING THE SYSTEM	
7.1. Stages and phases of the System development must comply with the requirements of GOST 34.601-90 and stage documents must be developed in accordance with GOST 34.201-89 and the Contract. 7.2. Stages and phases of the System development must comply with the Contract Schedule.	
8 SYSTEM CONTROL AND ACCEPTANCE PROCEDURE	
8.1 The procedure for control and acceptance of the System must comply with technical requirements, requirements of these ToR, and Schedule. 8.2 Control and acceptance of the System should be carried out by tests, which consist in checking the operability of the System as a whole or its components using the design and operational documentation to establish their compliance with the ToR and design documentation. 8.3 The following types of tests should be performed during the implementation of the System: - internal testing - acceptance tests	

8.4. Internal testing should be performed to verify the System's compliance with all requirements specified in the ToR, operational documentation, and instructions of users of the System's customer on the implementation of documented requirements in all modes of actual operation of the System.

8.5. The internal testing should provide verification of functional performance of the System's components according to the ToR, including all links between the components, as well as verification of response of the System to incorrect information and emergencies.

8.6. Acceptance tests must be performed in accordance with the test procedure by performing integration tests.

8.7. Acceptance of the System must be carried out by the Commission. The Commission's work must be formalized by Acts.

9. TRAINING REQUIREMENTS FOR SYSTEM USERS

9.1 Training of the project implementation team should be conducted by the Contractor after the start of preparation for the commissioning of the System.

9.2. Training means a set of measures for the transfer of practical skills, including:

- development of a training program

- conducting seminars on the transfer of practical skills in providing support and administration of the System

- conducting seminars on working with the System

9.3. Duration of courses, place, and timing should be determined by the training program, which is developed by the Contractor.

9.4. The Customer's project implementation team should include up to 10 specialists.

9.5. The Contractor must develop a training course with instructions on working with the System and mechanisms of its administration and configuration.

10. SCOPE OF WORK TO PREPARE THE SYSTEM FOR PUTTING INTO OPERATION

10.1 The Beneficiary and the Technical Administrator must independently decide to put the System into operation.

10.2. The Contractor must configure the System on virtual servers provided by the Technical Administrator.

10.3. The Technical Administrator must provide a technical channel for updating the System through deployment via CI/CD technology.

10.4. The list of main activities to be performed by the Contractor in preparing the automation object for commissioning and industrial operation should include the following services, with their content being specified at the stage of the Technical Project:

- Installation and configuration of the System's components;

- Training of technical personnel for installation and configuration of the System's components; and

- Completion and optimization of the System based on the results of preparation for commissioning, which relates to warranty technical support under the terms of the Contract.

11. COMPOSITION AND CONTENT OF WORKS REGARDING WARRANTY TECHNICAL MAINTENANCE OF THE SYSTEM

11.1 Maintenance (warranty technical support) of the System during its operation should include:

- Information and advisory support of the service personnel of the System to support the smooth operation and functioning of the System;

- Making the necessary changes when detecting errors in the System and its components and eliminating detected errors (updating versions and reinstalling

software, rebooting software in hardware, etc.);

- Eliminating errors detected in the System (which made it impossible for the System to perform its main functions) by the Contractor within the period specified in the Contract; and

- Informing the Customer about the errors detected by the Contractor and taking measures for their elimination within the period specified in the Contract.

12. DOCUMENTATION REQUIREMENTS

12.1 The results of the work should be documented and presented in accordance with the following procedure specified in the Contract:
- Test program and methodology;
    - General instructions for installing, configuring, backing up data, and restoring information;
    - User manual; and
    - Administrator manual.

12.2. The documentation for the System must be complete, informative, clear, structured, easy to read, sufficient, unambiguous, and consistent (identical terms, definitions, identifiers, etc. to be used).

12.3. The documentation must be provided by the Contractor in paper and electronic form (Microsoft Word and optical disk) and executed in the national language.

13. DEVELOPMENT SOURCES

13.1 Law of Ukraine "On Administrative Services";

13.2. Law of Ukraine "On Information";

13.3. Law of Ukraine "On Access to Public Information";

13.4. Law of Ukraine "On Electronic Digital Signature";

13.5. Law of Ukraine "On Electronic Documents and Electronic Document Management";

13.6. Law of Ukraine "On Protection of Information in Information and Telecommunication Systems";

13.7. Law of Ukraine "On Personal Data Protection";

13.8. Resolution of the Cabinet of Ministers of Ukraine of December 4, 2019, No. 1137 "On Issues of the Unified State Web Portal of Electronic Services and the Unified State Portal of Administrative Services";

13.9. GOST 34.601-90 – "Information technology. A set of standards for automated systems. Automated systems. Stages of creation";

13.10. GOST 34.201-89 – "Information technology. Set of standards for automated systems. Types, sets, and indication of documents for automated systems design";

13.11. GOST 34.602-89 – "Information technology. Set of standards for automated systems. Technical directions for automated system making";

13.12. DSTU ISO/IEC 29115:2015 – "Information technology. Security techniques. Entity authentication assurance framework (ISO/IEC 29115:2013, IDT)";

13.13. DSTU 3008: 2015 – "Information and documentation. Scientific and technical reports. Structure and rules of putting into official form".

13.14. DSTU 3582:2013 – "Information and documentation. Bibliographic description. Abbreviation of words and word-combinations in the Ukrainian language. General requirements and rules (ISO 4:1984, NEQ; ISO 832:1994, NEQ)";

13.15. DSTU 3008:2015 – "System of standards on information, librarianship, and publishing. Bibliographic record. Bibliographic description. General requirements and rules of drawing up GOST 7.1-2003, IDT)";

13.16. DSTU 3278-95 – "System of product development and launching into manufacture. Basic terms and definitions";

13.17. ND TZI 1.1-002-99. General provisions for the protection of information

in computer systems against unauthorized access.

13.18. ND TZI 1.1-003-99. Terminology in the field of information protection in computer systems against unauthorized access.

13.19. ND TZI 1.4-001-2000. Standard regulations on information protection service in the automated system.

13.20. ND TZI 2.5-004-99. Criteria for assessing information security in computer systems against unauthorized access.

13.21. ND TZI 2.5-005-99. Classification of automated systems and standard functional profiles of processed information protection against unauthorized access.

13.22. ND TZI 2.5-010-03. Requirements for protection of WEB-page information from unauthorized access.

13.23. ND TZI 3.6-001-2000. Technical protection of information. Computer systems. The procedure for creating, implementing, maintaining, and modernizing technical means of information protection against unauthorized access.

13.24. ND TZI 3.7-001-99. Methodological guidelines for the development of technical specifications for the creation of an integrated system of information protection in an automated system (with Amendment No. 1).

13.25. ND TZI 3.7-003-05. Procedure for work in creating an integrated information protection system in an information and telecommunication system.

Annex 1

System structure

Annex 2

The process of enrollment in the Center through the PDC

Автоматичне нагадування заявника за 24 години до прийому про запис в Центр.

Вибер
Telegram
SMS (№, дата, час)
Так
Ні
Так
Ні

Реєстрація успішна
1
Перехід до повідомлення користувачів про здійснений запис

Талон *txt:
- назва Центру;
- адреса Центру;
- група послуг (послуга);
- дата прийому;
- час прийому;
- номер талону;
- номер робочого місця*;
- прізвище, ім'я;
штрих-код

Сфотографувати та закрити — Запис виконано

Завантажити / роздрукувати талон, *pdf — Запис виконано

Надіслати на e-mail → Ввести e-mail та надіслати талон (*txt + *pdf) та отримати нагадування за 24 години до прийому — Запис виконано — Нагадування на e-mail

Скасування — Підтвердити

відновлення відображення скасованого таймслоту в загальній черзі відбувається через рандомний проміжок часу від 1 хв до 120 хв — Підтвердити — Скасування

Annex 3

The process of enrollment in the Center through the PCD of young children with an adult family member (parents or guardians)

Приклад послуги

Реєстрація місця проживання \ зняття
(нерухомість, спадщина, соціальні послуги)

Послуга для 1 особи → Сценарій запису Рис. 3

Послуга для дорослого та малітньої дитини(-ей) (члени сімї)

Вказати к-ть малолітніх дітей, які буть отримувати послугу
1 2 3 4 5

1

Схем запису до різних адміністраторів

До різних адміністраторів
1
Перехід до процесу запису до різних адміністраторів

Схема запису до одного адміністратора

До одного адміністратора
2
Перехід до процесу запису до одного адміністратора

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Процес запису до різних адміністраторів

Процес запису до одного адміністратора

The process of recording through the "Chatbot" Module
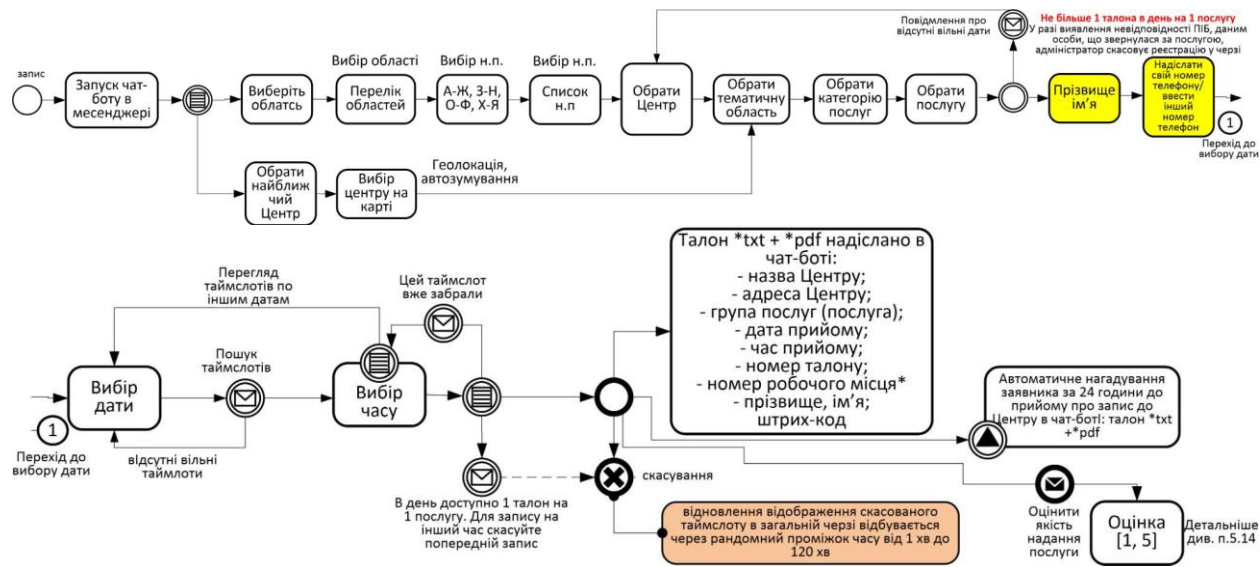
The process of registration through the module "Registration for the reception" by phone or at the Center

Annex 6

Scheme of the recording process through the module "Infomat"

Логіка створення Форми-опитувальника (анкети) з питаннями щодо оцінки задоволеності суб'єктів звернення якістю надання адміністративних послуг

Після введення у відповідне поле номеру телефону (для модуля "Записатися до Центру" ПЦД, "Інфомат") або підтвердження згоди оцінити якість надання державної послуги (для модуля

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"Чат-бот") виконується перехід до запитань блоку 1 форми-опитувальники (анкети) з питаннями щодо оцінки задоволеності суб'єктів звернення якістю надання адміністративних послуг в діапазоні значень від [1, 5] (Див. *"Схема створення Форми-опитувальника"* Додатку 7).

Блок 1.
"1. Як ви загалом оцінюєте якість надання державної послуги?":
1)   Чудово
2)   Добре
3)   Прийнятно
4)   Жахливо
5)   Складно відповісти

Якщо відповідь відповідає значенням 1, 2 результат зберігається та виконується послідовний перехід до блоків 6, 7.

Якщо відповідь відповідає значенням 3, 4, 5 результат зберігається та виконується перехід до блоку 2.

Блок 2:
2. Чи комфортно ви почувалися в приміщенні?
1)   Чудово
2)   Добре
3)   Прийнятно
4)   Жахливо
5)   Складно відповісти

Якщо відповідь відповідає значенням 1, 2, 5 результат зберігається та виконується перехід до блоку 3.

Якщо відповідь відповідає значенням 3, 4, результат зберігається та виконується перехід до переліку запитань про що суб'єкт звернення інформується візуальним повідомленням:
"Будь ласка, поясніть, чому вам не сподобалося місце надання послуги:

- у приміщенні немає умов для людей з інвалідністю та осіб похилого віку;

- приміщення не адаптоване для батьків із дітьми;

- у приміщенні тісно;

- у приміщенні брудно;

- некомфортна температура;

- бракує місць для сидіння;

- інше /Зазначте/

Повинна бути можливість вибору декількох значень, а в полі "інше" можливість для введення тексту.

Кнопка "Далі" повинна здійснювати перехід до запитань блоку 3.

Блок 3.
"3. Чи якісно організовано процес надання послуги?"
1)   Чудово
2)   Добре
3)   Прийнятно
4)   Жахливо
5)   Складно відповісти

Якщо відповідь відповідає значенням 1, 2, 5 результат зберігається та виконується перехід до блоку 4

Якщо відповідь відповідає значенням 3, 4 результат зберігається та виконується перехід до переліку запитань про що суб'єкт звернення інформується візуальним повідомленням:
"Будь ласка, поясніть, що саме вам не сподобалося:"

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- бракує інформації про послугу;

- складно сприймати інформацію;

- незручно записатись на приймання;

- незручно сплачувати за послуги;

- довга черга;

- тривале обслуговування;

- вимагають багато документів;

- надають послуги невчасно;

- інше /Зазначте/.

Повинна бути можливість вибору декількох значень, а в полі "інше" можливість для введення тексту.

Кнопка "Далі" розміщується в кінці переліку і здійснює перехід до запитань блоку 4.

Блок 4.
"4. Як виконали свою роботу працівники?"
1)   Чудово
2)   Добре
3)   Прийнятно
4)   Жахливо
5)   Складно відповісти

Якщо відповідь відповідає значенням 1, 2, 5 результат зберігається та виконується перехід до блоку 5.

Якщо відповідь відповідає значенням 3, 4 результат зберігається та виконується перехід до переліку запитань про що суб'єкт звернення інформується візуальним повідомленням:

"Будь ласка, поясніть, чому вам не сподобалася робота персоналу:

- працівник був неохайним;

- працівник не був ввічливим;

- працівник відповів не на всі запитання щодо послуги;

- інше /Зазначте/.

Повинна бути можливість вибору декількох значень, а в полі "інше" можливість для введення тексту.

Кнопка "Далі" розміщується в кінці переліку і здійснює перехід до запитань блоку 5 та зберігає введені значення.

Блок 5.
"5. Як ви оцінюєте перелік доступних послуг у /назва Центру/?"
1)   Чудово
2)   Добре
3)   Прийнятно
4)   Жахливо
5)   Складно відповісти

Якщо відповідь відповідає значенням 1, 2, 5 результат зберігається та виконується перехід до блоку 6

Якщо відповідь відповідає значенням 3, 4 результат зберігається та виконується перехід до переліку запитань про що суб'єкт звернення інформується візуальним повідомленням:

"Будь ласка, вкажіть, чому вас не задовольнив перелік послуг:"

відсутня потрібна послуга /Зазначте, яку або які /;

інше /Зазначте /.

Вибір значення "відсутня потрібна послуга" повинен здійснювати перехід до поля "зазначте, яку або які послуги відсутні" для введення тексту, в полі "інше" має бути можливість для введення тексту.

Кнопка "Далі" розміщується в кінці переліку і здійснює перехід до запитань блоку 6.

Блок 6.

"6. Чи порекомендуєте ви /назва Центру/, як основне місце для отримання державних послуг, родичам, друзям, знайомим?" в діапазоні значень від [0, 10], де:

0 – категорично не порекомендую;

10 – обов'язково порекомендую.

Результат відповіді зберігається та виконується перехід до блоку 7.

Блок 7.

"7. Розкажіть про свої враження від державного сервісу, якщо хочете. Цим ви допоможете покращити роботу /назва Центру/".

Повинно бути вікно для   можливості для введення тексту до 1800 символів. Не встановлюється умова обов'язкового введення тексту для переходу до наступного блоку.

Під вікном для введення тексту розміщуються кнопки "Продовжити опитування" та "Завершити".

У разі надання відповіді в діапазоні значень [1, 2] у блоці 1 та [5] у блоках 2-5 кнопка "Продовжити опитування" блоку 7 здійснює перехід до блоків 8, 9, 10, кнопка "Завершити" блоку 7 зберігає результат опитування та здійснює перехід до сторінки з тестом:

"Дякуємо, що приділили свій час та поділилися враженнями.

Це допоможе нам покращити державний сервіс в Україні! :)"

Для відповіді в діапазоні значень [3, 4,] у блоках 2-5 кнопка "Продовжити опитування" блоку 7 здійснює перехід до блоків 8, 9, 10, 11, кнопка "Завершити" блоку 7 здійснює перехід до блоку 11.

Блок 8.

"8. Зазначте вашу стать:"

1) чоловік

2) жінка

Якщо відповідь відповідає значенню 1 або 2 результат зберігається та виконується перехід до блоку 9.

Блок 9.

"9. До якої вікової категорії ви належите:"

Має бути перелік вікових категорій.

Здійснення вибору категорії зберігає результат та виконує перехід до блоку 10. Перелік вікових категорій Розробнику надає Мінцифри.

Блок 10.

"10. Зазначте ваш статус:"

Має бути перелік статусів.

Перелік статусів Розробнику надає Мінцифри.

Здійснення вибору статусу зберігає результат та виконує перехід до блоку 11.

У разі надання відповіді в діапазоні значень [1, 2] у блоці 1 та вибору значення "Продовжити опитування" після відповіді у блоці 7 та після здійснення вибору статусу у блоці 10 зберігає результат та завершує опитування з переходом до сторінки з тестом:

"Дякуємо, що приділили свій час та поділилися враженнями.

Це допоможе нам покращити державний сервіс в Україні! :)"

Блок 11.

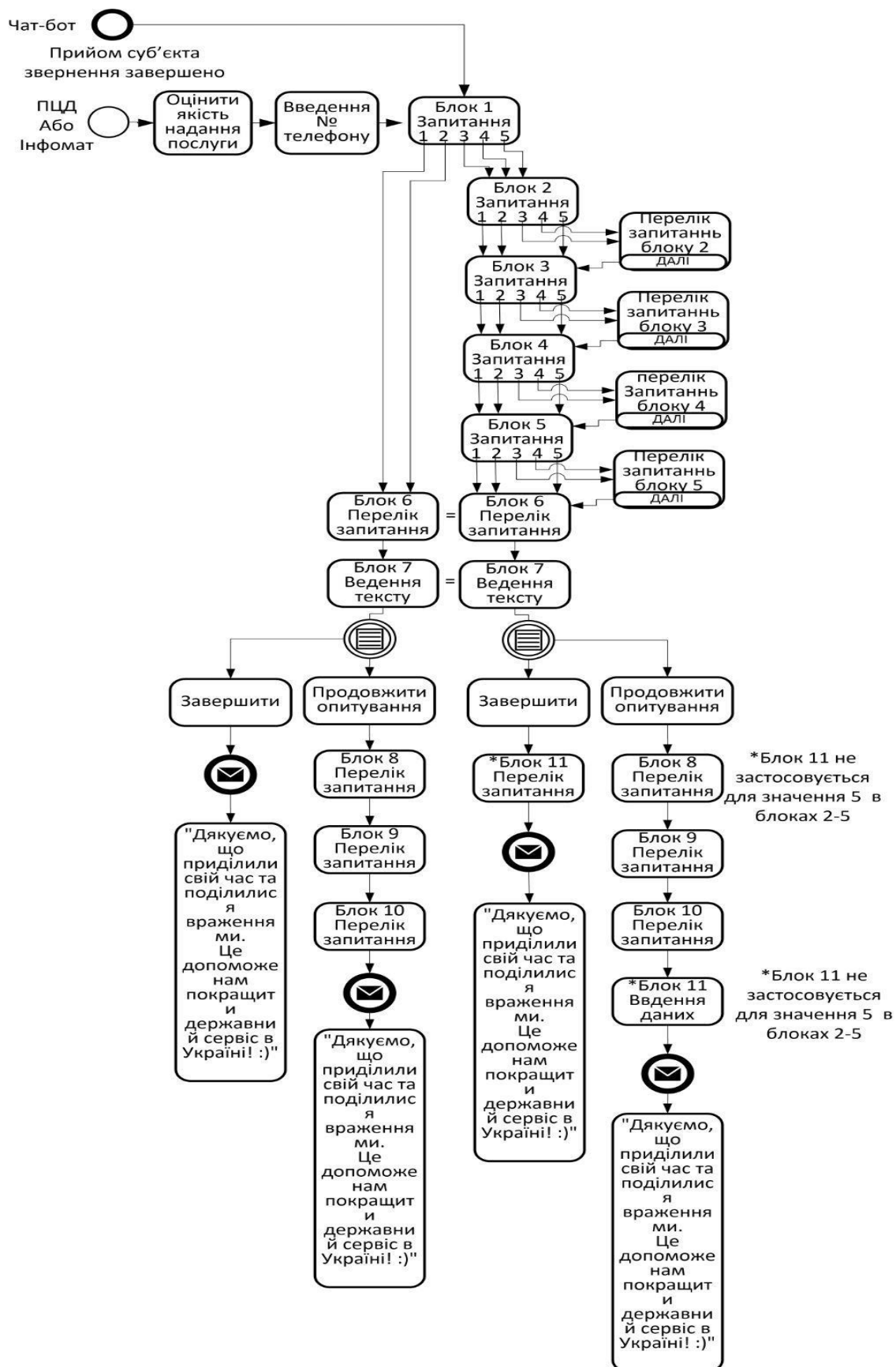"11 Якщо бажаєте, залиште свої контакти для зв'язку та розв'язання описаної проблеми".

1) поле для введення контактного номеру телефону або e-mail

2) поле для введення тексту до 800 символів

Кнопка "Завершити" зберігає введений текст та здійснює перехід до сторінки з тестом:

"Дякуємо, що приділили свій час та поділилися враженнями.
Це допоможе нам покращити державний сервіс в Україні! :)"

Схема створення Форми-опитувальника

Чат-бот

Прийом суб'єкта
звернення завершено

ПЦД
Або
Інфомат

Оцінити якість надання послуги

Введення № телефону

Блок 1
Запитання
1 2 3 4 5

Блок 2
Запитання
1 2 3 4 5

Перелік запитаннь блоку 2
ДАЛІ

Блок 3
Запитання
1 2 3 4 5

Перелік запитаннь блоку 3
ДАЛІ

Блок 4
Запитання
1 2 3 4 5

перелік Запитаннь блоку 4
ДАЛІ

Блок 5
Запитання
1 2 3 4 5

Перелік запитаннь блоку 5
ДАЛІ

Блок 6
Перелік запитання
=
Блок 6
Перелік запитання

Блок 7
Ведення тексту
=
Блок 7
Ведення тексту

Завершити

Продовжити опитування

Завершити

Продовжити опитування

"Дякуємо, що приділили свій час та поділилися враженнями.
Це допоможе нам покращити державний сервіс в Україні! :)"

Блок 8
Перелік запитання

Блок 9
Перелік запитання

Блок 10
Перелік запитання

"Дякуємо, що приділили свій час та поділилися враженнями.
Це допоможе нам покращити державний сервіс в Україні! :)"

*Блок 11
Перелік запитання

"Дякуємо, що приділили свій час та поділилися враженнями.
Це допоможе нам покращити державний сервіс в Україні! :)"

Блок 8
Перелік запитання

*Блок 11 не застосовується для значення 5 в блоках 2-5

Блок 9
Перелік запитання

Блок 10
Перелік запитання

*Блок 11
Ввдення даних

*Блок 11 не застосовується для значення 5 в блоках 2-5

"Дякуємо, що приділили свій час та поділилися враженнями.
Це допоможе нам покращити державний сервіс в Україні! :)"

Логіка створення Форми-опитувальника (анкети) з питаннями щодо оцінки задоволеності суб'єктів звернення якістю надання адміністративних послуг

Реєстрація керівника та працівників Центру в Системі, підключення інформаційної системи попереднього запису Центру до Системи

1. Реєстрація керівника та працівників Центрів, які не мають власних інформаційних систем для здійснення попереднього запису.

1.1. Створення логіну та паролю для працівників Центру в т.ч. керівника в Системі повинно здійснюватися ними особисто на веб-ресурсі Системи на сторінці "увійти до кабінету" в розділі "реєстрація працівника/керівника" шляхом заповнення електронної форми заяви, де зазначається найменування Центру (перелік з Реєстру ЦНАП) та заповнення профілю працівника: введення ролі, прізвища, імені, логіну та паролю, які придумав співробітник. Дані профіля та логіна працівника доступні для перегляду ролі "Керівник Центру" та "Головний Адміністратор" в модулі "е-кабінет admin", дані паролю працівника не повинні бути доступними для перегляду іншим користувачам Системи.   1.2. Рекомендації щодо надійності логіну та паролю в Системі надає розробник та встановлює обмеження для введення не надійних даних для авторизації (автентифікації).

1.3. Після створення профілю користувача з роллю "Керівник Центру" керівник Центру або керівника органу, який утворив Центр реєструється на веб-ресурсі системи із застосуванням КЕП або УЕП, який базується на кваліфікованому сертифікаті відкритого ключа.

Після чого, в рамках процедури реєстрації Технічний адміністратор здійснює підтвердження користувача з роллю "Керівник Центру", про що Центр повідомляється автоматично шляхом надходження повідомлення на електронну адресу, яку "Керівник Центру" зазначає в заяві на підключення. Підтвердження користувача здійснюється в адміністративній панелі Системи у Технічного адміністратора через функцію "Активувати користувача", після чого користувачу автоматично надається доступ до електронного кабінету з правами доступу, передбаченими для ролі користувача «Керівник Центру». Повинна бути також передбачена функція деактивації Центру, яка здійснює блокування працездатності модулів Системи для відповідного Центру із одночасним блокуванням доступу користувачів до електронного кабінету. Повинна бути функція відновлення активації деактивованого Центру, яка передбачає відновлення активації працездатності модулів системи та доступу користувачів до електронного кабінету. Крім передбаченої підсистеми логування ELK (п 5.16-5.18), повинен бути журнал операцій для перегляду в клієнтському інтерфейсі Системи. У журналі операцій повинна постійно зберігатись інформація про дії користувачів в Системі, незалежно від статусу активований/деактивований Центр.

У разі успішного підтвердження користувач з роллю "Керівник Центру" отримує доступ до Системи із використанням власних логіну та пароля.

Ітерація сесії за введеними логіном та паролем повинна бути обмеженою у часі, а саме протягом робочого дня згідно з графіком роботи відповідного ЦНАПу.

Система управління повинна містити функцію "запам'ятати логін та пароль", а також функцію для Технічного адміністратора блокування прав доступу до "е-кабінету admin" відповідного користувача за його логіном та паролем.

1.4. Активація/деактивація профілю "Керівник Центру" здійснюється Технічним адміністратором. Активація/деактивація профілю "Головний Адміністратор" здійснюється "Керівником Центру". Активація профілю, призначення, зміна та блокування прав доступу профілю, редагування даних інших працівників здійснюється "Головним Адміністратором" після створення працівником профілю користувача. У разі виконання функції "Головного адміністратора" керівником Центру, керівник призначає собі права доступу до ролі "Головний адміністратор".

1.5. Виконання зазначених у п. 1.4. функцій доступні Головному адміністратору для свого Центру. Активацію ТП та ВРМ здійснює "Головний адміністратор" Центру в Системі. "Головний адміністратор" призначає/блокує права доступу до ролі "Головний адміністратор" працівникам ТП та ВРМ. Головний адміністратор Центру може призначити собі роль для створення моделі

розкладу (редагування) ТП та ВРМ. Головний адміністратор ТП не може управляти моделлю розкладу Центру. Працівник ВРМ не може управляти моделлю розкладу ТП та Центру.

2. Підключення Інформаційної Системи попереднього запису Центру (далі - ІС Центру) до Системи.

2.1. Для підключення ІС Центру до Системи, Центри звертаються до технічного адміністратора Системи в електронному вигляді на веб-ресурсі Системи у розділі "Підключити Центр до Системи" шляхом заповнення електронної форми заяви-приєднання до договору (які розміщені в даному розділі на веб-ресурсі) із застосуванням КЕП керівника Центру або керівника органу, який утворив Центр. Після підписання електронної форми заяви та підтвердження її відправлення, запит відображається в адміністративній панелі Системи у Технічного адміністратора.

2.2. Інформування Центру про можливість підключення ІС Центру до Системи здійснюється автоматично шляхом надходження повідомлення на електронну адресу, зазначену в заяві на підключення із даними для підключення.

2.4. Розробник повинен передбачити можливість підключення ІС Центрів до Системи через API.

Протокол API узгоджуються в процесі розробки Системи (рекомендовано RESTful веб-API).

Основні параметри API:

- код Центру (з Реєстру ЦНАП Мінцифри);
- дата;
- початковий час таймслоту;
- інтервал таймслоту;
- ID таймслоту;
- № талону;
- тематична область;
- назва категорії послуги;
- назва послуга;
- прізвище, ім'я;
- № телефону;
- e-mail.

Опис роботи API, його структуру та параметри надає Розробник Системи, погоджує Реципієнт та затверджує Бенефіціар.

Model Contract

Договір на надання Товарів та/або Послуг між Програмою розвитку Організації Об'єднаних Націй та» *Empowered lives. Resilient nations.*	**Contract for Goods and/or Services Between the United Nations Development Programme and** *Empowered lives. Resilient nations.*
1. Країна, у якій будуть постачатись Товари та/або надаватись Послуги: Україна	1. **Country Where Goods Will be Delivered and/or Services Will be Provided**: Ukraine
2. **ПРООН** [ ] Запит цін [X] Запит пропозиції [ ] Запрошення на участь у конкурсі [ ] укладення прямих договорів Номер та дата:	2. **UNDP** [ ] Request for Quotation [X] Request for Proposal [ ] Invitation to Bid [ ] direct contracting Number and Date:
3. **Посилання на номер договору (напр., номер присудження договору):**	3. **Contract Reference (e.g. Contract Award Number):**
4. **Довгострокова угода**: Ні	4. **Long Term Agreement**: No
5. **Предмет Договору**: [ ] товари [X] послуги [ ] товари *та* послуги	5. **Subject Matter of the Contract**: [ ] goods [X] services [ ] goods *and* services
6. **Тип Послуг:**	6. **Type of Services:**
7. **Дата початку Договору**: | 8. **Дата завершення Договору**:	7. **Contract Starting Date:** | 8. **Contract Ending Date:**
9. **Загальна сума Договору**: 9а. **Передплата**: Не застосовується	9. **Total Contract Amount**: 9a. **Advance Payment**: Not applicable
10. **Загальна вартість Товарів та/або Послуг:** [ ] **менше 50 000 дол. США (лише Послуги)** – застосовуються Загальні умови ПРООН для базових (незначних) договорів [ ] **менше 50 000 дол. США (Товари *або* Товари та Послуги)** – застосовуються Загальні умови ПРООН для договорів [ ] **50 000 дол. США або більше (Товари *та/або* Послуги)** – застосовуються Загальні умови ПРООН для договорів	10. **Total Value of Goods and/or Services:** [ ] **below US$50,000 (Services only)** – UNDP General Terms and Conditions for Institutional (de minimis) Contracts apply [ ] **below US$50,000 (Goods *or* Goods and Services)** – UNDP General Terms and Conditions for Contracts apply [ ] **equal to or above US$50,000 (Goods *and/or* Services)** – UNDP General Terms and Conditions for Contracts apply
11. **Метод оплати:** [X] тверда (фіксована) ціна [ ] відшкодування витрат	11. **Payment Method:** [X] fixed price [ ] cost reimbursement
12. **Назва(Ім'я) Підрядника:**	12. **Contractor's Name:**
13. **Ім'я контактної особи Підрядника**: Посада: керівник Адреса: Номер телефону: Факс: Email:	13. **Contractor's Contact Person's Name**: Title Address: Telephone number: Fax: Email:
14. Ім'я контактної особи ПРООН: Посада: Адреса: Тел.: Email:	14. **UNDP Contact Person's Name**: Title: Address: Telephone number Email:
15. **Банківський рахунок Підрядника, на який будуть перераховуватись платежі:** Отримувач: Назва рахунку: Номер рахунку:	15. **Contractor's Bank Account to which payments will be transferred**: Beneficiary: Account name: Account number:

Назва банку: МФО ЄДРПОУ	Bank name: Bank address: MFO EDRPOU
Даний Договір складається з наступних документів, які, у разі виникнення конфлікту між ними, мають перевагу один перед одним у наступному порядку: 1. Дана лицьова сторінка («Лицьова сторінка»). 2. Загальні умови ПРООН для договорів – Додаток 1 3. Технічне завдання (ТЗ) - Додаток 2 4. Графік надання послуг, що включають опис послуг, результати надання товарів та/або послуг, планові показники, терміни, графік здійснення платежів, та загальну суму договору – Додаток 3. 5. Технічна та Фінансова пропозиції Підрядника від _____; причому ці документи не додаються, але відомі Сторонам і знаходяться у їх розпорядженні, і є невід'ємною частиною цього Договору. Все вищезазначене, включене до цього документу за допомогою посилання, містить увесь обсяг домовленостей («Договір») між Сторонами, при цьому усі інші переговори та/або угоди, незалежно від того, виконані вони в усній або ж у письмовій формі, що відносяться до предмету даного Договору, втрачають силу. Даний Договір вступає в силу з дня проставлення належним чином уповноваженими представниками Сторін останнього підпису на Лицьовій сторінці і припиняє свою дію в Дату завершення Договору, яка зазначена на Лицьовій сторінці. Внесення змін та/або доповнень до даного Договору можливе лише у разі оформлення належним чином уповноваженими представниками Сторін письмової угоди. **НА ПОСВІДЧЕННЯ ЧОГО,** нижчепідписані, належним чином уповноважені на це представники Сторін, підписали цю Угоду від імені Сторін у місці та в день, що вказані нижче	This Contract consists of the following documents, which in case of conflict shall take precedence over one another in the following order: 1. This face sheet ("Face Sheet"). 2. UNDP General Terms and Conditions for Contracts – Annex 1 3. Terms of Reference (TOR) – Annex 2 4. Schedule of Services provision, incorporating the description of services, deliverables and performance targets, time frames, schedule of payments, and total contract amount – Annex 3 5. The Contractor's Technical Proposal and Financial Proposal, dated _____; these documents not attached hereto but known to and in the possession of the Parties, and forming an integral part of this Contract. All the above, hereby incorporated by reference, shall form the entire agreement between the Parties (the "Contract"), superseding the contents of any other negotiations and/or agreements, whether oral or in writing, pertaining to the subject of this Contract. This Contract shall enter into force on the date of the last signature of the Face Sheet by the duly authorized representatives of the Parties, and terminate on the Contract Ending Date indicated on the Face Sheet. This Contract may be amended only by written agreement between the duly authorized representatives of the Parties. **IN WITNESS WHEREOF**, the undersigned, being duly authorized thereto, have on behalf of the Parties hereto signed this Contract at the place and on the day set forth below.

Від імені Підрядника / For the Contractor		Від імені ПРООН / For UNDP	
Підпис / Signature:		Підпис / Signature:	
Ім'я / Name:		Ім'я / Name:	
Посада / Title:		Посада / Title:	
Дата / Date:		Дата / Date:	