# Automated Communication System for the National Digital Platform (PDN)

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#### **SUMMARY OF REQUIREMENT**

- The Foreign, Commonwealth, and Development Office (the Authority), represented by the British Embassy in Mexico City, seeks to appoint one Service Supplier to provide technical support to the Executive Secretariat of the National Anti-Corruption System (SESNA) for the development of an inter - process communication system (APIs REST) for the National Digital Platform (PDN).
- 2. The work will be undertaken under the supervision of the Anti-Corruption, Digitalisation and Competition Policy Unit at the British Embassy in Mexico City, and the SESNA technical team, through regular planning and review meetings with the delivery partner to ensure that the work plans align with the Programme's vision and objectives, and review progress against these. The meetings may be remote or face-to-face, on a case by case scheme.
- 3. The primary beneficiary of this project will be **SESNA**, as well as all the PDN data suppliers (public institutions that have key data in the fight against corruption with legal obligation to share it with the platform).
- 4. By the end of the project, there will be a system that allows the automated verification of the communication mechanisms of the data suppliers that need to establish the interconnection with the National Digital Platform (PDN).

### **INTRODUCTION**

- 5. The PDN is a source for the government and society to use data intelligence in order to build integrity and fight corruption. The PDN seeks to remove barriers and break down information silos so that government data is comparable, accessible, and usable.
- 6. The PDN, being an interoperability platform, does not generate or store data, but rather consults the information through web services or API's built on REST¹ architecture and JSON messaging. The platform is built upon six systems that contain strategic data for the fight against corruption, which are specified in the General Law of the National Anti-Corruption System (LGSNA).

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<sup>&</sup>lt;sup>1</sup> https://en.wikipedia.org/wiki/Representational state transfer

# Terms of Reference (ToRs) Automated Communication System for the National Digital Platform (PDN)

- 7. Data suppliers can establish a connection with the PDN through a series of technical specifications and protocols, which are established in the bases for the operation of the National Digital Platform, published in the Official Gazette of the Federation (DOF<sup>2</sup>).
- 8. The interconnection process that allows initiating the communication flow with the data providers of System 1, System 2 and System 3 with the PDN is described in Diagram 1.

<sup>&</sup>lt;sup>2</sup> https://www.dof.gob.mx/nota detalle.php?codigo=5541802&fecha=23/10/2018

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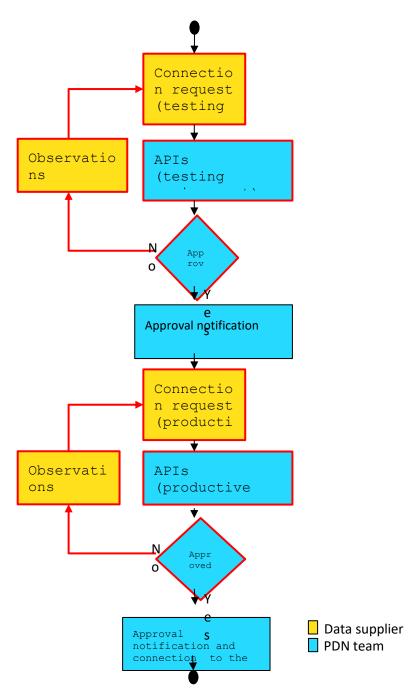


Diagram 1. Interconnection with PDN

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9. The interconnection process with the PDN is carried out as follows:

### I. Testing environment:

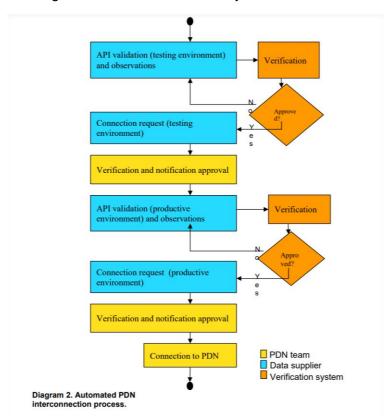
- 1. The data supplier starts the process by sending a connection request to the test environment (using synthetic data), in order to test the correct functioning of the communication mechanisms without exposing real information.
- 2. Once the connection request is received, the PDN team begins the execution of tests, and, where appropriate, issues observations.
  - i. Once observations are addressed, a new request must be submitted.
- Once the connection request to the test environment has been approved, the data supplier may request the review for the connection to the productive environment.

### II. Productive environment

- 1. The data supplier sends a connection request for the productive environment (using real data).
- 2. Once the connection request is received, the PDN team begins the execution of tests, and, where appropriate, issues observations.
  - i. Once observations are addressed, a new request must be submitted.
- 3. Once the connection request to the productive environment is approved, the PDN will notify the data supplier and connect the communication mechanism to initiate the data transfer to the PDN.

#### **OBJECTIVE**

10. To create an Information System that allows data suppliers to carry out automated verification of their communication mechanisms, receiving the results immediately, thus reducing the waiting time to receive feedback by 100%.



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#### **METHODOLOGY**

- 8. Interested parties are expected to provide a description of their methodology and implementation plan to achieve this project's objectives within the estimated time frame. Partial deliveries should be included throughout the work plan.
- 9. The implementer must consider that due to COVID-19, work will primarily be carried out remotely, but may require face to face work subject to health and safety possibilities.
- 10. The methodology must be accompanied by a detailed budget with the cost of proposed activities, and goals for implementing each activity, and the CVs of the team members that would conduct the work, as well as the team structure.

#### **OUTPUTS/ DELIVERABLES**

- 11. Clear and detailed work plan, which should include a detailed schedule of output delivery, agreed with SESNA and the British Embassy.
- 12. Verification system for communication mechanisms, APIs (REST), based on Web technologies, for System 1, System 2 and System 3 of the PDN:
  - a. Frontend: source code developed to be publicly available (without access control) and to have a graphical interface accessible through web browsers such as Google Chrome or Firefox, where data providers can enter the corresponding URLs and parameters to access their APIs, as well as other necessary data for testing. A verification report should be returned through a system screen with the option to download a PDF document, which should include at least:
    - Verification data: endpoints (URLs) and reviewed authorization data, starting and finishing date and time of the review, verification system, data supplier name;
    - ii. Successful test cases
    - iii. Unsuccessful test cases: include the input data used for the verification process and details of the errors found.
    - iv. Total of successful and unsuccessful tests:

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- v. Review status
- Backend: source code where the automated verification of the test plans for System 1, System 2 and System 3 will be carried out in a test and production environment. Test plans are available at:
  - i. System 1
  - ii. System 2
  - iii. System 3.1
  - iv. System 3.2
- 13. Project documentation, which should include:
  - a. Verification System manual, which should include instructions for the deployment of the system in a local and productive environment. The instructions for the local environment must be delivered before starting the partial deliveries of the System.
  - b. User manual
  - c. Final report in English and Spanish, with a summary of the final deliverables achieved.

### **Other considerations**

- 14. Joint bi-weekly meetings with the British Embassy and SESNA team in which suppliers will report advancements.
- 15. Monthly meetings with the British Embassy team in which suppliers may raise any issues.

#### **KEY DATES**

16. The contract will be starting as soon as possible in accordance with the procurement timeline and it is envisioned to terminate once the project has been completed within 24 weeks of commencement date.

Output I (paragraph 11):  Clear and detailed work	Kick-off engagement with the Authority and beneficiary entity.	1 October 2021
plan agreed with SESNA and the British Embassy.	Draft of assessment considerations and action plan to be delivered to the Authority.	8 October 2021
	Action plan of activities signed off by the Authority and beneficiary entity.	15 October 2021

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Output II (paragraph 12):  Verification system for communication mechanisms	As per milestones agreed and signed off (Output I)	By the end of the contract
Output III (paragraph 13):  Project documentation	As per milestones agreed and signed off (Output I)	By the end of the contract
*Subject to previous agreement between the Authority and the Service Supplier, dates for delivering		

the output might change. This may be particularly the case as a result of Covid-19.

### Reporting structure, logistics and other arrangements

- 17. The Service Supplier will report to the Anti-Corruption, Digitalisation and Competition Policy Unit at British Embassy in Mexico City.
- 18. The British Embassy team will assist in accessing government agencies or other key stakeholders if this should prove necessary. The decision of when to accompany the supplier to meetings will be taken by the British Embassy team. All the structure, logistic and other arrangements to carry on this project should be under the responsibility of the service supplier.

### **Key Dates for tender, evaluation and signing contract**

Activity*	Dates
Invitation to Tender	02 September 2021
The tender closes	22 September 2021
Evaluation of proposals	23-24 September 2021
The responses are sent to participants**	27 September 2021
Contract sign-off	27-30 September 2021
Start working	1 October 2021

<sup>\*</sup>Applicants who do not follow application procedures will be automatically disqualified.

- 19. Applicants who do not have the required qualification and experience should kindly abstain from applying, as their applications will not be considered.
- 20. Only shortlisted candidates will be contacted and no telephone enquiries will be dealt with.
- 21. Shortlisted candidates may/ may not be invited to attend an interview before a final decision on selected candidate.

<sup>\*\*</sup>Date may be reviewed if interviews are required.

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- 22. The appointment will be subject to local and British Embassy security checks and other verifications including references, educational and professional.
- 23. The British Embassy in Mexico is committed to achieving workforce diversity in terms of gender, nationality and culture. Individuals from minority groups, indigenous groups and persons with disabilities are equally encouraged to apply. All applications will be treated with the strictest confidentiality.
- 24. Please send proposals to the following email: Mexico.Political@fcdo.gov.uk
- 25. Due to the amount of applications received, The British Embassy in Mexico will refrain to provide any feedback after the results of the tender are released.

#### **SKILLS AND COMPETENCES**

- 26. The supplier must prioritize the use of free or open source software and have knowledge and experience in the following technologies:
- 27. Web Development \*
  - I. Frontend development: Angular, Vue, ReactJS, Material UI, Javascript, HTML5, CSS3.
  - II. Backend development: Python, Node.js, development and consumption of APIs REST
  - III. Unit tests: Jest, Mocha, Jasmine or equivalent
- IV. Data Standards: Open API Specification
- V. Version control: Git and Github

#### **BUDGET**

- 28. The maximum budget for the service, covered under these terms of reference, will be no more than £19,500 UK pounds, including all applicable taxes and associated fees.
- 29. The supplier will propose the overall budget for this work which must be inclusive of all applicable taxes, overheads and travel costs for any field visits. Bidders are expected to show VfM and not reach the budget ceiling if costs can be lower. Payments will be made in arrears upon receipt of the final product, after any updates have been incorporated and signed-off by the British Embassy. All the expenses caused by the development of the project must be included inside of the general budget, and there are not extra-expenses out of this budget.
- 30. The British Embassy has the right to select the most appropriate payment method from either against a Contractor invoice via credit transfer or by GPC. If the Embassy elects to pay against an invoice via credit transfer, then the Contractor shall submit his invoice to the invoicing address stipulated by the Embassy within 28 days of meeting any milestone set out in the request for quotation to the satisfaction of the Authority or otherwise within 28 days of supplying the Goods or Services to the satisfaction of the Embassy. The Embassy shall pay the Contractor within 30 days of receipt against an undisputed invoice by payment direct to the Contractors bank account as a credit transfer.

<sup>\*</sup> The development stack must be agreed with SESNA before starting the project.

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#### **EVALUATION OF PROPOSAL**

- 31. The British Embassy will open the tender to different organisations that could potentially deliver the project. The Embassy will award the organisation that delivers the best value for money and the quality of the methodology proposal.
- 32. Interested parties are asked to tender an outline approach of how they would deliver the services mentioned above. The methodology should include a detailed budget for the cost of proposed activities and the CVs of the team members that would conduct the work. UK organisations may wish to consider including local experts in their proposed teams.
- 33. The British Embassy will evaluate the proposals according to the documents Project proposal form; and Schedule of prices & rates. Weighting for each document will be 70%: Project proposal form (technical proposal); and 30% Schedule of prices & commercial (Value for Money). No feedback of the evaluation proposal will be provided due to the amount of work.

### **DUTY OF CARE**

34. The Service Supplier is responsible for the safety and well-being of their Personnel and Third Parties affected by their activities under this Contract, including appropriate security arrangements. They will also be responsible for the provision of suitable security arrangements for their domestic and business property.