



INAGE,IP

Instituto Nacional de Governo Electrónico, Instituto Público



National Institute of Electronic Government, Public Institute

**Terms of Reference for Hiring a
X-Road Specialist**



Maputo, April 2024

1. **BACKGROUND**

The National Institute of Electronic Government, a public institute abbreviated as INAGE, IP, created by Decree No. 61/2017, of 6 November, whose competences, autonomy, budgetary regime, organization and operation were adjusted through Decree No. 35/2022, of 22 July, is a category A public institution, endowed with legal personality, administrative, financial and patrimonial autonomy with the fundamental mission of coordinating and providing Government services Electronic, fostering greater speed in the provision of public services and promoting initiatives to improve the efficiency and transparency of the Public Administration in its interaction with the citizen.

The success of e-Governance in the country requires a robust internal capacity, which involves several aspects ranging from empowered human resources to the efficient management of systems, digital processes and digital accessibility in order to ensure that digital services and information are accessible and interoperable to all citizens, promoting digital inclusion through the development of more efficient and transparent public services.

It is in this context that INAGE, IP intends to make use of the funds of the EDGE Project, financed by the World Bank, to hire an X-Road specialist who will play the fundamental role effectively operationalize the Government Interoperability Platform, and support the integration of 10 services to the platform and their maintenance. ensuring the security, integrity and effectiveness of the data exchange between systems of different institutions of the Public Administration.

2. OBJECTIVES

The mission of the X-Road Specialist is to ensure the installation, configuration and operationalization of the X-Road-based interoperability platform. This platform will serve as the backbone for secure data sharing between various institutions, and other stakeholders.

3. SCOPE OF WORK

The consultant will be responsible for the following tasks:

Infrastructure Assessment: Perform an assessment of INAGE, IPs infrastructure, and the priority entities to be connected to the interoperability platform. This assessment should cover equipment, architecture and respective specifications.

Legal Assessment: Assess the national legal framework regarding data protection, privacy and personal data as well as identify and develop recommendations taking into account X-Road's implementation standards.

Architecture: Based on the results of the evaluations of the previous points, the consultant should develop an architecture for X-Road, maximizing performance and utilization of existing resources. The architecture should also identify potential gaps and bottlenecks that could negatively affect the performance of the platform.

Installation and Configuration: Proceed with the installation and configuration of X-Road, Central Servers, Trust Servers (CA and Timestamp), as well as configuration of all necessary services, and security policies.

Onboarding and Integration of Priority Entities: Assist in defining requirements by performing a data mapping to integrate a minimum of 10 priority government services into the X-Road platform, ensuring data sharing and interoperability between different systems, as well as developing reports of the data sharing using X-Road.

Data Security: definition and implementation of a security and access control policy in terms of data sharing, as well as a security testing strategy.

Testing: Conduct comprehensive testing to verify the functionality, safety, and reliability of the X-Road platform.

Training: Provide training to teams composed of technicians appointed by INAGE,IP regarding the installation, configuration, management and operation of the X-Road platform, including troubleshooting and routine maintenance procedures.

Documentation: Prepare detailed documentation on the installation, configuration, and operation of the X-Road platform, including user manuals and technical guides.

4. REPORTING

The consultant will report weekly to the Director General of INAGE, IP or whoever is designated for this purpose and will also provide periodic reports, as requested by INAGE, IP or the project managers, to show the progress of the various activities in execution and the results of the project, including during the mission to support the implementation of the project conducted by the World Bank.

5. Monthly until the end of the Contract

Activity	Results	Date (after effectiveness of the contract)
Pré-Avaliação	<ul style="list-style-type: none"> • - Infrastructure assessment report, including gaps in terms of configurations, resources, and personnel; • - Report on the existing legal framework and recommendations based on the X-Road architecture. 	4 weeks
Instalação do X-Road	<ul style="list-style-type: none"> • X-Road Central Server and Trust Servers installed and configured correctly; • Installation documentation. 	8 weeks
Integration of priority institutions	<ul style="list-style-type: none"> • Data mapping of the selected institution; 	14 weeks

	<ul style="list-style-type: none"> • Security servers installed and configured for each member institution of the ecosystem; • Test reports. 	
Security Policy	<ul style="list-style-type: none"> • Safety Guidelines 	16 weeks
Documentation	<ul style="list-style-type: none"> • Documentation and user manual for installation, configuration and management of X-Road. 	20 weeks
Continuos support	<ul style="list-style-type: none"> • Monthly Report on X-Road Support 	Monthly until the end of the Contract

6. QUALIFICATION

The consultant must possess the following qualifications:

- More than 3 years of proven experience in the installation, configuration and maintenance of the X-Road;
- Solid experience in information security, network architecture and data protection;
- Familiarity with government digital services and the specific requirements for secure data exchange;
- Excellent problem-solving skills and ability to work independently;
- Relevant certifications or degrees in computer science, information technology, or a related field are preferred;
- Fluency in Portuguese and English

7. MISSION LOCATION AND DURATION

The mission will be carried out in Mozambique for a continuous period of 6 months, thereafter, remote support for a maximum period of 12 months.