



UNIDADE DE GESTÃO DE PROJETOS ESPECIAIS

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Terms of Reference

Technical Assistance for the Development and Implementation of SIMple's Administrative and Financial Modules

1. Introduction

The Government of the Republic of Cabo Verde has received a \$15 million loan from the International Development Association (World Bank) for the Harmonization and Improvement of Statistics in West Africa (HISWAP)/Cabo Verde project, which aims to strengthen the statistical system of participating countries and regional bodies in Africa to produce, disseminate and enhance the use of key economic and social statistics, and intends to use part of the proceeds for consultancy services.

In the implementation and consolidation of e-governance in Cabo Verde, municipal councils were the first institutions to be equipped with IT, with the introduction of the SIM (Municipal Information System) application.

The first version of SIM was implemented in the municipalities between 2001 and 2003, first in the pilot municipalities of Praia, Sal and São Vicente and then, in 2007, in São Nicolau. From 2008 to 2012, SIM 2.0 was updated and implemented throughout the country, with the exception of São Vicente. Today, SIM 2.0. is in operation in every municipality in the country. Some features have been implemented in the municipalities of Sal, São Vicente and Praia, while in others they were not.

SIM 2.0 is essentially focused on accounting/financial management, as it was created as an IT tool for municipal financial management, and more specifically for budget execution. For this



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reason, most of the services provided are consistent with budgetary implementation, i.e. accounting for income and expenditure, and not from a procedural point of view.

Despite the improvements that SIM 2.0 has brought to town halls, this system is already obsolete, having been developed using the old framework, with a different layout to other modern applications, resulting in high maintenance costs.

In 2017, SIM LAND (SIM 3.0) was implemented in the town halls of Sal, São Vicente, Maio and Boa Vista, for the management of buildings in the registered areas, which corresponds to an increase in functionality in these town halls.

However, this system is unsuited to the current and future context, and it is in this context that has arisen the need to equip town halls with a robust information system, comprising all the necessary functionalities and covering all areas of municipal management and action. We will call this system SIMple.

The basic principles of the SIMple project are shown in figure 1 below:



Figure 1 SIMple principles



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To achieve this, it is necessary to have an integrated vision of the City Council's services so that citizens and businesses can be served quickly, with quality, at a lower cost, with transparency and security.

The Citizen Service Life Cycle (CVAC) is therefore proposed as an integrating element of the entire Municipal Information and Management System.

2. Objective(s)

The aim is to hire a consultancy firm to carry out the SIM upgrade, through the development and implementation of SIMple's Administrative and Financial Modules, in all the country's town halls, ensuring all the necessary integrations.

2.1. *Specific objectives*

- Provide municipalities with an electronic platform to respond quickly and efficiently to users' demand;
- Integrate the town halls services and make the One-Stop-Shop principle a reality;
- To enable effective management of the entire town halls, on the services and Administrative and Financial Management fronts;
- Adopt the paperless principle for the town halls;
- Improve the inter-municipal communication system, with future regional structures, with centralized government structures and with the private sector, promoting the creation of synergies between them;
- Focusing municipal management on the citizen and allowing the citizen to participate in municipal management;
- Leverage objective-oriented planning and management by providing tools to assist in the decision-making process;
- Respect the autonomy of each town hall in parallel with the implementation of standardized rules and procedures;



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2.2. *Main Focus*

a) Financial and administrative management:

- Enable efficient budget preparation and execution in accordance with legal standards and procedures;
- Transparent accountability;
- Integrate service delivery and revenue collection (automated accounting);
- Manage contracts for better control and management of requisitions;
- Eliminate paper-based accounting flows (dematerialization of processes);
- Implement authentication and time stamping services (digital signatures/barcodes)
- Introduce online payment services with integration of different merchants;

b) Human Resources Management:

- Enable the management of employees and pensioners, from registration to their history;
- Enable payroll processing with automatic adjustments;
- Provide online services to employees;
- Provide integration that allows for a unified management of civil servants.

c) Contract management:

- Better control and monitoring of contracts signed with suppliers;
- Monitor the financial execution of the contract;
- Facilitate the control and management of expenditure and revenue contracts;
- Record the value of contracts, addenda and guarantees;
- Allow the budgeted amount to be entered in advance;
- Avoid budget overruns;
- More rigorous implementation and enforcement of contracts.



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3. Scope, Tasks and Deliverables

3.1. *Scope*

The scope of the SIMple Municipal Management electronic platform project for the Administrative and Financial, Human Resources and Contract Management modules includes the following components:

- Process analysis;
- Development;
- Testing and Quality Assurance;
- Deployment;
- Preparation of user manuals;
- User training;
- Ensuring stabilization and monitoring.

3.2. *Technical requirements of the solution*

SIMple must be developed using the IGRPweb framework, installed on a Kubernetes cluster, with high availability, and a generic application template.

The proposed architecture should:

- Separate the various municipal management businesses, allowing SIMple to grow in a modular way;
- Ensure that the data of each municipality is separated, ensuring that each municipality is the owner of their own data;
- Separate the town hall data layer from the system functionalities layer;



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- Each application module has a dedicated connection to its database
- Modules exchange services with each other at the application level, not the database level
- Services are cataloged and published for inter-municipal integration and interoperability with external applications and the private sector.
- Facilitate SIMple maintenance;
- Global data involving other Data Owners in addition to the council will be consulted in the logic of APIs, through the PDEX interoperability platform.

3.3. *Modules*

In a nutshell, the modules to be developed are:

1. **Budgetary and Financial**, which serves as the basis for the provision of services, and it is related to the Administrative and Financial Management of the town hall itself:
 - a. **Budget management**
 - b. **Accountability**
 - c. **Follow-up and Evaluation**
2. **Contract Management** allows you to manage contracts signed with third parties.
3. **Human Resources Management** allows you to manage employees and retirees in all processes related to them.

3.4. *Integrations*

Interoperability with other companies must be guaranteed by the selected company.:

- National Social Security Institute
- National Institute of Statistics
- General Directorate of Registry, Notary and Identification
- National Directorate of State Revenue
- Court of Auditors
- Interbank Firm and Payment Systems



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- Commercial Banks

4. Team composition & required qualifications

4.1. *Required experience and references*

The consultancy firm must have at least 3 years' experience in the development of electronic governance applications, with relevant experience in the development of administrative and financial management systems.

It must have at least two (2) references from clients for whom a similar service has been in place.

4.2. *The project team should be made up of the following key experts:*

1) One (1) Project Coordinator

- Degree in Computer Science, Engineering or equivalent;
- Mastery of *Agile* Methodology;
- Minimum of 5 years' experience - experience in managing a software development team, driving the full (and correct) adoption of modern software engineering and delivery practices, in-depth knowledge and experience in designing and implementing cloud solutions, with a strong track record of analyzing, planning, designing, developing, implementing and documenting software solutions.

2) One (1) Specialist in Budget Management and/or Public Finance

- Degree in Economics, Finance, Public Administration, Public Policy or other relevant or related field;
- Minimum of five (5) years' relevant experience in budget analysis/public resource management



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- Proven experience in public expenditure review and analysis is considered an advantage;
- Proven knowledge of Cabo Verde's budget and financial management system.
- Specific knowledge of municipal budget and financial management is highly desirable.

3) Three (3) Programmers

- Degree in Computer Science, Mathematics or equivalent area
- At least three (3) years' experience in developing and programming information systems;
- Development experience in IGRPweb, distributed version control systems (such as Git) and CI/CD development;
- Proficiency in the following technologies: object-oriented programming (OOP), specifically Java; PL/SQL; JavaScript, HTML and CSS.
- Ability to work in collaboration with other team members to carry out all levels of testing (e.g. system, integration and regression);

4) One (1) Analyst

- Degree in Computer Science, Engineering or equivalent;
- At least three (3) years' experience as an analyst in the field of electronic governance;
- Proven knowledge and experience of a *software* lifecycle and all its phases, including requirements, design, development and testing;
- Knowledge of object-oriented programming (OOP), specifically Java;
- Knowledge of PL/SQL language;
- Knowledge of web languages (JavaScript, HTML and CSS).



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5. Deliverables, Reports and Scheduling

| <i>Deliverables</i> | <i>Description</i> | <i>Type</i> | <i>Payment after customer approval</i> | <i>Calendar</i> |
|--|---|---|--|-------------------------------------|
| E0. Inception Report | <i>Summary of the work to be carried out under the contract, including the training plan</i> | <i>Report</i> | 10% | <i>Contract signing + 15 days</i> |
| E.1 Module training: <ul style="list-style-type: none"> • Budget & Financial Management & Fin. • HR management | <i>Training in the functionalities developed so far; Delivery of Training Reports; Delivery of Functionalities Manuals.</i> | <i>Training ; Manual; Report</i> | 20% | <i>Contract signing + 4 months</i> |
| E.2 Module delivery: <ul style="list-style-type: none"> • Contract management Module training: <ul style="list-style-type: none"> • Budget & Financial Management & Fin. • HR management • Contract management | <i>Contract Management module developed and functional with the respective Integrations, Analytical Dashboard and User Manual completed.</i> <i>Training in the new functionalities developed so far; Delivery of Training Reports; Delivery of Functionalities Manuals.</i> | <i>Software ; Manual; Training ; Report</i> | 20% | <i>Contract signing + 8 months</i> |
| E.3 Delivery of Modules: <ul style="list-style-type: none"> • Budget & Financial Management & Fin. • HR management Module training: | <i>Modules developed and functional with the respective Integrations, Statistical Dashboards, Reports</i> | <i>Software ; Manual; Training ; Report</i> | 20% | <i>Contract signing + 11 months</i> |



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| | | | | |
|---|--|----------------------|-------------------|--|
| <ul style="list-style-type: none"> • Budget & Financial Management & Fin. • HR management | <p><i>and User Manuals completed.</i></p> <p><i>Training in the new functionalities developed so far; Training reports delivered;</i></p> | | | |
| <p><i>E.4 Final Report</i></p> | <p><i>Delivery of the final report, after the client has signed the Terms of Acceptance for the modules developed and implemented.</i></p> | <p><i>Report</i></p> | <p><i>30%</i></p> | <p><i>Contract signing + 12 months</i></p> |

6. Customer counterparts

The Association of Municipalities and of Town Hall must ensure a project execution team and a project manager on behalf of the client. This team must consist of at least one (1) person for each of the team's business areas.

The teams must work closely with all the Town Halls, sharing all the documents and ensuring the validation of the Town Halls in each document and in the Stage environment, and must also respond to requests in a timely manner and carry out the validations in a specified time.

Each team is responsible for:

- a) Meeting with system analysts to explain the business;
- b) Providing information necessary for requirements gathering;
- c) Validating the drafted specification documents;
- d) Validating the functionalities in the stage environment;
- e) Participating in validation workshops.



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Núcleo Operacional para a Sociedade de Informação (NOSi), as the project's technological partner, will:

Support and monitor the analysis of the information system and structure;

- a) Ensure the infrastructure that hosts the databases and application servers that support the solution;
- b) Ensure interoperability and integration of the entire platform;
- c) Provide security/audit/pentest/vpn/vfirewall;
- d) Train the consulting firm on the IGRPweb platform;
- e) Train the consulting firm on the PDEX platform.

7. Work duration

This project must be implemented within a period of no more than twelve (12) months after the signing of the contract.

8. Work organization

The selected consultancy firm must implement the work in close collaboration with the Association of Municipalities (representing the local Town Halls), who will monitor and support the implementation of the project. In addition, the selected firm must report to the Special Projects Management Unit (UGPE).