



REPUBLIC OF MOZAMBIQUE

ADMINISTRATIVE TRIBUNAL

MZ-MF-ADB-13-CS-QCBS

TERMS OF REFERENCE FOR THE CONTRACTING OF SPECIALISED CONSULTANCY SERVICES FOR THE DEVELOPMENT OF AN APPLICATION FOR THE VISUALISATION AND HANDLING OF E-SISTAFE DATA AT THE ADMINISTRATIVE TRIBUNAL

Maputo, May 2025

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1. CONTEXTUALISATION AND JUSTIFICATION FOR THE CONTRACT

Within the scope of the powers conferred by Article 229(2)(a) and (c) of the Constitution of the Republic and Article 14(1)(a) of Law 14/2014, of 14 August, as amended and republished by Law 8/2015, of 8 October, the Administrative Tribunal (AT) is responsible for giving an opinion on the General State Account and, in accordance with the provisions of paragraph 2(a) of the same article, to assess the financial activity of the State in the year to which the Account refers, in the areas of assets, revenue and expenditure.

And, in accordance with the provisions of article 14(2)(a) of Law no. 14/2014 of 14 August, amended and republished by Law no. 8/2015, of 6 October, in the Report and Opinion on the General State Account, this body assesses the State's financial activity in the year to which the Account refers, in the areas of assets, revenue and expenditure, compliance with the Budget Law and complementary legislation, the inventory of the State's assets and the subsidies, grants, tax benefits, credits and other forms of support granted, directly or indirectly.

Given the complexity of the tasks carried out by this accounting department (General State Account Accounting), there was a need to implement a dashboard to support and harmonise all the information managed in this sector. Therefore, in view of the Professional Development Operational Strategies included in the Information Systems Master Plan (PDSI), the aim of which is to computerise all of the TA's work processes, this Term of Reference (ToR) fits in with the need to increase the responsiveness of the workflows of the support areas with regard to the acquisition and development of computer applications and databases, which must operate in an integrated manner with the TA's existing systems.

2. OBJECTIVES AND SCOPE OF THE CONTRACT

The contract is for a company to provide specialised services for the development, configuration, implementation and operation of solutions based on the Power Business Intelligence (BI) solution for visualising e-SISTAFE data in TA.

This contract is a common, specialised and continuous technical service in Information Technology, provided by means of CONTRACTED PARTY employees allocated exclusively to the CONTRACTING PARTY, in the form of workstations, in accordance with the professional profiles and quantities described in the key team.

3. DESCRIPTION OF THE SOLUTION

Subscription to MICROSOFT POWER BI licences.

The intention is to contract 15 subscription licences for the MICROSOFT POWER BI PRO software, so that TA can advance in its analysis of corporate data, both for internal and external audiences.

4. SPECIFICATION OF CONTRACT REQUIREMENTS

All capacities are specified in their minimum requirement, and higher capacities can be delivered. All compatibility requirements must guarantee the object's effective adherence to the specified and superior versions.

Warranty and Technical Assistance

Technical guarantee and updates for 12 (twelve) months from the date of issue of the Final Acceptance Document.

Microsoft Power BI Pro

The type of licence is a subscription, for 24 (Twenty-four) months.

The Business Intelligence solution, supplied through the Software as a Service (SaaS) modality in the cloud, must comprise a set of functionalities with interactive dashboards, on-demand analyses, active collaboration, generation of reports and graphs with access via mobile devices, a multidimensional engine or associative analysis engine, among other functionalities.

The software supplied must be able to read the following data sources: 2.3.1. Oracle Database 9g or higher:

- Mysql 5.0 or higher;
- Postgresql;
- MSSQL Server 2005 or higher;
- Files created in "mdb", "csv", "xlsx" and "xls" formats;

The solution must allow graphs and reports to be published by inserting the content into html pages using insertion/sharing codes.

The BI solution must have a web portal that allows users to view and work with the content available in the solution, such as queries, reports and dashboards.

The portal must have a personal content area where only the user has access.

Allow the creation of new reports, queries and personalised analyses on the portal itself using filters.

The solution must allow the user to edit formulas for columns when creating reports, where the formula will only exist for that report without altering the characteristics or content of the column.

The solution must allow the headers/titles of the columns in a table to be customised, as well as the aggregation rule for total columns.

The solution must allow different types of visualisations to be presented simultaneously in a single report, such as a report for the same information presenting a table, a pie chart, a bar chart and an area chart simultaneously.

During the creation of new analyses, the solution must make it possible to combine columns from one or more data models using operations such as UNION or INTERSECTION. Column combinations allow new columns to be created presenting the data in different ways.

The solution should enable the end user to use a 'click and drag' model to build their queries. In this model, the user should be able to build filters and restrictions automatically without the need for any coding.

The solution must allow cross-details to be created where, from one report, the user is directed to another contextualised panel or report with the information relating to the detail previously created.

The solution must provide a library of logical, conversion, mathematical, analytical, statistical, string and other functions to be used in data analyses by the business user.

The solution must provide descriptive statistical functions such as sum, average, count, distinct count, maximum and minimum.

The solution must allow the creation of conditional formatting on columns, whereby, depending on the values, it takes on a different format customisation, thus allowing the creation of traffic lights.

The solution should allow filters to be built to select one or more values in dashboards and reports, simplifying the process of analysing data for managers.

The solution must have dimensional analysis functions allowing detailed information to be visualised, as well as the creation of pivot columns for better information visualisation.

The solution must allow reports or dashboards to be output in different formats, at least: HTML and CSV.

The solution must generate reports and dashboards so that they can also be made available for mobile devices such as tablets and mobile phones, without the need to redevelop dashboards or specific reports for this purpose.

The tool must allow scenarios to be simulated with the projection of reports and the analysis of trends.

Allow selection filters to be applied simultaneously to all the application's graphs and tables, including the dashboard, with a simple click on one or more lists or by clicking directly on the data in tables or graphs.

Have an editor for input files and tables, helping to determine field sizes, types, scales and precision.

Have a security scheme that does not require the purchase of additional components (hardware and software) from other suppliers and that is fully integrated into the tool.

Have a native or ODBC connection to at least the Oracle, MS-SQL Server, PostgreSQL and MySQL platforms.

Share and publish data, reports and dashboards on mobile devices.

The software must support the Portuguese language.

The software must be compatible with the following Operating Systems:

- Microsoft Windows 10/11 Professional 32-bit;
- Microsoft Windows 10 and 11 Professional 64-bit.

5. DELIVERABLES

On completion of the work described in this tender document, the consultancy must submit the following documents:

Deliverables	Description	Completion deadlines	Payment percentage
1	Work plan (methodologies, timetable of activities, calendar of activities, etc).	Week 1	20%
2	Business requirements and technical requirements.	Week 2	
3	Solution deployment plan	Week 2	
4	Proof of concept report.	Week 3	
5	Operational platform (Dashboards in Power BI) and duly licensed.	Week 6	40%
6	System documentation (physical and electronic versions).	Week 9	
7	Training plan (normal users and system administrators)	Week 10	20%

8	Training report	Week 10	
9	SOP	Week 11	20%
10	Final report on the implementation of the solution (physical and electronic version).	Week 12	
11	User Manual	Week 12	

6. RESULTS AND BENEFITS TO BE ACHIEVED

By using the tools included in the solution for this contract, the aim is to promote improvements and benefits in the areas of the organisation, such as:

- Possibility of publishing internal and external reports and results panels with reliability, ease, attractiveness, speed, security and preserving confidentiality (if any).
- Improved decision-making;
- Improved report creation processes;
- Improved visibility and transparency.

7. GEOGRAPHICAL SCOPE AND DURATION OF THE CONSULTANCY

The services described in these terms of reference shall be carried out at the premises of the Administrative Tribunal located at *Praça da Independência*, No. 1117 in the city of Maputo and at the headquarters of CEDSIF located at *Guerra Popular* avenue, No. 20 in the city of Maputo.

The implementation period will be considered to be 90 (ninety) days after the signing of the Contract and issuance of notice for commencement.

The implementation period is characterised by the setting up, knowledge, gradual absorption and stabilisation of the new environment and the procedures for the execution and management of technical services by the CONTRACTED PARTY, which are necessary for the full execution of the services.

After the implementation period, the contractual terms relating to Minimum Service Level (MSL) and Performance Level Indicators (PLI) may be adopted.

8. ROLES AND RESPONSIBILITIES OF EACH ACTOR.

CONTRACTED PARTY

- a) The CONTRACTED PARTY is responsible for the professional training required to carry out the services.

b) The CONTRACTED PARTY must train its professionals, at its own expense, in the areas of interest to the services, obligatorily and whenever necessary, taking into account changes in the technological platform, service needs and the "Team Training Requirements".

c) Promptly comply with any instructions and requirements from the Administrative Court Contract Management Team inherent in the performance of the contract;

d) Provide all the necessary means for the contract to be supervised by the contractor, whose representative will have the power to suspend the supply, in whole or in part, at any time, whenever it deems the measure necessary;

e) Maintain the same conditions of qualification throughout the performance of the contract;

f) When specified, maintain, during the performance of the contract, a technical team made up of duly qualified, trained and qualified professionals to supply the ICT solution;

Of the CEDSIF, IP

a) Ensure the creation of working conditions for the consultants and the validation of the results produced based on the agreed scope, quality and deadline;

b) Ensure the administrative management of the consultancy service contract;

c) Ensuring that all forms of SISTAFE information are produced and made available to the consultants.

Of the ADMINISTRATIVE TRIBUNAL

a) To inspect and monitor the project, which is the subject of these terms of reference;

b) Asking for any clarification related to the work and issuing an opinion if desired;

c) Validate the documents and artefacts produced by the consultancy with CEDSIF;

9. PROFILE OF THE CONTRACTOR AND THE TECHNICAL TEAM.

#	Description	
1	The firm must provide at least 3 (three) references from clients who have successfully provided similar services.	
2	Proven experience in Mozambique or in the Region in the public sector in implementing similar systems will be an added value.	
3		
4		

This selection process is open to companies/firms.

The interested consultants may associate with other companies to improve its qualifications in the form of consortium or subcontracts. In this case, it must clearly indicate whether the association will be in the form of a consortium or subcontracting.

The composition of this team must include a total of four (4) technicians: two (2) Senior Programmer Analysts, who will act as Team Leader, one (1) Junior Programmer Analyst and one (1) Senior Data Analyst, whose requirements are duly specified in the following points.

1. Profile and qualifications of key positions

Key position	Description and Profile
Senior Programmer Analyst (2, 1 acting as Team Leader)	Overview
	<p>The Senior Programmer Analyst programs, analyses, models, implements, evaluates, manages requirements, tests and proposes Business Intelligence, Analytics, data analysis, management, engineering and visualisation, Big Data and other solutions that may be required, acting throughout the lifecycle of surveying, developing and sustaining these solutions and ensuring that these solutions adhere to the requirements of agile methodology, information management, architecture, engineering, visualisation, governance, protection, cataloguing and data quality, as well as supporting the development and implementation of these requirements.</p> <p>They must be able to carry out their activities as agreed by the team or indicated by the Contractor, meeting the established demands and providing feedback that can contribute to the critical analysis of development, as well as supporting and promoting data analysis and the use of related techniques, methodologies and tools at all levels of the organisation.</p>
	Mandatory requirements
	<ul style="list-style-type: none"> • Training at degree level or above in computer science, information technology or related areas, evidenced by a certificate of qualification • Proven expertise in the design, development/acquisition/customisation and implementation of IT systems for 5 or more years • Experience in Oracle, MySQL, PL SQL, PostGree, SQL Server, MongoDB, Clickhouse databases for 5 years or more; • Experience in using Power BI, Superset, Microsoft Report Builder, among others, to create maps, dashboards and graphs. • Experience in data integrators such as PDI, Spark, Airflow, Apache Nifi and others; • Experience in creating ETLs using the dimensional model; • Experience in the UML modelling language, in specifying use cases and in modelling relational databases. • Development experience in Java EE, ZK, JSF, Angular, Spring and JPA-Hibernate technologies • Application development experience in Webservices integration (SOAP and Rest) and JMS and In-Memory Data Grid (IMDG) technologies • Development experience in continuous integration technologies such as Jenkins or equivalent, Maven, Ant and Ivy.

	<ul style="list-style-type: none"> • Experience of developing applications in Java and Spring Stack technologies for 5 or more years. • Experience of installing, configuring and administering JBoss and Wildfly application servers. • Excellent verbal and written communication skills in Portuguese. • Proven knowledge of the Software Development Life Cycle (SLDC) for 5 or more years. • Development experience of three (3) successful projects implementing mission-critical enterprise IT systems, including distributed transaction environments, fault tolerance and high availability. • Oracle Certified Professional" certifications in the Java programming language • Experience with Oracle Database. • Mandatory technical knowledge, except for the Junior profile: <ul style="list-style-type: none"> o Relational and multidimensional data modelling. <ul style="list-style-type: none"> o Mastery of the SQL language. o Mastery of DBMSs. o Business Intelligence (BI) o Ability to manipulate and analyse structured and unstructured data.
	<p>Description of duties</p>
	<ul style="list-style-type: none"> • Proactivity. • Ability to work as part of a team. • Capacity for decision-making. • Communication skills (oral and written expression with precision and clarity and easy comprehension of written and spoken messages). • Good interpersonal skills. • Self-taught. • Ability to assimilate and implement new and/or innovative models for analysing data; • Ability to lead, coordinate and facilitate agile development teams.
<p>Junior Programme Analyst (1)</p>	<p>Overview</p> <p>The Junior Programmer Analyst supports the Senior Programmer Analyst in the execution and implementation of all the tasks described in these terms of reference.</p> <p>Mandatory requirements</p> <ul style="list-style-type: none"> • Training at Bachelor's level or above in computer science, information technology or related areas, evidenced by a certificate of qualification • Proven expertise in the design, development/acquisition/customisation and implementation of IT systems for 5 or more years • Experience in using Power BI, Superset, Microsoft Report Builder and others to create maps, dashboards and graphs • Experience in creating ETLs using the dimensional model; • Experience in the UML modelling language, in specifying use cases and in modelling relational databases. • Development experience in continuous integration technologies such as Jenkins or equivalent, Maven, Ant and Ivy. • Experience in specifying and developing computer systems • Experience of developing applications using SOA and SOFEA architecture.

	<ul style="list-style-type: none"> • Excellent verbal and written communication skills in Portuguese. • Proven knowledge of the Software Development Life Cycle (SLDC) for 5 or more years.
	Description of duties
	<ul style="list-style-type: none"> • Proactivity. • Ability to work as part of a team. • Ability to make decisions. • Communication skills (oral and written expression with precision and clarity and easy comprehension of written and spoken messages). • Good interpersonal skills. • Self-taught. • Outstanding knowledge and experience in one or more segments of data analysis and/or management, with solid and relevant results in the production of research, studies, analyses or products related to these topics.
Senior Data Analyst (1)	Overview
	Senior Data Analysts must act as a technical and behavioural benchmark for the team, including acting as facilitators and mentors. They must also be able to provide the technical basis for choosing solutions and technologies for acquiring, processing, storing, visualising and managing data.
	Mandatory requirements
	<ul style="list-style-type: none"> • Higher education, post-graduate degree, master's, doctorate or post-doctorate in the following areas of knowledge (and their sub-areas): <ul style="list-style-type: none"> ○ Computer Science; ○ Engineering; ○ Economics; ○ Information Science; ○ Engineering/Technology; or another area with a strong emphasis on Business Intelligence, Analytics, artificial intelligence, analysis, science, engineering, architecture, data management and/or governance, business analysis, or agile methodologies. • Minimum of 5 years' professional experience; • Expertise in: <ul style="list-style-type: none"> ○ Relational and multidimensional data modelling. ○ Mastery of the SQL language. ○ Mastery of DBMSs. ○ Business Intelligence (BI) ○ Ability to manipulate and analyse structured and unstructured data. • - Technical knowledge of the following database management systems and/or data platforms, Big Data: <ul style="list-style-type: none"> ○ Azure. ○ Other data platforms, Big Data and Machine Learning. ○ Oracle. ○ Oracle Dataguard. ○ Oracle RAC. ○ SQL Server. ○ Other relational databases. ○ NoSQL databases. ○ Geographical databases. • - Technical knowledge of the following items: <ul style="list-style-type: none"> ○ Descriptive analysis.

	<ul style="list-style-type: none"> ○ Statistical analysis. ○ Inferential analysis. ○ Predictive analysis. ○ Prescriptive analysis. ○ Data visualisation. ○ Business Intelligence (BI). ○ Analytics. ○ Text Analytics. ○ Text Mining. ○ Data Mining. ○ Data Hub.
	Description of duties
	<ul style="list-style-type: none"> ● Proactivity. ● Ability to work as part of a team. ● Ability to make decisions. ● Communication skills (oral and written expression with precision and clarity and easy comprehension of written and spoken messages). ● Good interpersonal skills. ● Self-taught. ● Ability to assimilate and implement new and/or innovative models for analysing data; ● Ability to lead, coordinate and facilitate agile development teams.

Estimated level of effort is, as follows:

No.	Expertise Required	Number of Staff Months
1.	Team leader- Senior Programmer Analyst (2)	16
2.	Junior Programme Analyst (1)	
3.	Senior Data Analyst (1)	