



**TERM OF REFERENCE (TOR) FOR DATA CENTER CONSULTANT FOR ESTABLISHING
NEW IT INFRASTRUCTURE IN TIER-III DATA CENTER AT BANK OF SOUTH SUDAN**

I	Tender inviting officer authority, Designation and address	The Department IT Bank of South Sudan Plot No1, block D 6, P.O. Box 136 Juba South Sudan.
II	A. Name of work: B. INTERNATIONAL COMPETITIVE BID	1- Appointment of Data center consultant/Firm for establishing new IT Infrastructure in tier -III Data center at Bank of South Sudan
III	Submission of BID Closing Date	By Email to: rfp.it@bosshq.org Friday, September 10, 2021

CRITICAL DATES SHEET

1. Rational for the consultancy

The Bank of South Sudan is in the process of constructing a new data center which will centralize the Bank of South Sudan's Information Technology operations and equipment to ensure safe, efficient and effective data storage. The Bank of South Sudan intends to build a modern data center bearing the following attributes;

- Data center meets international standard
- Integrated and holistic data center
- Ensure that the development meets both current and long-term needs of BSS projected systems
- Support secure connectivity with current remote locations and national network integrations with other financial institutions

2. Purpose/objectives of the consultancy

- i. The main purpose of the consultancy is to provide a site audit that delivers visibility into the architectural, mechanical, electrical, structural and Environmental integrity of the proposed modern enterprise datacenter for the period of 12 months.
- ii. The selected firm is expected to use the resulting site audit for benchmarking, gap analysis, equipment selection, data center room design, power and cooling options, etc. to meet the long term goals and objectives of BoSS IT infrastructure.
- iii. Assist the BSS IT department and work with independent design firm to design a modern enterprise data center with new facility.
- iv. The firm will provide recommendations and oversight to Bank of South Sudan IT Infrastructure team and the implementing firm throughout the implementation process to ensure a successful project.
- v. The firm shall act as a consultant to the Design and Implementing firm to the end of the project

- vi. Analyze and prepare Bank of South Sudan's requirements for a modern enterprise datacenter and develop terms of reference for vendor of datacenter implementation and Design in line with internationally recognized standards.
- vii. Select a qualified vendor/firm to implement the modern enterprise datacenter for the Bank of South Sudan IT Infrastructure as designed.
- viii. Provide a close proximity monitoring throughout implementation period to ensure datacenter design is acceptably executed.
- ix. Advise the IT department on relevant capacity building programs.
- x. Development Data Center Management Policies, Procedures and template based on International standards
- xi. Ensure that all necessary security controls to protect the data center from threat actors, malware, or other physical or environmental threats have been implemented.

Scope of Service

The scope of assignment and the specific services to be provided by the consultant includes three main areas: In-depth datacenter requirements collection and analysis, datacenter design, the selection of the vendor to supply and execute a modern enterprise datacenter for IT operations and provide oversight during implementation. The bank wishes to implement a number of applications, including a national payment system, so information security is a critical element in this project. Various standards such as NIST, and ISO will be used as supplemental guidance for system hardening efforts and overall data center security.

2.1. Requirements, collection, and analysis

The services to be delivered by the consultant under this scope include:

- I. Perform an elaborate assessment of the Bank's needs for a modern enterprise datacenter through interacting with IT department's concerned staff.
- II. Study the building intended to host the datacenter and provide specifications that are customized to fit in the structure.
- III. Define and specify a Data Centre Architecture that conforms to international standards such as ISO 27001 Security Standard compliance.
- IV. Prepare a detailed IT Infrastructure requirement report for establishing new IT infrastructure in the server farm area as provided in the new datacenter building at the Bank of South Sudan HQ in Juba.
- V. Define the IT infrastructure per Tier III standard. The IT Infrastructure in scope are the non-critical and critical components such as UPS, cooling system and BMS, fire safety and security system, electrical cabling, etc.
- VI. Recommended appropriate design and products to the existing operational equipment of BSS.
- VII. Define suitable product for upgrading the additional power sources such as Diesel Generators, UPS etc.
- VIII. Hold workshops with the stakeholders (IT Department) for the purpose of introducing and validating the proposed Data center design and capacity.
- IX. Perform a security analysis and risk-assessment of the environment and implement any necessary security controls based on the risk assessment in order to protect the network and systems.
- X. Define physical security controls including but not limited to traffic bollards, man traps, video surveillance, biometric or card access

control systems, intrusion detection systems and multifactor authentication.

- XI. Define physical security measures to monitor and control access to sensitive areas.
- XII. Define a network topology that has multiple layers, with the most critical communication occurring in the most secure and reliable layer.
- XIII. Ensure that critical components are redundant and are on redundant networks.
- XIV.** Advice on disabling unused communication channels on systems as recommended and where agreed upon.

2.2. Participation in the Vendor Recruitment Process

Engaging the vendor through the RFP is an internationally best practice that is intended to get the best out of many. This is done for quality of the services needed. The services to be delivered by the consultant under this scope include:

- i) prepare the RFP document that contains both the technical and business specifications/ documentation and Service Level Agreements
- ii) Assist Bank of South Sudan in fine tuning of RFP/Tender document for all the components/systems identified in the Pre- RFP stage,
- iii) Conducting pre bid conference, technical evaluation, commercial evaluation, selecting bidders, drafting SLA's etc.), finalizing of award of contract etc.
- iv) The consultant will also select the suitable vendors through tendering process for implementing latest products and make available space in the building a server farm in operational condition as per Tier-III standard.

- v) The consultant is also required to advice and recommend on any other matter during the course of engagement as and when needed/required by Bank of South Sudan.
- vi) With the help of the Legal Administration, the consultant will also participate in the design or drafting of the vendor's contract/Agreement

3. Deliverables

The consultant will be expected to deliver the following;

3.1. Architecture:

- i) A high level design of Data center including Interior Architecture, Architectural conservation as well as Graphic design and signage.
- ii) Details of the technical specifications including Electrical equipment, Heating, Ventilation and Air Conditioning design and other mechanical systems.
- iii) Electrical testing like power quality analysis, earthing, harmonic, thermal scanning of cables, air quality test etc.

3.2. Project Management Services

- i) Request for Proposal (RFP) for the vendor spelling out all the technical requirements
- ii) Develop an integrated construction schedule on MS Projects with two-week micro plans for activities covering all trades and monitor compliance.
- iii) Detailed documents with relevant drawings for each of the services mentioned including financial proposal.
- iv) Testing, commissioning and handing over of the facility

3.3. Security Services

- i) Documented security policies and procedures.

- ii) System hardening where required.
- iii) Additional hardening where asked.
- iv) Risk assessment prior to the implementation of the security controls, and a remediated Risk Assessment post implementation of the security controls.

1. Duration of the assignment

It is estimated that the work will require a maximum input of ***Eighteen Months, however, this engagement shall be for a period of 12 months*** with the possibility of extension should need arises

4. Methodology

Arrange weekly meetings onsite/virtual with Bank of South Sudan representatives and all involved vendors. The consultant shall support Bank of South Sudan till completion of the data center at the place of execution.

5. Key qualifications and experience of Consultant

The Consultant will have the following qualifications and experience:

- a) Minimum of proven certification in data center design and consultancy, IT or Business Administration or any other relevant field from a recognized University/Institution.
- b) At least 10 years of experience in Designing, implementing, developing, upgrading and management of Data Center Infrastructure project in big institutions with at least five (5) similar assignments and should be able to present at least three testimonies for good performance on data center infrastructure.
- c) Must demonstrate good knowledge of data center Architect including similar project management and evaluation.
- d) At least proven 5 years' experience providing similar services to big Banks

- e) Relevant security certification based on the requirements identified above, like ISO 27001 Lead Implementer, ISO 27001 Lead Auditor.

6. Reporting

The Consultant shall report to the Bank of South Sudan IT Department (Director). The Director shall seek input for the project from stakeholders on important technical matters on the consultancy. For the purpose of this consultancy key stakeholders are identified as all relevant directorates and departments within BSS. Key Stakeholders shall provide suggestions and feedback for the development of the data centre. The suggestion and feedback of the key stakeholders may include “contract design and procurement policy framework”, and these may be provided in the beginning and during progress update meetings.

7. Restrictions

The consultant will not have any material or immaterial interest in any of the outputs, technologies or related ICT services under this assignment. In addition to the standard conflict-of-interest restrictions specified in the consultancy contract, any tangible or intellectual output created under this contract will remain the sole property of the BSS, who will make them available to the concerned development partners. These terms of reference and the correlated products are to be handled with confidentiality.