

TERMS OF REFERENCE
TO PREPARE TECHNICAL DOCUMENTATION FOR OSS/BSS

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Background

The Government of Georgia signed a Loan Agreement for financing the implementation of the Log-in Georgia Project ("Project") with the World Bank (WB). The proposed Project development objective is to increase access to affordable broadband internet and to promote its use by individuals and enterprises in targeted rural settlements.

The Project Consists of the following key components:

- Component 1: Increasing broadband access – this component will help expand access to broadband internet in rural settlements across Georgia and improve the enabling environment for digital development.
 - Subcomponent 1.1: Supporting the Open Net Program – the Open Net Program will develop a national infrastructure to offer open access, wholesale, and broadband telecommunications services.
 - Subcomponent 1.2: Improving the enabling environment for digital infrastructure – this subcomponent will support activities to improve the enabling environment for digital infrastructure development in Georgia. This will support the development of legal, policy, and regulatory instruments and the design of investment attraction measures included in the national broadband development strategy (adopted in 2020).
- Component 2: Promoting the use of broadband-enabled digital services – this component will support the development of Georgia's digital economy through a strengthened enabling environment, promoting digital use-cases of broadband, and addressing barriers to the participation of individuals in the digital economy.
 - Subcomponent 2.1: Enabling environment for digital economy development – this subcomponent will support activities to improve the enabling environment for digital economy development in Georgia.
 - Subcomponent 2.2: Promoting use-cases – the subcomponent will promote specific use-cases of improved broadband connectivity in targeted rural settlements.
 - Subcomponent 2.3: Increasing digital inclusion – this subcomponent will finance targeted interventions to boost the use of the internet and digital services by women, social minorities, and persons with disabilities in targeted settlements.
- Component 3: Project implementation support – this component will support the management and implementation of the Project and associated activities.

The Project is implemented over a five-year period by the Open Net NNLE as the implementing entity, with the oversight of the Ministry of Economy & Sustainable Development (MOESD) of the Government of Georgia (GoG). Open Net NNLE is the Project Implementing Entity (PIE) to support the implementation of the Project.

About the existing infrastructure and services

OPEN NET has already built over 200 km of fiber-optic network and 600 km - is under development, and construction will be finished approximately on December 2022-February 2023. Building the rest of the network is planned before the end of 2025 (including data transmission equipment).

Most of the maintenance service of the passive and active infrastructure is outsourced. The management of all other business processes is under the OPEN NET responsibilities (Monitoring the network, opening tickets on any maintenance responsibility issue, activating a new ISP service, etc.).

OPEN NET is a wholesale operator, and its services can only be offered to Internet Service Providers (ISP). Currently in Georgia, there are 3 large and around 150 medium or small ISPs; who should be considered as potential client's for OPEN NET. OPEN NET currently has 3 types of telecom services:

1. FO cable core rental
2. Data transmission between the POPs (within a single aggregation).
3. Data transmission between the POPs (within several aggregations).

Objective and Purpose of the Assignment

OPEN NET aims to create OSS/BSS, which helps simplify and automatize operation and business processes at OPEN NET, such as network operation systems, inventory systems, ticketing systems, CRM, and other software or hardware solutions. To achieve this aim, the objectives of this assignment are to:

1. Identify appropriate technical/hardware solutions needs for OSS/BSS of the network to achieve the required project objectives while ensuring cost-efficiency;
2. Identify implementation approach for deployment of the systems.

The work done by the consultant should include:

Phase One: Needs Assessment report

1. Based on OPEN NET services, the consultant shall prepare a needs assesment report, i.e. an overview document describing the most suitable Operational systems (OSS/BSS) for enhanced management, monitoring, inventory management, ticketing system, and documentation, as well as support service and SLA management.
2. The overview document must include the general list and the detailed descriptions of software/hardware needs for simplifying and automatizing each business process in OPEN NET.
3. The overview document, solutions must be categorized as either mandatory or optional.

To achieve this, the consultant will be provided with:

- a. The existing technical documents regarding OPEN NET's NOC requirements;
- b. All other appropriate existing data related to OPEN NET's operations.

Phase Two: Detailed Technical Document

1. Based on the created overview document, the consultant shall create a Detailed Technical Document of the software/hardware requirements (in sufficient details to make it suitable for RFB tender). The

document shall include detailed requirements for each software/hardware and other integrity requirements.

2. The consultant shall describe the business process of providing services and troubleshooting;
3. Based on the described business processes, the consultant shall prepare detailed technical requirements of relevant software(s);
4. Based on the described business processes and software, the consultant shall deliver applicable hardware requirements based on the described business process and software.
5. The consultant shall also provide approximate costing for each type of software solution described in the Detailed Technical Document, as well as approximate costing for the described hardware.

Deliverables:

1. Needs assessment report (Phase 1)
2. Detail Technical Document (Phase 2)
3. Detailed presentation of both Phase 1 and Phase 2 (Phase 3)

All deliverables must be submitted in English. All documents shall be submitted in electronic (Pdf/Docx) format. All correspondence to the consultant shall be in English.

Milestones

The contract duration will be 90 days (expected from January 9, 2023). The contract could be extended according to the business needs.

The table below summarizes the anticipated milestones of the assignment. The indicated timeline allows for review time.

Milestone	Submission Date	Language
Phase 1	Within 30 days after sign the contract	English
Phase 2	Within 40 days after completion of Phase 1	
Phase 3	Within 14 days completion of Phase 2	

Required Qualification

Education:

At least a Master's degree in one of the following fields or related fields:

- Telecommunications engineering;
- Electrical and electronics engineering;
- Engineering Management;

Work experience & skills:

- At least 3 (three) years of international experience with similar types of assignments or consultancies (with regards to deliverables of the consultancy);
- At least 7 (seven) years of experience in the electronic communications sector in providing consultancy/advisory services or in network design and/or operations;
- Good knowledge of technology development and current market trends;
- Awareness of cybersecurity and resilience aspects of telecommunications networks;
- Ability to work collaboratively in a team and deliver outputs on time;
- Excellent speaking and writing skills in English.

Facilities and Services to be provided by Open Net

Open Net shall provide all existing information and documents required to complete tasks.

Tasks and Responsibilities

The consultant shall report to the Director, OPEN NET N(N)LE, and shall work with other individuals and organizations identified by the Director to fulfill the terms of reference.