



ORGANISATION OF EASTERN CARIBBEAN STATES
REQUEST FOR EXPRESSIONS OF INTEREST

Organisation of Eastern Caribbean States
Caribbean Digital Transformation Project (CARDTP)

Grant No.: IDA – D6520

Assignment Title: Consulting Services to Develop a Methodology for Quality-of-Service (QoS) and Quality of Customer Experience (QoE) Monitoring and Enforcement; and Capacity Building for the Implementation of QoS and QoE Framework

Reference No.: *LC-OECS COMMISSION-202023-CS-CQS*

The Organisation of Eastern Caribbean States (OECS) Commission has received funding from the World Bank toward the cost of the Caribbean Digital Transformation Project (CARDTP), and intends to apply part of the proceeds for Consulting Services to Develop a Methodology for Quality-of-Service (QoS) and Quality of Customer Experience (QoE) Monitoring and Enforcement; and Capacity Building for the Implementation of QoS and QoE Framework.

The consulting services (“the Services”) include the following:

1. Revise and update the current draft Electronic Communications (Quality of Service) Regulations, including the KPIs for electronic communications networks and services
2. Develop a strategy for capacity building on the proposed regulatory framework and in the measurement, monitoring and enforcement of QoS/QoE standards for the staff of Eastern Caribbean Telecommunications Authority (ECTEL) and the National Telecommunications Regulatory Commissions (NTRCs)
3. Recommend to ECTEL relevant methods, tools, software and systems for measuring, monitoring and enforcing QoS/QoE standards

The assignment is expected to be undertaken during the period November 2021 to October 2022.

The OECS now invites eligible consulting firms (“Consultants”) to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The minimum required qualifications and experience are listed in section 6 of Terms of Reference (TOR) below. The details

of the services required are available in the TOR which is available on the official website: www.oecs.org.

The attention of interested Consultants is drawn to Section III, paragraphs, 3.14, 3.16, and 3.17 of the World Bank's "Procurement Regulations for IPF Borrowers" July 2016 and revised in November 2017 and August 2018 ('Procurement Regulations'), setting forth the World Bank's policy on conflict of interest.

To obtain the maximum degree of comparison among Expressions of Interests (EOIs) and facilitate the evaluation process, the EOI should be a maximum of 40 pages and include the following information included below:

- **Title page with name of firm submitting the EOI:** should contain name of firm (or joint venture and/or a sub-consultancy, if applicable), address, email, telephone, name of contact person and date of submission.
- **Expression of Interest:** including the firm's general and specific experience, pool of experts etc.

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint venture, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.

A Consultant will be selected in accordance with the Consultants' Qualification selection method set out in the Procurement Regulations.

Further information can be obtained at the address below during office hours 08:30 a.m. – 4:00 p.m. (0830 to 1600 hours).

Ms. Jenna Flavien
Procurement Officer
Caribbean Digital Transformation Project
OECS Commission
Morne Fortuné
P.O. Box 1383
Castries
Saint Lucia
Telephone: 758-455-6424
Email: procurementbids@oecs.int

Copied to:

1. Mrs. Jacqueline Emmanuel Flood, jacqueline.flood@oecs.int
2. Mr. Imran Williams, imran.williams@oecs.int

An electronic copy of Expressions of Interest are to reach the OECS Commission by **August 27, 2021** addressed to:

Ms. Jenna Flavien, Procurement Officer
At the following email address:
procurementbids@oecs.int
copied to imran.williams@oecs.int

The email submissions should include the name and address of the Consultant and shall be clearly marked in the subject line as **“Expression of Interest – Consulting Services to Develop a Methodology for Quality-of-Service (QoS) and Quality of Customer Experience (QoE) Monitoring and Enforcement; and Capacity Building for the Implementation of QoS and QoE Framework”**.

The Terms of Reference for this consultancy is provided below.

Caribbean Digital Transformation Project

IDA – D6520

Scope of Services
Terms of Reference

Consulting Services to Develop a Methodology for Quality-of-Service (QoS) and Quality of Customer Experience (QoE) Monitoring and Enforcement; and
Capacity Building for the Implementation of QoS and QoE Framework

July 2021

Background

The OECS Commission and the Governments of Grenada, Dominica, Saint Lucia, and St. Vincent and the Grenadines are implementing a digital transformation project, financed by the World Bank Group. The Caribbean Digital Transformation Project (called “project” going forth) comprises four components that address key bottlenecks and harness opportunities to develop the Eastern Caribbean Digital Economy as a driver of growth, job creation and improved service delivery. It aims to –

- ensure that every individual and business within the region is empowered with the access to broadband, digital financial services, and skills needed to actively participate in an increasingly digital marketplace and society;
- leverage public sector modernization and digitization to improve service delivery and to drive creation of a digital culture across the region;
- support the improved management of digital risks, by bolstering cybersecurity policy, capacity, and planning tools in the region;
- facilitate technology adoption to improve productivity of flagship industries and create demand for digitally enabled jobs; and
- foster regional integration and cooperation to capture the economies of scale and scope required to increase impact and value for money of the project interventions and to create a more competitive, seamless regional digital market to attract investment and provide room for growth of digital firms.

One component of the project focuses on Telecommunications: Legal and Regulatory Environment, Institutions and Capacity. This sub-component, under the technical leadership of the Eastern Caribbean Telecommunications Authority (“ECTEL”), supports greater telecoms sector competition, affordability and service quality across the region as well as enhancing resilience and emergency response capabilities for critical communications infrastructure. It will support modernization of the legal, regulatory and institutional frameworks governing the telecoms sector and the capacity to implement them at regional and national level.

ECTEL established by the ECTEL Treaty, advises the National Telecommunications Regulatory Commissions (“NTRCs”) on the legal and regulatory framework, to effectively manage the electronic communications sector in the ECTEL Contracting States. Under the current legislative framework, the NTRCs are responsible for technical regulation and the setting of technical standards of electronic communications/telecommunications and to ensure compatibility with international standards. The Quality of Service (“QoS”) standards as

stipulated in the current QoS Regulations under the Telecommunications Act are deficient, obsolete and ineffective, in responding to the growth of the sector and the myriad of challenges currently facing the ECTEL Contracting States.

In preparation for the legislative reform and the introduction of the new Electronic Communications legislative framework, the ECTEL Treaty was amended by Protocol Amendment, which came into force on 5th December, 2019. ECTEL recommended a harmonised Electronic Communications (“EC”) Bill for its Contracting States. On 18th February 2021, the EC Act was passed by the National Assembly in the Federation of St. Kitts and Nevis. The EC Act now replaces the Telecommunications Act in St. Kitts and Nevis and it is envisaged that in the future the remaining ECTEL Contracting States will transition to the EC legislative framework.

Further, the new EC Bill envisages a new legislative framework placing newer obligations on the service providers and will also strengthen the capacity of NTRCs to monitor and enforce QoS and Quality of Experience (“QoE”) standards. The envisaged regulations will strive to ensure that the users of public electronic communications networks obtain reliable QoS and QoE standards from the public electronic communications network operators in the ECTEL Contracting States.

1. Objectives of the assignments are to:

Revise and update the current draft Electronic Communications (Quality of Service) Regulations, including the Key Performance Indicators (“KPIs”) for electronic communications networks and services.

2. Scope of Works

In carrying out the tasks, the consultant shall identify and assess important issues that should be addressed in the assignment and discuss these matters with ECTEL. The tasks to be undertaken by the consultant are:

a. Legislative and Regulatory framework

- (i) Develop a workplan and prepare an Inception Report. This Inception Report should include an analysis which identifies issues, gaps, risks and present an assessment to ECTEL on the legislative and regulatory framework for QoS/QoE.
- (ii) Revise and update the current draft Electronic Communications (Quality of Service) Regulations, including the KPIs for electronic communications

networks and services. In conducting the revision and update of the QoS Regulations, the consultant must also:

- Recommend international best practices for the reporting requirements of electronic communications network operators;
 - Consider jurisdictions such as the United Kingdom, European Union and other jurisdictions with successful implementation of a QoS/QoE framework;
 - Develop a fair, transparent and non-discriminatory framework for the publication of QoS/QoE measurements based on international best practices; and
 - Include Explanatory Notes to the draft QoS/QoE Regulations.
- (iii) Review the current new licence templates under the EC Bill/EC Act, and:
- Draft the necessary Schedules to be included in the recommended draft QoS/QoE Regulations, which should include parameters, terms/conditions and obligations of the Licensees. These Schedules should be flexible for the amendment by Orders issued/approved by the respective Ministers; and
 - Ensure QoS/QoE Regulations comply with licence terms and conditions.
- (iv) Consider and review the current EC Act/Bill and make recommendations for any suggested future amendments to the provisions relating to QoS/QoE in the EC Bill/Act (once promulgated) to strengthen the implementation of the QoS/QoE framework. These amendments should be in the form of a draft EC (Amendment) Bill, with Explanatory Notes for feedback and input.
- (v) Prepare the public consultation document on the proposed draft QoS/QoE Regulations and proposed EC (Amendment) Bill with amendments to the provisions in the current EC Bill/Act (once promulgated), in conformity with the public consultation process in the ECTEL Contracting States.
- (vi) Evaluate the responses received during the public consultation process and prepare a Determination Paper. This Determination Paper should include the collated comments/feedback received and their responses;
- (vii) Prepare and submit the final draft proposed QoS/QoE Regulations and all other suggested future amendments to the provisions in the current EC Act/Bill to ECTEL as outlined in 2a (iv).

- (viii) Present the final draft proposed QoS/QoE Regulations to the Board of Directors (“Board”) and the Council of Ministers (“Council”) of ECTEL. The Presentation should include the issues raised in the Determination Paper and the ECTEL’s position in response to the feedback received during the consultation.
- (ix) Consider the input and feedback received from the Board and Council and finalise the proposed QoS/QoE Regulations and proposed EC (Amendment) Bill.

b. Capacity Building and Transfer of knowledge

- (i) Develop a strategy for capacity building on the proposed regulatory framework and in the measurement, monitoring and enforcement of QoS/QoE standards for the staff of ECTEL and the NTRCs. In developing the strategy the consultant should focus on the capacity building requirements within the NTRCs including the personnel required for field measurements and centralized backend processing. Further, the consultant should propose methods for the sustainability of the QoS/QoE monitoring and enforcement regime.
- (ii) Identify the issues and concerns in QoS/QoE required for capacity building and training including proficient use of tools for measuring, monitoring and enforcing of the QoS/QoE standards.
- (iii) Prepare a schedule of training activities for ECTEL and the NTRCs.
- (iv) Deliver training to staff of ECTEL and NTRCs based on an approved training schedule.

c. Identification of tools

- (i) Recommend to ECTEL relevant methods, tools, software and systems for measuring, monitoring and enforcing QoS/QoE standards. The recommendations should include the following:
 - a. the suggested points in the various networks for measuring KPIs;
 - b. the measurement procedures and how often the measurements should be taken; and
 - c. the necessary parameters for measurement and enforcement purposes.
- (ii) Propose methods, tools, software, and systems for measuring and monitoring customer experience and enforcing QoS/QoE KPIs that

include both subjective and objective measurements. The QoE KPIs, should include subjective measurements comprising customer satisfaction surveys which may be delivered online, including using social media.

- (iii) Prepare the draft Technical Specifications for the request for Bids for the procurement of equipment, software, and tools for measuring QoS/QoE, to be submitted to the World Bank for review and no objection.
- (iv) Prepare the final Technical Specifications for the request for Bids for the procurement of equipment, software, and tools for measuring QoS/QoE, taking into account comments from the World Bank.
- (v) For all Quality of Service (QoS) parameters the consultant should include the measurement/estimation (for subjective ones) procedures so that all stakeholders understand them at the same level
- (vi) Consultant should also indicate current and targeted values of all QoS parameters in the regulations.

d. Implementation Plan

Prepare a comprehensive implementation plan for the new QoS/QoE regime, clearly identifying all activities to be undertaken and the specific roles of ECTEL and the NTRC in each activity.

3. Estimated Level of Effort and Timing

The estimated level of effort for the entire assignment is three (3) person-months over a **twelve (12) month period.**

4. Reporting Requirements and Deliverables

Every report must be submitted to the OECS and ECTEL as an electronic file. All deliverables will be reviewed by ECTEL and comments will be provided via email. The consulting firm is expected to provide written feedback on how comments were addressed. The Consulting Firm is to submit the following:

a. An Inception Report. This report is to include the following:

- (i) Work Plan for the assignment based on initial meetings and consultations with the staff of OECS and ECTEL ; and
- (ii) A preliminary analysis which identifies the pertinent issues, gaps, risks and presents an assessment of the current and draft legislative and regulatory framework on QoS/QoE.

b. Legislative and Regulatory framework.

- (i) Draft QoS/QoE Regulations under the current EC Act/Bill with Explanatory Notes;
- (ii) Recommendations for any suggested future amendments to the provisions relating to QoS/QoE in the EC Bill/EC Act (once promulgated) to strengthen the implementation of the QoS/QoE framework. These amendments should be in the form of a draft EC (Amendment) Bill for feedback and input; and
- (iii) A Public Consultation document on the proposed draft QoS/QoE Regulations under the current EC Act/Bill and suggested future amendments to the provisions in the current EC Act/Bill relating to QoS/QoE. The Public Consultation document should include a draft policy statement and accompanying Explanatory Notes to the proposed draft QoS/QoE Regulations and suggested future amendments to the provisions in the current EC Act/Bill relating to QoS/QoE;
- (iv) A Determination Paper which should include final recommendations for the draft QoS/QoE Regulations under current EC Act/Bill and suggested future amendments to the provisions in the current EC Act/Bill and responses to comments/feedback from the public consultation process;
- (v) Presentation of draft proposed QoS/QoE Regulations and proposed EC (Amendment) Bill to the ECTEL Board and Council of Ministers. The Presentation may be in person or online. The Presentation should include the issues raised in the Determination Paper and ECTEL's position in response to the feedback received during the consultation; and
- (vi) Finalised QoS/QoE Regulations and proposed EC (Amendment) Bill, having considered the input and feedback received from the Board and Council.

c. Identification of tools

- (i) Draft Technical Specifications for the request for Bids for the procurement of equipment, software, and tools for measuring QoS/ QoE; and
- (ii) Final Technical Specifications for the request for Bids for the procurement of equipment, software, and tools for measuring QoS/QoE.

d. Capacity Building and Transfer of knowledge

- (i) Strategy for capacity building for ECTEL and the NTRCs to include a training schedule; and
- (ii) Training Workshops and training materials for capacity building for ECTEL and the NTRCs as outlined in section 2 b above.

e. Implementation Plan

A comprehensive implementation plan for the new QoS/QoE regime.

f. A Final Report. This report will be initially presented in draft form and should include:

- (i) A description of activities and tasks undertaken during the assignment;
- (ii) Any Recommendations for follow-up activities related to the assignment;
- (iii) The main findings from consultations, meetings and presentations undertaken during the assignment and the circumstances that impacted positively and negatively on the conduct of the assignment; and
- (iv) A description of all deliverables and the final draft proposed Regulations which should include the reporting requirements for electronic communications network operators and a framework for the publication of QoS/QoE measurements.

5. Institutional and Organization Arrangements Responsibilities of ECTEL

- a.** ECTEL will provide following support services and facilities without any charge:
 - (i) facilitate meeting (online) with service providers, the NTRCs, the Board, Council and other stakeholders, as appropriate; and
 - (ii) facilitate access to reports, information and data, as appropriate, and in a timely manner.
- b.** ECTEL will arrange for access to telephone, internet, and fax facilities when the consultant is operating from its offices.
- c.** ECTEL will assign at least one (1) member of its Staff to serve as its representative to the Consultant. ECTEL shall ensure that the staff designated as its representative to the Consultant for this assignment has the capacity to deal with the issues related to the assignment and is willing and able to learn from the Consultant.

6. Selection Criteria

ECTEL seeks the services of a Consulting Firm that satisfies the qualifications outlined below:

- (i) At least five (5) years of work experience in the area of electronic communications (telecommunications) regulation including policy development for QoS and QoE standards;
- (ii) At least one successfully completed similar assignment during the past five (5) years; and
- (iii) Experience in undertaking consultancies in the OECS and/or Caribbean region or in SIDS countries would be an advantage.

The Consulting Firm shall have core team members who possess a range of skills and qualifications, including the key experts identified below with the corresponding qualifications, in order to successfully undertake the assignment. As such, the Consulting Firm shall have key experts with the following qualifications and experience:

a. Technical Expert

- (i) Specialist(s) in network traffic management, with at least a Master's degree in engineering (Electrical/Electronics/ Telecommunications), and at least ten (10) years' experience in the following areas; network traffic management, cellular mobile (GSM, UMTS, LTE, etc) technology, Broadband ISP platforms, optical fiber and Microwave backbone networks;
- (ii) Knowledge and experience in the procurement, use and interpretation of results from tools used to measure QoS/QoE within the last ten (10) years;
- (iii) Competency in conducting training and capacity building;
- (iv) Knowledge and experience in the electronic communications/ telecommunications sector in developing countries; and international best practices on QoS/QoE issues relevant to the ECTEL Contracting States.
- (v) Fluency in both written and spoken English.

b. Regulatory Expert

- (i) Specialist(s) with at least a Master's Degree in Economics, Project Management or related field.
- (ii) At least 10 years working experience in Electronic Communications (Telecommunications) Regulation with emphasis on developing QoS/QoE regulations and policy.
- (iii) Competency in conducting training and capacity building; and

(iv) Fluency in both written and spoken English.

c. Legal Expert

- (i) Law Degree with at least ten (10) years of work experience;
- (ii) A Master's Degree or Diploma in Legislative Drafting with at least ten (10) years' experience in drafting of legislation;
- (iii) Experience in the area of electronic communications/telecommunications;
- (iv) Prior experience in legislative drafting for the OECS and/or CARICOM Contracting States; and
- (v) Fluency in both written and spoken English.