

**REQUEST FOR PROPOSALS**

**FEASIBILITY STUDY FOR THE**

**MAIN ONE CABLE COMPANY FIBER OPTIC EXPANSION**

Submission Deadline: **5:00 PM**  
**LOCAL (LAGOS) TIME**  
**November 01, 2013**

Submission Place:  
Ms. Funke Opeke  
Chief Executive Officer  
Main One Cable Company  
FABAC Center  
3B, Ligali Ayorinde Street  
Victoria Island  
Lagos, Nigeria

SEALED PROPOSALS SHALL BE CLEARLY MARKED "PROJECT SOUTH-SOUTH" AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

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## **Section 1: INTRODUCTION**

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US\$550,000 to Main One Cable Company Nigeria Limited (“Main One,” the “Grantee”) in accordance with a grant agreement dated September 3, 2013 (the “Grant Agreement”). The grant funds a Feasibility Study (“FS”) to evaluate the technical and financial feasibility of expanding Main One’s fiber optic network from Lagos to Port Harcourt (“Project”) in Nigeria (“Host Country”). The Grant Agreement is attached at Annex 4 for reference. The Grantee is soliciting technical proposals from qualified U.S. firms to provide expert consulting services to perform the Feasibility Study.

### **1.1 BACKGROUND SUMMARY**

Main One’s parent company, Main One Cable Company Mauritius built and owns a submarine communications cable, with landings in Seixal, Portugal; Accra, Ghana; and Lagos, Nigeria; and onward connections to the United Kingdom. The cable system spans approximately 4,500 miles and provides additional capacity and internet connectivity for many countries. Main One now provides capacity to a region that has experienced explosive growth in teledensity in recent years, but which remains constrained with respect to access to international cable capacity for global connectivity.

In March 2012, Main One announced its intention to extend its submarine cable facility to Port Harcourt. The Project involves extending approximately 300 miles of Main One’s undersea fiber optic cabling and supporting infrastructure between two of Nigeria’s most important commercial centers, Lagos and Port Harcourt. The Project will also involve the development of terrestrial fiber optic infrastructure in Port Harcourt, the center of the country’s oil and gas industry. There are currently no other cable systems between Lagos and Port Harcourt.

The FS will place a particular emphasis on issues surrounding the construction of the network, the maintenance of the infrastructure, the market demand for this infrastructure in Port Harcourt, and the assessment of other potential areas of risk. The FS will also contain thorough assessments of the legal and regulatory risks and the risk from other marine activities. In addition, the FS will provide recommendations for the route and techniques required for successfully laying the cable.

In addition, the FS will assess the potential impact of hazards on the long-term maintenance of the cable extension. These potential risks to the cable’s operations will be outlined under the FS and influence the recommendations for the design, construction and maintenance activities associated with the Project. The FS will also include a detailed demand assessment for the Project, incorporating a survey of all potential consumers in the Port Harcourt area. In addition, the FS will determine the market share to be acquired under the Project and assess the possibility of current or future fiber optic alternatives.

Portions of a background Desk Study are provided for reference in Annex 2.

### **1.2 OBJECTIVE**

The objective of the Feasibility Study is to evaluate the technical and financial feasibility of expanding Main One Cable Company Nigeria's fiber optic network from Lagos to Port Harcourt in Nigeria. The Terms of Reference (TOR) for this Feasibility Study are attached as Annex 5.

### **1.3 PROPOSALS TO BE SUBMITTED**

Technical proposals are solicited from interested and qualified U.S. firms. The administrative and technical requirements as detailed throughout the Request for Proposals (RFP) will apply. Specific proposal format and content requirements are detailed in Section 3.

The amount for the contract has been established by a USTDA grant of US\$550,000. **The USTDA grant of US\$550,000 is a fixed amount. Accordingly, COST will not be a factor in the evaluation and therefore, cost proposals should not be submitted.** Upon detailed evaluation of technical proposals, the Grantee shall select one firm for contract negotiations.

### **1.4 CONTRACT FUNDED BY USTDA**

In accordance with the terms and conditions of the Grant Agreement, USTDA has provided a grant in the amount of US\$550,000 to the Grantee. The funding provided under the Grant Agreement shall be used to fund the costs of the contract between the Grantee and the U.S. firm selected by the Grantee to perform the TOR. The contract must include certain USTDA Mandatory Contract Clauses relating to nationality, taxes, payment, reporting, and other matters. The USTDA nationality requirements and the USTDA Mandatory Contract Clauses are attached at Annexes 3 and 4, respectively, for reference.

## **Section 2: INSTRUCTIONS TO OFFERORS**

### **2.1 PROJECT TITLE**

The project is called the Main One Cable Company Fiber Optic Expansion.

### **2.2 DEFINITIONS**

Please note the following definitions of terms as used in this RFP.

The term "Request for Proposals" means this solicitation of a formal technical proposal, including qualifications statement.

The term "Offeror" means the U.S. firm, including any and all subcontractors, which responds to the RFP and submits a formal proposal and which may or may not be successful in being awarded this procurement.

### **2.3 DESK STUDY**

USTDA sponsored a Desk Study to address technical, financial, sociopolitical, environmental and other aspects of the proposed project. Portions of the report are attached at Annex 2 for background information only. Please note that the TOR referenced in the report are included in this RFP as Annex 5.

### **2.4 EXAMINATION OF DOCUMENTS**

Offerors should carefully examine this RFP. It will be assumed that Offerors have done such inspection and that through examinations, inquiries and investigation they have become familiarized with local conditions and the nature of problems to be solved during the execution of the Feasibility Study.

Offerors shall address all items as specified in this RFP. Failure to adhere to this format may disqualify an Offeror from further consideration.

Submission of a proposal shall constitute evidence that the Offeror has made all the above mentioned examinations and investigations, and is free of any uncertainty with respect to conditions which would affect the execution and completion of the Feasibility Study.

## **2.5 PROJECT FUNDING SOURCE**

The Feasibility Study will be funded under a grant from USTDA. The total amount of the grant is not to exceed US\$550,000.

## **2.6 RESPONSIBILITY FOR COSTS**

Offeror shall be fully responsible for all costs incurred in the development and submission of the proposal. Neither USTDA nor the Grantee assumes any obligation as a result of the issuance of this RFP, the preparation or submission of a proposal by an Offeror, the evaluation of proposals, final selection or negotiation of a contract.

## **2.7 TAXES**

Offerors should submit proposals that note that in accordance with the USTDA Mandatory Contract Clauses, USTDA grant funds shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in the Host Country.

## **2.8 CONFIDENTIALITY**

The Grantee will preserve the confidentiality of any business proprietary or confidential information submitted by the Offeror, which is clearly designated as such by the Offeror, to the extent permitted by the laws of the Host Country.

## **2.9 ECONOMY OF PROPOSALS**

Proposal documents should be prepared simply and economically, providing a comprehensive yet concise description of the Offeror's capabilities to satisfy the requirements of the RFP. Emphasis should be placed on completeness and clarity of content.

## **2.10 OFFEROR CERTIFICATIONS**

The Offeror shall certify (a) that its proposal is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation, and is not submitted in conformity with, and agreement of, any undisclosed group, association, organization, or corporation; (b) that it has not directly or indirectly induced or solicited any other Offeror to put in a false proposal; (c) that it has not solicited or induced any other person, firm, or corporation to refrain from submitting a proposal; and (d) that it has not sought by collusion to obtain for itself any advantage over any other Offeror or over the Grantee or USTDA or any employee thereof.

## **2.11 CONDITIONS REQUIRED FOR PARTICIPATION**

Only U.S. firms are eligible to participate in this tender. However, U.S. firms may utilize subcontractors from the Host Country for up to 20 percent of the amount of the USTDA grant for

specific services from the TOR identified in the subcontract. USTDA's nationality requirements, including definitions, are detailed in Annex 3.

## **2.12 LANGUAGE OF PROPOSAL**

All proposal documents shall be prepared and submitted in English, and only English.

## **2.13 PROPOSAL SUBMISSION REQUIREMENTS**

The **Cover Letter** in the proposal must be addressed to:

Ms. Funke Opeke  
Chief Executive Officer  
Main One Cable Company  
FABAC Center  
3B, Ligali Ayorinde Street  
Victoria Island  
Lagos, Nigeria

\*Subject line shall include "Project South-South"

**An Original and eight (8) copies of your proposal must be received at the above address no later than 5:00 P.M. Local (Lagos) Time, on November 01, 2013.**

Proposals may be either sent by mail, overnight courier, or hand-delivered. Whether the proposal is sent by mail, courier or hand-delivered, the Offeror shall be responsible for actual delivery of the proposal to the above address before the deadline. Any proposal received after the deadline will be returned unopened. The Grantee will promptly notify any Offeror if its proposal was received late.

Upon timely receipt, all proposals become the property of the Grantee.

## **2.14 PACKAGING**

The original and each copy of the proposal must be sealed to ensure confidentiality of the information. The proposals should be individually wrapped and sealed, and labeled for content including the name of the project and designation of "original" or "copy number x." The original and eight (8) copies should be collectively wrapped and sealed, and clearly labeled, including the contact name and the name of the project.

Neither USTDA nor the Grantee will be responsible for premature opening of proposals not properly wrapped, sealed and labeled.

## **2.15 OFFEROR'S AUTHORIZED NEGOTIATOR**

The Offeror must provide the name, title, address, telephone number, e-mail address and fax number of the Offeror's authorized negotiator. The person cited shall be empowered to make binding commitments for the Offeror and its subcontractors, if any.

## **2.16 AUTHORIZED SIGNATURE**

The proposal must contain the signature of a duly authorized officer or agent of the Offeror empowered with the right to bind the Offeror.

## **2.17 EFFECTIVE PERIOD OF PROPOSAL**

The proposal shall be binding upon the Offeror for SIXTY (60) days after the proposal due date, and Offeror may withdraw or modify this proposal at any time prior to the due date upon written request, signed in the same manner and by the same person who signed the original proposal.

## **2.18 EXCEPTIONS**

All Offerors agree by their response to this RFP announcement to abide by the procedures set forth herein. No exceptions shall be permitted.

## **2.19 OFFEROR QUALIFICATIONS**

As provided in Section 3, Offerors shall submit evidence that they have relevant past experience and have previously delivered advisory, feasibility study and/or other services similar to those required in the TOR, as applicable.

## **2.20 RIGHT TO REJECT PROPOSALS**

The Grantee reserves the right to reject any and all proposals.

## **2.21 PRIME CONTRACTOR RESPONSIBILITY**

Offerors have the option of subcontracting parts of the services they propose. The Offeror's proposal must include a description of any anticipated subcontracting arrangements, including the name, address, and qualifications of any subcontractors. USTDA nationality provisions apply to the use of subcontractors and are set forth in detail in Annex 3. The successful Offeror shall cause appropriate provisions of its contract, including all of the applicable USTDA Mandatory Contract Clauses, to be inserted in any subcontract funded or partially funded by USTDA grant funds.

## **2.22 AWARD**

The Grantee shall make an award resulting from this RFP to the best qualified Offeror, on the basis of the evaluation factors set forth herein. The Grantee reserves the right to reject any and all proposals received.

### **2.23 COMPLETE SERVICES**

The successful Offeror shall be required to (a) provide local transportation, office space and secretarial support required to perform the TOR if such support is not provided by the Grantee; (b) provide and perform all necessary labor, supervision and services; and (c) in accordance with best technical and business practice, and in accordance with the requirements, stipulations, provisions and conditions of this RFP and the resultant contract, execute and complete the TOR to the satisfaction of the Grantee and USTDA.

### **2.24 INVOICING AND PAYMENT**

Deliverables under the contract shall be delivered on a schedule to be agreed upon in a contract with the Grantee. The Contractor may submit invoices to the designated Grantee Project Director in accordance with a schedule to be negotiated and included in the contract. After the Grantee's approval of each invoice, the Grantee will forward the invoice to USTDA. If all of the requirements of USTDA's Mandatory Contract Clauses are met, USTDA shall make its respective disbursement of the grant funds directly to the U.S. firm in the United States. All payments by USTDA under the Grant Agreement will be made in U.S. currency. Detailed provisions with respect to invoicing and disbursement of grant funds are set forth in the USTDA Mandatory Contract Clauses attached in Annex 4.

### **Section 3: PROPOSAL FORMAT AND CONTENT**

To expedite proposal review and evaluation, and to assure that each proposal receives the same orderly review, all proposals must follow the format described in this section.

Proposal sections and pages shall be appropriately numbered and the proposal shall include a Table of Contents. Offerors are encouraged to submit concise and clear responses to the RFP. Proposals shall contain all elements of information requested without exception. Instructions regarding the required scope and content are given in this section. The Grantee reserves the right to include any part of the selected proposal in the final contract.

The proposal shall consist of a technical proposal only. A cost proposal is NOT required because the amount for the contract has been established by a USTDA grant of US\$550,000, which is a fixed amount.

Offerors shall submit one (1) original and eight (8) copies of the proposal. Proposals received by fax cannot be accepted.

Each proposal must include the following:

- Transmittal Letter,
- Cover/Title Page,
- Table of Contents,
- Executive Summary,
- Firm Background Information,
- Completed U.S. Firm Information Form,
- Organizational Structure, Management Plan, and Key Personnel,
- Technical Approach and Work Plan, and
- Experience and Qualifications.

Detailed requirements and directions for the preparation of the proposal are presented below.

#### **3.1 EXECUTIVE SUMMARY**

An Executive Summary should be prepared describing the major elements of the proposal, including any conclusions, assumptions, and general recommendations the Offeror desires to make. Offerors are requested to make every effort to limit the length of the Executive Summary to no more than five (5) pages.

### **3.2 U.S. FIRM INFORMATION**

A U.S. Firm Information Form in .pdf fillable format is attached at the end of this RFP in Annex 6. The Offeror must complete the U.S. Firm Information Form and include the completed U.S. Firm Information Form with its proposal.

### **3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL**

Describe the Offeror's proposed project organizational structure. Discuss how the project will be managed including the principal and key staff assignments for this Feasibility Study. Identify the Project Manager who will be the individual responsible for this project. The Project Manager shall have the responsibility and authority to act on behalf of the Offeror in all matters related to the Feasibility Study.

Provide a listing of personnel (including subcontractors) to be engaged in the project, including both U.S. and local subcontractors, with the following information for key staff: position in the project; pertinent experience, curriculum vitae; other relevant information. If subcontractors are to be used, the Offeror shall describe the organizational relationship, if any, between the Offeror and the subcontractor.

A manpower schedule and the level of effort for the project period, by activities and tasks, as detailed under the Technical Approach and Work Plan shall be submitted. A statement confirming the availability of the proposed project manager and key staff over the duration of the project must be included in the proposal.

### **3.4 TECHNICAL APPROACH AND WORK PLAN**

Describe in detail the proposed Technical Approach and Work Plan (the "Work Plan"). Discuss the Offeror's methodology for completing the project requirements. Include a brief narrative of the Offeror's methodology for completing the tasks within each activity series. Begin with the information gathering phase and continue through delivery and approval of all required reports.

Prepare a detailed schedule of performance that describes all activities and tasks within the Work Plan, including periodic reporting or review points, incremental delivery dates, and other project milestones.

Based on the Work Plan, and previous project experience, describe any support that the Offeror will require from the Grantee. Detail the amount of staff time required by the Grantee or other participating agencies and any work space or facilities needed to complete the Feasibility Study.

### **3.5 EXPERIENCE AND QUALIFICATIONS**

Provide a discussion of the Offeror's experience and qualifications that are relevant to the objectives and TOR for the Feasibility Study. If a subcontractor(s) is being used, similar information must be provided for the prime and each subcontractor firm proposed for the project.

The Offeror shall provide information with respect to relevant experience and qualifications of key staff proposed. The Offeror shall include letters of commitment from the individuals proposed confirming their availability for contract performance.

As many as possible but not more than six (6) relevant and verifiable project references must be provided for each of the Offeror and any subcontractor, including the following information:

- Project name,
- Name and address of client (indicate if joint venture),
- Client contact person (name/ position/ current phone and fax numbers),
- Period of Contract,
- Description of services provided,
- Dollar amount of Contract, and
- Status and comments.

Offerors are strongly encouraged to include in their experience summary primarily those projects that are similar to the Feasibility Study as described in this RFP.

#### **Section 4: AWARD CRITERIA**

Individual proposals will be initially evaluated by a Procurement Selection Committee of representatives from the Grantee. The Committee will then conduct a final evaluation and completion of ranking of qualified Offerors. The Grantee will notify USTDA of the best qualified Offeror, and upon receipt of USTDA’s no-objection letter, the Grantee shall promptly notify all Offerors of the award and negotiate a contract with the best qualified Offeror. If a satisfactory contract cannot be negotiated with the best qualified Offeror, negotiations will be formally terminated. Negotiations may then be undertaken with the second most qualified Offeror and so forth.

The selection of the Contractor will be based on the following criteria:

<u>Criteria</u>	<b>Max. Points</b>
Expertise and skills of proposed personnel	40
Proposed approach to the FS and to the individual tasks	30
Pertinent international experience and cross-cultural skills	15
Qualifications of Local Support firm	15
<b>Total:</b>	<b>100</b>

This FS involves both a detailed technical assessment of cable route and landing-site options and the examination of risks and hazards, as well as an in-depth assessment of the commercial and economic feasibility of the Project. The following general attributes on the part of the Contractor are considered critical to the successful outcome of the FS:

- Requisite breadth and depth of technical, commercial, market-related and economic expertise
- More specifically, extensive familiarity with the deployment of submarine fiber-optic infrastructures; with assessment of demand for services delivered over such infrastructures; and with the commercial, economic and legal/regulatory implications
- Ability to work closely with technical, commercial and administrative personnel and senior management; experience in communicating results and disseminating information to management and to interested parties

Successful performance of the FS will require close collaboration with Main One Cable Company to ensure that that maximum practical benefit is derived from the FS and that the resources thus acquired are put to good practical use. Furthermore, the following additional attributes are also considered critical to a successful outcome:

- Willingness of Contractor to spend significant time in-country
- A work plan ensuring close collaboration and interaction with Main One Cable Company
- The capability to deliver quality results and recommendations in timely fashion

Proposals that do not include all requested information may be considered non-responsive.

Price will not be a factor in contractor selection.

## **ANNEX 1**

Ms. Funke Opeke  
Chief Executive Officer  
Main One Cable Company  
FABAC Center  
3B, Ligali Ayorinde Street  
Victoria Island  
Lagos, Nigeria

\*Proposals shall be clearly marked “Project South-South”

USTDA Activity No. 2013-11020A: Main One Cable Company Fiber Optic Expansion

POC: Jennifer Van Renterghem, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Email: [RFPquestions@ustda.gov](mailto:RFPquestions@ustda.gov), Fax: (703) 875-4009. Main One Cable Company Fiber Optic Expansion. The Grantee (“Main One”) invites submission of qualifications and proposal data (collectively referred to as the "Proposal") from interested U.S. firms that are qualified on the basis of experience and capability to develop a feasibility study (“FS”) to evaluate the technical and financial feasibility of expanding Main One Cable Company Nigeria’s fiber optic network from Lagos to Port Harcourt (“Project”) in Nigeria (“Host Country”).

In March 2012, Main One announced its intention to extend its submarine cable facility to Port Harcourt, Nigeria. The Project involves extending approximately 300 miles of Main One’s undersea fiber optic cabling and supporting infrastructure between two of Nigeria’s most important commercial centers, Lagos and Port Harcourt. The Project will also involve the development of terrestrial fiber optic infrastructure in Port Harcourt, the center of the country’s oil and gas industry. This FS will place a particular emphasis on issues surrounding the construction of the network, the maintenance of the infrastructure, the market demand for this infrastructure in Port Harcourt, and the assessment of other potential areas of risk. The FS will also contain thorough assessments of the legal and regulatory risks and the risk from other marine activities, and provide recommendations for the route and techniques required for successfully laying the cable. The FS will include a detailed demand assessment for the Project, incorporating a survey of all potential consumers in the Port Harcourt area. The FS will also determine the market share to be acquired under the Project and assess the possibility of current or future fiber optic alternatives.

The U.S. firm selected will be paid in U.S. dollars from a \$550,000 grant to the Grantee from the U.S. Trade and Development Agency (USTDA).

A detailed Request for Proposals (RFP), which includes requirements for the Proposal, the Terms of Reference, and portions of a background definitional mission/desk study report are available from USTDA, at 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901. To request the RFP in PDF format, please go to: <https://www.ustda.gov/businessopps/rfpform.asp>. Requests for a mailed hardcopy version of the RFP may also be faxed to the IRC, USTDA at 703-875-4009. In the fax, please include your firm’s name, contact person, address, and telephone number. Some

firms have found that RFP materials sent by U.S. mail do not reach them in time for preparation of an adequate response. Firms that want USTDA to use an overnight delivery service should include the name of the delivery service and your firm's account number in the request for the RFP. Firms that want to send a courier to USTDA to retrieve the RFP should allow one hour after faxing the request to USTDA before scheduling a pick-up. Please note that no telephone requests for the RFP will be honored. Please check your internal fax verification receipt. Because of the large number of RFP requests, USTDA cannot respond to requests for fax verification. Requests for RFPs received before 4:00 PM will be mailed the same day. Requests received after 4:00 PM will be mailed the following day. Please check with your courier and/or mail room before calling USTDA.

Only U.S. firms and individuals may bid on this USTDA financed activity. Interested firms, their subcontractors and employees of all participants must qualify under USTDA's nationality requirements as of the due date for submission of qualifications and proposals and, if selected to carry out the USTDA-financed activity, must continue to meet such requirements throughout the duration of the USTDA-financed activity. All goods and services to be provided by the selected firm shall have their nationality, source and origin in the U.S. or host country. The U.S. firm may use subcontractors from the host country for up to 20 percent of the USTDA grant amount. Details of USTDA's nationality requirements and mandatory contract clauses are also included in the RFP.

Interested U.S. firms should submit their Proposal in English directly to the Grantee by 5:00 P.M. local (Lagos) time, November 01, 2013 at the above address. Proposals shall be clearly marked "Project South-South". Evaluation criteria for the Proposal are included in the RFP. Price will not be a factor in contractor selection, and therefore, cost proposals should NOT be submitted. The Grantee reserves the right to reject any and/or all Proposals. The Grantee also reserves the right to contract with the selected firm for subsequent work related to the project. The Grantee is not bound to pay for any costs associated with the preparation and submission of Proposals.

## **ANNEX 2**

**PUBLIC VERSION**

***FINAL REPORT***  
**DESK STUDY:**  
**NIGERIA: MAIN ONE CABLE COMPANY**  
**FIBER OPTIC EXTENSION PROJECT**

**Contract USTDA PO201311149**

*Prepared for:*

**U.S. Trade and Development Agency  
1000 Wilson Boulevard, Suite 1600  
Arlington, VA 22209-3901**

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*September 23, 2013*



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## **The U.S. Trade and Development Agency**

The U.S. Trade and Development Agency helps companies create U.S. jobs through the export of U.S. goods and services for priority development projects in emerging economies. USTDA links U.S. businesses to export opportunities by funding project planning activities, pilot projects and reverse trade missions while creating sustainable infrastructure and economic growth in partner countries.

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## A. EXECUTIVE SUMMARY

The present Desk Study (DS) reviews a proposed Feasibility Study (FS) on behalf of Main One Cable Company (Nigeria) (henceforth “Main One”), a Lagos-based firm that holds the landing rights and operating licenses for the Main One submarine fiber-optic cable. This 7000-kilometer facility currently runs from Seixal, Portugal, to Lagos, with intermediate landings and with onward extensions to the United Kingdom and South Africa.

Main One is contemplating the prospect of extending the Main One cable facility from its current landing at Lagos to a point near Port Harcourt, the capital of Rivers State and a major center of commercial and economic activity in Nigeria. This project (the “Extension Project,” or “Phase 2,” to distinguish it from the “Phase 1” Portugal-to-Lagos deployment) would potentially bring the benefits of fiber-optic-based services and connectivity to a part of Nigeria where these are currently lacking.

In essence, three types of activities need to be undertaken to assess the technical, economic and legal/regulatory viability of the Extension Project. The first is what is known in the industry as a Desktop and Site Study (DSS), to assess route and landing-site options; to examine risks and hazards; and to determine a route that minimizes the identified risks. The second activity is a comprehensive Demand Study and Market Assessment, with a view to establishing whether or not there will be sufficient end-user demand for the services delivered via the new facility. Finally, the third activity is the performance of a rigorous Environmental Impact Assessment (EIA), to satisfy Nigerian legal requirements. Main One has indicated that it intends to contract with qualified expertise – the same expertise that was successfully engaged for the same purpose in Phase 1 – to carry out this last activity.

Main One believes that it requires significant outside expertise to properly carry out the first two activities just described. In particular, the performance of the DSS will be a complex exercise, due to the topography and environment of the proposed landing site. Additionally, the critically important Demand Study and Market Assessment will present significant challenges, partly because of the profile of the local market and partly because, reportedly, no comparable studies or assessments have been conducted in the region. Accordingly, Main One is seeking USTDA support for a Feasibility Study (FS) that would comprehensively address the two activities.

The DS Contractor believes that the proposed FS can be justified primarily on two grounds: 1) positive developmental impact, and 2) significant U.S. export potential.

Main One’s successful execution of the proposed Extension Project would greatly increase the amount and reach of fiber-optic infrastructure in Nigeria. Furthermore, the venture will create downward pressure on currently high prices for bandwidth, bringing them more into line with costs. Not only established companies such as the major mobile operators but also smaller service providers and ISPs, who generally lack the wherewithal to construct their own facilities, can be expected to benefit. Moreover, Main One intends to provide services to major U.S. corporations operating in Nigeria (e.g., ExxonMobil, Chevron, Texaco, Shell, Amoco, Conoco,

Halliburton, Schlumberger), at substantially lower cost and higher reliability and quality than currently available to those companies. Finally, the project will bring a state-of-the-art “enabling infrastructure” to a region of Nigeria which, for all its hydrocarbon wealth, has witnessed very uneven social and economic development. In other words, the proposed venture can be expected to have multiple positive developmental impacts.

The proposed venture also represents a significant U.S. export opportunity, the U.S. export potential being conservatively estimated at US\$45 million.

The DS Contractor believes that the Main One Expansion Project meets USTDA’s funding criteria, and that the proposed FS represents a good use of USTDA resources. Accordingly, the DS Contractor makes a positive recommendation that USTDA fund the Study in question, at a budget level of \$546,256.

At the same time, the DS Contractor notes that successful completion and approval of the EIA required by Nigerian law is a *sine qua non* for the Extension Project to go forward. However, the critical requirement is that the EIA be completed and approved prior to commencement of the actual construction phase of the Extension Project. Accordingly, the FS can be undertaken before the EIA is completed, or (in principle) even in its absence. The DS Contractor recommends that the FS and the EIA should be conducted simultaneously, or at any rate with some degree of overlap; at the same time, by the time the FS commences, Main One should demonstrate that it has formally engaged an appropriately qualified EIA contractor, or should otherwise demonstrate a firm commitment to proceeding with the EIA.

The remainder of this report (Public Version) provides an overview of the telecommunications sector in Nigeria, with particular reference to the state of deployment of submarine fiber-optic facilities in the country and the region; an analysis of U.S. export potential, both in terms of the sector generally and with reference to the Extension Project specifically; and an enumeration of potential U.S. suppliers for the Extension Project and also for areas of the sector that believed to be particularly promising and to offer significant growth potential. Finally, the report provides an analysis of foreign competition in the sector, and a review of salient market entry issues.

## B. TELECOMMUNICATIONS SECTOR IN NIGERIA

### General Overview

The last decade has witnessed a transformation of Nigeria's telecom landscape virtually without parallel anywhere in the world. As of 2002, Nigeria had only 400,000 fixed lines in service, plus an additional 35,000 analog mobile subscribers; overall teledensity stood at a paltry 0.4 lines per 100 inhabitants. Nigeria now represents the largest telecom market in Africa; the most recent figures available indicate that there are over 120 million mobile subscribers and something on the order of 1.5 million fixed lines, with multiple companies active in both sub-sectors and with vibrant competition and innovation.<sup>1</sup> The sector grew at a rate of over 34% in 2011,<sup>2</sup> and currently contributes over 8% of national GDP.<sup>3</sup>

Total sector revenues in 2012 were reported to have approached US\$9 billion; furthermore, reports indicate that outside investment in the telecommunications sector has been on the order of US\$2–3 billion per year over the last several years.<sup>4</sup> This remarkable transformation has come about because of a well-implemented policy of the Government of Nigeria (GON) to liberalize the telecom sector, to attract foreign investment, and to promote the deployment of advanced technologies and infrastructure. Much of the success of the transformation is attributed to the Nigerian Communications Commission (NCC), created in 2003, which has overseen the process and has generally gained respect for its forward-looking approach to sector development and management of competition.<sup>5</sup>

However, sector development has not been uniform. Connectivity outside of the Lagos metropolitan area, and rural connectivity in particular, continue to lag behind, despite intensive efforts to encourage the deployment of infrastructure. A disproportionate amount of domestic infrastructure investment has been made in wireless/microwave platforms for mobile operators, rather than in terrestrial fiber optics. Partly in consequence, broadband penetration has remained stubbornly low. Since broadband penetration is a principal driver of the need for international bandwidth on the part of ISPs, which is in turn a significant consideration in long-term capacity planning for submarine cables, this circumstance is also of relevance to the proposed FS.

### Submarine Fiber-Optic Infrastructure in West Africa and Nigeria

The first high-capacity submarine cable to be deployed in the West Africa region, SAT-3/WASC

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<sup>1</sup> See the data presented by the Nigerian Communications Commission (NCC): [http://www.ncc.gov.ng/index.php?option=com\\_content&view=article&id=68&Itemid=70](http://www.ncc.gov.ng/index.php?option=com_content&view=article&id=68&Itemid=70)

<sup>2</sup> U.S. Department of State 2013 Investment Climate Statement – Nigeria, <http://www.state.gov/e/eb/rls/othr/ics/2013/204707.htm>

<sup>3</sup> See the data presented by the Nigerian Communications Commission (NCC): [http://www.ncc.gov.ng/index.php?option=com\\_content&view=article&id=68&Itemid=70](http://www.ncc.gov.ng/index.php?option=com_content&view=article&id=68&Itemid=70)

<sup>4</sup> Figures given in the newspaper *Leadership*, July 17, 2013 include the following: total investment from 2001 through June 30 2013 US\$32 billion; total investment over the period mid-2010–mid-2013 US \$7 billion. See <http://leadership.ng/news/170713/telecoms-investment-inflows-hit-32bn>.

<sup>5</sup> The NCC's Web site, <http://www.ncc.gov.ng>, contains extensive industry statistics as well as information on the legal and regulatory regime in Nigeria.

(South Atlantic-3 / West Africa Submarine Cable), was placed in service in 2001, but the monopolistic nature of its ownership resulted in very high prices for wholesale bandwidth (comparable to satellite circuits on a per-megabit/sec basis), although legal and regulatory interventions eventually brought about reductions in a few countries. Since that time, Africa has become the submarine cable industry's most vibrant market, with at least 12 intercontinental or regional systems completed or in the construction or planning stages. It is anticipated that, by 2015, the aggregate design capacity of cable systems serving Africa will increase by a factor of 70 over what was available as recently as 2008 (from 350 gigabits/sec to around 25 terabits/sec).

Besides SAT-3/WASC, the major submarine cable systems that are currently operational are:

- **Main One**, a branched system running from Portugal to Nigeria, to link a number of countries in West and Central Africa with one another and with Europe. The African Development Bank (AfDB) provided a US\$66 million loan to the project. (See below for additional discussion.)
- **West African Cable System (WACS)**, a system linking South Africa and the UK, with intermediate landings in 10 African countries including Nigeria. A US\$600 million contract for the system was signed with Alcatel-Lucent in April 2009, and major segments of the cable were in operation by end 2011.
- **Glo-1**, a system linking Nigeria, Ghana and the UK, with some intermediate branches (e.g., to Senegal) also planned. A supply contract for Glo-1 was awarded to Alcatel-Lucent as part of US\$650 million infrastructure package for Globacom, Nigeria's second national operator (since 2002). Glo-1, which is operated primarily for Globacom's benefit, was landed in Lagos in June 2009, and was ready for service by the end of that year.
- **Africa Coast to Europe (ACE)**, a 17,000-km system running along the west coast of Africa between France and South Africa, with a landing at Lagos; it is managed by a consortium of 16 operators headed by France Telecom/Orange. The consortium agreement was signed in June 2010; the cable was manufactured by Alcatel Submarine Networks (ASN) and was laid by ships from ASN and France Telecom Marine. The first phase was put in service in December 2012. It is planned that the ACE system will eventually connect 23 countries, either directly in the case of coastal countries or through land links for landlocked countries, such as Mali and Niger.

In addition, other systems serving West Africa have been announced, or are in the planning stages. They include the following:

- **WASACE Africa**, part of a complex system of four submarine cable systems linking four continents. The project is headed by WASACE Cable Company Worldwide Holding, and project development is to be managed by the U.S.-based David Ross Group. The company intends to deploy all four systems by the end of the first quarter of 2014, prior to the FIFA World Cup that will take place in the summer of 2014 in Brazil. A significant feature of WASACE Africa is that it envisages two separate landing points in Nigeria, namely Lagos and Bonny (the coastal town closest to Port Harcourt). Since the Main One expansion project, discussed below, involves the construction of a link from Lagos to Port Harcourt, it would appear that WASACE Africa, if successfully implemented, would potentially be a direct competitor.
- **NEPAD Broadband Infrastructure Network** – a massive project linking both West and East Africa to Europe, South America and Asia; sponsored by a varied group of investors that includes African, U.S. and Middle Eastern entities. A Ready for Service (RFS) date of 2010 was initially reported, but implementation has been delayed.

Even if not all the planned or announced systems are built (or, as appears likely, even if there is some consolidation among them), the impact on the countries in the West African region has already been profound. In the first place, the cost of international terrestrial bandwidth has dropped precipitously – from current levels of US\$8,000–12,000 per megabit/sec per month on SAT-3 to perhaps US\$500. In turn, cheap wholesale bandwidth is generating downward pressure on pricing for retail bandwidth – with particularly beneficial consequences for Internet Service Providers (ISPs) and second-tier operators – and on end-user prices, particularly for international calling and Internet access. Furthermore, affordable bandwidth can enable businesses and applications which heretofore have not been economically viable, such as wireless Internet access, data processing operations, and cloud-based applications and services, in countries such as Nigeria.

## C. U.S. EXPORT POTENTIAL

### General

Nigeria is the United States' largest trading partner in sub-Saharan Africa, mainly due to the high level of petroleum imports from Nigeria. The United States is the largest foreign investor in Nigeria, with U.S. foreign direct investment concentrated largely in the petroleum/mining and wholesale trade sectors. U.S. imports from Nigeria include oil, cocoa, rubber, returns and food waste, while U.S. the principal exports to Nigeria are wheat, vehicles, machinery, oil and plastic. Nigeria is eligible for preferential trade benefits under the African Growth and Opportunity Act (AGOA). Also, the United States and Nigeria have signed a bilateral trade and investment framework agreement.<sup>6</sup>

According to official statistics, the value of total U.S. exports to Nigeria for the first half of 2013 amounted to US\$2.746 billion<sup>7</sup>; accordingly, it appears that the total for 2013 will exceed US\$5 billion. However, again according to official statistics, exports of telecommunications equipment in 2012 amounted to slightly less than US\$50 million, and this figure is somewhat below the ten-year average of approximately US\$65 million<sup>8</sup> – in either case, only around 1% of the total.

It should be added, however, that the official statistics – even assuming that they fully capture equipment exports – omit the category of telecommunications services. This category is no longer confined to ongoing services associated with servicing and maintenance of installed equipment; it now includes an array of services which are essentially unrelated to equipment sales (of which cloud-based services are a visible example). Although it is very difficult to arrive at an estimate for the value of this category, some idea of its magnitude can be gained from available financial data of major U.S.-based telecom/ICT companies, in particular Cisco and Motorola, which also happen to be the two largest such companies with an established

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<sup>6</sup> U.S. Department of State, Bureau of African Affairs, Fact Sheet (August 28, 2013):

<http://www.state.gov/r/pa/ei/bgn/2836.htm>

<sup>7</sup> <http://www.census.gov/foreign-trade/balance/c7530.html>

<sup>8</sup> <http://www.census.gov/foreign-trade/statistics/product/enduse/exports/c7530.html>

presence in Nigeria.<sup>9</sup> For both these companies, the data indicate that equipment and services account for roughly 75% and 25% of sales and revenues respectively. This ratio is generally typical of major diversified suppliers in the telecom industry, although smaller specialized suppliers and start-ups may vary from the pattern. Nonetheless, as a general approximation, it can be assumed that every US\$3 million of equipment exports represents an additional US\$1 million in exports of services. For purposes of comparison and estimation, however, it is convenient to continue to use the equipment category as the basic benchmark.

As previously noted, reports indicate that total outside investment in the Nigerian telecommunications sector has been on the order of US\$2–3 billion per year over the last several years.<sup>10</sup> In other words, it appears that not only do U.S. telecommunications exports to Nigeria comprise a relatively small percentage of the total, but also that U.S. companies have so far been able to capture only a small portion of the Nigerian market. This circumstance is evidently to be explained, at least in part, by the fact that Nigerian telecom operators have relied heavily on West European and, in particular, Chinese suppliers (e.g., Ericsson, ZTE and Huawei) for their core networking systems, in particular traditional GSM and more advanced 3G/4G networks.<sup>11</sup> That situation is unlikely to change dramatically for the foreseeable future. Correspondingly, it would appear that more promising opportunities for U.S. suppliers are presented by non-traditional technologies, in particular those that leverage the recent availability of relatively low-cost international bandwidth (see below).

## U.S. Export Potential of Main One Extension Project

For the proposed Project, U.S. content could account for nearly 100% of the contract, the principal components being cable, cable ships and cable-laying services, and submarine and terrestrial opto-electronic components (repeaters, amplifiers, termination equipment, multiplexers, cross-connects, etc.), with only the civil works associated with the cable landing stations, in Lagos and elsewhere, non-U.S.-sourced. To be conservative, however, it can be assumed that 90% of the submarine segment (US\$35 million in round numbers) could be U.S.-sourced. In addition to construction of the landing station, various locally sourced civil works (e.g., dredging/trenching, cable-laying in river channels and estuaries that are too shallow to accommodate ocean-going cable ships, etc.) may be required. Still, much of the cable and associated opto-electronics, and probably at least some of this cable-laying activity, could be U.S. sourced. Again, to be conservative, it can be assumed that 50% of the terrestrial segment (US\$10 million in round numbers) could be U.S.-sourced. Thus, the total U.S. export potential of the Extension Project can be conservatively estimated at around US\$45 million.

Note that no attempt is made here to allow for secondary or “knock-on” effects, e.g., stimulation of U.S. exports of telecommunications equipment, that might result from bringing state-of-the-art infrastructure to Port Harcourt and vicinity.

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<sup>9</sup> See the most recent annual reports for these two companies:

[http://www.cisco.com/assets/cdc\\_content\\_elements/docs/annualreports/ar2012.pdf](http://www.cisco.com/assets/cdc_content_elements/docs/annualreports/ar2012.pdf) (Cisco)

[http://files.shareholder.com/downloads/ABEA-2FO3VV/2465953180x0x637888/29C6DCC6-EE6D-4501-83D5-96B4841736A4/2012\\_Annual\\_Report\\_on\\_Form\\_10-K.pdf](http://files.shareholder.com/downloads/ABEA-2FO3VV/2465953180x0x637888/29C6DCC6-EE6D-4501-83D5-96B4841736A4/2012_Annual_Report_on_Form_10-K.pdf) (Motorola)

<sup>10</sup> See <http://leadership.ng/news/170713/telecoms-investment-inflows-hit-32bn>.

<sup>11</sup> *Ibid.*

## U.S. Export Potential of Nigerian Telecom Sector

As previously noted, U.S. exports of telecommunications equipment to Nigeria have averaged around US\$65 million annually over the past several years (the 2012 figure of around US\$50 million probably represents a temporary downturn). Assuming that the Main One Expansion project goes forward, it will presumably boost the figure substantially in the 2014/2015 time frame. However, since major submarine fiber-optic cable facilities are deployed only occasionally, the rise will probably be in the nature of a one-shot increase rather than a sustained one. Accordingly, it is reasonable to suppose that the figure of US\$65 million currently represents the “business as usual” level of U.S. exports in the sector.

By way of comparison, it may be noted that, while overall U.S. exports to Russia in 2012 were on the order of US\$10 billion, or double the projected 2013 level for Nigeria, exports of telecommunications equipment in 2012 amounted to US\$366 million, more than seven times the corresponding figure for Nigeria and 3.7% of the total.<sup>12</sup> Similarly, the 2012 figures for Brazil are US\$43.8 billion total and US\$1.5 billion in the telecommunication-equipment category, so that the latter represents 3.5% of the total.<sup>13</sup> To take another and perhaps more comparable case, while overall U.S. exports to Kenya in 2012 amounted to around US\$570 million (about one-tenth the projected 2013 level for Nigeria), exports of telecommunications equipment in the same year amounted to US\$27 million (roughly half the corresponding Nigerian figure), or nearly 5% of the total.<sup>14</sup> The Kenya example is particularly revealing, in light of the fact that per capita GDPs in Nigeria and Kenya are roughly the same, whereas the corresponding figures for Russia and Brazil are substantially higher.

All four of the countries mentioned currently enjoy relatively robust and affordable international connectivity, even if its availability in Kenya and Nigeria is relatively recent. What distinguishes Nigeria from the three others is a general lack of good domestic connectivity. In all probability, the lack of an “enabling environment” created by robust and ubiquitous domestic infrastructure is a major factor in suppressing demand for telecommunications systems and solutions, and this in turn is the principal factor that accounts for the very modest proportion of telecommunications equipment in the current profile of U.S. exports to Nigeria.

However, the domestic situation in Nigeria is evolving rapidly; in particular, the major operators have recently announced plans to deploy some 12,000 km of fiber-optic backbone around the country, and reportedly have lined up the necessary financing.<sup>15</sup> Such large-scale terrestrial fiber-optic deployments typically require around two or three years to complete, so 2016 probably represents the earliest date at which the benefits of the initiative will be experienced.

Accordingly, it seems reasonable to expect that, in 2016 or thereafter, a basic “enabling environment” will have been created in Nigeria such that the potential for U.S. telecommunications exports will rise to a level comparable to that of Kenya, Brazil or Russia. If

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<sup>12</sup> <http://www.census.gov/foreign-trade/statistics/product/enduse/exports/c4621.html>

<sup>13</sup> <http://www.census.gov/foreign-trade/balance/c3510.html>

<sup>14</sup> <http://www.census.gov/foreign-trade/statistics/product/enduse/exports/c7790.html>

<sup>15</sup> See <http://leadership.ng/news/170713/telecoms-investment-inflows-hit-32bn>

the most conservative scenario among these three countries – namely Brazil, where imports of U.S. telecommunications equipment amount to 3.5% of the total – is applied to Nigeria, the result would suggest that the export potential could increase from the current US\$65 million level to a figure on the order of US\$228 million in that timeframe.<sup>16</sup>

Unfortunately, no detailed breakdown of the US\$65 million figure is available. As already noted, however, the two largest U.S.-based companies with an established presence in Nigeria are Cisco and Motorola; both of these companies have been awarded multiple high-value contracts over the past several years, and some data can be gleaned from their annual financial statements and press reports concerning the contract awards.<sup>17</sup> An educated guess would be that Cisco and Motorola together account for 50% of the figure, or US\$32.5 million, with Cisco probably having the greater share. If so, then 1) the remaining US\$32.5 million is made up of all other U.S. equipment exports, and 2) based on the above analysis, that figure could potentially increase to US\$114 million by around 2016. If allowance is made for assumed exports of telecommunications-related services, as described above, the US\$114 million figure increases to US\$152 million.

However, the profile of the “all other exports” category can be expected to evolve significantly as Nigeria creates the domestic “enabling environment” described above. New sub-categories of equipment and services will be added to the mix. Three such sub-categories that can be expected to benefit strongly from improved domestic infrastructure, and also are strongly represented by U.S. suppliers, are:

- Wireless networking systems and equipment (particularly municipal WiFi and, to a lesser extent, WiMAX<sup>18</sup>)
- Data center and “big data” systems and equipment (particularly data center implementation and consolidation)
- Cloud-based solutions

Potential U.S.-based suppliers in these sub-categories, as well as for the Main One Extension Project, are enumerated below.

## **Potential U.S. Suppliers of Goods and Services for Main One Extension Project**

The major potential suppliers for the venture include U.S.-based TE Subcom (cable ships and cable-laying services) and Corning (submarine fiber-optic cable). Other potential suppliers include manufacturers of repeaters, branching units, amplifiers, termination equipment, Dense Wave Division Multiplexing (DWDM) equipment, cross-connects and other devices to be installed at the landing station and at Main One’s point of presence in Port Harcourt. In a turnkey implementation of the kind contemplated by the Extension Project, such equipment could be supplied by the prime contractor and could likely be sourced from the U.S.

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<sup>16</sup> Again, telecommunications services are excluded from this figure (see footnote 9 regarding their estimation).

<sup>17</sup> See footnote 9.

<sup>18</sup> Some industry observers believe that increasing availability of 4G LTE infrastructure will significantly impact future WiMAX deployments.

## Potential U.S. Suppliers of Goods and Services for Nigerian Telecom Sector

As already noted, Cisco and Motorola are the two largest established U.S. suppliers to the Nigerian telecom sector. Cisco's product line consists primarily of switches, routers, so-called collaboration tools (e.g., IP phones and Web-based products), video systems and products (e.g., cable modems), and security-related systems and products. Motorola's offerings comprise primarily so-called trunking systems (specialized mobile radio employed by emergency services, the military, etc.) and a range of systems and products employed by mobile and fixed operators, in particular Code Division Multiple Access (CDMA) platforms. All indications are that the demand for these products is increasing and will continue to be robust for the foreseeable future. Some support for this view is provided from a recent Cisco press announcement, to the effect that the sub-Saharan market just for Cisco's existing product lines has a potential for being two and a quarter times larger than it currently is.<sup>19</sup>

In the area of WiFi/WiMAX solutions and systems, the leading U.S.-based vendors are

- Airspan (Boca Raton, FL)
- PureWave Networks (Santa Clara, CA)
- Navini Networks (Richardson, TX; acquired by Cisco)
- Strix Systems (Santa Clara, CA)
- Ruckus Wireless (Sunnyvale, CA)
- Aruba Networks (Sunnyvale, CA)

All these vendors have extensive international operations; insofar as can be determined, none of them yet has a direct presence in Nigeria (with the exception of Navini/Cisco), although of course they may have established distributorships or channel-partner arrangements.

In the area of data center and "big data" systems, Cisco is, and will certainly continue to be, a premier supplier of integrated solutions, including the critical security sub-systems for such installations. However, U.S.-based Juniper Networks (Sunnyvale, CA), a major provider of infrastructure and security solutions, has recently established a presence in the Nigerian market, through its local partner Layer3.<sup>20</sup> Reportedly, Juniper will be supplying a full range of data center and associated networking and security equipment to the Nigerian market. Additionally, a substantial number of large U.S.-based firms, including Microsoft, Oracle, Hewlett-Packard, McAfee, VMware and others, supply various data center components and sub-systems (servers, backup / disaster recovery arrangements, security systems, software, etc.).

The area of cloud-based solutions and networking is still relatively embryonic, and, as far as can be ascertained, has yet to make any appreciable inroads into the Nigerian market. Also, there is an enormous diversity and range of cloud-based solutions, and many of these involve specialized applications targeted to particular customers or customer groups. That said, two particular U.S.-based companies that have extensive international operations, and appear to be well positioned to

<sup>19</sup> <http://www.thenigerianvoice.com/nvnews/109325/1/cisco-earns-750m-from-nigeria-others-on-services.html>

<sup>20</sup> See Business Today, April 19, 2011: <http://www.businessdayonline.com/NG/index.php/tech/telecoms/20628-juniper-layer3-initiates-new-network-solutions>

serve this market, are:

- F5 Networks (Seattle, WA)
- CIENA (Hanover, MD)

## D. FOREIGN COMPETITION AND MARKET ENTRY ISSUES

### Competition in Large-Scale Undersea Fiber-Optic Cable Deployment

Foreign competition is a significant factor in the field of large-scale undersea fiber-optic cable deployment. The dominant player, both worldwide and in the African region, is Alcatel-Lucent Submarine Services (ALSS), a subsidiary of the multinational Alcatel-Lucent; reportedly, ALSS accounts for about half the worldwide market (reckoned in terms of contract value). ALSS has been active in a number of undersea cable projects involving Sub-Saharan Africa, such as the EASSy and TEAMs systems spanning several East African countries, and the Seychelles East Africa System (SEAS) linking Seychelles to Tanzania.

Although there is U.S. interest in Alcatel-Lucent, it should be noted that the firm recently made known that it is putting up ALSS for sale. A number of European organizations, including the French sovereign fund FSI and the private equity firms Permira and PAI, have been mentioned as potential buyers. In short, it seems likely that the successor to ALSS will have no U.S. participation.

Other foreign competitors include:

- NEC (Japan), reported to be the No. 3 largest supplier of submarine cabling equipment worldwide
- Ericsson (Sweden), which supplied cable for the Adones undersea project (owned by Angola Telecom)
- Pirelli (Italy), which has been the cable provider for a number of undersea projects, most notably in the Mediterranean basin.

However, there are no indications that any of these represent serious competition for the Expansion Project.

### Competition in Nigerian Telecom Sector

As already noted, foreign competition in the Nigerian telecom sector is particularly strong in the lucrative area of supplying core networking equipment to the country's major operators. This may be illustrated by the following recent examples:<sup>21</sup>

- In early 2013, the second-largest mobile operator Globacom signed a US\$500 million deal with the Chinese equipment supplier ZTE, to upgrade its nationwide infrastructure. It signed a separate US\$750 million agreement with Huawei Technologies (also Chinese) to expand the

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<sup>21</sup> Cited in *Leadership*, July 17, 2013. See <http://leadership.ng/news/170713/telecoms-investment-inflows-hit-32bn>.

capacity of its network.

- In April 2013, MTN Nigeria, the largest operator with approximately 50% market share, secured loans totaling US\$3 billion to enable it to expand and modernize its network infrastructure. The corresponding contracts were awarded to Ericsson (Sweden) and Huawei (China).

Since it is relatively unusual for major operators, with their extensive installed equipment bases, to radically alter their sourcing arrangements, it appears that foreign dominance in this area will continue.

There is extensive foreign competition in the WiFi / WiMAX arena, much of it emanating from Western Europe, Israel, Canada, Japan and China. At the same time, relatively few suppliers have a global reach or international presence sufficient to seriously target the Nigerian market. The major such competitors are:

- Alvarion (Israel)
- Tropos (subsidiary of ABB – Sweden and Switzerland)
- Ericsson (Sweden)
- Fujitsu (Japan)
- Huawei and ZTE (China)

One foreign competitor in particular, Edgewater Wireless Systems (Canada), recently entered into a partnering agreement with 3CNet, a local operator based in Lagos and with operations in other Nigerian cities, to supply WiFi equipment to provide “last-mile” solutions for 3CNet’s metropolitan fiber infrastructure.<sup>22</sup> Opportunities of this type can be expected to become more prevalent as additional cities in Nigeria are “wired up.”

Data Center and “Big Data” solutions are complex and capital-intensive, and foreign competition is dominated by a small number of firms with extensive international operations. The major ones are:

- Hitachi, Fujitsu and NEC Corporation (Japan)
- Groupe Bull (France)
- Lenovo (China)
- SAP (Germany)

As regards cloud-based solutions, there is considerable overlap between this category and the preceding one (since cloud-based solutions are essentially virtual data centers). All the companies in the preceding category are active in this area; the following may also be added to the list:

- E-conomic (UK)
- NTT Group (Japan)

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<sup>22</sup> *TMC News*, 23 August 2013: <http://www.tmcnet.com/submit/2013/08/22/7359778.htm>

## Market Entry Issues

Overall, the climate for doing business in Nigeria has improved markedly over the past several years. According to the most recent Fitch report,<sup>23</sup> Nigeria's long-term foreign currency rating is BB (a slight improvement from the BB-minus rating it received in 2011) and its outlook is rated "stable." The Fitch rating acknowledges the stability of the Nigerian currency (the Naira), the government of Nigeria's commitment to economic and social reforms, and general improvements in external reserves and public governance.

Finally, besides the bilateral trade and investment framework agreement between the U.S. and Nigeria, as noted earlier, it may be noted that Nigeria is eligible for preferential trade benefits under the African Growth and Opportunity Act (AGOA).<sup>24</sup>

The International Trade Administration (ITA) also reports<sup>25</sup> that, in general, Nigerians are positively disposed toward the United States and have a strong affinity for U.S. products, as well as many honest businessmen and women eager to form partnerships with U.S. counterparts. Additionally, the ITA notes that Nigerian and U.S. authorities have been cooperating to combat fraud and cyber crime. Nonetheless, some U.S. companies continue to exclude Nigeria from their African commercial strategy based on outdated and often incorrect information.

The GON has substantially liberalized Nigeria's telecommunications sector since the early 2000s. The *Telecommunications Act* of 2001, which relied significantly on European Union models, established the basic framework for liberalization, and for the role of the Nigerian Communications Commission (NCC) in issuing licenses in orderly and transparent fashion, and in providing impartial oversight of the sector. In particular, the NCC implemented a unified licensing regime in 2006 that permits telecommunications companies to offer landline, wireless, and data services. Additionally, in February 2012 the GON, through the National Council on Privatization (NCP), approved a "guided liquidation" strategy for the privatization of NITEL and MTEL.<sup>26</sup> Most recently (May 2013), the NCP announced that three pre-qualified firms had been invited to bid for the GON's shares in the two companies.<sup>27</sup> Once the process is completed, the GON will have divested itself of any ownership interest in the sector, and correspondingly the business of the sector will be entirely in private hands.

Accordingly, apart from the universal issue of finding reliable and trustworthy local partners, there appear to be no significant barriers to entry into the Nigerian telecom sector.

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<sup>23</sup> sovereign\_ratings\_history.xls, available at [www.fitchratings.com](http://www.fitchratings.com).

<sup>24</sup> See <http://www.state.gov/r/pa/ei/bgn/2836.htm>.

<sup>25</sup> <http://export.gov/nigeria/doingbusinessinnigeria/index.asp>

<sup>26</sup> U.S. Department of State 2013 Investment Climate Statement – Nigeria, <http://www.state.gov/e/eb/rls/othr/ics/2013/204707.htm>

<sup>27</sup> See <http://allafrica.com/stories/201305281577.html>

## **ANNEX 3**



**U.S. TRADE AND DEVELOPMENT AGENCY  
Arlington, VA 22209-2131**

**NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS**

The purpose of USTDA's nationality, source, and origin requirements is to assure the maximum practicable participation of American contractors, technology, equipment and materials in the prefeasibility, feasibility, and implementation stages of a project.

**USTDA STANDARD RULE (GRANT AGREEMENT STANDARD LANGUAGE):**

Except as USTDA may otherwise agree, each of the following provisions shall apply to the delivery of goods and services funded by USTDA under this Grant Agreement: (a) for professional services, the Contractor must be either a U.S. firm or U.S. individual; (b) the Contractor may use U.S. subcontractors without limitation, but the use of subcontractors from host country may not exceed twenty percent (20%) of the USTDA Grant amount and may only be used for specific services from the Terms of Reference identified in the subcontract; (c) employees of U.S. Contractor or U.S. subcontractor firms responsible for professional services shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the U.S.; (d) goods purchased for implementation of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and (e) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in host country are not subject to the above restrictions. USTDA will make available further details concerning these standards of eligibility upon request.

**NATIONALITY:**

1) Rule

Except as USTDA may otherwise agree, the Contractor for USTDA funded activities must be either a U.S. firm or a U.S. individual. Prime contractors may utilize U.S.

subcontractors without limitation, but the use of host country subcontractors is limited to 20% of the USTDA grant amount.

## 2) Application

Accordingly, only a U.S. firm or U.S. individual may submit proposals on USTDA funded activities. Although those proposals may include subcontracting arrangements with host country firms or individuals for up to 20% of the USTDA grant amount, they may not include subcontracts with third country entities. U.S. firms submitting proposals must ensure that the professional services funded by the USTDA grant, to the extent not subcontracted to host country entities, are supplied by employees of the firm or employees of U.S. subcontractor firms who are U.S. individuals.

Interested U.S. firms and consultants who submit proposals must meet USTDA nationality requirements as of the due date for the submission of proposals and, if selected, must continue to meet such requirements throughout the duration of the USTDA-financed activity. These nationality provisions apply to whatever portion of the Terms of Reference is funded with the USTDA grant.

## 3) Definitions

A "U.S. individual" is (a) a U.S. citizen, or (b) a non-U.S. citizen lawfully admitted for permanent residence in the U.S. (a green card holder).

A "U.S. firm" is a privately owned firm which is incorporated in the U.S., with its principal place of business in the U.S., and which is either (a) more than 50% owned by U.S. individuals, or (b) has been incorporated in the U.S. for more than three (3) years prior to the issuance date of the request for proposals; has performed similar services in the U.S. for that three (3) year period; employs U.S. citizens in more than half of its permanent full-time positions in the U.S.; and has the existing capability in the U.S. to perform the work in question.

A partnership, organized in the U.S. with its principal place of business in the U.S., may also qualify as a "U.S. firm" as would a joint venture organized or incorporated in the United States consisting entirely of U.S. firms and/or U.S. individuals.

A nonprofit organization, such as an educational institution, foundation, or association may also qualify as a "U.S. firm" if it is incorporated in the United States and managed by a governing body, a majority of whose members are U.S. individuals.

## **SOURCE AND ORIGIN:**

### 1) Rule

In addition to the nationality requirement stated above, any goods (e.g., equipment and materials) and services related to their shipment (e.g., international transportation and insurance) funded under the USTDA Grant Agreement must have their source and origin in the United States, unless USTDA otherwise agrees. However, necessary purchases of goods and project support services which are unavailable from a U.S. source (e.g., local food, housing and transportation) are eligible without specific USTDA approval.

### 2) Application

Accordingly, the prime contractor must be able to demonstrate that all goods and services purchased in the host country to carry out the Terms of Reference for a USTDA Grant Agreement that were not of U.S. source and origin were unavailable in the United States.

### 3) Definitions

“Source” means the country from which shipment is made.

"Origin" means the place of production, through manufacturing, assembly or otherwise.

*Questions regarding these nationality, source and origin requirements may be addressed to the USTDA Office of General Counsel.*

## **ANNEX 4**



## GRANT AGREEMENT

This Grant Agreement is entered into between the Government of the United States of America, acting through the U.S. Trade and Development Agency ("USTDA") and Main One Cable Company Nigeria Limited ("Grantee"). USTDA agrees to provide the Grantee under the terms of this Grant Agreement US\$550,000 (Five Hundred and Fifty Thousand United States Dollars) ("USTDA Grant") to fund the cost of goods and services required for a feasibility study ("Study") on the Main One Cable Company Fiber Optic Expansion ("Project") in Nigeria ("Host Country").

### 1. USTDA Funding

The funding to be provided under this Grant Agreement shall be used to fund the costs of a contract between the Grantee and the U.S. firm selected by the Grantee ("Contractor") under which the Contractor will perform the Study ("Contract"). Payment to the Contractor will be made directly by USTDA on behalf of the Grantee with the USTDA Grant funds provided under this Grant Agreement.

### 2. Terms of Reference

The Terms of Reference for the Study ("Terms of Reference") are attached as Annex I and are hereby made a part of this Grant Agreement. The Study will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the Study shall also be included in the Contract.

### 3. Standards of Conduct

USTDA and the Grantee recognize the existence of standards of conduct for public officials and commercial entities in their respective countries. Therefore, USTDA, the Grantee, and the Contractor shall not directly or indirectly provide, offer or promise to provide money or anything of value to any public official in violation of any United States or Host Country laws relating to corruption or bribery.

### 4. Grantee Responsibilities

The Grantee shall undertake its best efforts to provide reasonable support for the Contractor, such as local transportation, office space, and secretarial support.

### 5. Contract Matters and USTDA's Rights as Financier

#### (A) Grantee Competitive Selection Procedures

Selection of the U.S. Contractor shall be carried out by the Grantee according to its

established procedures for the competitive selection of contractors with advance notice of the procurement published online through *Federal Business Opportunities* ([www.fedbizopps.gov](http://www.fedbizopps.gov)). Upon request, the Grantee will submit these contracting procedures and related documents to USTDA for information and/or approval.

**(B) USTDA's Right to Approve Contractor Selection**

The Grantee shall notify USTDA at the address of record set forth in Article 16 below upon selection of the Contractor to perform the Study. USTDA then shall notify the Grantee whether or not USTDA approves the Grantee's Contractor selection. Upon USTDA approval of the Grantee's Contractor selection, the Grantee shall notify in writing the U.S. firms that submitted unsuccessful proposals to perform the Study that they were not selected. The Grantee and the Contractor then shall enter into a contract for performance of the Study.

**(C) USTDA's Right to Approve Contract Between Grantee and Contractor**

**(1) Contract**

The Grantee and the Contractor shall enter into a contract for performance of the Study. The Grantee (or the Contractor on the Grantee's behalf) shall transmit to USTDA, at the address set forth in Article 16 below, a photocopy of an English language version of the signed contract or a final negotiated draft version of the contract. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the contract.

**(2) Amendments and Assignments**

The Grantee or the Contractor may submit any proposed amendment to the contract, including any proposed amendment to any annex thereto, or any proposed assignment of the contract, to USTDA at the address set forth in Article 16 below. USTDA then shall notify the Grantee and the Contractor whether or not USTDA approves the proposed amendment or assignment.

**(D) USTDA Not a Party to the Contract**

It is understood by the parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of the contract and any amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval rights shall be made as a financier in the course of funding the Study and shall not be construed as making USTDA a party to the contract. The parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing

approval rights, or discuss matters related to these rights and the Project with the parties to the contract or any subcontract, jointly or separately, without thereby incurring any responsibility or liability to such parties. Any approval or failure to approve by USTDA shall not bar the Grantee or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Grantee or USTDA.

**(E) Grant Agreement Controlling**

Regardless of USTDA approval, the rights and obligations of any party to the contract or any subcontract thereunder must be consistent with this Grant Agreement. In the event of any inconsistency between the Grant Agreement and the contract or any subcontract funded by the Grant Agreement, the Grant Agreement shall control.

**6. Disbursement Procedures**

**(A) USTDA Approval of Contract Required**

USTDA will make disbursements of Grant funds directly to the Contractor only after USTDA approves the Grantee's contract with the Contractor.

**(B) Contractor Invoice Requirements**

The Grantee should request disbursement of funds by USTDA to the Contractor for performance of the Study by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Clauses in Annex II.

**7. Effective Date**

The effective date of this Grant Agreement ("Effective Date") shall be the date of signature by both parties or, if the parties sign on different dates, the date of the last signature. In the event that only one signature is dated, such date shall constitute the Effective Date.

**8. Study Schedule**

**(A) Study Completion Date**

The completion date for the Study, which is September 30, 2014, is the date by which the parties estimate that the Study will have been completed.

**(B) Time Limitation on Disbursement of USTDA Grant Funds**

Except as USTDA may otherwise agree, (i) no USTDA funds may be disbursed under this Grant Agreement for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (ii) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

## **9. USTDA Mandatory Contract Clauses**

All contracts funded under this Grant Agreement shall include the USTDA Mandatory Contract Clauses set forth in Annex II to this Grant Agreement. All subcontracts funded or partially funded with USTDA Grant funds shall include the USTDA Mandatory Contract Clauses, except for clauses B(1), G, H, I, and J.

## **10. Use of U.S. Carriers**

### **(A) Air**

Transportation by air of persons or property funded under this Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

### **(B) Marine**

Transportation by sea of property funded under this Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

## **11. Nationality, Source and Origin**

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and professional services funded by USTDA under this Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;

(g) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and

(h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

USTDA will make available further details concerning these provisions upon request.

## **12. Taxes**

USTDA funds provided under this Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Grantee nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

## **13. USTDA Project Evaluation**

The parties will cooperate to assure that the purposes of the Grant Agreement are accomplished. For five (5) years following receipt by USTDA of the Final Report, the Grantee agrees to respond to any reasonable inquiries from USTDA about the status of the Project. Inquiries will include, but not be limited to, whether the Final Report recommendations have been or will be used to implement the Project, anticipated Project implementation timeline, and likely source of financing. In addition, the Grantee agrees to notify USTDA any time the Grantee selects a new primary contact person for this Project during the five-year period referenced above.

## **14. Recordkeeping and Audit**

The Grantee agrees to maintain books, records, and other documents relating to the Study and this Grant Agreement adequate to demonstrate implementation of its responsibilities under this Grant Agreement, including the selection of contractors, receipt and approval of contract deliverables, and approval or disapproval of contractor invoices for payment by USTDA. Such books, records, and other documents shall be separately maintained for three (3) years after the date of the final disbursement by USTDA. The Grantee shall afford USTDA or its authorized representatives the opportunity at reasonable times to review books, records, and other documents relating to the Study and the Grant Agreement.

## **15. Representation of Parties**

For all purposes relevant to this Grant Agreement, the Government of the United States of America will be represented by the U. S. Ambassador to Host Country or USTDA and Grantee will be represented by its Chief Executive Officer. The parties hereto may, by written notice, designate additional representatives for all purposes under this Grant Agreement.

## **16. Addresses of Record for Parties**

Any notice, request, document, or other communication submitted by either party to the other under the Grant Agreement shall be in writing or through an electronic medium that produces a tangible record of the transmission, such as a facsimile or e-mail message, and will be deemed duly given or sent when delivered to such party at the following:

To: Ms. Funke Opeke  
Chief Executive Officer  
FABAC Center  
3B, Ligali Ayorinde Street  
Victoria Island  
Lagos, Nigeria

Phone: +234 1 448 9500  
Fax: +234 1 448 9527  
E-Mail: funke.opeke@mainone.net

To: U.S. Trade and Development Agency  
1000 Wilson Boulevard, Suite 1600  
Arlington, Virginia 22209-3901  
USA

Phone: (703) 875-4357  
Fax: (703) 875-4009  
E-Mail: grantnotices@ustda.gov and  
Africa@ustda.gov

All such communications shall be in English, unless the parties otherwise agree in writing. In addition, the Grantee shall provide the Commercial or Economic Section of the U.S. Embassy in Host Country with a copy of each communication sent to USTDA.

Any communication relating to this Grant Agreement shall include the following fiscal data:

Appropriation No.: 11 13/14 1001  
Activity No.: 2013-11020A  
Reservation No.: 2013250  
Grant No.: GH201311250

#### **17. Implementation Letters**

To assist the Grantee in the implementation of the Study, USTDA may, from time to time, issue implementation letters that will provide additional information about matters covered by this Grant Agreement. USTDA may also issue implementation letters to (i) extend the estimated completion date set forth in Article 8(A) above, or (ii) change the fiscal data set forth in Article 16 above. The parties may also use jointly agreed upon implementation letters to confirm and record their mutual understanding of matters covered by this Grant Agreement.

## **18. Grant Agreement Amendments**

Either party may submit to the other party at any time a proposed amendment to the Grant Agreement. A Grant Agreement amendment shall be effective only if it has been signed by both parties.

## **19. Termination Clause**

Either party may terminate this Grant Agreement by giving the other party written notice thereof. The termination of the Grant Agreement will end any obligations of the parties to provide financial or other resources for the Study, except for payments that may be made pursuant to Clause I of the USTDA Mandatory Contract Clauses set forth in Annex II to this Grant Agreement. This article and Articles 5, 12, 13, 14, and 21 of the Grant Agreement shall survive termination of the Grant Agreement.

## **20. Non-waiver of Rights and Remedies**

No delay in exercising any right or remedy accruing to either party in connection with the Grant Agreement shall be construed as a waiver of such right or remedy.

## **21. U.S. Technology and Equipment**

By funding this Study, USTDA seeks to promote the project objectives of the Host Country through the use of U.S. technology, goods, and services. In recognition of this purpose, the Grantee agrees that it will allow U.S. suppliers to compete in the procurement of technology, goods and services needed for Project implementation.

## **22. Governing Law**

This Grant Agreement shall be governed by, and construed in accordance with, the applicable laws of the United States of America. In the absence of federal law, the laws of the State of New York shall apply.

## **23. Counterparts**

This Grant Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. Counterparts may be delivered via electronic mail or other transmission method and any counterpart so delivered shall be deemed to be valid and effective for all purposes.

**[THE REMAINDER OF THIS PAGE IS INTENTIONALLY LEFT BLANK]**

IN WITNESS WHEREOF, the Government of the United States of America and Main One Cable Company Nigeria Limited, each acting through its duly authorized representative, have caused this Grant Agreement to be signed in the English language in their names and delivered as of the day and year written below. In the event that this Grant Agreement is signed in more than one language, the English language version shall govern.

For the Government of the  
United States of America

For  
Main One Cable Company Nigeria Limited

By: J. W. W.

By: Funke Opeke

Date: 03 SEPT 2013

Date: Sept 3, 2013

Witnessed:

By: [Signature]

Witnessed:

By: [Signature]

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Clauses

## Annex I

### **Terms of Reference**

The objective of the Feasibility Study ("Study") is to support Main One Cable Company Nigeria Limited ("Grantee") with needed experience and expertise to evaluate the proposed implementation of the Main One Cable Company Fiber Optic Expansion ("Project"). The Project seeks to extend the Grantee's existing international undersea fiber optic cable facility from its current landing point in Lagos, Nigeria to Port Harcourt, Nigeria. The Project will also include the development of terrestrial fiber optic infrastructure in and around Port Harcourt, Nigeria.

#### **Task 1. Preliminary Information Request**

Prior to its initial visit to Nigeria, the Contractor shall submit a preliminary information request ("Preliminary Information Request") to the Grantee for existing, up-to-date documents and materials concerning the Project. It is anticipated that such documents and materials should include, but are not limited to, the following:

- Preliminary engineering surveys (regarding the undersea portion, the terrestrial portions, and potential landing sites)
- Available data relevant to the Desktop and Site Study (see Task 3 below)
- Available data relevant to the Demand Study and Market Assessment (see Task 5 below), including any information related to key contacts and information sources in and around Port Harcourt, Nigeria (e.g., telecom operators, ISPs, corporate end-users)
- Most recent capital and operation expenditure estimates for the Project

The Contractor shall submit the Preliminary Information Request to the Grantee at least five (5) weeks prior to the date of the Contractor's initial visit to Nigeria. The Grantee shall make best efforts to obtain the requested information, and shall supply such information to the Contractor at least two (2) weeks prior to the date of the Contractor's initial visit to Nigeria.

*Task 1 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 1. The Task 1 Deliverable shall be included in the Final Report (as defined below).

#### **Task 2. Project Kick-Off and Situation Assessment**

##### ***Sub-Task 2a. Introductory Meetings and Familiarization***

The Contractor shall meet with the Grantee to (i) review, discuss and refine overall strategy, scope, objectives and deliverables of the Study and (ii) to define and clarify the Grantee's and Contractor's roles and responsibilities with respect to the Study. The Contractor and the Grantee shall also review the following components of the Study: approach and methodology; documentation and project management reporting

requirements; milestones; and workflow arrangements. Additionally, the Contractor and the Grantee shall review (i) the list of key stakeholders as listed in Sub-Task 2c below and (ii) the logistical arrangements for the onsite portion of the Desktop and Site Study as described in Task 3 below. Finally, the Contractor and the Grantee shall review the information obtained through the Preliminary Information Request in Task 1 to identify any significant outstanding gaps and to mutually agree to the procedures and timeframe for addressing those gaps.

The Contractor and the Grantee shall form a joint study team (“Study Team”). The members of the Study Team shall act as coordinators and primary points of contact throughout the course of the Study.

#### ***Sub-Task 2b. Data Review***

The Contractor shall review the data in the Grantee’s possession regarding the Project and determine the extent such data can adequately provide the basis for the subsequent tasks of the Study. The Contractor shall identify any gaps where collection of additional data will be needed. The Contractor and the Grantee shall mutually agree to the procedures and timeframe for addressing such gaps.

#### ***Sub-Task 2c. Stakeholder Meetings***

The Contractor shall conduct meetings with key stakeholders and other sources of information pertinent to the Study, including, but not limited to, the following:

- Rivers State Government House, Office of the Governor
- Bonny Island Local Council
- Nigerian Navy (Port Harcourt Hydrographic Office, Bonny Forward Operating Base)
- Nigerian Maritime Administration and Safety Agency (NIMASA) (Port Harcourt and Bonny)
- Nigerian Shippers Council (Port Harcourt Branch)
- Nigerian Trawlers Association

A number of these meetings will need to be conducted in and around Port Harcourt, Nigeria, and accordingly, should be coordinated with the on-site activities in Task 3 as described below. The Grantee shall facilitate the organization of these meetings and shall make appropriate personnel available to support and accompany the Contractor.

The Contractor shall keep a written record of all interviews and meetings conducted, sites visited, progress in collecting and reviewing data, problems encountered or foreseen in connection with the Study, potential impacts on the projected work schedule, and deployment of Contractor personnel.

*Task 2 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 2. The Task 2 Deliverable shall be included in the Final Report.

### **Task 3. Desktop and Site Study**

The Contractor shall carry out a desktop and site study (“DSS”) to provide information on the design, construction and maintenance activities associated with the Project. The overall purpose of the DSS is to assess route and landing-site options; to examine risks and hazards; and to determine a route that minimizes the identified risks including, but not limited to, fishing, trawling, and potential earthquakes. The Contractor shall develop the DSS with the intention that it will serve as the basis for the subsequent cable route survey and cable manufacturing, which are both outside the scope of the Study.

#### ***Sub-Task 3a. Landing Site Assessment and Determination***

The Contractor shall conduct an investigation of proposed landing locations and shall account for the fact that Port Harcourt, Nigeria is located approximately 30 miles inland and is accessible via a complex system of rivers and tidal estuaries. For this purpose, the Contractor shall: (1) access and analyze available documentation on the proposed landing sites; (2) consult with the Grantee and other stakeholder entities on existing terrestrial connectivity initiatives and backhaul facilities; and (3) coordinate the landing site and marine investigations with terrestrial planning.

In particular, the following activities shall be conducted:

- Identify the existing facilities available for landing a submarine cable and/or provide suitable locations to construct new landing facilities
- Identify and agree with the Grantee upon a suitable beach manhole (“BMH”) position
- Obtain local nautical charts and street maps encompassing the landing site
- Obtain information regarding local organizations and authorities that will need to be liaised with for the planning, installation and operation of the cable system
- Identify near shore activities that may affect the cable including, but not limited to, shipping, fishing, hydrocarbon exploitation, mining, etc.
- Identify cultural and/or environmental issues that may affect or be impacted by the Project
- Examine the local climactic, geologic and oceanographic conditions and identify any potential impact to the installation or operation of the cable system
- Conduct site visits as necessary to establish a suitable landing point, BMH and Cable Station placement area

The Grantee shall designate appropriate personnel to accompany and support the Contractor in the performance of this sub-task. Under this sub-task, the Contractor shall conduct onsite inspection visits, as well as meetings with local officials and organizations, to determine the viability of specific landing site candidates.

#### ***Sub-Task 3b. Evaluation of Undersea Geology and Physiography***

The Contractor shall assess and evaluate any relevant conditions in order to provide the information necessary to gauge the geologic and physiographic risks to the Project. In particular, the Contractor shall examine the following geologic and physiographic conditions as they relate to the region of the Project:

- Seismicity
- Surface faulting
- Volcanic activity
- Seamounts, trenches, canyons and ridges
- Sediment types
- Turbidity currents
- Tectonics
- Mobile sediments (sand waves)
- Sediment transport
- Seafloor morphology
- Seabed lithology

Where cable burial is anticipated, the Contractor shall also consider the any issues, including, but not limited to, the aforementioned issues outlined above, with respect to the possible effects on cable burial operations.

#### ***Sub-Task 3c. Evaluation of Project-Specific Environmental Factors***

As part of the DSS, the Contractor shall examine and evaluate the following factors, which are either publicly available or will be made available by the Grantee to the Contractor:

**Oceanography:** The Contractor shall investigate, examine, and evaluate the existing oceanographic data to identify the typical sea states expected in the region of the proposed cable system. The Contractor shall summarize and present this data to allow planning of marine operations. The DSS shall also include information describing the surface and bottom currents expected in the area, as well as the expected bottom water temperature.

**Climate and weather:** The Contractor shall investigate seasonal variations in climate and weather within the region(s) of the Project, to include a description of major climatic influences, including, but not limited to convergence zones, trade winds, hurricane/monsoon seasons, etc. The Contractor shall also identify the monthly averages for wind speed and direction, temperature, and precipitation for each of the region(s) of the Project. The Contractor shall also identify the frequency of flooding and any other weather related hazards.

#### ***Sub-Task 3d. Evaluation of Human-Activity-Related Factors***

As part of the DSS, the Contractor shall identify and examine any information, which either is publicly available or will be made available by the Grantee to the Contractor, on specific cultural and manmade factors including, but not limited to, the key factors

outlined below, that may be encountered along the proposed route of the Project. Each factor shall be fully described and any potential effects on the project shall be highlighted.

**Commercial fishing:** The Contractor shall investigate and present any primary commercial fishing threats to the Project. The Contractor shall also investigate and present items including, but not limited to, the following:

- Summary description of fishing gear used and its potential interaction with cables during and after installation for the Project
- Estimated locations, seasonality and size of fishing grounds that could affect the Project
- Available information on the reported seabed penetration depth of different types of fishing gear
- Available information on bottom type for the major fishing grounds, with particular reference to fishing grounds with reported hard bottom, rocks or steep slopes where fishing occurs and cable burial may be impossible
- Estimated numbers and sizes of bottom commercial fishing vessels by type, including, but not limited to, trawl, dredge, long line, etc.
- Descriptions of any fisheries with special socioeconomic or political significance as defined by the Contractor and Grantee
- Descriptions of any fishery property rights along the cable route
- Reports of any fishery-related issues likely to require consideration for permitting processes
- Estimated water depth ranges for each type of fishing gear

**Cables and pipelines:** In conjunction with any relevant publicly accessible databases, the Contractor shall utilize information provided by the Grantee to identify other submarine cables and pipelines that cross or lie near the proposed route. The Contractor shall prepare a matrix containing the following information on these submarine cables and pipelines:

- System name
- System owner
- System status
- Cable type
- Water depth
- Crossing position
- Crossing angle
- Repeater proximity

Additionally, the Contractor shall summarize and present to the Grantee any available cable fault histories.

**Hydrocarbon/mineral extraction leases:** The Contractor shall investigate and identify any potential impacts from any known lease areas used for hydrocarbon

exploration/exploitation, or for other mineral mining (i.e. sand) that are crossed by, or located near, the proposed cable route. The Contractor shall provide to the Grantee any available contact information for these lease owners.

**Restricted areas:** The Contractor shall examine existing information on restricted areas in the vicinity of the proposed cable route and shall describe potential impacts to the Project. Restricted Areas to be examined include, but are not limited to, the following:

- Military exercise areas
- Marine sanctuaries or protected areas
- Shipping channels
- Anchorages
- Dumping grounds
- Significant historic, archaeological or cultural sites

In conjunction with any preexisting engineering recommendations that have been made available, the Contractor shall utilize the information collected in Task 3 to produce a straight line diagram (“SLD”) showing the required cable armoring and burial over the entire route. The Contractor shall also define a route position list (“RPL”) to use in the cable route survey and to make specific recommendations for survey activities.

The Contractor shall include a series of North-Up adjoining and overlapping charts in the DSS report. The charts shall be in Mercator Projection based on the WGS84 Datum. All geographical coordinates shall be provided in Latitude Degrees Decimal Minutes and Longitude Degrees Decimal Minutes in WGS84 datum. The data presented on the chart shall include the cable route, bathymetry, other cables and pipelines, restricted areas, national/territorial limits, and other known or charted hazards (i.e. shipwrecks). Preferred charting scales are as follows, although scaling may vary to accommodate the best fit for the data presented:

- Cable system overview: “Best Fit”
- Planning charts for the entire route: 1:500,000
- Cable landing site(s): 1:50,000

The Contractor shall prepare the DSS report text, figures and photographs in Microsoft Word and Adobe PDF formats. Electronic copies of the charts shall be prepared in standard charting software (e.g. AutoCAD or ArcGIS) and also in Adobe PDF format.

*Task 3 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 3. The Task 3 Deliverable shall be included in the Final Report.

#### **Task 4. Workshop and Presentation 1**

The Contractor shall organize and conduct a one-day workshop in Lagos, Nigeria with the objectives of (i) presenting the findings and recommendations of Task 3; (ii)

highlighting problems encountered and/or issues requiring further attention on the part of the Grantee; and (iii) soliciting additional input and comments from the Grantee and other relevant stakeholders. The Contractor and the Grantee shall consult and mutually agree in advance to the target audience and general agenda for the workshop. The Contractor shall be responsible for preparing and disseminating the relevant workshop materials. The Contractor shall provide draft copies of workshop materials to the Grantee for the Grantee's comment five days in advance of the workshop. The Contractor shall incorporate the Grantee's comments and shall provide the Grantee with final copies of the workshop materials in electronic and/or paper format. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment) and shall be responsible for any ancillary costs (such as lunch, coffee breaks, etc.). All parties shall be responsible for their own travel costs.

*Task 4 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 4. The Task 4 Deliverable shall be included in the Final Report.

#### **Task 5. Demand Study and Market Assessment**

*Sub-Task 5a. Market Overview* The Contractor shall conduct a general survey of the telecommunication market in Port Harcourt, Nigeria and adjacent areas of Rivers State, Nigeria, with a particular emphasis on the target market for wholesale bandwidth services. The Contractor shall take the following factors into consideration including, but not limited to:

- Demographics and population growth
- Service and usage penetration
- Technology and technology advancements
- Demand drivers and constraints
- Competitive issues
- Regulatory issues
- Relevant political and economic issues
- Environmental issues (other than those addressed elsewhere)
- Other factors potentially affecting the proposed Project

*Sub-Task 5b. Demand Forecasts* The Contractor shall develop a forecast of aggregate demand for wholesale capacity between Lagos, Nigeria and Port Harcourt, Nigeria over the period 2013–2028. The forecast should be expressed in gigabits per second (“Gbit/sec”). The Contractor shall also develop a demand mix forecast, including, but not limited to, a breakdown of the aggregate demand forecast into SDH circuits, IP connectivity, etc., over the period 2013–2028. The forecasts should be prepared in multiple scenarios (i.e. high / medium / low). The Contractor shall include the demand drivers and market assumptions used in developing the forecasts.

*Sub-Task 5c. Supply-Demand Analysis* The Contractor shall perform an analysis that matches the demand forecasts with the likely level of available supply from existing and

future competing systems (both undersea and terrestrial) to the Project over the period 2013–2028.

***Sub-Task 5d. Competitive Analysis*** The Contractor shall conduct an assessment of the relative competitive positions of existing systems (both undersea and terrestrial) to the Project. This shall include an assessment of the proposed Project's competitive positioning relative to existing and future competing systems and an estimation of likely market shares over the period 2013–2028.

The Contractor shall highlight any pertinent implications of the assessment and the potential impact to the feasibility of the Project based on the analysis under Task 5.

*Task 5 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 5. The Task 5 Deliverable shall be included in the Final Report.

#### **Task 6. Economic and Financial Analysis**

The Contractor shall develop a revenue forecast for the Project over the 2013–2028 period. The forecast shall be based on an assessment of current and future wholesale bandwidth prices (under both leasing and Indefensible Right of Use arrangements) on the Lagos, Nigeria to Port Harcourt, Nigeria route. The Contractor shall take into account that future bandwidth prices may change based on the implementation of the Project.

In conjunction with the capital and operating expenditures data for the Project supplied by the Grantee, the Contractor shall utilize the revenue forecast to construct a financial model that will (i) combine various assumptions regarding expected network revenues, market segment growth, capital expenditures, financial costs and other relevant factors (exclusive of taxation) and (ii) provide a range of financial outcomes as a function of these factors. Using the financial model, the Contractor shall develop a profitability analysis and shall generate appropriate financial pro formas including an income statement, balance sheet, and cash flow statement, as well as calculations of net present value, the internal rate of return and earnings before interest, taxes, depreciation, and amortization ("EBITDA").

The Contractor shall format all economic and financial analysis projections as Microsoft Excel files.

*Task 6 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 6. The Task 6 Deliverable shall be included in the Final Report.

#### **Task 7. Legal and Regulatory Assessment**

The Contractor shall review and assess pertinent international and Nigerian national legal/regulatory issues that may impact the Project, including, but not limited to the Law of the Seabed and Nigeria's obligations under the provisions of international agreements and covenants.

*Task 7 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 7. The Task 7 Deliverable shall be included in the Final Report.

#### **Task 8. Workshop and Presentation 2**

The Contractor shall organize and conduct a one-day workshop in Lagos, Nigeria with the principal objectives of (i) presenting the findings to date and corresponding conclusions and (ii) providing recommendations to the management personnel of the Grantee. The Contractor and Grantee shall consult and mutually agree in advance to the target audience and general agenda for the workshop. The Contractor shall be responsible for preparing and disseminating the relevant workshop materials. The Contractor shall provide draft copies of workshop materials to the Grantee for the Grantee's comment five days in advance of the workshop. The Contractor shall incorporate the Grantee's comments and shall provide the Grantee with final copies of the workshop materials in electronic and/or paper format. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment), and shall be responsible for any ancillary costs (such as lunch, coffee breaks, etc.). All parties shall be responsible for their own travel costs.

*Task 8 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 8. The Task 8 Deliverable shall be included in the Final Report.

#### **Task 9. Developmental Impact Assessment**

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Nigeria. Specific attention should be paid to the immediate impact of the Project, and the Contractor shall also include, where appropriate, any additional developmental benefits of the Project, including spin-off and demonstration effects. The analysis of potential benefits of the Study should be as concrete and detailed as possible. The development impact assessment shall identify the anticipated impacts of the Project in the following categories:

- (1) Infrastructure: The Contractor shall identify the anticipated direct and indirect infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts, specifically addressing new infrastructure that would be developed.
- (2) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project.

- (3) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advancements in technologies that would be mobilized through this Project, especially any technologies which would be new to the Nigerian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project, which may include productivity gains, savings in transmission costs or lower production costs.
- (4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended in connection to these Terms of Reference and the effect they would have if implemented.
- (5) Other: The Contractor shall identify any other anticipated development impacts or benefits that would result from the Project such as positive spin-off effects on unrelated economic sectors, increased good governance and transparency, private sector participation, etc.

*Task 9 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 9. The Task 9 Deliverable shall be included in the Final Report.

#### **Task 10. Economic Impact Assessment**

The Contractor shall explore and report on any positive economic impacts that may be produced from the Project. The Contractor should seek to identify and, if practicable, shall quantify resulting economic benefits. The assessment shall be made to the best of Contractor's internal abilities and utilizing existing subject matter expertise. Detailed econometric forecasting and analysis is not required under Task 10.

*Task 10 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 10. The Task 10 Deliverable shall be included in the Final Report.

#### **Task 11. U.S. Sources of Supply**

The Contractor shall develop a detailed list of U.S. companies that could provide equipment, services, and technology to the Project. This list shall include (i) the possible U.S. sources of supply for the Project, (ii) a detailed description of relevant products, solutions and/or services to be provided, and (iii) contact information for the party or parties responsible for marketing/sales in Nigeria. The business name, point of contact, address, telephone number, e-mail address, and fax number shall be included for each identified party.

*Task 11 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 11. The Task 11 Deliverable shall be included in the Final Report.

#### **Task 12. Final Report**

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause J of Annex II of the Grant Agreement.

## Annex II

### USTDA Mandatory Contract Clauses

#### A. USTDA Mandatory Clauses Controlling

The parties to this Contract acknowledge that this Contract is funded in whole or in part by the U.S. Trade and Development Agency ("USTDA") under the Grant Agreement between the Government of the United States of America acting through USTDA and Main One Cable Company Nigeria Limited ("Client"), dated \_\_\_\_\_ ("Grant Agreement"). The Client has selected \_\_\_\_\_ ("Contractor") to perform the feasibility study ("Study") for the Main One Cable Company Fiber Optic Expansion ("Project") in Nigeria ("Host Country"). The Client and the Contractor are the parties to this Contract, and they hereinafter are referred to collectively as the "Contract Parties." Notwithstanding any other provisions of this Contract, the following USTDA Mandatory Contract Clauses shall govern. All subcontracts entered into by Contractor funded or partially funded with USTDA Grant funds shall include these USTDA Mandatory Contract Clauses, except for clauses B(1), G, H, I, and J. In addition, in the event of any inconsistency between the Grant Agreement and the Contract or any subcontract thereunder, the Grant Agreement shall be controlling.

#### B. USTDA as Financier

##### (1) USTDA Approval of Contract

This Contract, and any amendment thereto, including any amendment to any annex thereto, and any proposed assignment of this Contract, must be approved by USTDA in writing in order to be effective with respect to the expenditure of USTDA Grant funds. USTDA will not authorize the disbursement of USTDA Grant funds until the Contract conforms to modifications required by USTDA during the Contract review process and the Contract has been formally approved by USTDA. To make this review in a timely fashion, USTDA must receive from either the Client or the Contractor an English language version of a final negotiated draft Contract or a signed Contract to the attention of the General Counsel's office at USTDA's address listed in Clause N below.

##### (2) USTDA Not a Party to the Contract

It is understood by the Contract Parties that USTDA has reserved certain rights such as, but not limited to, the right to approve the terms of this Contract and amendments thereto, including assignments, the selection of all contractors, the Terms of Reference, the Final Report, and any and all documents related to any contract funded under the Grant Agreement. The Contract Parties hereto further understand and agree that USTDA, in reserving any or all of the foregoing approval rights, has acted solely as a financing entity to assure the proper use of United States Government funds, and that any decision by USTDA to exercise or refrain from exercising these approval

rights shall be made as a financier in the course of financing the Study and shall not be construed as making USTDA a party to the Contract. The Contract Parties hereto understand and agree that USTDA may, from time to time, exercise the foregoing approval rights, or discuss matters related to these rights and the Project with the Contract Parties or the parties to any subcontract, jointly or separately; and in consideration of USTDA's role as financier, the Contract Parties further agree that USTDA's rights may be exercised without thereby incurring any responsibility or liability, in contract, tort, or otherwise, to the Contract Parties or the parties to any subcontract. Any approval or failure to approve by USTDA shall not bar the Client or USTDA from asserting any right they might have against the Contractor, or relieve the Contractor of any liability which the Contractor might otherwise have to the Client or USTDA.

### **C. Nationality, Source and Origin**

Except as USTDA may otherwise agree, the following provisions shall govern the delivery of goods and professional services funded by USTDA under the Grant Agreement:

- (a) the Contractor must be a U.S. firm;
- (b) the Contractor may use U.S. subcontractors without limitation;
- (c) employees of U.S. Contractor or U.S. subcontractor firms shall be U.S. citizens or non-U.S. citizens lawfully admitted for permanent residence in the United States, except as provided pursuant to subpart (d) below;
- (d) up to twenty percent (20%) of the USTDA Grant amount may be used to pay for services performed by (i) Host Country subcontractors, and/or (ii) Host Country nationals who are employees of the Contractor;
- (e) a Host Country subcontractor may only be used for specific services from the Terms of Reference identified in the subcontract;
- (f) subcontractors from countries other than the United States or Host Country may not be used;
- (g) goods purchased for performance of the Study and associated delivery services (e.g., international transportation and insurance) must have their nationality, source and origin in the United States; and
- (h) goods and services incidental to Study support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

USTDA will make available further details concerning these provisions upon request.

#### **D. Recordkeeping and Audit**

The Contractor and subcontractors funded under the Grant Agreement shall maintain, in accordance with generally accepted accounting procedures, books, records, and other documents, sufficient to reflect properly all transactions under or in connection with the Contract. These books, records, and other documents shall clearly identify and track the use and expenditure of USTDA funds, separately from other funding sources. Such books, records, and documents shall be maintained during the period of performance of work provided for by this Contract, and for a period of three (3) years after final disbursement by USTDA. The Contractor and subcontractors shall afford USTDA, or its authorized representatives, the opportunity at reasonable times for inspection and audit of such books, records, and other documentation.

#### **E. U.S. Carriers**

##### **(1) Air**

Transportation by air of persons or property funded under the Grant Agreement shall be on U.S. flag carriers in accordance with the Fly America Act, 49 U.S.C. 40118, to the extent service by such carriers is available, as provided under applicable U.S. Government regulations.

##### **(2) Marine**

Transportation by sea of property funded under the Grant Agreement shall be on U.S. carriers in accordance with U.S. cargo preference law.

#### **F. Workman's Compensation Insurance**

The Contractor shall provide adequate Workman's Compensation Insurance coverage for work performed under this Contract.

#### **G. Reporting Requirements**

The Contractor shall advise USTDA by letter as to the status of the Project on March 1st annually for a period of two (2) years after completion of the Study. In addition, if at any time the Contractor receives follow-on work from the Client, the Contractor shall so notify USTDA and designate the Contractor's contact point including name, telephone, fax number, and e-mail address. Since this information may be made publicly available by USTDA, any information which is confidential shall be designated as such by the Contractor and provided separately to USTDA. USTDA will maintain the confidentiality of such information in accordance with applicable law.

## **H. Disbursement Procedures**

### **(1) USTDA Approval of Contract**

Disbursement of Grant funds will be made only after USTDA approval of this Contract.

### **(2) Payment Schedule Requirements**

A payment schedule for disbursement of Grant funds to the Contractor shall be included in this Contract. Such payment schedule must conform to the following USTDA requirements: (1) up to twenty percent (20%) of the total USTDA Grant amount may be used as a mobilization payment; (2) all other payments, with the exception of the final payment, shall be based upon Contract performance milestones; and (3) the final payment may be no less than fifteen percent (15%) of the total USTDA Grant amount, payable upon approval by USTDA of a Final Report that has been (i) prepared and submitted in accordance with the requirements set forth in Clause J below, and (ii) approved in writing by the Client in the manner provided for by Clause H(3)(b)(iii) below. Invoicing procedures for all payments are described below.

### **(3) Contractor Invoice Requirements**

USTDA will make all disbursements of USTDA Grant funds directly to the Contractor. The Contractor must provide USTDA with an ACH Vendor Enrollment Form (available from USTDA) with the first invoice. The Client shall request disbursement of funds by USTDA to the Contractor for performance of the Contract by submitting the following to USTDA:

#### **(a) Contractor's Invoice**

The Contractor's invoice shall include reference to an item listed in the Contract payment schedule, the requested payment amount, and an appropriate certification by the Contractor, as follows:

##### **(i) For a mobilization payment (if any):**

"As a condition for this mobilization payment, the Contractor certifies that it will perform all work in accordance with the terms of its Contract with the Client. To the extent that the Contractor does not comply with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA. "

##### **(ii) For Contract performance milestone payments:**

"The Contractor has performed the work described in this invoice in accordance with the terms of its Contract with the Client and is entitled to payment thereunder. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

(iii) For final payment:

"The Contractor has performed the work described in this invoice in accordance with the terms of its Contract with the Client and is entitled to payment thereunder. Specifically, the Contractor has submitted the Final Report to the Client, as required by the Contract, and received the Client's approval of the Final Report. To the extent the Contractor has not complied with the terms and conditions of the Contract, including the USTDA Mandatory Contract Clauses contained therein, it will, upon USTDA's request, make an appropriate refund to USTDA."

**(b) Client's Approval of the Contractor's Invoice**

(i) The invoice for a mobilization payment must be approved in writing by the Client.

(ii) For Contract performance milestone payments, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement."

(iii) For final payment, the following certification by the Client must be provided on the invoice or separately:

"The services for which disbursement is requested by the Contractor have been performed satisfactorily, in accordance with applicable Contract provisions and the terms and conditions of the USTDA Grant Agreement. The Final Report submitted by the Contractor has been reviewed and approved by the Client. "

**(c) USTDA Address for Disbursement Requests**

Requests for disbursement shall be submitted to the attention of the Finance Department at USTDA's address listed in Clause N below, or by e-mail to [invoices@ustda.gov](mailto:invoices@ustda.gov).

## **I. Termination**

### **(1) Method of Termination**

Either Contract Party may terminate this Contract upon giving written notice to the other party and USTDA. This notice shall be effective after either 30 days, or any other period set forth elsewhere in this Contract. Furthermore, this Contract shall terminate immediately upon notification of USTDA's termination of the Grant Agreement or the term of availability of any funds thereunder.

### **(2) Ramifications of Termination**

In the event that this Contract is terminated prior to completion, the Contractor will be eligible, subject to USTDA approval, for payment for the value of the work performed pursuant to the terms of this Contract. Likewise, in the event of such termination, USTDA is entitled to receive from the Contractor all USTDA Grant funds previously disbursed to the Contractor (including, but not limited to, mobilization payments) which exceed the value of the work performed pursuant to the terms of this Contract.

### **(3) Survivability**

Clauses B, D, G, H, I, and O of the USTDA Mandatory Contract Clauses shall survive the termination of this Contract.

## **J. USTDA Final Report**

### **(1) Definition**

"Final Report" shall mean the Final Report described in the attached Annex I Terms of Reference or, if no such "Final Report" is described therein, "Final Report" shall mean a substantive and comprehensive report of work performed in accordance with the attached Annex I Terms of Reference, including any documents delivered to the Client.

### **(2) Final Report Submission Requirements**

The Contractor shall provide the following to USTDA:

- (a)** One (1) complete hard copy of the Final Report for USTDA's records. This version shall have been approved by the Client in writing and must be in the English language. It is the responsibility of the Contractor to ensure that confidential information, if any, contained in this version be clearly marked. USTDA will maintain the confidentiality of such information in accordance with applicable law.

and

(b) One (1) hard copy of the Final Report suitable for public distribution ("Public Version"). The Public Version shall have been approved by the Client in writing and must be in the English language. As this version will be available for public distribution, it must not contain any confidential information. If the report in (a) above contains no confidential information, it may be used as the Public Version. In any event, the Public Version must be informative and contain sufficient Project detail to be useful to prospective equipment and service providers.

and

(c) Two (2) CD-ROMs, each containing a complete copy of the Public Version of the Final Report. The electronic files on the CD-ROMs shall be submitted in a commonly accessible read-only format. As these CD-ROMs will be available for public distribution, they must not contain any confidential information. It is the responsibility of the Contractor to ensure that no confidential information is contained on the CD-ROMs.

The Contractor shall also provide one (1) hard copy of the Public Version of the Final Report to the Commercial or Economic Section of the U.S. Embassy in Host Country for informational purposes.

### **(3) Final Report Presentation**

All Final Reports submitted to USTDA must be paginated and include the following:

(a) The front cover of every Final Report shall contain the name of the Client, the name of the Contractor who prepared the report, a report title, USTDA's logo, and USTDA's address. If the complete version of the Final Report contains confidential information, the Contractor shall be responsible for labeling the front cover of that version of the Final Report with the term "Confidential Version." The Contractor shall be responsible for labeling the front cover of the Public Version of the Final Report with the term "Public Version." The front cover of every Final Report shall also contain the following disclaimer:

"This report was funded by the U.S. Trade and Development Agency (USTDA), an agency of the U.S. Government. The opinions, findings, conclusions or recommendations expressed in this document are those of the author(s) and do not necessarily represent the official position or policies of USTDA. USTDA makes no representation about, nor does it accept responsibility for, the accuracy or completeness of the information contained in this report."

(b) The inside front cover of every Final Report shall contain USTDA's logo, USTDA's address, and USTDA's mission statement. Camera-ready copy of USTDA Final Report specifications will be available from USTDA upon request.

(c) The Contractor shall affix to the front of the CD-ROM a label identifying the Host Country, USTDA Activity Number, the name of the Client, the name of the Contractor who prepared the report, a report title, and the following language:

“The Contractor certifies that this CD-ROM contains the Public Version of the Final Report and that all contents are suitable for public distribution.”

(d) The Contractor and any subcontractors that perform work pursuant to the Grant Agreement must be clearly identified in the Final Report. Business name, point of contact, address, telephone and fax numbers, and e-mail address shall be included for Contractor and each subcontractor.

(e) The Final Report, while aiming at optimum specifications and characteristics for the Project, shall identify the availability of prospective U.S. sources of supply. Business name, point of contact, address, telephone and fax numbers, and e-mail address shall be included for each commercial source.

(f) The Final Report shall be accompanied by a letter or other notation by the Client which states that the Client approves the Final Report. A certification by the Client to this effect provided on or with the invoice for final payment will meet this requirement.

(g) The Client, USTDA, and the Commercial and/or Economic Section(s) of the U.S. Embassy in Host Country shall have irrevocable, worldwide, royalty-free, non-exclusive rights to use and distribute the Final Report.

#### **K. Modifications**

All changes, modifications, assignments or amendments to this Contract, including the appendices, shall be made only by written agreement by the Contract Parties hereto, subject to written USTDA approval.

#### **L. Study Schedule**

##### **(1) Study Completion Date**

The completion date for the Study, which is September 30, 2014, is the date by which the Contract Parties estimate that the Study will have been completed.

**(2) Time Limitation on Disbursement of USTDA Grant Funds**

Except as USTDA may otherwise agree, (a) no USTDA funds may be disbursed under this Contract for goods and services which are provided prior to the Effective Date of the Grant Agreement; and (b) no USTDA funds may be disbursed more than four (4) years after the Effective Date of the Grant Agreement.

**M. Business Practices**

The Contract Parties recognize the existence of standards of conduct for public officials and commercial entities in their respective countries. Therefore, the Contract Parties shall fully comply with all United States and Host Country laws relating to corruption or bribery. For example, the Contractor and its subcontractors shall fully comply with the requirements of the Foreign Corrupt Practices Act, as amended (15 U.S.C. §§ 78dd-1 et seq.). Each Contract Party agrees that it shall require that any agent or representative hired to represent it in connection with the Study will comply with this paragraph and all laws which apply to activities and obligations of that Contract Party, including, but not limited to, those laws and obligations referenced above.

**N. USTDA Address and Fiscal Data**

Any communication with USTDA regarding this Contract shall be sent to the following address and include the fiscal data listed below:

U.S. Trade and Development Agency  
1000 Wilson Boulevard, Suite 1600  
Arlington, Virginia 22209-3901  
USA

Phone: (703) 875-4357

Fax: (703) 875-4009

Fiscal Data:

Appropriation No.:	11 13/14 1001
Activity No.:	2013-11020A
Reservation No.:	2013250
Grant No.:	GH201311250

## O. Taxes

USTDA funds provided under the Grant Agreement shall not be used to pay any taxes, tariffs, duties, fees or other levies imposed under laws in effect in Host Country, except for taxes of a de minimis nature imposed on local lodging, food, transportation, or airport arrivals or departures. Neither the Client nor the Contractor will seek reimbursement from USTDA for taxes, tariffs, duties, fees or other levies, except for taxes of a de minimis nature referenced above.

## P. Export Licensing

The Contractor and all subcontractors are responsible for compliance with U.S. export licensing requirements, if applicable, in the performance of the Terms of Reference.

## Q. Contact Persons

The Client designates the following person as the contact person for matters concerning this Contract:

Name: Ms. Funke Opeke  
Title: Chief Executive Officer  
Phone: +234 1 448 9500  
Fax: +234 1 448 9527  
E-Mail: funke.opeke@mainone.net  
Cc : kazeem.oladepo@mainone.net

The Contractor designates the following person as the contact person for matters concerning this Contract:

Name:  
Title:  
Phone:  
Fax:  
E-Mail:

If anyone designated by a Contract Party as a contact person ceases service as a contact person at any point during the ten-year period following the date of signing of this Contract, the Contract Party that had designated that contact person shall provide USTDA and the other Contract Party with the name and contact information of a replacement contact person.

## R. Liability

This Contract may include a clause that limits the liability of the Contract Parties, provided that such a clause does not (i) disclaim liability for special, incidental, general,

or punitive damages, or (ii) limit the total amount of damages recoverable to an amount less than the total amount disbursed to the Contractor pursuant to this Contract.

**S. Arbitration**

If the Contract Parties submit any dispute arising under this Contract for arbitration, the scope of any such arbitration shall be limited to the Contract Parties' rights and/or obligations under this Contract and may not extend to any right or obligation of USTDA. The arbitrator(s) shall not arbitrate issues directly affecting the rights or obligations of USTDA.

## **ANNEX 5**

## Annex I

### **Terms of Reference**

The objective of the Feasibility Study ("Study") is to support Main One Cable Company Nigeria Limited ("Grantee") with needed experience and expertise to evaluate the proposed implementation of the Main One Cable Company Fiber Optic Expansion ("Project"). The Project seeks to extend the Grantee's existing international undersea fiber optic cable facility from its current landing point in Lagos, Nigeria to Port Harcourt, Nigeria. The Project will also include the development of terrestrial fiber optic infrastructure in and around Port Harcourt, Nigeria.

#### **Task 1. Preliminary Information Request**

Prior to its initial visit to Nigeria, the Contractor shall submit a preliminary information request ("Preliminary Information Request") to the Grantee for existing, up-to-date documents and materials concerning the Project. It is anticipated that such documents and materials should include, but are not limited to, the following:

- Preliminary engineering surveys (regarding the undersea portion, the terrestrial portions, and potential landing sites)
- Available data relevant to the Desktop and Site Study (see Task 3 below)
- Available data relevant to the Demand Study and Market Assessment (see Task 5 below), including any information related to key contacts and information sources in and around Port Harcourt, Nigeria (e.g., telecom operators, ISPs, corporate end-users)
- Most recent capital and operation expenditure estimates for the Project

The Contractor shall submit the Preliminary Information Request to the Grantee at least five (5) weeks prior to the date of the Contractor's initial visit to Nigeria. The Grantee shall make best efforts to obtain the requested information, and shall supply such information to the Contractor at least two (2) weeks prior to the date of the Contractor's initial visit to Nigeria.

*Task 1 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 1. The Task 1 Deliverable shall be included in the Final Report (as defined below).

#### **Task 2. Project Kick-Off and Situation Assessment**

##### ***Sub-Task 2a. Introductory Meetings and Familiarization***

The Contractor shall meet with the Grantee to (i) review, discuss and refine overall strategy, scope, objectives and deliverables of the Study and (ii) to define and clarify the Grantee's and Contractor's roles and responsibilities with respect to the Study. The Contractor and the Grantee shall also review the following components of the Study: approach and methodology; documentation and project management reporting

requirements; milestones; and workflow arrangements. Additionally, the Contractor and the Grantee shall review (i) the list of key stakeholders as listed in Sub-Task 2c below and (ii) the logistical arrangements for the onsite portion of the Desktop and Site Study as described in Task 3 below. Finally, the Contractor and the Grantee shall review the information obtained through the Preliminary Information Request in Task 1 to identify any significant outstanding gaps and to mutually agree to the procedures and timeframe for addressing those gaps.

The Contractor and the Grantee shall form a joint study team (“Study Team”). The members of the Study Team shall act as coordinators and primary points of contact throughout the course of the Study.

#### ***Sub-Task 2b. Data Review***

The Contractor shall review the data in the Grantee’s possession regarding the Project and determine the extent such data can adequately provide the basis for the subsequent tasks of the Study. The Contractor shall identify any gaps where collection of additional data will be needed. The Contractor and the Grantee shall mutually agree to the procedures and timeframe for addressing such gaps.

#### ***Sub-Task 2c. Stakeholder Meetings***

The Contractor shall conduct meetings with key stakeholders and other sources of information pertinent to the Study, including, but not limited to, the following:

- Rivers State Government House, Office of the Governor
- Bonny Island Local Council
- Nigerian Navy (Port Harcourt Hydrographic Office, Bonny Forward Operating Base)
- Nigerian Maritime Administration and Safety Agency (NIMASA) (Port Harcourt and Bonny)
- Nigerian Shippers Council (Port Harcourt Branch)
- Nigerian Trawlers Association

A number of these meetings will need to be conducted in and around Port Harcourt, Nigeria, and accordingly, should be coordinated with the on-site activities in Task 3 as described below. The Grantee shall facilitate the organization of these meetings and shall make appropriate personnel available to support and accompany the Contractor.

The Contractor shall keep a written record of all interviews and meetings conducted, sites visited, progress in collecting and reviewing data, problems encountered or foreseen in connection with the Study, potential impacts on the projected work schedule, and deployment of Contractor personnel.

*Task 2 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 2. The Task 2 Deliverable shall be included in the Final Report.

### **Task 3. Desktop and Site Study**

The Contractor shall carry out a desktop and site study (“DSS”) to provide information on the design, construction and maintenance activities associated with the Project. The overall purpose of the DSS is to assess route and landing-site options; to examine risks and hazards; and to determine a route that minimizes the identified risks including, but not limited to, fishing, trawling, and potential earthquakes. The Contractor shall develop the DSS with the intention that it will serve as the basis for the subsequent cable route survey and cable manufacturing, which are both outside the scope of the Study.

#### ***Sub-Task 3a. Landing Site Assessment and Determination***

The Contractor shall conduct an investigation of proposed landing locations and shall account for the fact that Port Harcourt, Nigeria is located approximately 30 miles inland and is accessible via a complex system of rivers and tidal estuaries. For this purpose, the Contractor shall: (1) access and analyze available documentation on the proposed landing sites; (2) consult with the Grantee and other stakeholder entities on existing terrestrial connectivity initiatives and backhaul facilities; and (3) coordinate the landing site and marine investigations with terrestrial planning.

In particular, the following activities shall be conducted:

- Identify the existing facilities available for landing a submarine cable and/or provide suitable locations to construct new landing facilities
- Identify and agree with the Grantee upon a suitable beach manhole (“BMH”) position
- Obtain local nautical charts and street maps encompassing the landing site
- Obtain information regarding local organizations and authorities that will need to be liaised with for the planning, installation and operation of the cable system
- Identify near shore activities that may affect the cable including, but not limited to, shipping, fishing, hydrocarbon exploitation, mining, etc.
- Identify cultural and/or environmental issues that may affect or be impacted by the Project
- Examine the local climactic, geologic and oceanographic conditions and identify any potential impact to the installation or operation of the cable system
- Conduct site visits as necessary to establish a suitable landing point, BMH and Cable Station placement area

The Grantee shall designate appropriate personnel to accompany and support the Contractor in the performance of this sub-task. Under this sub-task, the Contractor shall conduct onsite inspection visits, as well as meetings with local officials and organizations, to determine the viability of specific landing site candidates.

#### ***Sub-Task 3b. Evaluation of Undersea Geology and Physiography***

The Contractor shall assess and evaluate any relevant conditions in order to provide the information necessary to gauge the geologic and physiographic risks to the Project. In particular, the Contractor shall examine the following geologic and physiographic conditions as they relate to the region of the Project:

- Seismicity
- Surface faulting
- Volcanic activity
- Seamounts, trenches, canyons and ridges
- Sediment types
- Turbidity currents
- Tectonics
- Mobile sediments (sand waves)
- Sediment transport
- Seafloor morphology
- Seabed lithology

Where cable burial is anticipated, the Contractor shall also consider the any issues, including, but not limited to, the aforementioned issues outlined above, with respect to the possible effects on cable burial operations.

#### ***Sub-Task 3c. Evaluation of Project-Specific Environmental Factors***

As part of the DSS, the Contractor shall examine and evaluate the following factors, which are either publicly available or will be made available by the Grantee to the Contractor:

**Oceanography:** The Contractor shall investigate, examine, and evaluate the existing oceanographic data to identify the typical sea states expected in the region of the proposed cable system. The Contractor shall summarize and present this data to allow planning of marine operations. The DSS shall also include information describing the surface and bottom currents expected in the area, as well as the expected bottom water temperature.

**Climate and weather:** The Contractor shall investigate seasonal variations in climate and weather within the region(s) of the Project, to include a description of major climatic influences, including, but not limited to convergence zones, trade winds, hurricane/monsoon seasons, etc. The Contractor shall also identify the monthly averages for wind speed and direction, temperature, and precipitation for each of the region(s) of the Project. The Contractor shall also identify the frequency of flooding and any other weather related hazards.

#### ***Sub-Task 3d. Evaluation of Human-Activity-Related Factors***

As part of the DSS, the Contractor shall identify and examine any information, which either is publicly available or will be made available by the Grantee to the Contractor, on specific cultural and manmade factors including, but not limited to, the key factors

outlined below, that may be encountered along the proposed route of the Project. Each factor shall be fully described and any potential effects on the project shall be highlighted.

**Commercial fishing:** The Contractor shall investigate and present any primary commercial fishing threats to the Project. The Contractor shall also investigate and present items including, but not limited to, the following:

- Summary description of fishing gear used and its potential interaction with cables during and after installation for the Project
- Estimated locations, seasonality and size of fishing grounds that could affect the Project
- Available information on the reported seabed penetration depth of different types of fishing gear
- Available information on bottom type for the major fishing grounds, with particular reference to fishing grounds with reported hard bottom, rocks or steep slopes where fishing occurs and cable burial may be impossible
- Estimated numbers and sizes of bottom commercial fishing vessels by type, including, but not limited to, trawl, dredge, long line, etc.
- Descriptions of any fisheries with special socioeconomic or political significance as defined by the Contractor and Grantee
- Descriptions of any fishery property rights along the cable route
- Reports of any fishery-related issues likely to require consideration for permitting processes
- Estimated water depth ranges for each type of fishing gear

**Cables and pipelines:** In conjunction with any relevant publicly accessible databases, the Contractor shall utilize information provided by the Grantee to identify other submarine cables and pipelines that cross or lie near the proposed route. The Contractor shall prepare a matrix containing the following information on these submarine cables and pipelines:

- System name
- System owner
- System status
- Cable type
- Water depth
- Crossing position
- Crossing angle
- Repeater proximity

Additionally, the Contractor shall summarize and present to the Grantee any available cable fault histories.

**Hydrocarbon/mineral extraction leases:** The Contractor shall investigate and identify any potential impacts from any known lease areas used for hydrocarbon

exploration/exploitation, or for other mineral mining (i.e. sand) that are crossed by, or located near, the proposed cable route. The Contractor shall provide to the Grantee any available contact information for these lease owners.

**Restricted areas:** The Contractor shall examine existing information on restricted areas in the vicinity of the proposed cable route and shall describe potential impacts to the Project. Restricted Areas to be examined include, but are not limited to, the following:

- Military exercise areas
- Marine sanctuaries or protected areas
- Shipping channels
- Anchorages
- Dumping grounds
- Significant historic, archaeological or cultural sites

In conjunction with any preexisting engineering recommendations that have been made available, the Contractor shall utilize the information collected in Task 3 to produce a straight line diagram (“SLD”) showing the required cable armoring and burial over the entire route. The Contractor shall also define a route position list (“RPL”) to use in the cable route survey and to make specific recommendations for survey activities.

The Contractor shall include a series of North-Up adjoining and overlapping charts in the DSS report. The charts shall be in Mercator Projection based on the WGS84 Datum. All geographical coordinates shall be provided in Latitude Degrees Decimal Minutes and Longitude Degrees Decimal Minutes in WGS84 datum. The data presented on the chart shall include the cable route, bathymetry, other cables and pipelines, restricted areas, national/territorial limits, and other known or charted hazards (i.e. shipwrecks). Preferred charting scales are as follows, although scaling may vary to accommodate the best fit for the data presented:

- Cable system overview: “Best Fit”
- Planning charts for the entire route: 1:500,000
- Cable landing site(s): 1:50,000

The Contractor shall prepare the DSS report text, figures and photographs in Microsoft Word and Adobe PDF formats. Electronic copies of the charts shall be prepared in standard charting software (e.g. AutoCAD or ArcGIS) and also in Adobe PDF format.

*Task 3 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 3. The Task 3 Deliverable shall be included in the Final Report.

#### **Task 4. Workshop and Presentation 1**

The Contractor shall organize and conduct a one-day workshop in Lagos, Nigeria with the objectives of (i) presenting the findings and recommendations of Task 3; (ii)

highlighting problems encountered and/or issues requiring further attention on the part of the Grantee; and (iii) soliciting additional input and comments from the Grantee and other relevant stakeholders. The Contractor and the Grantee shall consult and mutually agree in advance to the target audience and general agenda for the workshop. The Contractor shall be responsible for preparing and disseminating the relevant workshop materials. The Contractor shall provide draft copies of workshop materials to the Grantee for the Grantee's comment five days in advance of the workshop. The Contractor shall incorporate the Grantee's comments and shall provide the Grantee with final copies of the workshop materials in electronic and/or paper format. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment) and shall be responsible for any ancillary costs (such as lunch, coffee breaks, etc.). All parties shall be responsible for their own travel costs.

*Task 4 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 4. The Task 4 Deliverable shall be included in the Final Report.

#### **Task 5. Demand Study and Market Assessment**

*Sub-Task 5a. Market Overview* The Contractor shall conduct a general survey of the telecommunication market in Port Harcourt, Nigeria and adjacent areas of Rivers State, Nigeria, with a particular emphasis on the target market for wholesale bandwidth services. The Contractor shall take the following factors into consideration including, but not limited to:

- Demographics and population growth
- Service and usage penetration
- Technology and technology advancements
- Demand drivers and constraints
- Competitive issues
- Regulatory issues
- Relevant political and economic issues
- Environmental issues (other than those addressed elsewhere)
- Other factors potentially affecting the proposed Project

*Sub-Task 5b. Demand Forecasts* The Contractor shall develop a forecast of aggregate demand for wholesale capacity between Lagos, Nigeria and Port Harcourt, Nigeria over the period 2013–2028. The forecast should be expressed in gigabits per second (“Gbit/sec”). The Contractor shall also develop a demand mix forecast, including, but not limited to, a breakdown of the aggregate demand forecast into SDH circuits, IP connectivity, etc., over the period 2013–2028. The forecasts should be prepared in multiple scenarios (i.e. high / medium / low). The Contractor shall include the demand drivers and market assumptions used in developing the forecasts.

*Sub-Task 5c. Supply-Demand Analysis* The Contractor shall perform an analysis that matches the demand forecasts with the likely level of available supply from existing and

future competing systems (both undersea and terrestrial) to the Project over the period 2013–2028.

***Sub-Task 5d. Competitive Analysis*** The Contractor shall conduct an assessment of the relative competitive positions of existing systems (both undersea and terrestrial) to the Project. This shall include an assessment of the proposed Project's competitive positioning relative to existing and future competing systems and an estimation of likely market shares over the period 2013–2028.

The Contractor shall highlight any pertinent implications of the assessment and the potential impact to the feasibility of the Project based on the analysis under Task 5.

*Task 5 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 5. The Task 5 Deliverable shall be included in the Final Report.

#### **Task 6. Economic and Financial Analysis**

The Contractor shall develop a revenue forecast for the Project over the 2013–2028 period. The forecast shall be based on an assessment of current and future wholesale bandwidth prices (under both leasing and Indefensible Right of Use arrangements) on the Lagos, Nigeria to Port Harcourt, Nigeria route. The Contractor shall take into account that future bandwidth prices may change based on the implementation of the Project.

In conjunction with the capital and operating expenditures data for the Project supplied by the Grantee, the Contractor shall utilize the revenue forecast to construct a financial model that will (i) combine various assumptions regarding expected network revenues, market segment growth, capital expenditures, financial costs and other relevant factors (exclusive of taxation) and (ii) provide a range of financial outcomes as a function of these factors. Using the financial model, the Contractor shall develop a profitability analysis and shall generate appropriate financial pro formas including an income statement, balance sheet, and cash flow statement, as well as calculations of net present value, the internal rate of return and earnings before interest, taxes, depreciation, and amortization ("EBITDA").

The Contractor shall format all economic and financial analysis projections as Microsoft Excel files.

*Task 6 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 6. The Task 6 Deliverable shall be included in the Final Report.

#### **Task 7. Legal and Regulatory Assessment**

The Contractor shall review and assess pertinent international and Nigerian national legal/regulatory issues that may impact the Project, including, but not limited to the Law of the Seabed and Nigeria's obligations under the provisions of international agreements and covenants.

*Task 7 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 7. The Task 7 Deliverable shall be included in the Final Report.

#### **Task 8. Workshop and Presentation 2**

The Contractor shall organize and conduct a one-day workshop in Lagos, Nigeria with the principal objectives of (i) presenting the findings to date and corresponding conclusions and (ii) providing recommendations to the management personnel of the Grantee. The Contractor and Grantee shall consult and mutually agree in advance to the target audience and general agenda for the workshop. The Contractor shall be responsible for preparing and disseminating the relevant workshop materials. The Contractor shall provide draft copies of workshop materials to the Grantee for the Grantee's comment five days in advance of the workshop. The Contractor shall incorporate the Grantee's comments and shall provide the Grantee with final copies of the workshop materials in electronic and/or paper format. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment), and shall be responsible for any ancillary costs (such as lunch, coffee breaks, etc.). All parties shall be responsible for their own travel costs.

*Task 8 Deliverable:* The Contractor shall prepare a written report including all work performed under Task 8. The Task 8 Deliverable shall be included in the Final Report.

#### **Task 9. Developmental Impact Assessment**

The Contractor shall conduct a development impact assessment of the Project. The purpose of the development impact assessment is to provide the Project's decision makers and interested parties with a broader view of the Project's potential effects on Nigeria. Specific attention should be paid to the immediate impact of the Project, and the Contractor shall also include, where appropriate, any additional developmental benefits of the Project, including spin-off and demonstration effects. The analysis of potential benefits of the Study should be as concrete and detailed as possible. The development impact assessment shall identify the anticipated impacts of the Project in the following categories:

- (1) Infrastructure: The Contractor shall identify the anticipated direct and indirect infrastructure impacts of the Project, giving a brief synopsis and concrete examples of such impacts, specifically addressing new infrastructure that would be developed.
- (2) Human Capacity Building: The Contractor shall identify the anticipated number and types of local jobs that will be created as a result of the Project. The Contractor shall also identify the number of local people who would receive training and the types of training programs required for the Project.

- (3) Technology Transfer and Productivity Enhancement: The Contractor shall identify the anticipated advancements in technologies that would be mobilized through this Project, especially any technologies which would be new to the Nigerian market. The Contractor shall also identify anticipated efficiencies that would be gained as a result of the Project, which may include productivity gains, savings in transmission costs or lower production costs.
- (4) Market Oriented Reform: The Contractor shall provide a description of any regulations, laws, or institutional changes that are recommended in connection to these Terms of Reference and the effect they would have if implemented.
- (5) Other: The Contractor shall identify any other anticipated development impacts or benefits that would result from the Project such as positive spin-off effects on unrelated economic sectors, increased good governance and transparency, private sector participation, etc.

*Task 9 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 9. The Task 9 Deliverable shall be included in the Final Report.

#### **Task 10. Economic Impact Assessment**

The Contractor shall explore and report on any positive economic impacts that may be produced from the Project. The Contractor should seek to identify and, if practicable, shall quantify resulting economic benefits. The assessment shall be made to the best of Contractor's internal abilities and utilizing existing subject matter expertise. Detailed econometric forecasting and analysis is not required under Task 10.

*Task 10 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 10. The Task 10 Deliverable shall be included in the Final Report.

#### **Task 11. U.S. Sources of Supply**

The Contractor shall develop a detailed list of U.S. companies that could provide equipment, services, and technology to the Project. This list shall include (i) the possible U.S. sources of supply for the Project, (ii) a detailed description of relevant products, solutions and/or services to be provided, and (iii) contact information for the party or parties responsible for marketing/sales in Nigeria. The business name, point of contact, address, telephone number, e-mail address, and fax number shall be included for each identified party.

*Task 11 Deliverable*: The Contractor shall prepare a written report including all work performed under Task 11. The Task 11 Deliverable shall be included in the Final Report.

#### **Task 12. Final Report**

The Contractor shall prepare and deliver to the Grantee and USTDA a substantive and comprehensive final report of all work performed under these Terms of Reference ("Final Report"). The Final Report shall be organized according to the above tasks, and shall include all deliverables and documents that have been provided to the Grantee. The Final Report shall be prepared in accordance with Clause J of Annex II of the Grant Agreement.

## **ANNEX 6**



## USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant

### U.S. Firm Information Form

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number *[To be completed by USTDA]*

Activity Type <i>[To be completed by USTDA]</i>	Feasibility Study	Technical Assistance	Other (specify)
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Activity Title *[To be completed by USTDA]*

Full Legal Name of U.S. Firm

Business Address (street address only)

Telephone	Fax	Website
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Year Established (include any predecessor company(s) and year(s) established, if appropriate).  
Please attach additional pages as necessary.

Please provide a list of directors and principal officers as detailed in Attachment A. Attached?  Yes

Type of Ownership	Publicly Traded Company
	Private Company
	Other (please specify)

If Private Company or Other (if applicable), provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in U.S. Firm, please complete Attachment B.

Is the U.S. Firm a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the U.S. Firm's parent company(s). In addition, for any parent identified, please complete Attachment B.

Is the U.S. Firm proposing to subcontract some of the proposed work to another firm?	Yes
	No

If yes, U.S. Firm shall complete Attachment C for each subcontractor. Attached?	Yes
	Not applicable

#### Project Manager

Name	Surname	
	Given Name	
Address		
Telephone		
Fax		
Email		

#### Negotiation Prerequisites

Discuss any current or anticipated commitments which may impact the ability of the U.S. Firm or its subcontractors to complete the Activity as proposed and reflect such impact within the project schedule.	
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Identify any specific information which is needed from the Grantee before commencing negotiations.	
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*U.S. Firm may attach additional sheets, as necessary.*

**U.S. Firm's Representations**

U.S. Firm shall certify to the following (or provide any explanation as to why any representation cannot be made):

1. U.S. Firm is a [check one]  Corporation  LLC  Partnership  Sole Proprietor  Other:   
 duly organized, validly existing and in good standing under the laws of the State of:   
 The U.S. Firm has all the requisite corporate power and authority to conduct its business as presently conducted, to submit this proposal, and if selected, to execute and deliver a contract to the Grantee for the performance of the USTDA Activity. The U.S. Firm is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.
2. The U.S. Firm has included herewith, a copy of its Articles of Incorporation (or equivalent charter or document issued by a designated authority in accordance with applicable laws that provides information and authentication regarding the legal status of an entity) and a Certificate of Good Standing (or equivalent document) issued within 1 month of the date of signature below by the State of:   
 The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change in its status in the state in which it is incorporated. USTDA retains the right to request an updated certificate of good standing.
3. Neither the U.S. Firm nor any of its principal officers have, within the ten-year period preceding the submission of this proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.
4. Neither the U.S. Firm, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 3 above.
5. There are no federal or state tax liens pending against the assets, property or business of the U.S. Firm. The U.S. Firm, has not, within the three-year period preceding the submission of this proposal, been notified of any delinquent federal or state taxes in an amount that exceeds US\$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.
6. The U.S. Firm has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself of its debts under any bankruptcy, insolvency or other similar law. The U.S. Firm has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.
7. The U.S. Firm certifies that it complies with USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The U.S. Firm commits to notify USTDA and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

*The U.S. Firm shall notify USTDA if any of the representations are no longer true and correct.*

U.S. Firm certifies that the information provided in this form is true and correct. U.S. Firm understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the U.S. Firm.

Name	<input type="text"/>	Signature	<input type="text"/>
Title	<input type="text"/>		
Organization	<input type="text"/>	Date	<input type="text"/>





**ATTACHMENT B**

**USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant**

**U.S. Firm Information Form – Shareholder(s) and Parent Company(s)**

If applicable, U.S. Firm provided a list of shareholders and the percentage of their ownership. This form shall be completed for each shareholder that owns 15% or more shares in U.S. Firm, as well as any parent corporation of the U.S. Firm ("Shareholder"). In addition, this form shall be completed for each shareholder identified in Attachment B that owns 15% or more shares in any Shareholder, as well as any parent identified in Attachment B.

USTDA Activity Number [To be completed by USTDA]	
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Activity Title [To be completed by USTDA]	
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Full Legal Name of U.S. Firm	
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Full Legal Name of Shareholder	
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Business Address of Shareholder (street address only)	
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Telephone number		Fax Number	
------------------	--	------------	--

Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.	
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Country of Shareholder's Principal Place of Business	
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Please provide a list of directors and principal officers as detailed in Attachment A. Attached?	Yes
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Type of Ownership	Publicly Traded Company
	Private Company
	Other

If applicable, provide a list of shareholders and the percentage of their ownership. In addition, for each shareholder that owns 15% or more shares in Shareholder, please complete Attachment B.	
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Is the Shareholder a wholly-owned or partially owned subsidiary?	Yes
	No

If so, please provide the name of the Shareholder's parent(s). In addition, for any parent identified, please complete Attachment B.	
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*Shareholder may attach additional sheets, as necessary.*



**ATTACHMENT C**

**USTDA-Funded Feasibility Study, Technical Assistance, or Training Grant**

**Subcontractor Information Form**

This form is designed to enable the U.S. Trade and Development Agency ("USTDA") to obtain information about entities and individuals proposed for participation in USTDA-funded activities. Information in this form is used to conduct screening of entities and individuals to ensure compliance with legislative and executive branch prohibitions on providing support or resources to, or engaging in transactions with, certain individuals or entities with which USTDA must comply.

USTDA Activity Number <i>[To be completed by USTDA]</i>	
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Activity Title <i>[To be completed by USTDA]</i>	
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Full Legal Name of Prime Contractor U.S. Firm ("U.S. Firm")	
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Full Legal Name of Subcontractor	
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Business Address of Subcontractor (street address only)	
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Telephone Number	
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Fax Number	
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Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.	
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**Subcontractor Point of Contact**

Name	Surname	
	Given Name	

Address	
---------	--

Telephone	
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Fax	
-----	--

Email	
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**Subcontractor's Representations**

Subcontractor shall provide the following (or any explanation as to why any representation cannot be made), made as of the date of the proposal:

1. Subcontractor is a <i>[check one]</i>	<input type="checkbox"/> Corporation	<input type="checkbox"/> LLC	<input type="checkbox"/> Partnership	<input type="checkbox"/> Sole Proprietor	<input type="checkbox"/> Other
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duly organized, validly existing and in good standing under the laws of: \_\_\_\_\_ .

The subcontractor has all the requisite corporate power and authority to conduct its business as presently conducted, to participate in this proposal, and if the U.S. Firm is selected, to execute and deliver a subcontract to the U.S. Firm for the performance of the USTDA Activity and to perform the USTDA Activity. The subcontractor is not debarred, suspended, or to the best of its knowledge or belief, proposed for debarment or ineligible for the award of contracts by any federal or state governmental agency or authority.

2. Neither the subcontractor nor any of its principal officers have, within the ten-year period preceding the submission of the Offeror's proposal, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a federal, state or local government contract or subcontract; violation of federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating federal or state criminal tax laws, or receiving stolen property.

3. Neither the subcontractor, nor any of its principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.

4. There are no federal or state tax liens pending against the assets, property or business of the subcontractor. The subcontractor, has not, within the three-year period preceding this RFP, been notified of any delinquent federal or state taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied. Taxes are considered delinquent if (a) the tax liability has been fully determined, with no pending administrative or judicial appeals; and (b) a taxpayer has failed to pay the tax liability when full payment is due and required.

5. The subcontractor has not commenced a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law. The subcontractor has not had filed against it an involuntary petition under any bankruptcy, insolvency or similar law.

6. The Subcontractor certifies that it complies with the USTDA Nationality, Source, and Origin Requirements and shall continue to comply with such requirements throughout the duration of the USTDA-funded activity. The Subcontractor commits to notify USTDA, the Contractor, and the Grantee if it becomes aware of any change which might affect U.S. Firm's ability to meet the USTDA Nationality, Source, and Origin Requirements.

*The selected Subcontractor shall notify the U.S. Firm, Grantee and USTDA if any of the representations included in its proposal are no longer true and correct.*

Subcontractor certifies that the information provided in this form is true and correct. Subcontractor understands and agrees that the U.S. Government may rely on the accuracy of this information in processing a request to participate in a USTDA-funded activity. If at any time USTDA has reason to believe that any person or entity has willfully and knowingly provided incorrect information or made false statements, USTDA may take action under applicable law. The undersigned represents and warrants that he/she has the requisite power and authority to sign on behalf of the Subcontractor.

Name		Signature	
Title			
Organization		Date	