

REQUEST FOR PROPOSALS

TECHNICAL ASSISTANCE FOR

GREATER DATA HOSTING IN COLOMBIA

Submission Deadline: **5:00 PM**
LOCAL TIME (BOGOTÁ, COLOMBIA)
October 14, 2014

Submission Place: Diego Rivera
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SEALED PROPOSALS SHALL BE CLEARLY MARKED AND RECEIVED PRIOR TO THE TIME AND DATE SPECIFIED ABOVE. PROPOSALS RECEIVED AFTER SAID TIME AND DATE WILL NOT BE ACCEPTED OR CONSIDERED.

REQUEST FOR PROPOSALS

SECTION 1: INTRODUCTION	4
1.1 BACKGROUND SUMMARY.....	4
1.2 OBJECTIVE	5
1.3 PROPOSALS TO BE SUBMITTED	5
1.4 CONTRACT FUNDED BY USTDA.....	5
SECTION 2: INSTRUCTIONS TO OFFERORS	6
2.1 PROJECT TITLE.....	6
2.2 DEFINITIONS.....	6
2.3 DEFINITIONAL MISSION REPORT	6
2.4 EXAMINATION OF DOCUMENTS	6
2.5 PROJECT FUNDING SOURCE.....	7
2.6 RESPONSIBILITY FOR COSTS	7
2.7 TAXES.....	7
2.8 CONFIDENTIALITY.....	7
2.9 ECONOMY OF PROPOSALS	7
2.10 OFFEROR CERTIFICATIONS	7
2.11 CONDITIONS REQUIRED FOR PARTICIPATION	7
2.12 LANGUAGE OF PROPOSAL.....	8
2.13 PROPOSAL SUBMISSION REQUIREMENTS	8
2.14 PACKAGING	8
2.15 OFFEROR’S AUTHORIZED NEGOTIATOR	9
2.16 AUTHORIZED SIGNATURE	9
2.17 EFFECTIVE PERIOD OF PROPOSAL	9
2.18 EXCEPTIONS	9
2.19 OFFEROR QUALIFICATIONS	9
2.20 RIGHT TO REJECT PROPOSALS	9
2.21 PRIME CONTRACTOR RESPONSIBILITY	9
2.22 AWARD	10
2.23 COMPLETE SERVICES	10
2.24 INVOICING AND PAYMENT	10
SECTION 3: PROPOSAL FORMAT AND CONTENT	11
3.1 EXECUTIVE SUMMARY	11
3.2 U.S. FIRM INFORMATION.....	11
3.3 ORGANIZATIONAL STRUCTURE, MANAGEMENT, AND KEY PERSONNEL	12
3.4 TECHNICAL APPROACH AND WORK PLAN	12
3.5 EXPERIENCE AND QUALIFICATIONS	12
SECTION 4: AWARD CRITERIA	13

ANNEX 1	FEDBIZOPPS ANNOUNCEMENT
ANNEX 2	PORTIONS OF BACKGROUND DEFINITIONAL MISSION REPORT
ANNEX 3	USTDA NATIONALITY REQUIREMENTS
ANNEX 4	USTDA GRANT AGREEMENT, INCLUDING MANDATORY CONTRACT CLAUSES
ANNEX 5	TERMS OF REFERENCE (FROM USTDA GRANT AGREEMENT)
ANNEX 6	U.S. FIRM INFORMATION FORM

Section 1: INTRODUCTION

The U.S. Trade and Development Agency (USTDA) has provided a grant in the amount of US\$408,965 to Cámara Colombiana de Informática y Telecomunicaciones (Colombian Chamber of Information Technology and Telecommunications) (CCIT) (the “Grantee”) in accordance with a grant agreement dated August 20, 2014 (the “Grant Agreement”). This TA will consist of an economic, technical, and legal/regulatory analysis of the data hosting market in Colombia (the “Host Country”) and prepare an action plan to present to the Government of Colombia (GOC). 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 Technical Assistance.

1.1 BACKGROUND SUMMARY

Founded in 1993, CCIT is the leading ICT industry association in Colombia. It pursues the general goal of contributing to Colombia’s economic and social progress by advancing the coordinated development of the ICT sector in the country. The organization has a lengthy track record of collaborating and acting as an advisor to the Government of Colombia, particularly to the ICT Ministry. CCIT’s members include numerous major Colombian, U.S. based and foreign companies active in the sector. The organization currently has 64 member companies, a majority of whom are major actors in telecommunications and ICT both in Colombia and worldwide.

CCIT has an important role as the administrator of Network Access Point Colombia (NAP Colombia), a function it has performed since 1998. In this capacity, CCIT is concerned with the administration and enforcement of the underlying set of traffic routing agreements (peering and transit agreements) that are subscribed to by the great majority of the country’s 19 major Internet Service Providers (ISPs).

Colombia rates relatively high in the region in terms of internet penetration, broadband internet affordability, domestic connectivity, and international connectivity. Seven of the 18 submarine fiber optic cables that serve the major coastal countries in the Latin American region have landings in Colombia. Notwithstanding the above, Colombia’s international connectivity is far from uniform in terms of geography and performance. Perhaps the most striking feature of Colombian internet traffic is that the portion that Colombian ISPs exchange among themselves amounts to only six or seven percent of the total volume. In other words, 93-94 percent of Colombian internet traffic is being directed to servers outside of Colombia.

In light of the significant benefits to be had in terms of opening up the full potential of the internet market in Colombia, CCIT seeks to identify and quantify these distorting factors and to develop corresponding policy recommendations to the Government of Colombia that would eliminate or mitigate them. The recommendations are not anticipated to include the construction of new data centers. CCIT believes that a target of 20 percent (as opposed to the current 6-7 percent) represents an achievable objective. In turn, the increase in in-country traffic would stimulate sales of servers and data center equipment in Colombia. Portions of a background Definitional Mission are provided for reference in Annex 2.

1.2 OBJECTIVE

The objective of the Greater Data Hosting in Colombia Technical Assistance is to conduct a combined economic, technical and legal/regulatory analysis, together with an assessment of U.S. best practices and their applicability to the Colombian environment, of the data hosting market in Colombia, and to develop corresponding policy recommendations and an action plan to present to the Government of Colombia, drawing upon U.S. experience and best practices in data hosting and Internet Exchange Point (IXP) and data center facilities management.

The Terms of Reference (TOR) for this Technical Assistance 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\$408,965. **The USTDA grant of \$US408,965 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\$408,965 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 Greater Data Hosting in Colombia Project.

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 DEFINITIONAL MISSION REPORT

USTDA sponsored a Definitional Mission 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 Technical Assistance.

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 Technical Assistance.

2.5 PROJECT FUNDING SOURCE

The Technical Assistance will be funded under a grant from USTDA. The total amount of the grant is not to exceed US\$408,965.

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:

Diego Rivera
Director of Engineering
Cámara Colombiana de Informática y Telecomunicaciones - CCIT
Carrera 11A #93-67, Of 401
Bogotá, D.C.
Colombia
Phone: +57 (1) 756 3456

An Original and four (4) copies of your proposal must be received at the above address no later than 5:00 PM (local time in Bogotá, Colombia), on October 14, 2014.

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 four (4) 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 ninety (90) 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, Technical Assistance 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 (the Grantee can make its conference room available when required but does not have office space available); (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\$408,965, which is a fixed amount.

Offerors shall submit one (1) original and four (4) 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 Technical Assistance. 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 Technical Assistance.

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 Technical Assistance. As noted above, the Grantee can make its conference room available when required but does not have office space available.

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 Technical Assistance. 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 Technical Assistance 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:

Criterion	Max. Points
Expertise and skills of proposed U.S. personnel	30
Proposed approach to the TA and to the individual tasks	30
Pertinent experience in similar markets	15
Experience and capabilities of local support	15
Spanish language skills of U.S. personnel	10
Total:	100

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

Price will not be a factor in contractor selection.

Team Composition and Experience

In terms of the composition and particular credentials of the Contractor, it is anticipated but not necessarily strictly required that the team will consist of three U.S.-based experts, one of whom also acts as Project Manager, plus Local Support (Bogotá-based). The three U.S.-based experts are designated as Economic Expert, Technical Expert, and Legal/Regulatory Expert respectively. Since it is believed that the required economic analysis is particularly critical to the

TA's success, it is preferred but not mandatory that the Economic Expert also be Project Manager. The Project Manager position may be combined with that of the Technical Expert or the Legal/Regulatory Expert, provided that it can be shown that the proposed Contractor Team can efficiently carry out the full scope of the TA.

It is anticipated that the Local Support position will be filled by an individual or small firm based in Bogotá, with the requisite qualifications described below. The Local Support may also handle some logistical functions (e.g., preparation of presentation materials) and provide continuity between visits of U.S.-based team members.

More specific descriptions of the anticipated team members follow.

Project Manager and Economic Expert

- Approximately 15 years of experience in ICT, preferably with significant experience in Colombia and/or the Latin American region
- Extensive demonstrable experience with data center, data hosting and/or IXP environments
- In-depth knowledge of U.S. best practices in data hosting and contracting for data hosting services
- In-depth knowledge of the full range of factors impacting the economics of data hosting arrangements
- Familiarity with issues related to cost of bandwidth and international and domestic bandwidth pricing
- Ability to develop policy recommendations and action plans and to conduct workshops and presentations
- Organizational/management skills to structure, oversee and carry out the TA effectively
- Knowledge of Spanish sufficient to conduct business meetings and workshops is highly desirable

Technical Expert

- Approximately 15 years of experience in ICT, with demonstrable experience with data center, data hosting and/or IXP environments, and with estimation of related hard costs (e.g., required new hardware and software) and soft costs (e.g., administration, training) and cost/benefit analysis
- Hands-on experience with full range of technical issues pertinent to data hosting (e.g., technology platforms); hosting facility security, accessibility and/or efficiency; operational and procedural issues; virtualization; bandwidth requirements), preferably from both facilities provider and end user perspectives
- Ability to support Project Manager in developing policy recommendations and actions plans, and in conducting workshops and presentations

Legal/Regulatory Expert

- Approximately 10 years of experience in ICT-related legal/regulatory affairs
- Familiarity with legal/regulatory issues impacting data center, data hosting and/or IXP environments, which may include, but are not necessarily limited to, trans-border data flow, privacy, intellectual property, transparency in the event of IT security breaches, data retention, destruction, coverage (what data is subject to regulation), timespan (length of time that data must be held)
- Experience with ICT-related legal/regulatory issues in Colombia and/or Latin American region would be highly desirable
- Ability to support Project Manager in developing policy recommendations and actions plans, and in conducting workshops and presentations
- Working knowledge of Spanish is highly desirable

Local Support

- Demonstrable experience with ICT legal/regulatory framework in Colombia, in particular with legal/regulatory issues impacting data center, data hosting and/or IXP environments
- Ability to research and interpret Colombian laws and regulations that bear upon data hosting and related matters (e.g., data privacy, intellectual property)
- Provide liaison with Project Manager and U.S.-based team members and continuity of support over the course of the TA, particularly when U.S.-based personnel are not physically present
- Ability to provide logistical and translation support as may be needed

A N N E X 1

FEDERAL BUSINESS OPPORTUNITIES ANNOUNCEMENT

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Colombia: Greater Data Hosting in Colombia Technical Assistance

POC: Jennifer Van Renterghem, USTDA, 1000 Wilson Boulevard, Suite 1600, Arlington, VA 22209-3901, Tel: (703) 875-4357, Fax: (703) 875-4009, Email: RFPQuestions@ustda.gov.
Colombia: Greater Data Hosting in Colombia Technical Assistance.

The Grantee (Cámara Colombiana de Informática y Telecomunicaciones - CCIT) 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 Technical Assistance for the Greater Data Hosting in Colombia Project in Colombia.

The objective of the Technical Assistance is to conduct a combined economic, technical and legal/regulatory analysis, together with an assessment of U.S. best practices and their applicability to the Colombian environment, of the data hosting market in Colombia, and to develop corresponding policy recommendations and an action plan to present to the Government of Colombia, drawing upon U.S. experience and best practices in data hosting and Internet Exchange Point (IXP) and data center facilities management.

The U.S. firm selected will be paid in U.S. dollars from a \$408,965 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 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 PM (local time in Bogotá, Colombia) on October 14, 2014** at the above address. 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.

A N N E X 2

EXCERPTED VERSION OF DEFINITIONAL MISSION REPORT

1. Background

The DM Contractor judged that the proposed TA on behalf of CCIT represents a viable project opportunity. Further details are provided below.

2. Cámara Colombiana de Informática y Telecomunicaciones (CCIT)

Organization and Mission

Founded in 1993, CCIT is the leading ICT industry organization in Colombia. The CCIT pursues the general goal of contributing to Colombia's economic and social progress by advancing the coordinated development of the ICT sector in Colombia. Through its efforts, it aims to promote investment, innovation, job creation, social inclusion and improved quality of life for the citizenry. More specifically, it seeks to create a policy, legal, regulatory, economic and tax environment that is appropriate for the sector in Colombia, while at the same time acting as an advocate for the interests of its members and of its governing principles.

CCIT has a lengthy track record of advising and collaborating with the Government of Colombia (GOC). For example, as early as 2004 CCIT was seeking to shape GOC policy regarding the regulation of Voice over IP (VoIP) and IP-enabled voice services.

Activities

CCIT is active in a wide range of activities to promote the health and development of the ICT sector. Some examples follow.

- In 2013, CCIT in collaboration with the Ministry of Information Technologies and Communications (Ministerio de Tecnologías de la Información y las Comunicaciones, MinTIC), organized a "CIO Summit," the first such event in Colombia, which brought together leading figures from both the private and public sectors to examine challenges related to the role of Chief Information Officer (CIO), in the context of both the Colombian environment and of worldwide tendencies in ICT, and best practices for overcoming those challenges. The objective was to develop and disseminate ideas and tools to better assist senior ICT management in Colombian private- and public-sector institutions in achieving greater integration and to improve services both to their end users and to a general public which is coming to rely more and more on ICT.
- In 2012, CCIT in collaboration with the GOC and the National Police conducted a Worldwide Forum Against Cellular Telephone Theft, a problem which is becoming more acute in view of the fact that increasing numbers of stolen cellphones are being illicitly resold on international markets, thus providing new revenue streams to mafias and organized criminal groups.
- Also in 2012, in collaboration with the Colombian Association of Mobile Operators (Asomóvil), CCIT organized a Forum on Quality of Mobile Telephony Service (subtitled "Breaking Paradigms"), with the joint aim of improving mobile telephony services in the country. Noting that some studies, by the World Bank and others, have found that a 1% increase in mobile penetration translates into a 0.8% increase in GDP, and also that Colombia currently has a mobile penetration in excess of 100% (i.e., more cellphones than people), both CCIT and Asomóvil considered that initiatives to improve mobile service quality can play an important role in ensuring better quality of life for the citizenry. The Forum dealt with issues

such as network design and optimization, infrastructure rollout, management issues in setting up and operating mobile networks, and key quality indicators to be defined and monitored. The participants included all major mobile operators, equipment manufacturers, MinTIC, the Colombian sector regulator Comisión de Regulación de Comunicaciones (CRC), the Superintendency of Industry and Commerce (Superintendencia de Industria y Comercio, SIC, which has the power to levy fines on mobile operators for failure to meet end-user contractual obligations), and the Civil Aviation Authority.

NAP Colombia

From the standpoint of the proposed TA, however, by far the CCIT's most important activity is its role as the administrator of the Internet resource known as Network Access Point Colombia (NAP Colombia),¹ a function that it has performed since 1998. In this capacity, CCIT is concerned not so much with NAP Colombia as a physical facility, but rather with the administration and enforcement of the underlying set of traffic routing agreements (known as peering and transit agreements) which are subscribed to by the great majority of the country's Internet Service Providers (ISPs). Collectively, these ISPs handle the traffic of more than 95% of Colombia's Internet users. The peering and transit agreements specify the technical and commercial conditions under which Colombian ISPs exchange traffic with one another. Since significant volumes of traffic originate and terminate within Colombia, these arrangements are of great importance, since they ensure routing efficiency and lower latency, thus improving overall performance. Also, in-country peering and transit arrangements obviate the need for consuming expensive international bandwidth.

The second function, which is more characteristic of NAPs considered as physical facilities, is to provide economies of scale; by using a shared NAP facility to host or co-locate routers and other equipment, ISPs are able to lower costs for premises; business continuity and disaster recovery; physical and cyber security; electricity; heating, ventilation and air conditioning (HVAC); and, in particular, costs for domestic and international bandwidth (which NAPs may buy or lease in bulk).

It is important to note that NAP Colombia is separate from, and not to be confused with, the similarly named NAP Colombia de las Américas. Unlike NAP Colombia, NAP Colombia de las Américas is a commercial facility, built and operated by Verizon Terremark Colombia Inc., a wholly-owned subsidiary of Terremark Worldwide (which also operates the NAP of the Americas in Miami). NAP Colombia de las Américas, which became operational in March 2008, is one of the largest data, co-location and hosting centers in Colombia, with a total of 20,000 square feet of usable space and an exchange traffic capability of in excess of 1 terabit per second (Tbps). One of its primary functions is to handle the Internet traffic that Colombia exchanges with the rest of the world (i.e., "international" traffic as opposed to the "in-country" or "domestic" traffic handled by NAP Colombia). Clients of the facility include several major Colombian telecommunications operators, as well as international and Colombian companies such as IBM de Colombia, BT Comsat, Synapsis and a number of GOC agencies. Total traffic handled by NAP Colombia has grown from 1000 terabytes (Tbytes) in January 2011 to more

¹ Network Access Point is now a somewhat outmoded term, although it continues to be applied to facilities of the type described. The term generally favored today is Internet Exchange Point (IXP).

than 2800 Tbytes at the beginning of 2013, and 4163 Tbytes in January 2014. The monthly growth rate in 2013 and the first month of 2014 exceeded 5% (corresponding to monthly increases of 140 and 197 Tbytes respectively, at the beginning of those years).²

Notwithstanding the fact that NAP Colombia and NAP Colombia de las Américas are separate entities, there is necessarily some degree of operational coordination between them. Furthermore, CCIT's administration of domestic peering and transit arrangements gives CCIT extensive visibility into the behavior and evolution of Internet traffic and usage in Colombia.

3. Internet Traffic and Usage in Colombia

To understand what CCIT is seeking to accomplish, and how the proposed TA will further the attainment of the organization's objectives, it is useful to provide some information regarding Internet penetration, usage and traffic in Colombia.

Generally speaking, Colombia's level of Internet penetration (taking account of all types of connections, whether fixed or mobile, narrowband or broadband) ranks relatively high among Latin American countries. At the end of 2011, the figure stood at around 55%, or slightly lower than Argentina (67%) and Chile (59%), but substantially higher than Brazil (39%), Mexico (37%) or Peru (33%). Furthermore, Colombia ranks favorably on other measures, such as average connection speed as a function of per capita GDP (a rough measure of broadband Internet affordability). For Colombia the figure is 2.8 Mbps / US\$8,000, compared to, say, Chile (3.3 Mbps / US\$15,000).

Domestic connectivity, which is a major enabler of Internet take-up, is relatively robust, although not yet universal. In particular, recent initiatives under the GOC's "Vive Digital" program have resulted in deployment of several thousand kilometers of optical fiber to communities which were not previously "wired up." Colombia also ranks favorably in terms of international connectivity. Of the 18 submarine fiber-optic cables that serve the major coastal countries in the Latin American region, no fewer than 7 of them have landings in Colombia – only Brazil has more landings (8), and no other country has more than 4.

This situation notwithstanding, it is apparent that Colombia's international connectivity is far from uniform in terms of geography and performance. Thus, the configuration of the cables is such that end-to-end latency between Colombia and the United States (as measured at the NAP of the Americas in Miami) averages around 45 milliseconds (msec), whereas the corresponding value to destinations such as Brazil or Chile is on the order of 150–175 msec, because of the "tromboning" that results from the lack of a direct path to these destinations. (The situation with respect to Venezuela, Ecuador, and Peru is somewhat better, with latencies averaging between 60 and 90 msec.) At the same time, average latency within the NAP Colombia environment, as measured over the course of 2012, is a mere 3.1 msec.

Perhaps the most striking feature of Colombian Internet traffic, however, is that while the total average volume of Colombian Internet traffic is estimated at 280 gigabits per second (Gbps), the

² Additional descriptive and technical information regarding NAP Colombia de las Américas may be found at <http://www.terremark.com.co/data-centers/latin-america/nap-de-las-americas-colombia/>.

“local” portion of that traffic – i.e., the portion that Colombian ISPs are exchanging among themselves, via NAP Colombia – amounts to only 14.5 Gbps, or slightly more than 5% of the total.³ In other words, some 94% of Colombian Internet traffic is being directed to servers outside of Colombia. Since it is a well-known fact that a high proportion of the world’s Web server pool is located in the U.S., clearly a substantial portion of the servers being accessed reside there. The relatively low latency on the Colombia–U.S. route also tends to favor the U.S. in this respect. If latency were the sole determining factor, however, then, given the 3.1 msec latency within the NAP Colombia environment versus more than 10 times that value for the Colombia–U.S. route, one would expect to see rather the reverse of the prevailing pattern – there would be an overwhelming advantage to siting Web servers in Colombia rather than being obliged to access them abroad. Furthermore, as already noted, the use of peering/transit arrangements within the NAP Colombia environment obviates the need for consuming expensive international bandwidth on undersea cables.

Two conclusions may be drawn from the above circumstances. The first is that a significant number of Web servers, including those hosting URLs that include the .co country-code top-level domain for Colombia, must be located outside the country.⁴ The second is that some factor, or more likely a combination of factors, acts as a significant roadblock to greater local hosting of servers in Colombia. Furthermore, while this discussion has focused on Web servers and Web server hosting specifically, it is reasonable to assume that the factor or factors in question act, at least to some extent, to inhibit greater use of application and data hosting in Colombia.

4. Data Hosting Concepts and Terminology

Before proceeding, however, it is important to introduce and/or clarify certain concepts and terminology related to data hosting. These concepts will assist in understanding the objectives of the proposed TA, and also in interpreting and systematizing information that will be presented below regarding the ensuing U.S. export potential.

- **Co-location.** Co-location has been the traditional solution to data hosting for organizations that wish to house their IT systems (such as servers, but in principle any type of IT or telecom equipment) off-site for a fixed price. With co-location, the organization installs its server(s) in the co-location provider’s premises, which may be described by the provider as a “data center,” “hosting center,” or “co-location facility.” Typically, the equipment is installed in rack space furnished by provider, often within an “equipment cage” or secure area). The principal benefits to the co-locating organization derive from the presumed superiority of the provider’s infrastructure and systems (in terms of, e.g., electrical power, HVAC, physical security). Arrangements are made for the customer to visit the site for purposes of installing, servicing or removing its own hardware, using either the customer’s own technicians or a third

³ This figure refers to 2012; according to CCIT personnel, it has since risen slightly, to 6–7%. For subsequent calculation purposes, the figure 6.5% will be assumed.

⁴ In and of itself, out-of-country hosting is not uncommon; a recent OECD study (*International Gateways, Cables, Backhaul and International Exchange Points*, OECD Digital Economy Paper No. 232, February 2014) found that percentages of sites hosted in-country among the OECD countries range from a high of 97% (Korea) to a low of 19% (Greece). What appears to be noteworthy about the Colombian situation is the extreme skewing in favor of out-of-country hosting. Note, however, that the OECD data refer to numbers of hosted sites, whereas the Colombian data presented here refer to volumes of traffic; hence the two are not directly comparable.

party with authorized access. Thus the customer owns, manages and is responsible for the equipment.

- **Managed data hosting.** With managed data hosting, as a rule, the customer's equipment is managed and maintained by the data center operator, often on a 24-hour basis, rather than by the customer or a third party. Managed data hosting can be further characterized as dedicated (the particular equipment is for the customer's exclusive use, and may be owned or leased by the customer) or shared (rather than a dedicated server, the customer is allotted a certain amount of space on a server whose storage is partitioned to accommodate multiple users).
- **Cloud computing.** Cloud computing is similar to co-location and managed data hosting in that servers and the data they store do not reside on the organization's premises; there, however, the similarity ends. Cloud computing is an entirely "virtualized" service, which is accessed via one or more Application Programming Interfaces (APIs) – essentially an online library. An advantage of cloud computing is that it is inherently flexible and scaleable. Cloud computing can be thought of as a pure service – the physical location of the servers and corresponding data is of no concern to the customer (unless, of course, issues of privacy, transborder data flow, or security breaches arise). In line with the service-delivery model, cloud computing is generally priced on a pay-as-you-go basis.
- **Web server.** Strictly speaking, the term "Web server" should refer to the hardware that stores Web content and enables that content to be accessed via the Internet. Sometimes the term also encompasses the associated application software. Again, under a strict definition, the term would be limited to devices that host Web sites. In actuality, Web servers may have other uses (e.g., data storage, enterprise applications, gaming).
- **Internet Exchange Point (IXP).** This term has already been introduced; by way of clarification, it should be noted that one function of an IXP is to accommodate an aggregation of Internet devices,⁵ which, in turn, may be co-located, managed on a dedicated or shared basis, etc. Thus an IXP can be thought of as a data center used mainly to handle Internet traffic. In actuality, however, IXPs often contain equipment that performs other data storage, processing and transmission functions, such as servers, storage devices, routers, etc. In practice, therefore, there is often no clear-cut distinction between facilities called "IXPs" and facilities called "data centers."

For purposes of the present report, the focus of concern will be on Web servers and IXPs. Furthermore, the report will not concern itself with cloud computing; although cloud computing is likely to play an increasing role in both the private and public sectors in the future, it is not particularly germane to the key issues of Internet traffic and usage, or to the role of, and functions performed by, either NAP Colombia or, for that matter, NAP Colombia de las Américas. To the extent that the proposed TA develops economic, technical, and/or legal/regulatory recommendations that result in changes in data hosting policies and practices (see below), these changes are likely to apply in some measure to Colombian data centers in general.

⁵ In the particular case of NAP Colombia, it may be pointed out that, while it is technically an IXP, the principal function it performs is to switch traffic among ISPs. Accordingly, its equipment consists mainly of so-called Layer 2 switches rather than Web servers.

5. CCIT's Proposal to USTDA

As noted above, the Internet is relatively well developed in Colombia, and Colombia is well provisioned in terms of both domestic and international connectivity. Furthermore, the existence of NAP Colombia, which handles some 95% of Colombia's in-country Internet traffic, in principle should introduce significant efficiencies in the management of Internet traffic. At the same time, by virtue of its role as administrator of NAP Colombia, which gives access to extensive detailed information regarding patterns and trends in Internet traffic and usage in the country, CCIT is aware that this is not the case – a lopsided amount of Colombia's Internet traffic is routed abroad. In effect, in CCIT's judgment, some combination of factors, which may be economic, technical and/or legal/regulatory, severely distorts the Internet sector, to the point where, as CCIT surmises, even Web servers hosting URLs that include the .co country-code top-level domain for Colombia must be located outside the country.

CCIT perceives a need to identify and quantify these factors, and to develop corresponding policy recommendations to the GOC that would eliminate or mitigate them. CCIT believes that such an initiative would yield significant benefits in terms of opening up the full potential of the Internet market in Colombia. Specifically, resolution of the issues involved would result in substantial increases in the proportion of Internet traffic that remains in-country – CCIT believes that a target of 20%, as opposed to the current 6–7%, represents an achievable objective. In turn, the increase in in-country traffic would stimulate sales of servers and data center equipment in Colombia. Accordingly, CCIT is seeking a TA that would comprehensively address the issues in question, and that would draw upon U.S. experience and best practices in data hosting and IXP and data center facilities management. The principal deliverable of the TA would be a set of policy recommendations and an action plan, which CCIT would assist in presenting to the appropriate GOC authorities.

Project Sponsor's Capability and Commitment

As already indicated, CCIT, the project sponsor, performs a number of key functions in the ICT industry. In the first place, it is an industry organization whose members include major U.S.-based players, and all of these companies have an interest in expanding the market for U.S. goods and services in Colombia. Second, through its administration of NAP Colombia, CCIT is an active participant in the Colombian Internet sector, with a vested interest in ensuring its efficient, well-coordinated operation and continuing growth. In its capacity of NAP Colombia administrator, moreover, the CCIT enjoys unparalleled access to information regarding domestic Internet traffic flows, traffic types, growth patterns, etc. Thus CCIT is in a position to determine whether the data hosting policy changes that would occur, as a result of the TA's recommendations, would actually have the desired effects. Additionally, CCIT's administrative role brings it into close and ongoing contact with the 19 Colombian ISPs that occupy space in the facility. Finally, CCIT has a long history of collaborating with, and acting as advisor to, the GOC and its various agencies, in particular MinTIC, in a variety of ICT-related areas.⁶ Accordingly, the DM Contractor judges that CCIT would be an effective and well-regarded

⁶ For example, as early as 2003, CCIT was instrumental in providing input to the GOC's Voice over IP (VoIP) regulatory framework.

spokesman in terms of presenting the TA's recommendations to the GOC.

The proposed TA has the full support of CCIT's Executive President, Mr. Alberto Samuel Yohai, who obtained the approval of the organization's Board of Directors prior to proceeding. According to Mr. Yohai, the TA was judged to be of interest to the full membership of CCIT, although it seems likely that the organization's U.S.-based member companies stand to benefit in particular.

Accordingly, the Sponsor's commitment to the TA in general; to enabling the Contractor Team to gain access to the necessary technical, economic and legal/regulatory information; and to following through vis-à-vis the GOC in implementing the ensuing recommendations, appears to be very high.

Implementation Financing

"Implementation financing" in the usual sense is not a requirement in the present case. The objective of the TA is to create favorable conditions to stimulate demand for ICT-related goods and services, particularly Web and other servers and data center equipment, on the Colombian market, principally by U.S.-based companies who already have an established presence there. The increased sales will be generated primarily by established ISPs and data center operators in response to increasing volumes of data traffic to be hosted within Colombia.

At the same time, it is possible that, in conjunction with its policy recommendations to the GOC, the TA will propose that the GOC implement some form of subsidy (for example, provision of subsidized domestic bandwidth) to enhance the attractiveness of the market for in-country hosting. It is not presently clear whether such subsidies, if recommended, would be in-kind or financial; if the latter, furthermore, it is not clear what would be the source of the necessary funding (e.g., MinTIC). If in fact the TA proposes financial subsidies, some consideration should be given to the most likely prospects for securing funding.

US Export Potential

In principle, the estimation of the U.S. export potential seems fairly straightforward in the present case. Essentially, three steps are involved: 1) establish a baseline level of current sales of Web servers to be housed in Colombian IXPs and data centers; 2) translate the anticipated increase in in-country Internet traffic (from the current 6–7% to the projected 20%, equivalent to a threefold increase) into the number of additional Web servers that must be procured to meet the increased demand, over a certain "ramp-up" period (say three years); 3) estimate the percentage of the incremental server sales that could reasonably be captured by U.S.-based manufacturers, who are known to have an already well-established presence on the Colombian market (see below for further details). In practice, however, the exercise is quite complicated. To some extent, the problem is terminological; for example, it is not always clear whether data on server sales refer to Web servers, enterprise servers, servers not used for Internet-enabled applications; "mini-servers" intended for corporate LANs, etc. A further complication is that none of the available data seems to be broken out specifically in terms of the environment in which the

servers will be deployed (e.g., co-located, managed or cloud-based). Still, the available information at least permits some approximations to be made, such that it can be stated with some confidence that the potential market is quite large.

A major source for estimation of U.S. export potential is provided by industry reports developed by research firms such as Frost & Sullivan, Gartner Group, and International Data Corporation (IDC). While providing much useful information, these reports can be problematic in that they categorize data in different ways, and in some instances it is not clear exactly to what the data refer (for example, the extent to which support, maintenance and other services are included). Some pertinent highlights from these reports follow

In late 2013, Frost & Sullivan released an updated analysis for its *IT Infrastructure Outsourcing Services Market: Colombia, Mexico, and Venezuela* report, which was first added to the company's offering earlier in the year. According to the new analysis, the market should experience significant growth over the next four years. Specifically, the report estimates that the Colombian market will grow from \$168.8 million (the figure apparently refers to 2011) to \$309.5 million by 2017. These figures imply an annual growth rate of around 11%, so that the market as of 2013 is estimated at around US\$207 million. It may be added that these figures are corroborated, at least in order of magnitude, by a 2010 report in a Colombian technology-oriented business periodical (*Dinero*), which estimated the server market in Colombia at over 30,000 units, with an annual value of around US\$175 million.⁷

By way of comparison, according to a 2013 Gartner Group report, the market for data center outsourcing in North America was \$33 billion in 2011, while the figure for Web hosting and co-location was \$23 billion. The validity of comparisons between the U.S. and Colombia in these areas may be limited, since it is not entirely clear to what the numbers refer. Nonetheless, it is perhaps worth pointing out that the "outsourcing IT infrastructure services" figure for Colombia is slightly less than 1% of the "Web hosting and co-location" figure for the U.S. Just as an exercise, if the Colombian figure is adjusted upward to allow for differences in population (45.7 million for Colombia versus 313.9 million for the U.S.) and per capita GDP (\$11,000 versus \$46,381), it still comes to only some 3.5% of the U.S. figure. At least in order-of-magnitude terms, the result suggests that the Colombian data hosting market is indeed only a fraction of what it might be.

Studies of data center costs, such as one conducted by IDC a few years ago, indicate that server equipment purchases typically account for 20–25% of data center costs (the other major cost categories being staffing, electricity and physical premises-related costs). Aggregate data center costs for Colombia are not known, but the US\$207 million figure for 2013, cited above, provides a reasonable proxy. Assuming that Web servers account for half of all server purchases, and taking the above figures for servers as a percentage of total data center costs, we arrive at a

⁷ The inference is that the average price of a server in Colombia is \$5833, which is a not unreasonable estimate of the all-in cost of the hardware and software. However, this estimate evidently covers servers of all types, including low-end servers which tend to be deployed on customer premises, not in IXPs or data centers. It also covers servers that are not used to host Internet-enabled applications, as well as Web servers employed in corporate Intranet settings.

figure of US\$20.7–25.9 million as the baseline estimate of the Colombian Web server hosting market for 2013.

Now let us adopt the following plausible scenario for completion of the TA and implementation of its recommendations. Assume that 1) the proposed TA is carried out in 2014; 2) the ensuing recommendations to the GOC begin to be put into effect in 2015; and 3) the real impact on traffic patterns begins to be felt in 2016. Furthermore, assume, in accordance with CCIT’s expectations regarding the anticipated impact, that the relative ratios of international traffic to in-country Internet traffic behave as follows: 93.5%/6.5% in 2015; 89%/11% in 2016; 84.5%/15.5% in 2017; 80%/20% in 2018, and remain steady at 80%/20% after that.

However, increases in traffic volumes do not translate directly into increased dollar values of server sales. Put somewhat differently, a server with a capacity of 2X does not necessarily cost twice as much as a server with a capacity of X. Also, certain economies of scale come into play. Still, a reasonably conservative estimate would be that a 100% increase in traffic necessitates new server purchases or upgrades with a dollar value of 66.6% above the baseline.

Taking the above figure of between US\$20.7 million and US\$25.9 million (“low scenario” and “high scenario” respectively) as the baseline estimate for the size of the market, and performing the necessary calculations, we arrive at the following figures for the resultant incremental sales (in US\$ millions) over a three-year period beginning in 2016:

	2015	2016	2017	2018	Total 2016–2018
High scenario	\$0.00	\$11.87	\$10.23	\$9.23	\$31.34
Low scenario	\$0.00	\$9.49	\$8.18	\$7.38	\$25.05

Note that these figures are quite conservative in two respects: 1) they apply the 2013 baseline value of the Web server hosting market to 2015, i.e., they ignore any increases in 2014 and 2015; 2) similarly, they ignore any increases in the baseline value over the three-year period beginning in 2016 (when overall server sales can be expected to increase even more rapidly as a result of implementation of the TA’s recommendations).

Finally, it should be noted that the figures reflect increases in sales of servers of all manufacturers, both U.S. and foreign. As pointed out below, however, U.S. suppliers may account for as much as 85% of server sales in Colombia, and their position, if anything, is likely to be strengthened by implementation of the recommendations ensuing from the TA. Given the fact that the incremental sales figures were arrived at very conservatively, the DM Contractor believes that it is legitimate to take them as equivalent to the U.S. export potential.

Potential U.S. Suppliers

The U.S.-based companies that are best positioned to benefit from increased sales of servers and data center equipment, software and services in Colombia are, in particular, Cisco, Dell, Hewlett Packard (HP), IBM, Intel, Level3, Microsoft and Verizon Terremark. As best as can currently be estimated, these companies, which are among the Gartner Group's "Top Five" vendors in terms of server shipments worldwide, account for not less than 75%, and perhaps as much as 85%, of all server sales in Colombia. As it happens, all these companies are CCIT members. (This circumstance is not coincidental; evidently a primary reason for their membership in the organization is that they have an established presence in the Colombian market and a long-term commitment to its growth and health.) More details on these companies and their position in the Colombian market are given below.

- **Cisco**, which has been present in Colombia since 1995. Cisco is strong in data center solutions, enterprise integration, unified communications and wireless networking, and, reportedly, regards Colombia as a high-priority country in view of the increasing pace of sector development. Recently (February 2014) the company predicted that its revenues in the country would double within the next three years.
- **Dell**, present in Colombia since 1997. Dell Colombia is headquartered in Bogotá and claims to have 60 employees in the country, as well as extensive distribution networks. In addition to its extensive line of PCs and LAN-based systems for small and medium enterprises, Dell Colombia provides IT solutions for large corporations and the public sector. Its recently announced 12G server product is claimed to be highly scaleable, from small enterprises up to data center environments.
- **HP**, which commenced operations in Colombia in 1991. HP claims to have 600 direct employees in Colombia, as well as more than 2,500 dealerships and distribution channels. Furthermore, HP claims a 50% share of the server market in the country, and reportedly has dominated the market for more than a decade. In 2011 the company undertook a major expansion of its Colombian operations, inaugurating a Global Service Center in Medellín at a reported initial cost of US\$15 million.
- **IBM**, which originally established a presence in Colombia in 1937, and currently claims to have around 450 employees in the country. In addition to providing data-center and "big data" solutions, IBM participates in a number of social-action and corporate responsibility initiatives. In 2011, the company established an Innovation Center in Bogotá to assist the ICT industry to improve productivity and competitiveness. Reportedly, IBM is the second largest server vendor on the Colombian market.

Foreign Competition and Market Entry Issues

Despite the strong presence of U.S.-based firms, as described above, it is not surprising to find that there is significant foreign competition, in view of the size of the Colombian market for servers and data center equipment. For present purposes, we can distinguish two forms of foreign competition, which can be designated as primary and secondary. Primary competition comprises certain foreign Web server suppliers that also are CCIT members. These firms compete, or have the potential to compete, in the same space as their U.S. counterparts, and presumably will also have access to the information that the TA develops. Secondary competition here refers to foreign Web server suppliers who are not CCIT members. With one

major exception (Fujitsu, see below), as it turns out, these secondary competitors generally do not compete directly with their U.S. counterparts.

Primary Foreign Competition

The five companies listed below are all CCIT members.

- **Lenovo** (China). Lenovo's ThinkServer line (originally offered to the Colombian market in 2008) targets primarily SMEs, not large enterprises, ISPs or data centers. More recently, Lenovo acquired IBM's x86 server line, but again these products target primarily SMEs.
- **NEC** (Japan). Although NEC offers a wide range of products, in Colombia its major sales come from telecommunications networking systems and equipment, as well as telephony hardware and software (central office switches and PBXs).
- **Samsung** (Korea) is present in Colombia, but appears to be targeting primarily the market for consumer electronics (HDTV, tablets and smartphones).
- **Huawei** (China), present in Colombia since 1999. According to an interview given by the General Manager for Colombia in late 2012, Huawei had 600 direct employees Colombia, and saw its revenues in 2011 increase by 48%, to US\$310 million. However, Huawei appears to be focusing primarily on telecommunications systems and equipment, and also cloud computing.
- **ZTE** (China), which established itself in Colombia in 2004. ZTE does not appear to be a significant player in the Colombia market for servers (of whatever type); its principal line of business is evidently networking equipment for telecommunications operators and service providers, and also 3G and, more recently, 4G LTE mobile devices.

Secondary Foreign Competition

- **Fujitsu** (Japan), the only non-U.S. company on Gartner Group's list of "Top Five" server manufacturers worldwide. The company was founded in 1999 as a 50/50 joint venture between Fujitsu Limited of Japan and Siemens of Germany. On April 1, 2009, the company became Fujitsu Technology Solutions as a result of Fujitsu buying out Siemens' share of the company. In Colombia it operates primarily through distributorships and channel partners, and does not appear to be a major player in the Colombian server market. Fujitsu is not a CCIT member.

Other Foreign Participation in Colombia

There are some foreign companies in Colombia, such as **British Telecom Global Services** (U.K.) and **Orange Business Services**⁸ (France) that operate major data facilities in Colombia (and indeed both of these companies have a presence in NAP Colombia). At first glance, it might seem that these companies also represent foreign competition. In actuality, however, from the standpoint of Web server sales, these companies are probably just as likely as NAP Colombia to procure U.S.-manufactured servers – in any case, as noted above, U.S.-based suppliers collectively have a 75–85% market share. From this perspective, therefore, they represent as much a sales as a competitive challenge.

⁸ It may be added that Orange Business Service, which has formed an alliance known as "Flexible 4 Business" with three other companies, appears to be focusing on cloud computing services rather than data hosting per se.

A N N E X 3

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS



U.S. TRADE AND DEVELOPMENT AGENCY
Arlington, VA 22209-3901

NATIONALITY, SOURCE, AND ORIGIN REQUIREMENTS
[As of January 17, 2014]

The purpose of USTDA's nationality, source, and origin requirements is to ensure 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, 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, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work 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 TA 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 TA support (e.g., local lodging, food, and transportation) in Host Country are not subject to the above restrictions.

NATIONALITY:

1) Application

A U.S. firm that submits a proposal must meet USTDA's nationality requirements as of the date of submission of the proposal and, if selected, must continue to meet such requirements throughout the duration of the USTDA-funded activity. These nationality provisions apply to all portions of the Terms of Reference that are funded with the USTDA grant.

2) Definitions

A "U.S. firm" is a privately owned firm that 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. citizens and/or non-U.S. citizens lawfully admitted for permanent residence in the United States, 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 that is organized in the U.S., has its principal place of business in the U.S., and is more than 50% owned by U.S. citizens and/or permanent residents, qualifies as a "U.S. firm".

A nonprofit organization, such as an educational institution, foundation, or association, also qualifies as a "U.S. firm" if it is incorporated in the U.S. and managed by a governing body, a majority of whose members are U.S. citizens and/or permanent residents.

SOURCE AND ORIGIN:

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.

Version 01.17.2014

A N N E X 4

GRANT AGREEMENT WITH USTDA MANDATORY CONTRACT CLAUSES

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 Cámara Colombiana de Informática y Telecomunicaciones (Colombian Chamber of Information Technology and Telecommunications) (“Grantee”). USTDA agrees to provide the Grantee under the terms of this Grant Agreement US\$408,965 (“USTDA Grant”) to fund the cost of goods and services required for a technical assistance (“TA”) on the proposed Greater Data Hosting in Colombia project (“Project”) in Colombia (“Host Country”).

1. USTDA Funding

The USTDA Grant 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 TA (“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 TA (“Terms of Reference”) are attached as Annex I and are hereby incorporated by reference into this Grant Agreement. The TA will examine the technical, financial, environmental, and other critical aspects of the proposed Project. The Terms of Reference for the TA 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 the coordination of local transportation, conference room space when required, and limited 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). 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 TA. 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 TA that they were not selected. The Grantee and the Contractor then shall enter into a Contract for performance of the TA.

(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 TA. 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 U.S. 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 TA 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 USTDA 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 TA by submitting invoices in accordance with the procedures set forth in the USTDA Mandatory Contract 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. TA Schedule

(A) TA Completion Date

The completion date for the TA, which is July 31, 2015, is the date by which the parties estimate that the TA 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 S.

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 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, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work 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 TA 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 TA 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 TA 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 TA 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 President. 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: Diego Rivera
Director of Engineering
Cámara Colombiana de Informática y Telecomunicaciones - CCIT
Carrera 11A #93-67, Of 401
Bogotá, D.C.
Colombia

Phone: +57 (1) 756 3456

Fax: [+57 \(1\) 7563455](tel:+5717563455)

E-mail: diego.rivera@ccit.org.co and asyohai@ccit.org.co

To: Colombia Country Manager
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: lac@ustda.gov and jflewelling@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.: 1114/151001

Activity No.: 2014-51029A

Reservation No.: 2014250

Grant No.: GH201451250

17. Implementation Letters

To assist the Grantee in the implementation of the TA, 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 TA, except for payments that may be made pursuant to Clause H 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 TA, 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.

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IN WITNESS WHEREOF, the Government of the United States of America and Cámara Colombiana de Informática y Telecomunicaciones, 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 Cámara Colombiana de Informática y
Telecomunicaciones**

By: _____

By: _____

Date: _____

Date: _____

Witnessed:

Witnessed:

By: _____

By: _____

Annex I -- Terms of Reference

Annex II -- USTDA Mandatory Contract Clauses

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 Cámara Colombiana de Informática y Telecomunicaciones (“Client”), dated _____ (“Grant Agreement”). The Client has selected _____ (“Contractor”) to perform the technical assistance (“TA”) for the _____ project (“Project”) in Colombia (“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 S. 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 M 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 TA 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, non-U.S. citizens lawfully admitted for permanent residence in the United States or non-U.S. citizens lawfully admitted to work 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 TA 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 TA 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. 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 I below, and (ii) approved in writing by the Client in the manner provided for by Clause G(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 M below, or by e-mail to invoices@ustda.gov.

H. 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, N and S of the USTDA Mandatory Contract Clauses shall survive the termination of this Contract.

I. 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.

J. 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.

K. TA Schedule

(1) TA Completion Date

The completion date for the TA, which is July 31, 2015, is the date by which the Contract Parties estimate that the TA 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.

L. 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 TA 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.

M. 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.: 1114/151001

Activity No.: 2014-51029A

Reservation No.: 2014250

Grant No.: GH201451250

N. 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.

O. 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.

P. Contact Persons

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

Name:

Title:

Phone:

Fax:

E-Mail:

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.

Q. 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 damages that are natural, probable, and reasonably foreseeable as a result of a breach of this Contract, 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. If any clause included by the Contract Parties is inconsistent with either or both of these limitations, it shall be invalid and unenforceable to the extent of the inconsistency.

R. 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.

S. 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 TA. 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.

ANNEX 5

TERMS OF REFERENCE

Terms of Reference

Purpose and Background

These Terms of Reference (TOR) describe a Technical Assistance (TA) with the Cámara Colombiana de Informática y Telecomunicaciones (Colombian Chamber of Information Technology and Telecommunications, CCIT), an ICT industry organization headquartered in Bogotá. Besides representing the interests of its members, and acting as industry spokesman vis-à-vis the Government of Colombia (GOC), CCIT is also the administrator of NAP Colombia, which handles the great bulk of all Internet traffic exchanged in-country.

The objective of the TA is to conduct a combined economic, technical and legal/regulatory analysis, together with an assessment of U.S. best practices and their applicability to the Colombian environment, of the data hosting market in Colombia, and to develop corresponding policy recommendations and an action plan to present to the GOC. It is anticipated that the policy recommendations and action plan, by comprehensively addressing certain distortions that currently inhibit the Colombian Internet sector from achieving its full potential, will result in the creation of a more “hosting-friendly” climate (the “Project”), such that greater amounts of Internet data will be maintained on servers within the country, and will generally stimulate more rapid growth of the sector.

The interim deliverables enumerated in these Terms of Reference (i.e., all deliverables other than the Final Report) shall be submitted to the Grantee in English. The Grantee shall provide substantive feedback (which may be written in Spanish) on each interim deliverable within ten (10) business days so that the Contractor may promptly proceed with the remainder of the tasks. The Contractor shall incorporate the Grantee’s feedback into the interim deliverable and shall produce a final English-language version of such deliverable.

Task 1. Preliminary Information Request (*in US*)

At least two (2) weeks prior to the kick-off meeting referenced in Task 2, the Grantee shall provide to the Contractor available historical and operational data regarding trends, patterns, volumes, etc., of Colombian domestic and international Internet traffic, as well as any other available information pertinent to the TA that is requested by the Contractor. The data and information should cover the two (2) years preceding the request and should be as complete and up-to-date as possible. The Contractor shall conduct a preliminary review and assessment of this data and information.

Task 2. Project Kick-Off and Familiarization *(in Colombia)*

The Contractor shall conduct introductory meetings with representatives of CCIT and NAP Colombia, and shall become suitably familiar with their operations. Additionally, the Contractor shall conduct meetings with representatives of CCIT member companies and other appropriate stakeholders. The Contractor shall review with the Grantee the historical and operational data obtained in Task 1; shall identify any gaps or needs for additional or updated information; and shall decide with the Grantee on the manner of filling any gaps and/or addressing any additional information needs.

Task 3. Collection of Baseline Data on Colombian Hosting Market *(in Colombia and US)*

The Contractor shall collect baseline data on the Colombian hosting market. To organize and structure the data collection effort, and with a view to the subsequent tasks to be performed, this task is divided into three sub-tasks, to be undertaken simultaneously:

Sub-Task 3.1. Collection of Baseline Economic Data, to include, but not necessarily be limited to, data on unit costs of data hosting in Colombia, together with data on any pertinent economic/cost factors such as cost of bandwidth, applicable taxes, duties, surcharges, etc., that impact that cost.

Sub-Task 3.2. Collection of Baseline Technical Data, to include, but not necessarily be limited to, data on pertinent technical issues that affect the feasibility or desirability of data hosting in Colombia (e.g., related to technology platform(s); hosting facility security, accessibility and/or efficiency; data privacy; operational and procedural issues; virtualization).

Sub-Task 3.3. Collection of Baseline Legal/Regulatory Information, to include, but not necessarily be limited to, information on pertinent laws, regulations and/or practices that promote or hinder the development of the hosting market in Colombia. Such laws, regulations and practices may relate to data privacy and confidentiality; intellectual property; transborder data flow; transparency in the event of IT security breaches; data retention, destruction, coverage (what data is subject to regulation) and/or timespan (length of time that data must be held). For purposes of the subsequent legal/regulatory assessment, the Contractor shall obtain the following documents in particular:

- Constitución Política de Colombia (Political Constitution of Colombia), in particular Title II Article 15 regarding personal data and communications
- Law 1266 of 2008 regarding personal financial information
- Decision C-1011 (2008) of the Colombian Constitutional Court regarding right of “habeas data”
- Law 1581 of 2012 regarding personal data
- Decree 1377 of 2013 regarding personal data
- Law 23 of 1982 regarding intellectual property
- Law 178 of 1994 regarding intellectual property

As part of the effort to collect the required baseline data and information in the three areas described above, the Contractor shall conduct structured face-to-face interviews with

appropriate representatives of Colombian organizations and institutions. These interviews shall include, but not necessarily be limited to, meetings with organizations and institutions in Bogotá, Medellín and Barranquilla, as follows:

Bogotá:

- ISPs that are housed in and/or participate in NAP Colombia (the Contractor shall arrange meetings with as many of the 19 ISPs in this category as can reasonably be accommodated; such meetings may be organized so as to include representatives of multiple ISPs)
- Ministry of Information Technologies and Communications (Ministerio de Tecnologías de la Información y Comunicaciones, MinTIC)
- Cybernetic Emergency Response Group (Grupo de Respuesta a Emergencias Cibernéticas de Colombia, COLCERT)

Medellín:

- IBM S.A. of Medellín
- UNE Telecomunicaciones S.A. (part of Empresa Pública de Medellín S.A., EPM S.A.)
- Internexa S.A. (telecommunications infrastructure company with operations in Colombia and other Latin American countries)

Barranquilla:

- LAZUS (formerly Promintel) (private-sector “carriers’ carrier” based in Barranquilla, with optical fiber networks in several Colombian cities and a presence in Panama and Costa Rica)
- Metrotel (fixed-line operator headquartered in Barranquilla, providing services in Barranquilla and the Department of Atlántico)
- Terremark (Barranquilla unit of international Internet routing company, which also operates the NAP of the Americas in Miami and has a data center in Bogotá)

It is anticipated that the meetings in Medellín and Barranquilla will require not more than two (2) working days in each location. One or more representatives of the Grantee shall accompany the Contractor personnel to Medellín and Barranquilla, to attend the meetings held there. It is also anticipated that one or more representatives of the Grantee will attend the meetings organized in Bogotá.

Task 3 Deliverable: The Contractor shall prepare and disseminate an Inception Report, that summarizes the findings of Tasks 1–3, and describes in particular interviews and meetings conducted, sites visited, progress in collecting and reviewing data, and problems encountered or foreseen.

Task 4. Assessment and Analysis of Baseline Data and Development of Initial Findings (in US)

This task builds on the work conducted in Tasks 1–3 and similarly addresses three areas:

Sub-Task 4.1. Economic Assessment

The Contractor shall analyze and assess the economic data collected in Sub-Task 3.1, and shall compare that data to data drawn from the U.S. data hosting market. The U.S. market data thus employed shall be broadly representative and reasonably current (not more than three (3) years old, and preferably not more than two (2) years old). To the extent practicable, best practices in the U.S. data hosting market shall be identified, and their applicability or achievability in the Colombian environment assessed. Additionally, to the extent practicable, the Contractor shall describe trends in data hosting costs in the U.S. market over the medium term (3–5 years). The purpose of the economic assessment is to identify economic factors impacting the cost of data hosting in Colombia that act in such a way as to create barriers to service take-up, and eventually to develop a policy framework and action plan that seek to overcome or mitigate these barriers.

Sub-Task 4.2. Technical Assessment

The Contractor shall analyze and assess the technical data collected in Sub-Task 3.2, and shall compare that data to data drawn from the U.S. data hosting market. All U.S. market data thus employed shall be broadly representative and reasonably current (not more than three (3) years old, and preferably not more than two (2) years old). To the extent practicable, best practices in the U.S. data hosting market shall be identified, and their applicability or achievability in the Colombian environment assessed. Additionally, to the extent practicable, the Contractor shall describe trends in data hosting technology and technical issues in the U.S. market over the medium term (3–5 years). The purpose of the technical assessment is to identify technical factors impacting the feasibility or desirability of data hosting in Colombia that act in such a way as to create barriers to service take-up, and eventually to develop a policy framework and action plan that seek to overcome or mitigate these barriers.

Sub-Task 4.3. Legal/Regulatory Assessment

The Contractor shall analyze and assess the legal/regulatory information collected in Sub-Task 3.3. The primary objectives of this sub-task are, on the one hand, to identify gaps, inconsistencies, lack of precision, or other shortcomings in the existing framework that have negative implications for the data hosting market in Colombia (the “Gap Analysis”); and, on the other hand, to identify aspects which could provide the basis for incentives, subsidies or other levers which could be put to use by the GOC to stimulate the growth and development of the market (the “Incentive Analysis”). Whereas the legal/regulatory assessment may provide the basis for recommendations regarding the development of new legislation or regulation, the Contractor is not obligated to develop such recommendations.

In addition, the Contractor shall conduct an assessment of U.S. best practices in the area of data hosting contracts. This assessment shall cover the following areas in particular:

- Protection of sensitive data / liability for negligent disclosure
- Breach notification obligations
- Measures to ensure separation from other customers
- Employee screening
- Access by third parties or other entities
- Uptime, outages and force majeure
- Disaster recovery
- Performance measurement / remote monitoring
- Termination (including integrity of returned data)
- Insurance

For each of the areas in question, the Contractor shall 1) identify current best practices; 2) describe the specific benefits that accrue from application of the best practices in question; and 3) to the extent practicable, assess the applicability and relevance of the best practices to the Colombian environment, with particular reference to the Gap Analysis and Incentive Analysis described above.

Task 4 Deliverable: The Contractor shall prepare and disseminate an Interim Report summarizing the economic, technical and legal/regulatory assessments. This report shall also be used as a basis for preparing the in-person presentation to be delivered during the Task 5 presentation.

Task 5. Presentation 1 (in Bogotá)

The Contractor shall organize and carry out a Presentation (“Presentation 1”) in Bogotá, the purpose of which shall be to present the initial findings obtained in Tasks 1–4 to CCIT and its members, to explain and answer questions about the findings, and to solicit input for purposes of the remaining tasks. The anticipated duration of Presentation 1 is one (1) full day. The Contractor shall consult and agree in advance with the Grantee regarding the general agenda for Presentation 1. The Grantee shall have primary responsibility for identifying the desired attendees, for notifying them of the event in timely fashion, and for any follow-up intended to ensure their attendance. The presentation shall be conducted in Spanish (with prior consent of the Grantee, and if technically feasible, the Contractor may employ qualified simultaneous interpretation), and all presentation materials shall be prepared in Spanish. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment), and shall be responsible for any ancillary costs (lunch, coffee breaks, etc.). In the event that Spanish/English interpretation support is required, the Contractor shall be responsible for its provision and shall bear the associated costs.

Task 6. Development of Policy Framework and Action Plan (*in US*)

Based on the findings of Tasks 1–4, plus any additional input gained from Presentation 1, the Contractor shall develop a general Policy Framework to assist the GOC in overcoming the technical, economic and/or legal/regulatory barriers identified. The policy framework shall include, in particular, an evaluation of how the GOC might undertake to create economic incentives (e.g., investments, subsidies), together with an estimation of the cost of such implementing such incentives or of the required level of subsidy. The Contractor shall also examine preferred and/or most feasible ways of implementing such subsidies (for example, via MinTIC, GOC budgetary allocation, and/or the Universal Service Fund). Furthermore, the Contractor shall develop an Action Plan specifying the specific actions to be undertaken, by whom they should be undertaken, and the associated priorities and timeframes.

At a minimum, the Policy Framework and Action Plan shall address the following areas:

Policy Framework:

- Vision and Purpose
- Goals and Objectives
- Specific Tasks
- Roles and Responsibilities

Action Plan:

- Specific Actions
- Key Actors and Responsibilities
- Dependencies (i.e., prerequisites that need to be met, such as completion of other actions or obtainment of certain results, before a given action can be undertaken)
- Priorities
- Timeframes
- Expected Results

Task 6 Deliverable: A report describing the Policy Framework and Action Plan. The report shall also be used as a basis for preparing an in-person presentation and any additional supporting materials to be delivered during the Task 7 Presentation.

Task 7. Presentation 2 (*in Bogotá*)

The purpose of this Presentation (“Presentation 2”) is to present the Policy Framework and Action Plan to appropriate GOC stakeholders and other appropriate interested parties. The anticipated duration of Presentation 2 is one (1) full day. The Contractor shall consult and agree in advance with the Grantee regarding the general agenda for the Presentation. The Grantee shall have primary responsibility for identifying the desired attendees, for notifying them of the event in timely fashion, and for any follow-up intended to ensure their attendance. The presentation shall be conducted in Spanish (with prior consent of the Grantee, and if technically feasible, the Contractor may employ qualified simultaneous interpretation), and all presentation materials shall be prepared in Spanish. The Grantee shall provide the venue and necessary facilities (such as audio-visual equipment), and shall be responsible for any ancillary costs (lunch, coffee breaks, etc.). In the event that

Spanish/English interpretation support is required, the Contractor shall be responsible for its provision and shall bear the associated costs.

Task 8. Preliminary Environmental Impact Analysis (*in US*)

The Contractor shall prepare a preliminary environmental impact analysis. Specifically, the Contractor shall:

- Make a preliminary review of the Project’s anticipated impact on the environment, with reference to any pertinent local requirements.
- Identify and potential negative impacts and discuss the extent to which they can be mitigated
- Identify any steps that will need to be undertaken by the Grantee subsequent to completion of the Technical Assistance and prior to Project implementation.
- Identify any impacts of equipment use and future replacement, the use of sustainable sources of energy and the use of appropriate technologies and equipment for the particular environment.

Task 9. Developmental Impact Assessment (*in US*)

The Contractor shall provide a report on the developmental impacts of the Project. In particular, the Contractor shall provide estimates of the Project’s potential benefits in accordance with the guideline categories, indicators and measures presented in the table below.

Category	Indicator	Definition	Measure
Infrastructure Development and Efficiency Gains	Improved Output through Advanced Technology	New technologies introduced to a host country resulting in an increase of efficiency, capacity, or output/process improvement	\$ value or Y/N
	Improved Data Management and Security	Capacity added, security/redundancy gained or reliability improved through implementation of data centers, cloud computing systems, or other storage infrastructure	Y/N*
Human Capacity Building	Temporary Jobs Created	Temporary jobs created by project implementation	No. of individuals
	Permanent Jobs Created	Permanent jobs created by project implementation	No. of individuals
	Training and Skill Development	Training and Skill Development delivered during project implementation	No. of individuals
Promoting Effective Markets and Governance	Supporting Regulation that Promotes Effective Governance	Adoption of policy, regulations or laws that promote effective governance of a sector or market (including compliance with a bilateral or multilateral policy or trade agreement)	Y/N*
	Improved Investment Climate	Implementation/utilization of USTDA recommendations led to direct investment in host economy (including companies opening or expanding offices/operations)	Y/N*
	Promoting Competition	Implementation/utilization of USTDA recommendations led to opening of market to greater competition or introduction of standards (elimination or reduction of	Y/N*

		threat to foreign business interests and competitiveness)	
Promoting Safety and Security	Improved Safety and/or Security	Improved human safety and/or security resulting from project implementation	Y/N*

**For Measures with an asterisk, it may not be possible to establish a baseline metric, as these metrics are measured on a Yes/No basis. If a baseline is available, it should be provided.*

The analysis of potential benefits should be as concrete and detailed as possible. While specific attention should be paid to the immediate impact of the Project, the Contractor shall include, where appropriate, any additional developmental benefits of the Project, including spin-off and demonstration effects.

Task 10. List of Potential U.S.-Based Providers of Relevant Goods and Services (in US)

The Contractor shall identify possible U.S. sources of supply for the Project, to include a brief description of relevant products, solutions and/or services, as well as contact information for the party or parties responsible for marketing/sales in Colombia. Business name, point of contact, address, telephone, e-mail, and fax numbers shall be included for each such party.

Task 11. Final Report (in US)

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 I of Annex II of the Grant Agreement. The Contractor shall translate the Confidential version of the Final Report into Spanish.

A N N E X 6

U.S. INFORMATION FORM



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 [<i>To be completed by USTDA</i>]							
Activity Type [<i>To be completed by USTDA</i>]		Feasibility Study		Technical Assistance		Other (specify)	
Activity Title [<i>To be completed by USTDA</i>]							
Full Legal Name of U.S. Firm							
Business Address (street address only)							
Telephone		Fax		Website			
Year Established (include any predecessor company(s) and year(s) established, if appropriate). Please attach additional pages as necessary.							
Type of Ownership		Publicly Traded Company					
		Private Company					
		Other (please specify)					
Please provide a list of directors and principal officers as detailed in Attachment A. Attached? (Not Applicable for U.S. Publicly Traded Company)						Yes	
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(ies). 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.							
Identify any specific information which is needed from the Grantee before commencing negotiations.							

U.S. Firm may attach additional sheets, as necessary.

U.S. Firm's Representations

U.S. Firm shall certify to the following (or provide an 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. **(U.S. publicly traded companies need not include Articles of Incorporation or Good Standing Certificate)**
3. Neither the U.S. Firm nor any of its directors and 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 directors and 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		Signature	
Title			
Full Legal Name of U.S. Firm		Date	



ATTACHMENT B

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

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

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]	
--	--

Activity Title [To be completed by USTDA]	
---	--

Full Legal Name of U.S. Firm	
------------------------------	--

Full Legal Name of Shareholder	
--------------------------------	--

Business Address of Shareholder (street address only)	
---	--

Telephone number		Fax Number	
------------------	--	------------	--

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

Country of Shareholder’s Principal Place of Business	
--	--

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

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.	
---	--

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.	
--	--

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 [*To be completed by USTDA*]

Activity Title [*To be completed by USTDA*]

Full Legal Name of Prime Contractor U.S. Firm ("U.S. Firm")

Full Legal Name of Subcontractor

Business Address of Subcontractor (street address only)

Telephone Number

Fax Number

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

Subcontractor Point of Contact

Name

Surname

Given Name

Address

Telephone

Fax

Email

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: .

2. 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.
3. Neither the subcontractor nor any of its directors and 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.
4. Neither the subcontractor, nor any of its directors and principal officers, is presently indicted for, or otherwise criminally or civilly charged with, commission of any of the offenses enumerated in paragraph 2 above.
5. 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.
6. 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.
7. 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	<input type="text"/>	Signature	<input type="text"/>
Title	<input type="text"/>		
Full Legal Name of Subcontractor	<input type="text"/>	Date	<input type="text"/>