RFP 9165317 : TERMS OF REFERENCE – PROVIDE INTERNET CONNECTIVITY TO SCHOOLS (LONG TERM AGREEMENT)

PART I		
Purpose of Assignment	**Develop innovative, reliable, and affordable solutions to provide Internet connectivity to schools in Rwanda with sustainable financial models**	
Location of Assignment	Rwanda	
Duration of contract	12 months	
Start date	From: April 2021	To: March 2022
Justification for the service	The need for this service has emerged due to the accelerated implementation of Giga, a global UNICEF-ITU partnership which aims to connect every school to the internet, connect young people to information, opportunities and choice. Rwanda has been identified as one of 11 front-runner countries for the implementation of Giga which contributes to the wider "Digital Learning for Every Child" agenda. This service will provide technical support to provide comprehensive connectivity package to identified schools in Rwanda.	

Background

The Government of Rwanda is aiming to grow the digital economy and public services through universal broadband usage by 2024 and have put in place policies to support these efforts. Some of these policies include the following:

- **Overarching**: National Strategy for Transformation, Vision 2020, 2035 and 2050, and the Smart Rwanda Master Plan.

- **ICT Sector Strategy 2018-2024:** Establishes access to broadband connectivity as a basic utility and right for all Rwandans. Aims to increase access to high-speed internet through aggressive expansion of last mile and household connectivity as well as smart device penetration.

- **Digital Talent Policy:** Aims to increase digital literacy and skills across the Rwandan society in terms of quality and quantity. Initiatives embed digital training into everyday lives to mainstream ICT, build a digitally savvy workforce, and close the rural-urban skills gap

- **Education Sector Strategy 2018-2024:** Major goals include developing digital content aligned to the curriculum; increased ICT penetration and usage in education through smart classrooms (SMART classroom program); the development of ICT for education leadership and teacher training courses for teachers.

Nearly all Rwandan schools are within 30km of the fiber network and covered by mobile broadband, but to date, 1,796 schools (43%) have been left unconnected without internet due to existing market conditions, business models and applications of telecommunications technology. The lack of electricity and the limited access to smart devices further hampers the access to Internet in some locations. Considering this, the Government of Rwanda has been working with Giga, a global UNICEF-ITU initiative to connect every school to the Internet, to enable every young Rwandan to access information, opportunity, and choices.

Giga aims to expand connectivity through its focus on four main pillars of work: 1) **Map:** identifying the locations and connectivity status of every school and determining connectivity gaps; 2) **Connect:** supporting the expansion of safe, secure, reliable, fit-for-purpose infrastructure to support future digital development needs; 3) **Finance:** building affordable and sustainable country-specific models for finance. and; 4) **Empower:** deploying open source digital solutions and ensure young people and communities leverage connectivity to reach their full potential. The Giga approach to expanding school connectivity includes

consideration of the role that laws, policies and regulation have on the commercial feasibility of various connectivity approaches and options. Giga also considers how innovative uses of technology can help close connectivity gaps.

Giga Accelerate is an initiative, part of the Giga partnership, that explores the provision of broadband connectivity solutions to schools in order to fast-track governments' universal connectivity programmes by testing 1) use of high frequency data to monitor quality of connectivity service, 2) specific procurement models, 3) demand aggregation, 4) diverse technologies, 5) sustainable business models, and other approaches that will help leapfrog national connectivity programmes.

Objectives, Aim & Expected Results

The overall **objective** of this specific service provision is to support, through Giga Accelerate, the design, planning and establishment of innovative, reliable and affordable solutions to provide Internet connectivity to a minimum of 63 schools in Rwanda with continuous internet services, sustainable financial models, and related maintenance services through a long term agreement (LTA). The school locations, including latitude and longitude, are listed in **Annex A**. Depending on the technical viability and cost, Giga Accelerate may at a later date choose to expand the contract to include more schools.

To achieve this objective, Giga is interested in receiving proposals for solutions to deploy broadband connectivity for 50 pre-identified schools in Bugesera district in Eastern province and 13 schools in refugees'camps. Specifically, Giga is soliciting and testing innovative business models and applications of technology that may be more sustainable than current models and approaches. Ultimately the insights gained from this LTA will be used to inform efforts aimed at connecting all of Rwanda's schools to the internet. Considering that some schools don't have access to electricity, to devices such as computers, tablets, etc.., Giga is also interested in receiving proposals with packages that would allow schools that were previously left behind to get connected in this pilot.

Thus, the **aim** is to provide these schools with sustainable connectivity using innovative business models and uses of technology which could also be deployed elsewhere in Rwanda and the world. The connectivity operations supported by this project should establish business models that can sustain connectivity operations after the project has ended.

The **expected results** of this initial phase shall be to develop innovative and affordable solution to provide Internet connecting to a minimum 50 schools in Bugesera district in Eastern province and to 13 schools in refugees' camps with reliable and sustainable broadband internet service for 12 months, along with the deployment of a model for the school to monetize the connectivity. It is further expected that Giga will extract insights from the newly installed connectivity services and procurement process, that will inform further collaboration with the Government of Rwanda.

Scope of the Work

All proposals are required to address at least the **first eight mandatory points (1-8)** listed below. Offerors are encouraged to also address the **last two optional points (9-10)** in their proposals:

1.   Technical Approach and Business Model

These Terms of Reference leave the specific business model, technologies and implementation approach of the proposed solution up to the offerors. Proposals should include a combination of budget and approach which offers an innovation solution to deploy reliable and affordable broadband in consideration of the context of the selected schools along with approach to share real-time data on quality of service (i.e., data reports on quality of service with very high frequency updates). Innovative business models, real-time quality of service monitoring data and uses of technology are of particular interest.

2. Connectivity Speed and Coverage

Applicants are invited to propose a speed/price combination that will offer users the best quality and affordable internet speed possible. At a minimum, it must be dedicated 25Mbps per school with possibilities of bursting bandwidth across connected schools. Giga is, however, interested in receiving viable offers that far exceed the minimum, as it is anticipated that schools will use media-rich technology for digital learning. Internet should be available wirelessly across school campus, particularly in classrooms, laboratories and administrations blocks. **Annex A** details the connectivity needs for each school included in this solicitation.

3. Quality of Service

The offeror should include the proposed terms of their Service Level Agreement (SLA) that, upon specific approval of Giga, will be included in the contract. These proposed terms should include the following:

- The minimum level of performance proposed for each school listed in **Annex A**, not the average level to be achieved for all schools, the technical escalation matrix, and a commitment to working to address QoS issues related to internet services and deployed equipment, devices as well as necessary infrastructure such as electricity
- Selected quality of service parameters as KPIs that detail minimum bit rates for download and upload as listed in **Annex B** (where this is technologically feasible).
- The operation maintenance and technology refreshing approaches including relevant trainings that might be required in view of the solution package proposed

4. Sustainability

Proposals should specify the anticipated one-time cost and monthly cost per type of school per type of connectivity technology. Further, Giga recognizes the extent and character of internet use in education evolves over time. Accordingly, offerors should include a description of how their proposed technical solution could scale to meet increasing demand over time.

5. Executive Summary of their proposed Implementation Plan

Offerors should provide an executive summary of their proposed implementation plan with a detailed timeline for implementing their proposed solution, however, the service provision should be for a year. Giga will evaluate the feasibility and efficiency of proposed timelines as a part of its proposal review.

6. Budget and price list

The offeror is required to identify how the objective shall be met by specifying the approach and technology to be used for undertaking this assignment as well as provide a detailed budget which includes procurement of necessary telecommunication equipment, installation and testing of equipment, maintenance, monitoring and support throughout the LTA period. The offeror should provide a price list of equipment and services proposed in the solution which can be used to increase number of schools during the LTA period.

7. Support Services
Through the provision of reliable and continuous internet connectivity services, students and teachers within schools will be connected to information, opportunity and choice. To ensure that schools are successfully connected, a range of services which include installation of network hardware, provision of data connectivity services, servicing and monitoring, among others shall be provided by the solution provider.

8. Community Benefit

The offeror should describe how the connectivity being brought to schools can benefit the larger community around the school either through bringing better infrastructure, lowering costs, by providing public access to the internet after school hours or otherwise.

9. Community Connectivity (Optional element 1)

The offeror should describe an approach for the schools to monetize this connectivity, perhaps by providing services to the community. Please include the model, any additional equipment/infrastructure required, and any additional costs on top of the costs described in the Budget section.

10. Regulation (Optional element 2)

In addition to describing a proposed solution that can be implemented within the existing regulatory framework in Rwanda, the offeror may also provide an alternate option and solution that would be challenging to implement in the current environment, however, would be possible or more cost-effective with changes in the regulatory environment. Please provide information on the technology, the approach, the costs (before and after proposed regulatory changes), the benefits, and the regulatory or policy barriers that currently limit the implementation of this solution.

Description of the Assignment

- Provide unlimited data through continuous internet connectivity services, including backhauling and internal provisioning through access point(s) and servicing with a dedicated internet link to all schools that the solution provider will include in the proposal from the time the school has been connected.
- Provide wireless coverage and capacity to the entire school campus (particularly classrooms, laboratories and administration blocks), within each of the pre-identified 50 schools in Bugesera district and eventual extension across Rwanda. Note the deployed internet access points equipment should include a surge protector. Giga is interested to have innovative solutions to ensure clean and uninterruptible power supply to connectivity equipment.
- Provide central controlling of the installed network including filtering of content, based on the [ITU Guidelines on Child Online Protection](#) and the national policy on child online protection
- Conduct remote administration of and provide real time data for all the access points and networks including public provision of connectivity data points (connectivity status, upload and download speeds, package loss, availability, latency, etc.) through linkage with offeror's Operation Management Centers, Network Management Systems or other network monitoring systems via an API or other means.
- Provide required connectivity equipment and maintenance of the installed equipment for a minimum duration of 12 months.
- Provide a basic training on the installed connectivity solution to at least two teachers, including the head teacher and the ICT focal point teacher in each of the project schools.
- Provide support to all connected schools through a central point of contact to address technical issues within agreed SLAs. A dedicated account manager (business and technical) and escalation matrix is required. The support services start when a school is connected and continue throughout the life cycle of the long term agreement

Geographical area to be covered

Please note that a list of the pre-identified schools with their geo-coordinates is attached to this document (**Annex A)**, to allow solution providers to submit an adequately informed proposal, indicating the proposed choice for the connectivity solution to be deployed, including fibre, fixed wireless, satellite, etc.

Interested solution providers are encouraged to conduct site visit for detailed assessment of requirements

Any interested contractor is required to include information on their capability of providing connectivity services as per the specifications laid out above to each of the identified schools. They must propose solutions for at least 50% of the schools listed in **Annex A**). It is required to specify which technology (fibre, fixed wireless, VSAT, etc.) is proposed to provide internet connectivity for each of the identified project sites.

Offeror should provide indicative unit costs valid for one year to allow flexibility for extension of connectivity to more schools.

Deliverables, Timelines and Payment Schedule

Deliverables	Timeline	Schedule of Payment
Provision of the detailed implementation plan for the identified sites with timelines indicating when each identified school shall be connected	Part of the proposal but should be revised within 1 week of contract issuance	
Installation of the connectivity equipment, provision of IP addresses for each school, with functioning controlling, monitoring and servicing system in place. Site installation sign-off will have to include a network performance test. Training of focal points at schools	As per implementation plan	One-time payment for equipment, installation and training
Provision of connectivity services proposed as per the specifications for 12 months for each school based on high frequency monitoring data that is in line with the quality-of-service terms agreed upon in the service level agreement.	Monthly recurring cost for 12 months of subscription	To be paid on a monthly basis upon successful delivery of services, monitoring data and based on agreed upon rate for continuous connectivity services)
Provision of a strategy with requirements to scale the proposed solution to connect all schools along with its implementation plan	1 month prior to contract completion	One-time payment for the scaling up strategy and costed implementation plan

Reporting Requirements

The identified solution provider is expected to deliver SLA reports and other deliverables to Giga through the focal point and project coordinator in the MINICT, who will coordinate with the government team and UNICEF Rwanda country office for clearance, as proof of delivery of services and as a basis for any payments to be made as per the identified deliverables specified above.

The solution provider should report real-time data on quality of service through connectivity monitoring tool, which allows for the monitoring of connectivity status and speed for each site in line with SLA

Location and Duration

The project shall be implemented in the Republic of Rwanda, connecting the specified schools. The indicative starting date of this assignment is March-April 2021. A list of the 63 pre-identified schools to be connected with their geo-coordinates, and bandwidth requirements is in annex.

Qualification Requirements

The solution provider for this assignment should have a minimum of 5 years of experience in the provision of reliable and continuous internet connectivity services and be authorized to legally operate in the Republic of Rwanda.

The solution provider should own core and last mile infrastructure and willing to extent them to schools' locations. Giga will only pay for services provided while infrastructure cost should be borne by the service provider. Those without own infrastructure should have partnership(s) with infrastructure owners.

The lead project manager and the technical lead for the assignment shall have a minimum of 5 years of professional experience in managing complex connectivity projects and shall be supported by a team of experts with requisite and proven technical skills and experience to implement project of a similar scale.

Offerors should provide samples of their work as well as information on the implementation of similar projects in the reference section of the proposal. Offerors should also provide CV for team members.

Evaluation Process and Methods

- Proposals will be reviewed by a technical committee consisting of representatives from the Government of Rwanda, UNICEF and the ITU.
- The weight allocated between technical and price proposal will be 60/40 (technical/financial).
- Only technically qualified bidders who score the Minimum Technical Qualification point of 70% of the Technical Points (42 and above) will be considered for next stage of financial evaluation.
- Proposals will be assessed based on the below technical criteria and relative points indicated in the table.
- Selected proposals may be subject to further negotiations.

ITEM	TECHNICAL EVALUATION CRITERIA	MAX OBTAINABLE POINTS
1	**Overall Response** Overall Response, including the understanding of the assignment by the proposer and the alignment of the proposal submitted with the ToR.	10
1.1	• Completeness of response	5
1.2	• Overall concord between TOR/needs and proposal	5
2	**Company and Key Personnel**	15
2.1	• Range and depth of organizational experience with similar projects	5
2.2	• Samples of previous work	3
2.3	• Number of customers, size of projects, number of staff per project	2
2.4	• Key personnel: relevant experience and qualifications of the proposed team for the assignment supported by CVs	5
3	**Proposed Methodology and Approach:**	35
3.1	• Project implementation plan with timeframe	10
3.2	• Technologies used - compatibility with specifications mentioned in the ToRs with an emphasis on reliable and continuous connectivity services	5
3.3	• Project management, monitoring and quality assurance process	5
3.4	• Innovative approach	5
3.5	• Locally owned company	2
3.6	• Future capacity for scaling and expansion	5
3.7	• Approach for high frequency quality of service data sharing (specify mechanism and testing prior to contract)	3
TOTAL TECHNICAL SCORE		**60**
TOTAL FINANCIAL SCORE		**40**
SUMMARY OF TECHNICAL & FINANCIAL SCORE		**100**

Administrative Matters

Any interested bidders are requested to provide an all-inclusive cost in the financial proposal, including all costs required for the service including the purchasing and installation of hardware, connectivity services, maintenance, monitoring, servicing, and in-country travel. The solution provider is expected to use their own

office facilities and services to deliver on the agreed upon tasks and neither the Government of Rwanda, nor ITU nor UNICEF Rwanda will avail office space for the assignment.

Project Management

This project will be managed in partnership and close collaboration between the Government of Rwanda, UNICEF Rwanda Country Office and ITU Regional Office for Africa in Ethiopia together with the ITU Area Office for Central Africa in Cameroon, through the Giga focal point and project coordinator in the MINICT.

Bidding Process

This is a two staged procurement – vendors are expected to prepare technical and financial proposals in response to the Request for Proposal, the proposals will be submitted separately ; the proposals will be submitted to email : rwasupply@unicef.org before deadline of 19th March 2021 ; 5.00PM Kigali time ; clarification on this request can be emailed to emails: anyandwi@unicef.org, eatis@unicef.org, dmupenzi@unicef.org on or before 17th March 2021.