

## Terms of Reference

# Long Term Agreement (LTA) for SMS short-code service provider and Mobile Gateway Hosting Services

UNICEF Nepal Country Office (NCO)

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### 1. BACKGROUND AND JUSTIFICATION:

UNICEF Nepal is committed to continue engaging families, children and youth as key actors in their own development and exploring innovative approaches and technologies to address major child-related issues which, if successful, can be scaled up to the national level. A key part of this work is testing and applying innovative approaches and methodologies such as SMS and real-time monitoring methods in collaboration with key partners.

RapidPro is an open source software platform that allows organizations and governments to easily design, pilot, and scale services that connect directly with a mobile phone user using SMS text messages. RapidPro allows to manage data, complex workflows, and group coordination using a simple, interactive online dashboard – providing officials and community members alike with a tool to disseminate real-time information and feedback loops for the issues that matter most to them. RapidPro has been successfully implemented for real-time monitoring, two-way communication with communities, and citizen engagement initiatives.

Since 2012, UNICEF Nepal has been piloting and using mobile technologies based on RapidPro in support of multiple projects across sectors and in collaboration with key partners. This includes supporting the implementation of RapidPro to provide real-time monitoring of the Child Grant – one of five government-led social cash transfers targeting children under five years of age – which being supported as part of the RapidPro Scale-Up Global Initiative with technical and financial support from Innovation Unit in New York. In addition, interest has been shown from other sections including education, health and C4D in using RapidPro for testing and applying innovative approaches based on RapidPro to support engagement with youth and strengthening of existing monitoring systems.

For the Rapid Pro platform to function a local service provider is required to provide a toll-free SMS short code services that is functional across all major networks in Nepal. Note that UNICEF Nepal already owns two short-codes, which are currently being managed by the current contractor (Focus One). In order to ensure continuity of service, and maintain consistency in communication channels with UNICEF's partners and wider constituency in Nepal, it is preferable that the short code remains the one already exclusively allocated to UNICEF and partners.

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### 2. OBJECTIVE:

The purpose of this assignment is to bring on board a service provider who will i) host SMS communication systems, including transfer and hosting of toll-free short-code(s); and ii) mobile gateway hosting services required to operate RapidPro in Nepal, contributing to testing and applying innovative approaches and methodologies such as SMS and real-time monitoring methods in collaboration with key partners.

In order to ensure continuity of service, and maintain consistency in communication channels with UNICEF's partners and wider constituency in Nepal, it is preferable that the short code remains the one already exclusively allocated to UNICEF and partners.

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### **3. SCOPE OF WORK:**

The company shall:

- Transfer and activate existing short-codes for SMS services on behalf of UNICEF and activation across all major mobile networks in Nepal (NCEL, Nepal Telecom etc.);
- Operate new and existing toll-free short-codes for SMS, licensed to UNICEF and government partners or committed for exclusive use by UNICEF/government partners, and provide incoming and outgoing message services to all users on their respective mobile network in Nepal, with traffic being around 250k – 1 million messages per year on 2-3 short codes with the potential to scale up based on increased demand.
- Lead connection, integration and testing to UNICEF's RapidPro platform, in collaboration with UNICEF contracted company Nyaruka;
- Provision of system generated traffic reports for incoming and outgoing SMS services, which will be cross-checked with UNICEF databases for validation;
- Provide additional toll-free short code numbers from regular authorities at fixed rates, if required.

Key to UNICEF's goals of equity in access to services, all SMS's which are sent to the dedicated short code number shall not be charged to the end user (the short code number must be reverse billed to all users of the short code); UNICEF will meet the cost of the inbound and outbound SMS's or until an agreement on free SMS is signed with the above-mentioned telecom networks.

SMS traffic for the short code will be routed through the company's existing SMPP interconnections with the operators and forwarded to UNICEF RapidPro servers. The Company will then receive SMS from the designated UNICEF RapidPro servers and terminate these SMS to the mobile subscribers on all telecom networks. The HTTP protocol may still be used as an interface through which UNICEF may deliver SMS to mobile subscribers.

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### **4. DURATION:**

Applicants shall submit their price quotations in Nepalese Rupees (NPRs), valid for a minimum of 3 years. At the end of the selection process, UNICEF will sign a time bound long-term arrangement (LTA) with the selected aggregator for 1 year (12 months), extendable for a period of 1 (12 months) + 1 (12 months) more years at the end of the first year (1+1+1 years in total).

It is expected that the contract will begin on 1<sup>st</sup> July 2021.

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### **5. WORKING LOCATIONS:**

The contracted institution/firm will work remotely but will work closely with UNICEF Nepal and other national partners as needed to support implementation.

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## 6. DELIVERABLES:

Description of Deliverables		Estimated number of working days required	Target Delivery Date
1	Transfer and set up of <b>TWO (1)</b> toll-free short code (reverse-billed) and activation across all mobile networks in Nepal	Regular progress reports and final report including all Licensing documentation Proof of activation and reverse-billing functionality on mobile networks	4 weeks after signing of the contract  Within 5 business days of activation of short codes on all major networks, all set-up shall be completed.  Further support shall be ongoing and billed monthly.
2	Integration and testing of SMSC with RapidPro (mobile service engine/ application)	Integration of SMSC and RapidPro for designated short code  Daily and weekly updates through the integration process to ensure quick turn-around time on connection between SMSC and RapidPro for all designated short codes	Within 5 business days of Integration of SMSC and RapidPro, all set-up shall be completed.  Further support shall be ongoing and billed monthly.
3	Provide incoming and outgoing SMS services for toll-free short code licensed to UNICEF, relevant services and an appropriate billing system.	Monthly inbound and outbound traffic reports, including, successful vs. failed messages, up / downtime of services and gateways and failure response mechanisms.  Documentation of details of used technology and connectivity, any routing / hubs involved in the offered SMS services for all networks, outage / failure alert system specifications, SMS queuing information and access, guaranteed system uptime, failure and outage response mechanisms and alert systems (including description and alert mechanism for all involved hubs up to the networks).  Guaranteed and specified minimum messages / SMS throughput per second, technical background, setup, and proof of concept.	Monthly
4	A scalable bulk SMS pricing model shall be provided, included tiered pricing based on volumes of inbound/outbound SMS.	A tiered pricing model based on monthly volumes of outbound and inbound SMS.	Monthly
5	Provide technical support and trouble-shooting to maintain and manage the above-mentioned system	Functional system operation	As needed

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## 7. PROPOSED PAYMENT SCHEDULE:

Payment schedule for RapidPro assignment and for

### Payment #1: Deliverable 1 – End of Month 3

- One-time fee for transfer and activation of 2 short codes available to the name of UNICEF on all telecom networks and connection with UNICEF server, including all integration, testing and setup costs
- Monthly SMS gateway hosting services for inbound and outbound SMS to all telecom networks: SMS costs invoiced monthly, based on actual volume of SMS and scalable bulk SMS discounts, one blended cost per SMS for all incoming and outgoing traffic for all networks

### Payment #2: Deliverable 2 – End of Month 6

- Monthly SMS gateway hosting services for inbound and outbound SMS to all telecom networks: SMS costs invoiced monthly, based on actual volume of SMS and scalable bulk SMS discounts, one blended cost per SMS for all incoming and outgoing traffic for all networks

### Payment #3: Deliverable 3– End of Month 9

- Monthly SMS gateway hosting services for inbound and outbound SMS to all telecom networks: SMS costs invoiced monthly, based on actual volume of SMS and scalable bulk SMS discounts, one blended cost per SMS for all incoming and outgoing traffic for all networks

### Payment #4: Deliverable 4 – End of Month 12

- Monthly SMS gateway hosting services for inbound and outbound SMS to all telecom networks: SMS costs invoiced monthly, based on actual volume of SMS and scalable bulk SMS discounts, one blended cost per SMS for all incoming and outgoing traffic for all networks

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## 8. CONTRACT SUPERVISION:

The contract will be supervised by the Chief of Social Policy, Evidence and Evaluation (SPEE) section, with support of ICT Chief, of UNICEF Nepal Country Office. The firm has to manage the appropriate number of personnel and ICT systems required to fulfill the services of the contract.

### Further Considerations

Key to UNICEF's goals of equity in access to services, all SMS's which are sent to the dedicated short code number shall not be charged to the end user (the short code number must be toll-free to all users of the short code); UNICEF will meet the cost of the inbound and outbound SMS's.

The Company shall ensure that all documentation from Nepal Telecommunication Authority (NTA) which authorize the use of the short code are in the names of UNICEF and/or partners, such that UNICEF and/or partners has full rights regarding the use of the short code, including the right to instruct the telecom companies to redirect traffic destined for the short code to a different interconnection point other than Company's existing interconnections with the operators.

SMS traffic for the short code will be routed through the company's existing SMPP interconnections with the operators and forwarded to UNICEF servers (either in NEPAL or hosted the cloud as desired by UNICEF). The

Company will then receive SMS from the designated UNICEF's servers and terminate these SMS to the mobile subscribers on all telecom networks. The HTTP protocol may still be used as an interface through which UNICEF may deliver SMS to mobile subscribers.

The Company will provide system generated traffic reports for incoming and outgoing SMS services, which will be cross-checked with UNICEF databases for validation, and billed on a monthly basis.

The Company will specify the guaranteed minimum throughput capacity (MT) for each telecom network.

The Company shall provide access to incoming and outgoing SMS queues to and from the Companies' platform (for SMS queued from UNICEF short codes). The provider should accept message within 100 ms even at peak period. The round message delivery time from Rapidpro to the vendor and vice versa should not be more than 60 seconds.

The Company shall ensure the availability of local SMSC gateways as backup in case the main gateways are hosted in the cloud and are temporarily unavailable. Estimated SMS traffic is expected to be around 250k – 1 million messages per year (and growing).

All pricing proposed will apply to all UNICEF short codes handled by the Company (one blended cost, not one cost per short code or per network).

The Company shall specify the guaranteed uptime of its SMS gateway servers and report any faults to UNICEF without delay.

The Company shall provide alerts of when there are technical faults with telecoms once the fault has lasted more than 5 minutes. The Company will report any faults to UNICEF without delay.

The Company will manage relationships with the telephone networks to fix tech faults and billing discrepancies.

The Company is responsible for any unforeseen costs introduced by telephone networks. These are not to be passed along to UNICEF without express consent. The Company will be responsible for any new costs not captured in the contract. Any cost and tax introduced by the telecom operator should be mutual agreed.

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## 9. QUALIFICATIONS AND EXPERIENCE REQUIRED:

The service is expected to be provided by an institution as per the qualifications listed below:

- At least 5 years proven experience operating short-code-based services in Nepal
- At least 5 years proven experience providing high quality hosting, maintenance and support for requested SMS services.
- At least 5 years of software development experience on UNIX/LINUX platforms, real time SMS applications, and SMS content provision applications.
- The company must be based in Nepal
- Prior work experience providing services to the United Nations preferable

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## 10. APPLICATION AND EVALUATION PROCESS:

Each proposal will be assessed first on its technical merits and subsequently on its price. In making the final decision, UNICEF considers both technical and financial aspects. The Evaluation Team first reviews the technical aspects of the offer, followed by review of the financial offers of the technically compliant vendors. The proposal obtaining the highest overall score after adding the scores for the technical and financial proposals together, that offers the best value for money will be recommended for award of the contract.

A tiered pricing model based on monthly volumes of outbound and inbound SMS.

### **The Technical Proposal should include but not be limited to the following:**

- **Methodology**  
Detailed Methodology / approach to requirement detailing how to meet or exceed UNICEF requirements for this assignment
- **Company Profile**  
*Ensure to include information related to the experience of the company as required and outlined in item 9 of this document.*
- **References**  
Details of similar assignments undertaken in last *five* years including the following information:
  - o Title of Project
  - o Year and duration of project
  - o Scope of Project
  - o Outcome of Project
  - o Reference / Contact persons
- **Work Plan**  
Proposed work plan showing detailed sequence and timeline for each activity and man days of each proposed team member
- **Team Composition**  
Title and role of each team member. It is recommended to include at least one international expert to with experienced in social protection or cash transfer coverage evaluation to ensure quality and rigor.
- **CV's**  
CV of each team member (including qualifications and experience)  
Ensure to include information related to the qualifications and experience of each proposed team member as required and outlined in item 9 of this document.
- Any project dependencies or assumptions

### **The Financial Proposal should include but not be limited to the following:**

Bidders are expected to submit a lump sum financial proposal to complete the entire assignment based on the terms of reference. The lump sum should be broken down to show the detail for the following:

- **Resource costs**  
Daily rate multiplied by number of days

- **Conference or workshop costs (if any)**  
Indicate nature and breakdown if possible
- **Travel Costs**  
All travel costs should be included as a lump sum fixed cost.  
For all travel costs, UNICEF will pay as per the lump sum fixed costs provided in the proposal.  
A breakdown of the lump sum travel costs should be provided in the financial proposal.
- **Any other costs (if any)**  
Indicate nature and breakdown
- **Copy of the company registration**
- **Recent Financial Audit Report**  
Report should have been carried out in the past 2 years and be certified by a reputable audit organization.

Bidders are required to estimate travel costs in the Financial Proposal. Please note that i) travel costs shall be calculated based on economy class fare regardless of the length of travel and ii) costs for accommodation, meals and incidentals shall not exceed the applicable daily subsistence allowance (DSA) rates, as propagated by the International Civil Service Commission (ICSC). Details can be found at <http://icsc.un.org>.

## 11. EVALUATION WEIGHTING CRITERIA:

Cumulative Analysis will be used to evaluate and award proposals. The evaluation criteria associated with this TOR is split between technical and financial as follows: Please refer to Annex A for more detail information.

70 % Technical  
 30 % Financial  
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 100 % Total

Technical Criteria	Description	Maximum Points	Sub Points
<b>Overall Response and understanding of the assignment</b>	Demonstrated understanding of scope and objectives of the assignment. Completeness and quality of the response based on TOR.	10	5
	A firm with experience developing and implementing ICT4D projects with the capacity to operate in Nepal including workplan to achieve key deliverables.		5
<b>Company Profile</b>	Experience in providing high quality hosting, maintenance and support for requested SMS services, real time SMS applications, and SMS content provision applications for surveys in Nepal in support of government, UN, or CSO programs.	20	10
	Experience of working with Mobile Network Operators in similar projects in Nepal		10
<b>Methodology</b>	Provide detailed plan as per TOR outlining scope of activities to successfully design and deploy SMS services, real time SMS applications, and SMS content provision applications for communications with end users.	20	5

	Technical specifications needed for infrastructural requirements, data center, disaster recovery center, network components etc.		5
	Service level agreement with details on their support structure, response time, problem resolutions & escalation methods etc.		5
	Quality of proposed timeline and detailed implementation plan, i.e. how the bidder will undertake each task and maintain schedules.		5
<b>Client References</b>	List and value of projects performed for the last 3 years with similar nature and complexity, plus client's contact details who may be contacted for further information on those contracts. A minimum number of 3 contracts, implemented over the past 3 years, of a similar nature and complexity must be executed by the contractor (to comply with this requirement, work cited should be at least 70 percent complete);	10	10
<b>Team composition, CV's and experience</b>	The team should include at least one project manager responsible for project management and implementation in English. Between the team members there should be demonstrated capacity to assist in developing messages and polls in English and local language(s). Title and role of each team member. Detailed CVs of support team and management team indicating education/training, overall experience, particular exposure and experience in relation to this assignment or of similar scope and complexity,	10	10
<b>Total</b>		<b>70</b>	<b>70</b>

**Distribution of Scoring**

<b>Technical</b>	70
<b>Financial</b>	30
<b>Total</b>	100

**Note: Minimum Score = 70%, therefore minimum score = 49**