INVITATION TO BID

Long term agreement for procurement of Temperature Loggers for Vaccine Cold Chain Monitoring in India

ITB No.: ITB/021/IND-2021

Project: Health System Strengthening – Multiple States

Country: India

Issued on: 20 February 2021

Contents

SECTION 1. LETTER OF INVITATION

Subject: Long term agreement for procurement of Temperature Loggers for Vaccine Cold Chain Monitoring in India

The United Nations Development Programme (UNDP) hereby invites you to submit a Bid to this Invitation to   Bid (ITB) for the above-referenced subject.

This ITB includes the following documents and the General Terms and Conditions of Contract which is inserted in the Bid Data Sheet:

> Section 1: This Letter of Invitation
> Section 2: Instruction to Bidders
> Section 3: Bid Data Sheet (BDS)
> Section 4: Evaluation Criteria
> Section 5: Terms of Reference and Schedule of Requirements
> Section 5(a): Other related requirements
> Section 5(b): Technical Specifications
> Section 5(c): Warranty Terms and Conditions
> Section 5(d): Laboratory Testing protocol
> Section 5(e): eVIN Temperature Data Service API configuration (attached as separate document)
> Section 6: Returnable Bidding Forms
> - o Form A: Bid Submission Form
> - o Form B: Bidder Information Form
> - o Form C: Joint Venture/Consortium/Association Information Form
> - o Form D: Qualification Form
> - o Form E: Format of Technical Bid
> - o Form F: Price Schedule
> - o Form G: Form of Bid/Proposal Security
> - o Form H: Form of Performance Security
> - o Form I: Form of Bid Security against advance payment
> - o Form J: Consignee Acceptance Certificate

If you are interested in submitting a Bid in response to this ITB, please prepare your Bid in accordance with the requirements and procedure as set out in this ITB and submit it by the Deadline for Submission of Bids set out in Bid Data Sheet.

Please acknowledge receipt of this ITB by sending an email to vijay.thapliyal@undp.org, indicating whether you intend to submit a Bid or otherwise. You may also utilize the "Accept Invitation" function in eTendering system, where applicable. This will enable you to receive amendments or updates to the ITB. Should you require further clarifications, kindly communicate with the contact person/s identified in the attached Data Sheet as the focal point for queries on this ITB.

UNDP looks forward to receiving your Bid and thank you in advance for your interest in UNDP procurement opportunities.

Issued by   Approved by:

_____   _____

Name: [Vijay K. Thapliyal]   Name: [Arun Arumughan]

Title: [Procurement Assistant]   Title: [Procurement Analyst]

Date: **February 20, 2021**   Date: **February 20, 2021**

SECTION 2. INSTRUCTION TO BIDDERS

GENERAL PROVISIONS	
1. Introduction	1.1 Bidders shall adhere to all the requirements of this ITB, including any amendments made in writing by UNDP. This ITB is conducted in accordance with the UNDP Programme and Operations Policies and Procedures (POPP) on Contracts and Procurement which can be accessed at https://popp.undp.org/SitePages/POPPBSUnit.aspx?TermID=254a9f96-b883-476a-8ef8-e81f93a2b38d
	1.2 Any Bid submitted will be regarded as an offer by the Bidder and does not constitute or imply the acceptance of the Bid by UNDP. UNDP is under no obligation to award a contract to any Bidder as a result of this ITB.
	1.3 UNDP reserves the right to cancel the procurement process at any stage without any liability of any kind for UNDP, upon notice to the bidders or publication of cancellation notice on UNDP website.
	1.4 As part of the bid, it is desired that the Bidder registers at the United Nations Global Marketplace (UNGM) website (www.ungm.org). The Bidder may still submit a bid even if not registered with the UNGM. However, if the Bidder is selected for contract award, the Bidder must register on the UNGM prior to contract signature.
2. Fraud & Corruption, Gifts and Hospitality	2.1 UNDP strictly enforces a policy of zero tolerance on proscribed practices, including fraud, corruption, collusion, unethical or unprofessional practices, and obstruction of UNDP vendors and requires all bidders/vendors observe the highest standard of ethics during the procurement process and contract implementation. UNDP's Anti-Fraud Policy can be found at http://www.undp.org/content/undp/en/home/operations/accountability/audit/office_of_audit_andinvestigation.html#anti
	2.2 Bidders/vendors shall not offer gifts or hospitality of any kind to UNDP staff members including recreational trips to sporting or cultural events, theme parks or offers of holidays, transportation, or invitations to extravagant lunches or dinners.
	2.3 In pursuance of this policy, UNDP: (a) Shall reject a bid if it determines that the selected bidder has engaged in any corrupt or fraudulent practices in competing for the contract in question; (b) Shall declare a vendor ineligible, either indefinitely or for a stated period, to be awarded a contract if at any time it determines that the vendor has engaged in any corrupt or fraudulent practices in competing for, or in executing a UNDP contract.
	2.4 All Bidders must adhere to the UN Supplier Code of Conduct, which may be found at http://www.un.org/depts/ptd/pdf/conduct_english.pdf
3. Eligibility	3.1 A vendor should not be suspended, debarred, or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization. Vendors are therefore required to disclose to UNDP whether they are subject to any sanction or temporary suspension imposed by these organizations.
	3.2 It is the Bidder's responsibility to ensure that its employees, joint venture

		members, sub-contractors, service providers, suppliers and/or their employees meet the eligibility requirements as established by UNDP.
4. Conflict of Interests	4.1	Bidders must strictly avoid conflicts with other assignments or their own interests, and act without consideration for future work. Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this solicitation process, if they:
		a) Are or have been associated in the past, with a firm or any of its affiliates which have been engaged by UNDP to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the goods and services in this selection process; b) Were involved in the preparation and/or design of the programme/project related to the goods and/or services requested under this ITB; or c) Are found to be in conflict for any other reason, as may be established by, or at the discretion of UNDP.
	4.2	In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to UNDP, and seek UNDP's confirmation on whether or not such conflict exists.
	4.3	Similarly, the Bidders must disclose in their Bid their knowledge of the following:
		a) If the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel who are family members of UNDP staff involved in the procurement functions and/or the Government of the country or any Implementing Partner receiving goods and/or services under this ITB; and b) All other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices. Failure to disclose such an information may result in the rejection of the Bid or Bids affected by the non-disclosure.
	4.4	The eligibility of Bidders that are wholly or partly owned by the Government shall be subject to UNDP's further evaluation and review of various factors such as being registered, operated and managed as an independent business entity, the extent of Government ownership/share, receipt of subsidies, mandate and access to information in relation to this ITB, among others. Conditions that may lead to undue advantage against other Bidders may result in the eventual rejection of the Bid.
B. PREPARATION OF BIDS		
5. General Considerations	5.1	In preparing the Bid, the Bidder is expected to examine the ITB in detail. Material deficiencies in providing the information requested in the ITB may result in rejection of the Bid.
	5.2	The Bidder will not be permitted to take advantage of any errors or omissions in the ITB. Should such errors or omissions be discovered, the Bidder must notify the UNDP accordingly.
6. Cost of Preparation of Bid	6.1	The Bidder shall bear all costs related to the preparation and/or submission of the Bid, regardless of whether its Bid is selected or not. UNDP shall not be responsible or liable for those costs, regardless of the conduct or outcome of

		the procurement process.
7. Language	7.1	The Bid, as well as any and all related correspondence exchanged by the Bidder and UNDP, shall be written in the language (s) specified in the BDS.
8. Documents Comprising the Bid	8.1	The Bid shall comprise of the following documents and related forms which details are provided in the BDS: a) Documents Establishing the Eligibility and Qualifications of the Bidder; b) Technical Bid; c) Price Schedule; d) Bid Security, if required by BDS; e) Any attachments and/or appendices to the Bid.
9. Documents Establishing the Eligibility and Qualifications of the Bidder	9.1	The Bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the Forms provided under Section 6 and providing documents required in those forms. In order to award a contract to a Bidder, its qualifications must be documented to UNDP's satisfaction.
10. Technical Bid Format and Content	10.1	The Bidder is required to submit a Technical Bid using the Standard Forms and templates provided in Section 6 of the ITB.
	10.2	Samples of items, when required as per Section 5, shall be provided within the time specified and unless otherwise specified by the Purchaser, at no expense to the UNDP. If not destroyed by testing, samples will be returned at Bidder's request and expense, unless otherwise specified.
	10.3	When applicable and required as per Section 5, the Bidder shall describe the necessary training programme available for the maintenance and operation of the equipment offered as well as the cost to the UNDP. Unless otherwise specified, such training as well as training materials shall be provided in the language of the Bid as specified in the BDS.
	10.4	When applicable and required as per Section 5, the Bidder shall certify the availability of spare parts for a period of at least five (5) years from date of delivery, or as otherwise specified in this ITB.
11. Price Schedule	11.1	The Price Schedule shall be prepared using the Form provided in Section 6 of the ITB and taking into consideration the requirements in the ITB.
	11.2	Any requirement described in the Technical Bid but not priced in the Price Schedule, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.
12. Bid Security	12.1	A Bid Security, if required by BDS, shall be provided in the amount and form indicated in the BDS. The Bid Security shall be valid for a minimum of thirty (30) days after the final date of validity of the Bid.
	12.2	The Bid Security shall be included along with the Bid. If Bid Security is required by the ITB but is not found in the Bid, the offer shall be rejected.
	12.3	If the Bid Security amount or its validity period is found to be less than what is required by UNDP, UNDP shall reject the Bid.
	12.4	In the event an electronic submission is allowed in the BDS, Bidders shall include a copy of the Bid Security in their bid and the original of the Bid Security must

		be sent via courier or hand delivery as per the instructions in BDS.
	12.5	The Bid Security may be forfeited by UNDP, and the Bid rejected, in the event of any, or combination, of the following conditions:

		a) If the Bidder withdraws its offer during the period of the Bid Validity specified in the BDS, or;
		 b) In the event the successful Bidder fails:
		     i. to sign the Contract after UNDP has issued an award; or
		     ii. to furnish the Performance Security, insurances, or other documents that UNDP may require as a condition precedent to the effectivity of the contract that may be awarded to the Bidder.

13. Currencies	13.1	All prices shall be quoted in the currency or currencies indicated in the BDS. Where Bids are quoted in different currencies, for the purposes of comparison of all Bids:
		a) UNDP will convert the currency quoted in the Bid into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the last day of submission of Bids; and
		b) In the event that UNDP selects a Bid for award that is quoted in a currency different from the preferred currency in the BDS, UNDP shall reserve the right to award the contract in the currency of UNDP's preference, using the conversion method specified above.
14. Joint Venture, Consortium or Association	14.1	If the Bidder is a group of legal entities that will form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they shall confirm in their Bid that : (i) they have designated one party to act as a lead entity, duly vested with authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly notarized Agreement among the legal entities, and submitted with the Bid; and (ii) if they are awarded the contract, the contract shall be entered into, by and between UNDP and the designated lead entity, who shall be acting for and on behalf of all the member entities comprising the joint venture.
	14.2	After the Deadline for Submission of Bid, the lead entity identified to represent the JV, Consortium or Association shall not be altered without the prior written consent of UNDP.
	14.3	The lead entity and the member entities of the JV, Consortium or Association shall abide by the provisions of Clause 15 herein in respect of submitting only one Bid.
	14.4	The description of the organization of the JV, Consortium or Association must clearly define the expected role of each of the entities in the joint venture in delivering the requirements of the ITB, both in the Bid and the JV, Consortium or Association Agreement. All entities that comprise the JV, Consortium or Association shall be subject to the eligibility and qualification assessment by UNDP.
	14.5	A JV, Consortium or Association in presenting its track record and experience should clearly differentiate between:
		a) Those that were undertaken together by the JV, Consortium or Association; and

	b) Those that were undertaken by the individual entities of the JV, Consortium or Association.
	14.6 Previous contracts completed by individual experts working privately but who are permanently or were temporarily associated with any of the member firms cannot be claimed as the experience of the JV, Consortium or Association or those of its members, but should only be claimed by the individual experts themselves in their presentation of their individual credentials
	14.7 JV, Consortium or Associations are encouraged for high value, multi-sectoral requirements when the spectrum of expertise and resources required may not be available within one firm.
15. Only One Bid	15.1 The Bidder (including the individual members of any Joint Venture) shall submit only one Bid, either in its own name or as part of a Joint Venture.
	15.2 Bids submitted by two (2) or more Bidders shall all be rejected if they are found to have any of the following: a) they have at least one controlling partner, director or shareholder in common; or b) any one of them receive or have received any direct or indirect subsidy from the other/s; or c) they have the same legal representative for purposes of this ITB; or d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about, or influence on the Bid of another Bidder regarding this ITB process; e) they are subcontractors to each other's Bid, or a subcontractor to one Bid also submits another Bid under its name as lead Bidder; or some key personnel proposed to be in the team of one Bidder participates in more than one Bid received for this ITB process. This condition relating to the personnel, does not apply to subcontractors being included in more than one Bid.
16. Bid Validity Period	16.1 Bids shall remain valid for the period specified in the BDS, commencing on the Deadline for Submission of Bids. A Bid valid for a shorter period may be rejected by UNDP and rendered non-responsive.
	16.2 During the Bid validity period, the Bidder shall maintain its original Bid without any change, including the availability of the Key Personnel, the proposed rates and the total price.
17. Extension of Bid Validity Period	17.1 In exceptional circumstances, prior to the expiration of the Bid validity period, UNDP may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing, and shall be considered integral to the Bid.
	17.2 If the Bidder agrees to extend the validity of its Bid, it shall be done without any change to the original Bid.
	17.3 The Bidder has the right to refuse to extend the validity of its Bid, in which case, the Bid shall not be further evaluated.
18. Clarification of Bid (from the Bidders)	18.1 Bidders may request clarifications on any of the ITB documents no later than the date indicated in the BDS. Any request for clarification must be sent in writing in the manner indicated in the BDS. If inquiries are sent other than specified channel, even if they are sent to a UNDP staff member, UNDP shall have no

		obligation to respond or confirm that the query was officially received.
	18.2	UNDP will provide the responses to clarifications through the method specified in the BDS.
	18.3	UNDP shall endeavour to provide responses to clarifications in an expeditious manner, but any delay in such response shall not cause an obligation on the part of UNDP to extend the submission date of the Bids, unless UNDP deems that such an extension is justified and necessary.
19. Amendment of Bids	19.1	At any time prior to the deadline of Bid submission, UNDP may for any reason, such as in response to a clarification requested by a Bidder, modify the ITB in the form of an amendment to the ITB. Amendments will be made available to all prospective bidders.
	19.2	If the amendment is substantial, UNDP may extend the Deadline for submission of Bid to give the Bidders reasonable time to incorporate the amendment into their Bids.
20. Alternative Bids	20.1	Unless otherwise specified in the BDS, alternative Bids shall not be considered. If submission of alternative Bid is allowed by BDS, a Bidder may submit an alternative Bid, but only if it also submits a Bid conforming to the ITB requirements. Where the conditions for its acceptance are met, or justifications are clearly established, UNDP reserves the right to award a contract based on an alternative Bid.
	20.2	If multiple/alternative bids are being submitted, they must be clearly marked as "Main Bid" and "Alternative Bid"
21. Pre-Bid Conference	21.1	When appropriate, a pre-bid conference will be conducted at the date, time and location specified in the BDS. All Bidders are encouraged to attend. Non-attendance, however, shall not result in disqualification of an interested Bidder. Minutes of the Bidder's conference will be disseminated on the procurement website and shared by email or on the e-Tendering platform as specified in the BDS. No verbal statement made during the conference shall modify the terms and conditions of the ITB, unless specifically incorporated in the Minutes of the Bidder's Conference or issued/posted as an amendment to ITB.
C. SUBMISSION AND OPENING OF BIDS		
22. Submission	22.1	The Bidder shall submit a duly signed and complete Bid comprising the documents and forms in accordance with requirements in the BDS. The Price Schedule shall be submitted together with the Technical Bid. Bid can be delivered either personally, by courier, or by electronic method of transmission as specified in the BDS.
	22.2	The Bid shall be signed by the Bidder or person(s) duly authorized to commit the Bidder. The authorization shall be communicated through a document evidencing such authorization issued by the legal representative of the bidding entity, or a Power of Attorney, accompanying the Bid.
	22.3	Bidders must be aware that the mere act of submission of a Bid, in and of itself, implies that the Bidder fully accepts the UNDP General Contract Terms and Conditions.

Hard copy (manual) submission	22.4	Hard copy (manual) submission by courier or hand delivery allowed or specified in the BDS shall be governed as follows:
		a) The signed Bid shall be marked "Original", and its copies marked "Copy" as appropriate. The number of copies is indicated in the BDS. All copies shall be made from the signed original only. If there are discrepancies between the original and the copies, the original shall prevail.

		(b) The Technical Bid and Price Schedule must be sealed and submitted together in an envelope, which shall:
		  i. Bear the name of the Bidder;
		  ii. Be addressed to UNDP as specified in the BDS; and
		  iii. Bear a warning not to open before the time and date for Bid opening as specified in the BDS.

		If the envelope with the Bid is not sealed and marked as required, UNDP shall assume no responsibility for the misplacement, loss, or premature opening of the Bid.
Email and eTendering submissions	22.5	Electronic submission through email or eTendering, if allowed as specified in the BDS, shall be governed as follows:
		a) Electronic files that form part of the Bid must be in accordance with the format and requirements indicated in BDS;
		b) Documents which are required to be in original form (e.g. Bid Security, etc.) must be sent via courier or hand delivered as per the instructions in BDS.
	22.6	Detailed instructions on how to submit, modify or cancel a bid in the eTendering system are provided in the eTendering system Bidder User Guide and Instructional videos available on this link: http://www.undp.org/content/undp/en/home/operations/procurement/business/procurement-notices/resources/
23. Deadline for Submission of Bids and Late Bids	23.1	Complete Bids must be received by UNDP in the manner, and no later than the date and time, specified in the BDS. UNDP shall only recognise the actual date and time that the bid was received by UNDP
	23.2	UNDP shall not consider any Bid that is received after the deadline for the submission of Bids.
24. Withdrawal, Substitution, and Modification of Bids	24.1	A Bidder may withdraw, substitute or modify its Bid after it has been submitted at any time prior to the deadline for submission.
	24.2	Manual and Email submissions: A bidder may withdraw, substitute or modify its Bid by sending a written notice to UNDP, duly signed by an authorized representative, and shall include a copy of the authorization (or a Power of Attorney). The corresponding substitution or modification of the Bid, if any, must accompany the respective written notice. All notices must be submitted in the same manner as specified for submission of Bids, by clearly marking them as "WITHDRAWAL" "SUBSTITUTION," or "MODIFICATION"
	24.3	eTendering: A Bidder may withdraw, substitute or modify its Bid by Cancelling, Editing, and re-submitting the Bid directly in the system. It is the responsibility of the Bidder to properly follow the system instructions, duly edit and submit a substitution or modification of the Bid as needed. Detailed instructions on how to cancel or modify a Bid directly in the system are provided in the Bidder User

		Guide and Instructional videos.
	24.4	Bids requested to be withdrawn shall be returned unopened to the Bidders (only for manual submissions), except if the bid is withdrawn after the bid has been opened.
25. Bid Opening	25.1	UNDP will open the Bid in the presence of an ad-hoc committee formed by UNDP of at least two (2) members.
	25.2	The Bidders' names, modifications, withdrawals, the condition of the envelope labels/seals, the number of folders/files and all other such other details as UNDP may consider appropriate, will be announced at the opening. No Bid shall be rejected at the opening stage, except for late submissions, in which case, the Bid shall be returned unopened to the Bidders.
	25.3	In the case of e-Tendering submission, bidders will receive an automatic notification once the Bid is opened.
D. EVALUATION OF BIDS		
26. Confidentiality	26.1	Information relating to the examination, evaluation, and comparison of Bids, and the recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process, even after publication of the contract award.
	26.2	Any effort by a Bidder or anyone on behalf of the Bidder to influence UNDP in the examination, evaluation and comparison of the Bids or contract award decisions may, at UNDP's decision, result in the rejection of its Bid and may subsequently be subject to the application of prevailing UNDP's vendor sanctions procedures.
27. Evaluation of Bids	27.1	UNDP will conduct the evaluation solely on the basis of the Bids received.
	27.2	Evaluation of Bids shall be undertaken in the following steps: a) Preliminary Examination including Eligibility b) Arithmetical check and ranking of bidders who passed preliminary examination by price. c) Qualification assessment (if pre-qualification was not done) a) Evaluation of Technical Bids b) Evaluation of prices Detailed evaluation will be focussed on the 3 - 5 lowest priced bids. Further higher priced bids shall be added for evaluation if necessary
28. Preliminary Examination	28.1	UNDP shall examine the Bids to determine whether they are complete with respect to minimum documentary requirements, whether the documents have been properly signed, and whether the Bids are generally in order, among other indicators that may be used at this stage. UNDP reserves the right to reject any Bid at this stage.
29. Evaluation of Eligibility and Qualification	29.1	Eligibility and Qualification of the Bidder will be evaluated against the Minimum Eligibility/Qualification requirements specified in the Section 4 (Evaluation Criteria).
	29.2	In general terms, vendors that meet the following criteria may be considered qualified: a) They are not included in the UN Security Council 1267/1989 Committee's list of terrorists and terrorist financiers, and in UNDP's ineligible vendors'

		list;
		b) They have a good financial standing and have access to adequate financial resources to perform the contract and all existing commercial commitments,
		c) They have the necessary similar experience, technical expertise, production capacity, quality certifications, quality assurance procedures and other resources applicable to the supply of goods and/or services required;
		d) They are able to comply fully with the UNDP General Terms and Conditions of Contract;
		e) They do not have a consistent history of court/arbitral award decisions against the Bidder; and
		f) They have a record of timely and satisfactory performance with their clients.
30. Evaluation of Technical Bid and prices	30.1	The evaluation team shall review and evaluate the Technical Bids on the basis of their responsiveness to the Schedule of Requirements and Technical Specifications and other documentation provided, applying the procedure indicated in the BDS and other ITB documents. When necessary, and if stated in the BDS, UNDP may invite technically responsive bidders for a presentation related to their technical Bids. The conditions for the presentation shall be provided in the bid document where required.
31. Due diligence	31.1	UNDP reserves the right to undertake a due diligence exercise, aimed at determining to its satisfaction, the validity of the information provided by the Bidder. Such exercise shall be fully documented and may include, but need not be limited to, all or any combination of the following:
		a) Verification of accuracy, correctness and authenticity of information provided by the Bidder;
		b) Validation of extent of compliance to the ITB requirements and evaluation criteria based on what has so far been found by the evaluation team;
		c) Inquiry and reference checking with Government entities with jurisdiction on the Bidder, or with previous clients, or any other entity that may have done business with the Bidder;
		d) Inquiry and reference checking with previous clients on the performance on on-going or completed contracts, including physical inspections of previous works, as deemed necessary;
		e) Physical inspection of the Bidder's offices, branches or other places where business transpires, with or without notice to the Bidder;
		f) Other means that UNDP may deem appropriate, at any stage within the selection process, prior to awarding the contract.
32. Clarification of Bids	32.1	To assist in the examination, evaluation and comparison of Bids, UNDP may, at its discretion, request any Bidder for a clarification of its Bid.
	32.2	UNDP's request for clarification and the response shall be in writing and no change in the prices or substance of the Bid shall be sought, offered, or permitted, except to provide clarification, and confirm the correction of any arithmetic errors discovered by UNDP in the evaluation of the Bids, in accordance with the ITB.
	32.3	Any unsolicited clarification submitted by a Bidder in respect to its Bid, which is not a response to a request by UNDP, shall not be considered during the review and evaluation of the Bids.
33. Responsiveness of Bid	33.1	UNDP's determination of a Bid's responsiveness will be based on the contents of the bid itself. A substantially responsive Bid is one that conforms to all the

		terms, conditions, specifications and other requirements of the ITB without material deviation, reservation, or omission.
	33.2	If a bid is not substantially responsive, it shall be rejected by UNDP and may not subsequently be made responsive by the Bidder by correction of the material deviation, reservation, or omission.
34. Nonconformities, Reparable Errors and Omissions	34.1	Provided that a Bid is substantially responsive, UNDP may waive any non-conformities or omissions in the Bid that, in the opinion of UNDP, do not constitute a material deviation.
	34.2	UNDP may request the Bidder to submit the necessary information or documentation, within a reasonable period, to rectify nonmaterial nonconformities or omissions in the Bid related to documentation requirements. Such omission shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
	34.3	For the bids that have passed the preliminary examination, UNDP shall check and correct arithmetical errors as follows:
		a) if there is a discrepancy between the unit price and the line item total that is obtained by multiplying the unit price by the quantity, the unit price shall prevail and the line item total shall be corrected, unless in the opinion of UNDP there is an obvious misplacement of the decimal point in the unit price; in which case, the line item total as quoted shall govern and the unit price shall be corrected;
		b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
		c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail.
	34.4	If the Bidder does not accept the correction of errors made by UNDP, its Bid shall be rejected.
E. AWARD OF CONTRACT		
35. Right to Accept, Reject, Any or All Bids	35.1	UNDP reserves the right to accept or reject any bid, to render any or all of the bids as non-responsive, and to reject all Bids at any time prior to award of contract, without incurring any liability, or obligation to inform the affected Bidder(s) of the grounds for UNDP's action. UNDP shall not be obliged to award the contract to the lowest priced offer.
36. Award Criteria	36.1	Prior to expiration of the period of Bid validity, UNDP shall award the contract to the qualified and eligible Bidder that is found to be responsive to the requirements of the Schedule of Requirements and Technical Specification, and has offered the lowest price.
37. Debriefing	37.1	In the event that a Bidder is unsuccessful, the Bidder may request for a debriefing from UNDP. The purpose of the debriefing is to discuss the strengths and weaknesses of the Bidder's submission, in order to assist the Bidder in improving its future Bids for UNDP procurement opportunities. The content of other Bids and how they compare to the Bidder's submission shall not be discussed.

38. Right to Vary Requirements at the Time of Award	38.1	At the time of award of Contract, UNDP reserves the right to vary the quantity of goods and/or services, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.
39. Contract Signature	39.1	Within fifteen (15) days from the date of receipt of the Contract, the successful Bidder shall sign and date the Contract and return it to UNDP. Failure to do so may constitute sufficient grounds for the annulment of the award, and forfeiture of the Bid Security, if any, and on which event, UNDP may award the Contract to the Second highest rated or call for new Bids.
40. Contract Type and General Terms and Conditions	40.1	The types of Contract to be signed and the applicable UNDP Contract General Terms and Conditions, as specified in BDS, can be accessed at http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
41. Performance Security	41.1	A performance security, if required in the BDS, shall be provided in the amount specified in BDS and form available at https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Solicitation_Performance%20Guarantee%20Form.docx&action=default within a maximum of fifteen (15) days of the contract signature by both parties. Where a performance security is required, the receipt of the performance security by UNDP shall be a condition for rendering the contract effective.
42. Bank Guarantee for Advanced Payment	42.1	Except when the interests of UNDP so require, it is UNDP's standard practice to not make advance payment(s) (i.e., payments without having received any outputs). If an advance payment is allowed as per the BDS, and exceeds 20% of the total contract price, or USD 30,000, whichever is less, the Bidder shall submit a Bank Guarantee in the full amount of the advance payment in the form available at https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PSU_Contract%20Management%20Payment%20and%20Taxes_Advanced%20Payment%20Guarantee%20Form.docx&action=default
43. Liquidated Damages	43.1	If specified in the BDS, UNDP shall apply Liquidated Damages for the damages and/or risks caused to UNDP resulting from the Contractor's delays or breach of its obligations as per Contract.
44. Payment Provisions	44.1	Payment will be made only upon UNDP's acceptance of the goods and/or services performed. The terms of payment shall be within thirty (30) days, after receipt of invoice and certification of acceptance of goods and/or services issued by the proper authority in UNDP with direct supervision of the Contractor. Payment will be effected by bank transfer in the currency of the contract.
45. Vendor Protest	45.1	UNDP's vendor protest procedure provides an opportunity for appeal to those persons or firms not awarded a contract through a competitive procurement process. In the event that a Bidder believes that it was not treated fairly, the following link provides further details regarding UNDP vendor protest procedures: http://www.undp.org/content/undp/en/home/procurement/business/protest-

	and-sanctions.html
46. Other Provisions	46.1 In the event that the Bidder offers a lower price to the host Government (e.g. General Services Administration (GSA) of the federal government of the United States of America) for similar goods and/or services, UNDP shall be entitled to the same lower price. The UNDP General Terms and Conditions shall have precedence. 46.2 UNDP is entitled to receive the same pricing offered by the same Contractor in contracts with the United Nations and/or its Agencies. The UNDP General Terms and Conditions shall have precedence. 46.3 The United Nations has established restrictions on employment of (former) UN staff who have been involved in the procurement process as per bulletin ST/SGB/2006/15 http://www.un.org/en/ga/search/view_doc.asp?symbol=ST/SGB/2006/15&refer er

SECTION 3. BID DATA SHEET

The following data for the goods and/or services to be procured shall complement, supplement, or amend the provisions in the Invitation to Bid. In the case of a conflict between the Instructions to Bidders, the Bid Data Sheet, and other annexes or references attached to the Bid Data Sheet, the provisions in the Bid Data Sheet shall prevail**.**

BDS No.	Ref. to Section.2	Data	Specific Instructions / Requirements
1	7	Language of the Bid	English
2		Submitting Bids for Parts or sub-parts of the Schedule of Requirements (partial bids)	Not Allowed
3	20	Alternative Bids	Shall not be considered
4	21	Pre-Bid conference	Will not be conducted
5	16	Bid Validity Period	120 days
6	13	Bid Security	Required in the amount of USD 30,000 OR INR 22,00,000 Acceptable Forms of Bid Security - Bank Guarantee (See Section-6 : Form G for template)
7	41	Advanced Payment upon signing of contract	Allowed up to a maximum of 20% of contract value, or USD 30,000, whichever is less. If the contractor requests advance payment exceeds 20% of the total contract price, or USD 30,000 (whichever is less), the Bidder must submit a Bank Guarantee in the full amount of the advance payment in the form attached as Form I- Section 6.
8	42	Liquidated Damages	Will be imposed as follows: 0.5% of total contract/PO value per week up to maximum of 10% of the total contract/PO amount Next course of action: Termination of Contract The percentage would be applied against total value of each delayed delivery.

9	40	Performance Security	10% of the total value of the Purchase order (if PO value is USD 500,000 OR above), valid for 24 months from the date of Purchase Order. The performance security to be provided upon signature of the PO through a Bank Guarantee favoring the UNDP Resident Representative, India from the bidder's bank (see template in Section 6 : Form H of this ITB)
10	12	Currency of Bid	Preferred Currency of Bid : Indian Rupees (INR) **Bids in other currency also allowed.** *Reference date for determining UN Operational Exchange Rate :* ***Date of bid submission***
11	31	Deadline for submitting requests for clarifications/ questions	5 days before the submission deadline
12	31	Contact Details for submitting clarifications/questions	Focal Person in UNDP: [Vijay K. Thapliyal] Address: [55. Lodhi Estate, New Delhi-110003] E-mail address: [vijay.thapliyal@undp.org]
13	18, 19 and 21	Manner of Disseminating Supplemental Information to the ITB and responses/clarifications to queries	Posted directly to eTendering
14	23	Deadline for Submission	Date and Time: As indicated in eTendering system. Note that system time zone indicated in the system is EST/EDT (New York) Time zone. PLEASE NOTE: 1. Date and time visible on the main screen of event (on e-tendering portal) will be final and prevail over any other closing time indicated elsewhere, in case they are different. Please also note that the bid closing time shown in the PDF file generated by the system is not accurate due to a technical glitch that we will resolve soon. The correct bid closing time is as indicated in the etendering portal and system will not accept any bid after that time. It is the responsibility of the bidder to make sure bids are submitted within this deadline. UNDP will not accept any bid that is not submitted directly in the system. 2. Try to submit your bid a day prior or well before the closing time. Do not wait until last minute. If you face any issue submitting your bid at the last minute, UNDP may not be able to assist.
14	22	Allowable Manner of Submitting Bids	☒ e-Tendering

15	22	Bid Submission Address	https://etendering.partneragencies.org
16	22	Electronic submission (eTendering) requirements	- Format: PDF files only - File names must be maximum 60 characters long and must not contain any letter or special character other than from Latin alphabet/keyboard. - All files must be free of viruses and not corrupted. - Max. File Size per transmission: *5 MB* - Documents which are required in original (e.g. Bid/Proposal Security) should be sent to the below address with a PDF copy submitted as part of the etendering submission: Procurement Analyst, UNDP UN House 55 Lodi Estate New Delhi - 110003 India
17	25	Date, time and venue for the opening of bid	Date and Time: March 6, 2021 6:00 PM Bidders will receive an automatic notification once their Bids are opened.
18	27, 36	Evaluation Method for the Award of Contract	Lowest priced technically responsive, eligible and qualified bid.
18(a)		Selection Process	1. All the bidders are required to submit prototype and/or available product meeting the specifications before bid closing deadline. 2. After initial screening of the bids and documentation, two lowest price proposed (L1 and L2) will be subject to testing at National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory (as per attached testing protocol – Section 5(d)); 3. Testing on compatibility with eVIN software will be conducted by UNDP and their technology partner – (as per eVIN Temperature Data Service API – Section 5(e)); 4. If both the lowest price Bidders fail on these tests, then Ln+1 Bidder will be sent for testing. 5. The process will be repeated till the lowest quoted price conforms to the technical specification and testing protocols. 6. In case the submitted model was tested by NABL accredited lab in last six months then there is no need to undertake lab test again.

19		Expected date for commencement of Contract	*March 22, 2021*
20		Maximum expected duration of contract	3 years on long term agreement
21	35	UNDP will award the Long-Term Agreement to:	One or more Proposers, depending on the following factors: • Multiple vendor Long Term agreements without secondary competition; • A country-specific Long-Term agreement (LTA) will be awarded to two (2) Lowest priced technically responsive, eligible & qualified suppliers (L1 and L2) managed by the country office, where L1 will be the preferred supplier and L2 as backup (dormant). • Purchase orders will be awarded to the preferred (L1) supplier. Minimum quantity for purchase orders will be 1,000 numbers in one order. • Second LTA holder (backup or dormant) will be contacted only in case of technical issues and/or non-functioning of the devices OR if the L1 is not able to supply within agreed time delivery.
22	39	Type of Contract	Long Term Agreement and Subsequent Purchase Orders http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
23	39	UNDP Contract Terms and Conditions that will apply	UNDP General Terms and Conditions for Contracts http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html
24		Other Information Related to the ITB All the bidders are required to submit (i) prototype and/or available product meeting the specifications and (ii) Bid Security, before bid closing deadline at the Reception, UN House, 55, Lodhi Estate, New Delhi – 110001. Prototype will be subject to (i) testing at National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory [as per attached testing protocol – Section 5(d)]; and (ii) testing on compatibility with eVIN software [as per eVIN Temperature Data Service API – Section 5(e)]. Prototype and Bid Security will be return to bidder after the finalization of award of contract against the ITB.		

SECTION 4. EVALUATION CRITERIA

Preliminary Examination Criteria

Bids will be examined to determine whether they are complete and submitted in accordance with ITB requirements as per below criteria on a Yes/No basis:

- Vendor is legally registered entity
- Completed Bid Price Form
- Validity of Bid as per ITB Document
- Bid Security submitted as per ITB requirements with compliant validity period
- Manufacturer Authorization, if applicable.
- Acceptance of UNDP General Terms and Conditions
- A sealed sample/prototype is submitted to UNDP before bid closing date

Minimum Eligibility and Qualification Criteria

Eligibility and Qualification will be evaluated on a Pass/Fail basis.

If the Bid is submitted as a Joint Venture/Consortium/Association, each member should meet the minimum criteria, unless otherwise specified.

Subject	Criteria	Document Submission requirement
ELIGIBILITY		
Legal Status	Vendor is a legally registered entity.	Form B: Bidder Information Form
Eligibility	Vendor is not suspended, nor debarred, nor otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization in accordance with ITB clause 3.	Form A: Bid Submission Form
Conflict of Interest	No conflicts of interest in accordance with ITB clause 4.	Form A: Bid Submission Form
Bankruptcy	Has not declared bankruptcy, is not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against the vendor that could impair its operations in the foreseeable future.	Form A: Bid Submission Form
Certificates and Licenses	▪ Duly authorized to act as Agent on behalf of the Manufacturer, or Power of Attorney, if bidder is not a manufacturer ▪ Official appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country ▪ Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder ▪ Export/Import Licenses, if applicable	Form B: Bidder Information Form
	▪ List of certifications, accreditations, awards and citations received by the Bidder, if any	
QUALIFICATION		

History of Non-Performing Contracts[1]	Non-performance of a contract did not occur as a result of contractor default for the last 3 years.	Form D: Qualification Form
Litigation History	No consistent history of court/arbitral award decisions against the Bidder for the last 3 years.	Form D: Qualification Form
Previous Experience	Minimum 5 years of relevant experience • Company Profile which should not exceed five (5) pages including copy of incorporation/ registration, • A Table demonstrating past contracts for temperature loggers executed by the bidder indicating, client name, quantities, contract value, planned and actual delivery date. *Minimum requirement:* Have delivered minimum of 10,000 Temperature Devices with at least 5,000 devices for Remote Temperature Monitoring (RTM) in last five years. To comply with requirement, at least 50 % of the contracted quantities must have been delivered. *(For JV/Consortium/Association, all Parties cumulatively should meet requirement).*	Form D: Qualification Form
	Statement of Satisfactory Performance from the top 3 clients, in terms of Contract Value from the past five years.	
	Demonstrable evidence of: Availability of technical personnel to ensure warranty coverage and maintenance of the device and accessories; To share CVs of atleast two technical personnel working in the organization with minimum 3 years' experience in the field of Temperature Monitoring and Minimum of Graduate in IT/Engineering/Computers.	Form E: Format of Technical Bid
Financial Standing	Minimum annual turnover of USD 1 Million (OR INR 7 Crores) in any given year during the last 3 years. *(For JV/Consortium/Association, Lead Bidder should meet the requirement of annual turnover).*	Form D: Qualification Form
	(a) Financial capacity to implement the contract as evidenced by independently audited financial accounts for the last three	Form D: Qualification

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[1] Non-performance, as decided by UNDP, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

	financial years in English, including balance sheet and profit and loss account Bidder must demonstrate the current soundness of its financial standing and indicate its prospective long-term profitability. *(For JV/Consortium/Association, Lead Bidder should meet requirement).*	Form
Technical Evaluation	The technical bids shall be evaluated on a pass/fail basis for compliance or non-compliance with the technical specifications identified in the bid document.	Form E: Technical Bid Form
	Prototype will be (i) tested at National Accreditation Board for Testing & Calibration Laboratories (NABL) accredited laboratory [*as per testing protocol – Section 5(d)*]; and (ii) tested for compatibility with eVIN software [*as per eVIN Temperature Data Service API – Section 5(e)*].	Section 5 (d & e)
Financial Evaluation	Price comparison shall be based on the quoted price of the device and spares as per the Financial proposal form.	Form F: Price Schedule Form
Other Documents	Environmental Compliance Certificates, Accreditations, Markings/ Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures	Not mandatory – bidders to share whatever information / practices available
	A credit rating from a reputed rating service is required. This could include, but not limited to, "Baaa" from Moody's Rating; or "BBB+" from Standard and Poor; or "BBB+" from Fitch Rating. If another rating is provided, a certification from the provider equating such rating to one of the above international rating services is required.	Not mandatory – if bidders do not have at the time of bid submission, can submit after the award (if selected)

SECTION 5: TERMS OF REFERENCE

SCHEDULE OF REQUIREMENTS AND BILL OF QUANTITIES

Under GAVI Health System Strengthening (HSS) support, UNDP is providing Technical Support to Ministry of Health and Family Welfare for implementing eVIN (Electronic Vaccine Intelligence Network) including remote temperature monitoring of life saving vaccines under Universal Immunization Program.

eVIN is an ambitious project of Ministry of Health and Family Welfare and recognized as best practice at various National and International Forums.

Awards

- eVIN won the GSMA Asia Mobile Award 2017 (AMO) for Outstanding Mobile Contribution to Sustainable Development Goals in Asia.

- eVIN won the Public Health Initiative Silver Award at the India Health and Wellness Summit 2017.

- eVIN from Madhya Pradesh was awarded as one of the Best Innovations at the Third National Summit on Good & Replicable Practices & Innovations in Public Health Care Systems in India held at Tirupati in August 2016.

- Vaccine and Cold Chain Managers (VCCMs) deputed at the district levels and eVIN project staff have been recognised and awarded by the respective district and state administration for their outstanding effort and contribution to health care in various states.

During the first phase of HSS support, UNDP procured and installed more than 14,500 Temperature Loggers across Assam, Bihar, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Manipur, Nagaland, Odisha, Rajasthan and Uttar Pradesh.

The Temperature loggers are working as per the specifications and expectation of the project. However, for the implementation of HSS-II in rest of the states in India, the current ITB (with some changes in the specifications) is being floated.

Expected Bill of quantities

#	Item to be supplied Description/Specifications	Quantity	Delivery Date	Other Information
1	**Temperature Loggers** **As per attached technical specifications – Section 5(b)**	Approx. 30,000	As per requirement	
2	**Spares – (percentage requirement on the ordered quantity)**			
	Sensor	**15%**		
	Battery	**5%**		
	Power adapter	**20%**		
	SD Cards	**15%**		

Important:

1. Any reference to brand of technology/ product, in case it occurs anywhere in the technical specification is purely for indicative/illustrative purposes and should be read as including its equivalent.

2. Offered product catalogue to be attached in original (2 in nos.) with each bid.

3. Attach valid quality certification document(s); no self-certifications admissible.

4. UNDP will provide details of a logo that is required to be pasted on each Temperature logger before supply.

5. **Supply – After the award of LTA and first purchase order, supplier will provide 10 loggers for testing. Complete ordered quantity will be supplied after confirmation from UNDP. Compliance certificate on parts should be provided before the initiating manufacturing of full lot of loggers. If not provided, UNDP will not provide go-ahead for manufacturing. Following certificates are required**

   a) The temp sensors used in probes should be pre-calibrated (to NIST / NABL).

   b) The product is to be covered by the certificate of traceability and calibration. The traceability declaration is to confirm that the measurement standard and instruments used during calibration of the product are traceable to an ISO/IEC 17025 accredited testing laboratory, to NIST / NABL, or to another internationally recognized standards agency.

   c) The device to be RoHS Compliant

SECTION 5(A): OTHER RELATED REQUIREMENTS

Further to the Schedule of Requirements in the preceding Table, Bidders are requested to take note of the following additional requirements, conditions, and related services pertaining to the fulfillment of the requirements: *[check the condition that applies to this ITB, delete the entire row if condition is not applicable to the goods being procured]*

Delivery Term [INCOTERMS 2010]	DAP
Exact Address of Delivery/Installation Location	Each order may be separately delivered at any one location in India, preferably in Delhi/NCR or any other feasible state capital However, for the purpose of calculating comprehensive offer, bidders may consider delivery address as: UN House, 55 Lodi Estate, New Delhi-110 003.
Mode of Transport Preferred	Any – to be decided by the selected vendor
UNDP Preferred Freight Forwarder, if any	N/A
Distribution of shipping documents *(if using freight forwarder)*	UNDP will ONLY arrange for exemption certificate to the Indian Customs. Any other documentation requirement will be managed by the bidders.
Customs, if required, clearing shall be done by:	Supplier
Ex-factory / Pre-shipment inspection	Not required
Inspection upon delivery	Required - Lot release certificate and quality control certificates will be verified by the consignee; A sample of randomly selected 10 loggers will be tested at site (identified health facility) as per the testing protocol.
Installation Requirements	N/A
Testing Requirements	Testing protocols 1) Laboratory testing – Section 5(d)
Scope of Training on Operation and Maintenance	It is expected that the selected supplier be required to deploy 2 trainers each for 3 master trainings. The cost of trainers will be discussed and agreed after the selection process and issuance of LTA. These trainings will be scheduled at New Delhi within a month after delivery of first lot and include training on Logger installation, functions, SOP, Dos and Don'ts, troubleshooting and frequently asked questions. Successful bidder to also provide training material in the form of PPTs, Word doc and videos for Logger installation, functions, SOP, Dos and Don'ts, troubleshooting and frequently asked questions.
Commissioning	N/A
Warranty	Scope of warranty as per Section 5(c)

Local Service Support	As per warranty
Technical Support Requirements	Yes – the bidder should be able to provide remote technical support - as per Section 5(c)
After-sale services Requirements	Scope of warranty as per Section 5(c)
Payment Terms *(max. advanced payment is 20% as per UNDP policy)*	Payment terms for each Purchase order– - 100% on successful delivery and acceptance of loggers by end users (Refer Section 6 : Form-J).
Conditions for Release of Payment	☐ Pre-shipment inspection ☒ Inspection upon arrival at destination ☐ Installation ☐ Testing ☐ Training on Operation and Maintenance ☐ Others *[pls. specify]* ☒ Written Acceptance of Goods based on full compliance with ITB requirements ☒ Submission of Performance Security, if applicable.
All documentations, including catalogues, instructions and operating manuals, shall be in this language	English

SECTION 5(B): TECHNICAL SPECIFICATIONS: TEMPERATURE LOGGER

Temperature logger (termed as a "device" in this document) is an electronic Real-time Monitoring Device, with five temperature sensor probes. It provides continuous monitoring/ logging of temperature of sensor probe(s) fitted within vaccine compartment of ILR/DF in Health Care Centers, and WICs & WIFs at Vaccine Stores to maintain temperature of vaccines & supplies within prescribed range of +2^{0}C to +8^{0}C for ILR /WIC and -15^{0}C to -25^{0}C for DF /WIF, and send an alert when there is a temperature breach. The temperature data is shared with eVIN server at regular frequency to maintain electronic record and generate alerts. For ILR/DF, only two probes are used. First probe will be used to monitor the temperature of vaccine compartment of ILR/DF and Second probe monitors logs temperature of the ambient. 5 Sensors in WIC/WIF are used for logging of temperature near 4 walls inside WIC/WIF and one sensor for monitoring the Ambient Temperature.

A) **Device accessories:**
- Device to be either wall mounting or **comes with a wall mounting cradle**
- 2 meters long extension board with three sockets (Conforming to BIS/IEC Standards or NABL certified, rated for 10 Amp.)
- Power Adapter (Confirming to BIS / IEC Standards) with 2 meters of power cable for logger, with 3 PIN Indian Plug.
- 2 temperature sensors/probes with 2 meters flat cable, in case of ILR/DF, and 5 Sensors in case of WICs/ WIFs with cables of Size 7 meters each.
- Proper adhesive mechanism like plastic holders, adhesive tapes etc. Sensor should measure Air Temperature; hence it should not be taped directly to the vaccine chamber wall.

B) **Physical Operating Conditions:**
- Temperature Range for Device & Ambient Temp Sensor Probe: +5^{0}C to +55^{0}C, usually, fitted on the wall (Device to be fitted on wall or on wall mounted cradle).
- Humidity tolerance of the device & ambient temperature sensor probe: 5 to 95% RH.
- Temperature Range for Vaccine Chamber Sensor Probe(s): -30^{0}C to +55^{0}C, fitted with adhesive connectors in ILR/DF vaccine compartments.
- Humidity Tolerance of Vaccine Chamber Sensor Probe(s): Up to 100%

C) **Voltage/Power Requirements & Compliance:**
- Input Voltage: 90- 270 Volts/ 50-60Hz
- Input Socket– D Type, as per IS: 1293.
- Physical Power–On/off button inside the cabinet.
- Power Adapter Standards: IS 13252 Part-1/ IEC 60950-1/ CE or FCC.
- LED indicator on Power Adapter for displaying Charging status.
- Adapter Output: 5-12 Volts DC. Adapter out should fit on Right or Left side of the device to avoid loose fitting.
- Electronic Circuits Voltage (Connected to Temperature Sensor Probes): Not more than 12 Volts.
- Battery Back-up: 72 Hours on 8 Hours charging, to match Hold-Over Period of ILR. Battery charging should be continuous while the device is plugged into external power source.

  The 72-hour battery life use case Scenario:
  A. Write Frequency - 10 minutes
  B. Upload Frequency - 60 minutes
  C. Communication Channel - WiFi or GPRS.
  D. No breach conditions other than power out (No power adapter connected, for this testing.)
- Battery Type: Li-Ion or Li-Polymer, rechargeable, IEC: 62133 / CE or FCC.
- Battery Life Expectancy: 12 Months

D) Network Connectivity and Compliance:

- Quad band GPRS/ SMS Mode (to ensure maximum coverage through multiple networks) as most reliable means on GSM Network. GSM Module to be CE/FCC Certified.
- The device should have a detachable external antenna (primary antenna) to maximize network signal gain.
- Configurable On-Device SIM Response to Mobile SMS: Temperature of all Temp sensor probes, Battery level, Network Strength, Reboot
- Wi-Fi# capable, to connect with existing Broadband / (**4G/ 5G/ LTE) mobile routers** at Health Centres. Wi-Fi network setting, configurable through GPRS/SMS.
- Device should transmit data using WiFi, Failing which, It should use GPRS (SIM 1) then SMS (SIM 1).
- WiFi standard should be 802.11 b/g 2.4 Ghz or better.

E) Configuration:

- The device must be programmable & configurable remotely through Wi-Fi/GPRS and SMS.
- Device should able to respond to registered mobile numbers with incoming enquiry (Pre-defined Text Strings) on Temp data from Sensor Probes, Battery Level, Power Availability, Network Strength and Reboot.
- Following parameters should be configurable:
  a. Enter 4 mobile/ 4 emails for alert purposes for each device.
  b. Alerts to 4 Mobiles and 4 Emails using Wi-Fi/GPRS or SMS (Configurable) through eVIN server.
  c. Choose lower and upper temperature thresholds for sensor probe(s) for local Alerts.
  d. Choose delay (1-60 minutes) for upper / lower thresholds for local Alerts. Lower threshold breach should alert immediately (Delay-0 as default).
  e. Choose which Temp Sensor Probe(s) should not cause Excursion Alerts (I.e. Ambient Temp Sensor Probe)
  f. Data upload using Wi-Fi/ GPRS or SMS.
  g. Writing of all Temperature data to local Memory - Programmable between 1-60 Minutes.
  h. Uploading of temperature data to Server - Programmable between 1-60 Minutes.
  i. Setting of Battery Level (Configurable 10 – 50%) for Alert, Power-off Alert (Configurable – Alert Y/N), Setting of Wi-Fi Network password.

The device should send alarm SMS and Email notification through eVIN (to registered 4 emails and mobile numbers) in case of following conditions:
a. When temperature breach (Only Vaccine Compartment Temperature, not ambient Temperature) occurs AND/OR
b. When the power outage has occurred AND/OR
c. When battery status is less than 15% (Configurable).
d. When Sensor has failed

F) Sensor Accuracy & Conformity:

All sensors used in Temperature Probes should be waterproof, and accurate to +/- 0.5^0C or better (-30^0C to +55^0C range) as per NABL / NIST.
  a. Length of Vaccine Compartment Temp Probe 2 meters flat cable.
  b. Length of Ambient Temp Sensor Probe2 meters flat cable.
  c. Length of Sensor Cables for WICs/WIFs – 7 Meters
All probes should sense Air Temperature, hence should come with suitable wall mount fittings/ cable fittings.
@ *Pre Calibrated CE/FCC Certified Sensors.* Self-reporting Sensor for Sensor Failure.

G) Calibration & Conformity:

- The temp sensors used in probes should be pre-calibrated (to NIST / NABL).

- None of the probes should be connected to a live (220 Volts) circuit. Operating voltage of circuit to which temperature sensor probes are connected, should be less than 12 Volts DC, for Electrical Safety.
- The product is to be covered by the certificate of traceability and calibration. The traceability declaration is to confirm that the measurement standard and instruments used during calibration of the product are traceable to an ISO/IEC 17025 accredited testing laboratory, to NIST / NABL, or to another internationally recognized standards agency. A copy of the reference instrument calibration certificate must accompany the product calibration certificate.

H) Data Logging & Uploading Features:
- Local writing of temperature data, Power-out status, every 60 minutes in default mode (Programmable between 1-60 Minutes)
- Uploading of data to Server every 60 minutes in default mode (Programmable between 1-60 Minutes)
- During network outage, the device must store data (3000 readings per sensor on 4GB SD Card or Local Flash Memory) and send the stored data since last transmission, when Wi-Fi/ GPRS / SMS on network are available.
- Data storage should be in a Comma Separated Value (CSV) or relevant format.
- In case of network unavailability, device should be enable with force upload feature to clear the back-log stored in device once network is restored.

I) On Device Display, Alert & Conformity:
- The device should have an electronic screen that constantly displays current date and time in DD/MM/YY Format; cold chain storage temperature in centigrade; and an audible alarm when cold chain storage temperature breaches certain thresholds. The display should be visible from a distance of minimum 0.75 meters, from the installation point.
- LED Indicators for Adapter Power On/ Temp Breach/ Sensor Failure/ Low Battery.
- 2 Line x 16 Character or better resolution, for Date, Time, Sensors Temperature, Battery and Network Strength levels. CE/FCC Certified.

Device should work with correct time & date, without network with battery operated clock.

J) Intelligent, Failsafe/ Safety Features:
- Remote (Over the air) Configuration of Device.
- Operating Voltage of Circuit not more than 12 Volts DC.
- Battery Back-up with Low Battery Alert.
- Power-Off Alert.
- Temperature Breach Alert – Local & Server with Delay feature.
- Sensor Failure alert. Auto sensing of Probe (Connected/Not connected status)
- Auto-selection of communication with Server (First Preference – Wi-Fi, Second Preference to GPRS (SIM 1) and Last Preference to SMS (SIM-1).
- In case of no communication between Device & Server, data is stored locally, to be uploaded when connection/ network resumes.
- SMS to Device elicits response on Sensor Temperatures, Battery Strength / Power Off status. This is also an indication that Device is working. Only registered mobile numbers receive the response.

K) Manufacturing Process Standard/ Conformity:
  a) RoHS Compliant

L) API Configurations:

Refer API Configurations and settings.

M) Other requirements:

Supplier to submit the design document including Firmware / Circuit Design, Software, Apps' Source code, Bill of Material of the Hardware and details of developer team to UNDP at the time of delivery of goods.

SECTION 5(C): WARRANTY TERMS AND CONDITIONS

Supplier to provide warranty of 2 years from the date of supply of Temperature Loggers to the mentioned consignee address. Supplier should provide warranty card with date and time mentioned at the time of supplying Loggers.

Shelf life of the logger and spare should be:
1) Temperature Logger: 5 years
2) Sensor – 2 years
3) Battery: 1 years
4) Power Adapter: 2 year
5) SD Cards (If Provided): 2 year

Supplier to repair or replace the Logger, Sensor, Battery, Power adapter and SD Card (if provided) within 15 days after complaint is punched in eVIN online ticketing system in case of pre-mature failure without human error (Intentional damage or mishandling) or natural calamity or breach from defined operating range of temperature and humidity.

On-Call support : Supplier will have access to eVIN online ticketing system for maximum two agents. Supplier should provide On-Call support to state and district teams Monday to Saturday (9 AM to 6 PM) for basic troubleshooting or to diagnose the issue if it is covered under warranty or not. SLAs for the call is as follow:

1) Respond to eVIN online tickets (No Auto-Reply) – Within 6 business hours
2) Diagnosis of issue and tagging if Logger or spare is covered under warranty or not: Within 24 business hours.
3) Dispatching repaired logger and spare OR replacement of Logger and spare: within 15 days after receiving the Logger or spare.
4) In case of online technical support and troubleshooting, issue should not exceed 15 days.

Temperature Loggers to transmit the data to existing eVIN server ONLY. In this scenario, supplier will be responsible to check and diagnose the Temperature Logger if:

1) Temperature sampling is not happening on eVIN with SIM signal strength of 20% or more, association is done correctly on eVIN, configuration is properly pushed and force upload feature is working correctly.

SECTION 5(D): LABORATORY TESTING PROTOCOL

UNDP will inform the bidders of lowest proposed loggers (L1 and L2) for scheduled date/time and location of testing at NABL accredited laboratory. One or two representatives (with technical now how) should be present for the testing. Testing will be for around two days including detailed demonstration of device as per the below checklist and briefing for the lab-test.

If, during laboratory testing, the product is found compliant on 80% of the below list of criteria, the bidder's representatives will be required to visit the laboratory again for clarification and necessary corrections. The device should meet ALL criteria (100 % compliance) for being declared as selected.

If the device is not found compliant on a minimum of 80% criteria, it will be deemed rejected.

Checklist for testing - device should be compliant to all the following:

S.no	Criteria	Remark	Compliant (Yes/No)
1.	Device to be either wall mounting or **comes with a wall mounting cradle**		
2.	2 meters long extension board with three sockets (Conforming to BIS/IEC Standards or NABL certified, rated for 10 Amp.)		
3.	Power Adapter (Confirming to BIS / IEC Standards) with 2 meters of power cable for logger, with 3 PIN Indian Plug.		
4.	2 temperature sensors/probes with 2 meters flat cable, in case of ILR/DF, and 5 Sensors in case of WICs/ WIFs with cables of Size 7 meters each.		
5.	Proper adhesive mechanism like plastic holders, adhesive tapes etc. Sensor should measure Air Temperature; hence it should not be taped directly to the vaccine chamber wall.		
6.	Temperature Range for Device & Ambient Temp Sensor Probe: $+5^0$C to $+55^0$C, usually, fitted on the wall (Device to be fitted on wall or on wall mounted cradle).		
7.	Humidity tolerance of the device & ambient temperature sensor probe: 5 to 95% RH.		
8.	Temperature Range for Vaccine Chamber Sensor Probe(s): -30^0C to $+55^0$C, fitted with adhesive connectors in ILR/DF vaccine compartments.		
9	Humidity Tolerance of Device & Ambient Temp Sensor Probe: 0 to 90%		
10	Humidity Tolerance of Vaccine Chamber Sensor		

S.no	Criteria	Remark	Compliant (Yes/No)
	Probe(s): Up to 100%		
11	Input Voltage: 90- 270 Volts/ 50-60Hz		
12	Input Socket– D Type, as per IS: 1293.		
13	Power Adapter Standards: IS 13252 Part-1/ IEC 60950-1/ CE or FCC.		
14	LED indicator on Power Adapter for displaying Charging status.		
15	Adapter Output: 5-12 Volts DC. Adapter out should fit on Right or Left side of the device to avoid loose fitting.		
16	Electronic Circuits Voltage (Connected to Temperature Sensor Probes): Not more than 12 Volts.		
17	Battery Back-up: 72 Hours on 8 Hours charging, to match Hold-Over Period of ILR. Battery charging should be continuous while the device is plugged into external power source.		
18	Battery Type: Li-Ion or Li-Polymer, rechargeable, IEC: 62133 / CE or FCC.		
19	Battery Life Expectancy: 12 Months		
20	Quad band GPRS/ SMS Mode (to ensure maximum coverage through multiple networks) as most reliable means on GSM Network. GSM Module to be CE/FCC Certified.		
21	The device should have a detachable external antenna (primary antenna) to maximize network signal gain.		
22	Configurable On-Device SIM Response to Mobile SMS: Temperature of all Temp sensor probes, Battery level, Network Strength, Reboot.		
23	Wi-Fi# capable, to connect with existing Broadband / (**4G/ 5G/ LTE) mobile routers** at Health Centres. Wi-Fi network setting, configurable through GPRS/SMS.		
24	Device should transmit data using WiFi, Failing which, It should use GPRS (SIM 1) then SMS (SIM 1).		
25	WiFi standard should be 802.11 b/g 2.4 Ghz or better.		
26	The device must be programmable & configurable remotely through Wi-Fi/GPRS and SMS.		
27	Device should able to respond to registered mobile numbers with incoming enquiry (Pre-defined Text Strings) on Temp data from Sensor Probes, Battery Level, Power Availability, Network		

S.no	Criteria	Remark	Compliant (Yes/No)
	Strength and Reboot.		
28	Enter 4 mobile/ 4 emails for alert purposes for each device. a. Enter 4 mobile/ 4 emails for alert purposes for each device. b. Alerts to 4 Mobiles and 4 Emails using Wi-Fi/GPRS or SMS (Configurable) through eVIN server. c. Choose lower and upper temperature thresholds for sensor probe(s) for local Alerts. d. Choose delay (1-60 minutes) for upper / lower thresholds for local Alerts. Lower threshold breach should alert immediately (Delay-0 as default). e. Choose which Temp Sensor Probe(s) should not cause Excursion Alerts (I.e. Ambient Temp Sensor Probe) f. Data upload using Wi-Fi/ GPRS or SMS. g. Writing of all Temperature data to local Memory - Programmable between 1-60 Minutes. h. Uploading of temperature data to Server - Programmable between 1-60 Minutes. i. Setting of Battery Level (Configurable 10 – 50%) for Alert, Power-off Alert (Configurable – Alert Y/N), Setting of Wi-Fi Network password.		
	The device should send alarm SMS and Email notification through eVIN (to registered 4 emails and mobile numbers) in case of following conditions: a. When temperature breach (Only Vaccine Compartment Temperature, not ambient Temperature) occurs AND/OR b. When the power outage has occurred AND/OR c. When battery status is less than 15% (Configurable). d. When Sensor has failed		
29	All sensors used in Temperature Probes should be		

S.no	Criteria	Remark	Compliant (Yes/No)

	waterproof, and accurate to +/- 0.5^{0}C or better (-30^{0}C to +55^{0}C range) as per NABL / NIST.
	    a. Length of Vaccine Compartment Temp Probe 2 meters flat cable.
	    b. Length of Ambient Temp Sensor Probe2 meters flat cable.
	    c. Length of Sensor Cables for WICs/WIFs – 7 Meters
	All probes should sense Air Temperature, hence should come with suitable wall mount fittings/ cable fittings.		

	The temp sensors used in probes should be pre-calibrated (to NIST / NABL).		
30	None of the probes should be connected to a live (220 Volts) circuit. Operating voltage of circuit to which temperature sensor probes are connected, should be less than 12 Volts DC, for Electrical Safety.		
31	The product is to be covered by the certificate of traceability and calibration. The traceability declaration is to confirm that the measurement standard and instruments used during calibration of the product are traceable to an ISO/IEC 17025 accredited testing laboratory, to NIST / NABL, or to another internationally recognized standards agency. A copy of the reference instrument calibration certificate must accompany the product calibration certificate.		
32	Local writing of temperature data, Power-out status, every 60 minutes in default mode (Programmable between 1-60 Minutes)		
33	Uploading of data to Server every 60 minutes in default mode (Programmable between 1-60 Minutes)		
34	During network outage, the device must store data (3000 readings per sensor on 4GB SD Card or Local Flash Memory) and send the stored data since last transmission, when Wi-Fi/ GPRS / SMS on network are available.		
35	Data storage should be in a Comma Separated Value (CSV) or relevant format.		
36	In case of network unavailability, device should be enable with force upload feature to clear the back-log stored in device once network is restored.		
37	The device should have an electronic screen that constantly displays current date and time in DD/MM/YY Format; cold chain storage		

S.no	Criteria	Remark	Compliant (Yes/No)
	temperature in centigrade; and an audible alarm when cold chain storage temperature breaches certain thresholds. The display should be visible from a distance of minimum 0.75 meters, from the installation point.		
38	LED Indicators for Adapter Power On/ Temp Breach/ Sensor Failure/ Low Battery.		
39	2 Line x 16 Character or better resolution, for Date, Time, Sensors Temperature, Battery and Network Strength levels. CE/FCC Certified.		
40	Device should work with correct time & date, without network with battery operated clock.		
41	**N) Intelligent, Failsafe/ Safety Features:** ● Remote (Over the air) Configuration of Device. ● Operating Voltage of Circuit not more than 12 Volts DC. ● Battery Back-up with Low Battery Alert. ● Power-Off Alert. ● Temperature Breach Alert – Local & Server with Delay feature. ● Sensor Failure alert. Auto sensing of Probe (Connected/Not connected status) ● Auto-selection of communication with Server (First Preference – Wi-Fi, Second Preference to GPRS (SIM 1) and Last Preference to SMS (SIM-1). ● In case of no communication between Device & Server, data is stored locally, to be uploaded when connection/ network resumes. ● SMS to Device elicits response on Sensor Temperatures, Battery Strength / Power Off status. This is also an indication that Device is working. Only registered mobile numbers receive the response.		

Temperature Data Service APIs - v2
Version 3.9

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OVERVIEW

The Temperature Data Service is a hosted service that enables capture of temperature data from temperature sensor devices over Internet/SMS, and provides the ability to remotely manage the devices. Each device from a given vendor is expected to have a unique ID, and both the vendor and the device have to be registered in the system to ensure proper identification of the source. The Temperature Data Service APIs include a set of REST APIs or SMS APIs that allows devices or device-controllers to push the raw temperatures or alert data (incursion or excursions) to the Temperature Data Service.

The APIs have the following pre-requisites to function properly:

1. The device vendor should be registered with the system and have a unique "vendor ID", which identifies the source of the data.
2. Each device should have a unique ID (say, a physical ID or serial number of the device), which should be unique across all devices (ever manufactured) by a given vendor. The device identification is always a combination of the vendor ID and the device ID.

   - For multi-sensor devices, a sensor ID should be included in addition to the unique device ID. This sensor ID has to be unique for the particular device, and hence can be a simple relative ID (such as "1" or "A", and so on).

3. Each device should be registered in the system before it can accept temperature data. Data from anonymous devices will be rejected by the system.
4. The device can send 'raw temperatures' or 'alerts' (excursions and/or incursions from the min/max range). All temperatures are in units of degrees celsius.

DEVICE INTERACTION MODEL

Devices or controllers can be configured to push either (a) raw temperatures (and alerts) or (b) alerts only (which are excursion and incursion points beyond a min/max range) for one or more devices at a time. Typically, raw temperatures are pushed to the server at a higher frequency, whereas alerts (incursions/excursions) are pushed to the server as and when they happen. Information related to device functioning (such as power, sensor connection) can optionally be transmitted for better device diagnostics. In addition, a day's temperature statistics can be accumulated locally on the device and pushed to the service on a daily basis, if configured. Each device or controller is expected to have the service's REST URL (in case of GPRS) or a phone number (in case of SMS) for data transmission purposes.

In general, two configurable factors control device behaviour:

1. **Type of data to be transmitted**: Type of data collected/transmitted can be either 'raw' or 'incursion' or 'excursion' (the latter two also referred to as "alerts"), along with the temperature (in degrees Celsius) at that point in time.
   - *Raw temperature push (includes alerts, by default)*: In this configuration, BOTH raw temperatures and alert conditions are sent to the server. In this case, the sampling frequency can be different from the data transmission frequency. Clearly, the volume of data collected and transmitted is quite high for raw data collection, and it should be configured alongside a good communication channel (such as GPRS). In this configuration, incursion/excursions should be transmitted instantly, as they happen, so that the service is immediately aware of anomalies in temperatures.
   - *Alerts only push*: In this configuration, ONLY alert data (incursions/excursion points) are transmitted to the server, as and when they happen. Data will come to the server only as and when incursions or excursions occur. In this mode, the daily statistics push *should* be configured (or defaulted), so that it provides as an indication to the server that the device is functioning properly (esp. in the absence of frequent data signals from the device).

2. **Communication channel**: The communication channel can be either GPRS (Internet) or SMS, independent of the type of data transmitted. Typically, raw data collection should be done only with GPRS communication to ensure efficient, cost-effective collection. Alert data can be collected equally well over GPRS or SMS. Whenever the device is unable to send an alert over GPRS, ideally it should send it over SMS immediately, so that the alert reaches the server.

Device configuration includes several other attributes, including sampling frequency for raw data, min/max temperature ranges, whether daily statistics are to be pushed, and so on.
The expected device-to-service interaction model is as follows:

1. When the device starts up (or via any other trigger), it is expected to pull its own configuration from the server (using the *Configuration Pull API*). The registered vendor and device IDs have to be provided to properly identify the device and its configuration. In return, the server sends either a configuration that is global set (for all devices) or a custom one specific to this device. It should be noted that a majority of the devices will have access to GPRS. However, there will be a subset of devices in locations where no GPRS is available, and most communication of configuration would have to happen over SMS.
   o Typically, the configuration URL is configured in the device's factory settings, or the device can request for a configuration URL over SMS. Further, if the device is unable to get APN settings on its own, it should be able to pull it from the server as well (through an SMS based request). In case the Admin/Gateway number is not properly registered, or even changes, then the device can request such a number over SMS.
   o Reconfiguration of the device is possible wherein the device can pull the new configuration over GPRS, or the configuration can be pushed to the device over SMS. Even in the latter method, the server can push a SMS with just the configuration URL, so the device can pull configuration over GPRS, or the server pushes the configuration entirely over SMS (given the device has no GPRS access, and is configured to work with SMS only).
   o For multi-sensor devices, configuration overrides can optionally be specified on a per sensor basis.
2. Once the device is configured, it updates the server that it is configured and ready to transmit data (using the *Device Ready API)*. It is not mandatory for devices to do so, but the service will support such an update, wherever avaialble.
   o For multi-sensor devices, it is expected that the device indicate all the connected sensors in this API.
3. Based on the configuration the device starts transmission of *one* of the following types of data as described below (using the *Temperature Logging API*):
   o Raw temperatures are sampled, logged locally and transmitted as per the sampling and transmission frequencies, respectively, either over GPRS or SMS, as configured. In addition, whenever incursions/excursions occur, the data is transmitted instantly.
   o Only alerts (incursion/excursion points) are sent to the server, as and when they occur.
   o *NOTE: If the device is unable to transmit due to communication error, it logs temperatures locally and transfers all locally logged data points are sent at the next point of availability of the network.*
4. During the course of the day, the device may accumulate the day's statistics (this is optional). At the end of the day, the device can be configured to transmit the daily statistics (using the *Stats. Logging API*). The transmission of daily statistics is typically governed by its corresponding configuration. It is strongly recommended that this is turned on for the 'Alerts only' configuration of data pushes from the device.
   o For multi-sensor devices, the sensor-specific stats. can be included on the temperature alarms and sensor-connection alarms. Device-specific alarms such as battery, power or anything else should be included once per device.
5. Device related failures, such as battery being low, sensor failure, sensor connection failure, and so on, will trigger an alarm from the device to the server, either over GRPS or SMS (as configured). A notification will be sent to the server on each state change of any of the device-related parts. For instance, the device should send an alarm when the battery charge goes down alarmingly low, and another alarm (with OK status) when the charge comes back to reasonable levels.

o   For multi-sensor devices, only sensor-connection failure is relevant to send by sensor; rest of the device alarms (such as battery or power) should be by device.

6.   The device can be queried (over SMS) at any point for the following:
     o   Get its current temperature
     o   Get its current configuration

7.   The device can request the server for the following over SMS, especially if GPRS is unavailable or it had invalid factory settings:
     o   APN device settings, if the device did not get it automatically from the network provider.
     o   Admin/Gateway phone number (if it was not set before shipping, or was invalid).
     o   Configuration URL for downloading a new configuration (if its existing configuration URL did not work).

APPLICATION PROGRAMMING INTERFACES

The service provides the following APIs:

1.   **Temperature Logging API**, which enables a device/controller to *push* raw temperatures or alerts from a number of sensors to the service over the Internet. Power availability signal should be included, wherever available.
2.   **Device Alarm Logging API**, which enables a device to send device-specific failure alarms to the server, including sensor disconnected/re-connected, low battery warning/alarm and firmware errors, if any.
3.   **Stats. Logging API** (optional), which enables a device/controller to *push* daily statistics or other metrics to track device health on temperatures from a variety of devices, if such stats. are collected and maintained by the device/controller.
4.   **Configuration Pull API**, which enables a device-controller to *pull* configuration data from the service to configure itself (say, when the device is started or reset).
5.   **Configuration push API (**SMS only**),** an SMS API that enables one to remotely push a configuration to the device, either requesting the device to pull configuration from server or the entire configuration metadata packaged in the SMS itself**.**

All the Internet-based APIs are RESTful with JSON (JavaScript Object Notation) data formats and work over https (secure HTTP). Similar APIs are to be implemented over SMS using a concise textual protocol that can be sent over SMS (specified separately).

The REST APIs are described below to provide an understanding of the integration model. SMS APIs are specified separately, and follow a similar interaction model as the REST APIs.

TEMPERATURE LOGGING API
The Temperature Logging API can be used to push raw temperatures or alert data (incursions/excursions) to the server. In addition, basic metadata for device diagnostics (such as sensor connection) can also be sent.
REST API
NOTE: All requests have to be POSTed over HTTPS.

Endpoint: https://<domain-name>/ v2/temp
Method: POST
Post data:

```
{
    "vId": "<string>",              // registered vendor ID
    "data":                         // one or more devices (an array)
    [
        {
```

```
            "dId" : "<string>",        // unique physical ID of device
            "tmps":                    // temperature related readings (an array)
             [
                    {
                        "sId": "<string>",        // (optional) ID of the sensor, if any (for multi-sensor devices)
                        "time": <integer>,      // UTC time in seconds
                        "typ": <integer>,       //  type of data-point: 0: raw data, 1: incursion, 2: excursion
                        "tmp": <double>         // temperature at the given time in degrees celsius
                    }, …
             ],
             "pwa": {        // (optional) power availability transition between power-in and power-out states
                    "stat":  <integer>         //   1 = available (from 0 state), 0 = unavailable (from 1 state)
                    "time": <integer>          //   UTC time in seconds at which transition occurred
             }
        }, …
    ] ,
    "asm": <integer>        // (optional) Active sim: 0 - Primary sim is active, 1 - Alternate sim is active
}
```

Responses

The status (whether success or some type of failure) are indicated in the response as HTTP status codes, with additional information in the content, wherever needed. The response status codes and information are described below.

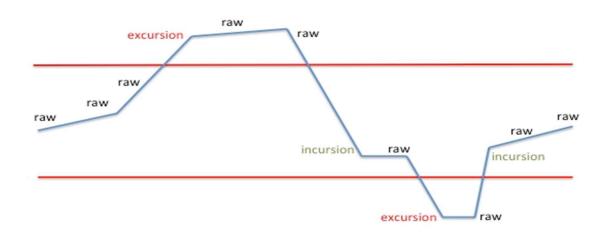| Http Status Code	Meaning	Description
201	CREATED	The temperature data was successfully logged for the given device(s)
500	INTERNAL_SERVER_ERROR	An internal system error that prevented the temperature data from being logged
400	BAD_REQUEST	The post data format was incorrect for this request. The JSON error message has to be sent back in the response as content.

Guidelines on sending raw, incursion and excursion data

An 'excursion' is the point when the temperature crosses the high or low temperature limit (from within normal range). An 'incursion' is the point when the temperature comes back to within normal range (from a high or low point). The following rules apply when sending raw, exursion and incursion types in the Temperature Logging API:

1. Send an 'excursion' type only once when the temperature crosses the high or low temperature limit (from within normal range). We expect that this will be sent reliably and immediately (within a few seconds) of the event. This will require redunancy of transmissions channels on the device to ensure this (say, if GPRS is unavailable, that it will be sent via SMS). It is important to note that the points when the temperature crosses the range are termed 'excursion' points. The temperature at the time of excursion is sent along with the 'excursion' type code.
2. Send an 'incursion' type only once when the temperature moves from outside the temperature range to within it. That is, the temperature is already beyond the high or low limit and it comes back to within normal range (between high and low limits). The temperature at the time of incursion is included along with the 'incursion' type code.
3. Send a 'raw' type (if configured) for all other temperature points, be it within or outside range.
4. Send power availability (pwr) only whenever power transitions from 'available' to 'unavailable' state. This will help keep data over the air to minimum levels (which at scale can impact data transmission and storage costs).

The figure below indicates the type of temperature points as the temperature excrusions and incursions happen over time:

Temperate data types

47.

DEVICE ALARM LOGGING API
When a device has a failure state or is reaching a failure state, then it can emit alarms to notify the server of the same. Typical alarms include battery being low, sensor connection failing, or any firmware errors. This is a configurable option.
REST API
Endpoint: https://<domain-name>/v2/alarms
Method: POST
Post data:

```
{
  "vId": "<string>",          // registered ID of device vendor
  "data" [
    {
        "dId": "<string>",            // unique physical ID of the device
        "sId": "<string>",// (optional) ID of the sensor, if any (for multi-sensor devices)
        "dvc": {                      // (optional) one or more device-related alarms
              "dCon": {                      // (optional) Alarm on connection between transmitter and sensor
                  "stat": <integer>,           // Status of device: 0: OK, 1: Alarm (i.e. connection failed)
                  "time": <integer> // UTC time in seconds, time at which the connection faiiled
          },
          "xSns": {        // (optional) Alarm related to connection with the external sensor, if any
              "stat": <integer>,           // Status: 0: OK, 1: Alarm
                "time": <integer>            // UTC time in seconds, at which alarm was triggered
          },
          "batt": {                     // (optional) Alarm related to battery of device
                "stat": <integer>,            // Status: 0: OK, 1: Warning, 2: Alarm, 3: Charging
                "time": <integer>            // UTC time in seconds, at which alarm was triggered
              "avl": <integer>          // (optional) Percentage of battery available
          },
        "errs": [            // (optional) Alarm on firmware errors, if any
              {
```

```
                   "code": "<string>",           // error code as per firmware protocols
                   "msg": "<string>",            // (optional) error message, if any
                        "time": <integer>          // UTC time in seconds, when the error was first triggered
                   }, ....
              ],
         },
    }
  ]
}
```

Responses

The status (whether success or some type of failure) are indicated in the response as HTTP status codes, with additional information in the content, wherever needed. The response status codes and information are described below.

Http Status Code	Meaning	Description
201	CREATED	The alarm data was successfully logged for the given device(s)
404	NOT_FOUND	The device(s) were not registered in the system
206	PARTIAL_CONTENT	Alarm data was logged was some devices, whereas it could not be logged for some others (which were not registered or for which temperature could not be logged for some reason). Message body of response will include a list of devices that were not registered in the 'data' field below (in JSON format): { "errs" : [{ "dId": "<deviceId-1>", "sId": "<sensorId-1>","message" : "<error-message>"}, ...]} NOTE: sId is optional, and can be included in the identifiers list only for multi-sensor devices and for sensor-specific alarms.
500	INTERNAL_SERVER_ERROR	An internal system error that prevented the alarm data from being logged
400	BAD_REQUEST	The post data format was incorrect for this request. The JSON error message has to be sent back in the response as content.

STATS. LOGGING API (OPTIONAL)

Whenever the device(s) are configured only to send alerts, then daily stats. that are accumulated on the device/controller can be posted to the service. This will ensure that there is a daily communication of data from the device, which also indicates that the device and connectivity are alive (even if no alerts were generated that day). This is a configurable option.

REST API
Endpoint: https://<domain-name>/v2/stats
Method: POST
Post data:

```
{
 "vId": "<string>",                  // registered vendor ID
 "data":[
```

```
{
    "dId": "<string>",              // unique physical ID of the device
    "sId": "<string>",              // ID of the sensor, if any (for multi-sensor devices)
    "stats":{
            "day": <integer>,              // UTC time in seconds (recommended: send UTC zero hour of the day)
            "nExc": <integer>,             // (optional) number of excursions occurred that day
            "mean": <double>,              // mean temperature in degrees celsius
            "min": <double>,               // min. temperature in degrees Celsius during the day
            "max": <double>,               // max. temperature in degrees Celsius during the day
            "tz": <double>,                // (optional) timezone offset as on the device this day
            "high": {                      // (optional)
                "stat":<integer>,             // (optional) Status: 0:OK, 1:Alarm (initial alarm status, if any)
                "nAlrms":<integer>,           // number of alarms this day
                "dur": <integer>,             // duration (in minutes) over which the temperature was high
                "time": <integer>,            // UTC time in seconds, time at which the first high alarm was triggered
                "aTmp": <double>,             // (optional) ambient temperature in degrees Celsius
                "cnf": <boolean>,             // (optional) false: alarm unconfirmed, true: alarm confirmed
                "cnfms": "<string>"           // (optional) message associated with the confirmation, if any
            },
            "low":{                        // (optional)
                "stat":<integer>,             // (optional) Status: 0:OK, 1:Alarm (initial alarm status, if any)
                "nAlrms": <integer>,          // (optional) number of alarms this day
                "dur": <integer>,             // duration (in minutes) over which the temperature was low
                "time": <integer>,            // UTC time in seconds, time at which the first low alarm was triggered
                "aTmp": <double>,             // (optional) ambient temperature in degrees Celsius
                "cnf": <boolean>,             // (optional) false: alarm unconfirmed, true: alarm confirmed
                "cnfms": "<string>"           // (optional) message associated with the confirmation, if any
            },
            "xSns":{                       // (optional)
                "stat":<integer>,             // (optional) Status: 0:OK, 1:Alarm (initial alarm status, if any)
                "nAlrms": <integer>,          // (optional) number of alarms this day
                "dur": <integer>,             // duration (in minutes) over which the external sensor was unreachable
                "time": <integer>             // UTC time in seconds, time at which the first alarm was triggered
            },
            "dCon": {                      // (optional)
                "stat":<integer>,             // (optional) Status: 0:OK, 1:Alarm (initial alarm status, if any)
                "nAlrms": <integer>,          // (optional) number of alarms this day
                "dur": <integer>,             // duration (in minutes) over which the connection to the device failed
                "time": <integer>             // UTC time in seconds, at which the connection failed
            },
            "batt": {                      // (optional) Battery stats. (by device, not by sensor)
                "stat": <integer>,            // (optional) actual battery state: 0:OK, 1:Warning, 2:Alarm, 3:Charging
                "nAlrms": <integer>,          // (optional) number of alarms this day
                "actv": <double>,             // (optional) actual battery voltage (in volts)
                "time": <integer>,            // (optional) UTC time in seconds, at which first alarm occurred
                "lowv": <double>,             // (optional) lowest daily battery voltage (in volts)
                "highv": <double>,            // (optional) highest daily battery voltage (in volts)
                "chgt": <integer>,            // (optional) total daily charging time (in minutes)
                "pwrt": <integer>,            // (optional) total time power was available (in minutes)
                "wdur": <integer>,            // (optional) total duration (minutes) under warning limit
                "adur": <integer>,            // (optional) total duration (minutes) under alarm limit
            },
            "comm": {                      // (optional) Communication stats. (by device, not by sensor)
```

```
      "nSMS":<integer>,        // number of SMSes sent today
      "nPsh":<integer>,        // number of times data was pushed over Internet
      "nErr":<integer>         // number of times Internet sending failed or had an error
   },
   "str": {                    // (optional) Local data storage stats. (by device, not by sensor)
     "dsk": <double>,          // available disk space in Kbytes
     "ntmp": <integer>         // number of temperature samples cached on disk (not yet sent)
     "ndvc": <integer>         // number of device alarms cached on disk (not yet sent)
   },
   "errs": // (optional) Firmware error stats.
   [
    {
      "code": "<string>",      // enum => according to Firmware error code
      "cnt": <integer>,        // number of times this error occurred
      "time": <integer>        // UTC time in seconds, at which error occurred the first time
    }, ...
   ]
  }
 }
 ]
}
```

Responses

The status (whether success or some type of failure) are indicated in the response as HTTP status codes, with additional information in the content, wherever needed. The response status codes and information are described below.

Http Status Code	Meaning	Description
201	CREATED	The stats data was saved successfully
404	NOT_FOUND	The device(s) were not registered in the system
206	PARTIAL_CONTENT	Stats. data was logged was some devices, whereas it could not be logged for some others (which were not registered or for which temperature could not be logged for some reason). Message body of response will include a list of devices that were not registered in the 'data' field below (in JSON format): { "errs" : [{ "dId": "<deviceId-1>", "sId": "<sensorId-1>","message" : "<error-message>"}, …]} NOTE: sId is optional, and can be included in the identifiers list only for multi-sensor devices and for sensor-specific alarms.
500	INTERNAL_SERVER_ERROR	An internal system error that prevented the temperature data from being logged
400	BAD_REQUEST	The post data format was incorrect for this request. The JSON error message has to be sent back in the response as content.

CONFIGURATION PULL API

This API enables configuration specification for the device to pulled from the service. The configuration specification

includes various parameters that determine how the device samples and transmits temperature and/or device-specific information. This API is designed as a pull API, wherein the device/controller can pull this data over the Internet to configure/re-configure itself. The pull could be achieved by the device via a period poll of configuration data, or triggered via an SMS to the device (if capable of receiving SMS commands).

REST API

Endpoint: https://<domain-name>/v2/config/{vendorId}/{deviceId}[/{firmware-version}]
Method: GET

NOTE: {firmware-version} is optional, and hence indicated within [].

Response Status Codes:

Http Status Code	Meaning	Description
200	OK	Configuration JSON as shown below
404	NOT_FOUND	The device(s) were not registered in the system

JSON Response:

```
{
 "data": {
   "comm": {
      "chnl": <integer>,   // communication channel; 0:SMS, 1:Internet; 2: Internet with SMS failover
                            // (default is 1)
                            // NOTE: Failover option (2) enables automatic failover of data transmission to
                            // SMS, if Internet is unavailable.
      "tmpUrl": "<string>",   // URL for pushing temperature data and incursions/excursions over GPRS
      "cfgUrl": "<string>",   // (optional) URL for downloading configuration over GPRS
      "alrmUrl": "<string>",   // (optional) URL for pushing device alarm data over GPRS
      "statsUrl": "<string>",   // (optional) URL for pushing stats. data over GPRS
      "devRyUrl": "<string>",  // (optional) URL for pushing device ready status over GPRS
      "smsGyPh": "<string>",  // phone number of the SMS gateway
      "senderId": "<string>", // (optional) Sender string or gateway phone number
      "smsGyKey": "<string>",  // (optional) keyword for routing messages in the SMS gateway
      "tmpNotify": <boolean>,   // (optional) raw temperature data pushed to the server; default: false
      "incExcNotify": <boolean>,  // (optional) incursion/excursion data pushed to the server; default: true
      "statsNotify": <boolean>,   // (optional) daily stats. pushed to the server; default: false
      "devAlrmsNotify": <boolean>,   // (optional) device alarms will be pushed to the server; default: true
      "tmpAlrmsNotify": <boolean>,   // (optional) temperature alarms pushed to the server; default: false
      "samplingInt": <integer>,   // interval, in minutes, at which to sample temperature
      "pushInt": <integer>,   // interval, in minutes, at which to push temperature data to server
      "usrPhones": ["<string>","<string>",...],   // (optional) phones to send SMS notifications directly
      "wifi": {  // (optional) WiFi settings should the device support WiFi connection
          "ssid" : <string> // Access point name
           "pwd": <string> // Password for wifi
           "security" : <string> // Wifi security type none, wpa, wep/wpa2 and so on.
      }
   },
   "highAlarm": {  // (optional) high temperature alarm limits
      "temp": <double>,   // high limit for temperature in degrees Celsius
      "dur": <integer>   // duration, in minutes, over which the temperature should be continously above
                          // the high limit, before the high alarm can be triggered.
```

```
  },
  "lowAlarm": {  // (optional) low temperature alarm limits
     "temp": <double>,   // low limit for temperature in degrees Celsius
     "dur": <integer>   // duration, in minutes, over which the temperature should be continuously below
                        // the low limit, before the low alarm can be triggered.
  },
  "highWarn": {  // (optional, warning disabled, if omitted)  high temperature warning limits
     "temp": <double>,   // high limit for temperature in degrees Celsius
     "dur": <integer>   // duration, in minutes, over which the temperature should be continuously above
                        // the high limit, before a high warning alert can be triggered. Typically, warning
                        // duration will be lesser than the corresponding alarm duration.
  },
  "lowWarn": {  //  (optional, warning disabled, if omitted)  low temperature warning limits
     "temp":<double>,   // low limit for temperature in degrees Celsius
     "dur":<integer>    // duration, in minutes, over which the temperature should be continuously below
                        // the low limit, before a low warning alert can be triggered. Typically, warning
                        // duration will be lesser than the corresponding alarm duration.
  },
  "sensors": [    // (optional) sensor-specific overrides (if multi-sensor device)
    {
       "sId": "<string>",            // ID of the sensor
       "comm": {                     // (optional) communication related overrides
        "tmpNotify": <boolean>,   // (optional) raw temperature pushed to the server; default: false
        "incExcNotify": <boolean>, // (optional) incursion/excursion pushed to the server; default: true
        "statsNotify": <boolean>,   // (optional) daily stats. pushed to the server; default: false
        "devAlrmsNotify": <boolean>,   // (optional) device alarms pushed to the server; default: true
        "tmpAlrmsNotify": <boolean>,   // (optional) temperature alarms pushed to server; default: false
        "samplingInt": <integer>,   // interval, in minutes, at which to sample temperature
        "pushInt": <integer>,   // interval, in minutes, at which to push temperature data to server
       },
       "highAlarm": {  // (optional) high temperature alarm limits
            "temp": <double>,   // high limit for temperature in degrees Celsius
            "dur": <integer   // duration, in minutes, over which the temperature should be continously
                               // above the high limit, before the high alarm can be triggered.
       },
      "lowAlarm": {  // (optional) low temperature alarm limits
             "temp": <double>,   // low limit for temperature in degrees Celsius
             "dur": <integer>   // duration, in minutes, over which the temperature should be
                                // continuously below the low limit, before the low alarm can be
                                // triggered.
       },
       "highWarn": {  // (optional, warning disabled, if omitted)  high temperature warning limits
             "temp": <double>,   // high limit for temperature in degrees Celsius
             "dur": <integer>   // duration, in minutes, over which the temperature should be
                                // continuously above the high limit, before a high warning alert can be
                                // triggered. Typically, warning duration will be lesser than the
                                // corresponding alarm duration
       },
       "lowWarn": {  //  (optional, warning disabled, if omitted)  low temperature warning limits
             "temp":<double>,   // low limit for temperature in degrees Celsius
             "dur":<integer>   // duration, in minutes, over which the temperature should be
                                // continuously below the low limit, before a low warning alert can be
                                // triggered. Typically, warning duration will be lesser than the
```

```
                                    // corresponding alarm duration
            },
          "notf": {    // (optional) Alarm notification frequency
                  "dur": <integer>   // duration, in minutes, over which to send a repeat notifications
                  "num": <integer>  // number of times to resend the alarm notifications
            }
        }, ......
    ],
   "notf": {    // (optional) Alarm notification frequency
          "dur": <integer>   // duration, in minutes, over which to send a repeat notification if alarm persists
          "num": <integer>  // number of times to resend the alarm notifications
    },
    "locale": {                          // (optional) locale parameters
        "tz": <double>,             // timezone; offset in hours from GMT
        "cn": "<string>",            // (optional) 2-letter ISO 3166-2 country codes
        "ln": "<string>"             // (optional)  2-letter ISO 639-1 language codes
    },
    "poa": {                          // (optional) Power outage alarm (after a certain time)
        "dur": <integer>            // (optional) Power outage duration in minutes
    },
    "lba": {                          // (optional) Low-battery alarm (below a threshold)
        "lmt": <integer>            // (optional) Low-battery alarm threshold limit, in percentage
    }
 }
}
```

NOTE: For multi-sensor devices, certain configuration parameters (such as temperatuer alarm limits, types of data that need to be pushed, push/sampling intervals), can be specified by sensor.

CONFIGURATION PUSH API (VIA A PROXY)
Configuration push to devices from the Temperature Service will be required to enable a service manager to remotely change certain configuration parameters of devices. If the device vendor has a proxy server through which the device interaction is occuring, then that server has to support a configuration push API to which a configuration JSON (similar to what is specified in for the Configuration Pull API), will be posted (via a HTTP post). The vendor's post URL will be configured in the Temperature Service to which the above Configuration JSON will be posted.

Endpoint: As defined by the vendor for the proxy server, to which the following JSON formatted string will be posted. This has to mandatorly be a HTTPS connection to ensure security.

Authentication: An authentication token (say, as in Basic Authentication style of authentication) has to be provided by the vendor, which will be passed in the HTTP header of this request. This is mandatory to ensure authentication.

NOTE: If the vendor has an alternate authentication method, that will have to be discussed separately.

Post JSON
The post JSON is as follows:

```
{
 "dvs" : [  // list of devices (IDs), mobile number and country for which configuration has to be changed
        {
            "dId": "<String>", //Device Id
```

```
          "phn": "<String>" //Device primary mobile number
          "cn": "<string>",  // 2-letter ISO 3166-2 country codes
        },..
],
"data": {
   "comm": {
      "chnl": <integer>,   // communication channel; 0:SMS, 1:Internet; 2: Internet with SMS failover
                           // (default is 1)
                           // NOTE: Failover option (2) enables automatic failover of data transmission to
                           // SMS, if Internet is unavailable.
      "tmpUrl": "<string>",   // URL for pushing temperature data and incursions/excursions over GPRS
      "cfgUrl": "<string>",   // (optional) URL for downloading configuration over GPRS
      "alrmUrl": "<string>",   // (optional) URL for pushing device alarm data over GPRS
      "statsUrl": "<string>",   // (optional) URL for pushing stats. data over GPRS
      "devRyUrl": "<string>",   // (optional) URL for pushing device ready status over GPRS
      "smsGyPh": "<string>",   // phone number of the SMS gateway
      "senderId": "<string>",   // (optional) Sender string or gateway phone number
      "smsGyKey": "<string>",   // (optional) keyword for routing messages in the SMS gateway
      "tmpNotify": <boolean>,   // (optional) raw temperature data pushed to the server; default: false
      "incExcNotify": <boolean>,   // (optional) incursion/excursion data pushed to the server; default: true
      "statsNotify": <boolean>,   // (optional) daily stats. pushed to the server; default: false
      "devAlrmsNotify": <boolean>,   // (optional) device alarms will be pushed to the server; default: true
      "tmpAlrmsNotify": <boolean>,   // (optional) temperature alarms pushed to the server; default: false
      "samplingInt": <integer>,   // interval, in minutes, at which to sample temperature
      "pushInt": <integer>,   // interval, in minutes, at which to push temperature data to server
      "usrPhones": ["<string>","<string>",...],   // (optional) phones to send SMS notifications directly
      "wifi": {  // (optional) WiFi settings should the device support WiFi connection
          "ssid" : <string> // Access point name
          "pwd": <string> // Password for wifi
          "security" : <string> // Wifi security type none, wpa, wep/wpa2 and so on.
      }
   },
   "highAlarm": {  // (optional) high temperature alarm limits
      "temp": <double>,   // high limit for temperature in degrees Celsius
      "dur": <integer>   // duration, in minutes, over which the temperature should be continously above
                         // the high limit, before the high alarm can be triggered
   },
   "lowAlarm": {  // (optional) low temperature alarm limits
      "temp": <double>,   // low limit for temperature in degrees Celsius
      "dur": <integer>   // duration, in minutes, over which the temperature should be continuously below
                         // the low limit, before the low alarm can be triggered
   },
   "highWarn": {  // (optional, warning disabled, if omitted)  high temperature warning limits
      "temp": <double>,   // high limit for temperature in degrees Celsius
      "dur": <integer>   // duration, in minutes, over which the temperature should be continuously above
                         // the high limit, before a high warning alert can be triggered. Typically, warning
                         // duration will be lesser than the corresponding alarm duration.
   },
   "lowWarn": {  // (optional, warning disabled, if omitted)  low temperature warning limits
      "temp":<double>,   // low limit for temperature in degrees Celsius
      "dur":<integer>   // duration, in minutes, over which the temperature should be continuously below
                        // the low limit, before a low warning alert can be triggered. Typically, warning
                        // duration will be lesser than the corresponding alarm duration
```

```
        },
   "sensors": [    // (optional) sensor-specific overrides (if multi-sensor device)
     {
        "sId": "<string>",            // ID of the sensor
        "comm": {                     // (optional) communication related overrides
          "tmpNotify": <boolean>,   // (optional) raw temperature pushed to the server; default: false
          "incExcNotify": <boolean>,  // (optional) incursion/excursion pushed to the server; default: true
          "statsNotify": <boolean>,   // (optional) daily stats. pushed to the server; default: false
          "devAlrmsNotify": <boolean>,   // (optional) device alarms pushed to the server; default: true
          "tmpAlrmsNotify": <boolean>,   // (optional) temperature alarms pushed to server; default: false
          "samplingInt": <integer>,   // interval, in minutes, at which to sample temperature
          "pushInt": <integer>,   // interval, in minutes, at which to push temperature data to server
        },
        "highAlarm": {  // (optional) high temperature alarm limits
              "temp": <double>,   // high limit for temperature in degrees Celsius
              "dur": <integer>   // duration, in minutes, over which the temperature should be continously
                                 // above the high limit, before the high alarm can be triggered.
         },
        "lowAlarm": {  // (optional) low temperature alarm limits
               "temp": <double>,   // low limit for temperature in degrees Celsius
               "dur": <integer>   // duration, in minutes, over which the temperature should be
                                  // continuously below the low limit, before the low alarm can be
                                  // triggered.
         },
        "highWarn": {  // (optional, warning disabled, if omitted)  high temperature warning limits
               "temp": <double>,   // high limit for temperature in degrees Celsius
               "dur": <integer>   // duration, in minutes, over which the temperature should be
                                  // continuously above the high limit, before a high warning alert can be
                                  // triggered. Typically, warning duration will be lesser than the
                                  // corresponding alarm duration.
         },
        "lowWarn": {  //  (optional, warning disabled, if omitted)  low temperature warning limits
               "temp":<double>,   // low limit for temperature in degrees Celsius
               "dur":<integer>   // duration, in minutes, over which the temperature should be
                                 // continuously below the low limit, before a low warning alert can be
                                 // triggered. Typically, warning duration will be lesser than the
                                 // corresponding alarm duration.
         },
        "notf": {     // (optional) Alarm notification frequency
               "dur": <integer>   // duration, in minutes, over which to send a repeat notifications
               "num": <integer>  // number of times to resend the alarm notifications
         }
     }, ......
   ],
   "notf": {     // (optional) Alarm notification frequency
        "dur": <integer>   // duration, in minutes, over which to send a repeat notification if alarm persists
        "num": <integer>  // number of times to resend the alarm notifications
   },
   "locale": {                        // (optional) locale parameters
      "tz": <double>,                 // timezone; offset in hours from GMT
      "cn": "<string>",               // (optional) 2-letter ISO 3166-2 country codes
      "ln": "<string>"                // (optional)  2-letter ISO 639-1 language codes
   },
```

```
      "poa": {                        // (optional) Power outage alarm (after a certain time)
          "dur": <integer>            // (optional) Power outage duration in minutes
      },
      "lba": {                        // (optional) Low-battery alarm (below a threshold)
          "lmt": <integer>            // (optional) Low-battery alarm threshold limit, in percentage
      }
  }
}
```

Response Status Codes:

Http Status Code	Meaning	Description
201	CREATED	The configuration data was updated successfully
404	NOT_FOUND	The device(s) were not registered in the system
500	INTERNAL_SERVER_ERROR	An internal system error that prevented the configuration update
400	BAD_REQUEST	The post data format was incorrect for this request. The JSON error message has to be sent back in the response as content.

NOTE: For multi-sensor devices, the above configuration allows selectively enabling/disabling certain kinds of data pushes by individual sensor.

DEVICE READY API
This API is used by a device whenever it re-configures itself, or any of the device parameters, such as the IMEI (of SIM), model number, firmware version. The device can be expected to configure or re-configure in the following circumstances:

1. When the device is switched on for the first time, and it configures itself.
2. When a new configuration is pused to the device and it re-configures itself.
3. When the firmware of the device is upgraded, and it restarts and reconfigures itself.
4. When the SIM card is changed.

REST API
Endpoint: https://<domain-name>/v2/devices/ready
Method: POST
Post data:

```
{
 "vId": "<string>",               // registered vendor ID
 "data": [
  {
   "dId": "<string>",             // unique physical ID of sensor device
   "sim": {
        "sid": "<string>",        // SIM identification no. or any physical ID
        "phn": "<string>"                 // (optional) phone number of the SIM card
   },
    "altSim": {                   // (optional) alternate SIM details (if any)
        "sid": "<string>",        // SIM identification no. or any physical ID
        "phn": "<string>"                 // (optional) phone number of the SIM card
```

```
        },
        "dev": {
            "imei": "<string>",          // IMEI no. of the GSM module or any physical ID
            "dVr": "<string>"            // version of the sensor device firmware
            "mVr": "<string>"            // (optional) version of the GSM module firmware, if any
            "mdl": "<string>",           // (optional) model of the device, if any
        },
        "actSns": [ "<sId-1>", "<sId-2>", …],     // (optional) sensor IDs of active/connected sensors
        "asm": <integer>                // (optional) Active sim: 0 - Primary sim, 1 - Alternate sim
      }
  ]
}
```

NOTE:
1. Only active SIM details should be included. If there were two SIMs, and later on one SIM was removed, the subsequent device ready update should carry only the avialable SIM information.
2. For multi-sensor devices, the list of sensor IDs of connected/active sensors should be sent in this API.

Responses

The status (whether success or some type of failure) are indicated in the response as HTTP status codes, with additional information in the content, wherever needed. The response status codes and information are described below.

Http Status Code	Meaning	Description
201	CREATED	The stats data was saved successfully
404	NOT_FOUND	The device(s) were not registered in the system
500	INTERNAL_SERVER_ERROR	An internal system error that prevented the temperature data from being logged
400	BAD_REQUEST	The post data format was incorrect for this request. The JSON error message has to be sent back in the response as content.

DATA TYPES

The data types for the various fields and their value ranges are specified below.

Data field	JSON Key	Type	Range
Vendor ID	vId	String	50 characters max.
Device ID	dId	String	100 characters max.
Sensor ID	sId	String	100 characters max.
Time	time	Integer	Non-zero, positive integer (> 0)
Temperature	tmp, mean, min, max, aTmp	Double	Floating point number (+ve, 0 or –ve)
Status	stat	Integer	Enumerated values, as per the specification
Voltage	volt	Double	Positive floating point number (>= 0)
Error code	code	Integer	Any integer
Day	day	Integer	Non-zero, positive integer (> 0)

Counts	nExc, nSMS, nPsh, nErr, cnt	Integer	Positive integer (>= 0)
Duration	dur, samplingInt, pushInt	Integer	Positive integer (>= 0)
Channel	chnl	Integer	Enumberated values, as per specification
URLs	tmpUrl, cfgUrl, alrmUrl, statsUrl	String	500 characters max.
Phone numbers	smsGyPh, usrPhones	String	25 characters max.

SECTION 6: RETURNABLE BIDDING FORMS / CHECKLIST

This form serves as a checklist for preparation of your Bid. Please complete the Returnable Bidding Forms in accordance with the instructions in the forms and return them as part of your Bid submission. No alteration to format of forms shall be permitted and no substitution shall be accepted.

Before submitting your Bid, please ensure compliance with the Bid Submission instructions of the BDS 22.

Technical Bid:

Have you duly completed all the Returnable Bidding Forms?	
▪ Form A: Bid Submission Form	☐
▪ Form B: Bidder Information Form	☐
▪ Form C: Joint Venture/Consortium/ Association Information Form	☐
▪ Form D: Qualification Form	☐
▪ Form E: Format of Technical Bid/Bill of Quantities	☐
▪ From G: Form of Bid/Proposal Security	☐
▪ [Add other forms as necessary]	☐
Have you provided the required documents to establish compliance with the evaluation criteria in Section 4?	☐

This should include
     1. **Certificates**
     2. **Bid security**	

Have you provided the required prototype / documents / information to establish compliance with the evaluation criteria in Section 5?	

This should include
     1. **Prototype of proposed device**
     2. **Calibration certificate**
     3. **Product brochure including warranty details**	

Price Schedule:

▪ Form F: Price Schedule Form	☐

Form A: Bid Submission Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

We, the undersigned, offer to supply the goods and related services required for [Insert Title of goods and services] in accordance with your Invitation to Bid No. [Insert ITB Reference Number] and our Bid. We hereby submit our Bid, which includes this Technical Bid and Price Schedule.

Our attached Price Schedule is for the sum of [Insert amount in words and figures and indicate currency].

We hereby declare that our firm, its affiliates or subsidiaries or employees, including any JV/Consortium /Association members or subcontractors or suppliers for any part of the contract:

   a) is not under procurement prohibition by the United Nations, including but not limited to prohibitions derived from the Compendium of United Nations Security Council Sanctions Lists;

   b) have not been suspended, debarred, sanctioned or otherwise identified as ineligible by any UN Organization or the World Bank Group or any other international Organization;

   c) have no conflict of interest in accordance with Instruction to Bidders Clause 4;

   d) do not employ, or anticipate employing, any person(s) who is, or has been a UN staff member within the last year, if said UN staff member has or had prior professional dealings with our firm in his/her capacity as UN staff member within the last three years of service with the UN (in accordance with UN post-employment restrictions published in ST/SGB/2006/15);

   e) have not declared bankruptcy, are not involved in bankruptcy or receivership proceedings, and there is no judgment or pending legal action against them that could impair their operations in the foreseeable future;

   f) undertake not to engage in proscribed practices, including but not limited to corruption, fraud, coercion, collusion, obstruction, or any other unethical practice, with the UN or any other party, and to conduct business in a manner that averts any financial, operational, reputational or other undue risk to the UN and we embrace the principles of the United Nations Supplier Code of Conduct and adhere to the principles of the United Nations Global Compact.

We declare that all the information and statements made in this Bid are true and we accept that any misinterpretation or misrepresentation contained in this Bid may lead to our disqualification and/or sanctioning by the UNDP.

We offer to supply the goods and related services in conformity with the Bidding documents, including the UNDP General Conditions of Contract and in accordance with the Schedule of Requirements and Technical Specifications.

Our Bid shall be valid and remain binding upon us for the period specified in the Bid Data Sheet.

We understand and recognize that you are not bound to accept any Bid you receive.

I, the undersigned, certify that I am duly authorized by [Insert Name of Bidder] to sign this Bid and bind it should UNDP accept this Bid.

Name: _____

Title: _____

Date: _____

Signature: _____

[Stamp with official stamp of the Bidder]

Form B: Bidder Information Form

Legal name of Bidder	[Complete]
Legal address	[Complete]
Year of registration	[Complete]
Bidder's Authorized Representative Information	Name and Title: [Complete] Telephone numbers: [Complete] Email: [Complete]
Are you a UNGM registered vendor?	☐ Yes ☐ No If yes, [insert UGNM vendor number]
Are you a UNDP vendor?	☐ Yes ☐ No If yes, [insert UNDP vendor number]
Countries of operation	[Complete]
No. of full-time employees	[Complete]
Quality Assurance Certification (e.g. ISO 9000 or Equivalent) *(If yes, provide a Copy of the valid Certificate):*	[Complete]
Does your Company hold any accreditation such as ISO 14001 or ISO 14064 or equivalent related to the environment? *(If yes, provide a Copy of the valid Certificate):*	[Complete]
Does your Company have a written Statement of its Environmental Policy? *(If yes, provide a Copy)*	[Complete]
Does your organization demonstrates significant commitment to sustainability through some other means, for example internal company policy documents on women empowerment, renewable energies or membership of trade institutions promoting such issues	[Complete]
Is your company a member of the UN Global Compact	[Complete]
Contact person that UNDP may contact for requests for	Name and Title: [Complete] Telephone numbers: [Complete]

clarifications during Bid evaluation	Email: [Complete]
Please attach the following documents:	- Company Profile, which should <u>not</u> exceed fifteen (15) pages, including printed brochures and product catalogues relevant to the goods and/or services being procured - Certificate of Incorporation/ Business Registration - Tax Registration/Payment Certificate issued by the Internal Revenue Authority evidencing that the Bidder is updated with its tax payment obligations, or Certificate of Tax exemption, if any such privilege is enjoyed by the Bidder - Trade name registration papers, if applicable - Quality Certificate (e.g., ISO, etc.) and/or other similar certificates, accreditations, awards and citations received by the Bidder, if any - Environmental Compliance Certificates, Accreditations, Markings/Labels, and other evidences of the Bidder's practices which contributes to the ecological sustainability and reduction of adverse environmental impact (e.g., use of non-toxic substances, recycled raw materials, energy-efficient equipment, reduced carbon emission, etc.), either in its business practices or in the goods it manufactures - Patent Registration Certificates, if any of technologies submitted in the Bid is patented by the Bidder - Certification or authorization to act as Agent on behalf of the Manufacturer, or Power of Attorney. - Export Licenses, if applicable - Local Government permit to locate and operate in assignment location, if applicable - Official Letter of Appointment as local representative, if Bidder is submitting a Bid on behalf of an entity located outside the country

Form C: Joint Venture/Consortium/Association Information Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

To be completed and returned with your Bid if the Bid is submitted as a Joint Venture/Consortium/Association.

No	Name of Partner and contact information (address, telephone numbers, fax numbers, e-mail address)	Proposed proportion of responsibilities (in %) and type of goods and/or services to be performed
1	[Complete]	[Complete]
2	[Complete]	[Complete]
3	[Complete]	[Complete]

Name of leading partner (with authority to bind the JV, Consortium, Association during the ITB process and, in the event a Contract is awarded, during contract execution)	[Complete]

We have attached a copy of the below referenced document signed by every partner, which details the likely legal structure of and the confirmation of joint and severable liability of the members of the said joint venture:

☐ Letter of intent to form a joint venture   **OR**   ☐ JV/Consortium/Association agreement

We hereby confirm that if the contract is awarded, all parties of the Joint Venture/Consortium/Association shall be jointly and severally liable to UNDP for the fulfillment of the provisions of the Contract.

Name of partner: _____   Name of partner: _____

Signature: _____   Signature: _____

Date: _____   Date: _____

Name of partner: _____   Name of partner: _____

Signature: _____   Signature: _____

Date: _____   Date: _____

Form D: Eligibility and Qualification Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

If JV/Consortium/Association, to be completed by each partner.

History of Non- Performing Contracts

☐Non-performing contracts did not occur during the last 3 years			
☐ Contract(s) not performed in the last 3 years			
Year	**Non- performed portion of contract**	**Contract Identification**	**Total Contract Amount** (current value in US$)
		Name of Client: Address of Client: Reason(s) for non-performance:	

Litigation History (including pending litigation)

☐ No litigation history for the last 3 years			
☐ Litigation History as indicated below			
Year of dispute	**Amount in dispute** (in US$)	**Contract Identification**	**Total Contract Amount** (current value in US$)
		Name of Client: Address of Client: Matter in dispute: Party who initiated the dispute: Status of dispute: Party awarded if resolved:	

Previous Relevant Experience

Please list only previous similar assignments successfully completed in the last 5 years.

List only those assignments for which the Bidder was legally contracted or sub-contracted by the Client as a company or was one of the Consortium/JV partners. Assignments completed by the Bidder's individual experts working privately or through other firms cannot be claimed as the relevant experience of the Bidder, or that of the Bidder's partners or sub-consultants, but can be claimed by the Experts themselves in their CVs. The Bidder should be prepared to substantiate the claimed experience by presenting copies of relevant documents and references if so requested by UNDP.

Project name & Country of Assignment	Client & Reference Contact Details	Contract Value	Period of activity and status	Types of activities undertaken

Bidders may also attach their own Project Data Sheets with more details for assignments above.

☐ Attached are the Statements of Satisfactory Performance from the Top 3 (three) Clients or more.

Financial Standing

Annual Turnover for the last 3 years	Year USD/INR Year USD/INR Year USD/INR
Latest Credit Rating (if any), indicate the source	

Financial information (in US$ equivalent)	Historic information for the last 3 years		
	Year 1	Year 2	Year 3
	Information from Balance Sheet		
Total Assets (TA)			
Total Liabilities (TL)			
Current Assets (CA)			
Current Liabilities (CL)			
	Information from Income Statement		
Total / Gross Revenue (TR)			
Profits Before Taxes (PBT)			
Net Profit			
Current Ratio			

☐ Attached are copies of the audited financial statements (balance sheets, including all related notes, and income statements) for the years required above complying with the following condition:
   a)   Must reflect the financial situation of the Bidder or party to a JV, and not sister or parent companies;
   b)   Historic financial statements must be audited by a certified public accountant;
   c)   Historic financial statements must correspond to accounting periods already completed and audited. No statements for partial periods shall be accepted.

Form E: Format of Technical Bid

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder's Bid should be organized to follow this format of the Technical Bid. Where the bidder is presented with a requirement or asked to use a specific approach, the bidder must not only state its acceptance, but also describe how it intends to comply with the requirements. Where a descriptive response is requested, failure to provide the same will be viewed as non-responsive.

SECTION 1: Bidder's qualification, capacity and expertise

1.1   General organizational capability which is likely to affect implementation: management structure, financial stability and project financing capacity, project management controls, extent to which any work would be subcontracted (if so, provide details).

1.2   Relevance of specialized knowledge and experience on similar engagements done in the region/country.

1.3   Quality assurance procedures and risk mitigation measures.

1.4   Organization's commitment to sustainability.

SECTION 2: Scope of Supply, Technical Specifications, and Related Services

This section should demonstrate the Bidder's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; and demonstrating how the proposed bid meets or exceeds the requirements/specifications. All important aspects should be addressed in sufficient detail.

2.1   A detailed description of how the Bidder will deliver the required goods and services, keeping in mind the appropriateness to local conditions and project environment. Details how the different service elements shall be organized, controlled and delivered.

2.2   Explain whether any work would be subcontracted, to whom, how much percentage of the requirements, the rationale for such, and the roles of the proposed sub-contractors and how everyone will function as a team.

2.3   The bid shall also include details of the Bidder's internal technical and quality assurance review mechanisms.

2.4   Implementation plan including a Gantt Chart or Project Schedule indicating the detailed sequence of activities that will be undertaken and their corresponding timing.

2.5   Demonstrate how you plan to integrate sustainability measures in the execution of the contract.

Goods and services to be Supplied and Technical Specifications	Your response				
	Compliance with technical specifications		Delivery Date *(confirm that you comply or indicate your delivery date)*	Quality Certificate/Export Licenses, etc. *(indicate all that apply and attach)*	Comments
	Yes, we comply	**No, we cannot comply** *(indicate discrepancies)*			

Other Related services and requirements	Compliance with requirements		Details or comments on the related requirements
(based on the information provided in Section 5b)	**Yes, we comply**	**No, we cannot comply** *(indicate discrepancies)*	
e.g. Delivery Term			
Warranty			
Local Service Support			

SECTION 3: Management Structure and Key Personnel

3.1 Describe the overall management approach toward planning and implementing the project. Include an organization chart for the management of the project describing the relationship of key positions and designations. Provide a spreadsheet to show the activities of each personnel and the time allocated for his/her involvement.

3.2 Provide CVs for key personnel that will be provided to support the implementation of this project using the format below. CVs should demonstrate qualifications in areas relevant to the scope of goods and/or services.

Format for CV of Proposed Key Personnel

Name of Personnel	[Insert]
Position for this assignment	[Insert]
Nationality	[Insert]
Language proficiency	[Insert]
Education/ Qualifications	*[Summarize college/university and other specialized education of personnel member, giving names of schools, dates attended, and degrees/qualifications obtained.]* [Insert]
Professional certifications	*[Provide details of professional certifications relevant to the scope of goods and/or services]* ▪ Name of institution: [Insert] ▪ Date of certification: [Insert]
Employment Record/ Experience	*[List all positions held by personnel (starting with present position, list in reverse order), giving dates, names of employing organization, title of position held and location of employment. For experience in last five years, detail the type of activities performed, degree of responsibilities, location of assignments and any other information or professional experience considered pertinent for this assignment.]* [Insert]
References	*[Provide names, addresses, phone and email contact information for two (2) references]* Reference 1: [Insert] Reference 2: [Insert]

I, the undersigned, certify that to the best of my knowledge and belief, the data provided above correctly describes my qualifications, my experiences, and other relevant information about myself.

_____   _____

Signature of Personnel   Date (Day/Month/Year)

FORM F: Price Schedule Form

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
ITB reference:	[Insert ITB Reference Number]		

The Bidder is required to prepare the Price Schedule following the below format. The Price Schedule must include a detailed cost breakdown of all goods and related services to be provided. Separate figures must be provided for each functional grouping or category, if any.

Currency of the Bid: [Insert Currency]

Price Schedule

Item #	Description	UOM	Quantity (a)	Unit Price* (b)	Total Price C = a x b
1	Temperature Logger	Each	30,000		
2	**Spares**				
	Sensor with 2 meter cable	Each	3,500		
	Sensor with 7 meter cable	Each	1,000		
	Battery	Each	1,500		
	Power adapter	Each	6,000		
	SD Card	Each	4,500		
	Any other charges, please specify (d)				
	GRAND TOTAL (Total of sum(C) and d)				

* quoted rates should be valid for three years, that is the duration of the Long-term agreement.

Name of Bidder: _____

Authorised signature: _____

Name of authorised signatory: _____

Functional Title: _____

FORM G:

BID/PROPOSAL SECURITY

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made on this template)

To: UNDP
       [Insert contact information as provided in Data Sheet]

WHEREAS [*name and address of Contractor*] (hereinafter called "the Proposer/Bidder") has submitted a Proposal/Bid to UNDP dated Click here to enter a date., to execute Services/Supply .... (hereinafter called "the Proposal/the Bid"):

AND WHEREAS it has been stipulated by you that the Proposer/Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security in the event that the Proposer/Bidder:

a) Fails to sign the Contract after UNDP has awarded it;
b) Withdraws its Proposal/Bid after the date of the opening of the Proposals/Bid;
c) Fails to comply with UNDP's variation of requirement, as per RFP/ITB instructions; or
d) Fails to furnish Performance Security, insurances, or other documents that UNDP may require as a condition to rendering the contract effective.

AND WHEREAS we have agreed to give the Proposer/Bidder such this Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Proposer/Bidder, up to a total of [*amount of guarantee*] [*in words and numbers*], such sum being payable in the types and proportions of currencies in which the Price Proposal is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid]* without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid   30 days from the date of the validity of the Proposal/Bid.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date ....
Name of Bank ....
Address ....

FORM H:

PERFORMANCE SECURITY

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made on this template)

To: UNDP
        [Insert contact information as provided in Data Sheet]

WHEREAS [*name and address of Contractor*] (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. Click here to enter text.dated Click here to enter a date. , to execute Services ……………… (hereinafter called "the Contract"):

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract:

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of [*amount of guarantee*] [*in words and numbers*], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of *[amount of guarantee as aforesaid]* without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

This guarantee shall be valid until a date 30 days from the date of issue by UNDP of a certificate of satisfactory performance and full completion of services by the Contractor.

SIGNATURE AND SEAL OF THE GUARANTOR BANK

Date ……….

Name of Bank …………………………………………………………………………………………….

Address ………………………………………………………………………………………………

FORM I: Advanced Payment Guarantee[2]

(This must be finalized using the official letterhead of the Issuing Bank. Except for indicated fields, no changes may be made on this template)

_____ *[Bank's Name, and Address of Issuing Branch or Office]*

Beneficiary: _____ *[Name and Address of UNDP]*

Date: _____

ADVANCE PAYMENT GUARANTEE No.: _____

We have been informed that *[name of Company]*(hereinafter called "the Contractor") has entered into Contract No. *[reference number of the contract]*dated *[insert: date]* with you, for the provision of *[brief description of Services]*(hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, an advance payment in the sum of *[amount in words]* (*[amount in figures]*)is to be made against an advance payment guarantee.

At the request of the Contractor, we *[name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[amount in words]* (*[amount in figures]*)[3] upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor has used the advance payment for purposes other than toward providing the Services under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number _____ at *[name and address of Bank]*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of certified monthly statements which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of the monthly payment certificate indicating that the Consultants have made full repayment of the amount of the advance payment, or on the __ day of _____, 2__,[4] whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.

_____

[signature(s)]

Note: All italicized text is for indicative purposes only to assist in preparing this form and shall be deleted from the final product.

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[2] *This Guarantee shall be required if the Contractor will require advanced payment of more than 20% of the contract amount, or if the absolute amount of the advanced payment required will exceed the amount of USD 30,000, or its equivalent if the price offer is not in USD, using the exchange rate stated in the Data Sheet. The Contractor's Bank must issue the Guarantee using the contents of this template.*

[3] *The Guarantor Bank shall insert an amount representing the amount of the advanced payment and denominated either in the currency/ies of the advanced payment as specified in the Contract.*

[4] *Insert the expected expiration date. In the event of an extension of time for Completion of the Contract, the Contractor would need to request an extension of this Guarantee from the Guarantor Bank. Such request must be in writing and must be made prior to the expiration date established in the Guarantee. In preparing this Guarantee, the Contractor might consider adding the following text to the form at the end of the penultimate paragraph : "The Guarantor Bank agrees to a one-time extension of this Guarantee for a period not to exceed [six months] [one year], in response to the Contractor's written request for such extension, such request to be presented to the Guarantor Bank before the expiry of the Guarantee.*

FORM J:

"CONSIGNEE ACCEPTANCE CERTIFICATE"
(To be given by consignee's authorized representative)

The following goods have been received.

1.Name of the item supplied (with Make & Model) :-

2. Purchase Order/Contract No **:-**

3. Name of the Supplier:-

4. Schedule No :-

5. No. of Units supplied:-

6. Place of destination:-

7. Invoice No. & Date:-

8. Name and Address of the Consignee:-

9. Date of receipt by the Consignee:-

The undersigned hereby certifies that the aforesaid goods have been received in good working condition and accepted.

Signature_____
Name_____
Designation with stamp____
Date_____

Countersigned by:
Signature_____
Name_____
Date_____

NOTE   This certificate is to be filled up and issued by authorized representative of the consignee and is to be duly stamped and countersigned by the supervisor.