

**AUG
2020**

Request For Proposal (RFP)

Unified Dissemination System (UDS) (Design, Develop, Commissioning and Support)

**NATIONAL CENTER FOR SEISMOLOGY (NCS)
New Delhi-03**

SECTION – I
GENERAL INSTRUCTIONS TO BIDDERS

1. Introduction:

- 1.1 The Purchaser has issued this Tender Enquiry (TE) document for purchase of goods/stores/articles and related services as mentioned in Section “List of requirements / Technical specifications”, which also indicates, inter alia, the required stores, delivery schedule, terms and place of delivery etc. This section “General Instructions to Bidders” (GIB) provides the relevant information as well as instructions to assist the prospective Bidders in preparation and submission of tenders.
- 1.2 Bidders shall have to agree/accept all the terms and conditions of Tender document including payment terms etc. Acceptance shall be unconditional and Bidders shall have no claim and right in future on their terms, if any.
- 1.3 Whenever there is any conflict between the provision in the “General Instructions to Bidders” with regard to a specific item/para/clause under this section and that in the “RFP”, the provision contained in the RFP shall have an over-riding effect and treated as final. Any special instructions as per “RFP” section will also apply for this purchase. The conditions (like qualification criteria, maintenance services, penalty charges, etc.) mentioned in “RFP” will also apply for this purchase.
- 1.4 Indian vendors only can participate in this Bid and should quote in Indian Rupees only.

2. Tender Language: The tender submitted by the Bidder and all subsequent correspondence and documents relating to the tender exchanged between the Bidder and the purchaser shall be written in the English language.

3. Tender Validity :

- 3.1 The tenders shall remain valid for acceptance for a period of 180 days (one hundred eighty days) after the date of tender opening prescribed in the Tender document.
- 3.2 Purchaser’s Right to accept any tender and to reject any or all tenders.
- 3.3 The purchaser reserves the right to accept in part or in full any tender or reject any tender without assigning any reason or to cancel the tendering process and reject all tenders at

any time prior to award of contract, without incurring any liability, whatsoever to the affected Bidder or Bidders.

4. Tendering Expenses: The Bidder shall bear all the costs and expenditure incurred and/or to be incurred by them in preparation, and uploading their tender including attending the pre-bid conference and/ or arranging demonstration of Services or Presentations before the Committee that may be deemed necessary by the Purchaser.

5. Pre-bid Meeting:

- 5.1 Pre-bid conference shall be held as per Notice Inviting Tender (NIT) schedule in order to provide an opportunity to the participating Bidders to interact with NCS with regard to various tender provisions/clauses, before the bids are submitted. Bidders should depute their authorized representative for pre-bid meeting. In case, due to the points/doubts raised by the prospective Bidders, needs to be modified, and then the same will be considered for modification. After pre-bid conference, tender conditions will be frozen. No change will be permissible after pre-bid meeting. Clarification needed, if any, may be sent before the commencement of pre-bid meeting. No reply in this regard shall be sent to individual Bidders. Pre-Bid minutes shall be uploaded on e-Procurement portal (<https://eprocure.gov.in/eprocure/app>), <http://www.moes.gov.in/manage-tender-module-admin> and NCS website (<https://www.seismo.gov.in/content/tenders>).
- 5.2 NCS shall hold a pre-bid meeting with the prospective Bidders as per Notice Inviting Tender (NIT) details. Queries received in writing, from the Bidders, prior to the pre-bid meeting shall be addressed. The queries can be sent to NCS through email at g.suresh@imd.gov.in, ravi5ravi@yahoo.com and/ or faxed on 91-11-24619943.
- 5.3 Conditional tenders shall not be accepted on any ground and shall be rejected straightway. If any clarification is required, the same should be obtained on or before pre-bid meeting. No correspondence will be entertained after pre-bid meeting.
- 5.4 **Regular visit of the website:** Prospective Bidders are advised to see e-Procurement portal <http://eprocure.gov.in/eprocure> or NCS website (www.seismo.gov.in) on regular basis for any change in NIT schedule, amendment / corrigendum in Tender Document including technical requirement and pre-bid minutes etc.

6. Bidder's Eligibility Criteria:

- 6.1 The Bidder should be an Indian firm and have at least three years experience in the execution of IT projects of software development, website development; real-time dissemination services.
- 6.2 Prime Bidder should have an average turnover of 0.5 crore per annum during last three years and must have experience in similar nature of work such as Design and Development of scientific web-database driven application software or / dynamic content management scientific application related to real-time scientific application or Message dissemination systems.
- 6.3 Prime bidder must have completed at least three similar nature of work - Design, Development of Dissemination System using at least any two dissemination services among Bulk SMS, Bulk FAX, Bulk Email, Bulk Social Media or real-time application software or website development, during the last five years.
- 6.4 Prime Bidder has to provide a completion certificate from such client and; at least (02) two completion certificate preferably from Central / State Government agencies /PSUs.
- 6.5 Prime bidder should have a valid ISO 9001:2015 or 90001:2008 certificate and also should have Capability Maturity Model Integration (CMMI) level 3 certificate.
- 6.6 Profit –Loss statement for last three financial years should be submitted.
- 6.7 The Bidder is requested to furnish documents to establish their eligibility for each of the above clauses. Relevant portions, in the documents submitted in pursuance of eligibility criteria mentioned above, should be highlighted. If tender were not accompanied by all the above documents mentioned, the same would be rejected. Undertaking for subsequent submission of any of the above document will not be entertained. However, NCS reserves the right to seek the fresh set of documents or seek clarifications on the already submitted documents. All documents should be submitted electronically in PDF format. Upon verification, evaluation/assessment, if in case any information furnished by the Bidder is found to be false/incorrect, their bid shall be summarily rejected and no correspondence on the same shall be entertained.

7. Bid Submission:

- 7.1 The registration number, GST and PAN numbers of the firm should be submitted, failing which Bidder's bid-offer would become invalid & same shall be rejected.

- 7.2 The Bidder should submit the details of agreements entered into with various Manufacturers/Partners/Sub-contractors for executing the work as per RFP and their experience to meet the qualification & experience criteria. The Manufacturer Authorisation form duly filled-up as per **Annexure-3**.
- 7.3 A self-certificate stating that the Bidder is not presently blacklisted and hasn't been blacklisted by any institution of the Central/State Government in the past three years should be submitted.
- 7.4 The Bidder has to quote for all items mentioned in Scope of the Services, as per Price-bid format given in **Annexure-7**
- 7.5 No deviations in terms & conditions of the tender document will be accepted in any case.
- 7.6 Uploading of **bids on e-Procurement portal** is an essential requirement. Bids not submitted through e-Procurement portal will not be considered for tender evaluation. The bids submitted by fax/ E-mail / manually etc. shall not be considered. No correspondence will be entertained on this matter.
- 7.7 All the documents attached to the tender for considering offer are supposed to be complete in all respects. **Therefore, it is important that all tender documents (scanned copies in PDF format) are duly filled in, duly signed-in and duly stamped in all respects before uploading.**
- 7.8 All the bids documents should be signed by the authorized signatory with company seal. All pages of the bid being submitted **must be sequentially numbered by the Bidder**.
- 7.9 NCS will not be responsible for any delay on the part of the bidder in obtaining the terms and conditions of the tender notice or submission of the online bids.
- 7.10 Without EMD unless exempted, bid will be treated as cancelled.
- 7.11 Part-I (Technical Bid) and Part-II (Commercial Bid) should be uploaded in the prescribed format in the e-Procurement portal. EMD through FDR/Bank Guarantee from any Scheduled Commercial Bank drawn in favour of "DDO, National Center for Seismology , New Delhi" in one cover sealed and superscribed **"EMD– "Unified Dissemination System (UDS): Design, Develop, Commissioning and Support"** as per NIT details, should be submitted physically to Mr Kamallesh Chowdhary, Meteorologist-A, Room No. 303, III Floor, Sat. Met. Building, Mausam Bhavan Complex, Lodi Road, New Delhi-03. However, the scanned copies of FDR/Bank Guarantee towards EMD, must be uploaded (PDF format)

electronically (along with Technical Bid) on e-Procurement Portal (<https://eprocure.gov.in>). The model of Bank Guarantee Form is given at **Annexure-5**.

- 7.12 A hard copy of Technical bid only in a sealed cover should be submitted to Sh. Kamallesh Chowdhury. The copy must be same to the one which had been uploaded on e-procurement portal.
- 7.13 **Part-1 Technical Bid should contain the following details, should be titled as “Technical Bid – NCS Tender for “Unified Dissemination System (UDS): Design, Develop, Commissioning and Support”**
- 7.13.1 Company profile and Infrastructure
 - 7.13.2 Registration certificate with Government. Credential/document shall be attached.
 - 7.13.3 All the documents asked for Eligibility Criteria.
 - 7.13.4 Copy of Tender document in each page which was duly signed and stamped.
 - 7.13.5 Compliance sheet as per **Annexure-6** and the supporting documents.
 - 7.13.6 PDF file (scanned document) of EMD.
 - 7.13.7 Un-priced-bid (without price) containing Bill of Materials (BoM) indicating various components of works relating to RFP, should be submitted. This should be exactly same as price bid format (**Annexure- 7**) mentioned in the tender document.
 - 7.13.8 Checklist section (as per **Annexure-1**) properly filled and signed.
 - 7.13.9 Submission of Tender Acceptance form as per format given in **Annexure-2**.
 - 7.13.10 Any deviations to the Terms and Conditions including Financial shall clearly be brought out in the Technical proposal with specific reasons.
 - 7.13.11 The Technical bid file in PDF format, NOT containing the above documents or containing the financial bid (with price quote details) in explicit/implicit form will lead to rejection of the bid.
- 7.14 **Price Bid (Part-II):** The financial bid (as per the Price bid format specified in **Annexure-7**) needs to be submitted in PDF format.
- 7.14.1 The rates are to be quoted in strict compliance to the format (specified in **Annexure-7**) otherwise the bid is liable to be rejected.
 - 7.14.2 The rates are to be quoted by the Bidders in Indian Currency and payment shall be made to successful Bidders in Indian currency only.

- 7.14.3 The Bidder shall bear all the Income-tax liability as per rates prevailing at the time of undertaking the job in accordance with the Income-tax Act in force in India.
- 7.14.4 Percentage (%) of taxes etc. if any to be claimed shall be indicated in the Price bid, otherwise it will be presumed that rates are inclusive of all taxes and no plea would be accepted in this regard after opening of the Tender bids.
- 7.14.5 Any firm in India (Agent/ Authorised Supplier /Dealer/ Subsidiary/ Integrators/ Distributors/ Stockist etc. of their foreign principal) should quote in Indian Rupees only.
- 7.14.6 Statutory levies, taxes and duties etc., if any, chargeable on the goods/services are payable on actual basis as applicable.
- 7.14.7 If there is a discrepancy between the amount expressed in words and figures, the amount in words shall prevail.

8. Alterations and Withdrawal of Tender:

- 8.1 The Bidder, after uploading its Tender in PDF format, is permitted to alter / modify its tender so long as such alterations / modifications are received duly signed, sealed and marked like the original tender, within the deadline for submission of tenders.
- 8.2 No tender should be withdrawn after the deadline for submission of tender and before the expiry of the tender validity period. If a Bidder withdraws the tender during this period, it will result in forfeiture of the EMD furnished by the Bidder.

- 9. Opening of Tenders:** The purchaser will open the tenders at the specified date and time and at the specified place as indicated in the NIT. In case the specified date of tender opening falls on /is subsequently declared a holiday or closed day for the purchaser, the tenders will be opened at the appointed time and place on the next working day. Authorized representatives of the Bidders, who have submitted tenders on time may attend the tender opening, provided they bring with them letters of authority from the corresponding Bidders. Two Bid system will be as follows. The Technical Bids are to be opened in the first instance, at the prescribed time and date. These Tenders shall be scrutinized and evaluated by the competent committee/ authority with reference to parameters prescribed in the Tender document. During the Technical Bids opening, the tender opening official(s) will read the salient features of the tenders like Eligibility Criteria, Earnest Money Deposit and any other special features of the tenders, as deemed fit by the tender

opening official(s). Thereafter, in the second stage, the Price Bids of technically qualified Bidders only shall be opened for further scrutiny and evaluation on a date notified To the technically qualified Bidders.

10. Unresponsive Bids: The bids will be scrutinized to determine whether they are complete and meet the requirements, conditions etc. as prescribed in the Tender document. The bids are liable to be treated as non – responsive and will be summarily ignored if following details are not provided along with technical bids

10.1 Registration certificate of bidding firm with Government. Credential/document not attached.

10.2 Tender is unsigned.

10.3 Checklist (**Annexure-1**) not enclosed.

10.4 Tender Acceptance Form (**Annexure-2**) not duly signed and stamped. (i.e., all the terms & conditions) of tender document are acceptable. Original Letter shall be enclosed in technical bid.

10.5 Tender validity is shorter than the required period.

10.6 Required EMD has not been provided unless exempted.

10.7 Bidder has not agreed to give the required Performance Security, after issue of Supply Order.

10.8 Proof of MSME on the date of tender submission for exemption of EMD.

11. Technical Evaluation:

11.1 A duly constituted Technical Evaluation Committee (TEC) will first select Bidders on the basis of eligibility criteria of this tender. The Bids conforming to the eligibility criterion will be considered for further evaluation

11.2 **Bidder should give presentation about their offered solutions before the TEC for further evaluation of their technical proposal.**

11.3 If during the preliminary examination, the purchaser finds any minor informality and/or irregularity and/or non-conformity in a tender, the purchaser may waive the same provided it does not constitute any material deviation and financial impact and, also, does not prejudice or affect the ranking order of the Bidder. Wherever necessary, the

purchaser will convey its observation on such 'minor' issues to the Bidder asking the Bidder to respond by a specified date. If the Bidder does not reply by the specified date or gives evasive reply without clarifying the point at issue in clear terms, that tender will be liable to be ignored.

- 11.4 Technical Evaluation Committee (TEC) will shortlist Technical Bids on the basis of technical parameters, presentation on offered technical solutions and features offered. The TEC can make any enquiry/seek clarification from the Bidders on the offered Service Solution. In such a situation, the Bidder shall extend full co-operation. The Bidders can also be asked to give technical presentation/discussion on the offered solution, in a short period notice, as such the **Bidders** have to be ready for the same.
- 11.5 For Detailed Technical Presentations/Discussions, Bidder has to ensure the availability of appropriate specialist, along with required documentation for interacting with the Technical Evaluation Committee. If the required specialist along with proper documentation is not made available by Bidders, then such defaulting Bidders shall be debarred from the tender evaluation process and shall forfeit the EMD.
- 11.6 Compliance statement in the form of '**Complied**' or '**Not Complied**' shall be given against each term and specification mentioned in the tender document. The compliance statement should contain the signature of the authorized person and the seal of the company. Any deviation should be mentioned/explained by the Bidder in Compliance Statement. The compliance statements should be supported by authentic documentation. Deviations in the lower side will not be accepted.
- 11.7 No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till the final decision is conveyed to the successful Bidder(s).
- 11.8 The names of technically shortlisted Bidders will be announced to only those Bidders whose bids will qualify for the opening of the Price/Financial/Commercial Bids.

12. Financial Evaluation:

- 12.1 The Financial Bids of only those Bidders short-listed from the Technical Bids by TEC will be opened in the presence of their representatives on a specified date and time to be intimated to the respective Bidders, and the same will be evaluated by a duly constituted Finance Evaluation Committee (FEC).
- 12.2 There will be **NO NEGOTIATION** regarding the financial bid.

- 12.3 No enquiry shall be made by the Bidder(s) during the course of evaluation of the tender, after opening of bid, till the final decision is conveyed to the successful Bidder(s). However, the Committee/its authorized representative and office of NCS can make any enquiry/seek clarification from the Bidders, which the Bidders must furnish within the stipulated time else bid of such defaulting Bidders will be rejected.
- 12.4 If there is a discrepancy between the unit price and total price, The Unit Price shall prevail.

13. Earnest Money Deposit (EMD):

- 13.1 The Bidder shall furnish along with its tender, Earnest Money for an amount as shown in the tender notice. The Earnest Money is required to protect the purchaser rights against the risk of the Bidders unwarranted conduct. EMD also known as security deposit.
- 13.2 The bidders who are registered on Tender submission date with National Small Industries Corporation, New Delhi, shall be eligible for exemption from EMD. Micro and Small Enterprises specified by Ministry of Micro, Small & Medium Enterprises (MSME) are exempted from the submission of Earnest Money Deposit (EMD).
- 13.3 EMD of an amount as shown in NIT has to be submitted through FDR/Bank Guarantee of any Scheduled Commercial Bank drawn in favour of "DDO, National Centre for Seismology, New Delhi", physically **before the date/time mentioned in NIT. Otherwise, bid will be rejected. However, the scanned copy of FDR/BG along with the Bid must be uploaded electronically on e-Procurement site.**
- 13.4 The EMD shall be valid for a minimum period of 240 days from the date of Publishing of tender.

14. Refund of EMD:

- 14.1 In the case of those Bidders who fail to qualify the eligibility criteria, the Earnest Money Deposit (EMD) will be refunded without any interest accrued immediately thereafter.
- 14.2 In the case of those Bidders whose technical bids do not qualify, the EMD will be refunded without any interest accrued within one month of the acceptance of TEC's recommendations.

- 14.3 In the case of those Bidders whose technical bids have qualified but are not selected, the EMD will be refunded without any interest accrued within one month of the acceptance of Financial Evaluation Committee's (FEC) recommendations.
- 14.4 Bidder whose bid was accepted and selected, the EMD will be refunded without any interest accrued after the submission of Performance Bank Guarantee (PBG).
- 14.5 Application of request for refund of EMD is given at **Annexure-4**

15. Forfeit of EMD:

- 15.1 Earnest money of a Bidder will be forfeited, if the Bidder withdraws or amends its tender or impairs or derogates from the tender in any respect within the period of validity of its tender or if it comes to notice that the information/documents furnished in its tender is incorrect, false, misleading or forged without prejudice to other rights of the purchaser.
- 15.2 The successful Bidder's earnest money will be forfeited without prejudice to other rights of Purchaser if supplier fails to furnish the required performance security within the specified period mentioned in **clause 16.1**.
- 15.3 Firm shall have to extend the validity of EMD if extension of tender validity is agreed on the request of purchaser in exceptional cases.

16. Performance Security:

- 16.1 Successful Bidder shall submit performance security within thirty (30) days from date of dispatch of supply order/award of the contract by the purchaser or within twenty one (21) days from the receipt of supply order by the supplier whichever is earlier.
- 16.2 The purchaser may consider annulment/cancellation of supply order/ award of contract if performance security not received in stipulated time.
- 16.3 There is no relaxation/exemption in submitting of Performance Security.
- 16.4 The supplier shall furnish performance security to the purchaser for an amount equal to ten percent (10%) of the total value of the order, valid up to sixty (60) days beyond the warranty period. The format of bank guarantee to be submitted as performance security is given in **Annexure-5**.
- 16.5 Performance Security shall be furnished by the Indian supplier

- 16.6 Bank Guarantee should be submitted from State Bank of India (SBI) or any other Nationalized Bank of India.
- 16.7 Firms, registered with NSIC/ MSME, quoting on behalf of their foreign principal shall be responsible for furnishing performance security for the entire project tenure.
- 16.8 The successful Bidder will have to deposit Performance Security within the specified time limit given above, equivalent to 10% (Ten Percent) of the total value of the work order, in the form of FDR or Bank Guarantee from a Nationalized/ Scheduled Commercial Bank in favour of “**DDO, National Centre for Seismology, New Delhi**”. If the Security Deposit is not paid within the time specified, the Earnest Money Deposit of the Bidder shall be forfeited. No interest will be payable for “Performance Security”.
- 16.9 Performance Security has to be submitted irrespective of its registration NSIC etc. Performance security is not relaxed to any supplier/service provider. Submission of Performance Security is a must for all suppliers/service providers.
- 16.10 It shall be in any one of the forms namely Fixed Deposit Receipt or Bank Guarantee drawn/issued by a commercial bank doing Government business in the prescribed form in favour of the purchaser. In the event of any amendment issued to the contract, the supplier shall, within twenty-one (21) days of issue of the amendment, furnish the corresponding amendment to the Performance Security (as necessary), rendering the same valid in all respects in terms of the contract, as amended.
- 16.11 The purchaser will release the Performance Security without any interest to the supplier/ service provider on completion of the supplier’s all contractual obligations including the warranty obligations & after receipt of performance security.
- 16.12 In the event of non-providing the services, the Performance Security shall be forfeited to the extent the services are not provided. Further, if the purchaser has to get the services from any other Bidder because of failure to provide in full or part by the successful Bidder, the difference in payment may be made from such amount. Also, the amount retained towards “Performance Security” is subject to forfeiture if it is found at any point of time during the period of the contract that the services offered by the supplier are not in conformity to the accepted specifications mentioned in RFP by the purchaser.
- 16.13 In case the Bidder backs out of the contract in midstream without the explicit consent of the NCS, the PBG will stand forfeited.

16.14 On completion of the Project, the Performance Bank Guarantee without any interest accrued shall be released after ascertaining that satisfactory support that has been provided during the extended warranty period. In case, it is found that appropriate satisfactory support has not been provided by the Bidder, NCS will ensure that the prescribed penalty as per **Clause 33** for the default in service has been realized or shall be recovered from the Bidder out of already due payments.

17. Payment Terms:

17.1 No advance payment will be made in any case.

17.2 Payment shall be done as per following

17.2.1 30% payment shall be released on successful completion of PDR (Preliminary Design Review), CDR (Critical Design Review), Beta Version installation and configuration.

17.2.2 70% payment shall be released on successful commissioning of final version, Test & Acceptance of the system.

17.3 Payments shall be subject to deductions of any admissible amount for which the bidder is liable under the Service Contract. Further, all payments shall be made subject to deduction of TDS (Tax Deduction at Source) as per the Income-Tax Act, 1961 and any other applicable taxes; and also, penalty charges due to the deficiency in service (if any).

17.4 All payments will be made through RTGS only. In this connection, Bidder shall submit particulars of his Bank Account details – a) Account Number, b) Branch Name and Address, c) IFS code, d) MICR number, e) PAN etc.

17.5 At any point of time. If Purchaser decides that the dissemination of SMS services (Level-1 or Level-2 or both) will be implemented through Gateway of Govt. Agency like NIC, then the corresponding cost component towards usage SMS charges will be deducted.

18. Arbitration:

18.1 In case any dispute or difference arises out of or in connection with execution of the project (whether during the progress of the Services or after their completion & whether before or after the termination, abandonments or breach of contract) except as any of

the accepted matters, provided hereunder, the parties hereto, shall first endeavour to settle such disputes of differences amicably.

18.2 If both the parties fail to reach such amicable settlement, then either party (The Purchaser or Bidder) may (within 30 days of such failure) give written notice to the other party requiring that all matter in dispute or difference be arbitrated upon. Such written notice shall specify the matters which are in difference or differences of which such written notice has been given and no other shall be referred to the arbitration of a single arbitrator, to be appointed by both the parties or in case of disagreement as to the appointment of a single arbitrator, to that of two arbitrators, one to be appointed by each party or in case of said arbitrators not agreeing then, to the umpire to be appointed by the arbitrators in writing before entering upon the references. Provisions of Indian Arbitration & Conciliations Act, 1996 or any statutory modification or re-enactment thereof and rules framed there under from time to time shall apply to such arbitration.

18.3 The venue of arbitration shall be New Delhi.

18.4 The arbitrators or arbitrators appointed under this Article shall have the power to extend the time to make the award with the consent of parties.

18.5 Pending reference to arbitration, the parties shall make all endeavours to complete the work in all respect. Disputes, if any, will finally be settled in the arbitration.

18.6 Upon every or any such references to the arbitration, as provided herein the cost of and incidental to the reference and Award respectively shall at the discretion of the arbitrator, or the umpire, as case may be.

18.7 The award of arbitrator or arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence. The Purchaser and the Contractor hereby also agree that arbitration under this clause shall be the condition precedent to any right of action under the contract except for as provided for in the Tender.

19. Force Majeure:

Force Majeure means an event beyond the control of the supplier and not involving the supplier's fault or negligence and which is not foreseeable. If at any time, during the continuance of the Service contract, in whole or in part by either party of any obligation under the Service contract is

prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, devastating earthquake, epidemics quarantine restrictions, strikes, lockouts or acts of God (hereinafter referred to as "events") etc, provided notice of happenings of any such event is duly endorsed by the appropriate authorities/chamber of commerce in the country of the party giving notice, is given by party seeking concession to the other as soon as practicable, but within 21 days from the date of occurrence and termination thereof and satisfies the party adequately of the measures taken by it, neither party shall, by reason of such event, be entitled to terminate the Service Contract, nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and deliveries under the service contract. The maintenance services shall be resumed as soon as practicable after such event has come to an end or ceased to exist and the decision of the purchaser as to whether the Services have so resumed or not, shall be final and conclusive, provided further, that if the performance in whole or in part or any obligation under the Service contract is prevented or delayed by reason of any such event for a period exceeding 60 days, the purchaser may at his option, terminate the Service contract. In such cases, Director, NCS decision shall be final, conclusive and binding between the two parties. There may be a Force Majeure situation affecting the purchase organization only. In such a situation the purchase organization shall take up with the supplier on similar lines as above for further necessary action.

20. Termination of Tender by Purchaser:

- 20.1 From the time of submission of tender to the time of awarding the contract, if a Bidder needs to contact the purchaser for any reason relating to this tender enquiry and / or its tender, it should do so only in writing.
- 20.2 In case a Bidder attempts to influence the purchaser in the purchaser's decision on scrutiny, comparison & evaluation of tenders and awarding the contract, the tender of the Bidder shall be liable for rejection in addition to appropriate administrative actions being taken against that Bidder, as deemed fit by the purchaser.
- 20.3 The purchaser, without prejudice to any other contractual rights and remedies available to it (the purchaser), may, by written notice of default sent to the supplier, terminate the contract in whole or in part, if the supplier fails to deliver any or all of the goods or fails to perform any other contractual obligation(s) within the time period specified in the

contract, or within any extension thereof granted by the purchaser. In the event of the purchaser terminates the contract in whole or in part, the purchaser may procure goods and/or services similar to those cancelled, with such terms and conditions and in such manner as it deems fit and the supplier shall be liable to the purchaser for the extra expenditure, if any, incurred by the purchaser for arranging such procurement. If the supplier becomes bankrupt or otherwise insolvent, the purchaser reserves the right to terminate the contract at any time, by serving written notice to the supplier without any compensation, whatsoever, to the supplier, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the purchaser.

Section-II

Technical Specifications

21 Background:

21.1 National Centre for Seismology (NCS), an attached office of Ministry of Earth Sciences (MoES), is the nodal agency of Government of India (GoI) for monitoring and reporting earthquake activity in the country on a 24x7 basis. NCS is responsible for reporting of earthquake occurrences, as quickly as possible, to all the user agencies responsible in decision making and initiating relief and rehabilitation measures at Central and State Government level, media and public. The earthquake information broadly consists of the time and date of occurrence of the earthquake, its magnitude, location (latitude, longitude and name of the region), focal depth and some additional information, such as expected seismic Intensity and likely damage, distance from the main cities in India, location map of the earthquake, past seismic history of the area, etc. To achieve this goal, NCS is maintaining the National Seismological Network (NSN) consisting of 115 stations spread over the entire country. The Operational Centre at III Floor, SatMet Building, Mausam Bhavan Complex, Lodi Road, New Delhi; monitors the continuous seismic waveform data from the above nationwide seismic network stations and analyzes the same for ascertaining earthquake occurrences round-the-clock on a real-time basis. The Operational Centre employs 'SeisComp3' an earthquake (EQ)-auto-location application software (<https://www.seiscomp.de/doc/>), to make preliminary estimates of earthquake parameters immediately (within a few minutes) after the occurrence of an earthquake. The SeisComp3 is presently hosted in Linux Server (OS: Ubuntu 16.x).

21.2 The auto-location software estimates the preliminary hypocentral parameters of earthquakes, in real-time, making use of the first P-wave arrival information. As the continuous data keeps flowing from more field stations, the preliminary estimates are refined and updated until a reliable solution is obtained. At every stage during the determination of earthquake parameters by auto-location software i.e., SeisComp3, an ASCII text file is created which contains all the information about the stations,

hypocentral parameters, etc. From the information contained in the ASCII text files, earthquake reports/ messages are generated in different formats, using standard templates for dissemination through SMS, FAX, Email, mobile-App, website updation, Facebook and Twitter. The earthquake occurrence information is initially estimated from a very first 10 stations which recorded P-wave. This is 1st cut earthquake parameters are communicated automatically through SMS to a few designated persons dealing with operational activities, published in website and mobile-App. This is the first level of information dissemination, which is totally automatic, is termed as '**Level-1**'. The existing format of Level-1 is given in **Annexure-10**. Sometimes Level-1 parameters may be erroneous because it has not yet been reviewed by Duty Officer (DO) and such erroneous parameters are known as **False Event**. The Level-1 parameters, which found to be False event, were deleted immediately from website and mobile-app RISEQ. Subsequently, a SMS message would be sent for earlier recipients about the False event. The format of False event (delivered through SMS) is given in **Annexure-10**.

21.3 The above Level-1 estimates get modified as more and more data becomes available with time. Subsequently, the Duty Officer (DO) perform quick scrutiny and review of the auto-located hypocentral parameters. These reviewed parameters are final. This final earthquake parameters called as **Level-2** (Reviewed) may differ slightly from the parameters determined automatically in Level-1 (un-scrutinized). These Level-2 parameters are reviewed and made final by the Duty Officer. This final Level-2 parameter contains the earthquake information includes date and time of earthquake occurrence, epicentre (Latitude and longitude), focal depth, magnitude and location (region).

21.4 The Level-1 parameters in mobile-App and website published as "Un-scrutinized" and subsequently after review, the final parameters (Level-2) replaces the 'un-scrutinized' parameters and published as "Reviewed".

Presently, the earthquake information (Level-1 and Level-2) is transmitted to decision making authorities through various modes of communication:

21.4.1 SMS (Level-1 and Level-2)

21.4.2 FAX (Level-2)

21.4.3 Website (www.seismo.gov.in) (Level-1 and Level-2)

21.4.4 Mobile-app RISEQ (Level-1 and Level-2)

21.4.5 Facebook (<https://www.facebook.com/nationalcenterforseismology/>) (Level-2)

21.4.6 Twitter (Level-2) ([https://twitter.com/NCS Earthquake](https://twitter.com/NCS_Earthquake)), and

21.4.7 Implementation of Common Alerting Protocol (CAP) for EQ Messages (Level- 2)

The dissemination component of seismological operations of NCS is enclosed as **Annexure-8**.

21.5 The existing dissemination systems employed by NCS are dissimilar in nature for various modes of dissemination. User (Duty staff) need to input the data at each stand-alone dissemination system for dissemination through Fax, SMS, website updation etc. Hence, there is an urgent need to suitably integrate above stand-alone dissemination systems into a single Unified Dissemination System (UDS) and disseminate the information to all the user agencies **in quickest possible time** through an efficient and redundant information dissemination system.

22 Objective of the Project: The main objective of the project is to develop a single-window application software for implementation of “Unified Dissemination System (UDS)”. The software will generate and disseminate the earthquake parameters through various modes of dissemination channels in the least possible time. The successful Bidder is required to provide a turn-key solution, which would include development, supply, and installation of the application software; networking and integration of software components with the existing SeisComp3 earthquake auto-location software system; and warranty/support services. The bidder shall demonstrate the various functionalities/requirements described in subsequent paras towards earthquake information dissemination on a round-the-clock basis and in a fail-proof and redundant mode of operation.

23 Scope of Work:

23.1 The proposed application software should act as a master control for the entire chain of operations related to “Unified Dissemination System” of Level-1 and Level-2 messages of earthquakes, through various modes of communication, such as, Bulk SMS (Level-1 and Level 2), Bulk Fax (Level 2), Bulk E-Mail (Level 1 and Level 2), website

update (Level 1 and Level 2), mobile-app RISEQ (Level 1 and Level 2), Social Media like **WhatsApp (Level 2)**, Facebook (Level 2), and Twitter (Level 2) on 24x7 basis.

- 23.2 Managing the recipient of SMSs, Fax, Emails, and WhatsApp messages.
- 23.3 Dissemination should be based on user-defined criteria.
- 23.4 Managing services such as Bulk SMS, Bulk Email, Bulk Fax, etc.
- 23.5 Implementation of Common Alerting Protocol (CAP) for EQ Messages (Level-2).
- 23.6 The successful Bidder is required to provide a turn-key solution, application software and other accessories and services thereof, for the commissioning of the UDS.

24 NCS's Obligation:

- 24.1 NCS will provide technical details and access to ASCII text files generated by the SeisComp3.
- 24.2 NCS will provide requisite computer hardware and OS, for installation of application software.

25 Requirements of Unified Dissemination System(UDS):

- 25.1 **Watchdog program:** The auto-location software 'SeisComp3', soon after the occurrence of an earthquake, estimates the earthquake parameters and generates a ASCII text file in a directory. The proposed system should have the capability (like watchdog system) not only to monitor the creation of a new ASCII text file containing the earthquake that just occurred and / or its revision in a particular directory of SeisComp3 system. Subsequently, the application software should read the ASCII file for generating the required inputs for Dissemination.
- 25.2 The proposed UDS system should facilitate the Duty Officer to work with ease and fast in order to make decisions easier and faster and at the same time meeting the highest reliability demands. The software should not freeze while working. It should provide relevant error-messages (through by audio alert) if it is not able to access the ASCII text file generated by SeisComp3.
- 25.3 The offered system should have a feature to continuously monitor the connectivity between various sub-systems / components, such as, auto-location software systems, Bulk-SMS of Service provider, Bulk FAX service provider; Bulk email, etc. In case of any communication-error due to connectivity, it should immediately pop-up a message with details on the nature of the error and sounding audio beep as explained in the above

clause. The software should be robust enough to avoid situations such as system getting slow/ hanging and need to reboot, etc.

25.4 Common Alerting Protocol (CAP, ITU Recommendation X.1303) which is recognized internationally as the key standard for societies to achieve all-hazards, all-media public alerting for emergencies, is to be implemented. The Official website of NCS i.e., 'http://www.seismo.gov.in' shall be used as a host website for creating CAP alerts for the dissemination of Level-2 earthquake information to designated authorities and other state authorities by geographically targeting them. The automated CAP alerts may be published using the RSS feed of the NCS official website. The alerts should include all valued-added products such as Intensity Map, distanced from important cities, past seismicity etc. The publishing of alerts needs to be developed using Google Tools available for the development of CAP feeds. The alerts publishing platform should be flexible enough to be readily integrated with the Control Rooms of State and Central Disaster Management Authorities.

26 Level-1 dissemination:

- 26.1 The UDS system should fetch the earthquake information from the auto-location system (with OS: Ubuntu 16.x) which is working independently on in-coming real-time data, and apply user-defined criteria through a sophisticated, easy-to-use graphical user interface (GUI) to create situational awareness to the Duty Officer, to make a quick and reliable assessment of the situation at hand and immediately pass this information as Level-1. In this connection, immediately after the generation of Level-1, the system should generate the sounding audio alert. This audio alert should be configurable as per user criteria in terms of types of audio sound, the volume of sound, whether sound it or not, wait time as per user-defined criteria before publishing it on the website, mobile-app RISEQ and SMS, as detailed in the next clause.
- 26.2 The criteria may be certain time delay (or wait time) before it goes automatically for publishing as Level-1 through dissemination modes such as SMS, Email, mobile-App RISEQ and website. During this wait time, the Duty Officer is authorized to stop the dissemination as the event might be false or to perform minor changes (editing) in the earthquake parameters before dissemination as Level-1.

26.3 The revised format of Level-1 dissemination through SMS and Email shall be provided by this office. The existing formats are given in **Annexure-10**.

26.4 The log of each Level-1 dissemination with date and time of issue, recipients, etc. is to be maintained separately in a database up to the past ONE year. The user should be able to retrieve the information easily from the database as per user criteria (**Refer clause no.27.16**).

27. Level-2 Dissemination

27.1 Level-2 dissemination is **manual**. The application software will generate the required content template from the already notified/disseminated Level-1 message of a particular earthquake. Duty Officer (DO) will fill-up or edit the parameters before issuing through SMS, FAX, Email, WhatsApp, Facebook and Twitter.

27.2 The criteria for Level-2 dissemination will be based on the magnitude threshold, location where the earthquake occurred, distance from important cities etc. The criteria will be as per Standard Operating Procedures.

27.3 The software should be able to generate the name of the region, where the earthquake has occurred based on the latitude and longitude information available in the event ASCII text file, distances from five important cities in India near to the epicentre for use in earthquake messages to be disseminated through Email. Duty Officer should be able to edit these details, if required, before dissemination.

27.4 The Twitter, Facebook, WhatsApp and Email should contain the location of epicentre on a map and distances and direction from nearest five Indian towns/District/Cities from the epicentre, Intensity map (taken from website), other value-added products etc. in addition to epicentre details. The attachment of value-added products as per DO selectable. Depending upon the significance of the earthquake event, the Duty Officer (DO) should have the option to attach map files, in JPG /TIF format, containing the 'Fault Plane Solution' which is a map (JPG or tiff format) and its parameters (text file) and 'seismicity report' files (MS word document). All these maps will be generated by DO or already available with DO. The GUI software should provide an easy option to attach these map files/document files with the Emails of Level-2 and also post the same on NCS's website, WhatsApp, Twitter and Facebook.

- 27.5 With regard to delivery of messages through Email, the software should have the option to send additional information, as an attachment file, in addition to the above-referred map.
- 27.6 The software should also have provision to prepare and disseminate earthquake messages manually for tremors of low magnitude, not detected by the auto-location software. In such cases, the Duty Officer should be able to manually configure/compose the Earthquake Report with minimum effort, for dissemination through SMS, Email, Fax, Website updation, Mobile-APP, Facebook and Twitter.
- 27.7 The formats currently being used for mobile-SMS (Level-1 and Level-2) and Fax messages are enclosed as **Annexure-10**. They need to be suitably modified and redesigned in consultation with NCS. These formats should be user-configurable meaning that the user should be able to alter any of these formats by changing a configuration parameter (s) in a configuration file (s) and the change should not require any modifications to the source code of the software. The permission to alter the configuration files should be given to the administrator. The formats for FAX messages (Level-2) will contain both English and Hindi words and need to be revised in consultation with NCS. The formats for Level-2 of SMS, Email, WhatsApp, Facebook, and Twitter shall only be in English.
- 27.8 All the services such as Bulk-SMS, Bulk-Fax, Bulk-Email, Bulk WhatsApp messages and other social media should be maintained and managed by the firm. In this connection, the Bidder should tie-up with the mobile-SMS and FAX Service Provider to integrate with their solution for dissemination of earthquake messages through SMS and FAX without any delay.
- 27.9 The software should be integrated with the bulk SMS solution (for a tariff-plan of about 1,00,000 SMS messages per month) for delivery of earthquake messages to the intended recipients under Level-1 and Level-2.
- 27.9.1 **Additionally, an option must be provided in the supplied system to deliver SMS messages simultaneously from two GSM modems in case the Bulk-SMS does not work or goes faulty.** The required GPRS modem and mobile-SIMS will be arranged by NCS. However, identification of bulk-SMS and FAX service provider is the responsibility of the Bidder.

- 27.9.2 The usage charges of SMS upto 1,00,000 messages per month and FAX upto 1000 per month is the responsibility of the Bidder upto three years from the date of commissioning. The charges should be included as part of the bid. Above these numbers, and after completion of three years usage charges as per actual basis as per Invoices submitted from BULK-SMS and FAX service providers will be paid directly to the Service Providers of SMS and FAX.
- 27.9.3 Bidder is responsible for necessary co-ordination with regulatory authorities like filing of application, physical submission of hard copies, follow-up with concerned agencies and any other work necessary for obtaining the clearances towards the services of SMS and FAX under this project. However, this office may provide necessary required Certificates.
- 27.10 The proposed system should be capable of sending earthquake messages (Level-2 only) through FAX simultaneously to a minimum TEN intended recipients without any delay. The Bidder should tie-up with the Fax Solution Service Provider in India for efficient delivery of earthquake messages (Level-2) through Fax without any delay.
- 27.11 The vendor should configure a online/Web-form in the NCS website (www.seismo.gov.in) to make the request for receiving earthquake information through Email or SMS or both. The Service will be made available to the users only after approval from the competent authority. However, in case of Email, the program should have options to automatically add or remove list members. The Email message should contain "*unsubscribe*" button if the user is not interested to receive Emails and wants to deactivate it.
- 27.12 The proposed system should facilitate organizing the recipients in various groups, depending upon the priority for delivery of earthquake messages (Level-2) through SMS and FAX. The Duty Officer should be able to select with ease, through mouse-click, either multiple groups or selected recipients in a group and the mode of delivery of message by SMS and Fax or all of them. The proposed system should also have extensive capabilities and user friendly to create new groups, delete or add recipients, set the priority level, follow the set of rules, etc.
- 27.13 The Level-2 SMS and FAX messages should be delivered to the selected group of recipients by Duty Officer, depending upon the priority and area of occurrence of an earthquake. For example, if an earthquake occurs in Andaman & Nicobar (A&N) Island

region or Bay of Bengal or Indian Ocean, the recipient group corresponding to the A&N Administration should get the highest priority than other groups of recipients. Also, there is no need to send this particular earthquake message to recipients of the group belonging to J&K, Himachal etc.

- 27.14 There is only one Group for the dissemination of earthquake messages through SMS and Email, in Level-1.
- 27.15 The proposed system should transfer (preferably by FTP) the earthquake parameters, the attachments and the image files to the NCS web server for updation of NCS's website, with a mouse click by the Duty Officer. The software should provide a response that the FTP was performed successfully and website was updated, by presenting the corresponding updated page of NCS website in a separate window.
- 27.16 The application software should provide a suitable GUI window for making corrections in EQ messages to be published in website.
- 27.17 Comprehensive log information is required to be generated and updated for each delivery of Level-1 and Level-2 messages separately for SMS, and FAX and website/mobile-app updation, as the case may be. The log file should contain the information about the date and time of message sent to each recipient and contents of the message, etc. It should also maintain a separate database of log for messages disseminated at Level-2.
- 27.18 All the earthquake parameters which are disseminated (or published) in Level-1 and Level-2 should be stored separately in a simple database to support the retrieval as per user-selected criteria. Selection criteria are the range of Date, Magnitude, latitude, longitude and focal depth. The output should be stored as a text file.
- 27.19 All the hardware and software of the proposed Unified Dissemination System should use a high-availability setup to fulfil the 24x7 requirements.
- 27.20 The Bidder should suggest the configuration and specification of the computer hardware and OS required for installation of the application software.
- 27.21 The System shall be synchronized using a Network Time Server which is already available with the NCS.
- 27.22 The Bidder should provide the source code with documentation of all customized software exclusively developed for this project under no-disclosure guarantee.

- 27.23 The Bidder should work closely with NCS at each stage of design/ development for the understanding of requirements, functionalities, etc. He should involve the designated representatives of NCS actively throughout the installation and customization of the system.
- 27.24 The Bidder should provide perpetual License of the application software.
- 27.25 All dissemination services should work in parallel, independently and in such a way that there is no delay in any dissemination service.
- 27.26 Auto-backup (daily, incremental, and weekly full backup) of complete UDS with log and content as per user-defined criteria.
- 27.27 The system should be built up in such a way to keep the 99.9% uptime of all the services and systems (UDS).
- 27.28 The Bidder should provide a detailed flow diagram indicating the function and the output products of each software module. The Bidder should also provide the full details as to how he is going to provide the complete solution right from the input message generated from auto location system, display of data to Duty officer and dissemination through various modes.
- 27.29 **A Simple Flow-Chart explaining all the above-said operations is given in Annexure-9 for easy understanding of the Bidder. However,** the bidder should provide the block diagram of their own implementation strategy with full details in their technical proposal.
- 27.30 The Bidder should be ready to accommodate changes in application software and its customization, hardware, etc., in order to fulfil such requirements that may arise during the intervening period between preparation of this document and commissioning of the system within the scope of the project.
- 27.31 The Bidder shall submit his technical proposal giving full technical details of every module of application software, **computer hardware with specifications, details of Operating System (OS)**, communication equipment and subsystem along with interface details and services relating to the dissemination of Earthquake reports (Level-1 and Level-2) through various modes.
- 27.32 NCS shall provide only computer servers with required OS; and all other remaining application software is to be provided by the bidder to develop, install and maintain the UDS.

- 27.33 All networking cables, accessories, systematically laying of cables and all accessories and works required for commissioning of the system is the responsibility of the bidder.
- 27.34 Bidder may like to visit NCS, New Delhi with prior written permission through Email to acquaint himself with the functioning of the existing operational system of real-time earthquake monitoring and dissemination services.

28. RFP Terms and conditions:

- 28.1 Whenever there is any conflict between the provision in the General Contract Terms (GCT) specified in the present and earlier sections and that in this section "RFP", the provision contained in this section "RFP" shall prevail and have an over-riding effect, i.e., the details
- 28.2 **Bidder Qualification criteria:** The Bidder should be an Indian firm and have at least three years experience in the execution of IT projects of software development, website development; real-time dissemination services.
- 28.3 **Additional hardware and modifications in software:** Any other hardware and software which the Bidder may feel necessary to meet the requirements should be included in the offer, with detailed justification as part of the technical bid.
- 28.3.1 Firm shall provide License updates for Virus protection software during Warranty and extended warranty period, if OS is windows.
- 28.3.2 Firm will carry out necessary modifications in application software due to new requirements and changes in the format which may come up in course of time during warranty and extended warranty period.
- 28.4 **Backup and Restoration:** The Bidder shall demonstrate step by step Back-up and restoration of the full system to NCS officers during the Site Acceptance Test (SAT) and NCS officers shall test the same by their own. The firm shall make provision to take backup of the entire server in a bootable pen drive/USB external hard disk. In case of crash of the server, there may be system to restore the entire system by just booting the server from the pen drive/external harddisk. There may be an arrangement to empty the database table of Level-1 and Level-2 data to reduce the size (data) of the system before taking the backup in USB external hard disk. Depending on the size (data) of the server, backup may be taken in a bootable USB hard disk.

29. Delivery and Installation Schedule:

29.1 Design Review: The successful bidder shall submit 3 copies of a detailed design review document within one month of award of contract for approval of NCS. This document will contain full details of implementation methodology of dissemination system, its design both from hardware and software points of view so as to meet the requirements laid down in the bid document. Preliminary Design Review (PDR) followed by Critical Design Review (CDR) meetings shall be organized during implementation of the project in the form of meetings between NCS officials and bidder to discuss and finalize the design and the requirements to achieve the objective of UDS.

29.2 Firm must complete the work within 6 (Six) months from the date of issue of work order; as per following timelines:

Item	Time Lines				
	Preliminary Design Review (PDR)	T+1M			
Critical Design Review (CDR)		T+2M			
Development, Installation and commissioning of Application software			T+4M		
Test and Acceptance					T+6M

T= Date of issue of supply order; M= months

(i) Software Requirement Specification (SRS), (ii) Detailed Design Document with wireframe work, (iii) Beta version, (iv) Unit Testing report (v) Commissioning and Acceptance Tests and (vi) final version of software.

29.3. The safe delivery of all Goods/ Equipment at NCS, III Floor, SatMet Building, Mausam Bhavan Complex, Lodi Road, New Delhi-110 003, is the responsibility of the Bidder.

29.4 Bidder is required to develop the customized application s/w, installation, testing and integrate with the existing auto-location software, website etc. on a turn-key basis, for dissemination of Level-1 and Level-2 EQ messages through different modes.

29.5 The Bidder is responsible for all installations, and LAN-cabling between various computers (including SeisComp3 system, webserver etc.) and communication equipment like modem, etc. which may be spread in different rooms (in III Floor, SatMet Building, Mausam Bhavan complex, Lodi Road, New Delhi-03) of the NCS. All the power connectors should plug into the Indian-type electric sockets.

- 29.6 The Bidder will test all hardware & software operations and carry-out all adjustments necessary for successful and continuous operation of the equipment and fulfil the project goal.
- 29.7 Reception of Performance Bank Guarantee of 10% of the total Purchase order in INR.

30 Training:

- 30.1 A detailed training plan may be submitted by the Bidder, sufficiently in advance before commencement of training programme, for NCS's approval.
- 30.2 Operational training on application software at NCS, New Delhi or any suitable venue for a period of 5 working days for 10 – NCS officials after completion of the installation of the system.
- 30.3 Training material in hard and soft copy (in USB disk) separately each for system maintenance/administration and system operation for each trainee (10 nos.).
- 30.4 The Bidder should arrange a separate training for a period of 3 days to the designated representatives of NCS on the source code of the application software.
- 30.5 During the training period, all application and operating software should be reinstalled from the fresh and restart all the computer systems.
- 30.6 The training notes should provide detailed operation manuals containing various procedures and commands required by the Duty Officer in connection with day-to-day operation of the system.

31 Testing and Acceptance: Firm should submit a test plan well in advance for System

Acceptance. The test plan shall require concurrence of the Purchaser.

- 31.1 The objective of the tests shall be the verification of performance of the system as per the specifications and functional requirements. This will include both the H/w and S/w tests.
- 31.2 As per the mutually agreed test procedures, acceptance test should be carried out at NCS after installation.
- 31.3 The acceptance tests will comprise of overseeing and evaluating the satisfactory and fail proof performance in redundant order to ensure trouble-free operations for

Ten consecutive days on 24x7 basis of all the equipment simultaneously and collectively, namely the application software, computer hardware, communication equipments, etc., in conformity with the technical specifications.

31.4 Instantly dissemination of earthquake parameters through Bulk SMS, Bulk Email, Bulk Fax, WhatsApp, Facebook, and Twitter.

31.5 In the event of application software / equipment failing to pass the acceptance tests, a period not exceeding one week will be given to rectify the defects and clear the acceptance test, failing which the Purchaser reserves the right to get the equipment replaced by the Bidder at no extra cost to the Purchaser or to cancel the order and recall all the payments with applicable interest rate from the date of the respective payments.

32 Warranty and Support: Entire UDS system including all software, and dissemination services shall be under warranty for 36 months/Three years from the date of acceptance & commissioning of the system.

32.1 Bidder shall support upgradation of the system if required due to any change in technology, hardware, software, or any other unforeseen reasons during the warranty.

32.2 Bidder shall also support to address the issues related to (a) future upgradation (b) changes in formats of messages and their content (c) to obtain necessary approvals from statutory authorities (d) future requirements like changes in the functioning of the application software and (e) re-installation, and configuration for its working, in the event of system crashes. Accordingly, Bidder should quote in S.No.5 of Annexure-7

32.3 Bidder should also quote for extended warranty support at S.No 6 of Annexure 7.

32.4 Purchaser reserve the right to either consider or not to the extended warranty. However, the price for extended warranty shall be taken in in account to decide the lowest bidder.

33 Penalty Clause: The complete system should be failure-proof at any point of time (during warranty and extended warranty period) without which a penalty shall be imposed as per the following:

Down time of System	Penalty
Less than 1 Hour	NIL
1-2 Hour	0.1% of the total work order

2-6 Hour	0.5% of the total work order
More than 6 Hour	In addition to above @ 0.1% per hour of the total work order subject to a ceiling of 10% of the total work order

Beyond 10% limit period, the purchaser is free to get issues resolved through outside Bidder and recover the amount thereof from Performance security.

- 34 Documentation:** Firm will supply all documentation in English language in three sets both in hard (bound volume) and soft copies of “Technical manual”, “Operational manual’ and “System Administrator manual”.
- 35 Licensing:** Bidder has to provide lifetime licences for all the applicable hardware and application software developed as part of this procurement and services; if any.
- 36** Firm will provide educational details and working experience of the persons (Software developer/Program Manager/Coordinator etc.) those are going to handle this project till the final products go live.
- 37** The firm will not have any kind of ownership of the developed system and including data/codes/scripts/tools/software generated /produced /developed/ inferred for this work.
- 38** The Bidder is obliged to work closely with the NCS staff, act within its own authority and abide by directives issued by the NCS and implementation activities.
- 39** The Bidder will treat as confidential all data and information about the Purchaser, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Purchaser.
- 40** The Bidder is responsible for managing the activities of its personnel or sub-contracted personnel and will hold himself responsible for any misdemeanours.
- 41** Bidder will not transmit the data through the system developed here to anywhere by any means in the world; other than the designated recipients through designated means
- 42 Optional Items:**
 - 42.1 The Purchaser also reserves the right to buy Optional items. The prices of Optional Items specified below would **not** be added/ included in the 'Grand Total of the Bid Price', to decide L1 (the lowest quoted bidder). But the bidder should quote prices for these, failing which the bid will be rejected. These prices are necessarily required, because the Purchaser may like to buy these Optional Items.
 - 42.2 Computer Hardware Server/Workstations with OS (Make and Model Number, and Quantity is required to be specified) in the technical Bid.

42.3 Additional items which are essentially required for commissioning of the system. List of such items with specifications should be specified in the Technical Bid. The price bid should contain cost of all these optional items.

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CHECKLIST

Sno.	Activity	Compliance Yes/No/N.A	Page No. of your bid
1	Company Profile, Infrastructure, ISO Certification etc. (Clause 6.5) and Registration Certificate.		
2	Have you enclosed EMD (Bank Guarantee /FDR) of required amount (as per Clause no. 7.11 and 13)? The format of BG is given at Annexure-5.		
3	Is the EMD submitted by other firm other than participating firm? If yes, then bid is likely to be ignored.		
4	Is Registration certificate from Ministry of Micro, Small & Medium Enterprises (MSME), NSIC attached <u>for relaxation of EMD</u> ? (Clause no. 10.8, and 13.2)		
5	Details of Permanent Income Tax account number& GST number? (Attach a copy) (Clause no. 7.1)		
6	Have you kept EMD validity (240 days from the date of tender publishing)? (Clause no. 13.4)		
7	Have you enclosed all supporting documents like registration certificate, GST , PAN, details of agreements, self certificate etc. as mentioned in Clause no.6.1 to 6.7, 7.1, 7.2, and 7.3.		
8	Copy of Tender document with each page signed and stamped as per Clause no. 7.8		
9	Have you enclosed Tender Acceptance Form (Annexure-2) duly filled and signed (i.e., terms and conditions are acceptable) with original set of tender. Tenders may be ignored if not signed.		
10	Have you enclosed clause-by-clause compliance statement for the General terms and RFP requirements mentioned under Section-1 and Section-II ? (Annexure-6)		
11	Have you submitted copy of the last purchase order(s) and performance certificate from users?		
12	State whether the business dealings with you have been banned/blacklisted by the Ministry of Earth Sciences (MoES) or any other State/Central Government Department, in the past,		

	as per Clause no. 7.3. A certificate need to be submitted on the letter head of the firm, with seal and signature and date.		
13	Is tender Submitted by an OEM?		
14	Is tender Submitted by an authorized Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so is authorisation certificate attached?		
15	Is tender Submitted by an integrator Agent/Dealer/Supplier/Distributor/ Stockist of OEM? If so whether Back-to-back support agreement with equipment manufacturer and software developer company attached?		
16	Have you quoted for optional items (Clause No. 34)		
17	Have you submitted the Un-priced bid containing Bill of Materials as per Clause no. 7.13.7		
18	Have you submitted an hard copy of Technical bid (Clause no.7.9)		
19	Name and Email ID of the representative of the firm, for seeking necessary clarifications on the technical bid.		
20	Name of the firm who quoted the price		
21	Name of the supplier with complete address to whom supply order to be placed.		
22	Have you given details of persons going to handle this project		

Signature of Bidder:
Full name, designation, and address of the person signing(in block letters)
Whether signing as proprietor/ partner/ Constituted attorney / company CEO or his representative:
Company representative signature with company seal

TENDER ACCEPTANCE FORM

(For all the terms & conditions of tender document are acceptable to Tenderer)

To

The Director, National Centre for Seismology,
Mausam Bhawan Complex, Lodi Road, New Delhi-110003

Ref: Tender document No. NCS/ _____ dated _____

I/We, the undersigned have examined the above-mentioned Tender document, including amendment/corrigendum No. _____, dated _____ (if any), the receipt of which is hereby confirmed.

If our tender is accepted, we undertake to supply the goods and perform the Services of **“Unified Dissemination System (UDS): Design, Develop, Commissioning and Support”**, as mentioned in tender document with the requirements, terms and conditions specified in the Section 1 and Section II of tender document.

I/We further confirm that, if supply / purchase order is placed to firm, we shall provide performance security of required amount in an acceptable form for due performance of the contract.

I/We agree to keep our tender valid for acceptance as required in tender document or for subsequently extended period, if any, agreed to by us. I/We also accordingly confirm to abide by this tender up to the aforesaid period and this tender may be accepted any time before the expiry of the aforesaid period. I/We further confirm that, until a formal contract is executed, this tender read with your written acceptance thereof within the aforesaid period shall constitute a binding contract between us.

I/We further understand that you are not bound to accept the lowest or any tender you may receive against your above-referred tender enquiry.

We confirm that we do not stand deregistered/banned/blacklisted by any Govt. Authorities.

I/We confirm that we fully agree to the terms and conditions specified in above mentioned Tender document, including amendment/ corrigendum etc. if any.

(Signature with date and seal of the company)
(Name and designation)

Duly authorised to sign tender for and on behalf of Bidder / Tenderer

**Note* : Firm/company shall use their own printed letter head for issuing this certificate
Acceptance shall be unconditional.**

MANUFACTURER'S AUTHORISATION FORM

(Bidders, quoting products other than his own manufactured products, shall submit this certificate in following format on the Letter Head of the firm)

To,
The Director, National Centre for Seismology
IMD Campus, Mausam Bhawan, Lodi Road, New Delhi-110003

Sub: Manufacturer Authorization for Tender No _____.

Sir,

We, **<OEM/ Manufacturer name>**having our registered office at**<OEM/ Manufacturer address>**, are an established and reputed manufacturer of

We confirm that **<Bidder Name>** having its registered office at **<Bidder Address>** is our authorized partner for We authorize them to quote for In the above-mentioned tender.

We hereby confirm that we shall provide all service and maintenance support to our authorized partner during the entire contract period. We also ensure to provide required spares and service support to the above authorized partner while offering onsite maintenance services.

Yours faithfully,

[Signature with date, name and designation]
for and on behalf of Messrs _____

[Name & address of the manufacturers along with Seal of the firm]

Note: This letter of authorisation should be on the letter head of the manufacturing firm and should be signed by a person competent and having legal binding to the manufacturer (original letter to be attached or to be shown at the time of opening of bids).

APPLICATION-CUM-BILL FOR REFUND OF EMD

Director, (Kind Attn. to: DDO) National Centre for Seismology
 IMD Campus, Mausam Bhawan, Lodi Road, New Delhi-110003

MONTH.....BILL NO.

Original Challan or Receipt No. & date	Bank/Office in which deposited	Name of depositor	Amount Originally deposited
1	2	3	4

Received this day of20..... the sum of ₹(₹) only being repayable on Account of release of deposited described above.

Claimant’s Signature.
 (with revenue stamp affixed)

For use in Departmental Office

1. Received payment of ₹..... (₹.....) for arranging disbursement to claimant.

2. Passed for Payment of ₹(₹) to claimant(s) Shri/Smt./Ms..... against personal deposit account administered by me.

DDO(NCS)
 For Director National Centre for Seismology
 In case of endorsement of above

For use in Pay & Account office incase of endorsement of 1 above

Passed for payment of Rs.Payment by Cheque No.

Pay & Account Office

MODEL BANK GUARANTEE FORMAT FOR FURNISHING EMD

(format only)

Whereas (hereinafter called the “tenderer”)has submitted their offer dated.....for offering **“Unified Dissemination System (UDS): Design, Develop, Commissioning and Support”** (hereinafter called the “tender”) against the purchaser’s tender enquiry No.KNOW ALL MEN by these presents that WEof having our registered office at..... Are bound unto(hereinafter called the “Purchaser”) in the sum of for which payment will and truly to be made to the said Purchaser, the Bank binds itself, its successors and assigns by these presents. Sealed with the Common Seal of the said Bank this..... day of20.....

THE CONDITIONS OF THIS OBLIGATION ARE:

- (1) If the tenderer withdraws or amends, impairs or derogates from the tender in any respect within the period of validity of this tender.
- (2) If the tenderer having been notified of the acceptance of his tender by the Purchaser during the period of its validity:-
 - a) If the tenderer fails to furnish the Performance Security for the due performance of the contract.
 - b) Fails or refuses to accept/execute the contract.

WE undertake to pay the “Director, National Centre for Seismology”, up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it owing to the occurrence of one or both the two conditions, specifying the occurred condition or conditions.

This guarantee will remain in force upto and including 60 days after the period of tender validity and any demand in respect thereof should reach the Bank not later than the above date.

Bank Guarantee issued with the tender enquiry reference No.NCS/..... Dated.....

.....
 (Signature of the authorized officer of the Bank)

Name and designation of the office

Seal, name & address of the Bank and address of the Branch.

COMPLIANCE STATEMENT

Sno.	Tender Clause No.	Compliance
1	Undertaking for the pointwise compliance of each and every term and conditions mentioned under Section-I and Section-II of Tender Document.	Yes/No

Signature of the Bidder

Name & Designation:

Date

Place

Company Seal

Price bid form

Price bid form

Note: No cell should be left blank. Write 'Nil' or 'Not Applicable' wherever required.

S.No.	Item	Quantity	Rate (₹)	GST (if any)	Total (₹)
A	B	C	D	E	F=Cx(D+E)
1	Design, Development Unified Dissemination System as per RFP	1			
2	Annual Charges for Dissemination through Bulk SMS, Bulk Fax, Bulk Email Bulk WhatsApp messages Other social media^	1			
3	Any other charges (for hardware, software or service not mentioned above)	1			
4	Additional requirements (Clause 28.3)	1			
5	Three years Warranty of the complete system	1			
6	Extended warranty charges (per year basis)	1			
7	Training as per Clause no. 30 at NCS HQ, Delhi	1			
	Total (1+2+3+4+5+6+7)				

^ Existing SMS header and content -template has been registered on distributed Ledger Technology (DLT) platform as per TRAI regulations. The price to be quoted towards SMS charges as applicable to registered users of TRAI.

Optional items should be quoted separately (Clause no. 42).

S.No.	Item	Quantity	Rate(₹)	GST (if any)	Total (₹)
A	B	C	D	E	F=Cx(D+E)
1.	Optional item (description)				
Total (in Rupees)					

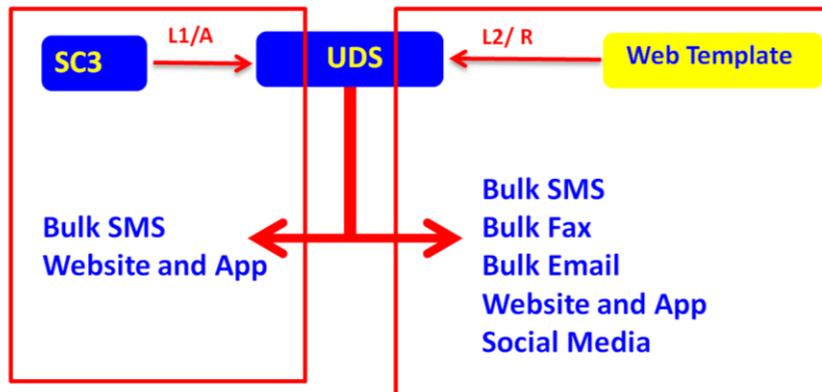
Signature of Tenderer _____ Seal of Tenderer _____

Date:

Place:

Annexure-8

Unified Dissemination System(UDS): Proposed



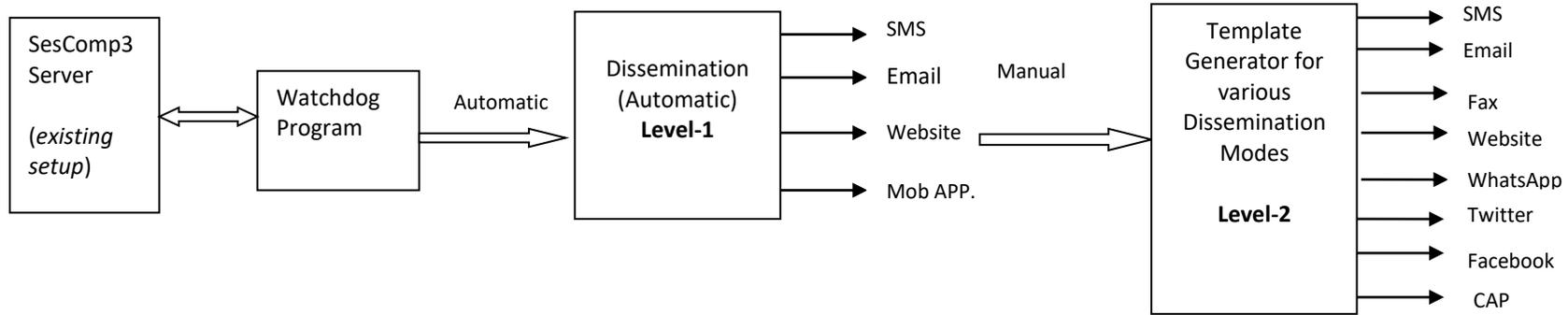
UDS Hardware (2 Servers for redundancy)

Development of Customised Software for managing all the services

Bulk SMS, Fax, Email, Social Media Different Services

Annexure-9

Block Diagram of Proposed Unified Dissemination System (UDS)



Level-1(Criteria)

Delay
Audio alarm
Maintain Log
Notification of False event dissemination

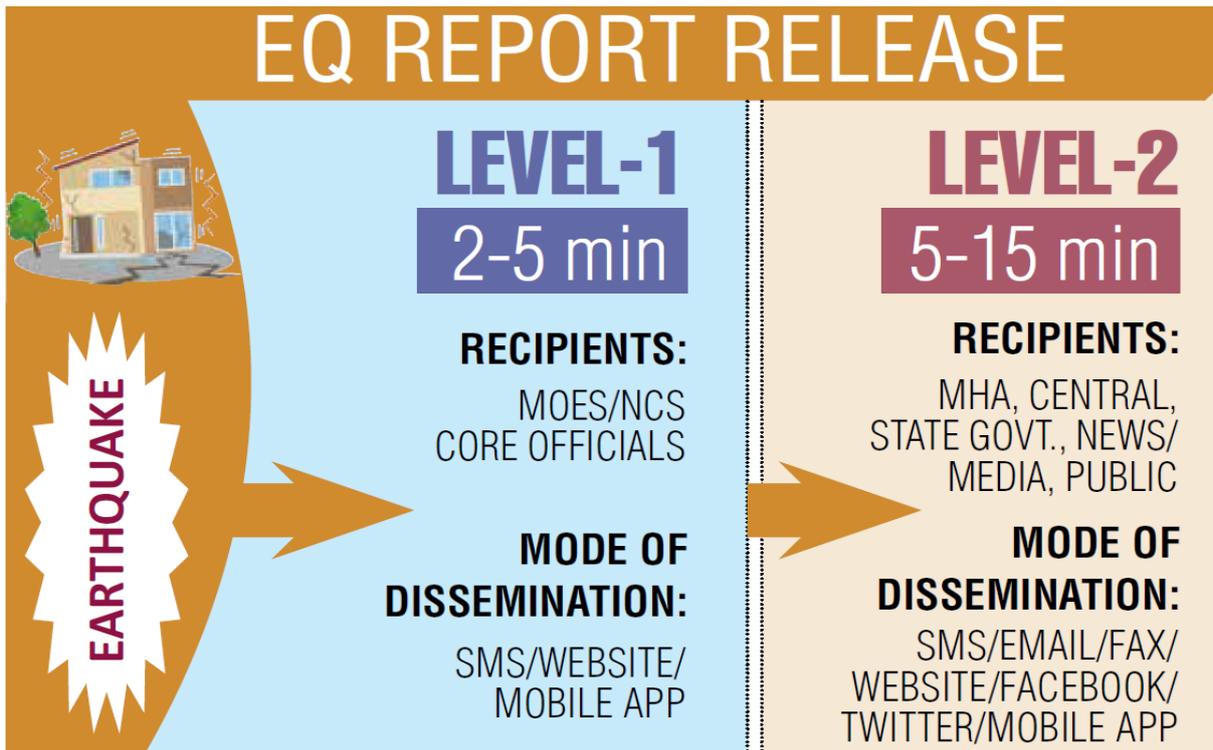
Level-2 (Criteria)

Recipients in different groups
Manual composition of the message
Maintain Log
Option to deliver through GPRS modem as a redundant to bulk-SMS.
Bilingual for Fax
Attachment of value added products
Common Alerting Protocol (CAP)
Online request form for Email /SMS

Annexure-10

Existing methodology of Dissemination Services & formats of FAX, and SMS

Existing methodology of Dissemination Services



FAX Format

वर्ग/CATEGORY : **SLIGHT**

स्तर /STAGE : **YELLOW**

राष्ट्रीय भूकम्प विज्ञान केन्द्र
पृथ्वी विज्ञान मंत्रालय
मौसम भवन परिसर, लोदी रोड, नई दिल्ली - 110 003
NATIONAL CENTER FOR SEISMOLOGY
MINISTRY OF EARTH SCIENCES
MAUSAM BHAWAN COMPLEX, LODI ROAD, NEW DELHI - 110 003

जारी करने की तिथि एवं समय
Date & Time of Issue : 07/08/2020 00:00

फैक्स नं./FAX NO. : 24619943/ 24649850

प्रारम्भिक भूकम्प रिपोर्ट PRELIMINARY EARTHQUAKE REPORT

भूकम्प की तिथि
DATE OF EARTHQUAKE : **07/08/2020**

उत्पत्ति समय
ORIGIN TIME : **00:44 HRS(IST)**

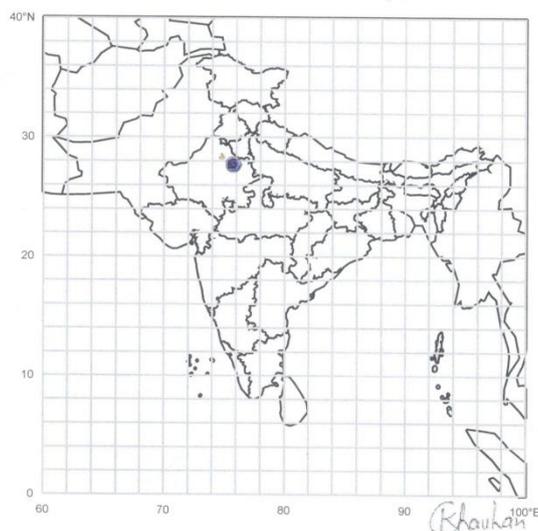
परिमाण / MAGNITUDE : **3.1**

अक्षांतर / LATITUDE : **27.6°N**

अवकेन्द्र गहराई/ FOCAL DEPTH : **26 KM**

देशान्तर/ LONGITUDE : **75.8°E**

क्षेत्र / REGION : **SIKAR, RAJASTHAN**



द्यूटी आफिसर / DUTY OFFICER

पचालन केन्द्र / OPERATIONAL CENTER

राष्ट्रीय भूकम्प विज्ञान केन्द्र / NATIONAL CENTER FOR SEISMOLOGY

Format of SMS Level-1 (Autolocated Event):

**NCS-PER EQ.Mag: 3.6, Dt:07-08-2020 00:44:28 IST, Loc: 27.61
N & 75.64 E,
D:34 Km, Region:Kanwat, Rajasthan.**

Format of False Event (through SMS)

**NCS-PER EQ.Mag: 3.1, Dt:06-08-2020 14:28:21 IST,
Loc: 29.90 N & 76.57 E,
D:193 Km,
Region: Jandaula, Haryana.
(False Event)**

Format of SMS Level-2 (After Review):

**Earthquake of Magnitude:3.1,
Occurred on: 07-08-2020, 00:44:28 (IST),
Lat:27.65 N & Long:75.76 E,
Depth:26 Km,
Region: Sikar, Rajasthan.
[For more details, visit 'www.seismo.gov.in']**

-x-