Last Date of Submission of Bid By 1500 hours on 17^{th} May 2019

TELECOM REGULATORY AUTHORITY OF INDIA

Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi – 110 002

TENDER DOCUMENT FOR CONDUCTING INDEPENDENT DRIVE TEST OF CELLULAR MOBILE NETWORKS IN SELECT CITIES, HIGHWAYS AND RAILWAY ROUTES (IN TRAIN)



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Invitation of Bids for Audit & Assessment of Quality of Service

Notice Inviting Tender

1. The Telecom Regulatory Authority of India. Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi – 110002 (hereinafter referred to as TRAI) invites sealed tender from companies/ firms (hereinafter referred to as agency), who satisfy the eligibility conditions specified in the Tender Document, for conducting drive test of mobile networks, 2G/3G and 4G, to assess Quality of Service for voice and data in terms of the benchmarks specified in the "Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 (7 of 2009)" dated 20thMarch, 2009 and "Standards of Quality of Service for Wireless Data Services Regulations, 2012" (26 of 2012) dated 4th December 2012", as amended from time to time, on regional office zonal basis, namely HQ Delhi Zone, RO Jaipur Zone, RO Bhopal Zone, RO Kolkata zone, RO Bengaluru Zone, RO Hyderabad Zone:-

2. (i) The TRAI, Regional Office (RO) Zones shall comprise of the following Telecom Circles/Metro Service Areas:

HQ Delhi Zone: Delhi, Jammu & Kashmir, Himachal Pradesh. For the cellular mobile telephone service, the service area of Delhi includes Ghaziabad, Faridabad, Noida and Gurgaon.

RO Jaipur Zone: Punjab, Haryana, Rajasthan and Gujrat.

RO Bhopal Zone: Uttar Pradesh-East, Uttar Pradesh-West (including Uttarakhand) and Madhya Pradesh (including Chhattisgarh).

RO Kolkata Zone: Kolkata, West Bengal (including Andaman & Nicobar, Sikkim and excluding Kolkata), Bihar (including Jharkhand), North East which includes Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur, Tripura and Assam.

RO Bengaluru Zone: Maharashtra (including Goa and excluding Mumbai), Karnataka, Kerala and Mumbai.

RO Hyderabad Zone: Andhra Pradesh (including Telangana), Odisha and Tamil Nadu (including Chennai)

(ii) Details of the areas covered under each Telecom Circle/ Metro Service Area are given in the tender document:

3. A copy of the Tender Document is available on TRAI's website <u>www.trai.gov.in</u> and may be downloaded for the purpose of bid submission.

4. The agencies shall submit the bid, before the last date and time of submission, in a sealed envelope containing –

- (i) two sets of technical bid, in separate sealed covers one set marked as 'Original Bid' and the other set marked as 'True Copy', containing the following :-
 - (i) tender copy of the document and а clarifications/corrigendum issued, if any, with signature of the authorised representative of the agency in each the tender document of and page clarifications/corrigendum issued, if any, as token of the fact of the agency having read and accepted the terms and conditions.
 - (ii) standard formats for technical proposal given at Section-IV, with all the necessary details filled by the bidders;
 - (iii) pre contract integrity pact signed by the agency as per form given at **Annexure 4**;
 - (iv) documents relating to eligibility as prescribed in this tender document;
- (ii) Earnest money Deposit (EMD) & minimum cumulative turnover requirement of the bidder, for each zone separately as given below;

		Minimum Cumulative Turnover for		
Zone	EMD (Rs)	last 3 Financial years		
RO Bengaluru	98,000	4,50,00,000		
RO Bhopal	96,000	4,50,00,000		
HQ Delhi	64,000	3,00,00,000		
RO Hyderabad	86,000	4,50,00,000		
RO Jaipur	84,000	4,50,00,000		
RO Kolkata	1,12,000	6,00,00,000		

5. In the event of any discrepancy between the copies, the original bid shall be treated as authentic notwithstanding the discrepancy in other copy. The name, address, fax number, telephone/mobile number and email of the bidder should clearly appear on the envelope. The tender number and date of tender opening should also appear on the envelope. Any corrections or overwriting in the technical and financial bid should be attested by the person signing the bid. Any bid with corrections or overwriting without such attestation shall be liable to be rejected.

6. An agency may submit bids for one or more than one Zone, the bid for each zone shall be submitted in separate sealed envelope. The bids in separate sealed envelope for each Zone must be accompanied with earnest money as per the details mentioned in para 4(ii).

7. Prospective bidders, requiring any clarification on the tender document, may submit in writing the request not **later than 1400 hours of 18th Apr, 2019 to** Joint Advisor (QoS), Telecom Regulatory Authority of India, Room No.707, 7th Floor, Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi-110 002 (FAX

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No.011-23213036). A pre-tender conference will be held with the prospective bidders on **23rd Apr 2019 at 1430 hours** in the Conference Hall of TRAI on 3rd Floor, Mahanagar Doorsanchar Bhawan Jawaharlal Nehru Marg (Old Minto Road), New Delhi-110002. The prospective bidders may, at their own expense, attend the said conference without waiting for any further communication.

8. The bid, complete in all respects, shall be submitted, not later than **1500 hours on the 17th May 2019**, to Joint Advisor (QoS), Telecom Regulatory Authority of India, Room No.707, 7th Floor, Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi-110 002. The technical bids will be opened at **3.30PM on 17th May 2019**. The bidders, if they so desire, may be present at the time of opening of the bids.

9. Unsealed bids or bids without the earnest money deposit shall be summarily rejected.

10. **Late Bids:** The bids received, either by post or in person, after the due date and time of submission of bids shall be summarily rejected and will be returned unopened.

11. The agencies may be required to give a presentation on the technical aspects and their ability to perform the work for which date will be intimated separately.

12. Any change in the schedule of tender submission or opening etc. shall be communicated through e-mail provided by the agency at the time of submission of bid.

(Pavan Kumar Gupta) Joint Advisor (QOS)

SECTION- I

TENDER CONDITIONS AND INSTRUCTIONS TO BIDDERS

1. Background

The Telecom Regulatory Authority of India has, vide its regulations 1.1 "the Standards of Quality of Service of Basic Telephone Service (Wire line) and Cellular Mobile Telephone Service, Regulations, 2009" (7 of 2009) dated the 20th March, 2009, laid down the Quality of Service parameters applicable to the basic telephone service (wire line) and cellular mobile telephone service. A copy of the said regulations is available on the website of TRAI (www.trai.gov.in). These regulations are applicable to all the Basic Telephone Service Providers/ Unified Access Service Providers and Cellular Mobile Telephone Service Providers, including Bharat Sanchar Nigam Limited (BSNL) and Mahanagar Telephone Nigam Limited (MTNL). Regulations 5 and 6, in the above mentioned Regulations, provide for OoS parameters pertaining to Cellular Mobile Telephone Service.

TRAI has, vide its regulations the "Standards of Quality of Service 1.2for Wireless Data Services Regulations, 2012", (26 of 2012) dated 4th December 2012 laid down the quality of Service parameters applicable to the wireless data services. A copy of the said regulations is available on the website of TRAI (www.trai.gov.in). These regulations are applicable to all the cellular mobile telecom service providers providing data services. S. No. 3.1 to 3.8 of regulation 3 of these regulations provides for QoS parameters to be achieved by service providers.

2. Clarification on tender document and pre-tender conference

2.1A prospective bidder, requiring any clarification on the tender document, may submit in writing the request for any clarification not later than 1400 hours of 18th Apr, 2019 to Joint Advisor (QoS), Telecom Regulatory Authority of India, 7th Floor, Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi-110002 (FAX No.011-23213036). Copy of the queries (without identifying the source) and clarifications by TRAI will be uploaded on the website of TRAI (www.trai.gov.in).

2.2Any clarification issued by TRAI in response to any query raised by prospective bidders shall form an integral part of tender document and it may amount to an amendment of relevant clauses of the tender document.

2.3 The bidders are required to keep a watch on the website of TRAI (www.trai.gov.in) for any amendment to the tender document or for clarifications in response to the queries raised by the bidders up to a day prior to the last date for submission of bids. TRAI reserves the right to reject any bids, if the bids are submitted without taking into account these amendments/clarifications. Further, the prospective bidders shall be fully responsible for downloading the amendments, if any, made in the tender document and clarifications, if any, issued by TRAI. TRAI accepts no responsibility whatsoever in this regard.

The request for clarification received as per Para 2.1 above shall be, 2.4 to the extent possible, clarified in the pre-tender conference. The pretender conference will be held with the prospective bidders, for technical discussion/clarifications on technical and other matters regarding terms and conditions of the tender document. This conference will be held on 23rd Apr 2019 at 1430 hours in the Conference Room of TRAI located on the 3rd Floor, Mahanagar Doorsanchar Bhawan, New Delhi-110002. As a result of the discussion in this pre-tender conference, if any modifications document are considered to the tender necessary, suitable corrigenda/addenda to the tender document will be issued. A copy of such corrigenda/addenda will be uploaded on TRAI website. The prospective bidders should, at their own cost, attend the said conference without waiting for any further communication.

2.5 An agency may submit bids for one or more than one Zone, the bid for each zone shall be submitted in separate sealed envelope.

3. Earnest Money Deposit (EMD)

3.1 The prospective bidder shall submit a Demand Draft for the EMD, for each zone, separately for the amount mentioned below, along with their bid.

Zone	EMD (Rs)	
RO Bengaluru		98,000
RO Bhopal		96,000
HQ Delhi		64,000
RO Hyderabad		86,000
RO Jaipur		84,000
RO Kolkata		1,12,000

The DD should be drawn on any scheduled bank in favour of "TRAI" payable at Delhi as earnest money **for each Zone separately**. Any bid not accompanied by earnest money shall be summarily rejected. **The EMD shall be submitted with the Technical Bid**. The earnest money will be refunded to the unsuccessful bidders after finalisation of the tender. The EMD will be returned to the successful bidder after signing the contract agreement.

3.2 The EMD may be forfeited by the TRAI in any of the following circumstances:

- (a) If the bidder withdraws his bid during the period of validity of bids.
- (b) In the case of successful bidder, if the bidder fails:
 - (i) to sign the agreement; or
 - (ii) to furnish Performance Bank Guarantee in accordance with the Clause 9 of this Section or
 - (iii) to perform the work as per the Terms of Reference

4. Eligibility

4.1 The agency satisfying the following conditions shall be eligible for bidding, namely:

(i) the agency should have a minimum cumulative turnover, in the last three consecutive financial years for each respective zones as given below.

Minimum Cumulative Turnover for last 3 Financ	
Zone	years
RO Bengaluru	4,50,00,000
RO Bhopal	4,50,00,000
HQ Delhi	3,00,00,000
RO Hyderabad	4,50,00,000
RO Jaipur	4,50,00,000
RO Kolkata	6,00,00,000

(ii) the agency should have at least three years experience in conducting similar work of assessment of Quality of Service through drive test of mobile networks as given in the detailed scope of work at para 2 of Section-II.

(iii) the agency should have sufficient technically qualified staff and infrastructure to carry out assessment of Quality of Service through drive test of cellular mobile networks as per the Terms of Reference;

(iv) the agency should have the drive test tools of the standard which is widely used by the telecom service providers in the country, along with the required number of handsets for conducting drive test of mobile networks as per the scope of work calibrated by the manufacturer;

(v) the agency should have under taken drive tests in cities having population of more than 1 million for international telecom operator in the past 5 years.

4.2 The agency shall submit along with the standard format for technical proposal ----

- (a) documentary evidence regarding fulfilment of turnover conditions, including income tax returns for the last three consecutive years and a copy of PAN;
- (b) documentary evidence regarding similar experience of at least three years in conducting drive test of domestic cellular mobile networks for assessment of Quality of Service;
- (c) documentary evidence showing that the agency has sufficient technically qualified staff and infrastructure to carry out assessment of Quality of Service through drive test of cellular mobile networks as per the Terms of Reference and such documentary evidence shall include proof of employment of staff along with proof of payment of salary, Provident Fund etc.; and
- (d) a declaration that the agency shall earmark at least two technically qualified staff member for each Service area exclusively for this

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project and such officials will not be changed during the project period, without the prior written approval of TRAI;

- (e) copy of the licence or certification of the drive test tool along with copy of calibration certificate of the tools.
- (f) Copy of the experience certificate of having undertaken drive tests in international cities having a population of 1 million or more in the past 5 years, from the international Telecom Operator signed by not less than the rank of Vice President or equivalent or Company Secretary of the company.

5. Terms of Reference

The Terms of Reference for drive test of cellular mobile networks are provided in **Section-II** of this document.

6. Schedule for financial bids

Schedule for financial bids is available at **Section-III** of this document. The quotation shall include all levies, duties and taxes including service tax.

7. Technical proposal

Standard formats for technical proposal are given at **Section-IV**. All the necessary details are required to be filled by the agency and submitted before the last date and time of submission. The agency shall sign a pre contract integrity pact as per form given at Annexure 5 and submit the same along with Technical bid.

8. Last date for submission of bids

The bid should be submitted not later than **03.00 PM** on **17th May 2019**. Any bid received after the specified date shall be rejected and returned unopened to the agency.

9. Performance Bank Guarantee Bond

9.1 The selected agency shall furnish a Performance Bank Guarantee in the Proforma given at **Annexure-1** from any scheduled Bank in India within 15 (fifteen) days from the date of receipt of the letter of acceptance by the agency for an amount equivalent to 10% (ten per cent) of the value of the contract before signing of the agreement. In case the furnishing of an acceptable Performance Bank Guarantee is delayed by the agency beyond the afore-mentioned period, TRAI reserves the right to cancel the said letter of acceptance and forfeit the EMD submitted by the agency. Initially, the bank guarantee shall be valid for a period of one year and six months. The agency on its own shall extend the validity period of the bank guarantee on similar terms at least one month prior to the day of its expiry without any demand or notice from TRAI. The bank guarantees shall be kept valid for an extended period of six months beyond the period of agreement. Any failure to do so, shall amount to violation of the terms

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of the agreement and entitle TRAI to encash the bank guarantee and to convert it into a cash security without any reference to the agency at its risk and cost. No interest or compensation whatsoever shall be payable by TRAI on such encashment. On satisfactory completion of the contract in all respects, as per the terms and conditions specified in the tender document and contract agreement, the Performance Bank Guarantee shall be returned to the agency. No interest in any form shall be payable by TRAI to the agency before or after expiry of the Performance Bank Guarantee

9.2 In case the agreement is extended to cover assessment of Quality of Service through drive test of cellular mobile networks for one or more quarter, the agency shall submit, within 15 (fifteen) days of intimation about such extension by TRAI, a fresh Performance Bank Guarantee for amount equivalent to 10% (ten per cent) of the value of the contract for the extended period or extended work, as the case may be, in similar manner and shall also extend the validity of such performance bank guarantee to cover the extended period, one month before its expiry in the same manner as indicated in clause 9.1 above.

9.3 Without prejudice to its rights to terminate the agreement and to pursue any other remedy available to it under the law, TRAI may forfeit full or part of the Performance Bank Guarantee in case –

- (i) the agency fails to carry out the assigned task as per the terms and conditions specified in the tender document and agreement; or
- (ii) the report is not as per the format approved by TRAI; or
- (iii) the report contains information, which is found to be factually incorrect or materially wrong by TRAI.

10. Rejection of bids

TRAI reserves the right to accept or reject any bid without assigning any reason.

11. Opening and evaluation of the bid

11.1 The bids shall be evaluated by the Tender Evaluation Committee based on both techno-commercial and financial aspects as stipulated in this tender document.

11.2 The technical bids will be technically evaluated giving due consideration to –

- (i) the agency's conformity with the tender conditions;
- (ii) the agency's capability to perform the assignment;
- (iii) past experience in carrying out works of similar nature;
- (iv) profile of personnel to be engaged for this assignment; and

(v) financial capability of the agency.

11.3 The agencies may be called to make a presentation to the Tender Evaluation Committee constituted for this purpose. They shall furnish the clarifications/detailed explanations on the technical proposals, if sought by TRAI or by the Tender Evaluation Committee.

11.4 The financial bids of only those bidders, who qualify in the evaluation of the technical bids, will be opened and evaluated giving due consideration to the total quoted price on Zonal basis covering all service areas/circles in respective Zone. Only total quoted price for a zone will be taken for ranking of bids from lowest quoted to highest quoted. Arithmetical errors shall be rectified on the following basis:-

"If there is a discrepancy between words and figures, the amount in words shall prevail. If there is discrepancy in the total arrived at and the rates quoted for each service area of a zone, the total shall be corrected taking into account the rates quoted for the service areas within the zone. If the bidder does not accept the correction of the errors, his bid shall be rejected".

11.5 The lowest valid offer shall be declared successful. In situations where lowest quoted rates (L1) of two or more bidders for a Zone are same, in such cases fresh round of financial bidding from such bidders shall be called. In case the bidder who has quoted the lowest in the financial bid does not accept the bid award or fails to submit the Performance Bank Guarantee, the bid may be awarded to the second lowest quoted (L2) bidder.

12. Validity of Contract

The agreement for undertaking assessment of Quality of Service through drive test of cellular mobile networks shall be valid for a period of 18 (eighteen) months from the date of signing of the agreement, covering drive tests of cellular mobile networks in four quarters as specified in the tender. The quarter is defined as a period of three continuous calendar months ending 31st March, 30th June, 30th September and 31st December. The contract period may be extended for one or more quarter or for one more year at the same rate and terms & conditions as per the agreement, at the sole discretion of TRAI, to cover the assessment of Quality of Service through drive test of cellular mobile networks in the next year.

13. Force Majeure

13.1 If the performance in full or part as specified in the agreement is prevented, restricted, delayed or interfered by reasons of-

- (i) fire, explosion, cyclone, floods;
- (ii) war, revolution, acts of public enemies, blockage, or embargo;

- (iii) any law, order, proclamation, ordinance, demand or requirements of any Government, or authority or representative of any Government;
- (iv) strikes, shut-downs or labour disputes which are not instigated for the purpose of avoiding obligations herein; or
- (v) any other circumstances beyond the control of the party affected;

then, notwithstanding anything contained hereinbefore, the party affected may be excused from its performance to the extent such performance relates to such prevention, restriction, delay or interference, provided the party so affected uses its best efforts to remove such cause of nonperformance, and when removed, the party shall continue performance with utmost urgency.

13.2 If at any time during the performance of the contract, the agency should encounter condition impeding timely completion of the work, the agency shall promptly notify to the TRAI in writing the fact of the delay, its likely duration and its causes. As soon as practicable after receipt of the notice of agency, TRAI may evaluate the situation and may at its discretion extend the period for performance of the contract after mutual discussion with the agency.

14. Termination:

14.1 Without prejudice to its right to impose penalty and to forfeit the Performance Bank Guarantee, TRAI reserves the right to terminate the agreement (i) if the agency fails to carry out the task as per the terms and conditions specified in the tender documents and agreement; or (ii) if the report is not as per the format approved by TRAI; or (iii) if the report contains information, which is found to be factually incorrect or materially wrong by TRAI. The decision of TRAI as regards such material incorrectness of the report shall be final and binding on the agency.

14.2 Delivery of the performance of the work shall be made by the agency in accordance with the time schedule specified by TRAI. In case the work is not completed within the stipulated delivery period, as indicated in the agreement, TRAI reserves the right to foreclose/terminate the agreement and/or impose a penalty as per clause 17. The termination/foreclosing of the agreement shall be at the risk and responsibility of the agency and TRAI reserves the right to get the work completed for the remaining part at the risk and cost of the defaulting agency.

15. Indemnity

In no event shall TRAI be liable to agency for special, direct, indirect or any other damages in connection with or arising out of the performance or use of services provided by the agency under this agreement. The agency shall indemnify TRAI in respect of any damages, claim, loss or action against TRAI for act of commission or omission on the part of the agency, its agents or servants.

16. Coordination

16.1 The agency shall appoint one of its employees as coordinator who shall represent the agency in all dealings with TRAI.

16.2 All correspondence relating to the tender shall be addressed to Joint Advisor (QOS), Telecom Regulatory Authority of India, Mahanagar Doorsanchar Bhawan, New Delhi-110 002.

17. Payment terms:

17.1 Payment shall be made after completion of assessment of Quality of Service through drive test of cellular mobile networks and submission of the reports as per the following schedule and after TRAI is satisfied that the report submitted by the agency complies with the formats, norms and quality specified in the agreement:-

 assessment of Quality of Service through drive tests of mobile networks conducted during the first quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 2. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the second quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the third quarter for the specified cities, highways, metro rail 	S1.	Schedule	% payment in terms of total
 assessment of Quality of Service through drive tests of mobile networks conducted during the first quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 2. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the second quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the third quarter for the specified cities, highways, metro rail 	No.		payment for one year
 2. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the second quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the intervence areas in the zone and acceptance of the report by TRAI 3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the third quarter for the specified cities, highways, metro rail 	1.	assessment of Quality of Service through drive tests of mobile networks conducted during the first quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the	Contract value for the cities, highways, metro rail routes, walk tests and railway routes covered in each of the service areas in the zone.
3. Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the third quarter for the specified cities, highways, metro rail	2.	Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the second quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the	
routes, walk tests and railway routes in all the service areas in the zone and acceptance of the report by TRAI	3.	Submission of the reports on assessment of Quality of Service through drive tests of mobile networks conducted during the third quarter for the specified cities, highways, metro rail routes, walk tests and railway routes in all the service areas in the zone and acceptance of the	
4 Submission of the reports on Contract value for the cities,	4		Contract value for the cities.

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through drive tests of mobile	
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17.2 In case the agency has done any additional number of drive test in a city, as per the directions of TRAI, payments for such additional work shall be made in proportion to the total number of days as per the rate quoted for similar service in a similar category of city in the service area covered. For example, in case 5 days of drive test (including data) is to be done in a service area as per the tender, payment for an additional day of drive test will be made at the rate of one fifth of the quoted price. In case the agency has done any additional number of drive tests in a highway or railway route, as per the directions of TRAI, payments for such additional work shall be made in proportion to the rate quoted for such drive test under the respective zone.

17.3 In case the validity of the agreement is extended for one or more quarter or for one more year, in accordance with clause 12 hereinbefore, payment for the extended period will be made as per the above schedule detailed in clause 17.1 and 17.2.

17.4 The work on assessment of Quality of Service of mobile networks through drive tests shall be completed and all the reports shall be submitted within the respective time limits as specified in the tender or agreement. The drive tests should be done in such a manner that around 25% of the total number of drive tests in each of the service areas covered in the zone shall be completed in a quarter. The cities, highways, metro rail routes, walk tests and railway routes to be covered in a quarter in each of the service areas in the zone and the schedule of drive tests shall be decided by TRAI, in consultation with the agency. The reports on assessment of Quality of Service of mobile networks through drive tests shall be submitted to TRAI within 21 days of completion of drive test in a city, highway and railway route. No extension of time for completion of the assessment work and for submission of the report thereof shall be given, except for situation arising out of force majeure events specified under clause 13 of the Tender Document.

Penalty:

17.5 In case the report on assessment of Quality of Service of mobile networks through drive tests for a city or highway, metro rail routes, walk tests or railway route is delayed beyond 21 days of completion of the drive test or the agency is not able to adhere to the dates of Drive test as communicated by RO zones, a penalty shall be levied by TRAI at the rate of –

- (a) 5% (five per cent) of the value of contracted work for the city or highway or metro rail routes or walk tests or railway route, for the first week of delay;
- (b) additional 5% (five per cent) of the value of contracted work for the city or highway or metro rail routes or walk tests or railway route, for the second week of delay; and
- (c) 20% (twenty per cent) of the value of contracted work for the city or highway or metro rail routes or walk tests or railway route, for delay beyond two weeks and up to four weeks;

which shall be deducted from the amount payable to the Agency by TRAI. In case the quarterly consolidated report for audit and assessment of Quality of Service is delayed beyond four weeks, the report shall not be accepted and no payment shall be made by TRAI for such delayed report submitted after four weeks of due date for submission of the report:

Provided that TRAI may, at its discretion, accept a report which is delayed by more than four weeks, but not later than six weeks, subject to levy of a penalty at the rate of 30% (thirty per cent) of the value of contracted work for the city or highway or railway route.

17.6 In case the report on assessment of Quality of Service of mobile networks through drive tests for a city or highway or metro rail routes or walk tests or railway route is found by TRAI to be materially or factually incorrect; or the drive test is not done for any service provider for a service in a city/ highway/ railway route or the required number of drive tests for a service is not done, other than for reasons which are beyond the control of the agency (the decision of TRAI in such case is final); or the report is not as per the format of report approved by TRAI, the report shall be liable to be rejected and no payment shall be made for such contracted work if the report is rejected by TRAI and TRAI may also forfeit and encash the Performance Bank Guarantee. The decision of TRAI as regards such material or factual incorrectness of the report shall be final and binding on the agency.

17.7 Without prejudice to the provisions contained in Clause 17.6, in any specific case where the report submitted by the Agency for a city or highway or metro rail routes or walk tests or railway route is found by TRAI to be incomplete in respect of any of the service as either all the service providers are not covered or the required number of drive tests were not done for that service, other than for reasons which are beyond the control of the agency (the decision of TRAI in such case is final), TRAI may, at its discretion, accept such report:

Provided that where the number of service providers not covered in the drive test for voice or data service in a city or highway or metro rail routes or walk tests or railway route is more than six for any reasons, other than for reasons which are beyond the control of the agency (the decision of TRAI in such case is final), such report shall not be accepted and no payment shall be made for such incomplete report;

Provided further that where the number of service providers not covered in the drive test either for voice service or for data service in a city or highway or metro rail routes or walk tests or railway route is more than 3 and upto 6, for any reasons, other than for reasons which are beyond the control of the agency (the decision of TRAI in such case is final), payment for such incomplete report shall be reduced by (i) 40% for drive test in highways and railway routes; (ii) the following formula for drive test in cities –

 $\frac{A \times C \times 40}{B \times 100}$ for voice service; and (iii) $\frac{A \times 40}{B \times 100}$ for data service, where $\frac{A \times C \times 40}{B \times 100}$

A = total quote for a service area

B = total number of days of drive tests to be done in the service area

C = number of days of drive test for voice service to be done in the city

Provided also that where the number of service providers not covered in the drive test either for voice service or for data service, for any reasons, other than for reasons which are beyond the control of the agency (the decision of TRAI in such case is final), is upto 3, payment for such incomplete report shall be reduced by (i) 25% for drive test in highways and railway routes; (ii) the following formula for drive test in cities –

 $\frac{A \times C \times 25}{B \times 100}$ for voice service; and (iii) $\frac{A \times 25}{B \times 100}$ for data service, where $\frac{A \times C \times 25}{B \times 100}$

A = total quote for a service area

B = total number of days of drive tests to be done in the service area

C = number of days of drive test for voice service in the city

Provided also that where more than fifty percent of the required number of drive test to be conducted for a service in a city or highway or metro rail routes or walk tests or railway route is not done such report shall not be accepted and in other cases if the report is accepted by TRAI, payment for such incomplete report shall be reduced, from the contracted value for drive test for that service in the city or highway or metro rail routes or walk tests or railway route, in the proportion of number of days of drive test undertaken to the total number of days the drive test was required to be undertaken as per the tender documents;

<u>Explanation</u>: Where the required route kilometre is not covered for a service in a day such drive test will not be counted towards the required number of drive test for that service.

18. Confidentiality

- 18.1 The bidder shall treat all the information provided by TRAI as confidential and shall not share this information without the written permission of TRAI. The reports, data, etc. submitted by the bidder shall be the exclusive property of TRAI and the bidder shall not disclose the contents of such reports, data, results, etc. to any third party without the written consent of TRAI for a period of three years.
- 18.2 All information gathered during the assessment of Quality of Service of mobile networks through drive tests and reports shall be the sole property of TRAI. The agency shall not transfer / pass on the information of one service provider to another service provider or to any third party under any circumstances.
- 18.3 The Bidder shall not publish, disclose any information, make available or otherwise dispose of the document /data / software or any part or parts thereof to any third party, directly or indirectly without prior written consent of TRAI for a period of three years.
- 18.4 The bidder shall restrict access to the documents / data / software only to those employees to whom it will be felt necessary and relevant for this project and shall draw the provision of this undertaking to the personal attention of those of the employees to whom access to the document/data/software will be granted.

19. Laws governing contract

The laws of India for the time being in force shall govern the agreement.

20. Jurisdiction of courts

The courts of law located at New Delhi/Delhi shall alone have the jurisdiction to decide any dispute arising out of or in respect of the agreement entered into pursuant to this tender.

21. Arbitration

In the event of any dispute arising between TRAI and the agency, the matter shall be referred to the Secretary, TRAI who may himself act as sole arbitrator or may nominate, as sole arbitrator, an officer of TRAI notwithstanding the fact that such officer has been directly or indirectly associated with the tender process or the contract between the parties. The agency shall not be entitled to raise any objection to the appointment of such officer of TRAI as the sole arbitrator. The award of the arbitrator shall be final and binding on both the parties, subject to the provisions of the Arbitration and Conciliation Act, 1996 and rules made there under for the time being in force. The parties expressly agree that the arbitration proceedings shall be held at New Delhi. The language of arbitration shall be English.

22. Language of the bid and bid cost:

The bid shall be submitted in English language. The bidder shall bear all costs associated with the preparation and submission of the bid. The Authority will, in no case, be responsible or liable for these costs, regardless of the conduct or outcome of the bid.

23. Currency for the financial bid:

The financial bid shall be quoted in Indian Rupees (INR). The bid shall be inclusive of all taxes, levies and duties including service tax etc. Any change in the prevailing tax structure or imposition of any new tax by the competent authority shall be borne by the agency.

24. Bid validity period:

The bid shall remain valid for 120 (one hundred twenty) days from the date of submission of the bid.

25. Further assigning of tender in whole or part:

The agency shall not assign the contract, the benefit or burden thereof to any other person or persons or body corporate. No under letting or subletting to any person or body corporate for the execution of the contract or any other part thereof is permitted under any circumstances.

26. False information:

In the event of furnishing false/incorrect information by the agency, the EMD in respect of such agency shall be forfeited. Further, if during the performance of the contract, it is detected that the contract has been obtained by furnishing the false/incorrect information in the tender, the agreement is liable to be terminated and performance bank guarantee and other payments due to agency shall be forfeited and the agency shall be liable to be blacklisted.

27. Peer Audit or re-verification of the report:

TRAI may, at its discretion, undertake peer audit of the report submitted by the agency through a different agency or undertake verification of the report through its officers, and in case the report is found to be materially incorrect, the agency shall be liable for as per clause 17.5 and 17.6 of Section I of this Tender Document:

Provided that the terms and conditions of peer audit through agency from other zone shall be as decided by TRAI with such agency in accordance with the contract with such agency.

SECTION-II

TERMS OF REFERENCE FOR AUDIT AND ASSESSMENT OF QUALITY OF SERVICE OF SERVICE PROVIDERS

1. Objective:

1.1 The Telecom Regulatory Authority of India has been entrusted to lay-down the standards of quality of service to be provided by the service providers and ensure the quality of service and conduct periodical audit of such services provided by the service providers so as to protect the interest of the consumers of telecommunication services.

1.2 The Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service, Regulations, 2009 (7 of 2009) dated 20th March, 2009 prescribe the Quality of Service standards for Cellular Mobile Telephone Service (both 2G and 3G). A copy of the said regulations is available at TRAI's website (www.trai.gov.in). TRAI will be laying down the Quality of Service for 4G VoLTE service and such Quality of Service standards will be applicable for assessing the Quality of Service of 4G VoLTE networks. The objective of the Terms of Reference is to carry out assessment of Quality of Service of mobile networks through drive tests in select cities, highways or metro rail routes or walk-tests and railway routes (in train) in each of the service areas in the contracted zone. For this purpose, TRAI wants to engage an agency for assessment of Quality of Service of mobile networks, as per the scope of work indicated in clause 2 under this section, for the following services through drive tests:-

(a) voice service – 2G/3G and 4G VoLTE services

(b) data service -2G/3G and 4G services

(c) highway and railway route testing – 2G/3G and voice 4G VoLTE service

(d) Mean Opinion Score (MoS) (based on POLQA V3) for 2G/3G and 4G VoLTE Services

(e) Walk tests in Indoor places of interest

(f) Metro Rail Routes in the cities

1.3 The scope of work of assessment of Quality of Service of mobile networks through drive tests includes:

(a) Drive test of the RF networks along with web visualization as per the format given by TRAI.

(b) Capturing of data related to RF networks as per the parameter laid down in the Quality of Service Regulations mentioned in 1.2 above and the amendments issued during the course of the contract.

(b) Transfer of data generated by the RF drive test / live measurements / PMR/ audit to the server located at TRAI premises immediately on completion of each activity.

1.4 S. No. (i) to (x) of regulation 5 and regulation 6 under Section III pertain to QoS parameters for Cellular Mobile Telephone Service specified under the Standards of Quality of Service of Basic Telephone Service (Wire line) and Cellular Mobile Telephone Service Regulations, 2009 (7 of 2009) dated the 20th March, 2009. The parameters of Quality of Service for cellular mobile telephone services are specified under the head Network Service Quality Parameters.

1.5 S. No. 3.7 and 3.8 under regulation 3 under Section II of the Standards of Quality of Service for Wireless Data Services Regulations, 2012 dated 4th December 2012 (26 of 12) contain the parameters and benchmarks of the Quality of Service to be achieved by the service providers for wireless data services. The parameters of QoS for wireless data specified in the regulation 3 of Standards of quality of service for wireless data Services regulations 2012 are PDP context Activation Success rate and Drop rate

1.6 TRAI will be laying down Quality of Service parameters and benchmarks for 4G VoLTE service. Also TRAI may amend/ modify the above parameters and benchmarks and may also add new parameters from time to time during the currency of contract and the bidder shall be bound by it.

1.7 The detailed explanation and measurement methodology of each parameters and benchmarks for Cellular Mobile Telephone Service and Wireless data service are given in the Explanatory Memorandum of the regulations in "The Standards of Quality of Service of Basic Telephone Service (Wire line) and Cellular Mobile Telephone Service, Regulations, 2009", "Standards of Quality of Service for Wireless Data Services Regulations, 2012" mentioned in Clause 1.1 and Clause 1.2.

2. Detailed scope of work:

2.1The main purpose of the tender is to assess Quality of Service performed by cellular mobile service providers through drive tests for (i) voice service in 2G (GSM)/3G and 4G VoLTE networks; (ii) data service in 2G (GSM)/3G and 4G networks, in select cities in each of the service areas under the respective Zone; and (iii) voice service in 2G/3G and 4G VoLTE networks in select highways, metro rail routes, walk-tests and railway routes in the respective zone. The cities to be covered are metro service areas of Delhi, Mumbai and Calcutta; all cities or urban agglomeration with more than one million population as per the 2011 Census of India; capital cities of all states; major Union Territory of Chandigarh and Pondicherry; and cities with less than one million population of Hissar, Bhiwani, Warangal, Mysore, Belgaum and Mangalore. Drive tests for voice service has to be done for (i) 6 days in the metro service areas of Delhi, Mumbai and Chennai, Hyderabad and Bangalore; (ii) four days in cities with more than one million population; and (iii) two days in other cities. Drive tests for data service have to be done in all the cities for one day. In addition to the cities, the agency will have to undertake drive test in select Highways and Railway routes as decided by the Authority from time to time. The drive tests on highways

and in train on railway routes may cover multiple service areas in the respective zone. TRAI will inform the agency about the highways and railway routes to be covered in a quarter. There shall be a minimum of five days of drive tests each on highways and in train on railway routes to be conducted in a zone in a year. In case a service provider who has a licence in a service area for providing 3G or 4G service is providing such service only through Intra Circle Roaming Agreement and the service is offered through SIM issued in its name, such service provider will also be covered in the drive test.

2.2 The Telecom Licensed Service Areas/Circle for the purpose of this tender comprise of the following:

HQ Delhi Zone: Delhi, Jammu & Kashmir, Himachal Pradesh. For the cellular mobile telephone service the service area of Delhi includes Ghaziabad, Faridabad, Noida and Gurgaon.

RO Jaipur Zone: Punjab, Haryana, Rajasthan and Gujrat.

RO Bhopal Zone: Uttar Pradesh-East, Uttar Pradesh-West (including Uttarakhand) and Madhya Pradesh (including Chhattisgarh).

RO Kolkata Zone: Kolkata, West Bengal (including Andaman & Nicobar, Sikkim and excluding Kolkata), Bihar (including Jharkhand), North East which includes Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur and Tripura, Assam.

RO Bengaluru Zone: Maharashtra (including Goa and excluding Mumbai), Karnataka, Kerala and Mumbai.

RO Hyderabad Zone: Andhra Pradesh (including Telangana), Odisha and Tamil Nadu (including Chennai)

2.3 The details of the areas covered under each Licensed Service Area/ Metro Service Area, cities to be covered under each Licensed Service Area/ Metro Service Area and the number of days for which drive tests are to be conducted are given in **Annexure-2**.

2.4The agency shall undertake assessment of Quality of Service of cellular mobile networks through drive tests, for voice and data viz. Voice service in 2G (GSM)/3G and 4G VoLTE networks and data service in 2G/3G and 4G networks, provided by every service provider (licensee) in each of the selected cities under the circles/metro service areas and for voice service in 2G/3G and 4G VoLTE networks in the highways and railway routes notified by TRAI under the respective Zone. The details of the service providers (licensees) operating 2G (GSM), 3G and 4G services, including 4G VoLTE services in each of the licensed service area/ metro service area are given in **Annexure-3.** In addition to above, TRAI may instruct the agency to undertake drive test in any other city or additional highway/railway routes in excess of the minimum number of days of drive tests in a quarter and the agency shall undertake drive tests in such additional city or highway or metro rail routes or walk tests or railway route, as the case may be. Further, such additional drive tests could be for a particular service or services or for all the services. Payments for such additional drive tests shall be made as per the proportionate rate for that city for such service and taking into account the number of

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additional days of drive test. In the case of additional highways and railway routes covered, payments shall be made in proportion to the rate quoted for the minimum number of such drive tests in the respective zone. TRAI may also replace a city in a service area with a similar category of city or lower category of city in that service area.

- 2.5 The drive test shall be conducted in the following manner:-
 - (a) Drive tests shall be undertaken in at least 25% of the cities to be covered in a service area in a quarter. The cities to be covered in a quarter shall be decided by TRAI, in consultation with the agency.
 - (b) Drive tests in a city for a specific service shall be conducted simultaneously for all service providers providing that service. The agency may undertake drive test in a service area simultaneously for voice and data services, covering 2G/3G, 4G services and 4G VoLTE service, including GSM services.
 - (c) Drive tests shall be undertaken in select highways and railway routes (in train), for voice service covering 2G/3G and 4G VoLTE technology, including GSM services.
 - (d) The results of RF drive tests of the mobile networks of service providers should be uploaded on the TRAI server at the end of the drive test in the sample form prescribed by TRAI. The username and password for accessing TRAI portal will be issued to successful bidder. The agency shall be required to carry out an analysis of the drive test and load the results giving such information and in such format as may be agreed by TRAI including graphical representation.
 - (e) The agency shall preserve the complete log files for a period of six months after the expiry of the contract and shall produce the same to TRAI as and when required to do so.
 - (f) Independent drive test shall cover a city and its adjoining areas, including congested areas and important indoor sites, and shall normally cover a distance of 120 kilometres in a day.
 - (g) The agency shall follow the instructions issued by TRAI, including the Regional Offices of TRAI, in this regard

2.6 In the case of drive tests on Highways the minimum distance to be covered is 250 KM in a day. In the case of drive tests on Railway routes (in train), the drive test shall normally cover a distance 350 KM in a day, subject to a minimum distance of 250 KM.

Drive Test Methodology:

2.7 For drive test, the following procedure shall be adopted:

i. The agency shall discuss with Service provider about the coverage before starting the drive test (with coverage map) and study the coverage detail in terms of the signal strength. Based on the signal strength as depicted in the coverage map of the LSA divided into small grids, based on the population of the LSA, the drive test should be done to check the following parameters:

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Voice:-

a. Coverage-Signal strength

- b. Call setup success rate
- c. Blocked calls
- e. Call drop rate
- d. MOS (mean opinion score), based on POLQA V3, of the calls made and compared with the actual recording of the voice samples.
- e. Call setup time in networks offering Circuit Switched Fall Back (CSFB)

Data:-

- a. Median Throughput (Down link/uplink)
- b. Success rate
- c. Web page download time
- d. Video streaming delay
- e. Latency

ii. The agency shall analyse the network related complaints of concerned city. The drive test shall be conducted using licensed tools/devices with more focus on areas where large numbers of network related complaints are received

iii. The drive test shall cover cities and adjoining towns/ rural areas where the service provider has commenced service, including congested areas and indoor sites.

iv. The drive test shall cover the routes including expressways, major and secondary roads / streets, Commercial, residential areas/Commercials estates, metro rail routes, Indoors of selected premises of importance (As decided by TRAI) falling in the city.

v. The drive tests of each mobile network shall be conducted between 10 am and 8 pm.

vi. The Vehicle to be used in the drive tests shall be equipped with the test tool that automatically generates calls on the mobile telephone networks.

vii. The speed of the vehicle, in the case of drive tests in cities and highways, should be kept at around 30-50 km/hour (around 30 km/hr in case of geographically small cities)

viii. The holding period of each test call will be 120/180 seconds.

ix. Measurement using engineering handsets would not be acceptable.

x. Data Test drive concurrent with voice test and hot spots measurement for assessing the mobile data services for all technology across the concerned city.

- a) Data download/upload
- b) On line video streaming
- c) Web browsing with 3 links of e/m commerce website
- d) Latency (Ping)
- e) On line payments on hotspot
- f) Similar data tests while on move

x The agency shall deploy additional resources in terms of IDT Tool kits, software licences, software tools, manpower, vehicles etc for conducting IDT simultaneously at 2 different locations with separate kits in metropolitan cities and Hyderabad and Bengaluru, if need be.

xi. The total number of handsets per vehicle shall be limited to 15. One spare Handset should be readily available in the vehicle in case one of the handsets develop snag. Additionally, one handset having Drive test capabilities be kept for the TRAI official during the drive. All Handsets being used for MOS should be capable for taking observations for all kinds of spectrum operational in India.

2.8 TRAI may modify the above methodology and the agency has to undertake drive test of mobile networks as per such modification, if any, made by TRAI. After the completion of the drive test, the agency is required to submit the report of the independent drive test in such a manner that all the metrics captured for different services (voice and data) and different service providers are displayed using a Graphical User Interface, data visualization dashboards and analytical based tools. The analytical based tool/ software shall be internationally compatible and be used to show comparison of TSP performance/ comparison of TSP's at city/ highway/ railway route level, with other TSP's, grid level, service area level and with global TSP's. The format of report shall be provided by TRAI and the agency shall submit the report in such format.

Guidelines for Tamper-proof data collection:

2.9 Before the execution of data collection activities, initial planning for the smooth flow shall be done by the field engineer as per the check list given here under

- 1. The drive test tool, used in drive test shall be of latest version and licensed and shall be clearly specified in the report.
- 2. The phones used in the drive equipment shall have the necessary calibration records.
- 3. Power and drive test phone positions should be properly setup. To minimize power problems, direct battery connections be used.
- 4. The equipment shall be placed in cabinets or installed in the holder in the test vehicles/ train to make it rugged and shock proof. Each measurement is GPS referenced and stored on a laptop computer.
- 5. The test terminals (MS/UE) are to be positioned in the middle of the cabin (1.5 Mtrs), at the median of the side windows height, and equally spaced one from each other (not more than 7 MS/UE).
- 6. The test MS/UE is to be installed on a rail or mounting board in the particular case of larger vehicles such as Mini Vans or SUVs.

Data Collection Checklist:

2.10 Standard industry practices shall be adopted while performing the data collection to ensure it is done in a controlled environment to replicate the performance of the customer experiences; to mitigate advantages / disadvantages to any particular operator. Same type of mobile devices and servers shall be used across all operators for all the voice test cases.

2.11 Post Processing and grid based Analyses:

- The Data Post Processing stage should be started immediately after completion of each day drive testing. Following practice shall be exercised to ensure the tamper proof results :-
- The team shall be able to load the data / Log files on the relevant post processing tool for analysis. All external connection to these desktops like CD ROM, flash drives and internet shall be disabled to avoid duplication of log files.
- The city under test shall be divided into smaller grids and narrow down at the grid level to identify and highlight the grid/ area level problems rather than looking at the complete city level ie clusters based reporting and analysis is required. The highlighted grid/ area level problems shall clearly indicate the areas with poor service levels for each service provider.

3. **Miscellaneous:**

Expenses towards boarding, lodging and travelling for conducting 3.1 assessment of Quality of Service of mobile networks through drive tests shall be borne by the agency itself. The agency shall arrange the SIM cards from the service provider free of cost, for the drive tests. The agency has to contact the service provider in this regard and has to collect the SIM card prior to undertaking the drive tests.

3.2 TRAI at any point of time can ask for authenticity of any observation furnished by the agency. TRAI has the right to verify authenticity of each of the observations. This may also involve contacting the agency again for this purpose. Expenses towards boarding, lodging and travelling for the staff of the Agency for this purpose shall also be borne by the Agency itself.

4. **Reporting Formats:**

4.1 The agency is required to develop data formats including executive summary, critical findings and detailed data analysis thereof for reporting Tender Document (QOS audit) No. 305-4/2019-QoS Signature of authorized

the results of such drive test. The agency may utilise software for reporting, preferably MS Word & MS Excel in Window environment.

4.2 The agency shall submit to TRAI sample design and sample reporting formats within 4 weeks of signing of the agreement. TRAI may suggest modifications to the sample design and sample reporting formats and the agency shall modify the sample design and sample reporting formats, as suggested by TRAI, and final approval shall be taken before taking up the job in hand. The final approved design and reporting format shall be submitted by the agency within time period as specified in the deliverv schedule at clause 7, after incorporating modifications/corrections suggested by TRAI. TRAI's decision in this matter shall be final.

All these reports shall be enabled as online reports with sufficient flexibility of querying against various parameters.

4.3 If representative of TRAI is deputed for verification, the agency shall extend all cooperation with such representative of TRAI in the verification/ audit process and the officer shall be supplied with all the information needed for such verification.

4.4 TRAI may also suggest changes to the reporting format at any point of time, in case it feels that such a change is necessary and the Agency shall carry out such changes in the reporting format.

5. Deliverables

5.1 The agency shall submit the drive test reports for each city, highway, metro rail routes, walk tests and railway route in the formats approved by TRAI for the purpose. The railway route and highway drive test conducted, covering more than one service area, shall be reported separately for each service area. Two copies of such report covering all services, both voice and data, and all technologies shall be submitted to TRAI within the time period prescribed in this Tender Document. The soft copies of each report shall also be submitted by the Agency along with the hard copies.

5.3 The report shall contain the results of drive tests, executive summary, critical findings and comparison of performance of the service providers on various Quality of Service parameters in the city or highway or metro rail routes or walk tests or railway route, as the case may be. **The report shall cover all services, 2G/ 3G voice services (including GSM) and 4G VoLTE service.** The report shall also contain an Executive Summary and critical findings along with detailed analysis to share with the service provider so as to take further follow-up action. Additionally, the report should be useful for the customers. Terminologies used in common parlance be used while describing the quality of the networks for ease of use of customers. Also, the plots of coverage, quality and MOS be hosted in a zoomable layout which can be used by customers to locate specific spots on the map.

5.4 Reports shall be submitted for approval within twenty one days of completion of drive test of mobile networks in the city or highway or metro rail routes or walk tests or railway route, as the case may be. The report shall contain the findings on assessment of Quality of Service provided by service providers carried out in accordance with Clause 2 above. The report shall contain performance of each service provider against the Quality of Service parameters. The report shall also contain a comparative analysis of performance of all the service providers in the city or highway or metro rail route or walk tests or railway route, as the case may be. The report shall also contain an Executive Summary and critical finding along with detailed analysis.

5.5 A separate report is also required to be submitted for each company/group of companies covering each circle/service area at the end of the year.

6. TRAI's Inputs:

6.1 TRAI will make available the relevant Quality of Service Regulations of Cellular Mobile Telephone Services and Wireless Data Service. TRAI will also make available details of contact persons of service providers and such other information requested by the agency which is available in TRAI and which is necessary for carrying out the assessment of Quality of Service of service providers.

S. No.	Deliverable	Period				
	Date of award of work as per the contract say (D)					
1.	Submission of all sample design and reporting formats by the Agency	D+2 weeks				
2.	Submission of final design and reporting formats by the Agency incorporating modifications and corrections suggested by TRAI and its acceptance	D+4 weeks				
3.	Commencement of assessment of Quality of Service of cellular mobile networks through drive tests	Beginning of drive tests- the quarter following date of award of work (D) or any subsequent quarter, as decided by TRAI				
4.	Submission of reports of drive tests conducted in the first quarter (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the first quarter				
5.	Submission of reports of drive tests conducted in the second quarter (separately for each city or highway or metro rail route or	Twenty one days from the date of completion of the				

7. Delivery Schedule

	walk tests or railway route)	concerned drive test in the
		second quarter
6.	Submission of reports of drive tests conducted in the third quarter (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the third quarter
7.	Submission of reports of drive tests conducted in the fourth quarter (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the fourth quarter
8	Submission of reports of company/group of companies covering each circle/service area at the end of the year	One month from the end of fourth quarter
9.	Commencement of assessment of Quality of Service of mobile networks through drive tests for the first quarter for the extended period	From the end of the fourth quarter or any later period as decided by TRAI
10	Submission of Performance Guarantee for extension of contract for one more year	Within 15 (fifteen) days of intimation about such extension by TRAI
11.	Submission of reports of drive tests conducted in the first quarter of the extended period (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the first quarter
12.	Submission of reports of drive tests conducted in the second quarter of the extended period (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the second quarter
13.	Submission of reports of drive tests conducted in the third quarter of the extended period (separately for each city or highway or metro rail route or walk tests or railway route)	Twenty one days from the date of completion of the concerned drive test in the third quarter
14.	Submission of reports of drive tests conducted in the fourth quarter of the extended period (separately for each city or highway or metro rail route or walk tests or railway route)	One month from the end of the fourth quarter of extended period
15.	Submission of reports of company/group of	One month from

companies covering each	circle/service	area	the end	of fourth
at the end of the year			quarter	of
			extended	l period

SECTION-III

Schedule for Financial Bid for Assessment of Quality of Service in select cities, highways, metro rail route, walk tests and railway routes

The Agency shall submit the Financial Bid in the format given below:

Note: The rates shall be inclusive of the online transfer of data generated by RF drive test/ live measurement/ PMR/audit & report generation as per the requirements of the tender document and all the taxes, levies, duties etc.

Zone HQ Delhi Zone

A Delhi Service Area

	Deliti Service Area				
Sl. No.	City		No. of days of drive tests	Qu	otation
51. 140.	City	(voice) + Walktest	(data)	(Rupees - in figures)	(Rupees in words)
1	Delhi (including Gurgaon & NOIDA)	8+2	2		
2	Faridabad	3+1	1		
3	Ghaziabad	3+1	1	1	
4	Delhi Metro Rail Route including Gurgaon/Noida/Faridabad/G haziabad Metro	2	1	(For 25 days of drive test)	(For 25 days of drive test)
Total		20	5		

B Jammu & Kashmir

		No. of days of drive tests	No. of days of drive tests (data)	Quotation	
Sl. No.	City	(voice) + Walktest		(Rupees in figures)	(Rupees in words)
5	Srinagar	3+1	1		
6	Leh	1+1	Along the Highway	(For 7 days of drive test)	(For 7 days of drive
					test)
Total		6	1		

С	Himachal Pradesh				
		No. of days	No. of days	Quotation	
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
7	Shimla	2+1	1	 (For 4 days of drive test)	 (For 4 days
Total		3	1		drive

D Highways to be covered in the RO Delhi Zone

Highw		Quotation		
ау	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
To be				
decide				
d by		(For 5 days	(For 5 days	
TRAI	5	(For 5 days of Drive Test)	(For 5 days of Drive Test)	

E Railway routes to be covered in the RO Delhi Zone

Railwa		Quotation		
y route	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
To be				
decide				
d by		(For 5 days	(For 5 days	
TRAI	5	(For 5 days of Drive Test)	of Drive Test)	

Quotation for HQ Delhi Zone

	Quotation		
Total (A + B	(Rupees in figures)	(Rupees words)	in
(A + B + C + D			
+ E)			

Zone RO Jaipur Zone

A Punjab Service Area

		No. of days	No. of days	Quotation	
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
1	Ludhiana	4+1	1		
2	Chandigarh	4+1	1	(For 20	(For 20 days
3	Patiala	2+1	1	days of	of drive
4	Bhatinda	2+1	1	drive	test)

Total	16	4	test)	
-------	----	---	-------	--

B Haryana Service Area

		No. of days	No. of days	Qu	otation
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
5	Karnal	2+1	1		
6	Yamunanagar	2+1	1		
				 For 8 days of drive	For 8 days of drive test
Total		6	2	test	

C Rajasthan Service Area

		No. of days	No. of days	Qu	otation
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
7	Jaipur	4+1	1		
8	Alwar	3+1	1]	
9	Bhilwara	3+1	1	(5 - x 2 2	
10	Jaisalmer	2+1	1	(For 22 days of	(For 22 days of drive
11	Jaipur Metro Rail Route	1	1	drive test0	test)
Total		17	5		

D Gujrat Service Area

		No. of days	No. of days	Qu	otation
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
12	Ahmedabad	5+1	1		
13	Vadodra	3+1	1	(For 20	
14	Junagadh	2+1	1	days of	(For 20 days of drive
15	Anand	2+1	1	drive	test)
Total		16	4	test)	·

E Highways to be covered in the RO Jaipur Zone

		Quotation		
Highw ay	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
Jaland har- Jamm u	5	 (For 5 days of drive test)	 (For 5 days of drive test)	

Jaipur- Bhilwa ra		
Total	5	

F Railway routes to be covered in the RO Jaipur Zone

Railwa		Quotation		
y route	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
Jaisal mer- Jodhp ur	-			
Junaga dh- Ahem dabad	5	(For 5 days of drive test)	(For 5 days of drive test)	
Total	5			

Quotation for RO Jaipur Zone

Total (A + B + C + D	Quotation		
+ C + D + E +F)	(Rupees in figures)	(Rupees words)	in

Zone RO Bhopal zone

A Uttar Pradesh East Service Area

		No. of days	No. of days	Quotation	
Sl. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
1	Lucknow	3+1	1		 (For 26 days of drive test)
2	Kanpur	3+1	1		
3	Allahabad	2+1	1	(For 26	
4	Varanasi	2+1	1	days of	
5	Jhansi	2+1	1	drive test)	
6	Gorakhpur	2+1	1		
Total		20	6		

B Uttar Pradesh West Service Area

		No. of days	No. of days	Qu	otation
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)

7	Agra	3+1	1		
8	Meerut	2+1	1	(For 17 days of drive test)	(For 17 days of drive test)
9	Dehradun	2+1	1		
10	Haridwar/Rishikesh	2+1	1		
Total		13	4		

С	Madhya Pradesh Service Area				
		No. of days	No. of days	Qu	otation
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
11	Bhopal	2+1	1		
12	Ratlam	2+1	1		
13	Indore	2+1	1		
14	Jabalpur	2+1	1		
15	Ujjain	2+1	1	(For 40	
16	Durg-Bhilainagar	2+1	1	days	(For 40 days
17	Rewa	2+1	1	drive	drive test)
18	Raipur	2+1	1	test)	
19	Dewas	2+1	1		
20	Bilaspur	2+1	1		
Total		30	10		

D Highways to be covered in the RO Bhopal Zone

Highw		Quot	ation
ay	No. of days of drive tests	(Rupees in figures)	(Rupees in words)
To be decide			
d by		(For 5 days	(For 5 days
TRAI	5	(For 5 days of Drive Test)	(For 5 days of Drive Test)

E Railway routes to be covered in the RO Bhopal Zone

Railwa		Quotation		
y route	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
To be				
decide				
d by		(For 5 days	(For 5 days	
TRAI	5	(For 5 days of Drive Test)	(For 5 days of Drive Test)	

Quotation for RO Bhopal Zone

Total	Quotation		
(A + B + C + D	(Rupees in figures)	(Rupees words)	in

+ E)	

Zone RO Kolkatta Zone

A Kolkatta Service Area

		No. of days	No. of days	Quotation	
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
1	Kolkata	6+1	2	(For 11 days drive test)	
2	Kolkatta Metro Rail Route	1	1		(For 11 days drive test)
Total		8	3		

B West Bengal Service Area

		No. of days	No. of days	Qu	otation
Sl. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
3	Malda town	2+1	1	(For 16 days drive test)	
4	Krishna Nagar & Baharampore	3+1	1		
5	Port Blair	2+1	1		(For 16 days drive test)
6	Geyzing	1+1	1		
Total		12	4		

C Bihar Service Area

		No. of days	No. of days	Qu	Quotation	
SI. No.	City	OT ARIVA TACTO	of drive tests (data)	(Rupees in figures)	(Rupees in words)	
7	Patna	3+1	1		 (For 24 days drive test)	
8	Bhagalpur	2+1	1			
9	Giridih	1+1	1	 (For 24		
10	Ranchi	3+1	1	days		
11	Hazaribagh	1+1	1	drive test)		
12	Gaya	2+1	1			
Total		18	6			

North East Service Area

D

		No. of days No. of days	Quotation		
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
13	IMPHAL & BISHNUPUR	2+1	1((For 24	 (For 24 days

14	TURA	1+1	1	days	drive test)
15	Aizwal	2+1	1)drive	
16	DIMAPUR & CHUMUKEIDMA	2+1	1	test	
17	DHARMANAGAR	1+1	1		
18	TEZU & ROING	2+1	1		
19	ALONG	1+1	0		
Total		18	6		

Assam Service Area

Е

SI. No.	City	No. of days of drive tests (voice) + Walktest	No. of days of drive tests (data)	Quotation	
				(Rupees in figures)	(Rupees in words)
20	Nagaon	2+1	1	(For 13 days drive test)	 (For 13 days drive test)
21	BONGAIGAON & DHUBRI	2+1	1		
22	DIBRUGARH & TINSUKIA	3+1	1		
Total		10	3	,	

F Highways to be covered in the RO Kolkatta Zone

		Quotation		
Highw ay	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
Asans ol- Gaya				
Jamsh				
edpur- Dhanb				
ad				
Imphal				
-	5	For 5 days of drive test	For 5 days of drive test	
Silchar				
Bomdil				
a-				
Tawan				
g				
Siliguri				
-Cooch				
Bihar				

G Railway routes to be covered in the RO Kolkatta Zone

Railwa No. of days of drive tests	Quotation
-----------------------------------	-----------

y		(Rupees in	(Rupees in
route		figures)	words)
Kolkatt a- Malda Town Guwah ti- Maria ni KAMA KHYA- NORT H LAKHI MPUR Ranchi -Gaya Tatana gar- Gaya	5	For 5 days of drive test	For 5 days of drive test

Quotation for RO Kolkatta Zone

Total	Quotation					
(A + B						
+ C + D		(Rupees	in			
+ E + F	(Rupees in figures)	figures)				
+ G						

Zone RO Bengaluru Zone

A Maharashtra Service Area

		No. of days	No. of days of drive tests (data)	Quotation	
SI. No.	City	of drive tests (voice) + Walktest		(Rupees in figures)	(Rupees in words)
1	Pune	8+2	2		
2	Kalyan	4+1	1	(For 28 days drive test)	 (For 28 days
3	Solapur	2+1	1		
4	Goa	4+1	1		drive test)
Total		23	5		

B Karnatka Service Area

		No. of days	No. of days	Quotation	
Sl. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
5	Bangalore	8+2	2		
6	Bijapur	2+1	1	(For 22	(For 22 days
7	Hassan	2+1	1	days	drive test)

8	Bengalore Metro Rail Route	1	1)drive test	
Total		17	5		

C Kerala Service Area

		No. of days	No. of days	Quotation	
SI. No.	City	of drive tests (voice) + Walktest	of drive tests (data)	(Rupees in figures)	(Rupees in words)
9	Trivandrum	3+1	1	-	 (For 20 days of drive test)
10	Cochin	3+1	1		
11	Malappuram	2+1	1	(For 20	
12	Pathnamthitta	2+1	1	days of	
13	Kochi Metro Rail Route	1	1	drive test)	
Total		15	5		

D Mumbai Service Area

		No. of days	No. of days of drive tests (data)	Quotation	
SI. No.	City	of drive tests (voice) + Walktest		(Rupees in figures)	(Rupees in words)
14	Mumbai (including suburbs)	8+2	2	 (For 19	 (For 19 days
15	Navi Mumbai	4+1	1	days	
16	Mumbai Metro Rail Route	1	0	drive test)	drive test)
Total		16	3		

E Highways to be covered in the RO Bengaluru Zone

Highw		Quotation		
ay	No. of days of drive tests	(Rupees in figures)	(Rupees in words)	
To be				
decide				
d by		(For 5 days	(For 5 days	
TRAI	5	(For 5 days of Drive Test)	(For 5 days of Drive Test)	

F Railway routes to be covered in the RO Bengaluru Zone

Railwa		Quot	ation
y route	No. of days of drive tests	(Rupees in figures)	(Rupees in words)
To be decide			
d by		(For 5 days	(For 5 days of Drive Test)
TRAI	5	(For 5 days of Drive Test)	of Drive Test)

Quotation for RO Bengaluru Zone

Total								
(A + B								
+ C + D + E +		(Rupees	in					
+ E +	(Rupees in figures)	figures)						
F)								

RO Hyderabad Zone Zone

А	Andhra Pradesh Service Area				
	City	No. of days of drive tests (voice) + Walktest	No. of days	Quotation	
SI. No.			of drive tests (data)	(Rupees in figures)	(Rupees in words)
1	Hyderabad	8+2	2		 (For 26 days
2	Vijayawada	4+1	1	 (For 26	
3	Tirupati	2+1	1	days	
4	Nellore	2+1	1	drive test)	drive test)
Total		21	5		

В Odisha Service Area

	City	No. of days of drive tests (voice) + Walktest	No. of days of drive tests (data)	Quotation	
Sl. No.				(Rupees in figures)	(Rupees in words)
5	Bhubaneswar	4+1	1		
Total		5	1	(For 6 days drive test)	(For 6 days drive test)

С Tamil Nadu Service Area

		No. of days	No. of days of drive tests (data)	Quotation	
SI. No.	City	of drive tests (voice) + Walktest		(Rupees in figures)	(Rupees in words)
6	Chennai	10+2	2		
7	Pondicherry	2+1	1		
8	Tiruppur	2+1	1		
9	Salem	3+1	1	(For 33 days	 (For 33 days
10	Tiruvannamalai	2+1	1	drive	drive test)
11	Chennai Metro Rail Route	1	1	test)	
Total		26	7		

Highways to be covered in the RO Hyderabad Zone D

Highw ay	No. of days of drive tests	Quotation	
		(Rupees in	(Rupees in
		figures)	words)

To be			
decide			
d by		(For 5 days	(For 5 days
TRAI	5	of Drive Test)	of Drive Test)

F	Railway routes to be covered in the RO Hyderabad Zone	
	anway routes to be covered in the no myderabad zone	

Railwa		Quotation	
y route	No. of days of drive tests	(Rupees in figures)	(Rupees in words)
To be			
decide			
d by			
TRAI		(For 5 days of Drive Test)	(For 5 days
	5	of Drive Test)	(For 5 days of Drive Test)

Quotation for RO Hyderabad Zone

Total	Quotation		
	Quotation	1	
(A + B			
+ C + D		(D	
+ E)	(Rupees in figures)	(Rupees	in
-	(figures)	

Quotation for Post Processing of Drive test logs per MB

	200000000000000000000000000000000000000	
Total	Quotation	Quotation
	(Rupees in Figures)	(Rupees in words)

Quotation for Additional Drive test per city (100 km)

Additional	Quotation	Quotation
Drive test	(Rupees in Figures)	(Rupees in words)
for cities		· - /
besides		
the above		
(Maximum		
20)		
Metro City		
Type A		
City		
Type B		
City		
Type C		
City		

SECTION-IV

TECHNICAL PROPOSAL – SAMPLE FORMATS

The sample formats for the following are given in Form - 1 to 5 below.

- Form-1 Proposal submission form.
- Form-2 Agency's (Firm's) references- indicating past experience of the agency in undertaking works of similar nature as given in the Terms of Reference in Section-II. The agency shall submit the documentary evidence regarding fulfilment of the eligibility conditions as per clause 4 of Section-I of tender document, including the Income Tax Certificate and PAN Number.
- Form-3 Approach paper on methodology including sample audit design and work plan for performing the assignment indicating how the agency is equipped to perform the task, particularly their manpower and infrastructure capability.
- Form-4 Composition of the proposed key team and tasks of each team member including supervisor.
- Form-5 Curriculum Vitae of proposed professional staff.

PROPOSAL SUBMISSION FORM

(To be submitted on Agency's letter head)

From (Name and address of the agency)

To: Joint Advisor (QOS) Telecom Regulatory Authority of India, Mahanagar Door Sanchar Bhawan Jawaharlal Nehru Marg, New Delhi-110002

Subject: Invitation of bids for undertaking assessment of Quality of Service of cellular mobile telephone service in select cities, highways, metro rail route, walk tests and railway routes on zonal basis (**specify the Zone**------)

Sir,

We, the undersigned offer to provide our services for the work of assessment of Quality of Service of cellular mobile telephone service (2G, 3G and 4G – voice & data services and 4G VoLTE services in select cities, highways, metro rail route, walk tests and railway routes in accordance with your tender document. We are hereby submitting our Proposal which includes both technical & financial proposals, sealed under separate envelope for the Zone (specify the Name of Zone......) along with EMD as per the clause 3.0 of section- I of the tender document.

2. Our proposal is binding upon us and subject to the modifications resulting from contract negotiations.

3, We understand that you are not bound to accept any bid you receive.

Dated, the.....day of2019

Yours faithfully,

Witness: Signature..... Address..... Authorized signatory: Name and Title of Signatory Tel. No. Fax No. E-mail address

AGENCY REFERENCES Work of similar nature carried out in the last five years that best illustrate experience for eligibility to bid

Using the format below, provide information on each reference assignment for which your organisation was contracted. (Please attach a copy of the documentary evidence supporting the assignment/ experience)

Assignment	Country
Location within Country	Professional Staff Provided by Your Firm/entity (Profiles):
Name of Client:	No. of Staff:
Address:	No. of Staff-Months; duration of assignment
Start Date (Month/Year): Completion	n Date (Month/Yr.):
Approx. Value of Services contracted	Rs.
Name of Associated Firm, if any	No. of Months of Professional Staff, provided by Associated Firms
Name of Senior Staff (Project Director involved and functions performed:	r/Coordinator, Team Leader)
Narrative Description of Project	
Description of Actual Services Provide	ed by Your Staff:

Authorised signatory: Name and Title of Signatory

DESCRIPTION OF THE METHODOLOGY INCLUDING SAMPLE DESIGN AND WORK PLAN FOR PERFORMING THE ASSESSMENT OF QUALITY OF SERVICE OF CELLULAR MOBILE NETWORKS IN SELECT CITIES, HIGHWAYS, metro rail route, walk tests AND RAILWAY ROUTES

Authorised signatory: Name and Title of Signatory

COMPOSITION OF THE TEAM PERSONNEL AND TASK(S) OF EACH TEAM MEMBER

1. Technical/Managerial Staff

	8		
Sl.No	Name	Position	Task
•			
1.			
2.			
3.			
4.			

2. Support Staff

S1.No	Name	Position	Task
1.			
2.			
2. 3.			
4.			
5.			
6.			
7.			
8.			
9.			

Authorised signatory: Name and Title of Signatory

FORMAT OF CURRICULUM VITAE (CV) FOR EACH PROPOSED PROFESSIONAL STAFF

Proposed Position:		
Name of Firm:		
Name of Staff:		
Profession:		
Date of Birth:		
Years with Firm/Entity:	Nationality:	
Membership in Professional Societies:		
Detailed Tasks Assigned:		

Key Qualifications:

[Give an outline of staff member's experience and training most pertinent to tasks on assignment. Describe degree of responsibility held by staff member on relevant previous assignment and give dates and locations. Use about half a page.]

Education:

[Summarize college/university and other specialized education of staff member, giving names of schools, dates attended, and degrees obtained. Use about one quarter of page]

Employment Record:

[Starting with present position, list reverse order every employment held. List all positions held by staff member in last 10 years, giving dates, names of employing organizations, titles of positions held, and locations of assignment. Also give types of activities performed and client references, where appropriate. Use about three-quarters of a page].

Languages:

[For each language indicate proficiency: excellent, good fair, or poor; in speaking, reading and writing]

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

[Signature of staff member]

Authorised signatory: Name and Title of Signatory

Date:

PERFORMANCE BANK GUARANTEE

(To be stamped in accordance with the Stamp Act)

То

The Secretary, Telecom Regulatory Authority of India, Mahanagar Door Sanchar Bhawan, Jawahar Lal Nehru Marg New Delhi – 110002.

WHEREAS ------ (Name and address of the firm) (hereinafter called "the Agency") has undertaken, in pursuance of agreement No.----- dated ------ (hereinafter called "the Agreement")to conduct assessment of Quality of Service provided by the cellular mobile telecom service providers through drive tests;

AND WHEREAS it has been stipulated by you in the said Agreement that the Agency shall furnish you with a Bank Guarantee from a scheduled Bank in India for the sum specified herein as security for compliance with his obligations in accordance with the Agreement;

AND WHEREAS we (Insert name and address of Bank) have agreed to give the Agency such a Bank Guarantee;

NOW THEREFORE we (Insert name of Bank) hereby affirm that we are the Guarantors and responsible to you, on behalf of the Agency up to a total of ------(amount of Guarantee)------ (in words and figures), and we hereby unconditionally, irrevocably and without demur undertake to immediately pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ------- (amounts of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We (Insert name of Bank) hereby waive the necessity of your demanding the said debt from the Agency before presenting us with the demand.

We (Insert name of Bank) further agree that no change or addition to or other modification of the terms of the Agreement or of the works to be performed there-under or of any of the contract documents which may be made between you and the Agency shall in any way release us from any liability under the guarantee and we hereby waive notice of any such change, addition or modification.

Tender Document (QOS audit) No. 305-4/2019-QoS

We (Insert name of Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the assignment under the Agreement and that it shall continue to be enforceable till all the dues of TRAI, by virtue of the said Agreement have been fully paid and its claims satisfied or discharged and till TRAI, accordingly, discharges this guarantee.

We (Insert name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the TRAI in writing.

This guarantee shall be valid upto and including the day of The pendency of any dispute or arbitration or other proceedings shall not affect this guarantee in any manner.

Dated, the.....day of2019

SIGNATURE AND SEAL OF THE AUTHORISED OFFICER OF THE BANK Name & Designation of the Officer------NAME OF BANK ------ADDRESS ------

DATE -----

Note: The stamp papers of appropriate value shall be purchased in the name of the Bank, who issues the 'Bank Guarantee'.

DETAILS OF ZONE WISE SERVICE AREA

r					T	
S No	License service and categor		Areas covered	Cities to be covered		days of ve test
		2			Voic e	Data
			Local Areas served by Delhi, Ghaziabad, Faridabad, Noida and Gurgaon	Delhi (including Gurgaon & NOIDA)	10	2
		Metr	Telephone	Faridabad	4	1
1	Delhi	0	Exchanges	Ghaziabad	4	1
2	Himachal Pradesh	С	Entire area falling within the State of Himachal Pradesh	Shimla	3	1
			Entire area falling within the State of	Srinagar	4	1
3	Jammu & Kashmir	С	Jammu & Kashmir including the autonomous council of Ladakh.	Leh	2	Along the Highwa y
. <u> </u>					-	-

RO Delhi Zone

			RO Jaipur Z	one		
			Entire area falling within the State of	Ludhiana	5	1
			Punjab and	Chandigarh	5	1
			Union territory of	Patiala	3	1
4	Punjab	В	Chandigarh.	Bhatinda	3	1

1						
			Entire area falling within the State of Haryana except the local areas served by Faridabad	Karnal	3	1
5	Haryana	В	and Gurgaon Telephone exchanges.	Yamunanagar	3	1
				Jaipur	5	1
			Entire area	Alwar	4	1
			falling within the State of	Bhilwara	4	1
6	Rajasthan	В	Rajasthan.	Jaisalmer	3	1
			Entire area falling within the State of Gujarat and Union Territory of Daman and	Ahmedabad	6	1
			Diu, Silvassa	Vadodra	4	1
			(Dadra & Nagar	Junagadh	3	1
7	Gujrat	А	Haveli).	Anand	3	1

RO Bhopal Zone

			Entire area covered by Eastern Uttar	Lucknow	4	1
			Pradesh with the following as its	Kanpur	4	1
			boundary districts towards Western	Allahabad	3	1
8	Uttar Pradesh East	В	Uttar Pradesh: Shahjahanp ur,	Varanasi	3	1

			Farrukhabad , Kanpur and Jalaun.	Jhansi	3	1
				Gorakhpur	3	1
				Agra	4	1
			Entire area covered by Western Uttar Pradesh with the following as its boundary	Meerut	3	1
			districts towards Eastern Uttar Pradesh: Pilibhit, Bareilly, Badaun,	Dehradun	3	1
			Etah, Mainpuri and Etawah. It will exclude the local telephone area of Ghaziabad and Noida. However, it will also include State of	Haridwar/Rishike sh		
9	Uttar Pradesh West	В	Uttarakhand		3	1
	-		Entire area	Bhopal	3	1
			falling within	Ratlam	3	1
			the re-	Indore	3	1
			organised State of	Jabalpur	3	1
			Madhya	Ujjain	3	1
	Madhya		Pradesh as well as the State of	Durg-Bhilainagar	3	1
10	Pradesh	В	Chattisgarh.	Rewa	3	1

		Raipur	3	1
		Dewas	3	1
		Bilaspur	3	1

West Bengal Andaman & Andaman & Nicobar Malda town West Bengal Andaman & Andaman & Nicobar Malda town West Bengal Andaman & Andaman & Bengal and the State of West Malda town West Bengal Krishna Nagar & Bengal and the State of West Andaman & Bengal and the State of West 12 Nicobar B Service Area. Entire area falling within the re- Geyzing 2 Patna 4 Bhagalpur 3				RO Kolkatta Z	20110		1
Image: second	11	Kolkatta		served by Calcutta	Kolkatta	7	2
West Bengal and Andaman& 12Sikkim 				falling within the Union Territory of Andaman & Nicobar Islands and area falling within the State of West Bengal and	Malda town	3	1
and Andaman& 12Kolkata Metro BPort Blair312NicobarBService Area.Geyzing212NicobarBService Area.Geyzing212NicobarBEntire area falling within the re-4		_		Sikkim excluding the areas covered by		4	1
Andamana Metro 12 Nicobar B Service Area. Geyzing Question Question Patna Question P					Port Blair		1
Entire area falling within the re- Patna 4 Bhagalpur 3	12		В				1
the re- Bhagalpur 3				Entire area			
				0	Rhagalnur		1
							1
State of							<u> </u>
Bihar and Userspin and							1
Dillar 06 State 01	13	Bihar & Jharkhand	С	State of Jharkhand.	Gaya	3	1

				IMPHAL & BISHNUPUR		
					3	1
				TURA	2	1
				Aizwal	3	1
			Entire area falling within the States of Arunachal	DIMAPUR & CHUMUKEIDMA	3	1
			Pradesh, Meghalaya,	DHARMANAGAR	2	1
			Mizoram, Nagaland, Manipur and	TEZU & ROING	3	1
14	North East	С	Tripura.	ALONG	2	0
				Nagaon	З	1
			Entire area falling within	BONGAIGAON & DHUBRI	3	1
15	Assam	С	the State of Assam.	DIBRUGARH & TINSUKIA	4	1

RO Bengaluru

16	Maharashtra	Α	Entire area falling within the State of Maharashtra and Union Territory of Goa, excluding areas covered by Mumbai Metro Service Area.	Pune Kalyan Solapur Goa	10 5 3 5	2 1 1 1
			Entire area falling within the States of	Bangalore	10	2
17	Karnatka	А	Karnataka	Bijapur	3	1

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				Hassan	3	1
				Trivandrum	4	1
			Entire area falling within	Cochin	4	1
			the State of Kerala and	Malappuram	3	1
			Union Territory of	Pathnamthitta	3	1
			Lakshadeep and Minicoy			
18	Kerala	В	5			
		Metr	Local Areas served by Mumbai, New Mumbai and Kalyan Telephone	Mumbai	10	2
19	Mumbai	0	Exchanges	Navi Mumbai	5	1

RO Hyderabad Zone

			KO HYUETADAU	Bolle	Г	
20	Andhra Pradesh	А	Entire area falling within the State of Andhra Pradesh including the state Telangna).	Hyderabad Vijayawada Tirupati Nellore	10 5 3 3	2 1 1 1
20	Odisha	C	Entire area falling within the State of Orissa.	Bhubaneswar	5	1
			Entire area	Chennai	12	2
			falling within	Pondicherry	3	1
			the State of	Tiruppur	3	1
	Tamil Nadu		Tamilnadu and Union	Salem	4	1
22	(including Chennai)	А	Territory of Pondichery	Tiruvannamalai	3	1

DETAILS OF ZONE-WISE SERVICE AREA AND SERVICE PROVIDERS PROVIDING 2G, 3G, 4G AND 4G Volte Services

				Name of licensee s	Name of	Name of	Name of
S N O	Licensed Zone Service Area and category		Service Provider	Service Provide r	Service Provide r	Service Provide r	
					3G Service s	4G Service s	4G VoLTE Service s
1	Bengaluru	Maharashtr a	A	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	BSNL
2	Bengaluru	Karnataka	А	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
3	Bengaluru	Kerala	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
4	Bengaluru	Mumbai	Metr o	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				MTNL	MTNL		
5	Bhopal	UP West	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
6	Bhopal	UP East	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio

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representative of bidder

Signature of authorized 54

				BSNL	BSNL	BSNL	
		Madhya					
7	Bhopal	Pradesh	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		
			Metr				
8	Delhi	Delhi	0	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				MTNL	MTNL		
		Jammu &					
9	Delhi	Kashmir	С	Airtel	Airtel		
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
		Himachal					
10	Delhi	Pradesh	С	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
	Hyderaba	Andhra				_	
11	d	Pradesh	A	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
12	Hyderaba d	Odisha	с	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
			1	BSNL	BSNL	BSNL	
	Hyderaba		1				
13	d	Tamil Nadu	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL	BSNL	
14	Jaipur	Rajasthan	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea

				Jio		Jio	jio
				BSNL	BSNL		
15	Jaipur	Punjab	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	jio
				BSNL	BSNL	BSNL	
16	Jaipur	Gujrat	А	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	jio
				BSNL	BSNL	BSNL	BSNL
17	Jaipur	Haryana	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	jio
				BSNL	BSNL	BSNL	
18	Kolkata	Kolkata	Metr o	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		
19	Kolkata	West Bengal	В	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		
20	Kolkatta	Bihar & Jharkhand	с	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		
21	Kolkatta	North East	С	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		
22	Kolkatta	Assam	С	Airtel	Airtel	Airtel	Airtel
				Vodafone	Vodafone	Vodafone	Vodafone
				Idea	Idea	Idea	Idea
				Jio		Jio	Jio
				BSNL	BSNL		

Annexure 4

PRE-CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter referred to as the Integrity Pact) is made on ______ day of the month of ______ 2019, between, the Telecom Regulatory Authority of India, Mahanagar Doorsanchar Bhawan, Jawaharlal Nehru Marg (Old Minto Road), New Delhi – 110002, hereinafter referred to as the AUTHORITY acting through Joint Advisor (QoS), which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s. ______ represented by Shri ______, Chief Executive Officer (hereinafter referred to as the "BIDDER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the AUTHORITY proposes to get the work for assessment of Quality of Service of Cellular Mobile Telephone Service Providers through drive tests in select cities, highways, metro rail routes, walk-tests and railway routes and the BIDDER is willing to offer/has offered its services for conducting assessment of Quality of Service provided by the telecom service providers through drive tests in terms of the benchmarks specified in the "Standards of Quality of Service of Basic Telephone Service (Wire line) and Cellular Mobile Telephone Service Regulations, 2009 (7 of 2009) dated 20th March, 2009", and the "Standards of Quality of Service for Wireless Data Services Regulations , 2012 dated 4th December 2012 (26 of 2012)".

WHEREAS the BIDDER is a private company/public company/ Government undertaking/ partnership, constituted in accordance with the relevant law in the matter and the AUTHORITY is an autonomous organisation under the Government of India.

NOW, THEREFORE,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

- Enabling the AUTHORITY to obtain desired services at a competitive price in conformity with defined specifications avoiding high cost and distortionary impact of corruption on public services, and
- Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain Tender Document (QOS audit) No. 305-4/2019-QoS Signature of authorized 57 representative of bidder

from bribing and other corrupt practices and the AUTHORITY will commit to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the AUTHORITY

1.1 The AUTHORITY undertakes that no official of the AUTHORITY, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person, organization or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

1.2 The AUTHORITY will, during the pre-contract stage, treat all BIDDERs alike, and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.

1.3 All the officials of the AUTHORITY will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case of any such preceding misconduct on the part of an official(s) is reported by the BIDDER to the AUTHORITY with full and verifiable facts and the same is *prima facie* found to be correct by the AUTHORITY, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the AUTHORITY and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the AUTHORITY the proceedings under the contract would not be stalled.

Commitment of BIDDERs

3. The BIDDERs commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commits itself to the following:-

3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the AUTHORITY, connected directly

or indirectly with the bidding process, or to any person, organization or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the AUTHORITY or otherwise in procuring the contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.

3.3 BIDDER shall disclose the name and address of all its native and foreign agents, representatives, principles and associates.

3.4 BIDDER shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.

3.5 The BIDDER further confirms and declares to the AUTHORITY that the BIDDER is the original company/ firm and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the Authority or any of its functionaries, whether officially or unofficially to the aware of the contract to the BIDDER, nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.

3.6 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments has made, is committed to or intends to make to officials of the AUTHORITY or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

3.7 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

3.8 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

3.9 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the AUTHORITY as part of the business Tender Document (QOS audit) No. 305-4/2019-QoS Signature of authorized 59 representative of bidder 59 relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDER also undertakes to exercise due and adequate care lest any such information is divulged.

3.10 The BIDDER commits to refrain from giving any complaint directly or indirectly through any other manner without supporting it with full and verifiable facts.

3.11 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.12 If the BIDDER or any employee of the BIDDER or any person acting on behalf of the BIDDER, either directly or indirectly, is a relative of any of the officers of the AUTHORITY, or alternatively, if any relative of an officer of the AUTHORITY has financial interest/stake in the BIDDER's firm, the same shall be disclosed by the BIDDER at the time of filing of tender.

The term 'relative' for this purpose shall have the same meaning as defined in Section 2 of the Companies Act, 2013.

3.13 The BIDDER shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the AUTHORITY.

4. <u>Previous Transgression</u>

4.1 The BIDDER declares that no previous transgression occurred in the last three years immediately before signing of this Integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could justify BIDDER's exclusion from the tender process.

4.2 If the BIDDER agrees that it makes incorrect statement on this subject, BIDDER can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money Security Deposit

5.1 While submitting Financial bid, the BIDDER shall deposit Bank guarantee for an amount (specified in RFP) as Earnest Money/Security Deposit, with the Authority through any of the following instruments:-

(i) Bank Draft or a Pay Order in favour of TRAI, New Delhi

- (ii) A confirmed guarantee by a Scheduled Commercial Bank, promising payment of the guaranteed sum to the Authority on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the AUTHORITY shall be treated as conclusive proof for payment.
- (iii) Any other mode or through any other instrument (to be specified in the RFP).

5.2 In the case of successful BIDDER a clause would also be incorporated in the article pertaining to Performance Bond in the agreement that the provisions of sanctions for violation shall be applicable for forfeiture of Performance Bond in case of a decision by the AUTHORITY to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.3 No interest shall be payable by the AUTHORITY to the BIDDER on Earnest Money/Security Deposit for the period of its currency.

6. Sanctions for Violations

6.1 Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle the AUTHORITY to take all or any one of the following actions, wherever required:-

(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

(ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit/Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the Authority and the AUTHORITY shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

(iv) To recover all sums already paid by the AUTHORITY, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the AUTHORITY in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To encash the advance bank guarantee and performance bond/warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the AUTHORITY, along with interest.

(vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the AUTHORITY resulting from such cancellation/rescission and the AUTHORITY shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

(vii) To debar the BIDDER from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the Authority.

(viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

(ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the AUTHORITY with the BIDDER, the same shall not be opened.

(x) Forfeiture of Performance Bond in case of a decision by the AUTHORITY to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

6.2 The AUTHORITY will be entitled to take all or any of the actions mentioned at Para 6.1 (i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

6.3 The decision of the AUTHORITY to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the Independent Monitor(s) appointed for the purposes of this Pact.

7. Fall Clause

7.1 The BIDDER undertakes that he has not supplied/is not supplying similar product/systems or subsystems and having same scope of work, quantity, specifications, schedule for delivery, payment terms and all other applicable terms and conditions at a price lower than that offered in the present bid in respect of any other Ministry/ Department of the Government of India or PSU and if it is found at any stage that similar product/system or sub-system and having same scope of work, quantity, specifications, schedule for delivery, payment terms and all other applicable

terms and conditions was supplied by the BIDDER to any other Ministry/Department of the Government of India or a PSU at a lower price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the BIDDER to the AUTHORITY, if the contract has already been concluded.

8. Independent Monitors

8.1 The AUTHORITY may appoint Independent Monitors (hereinafter referred to as Monitors) for this Pact in consultation with the Central Vigilance Commission.

8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

8.3 The Monitors shall not be subject to instructions by the representations of the parties and perform their functions neutrally and independently.

8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.

8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the AUTHORITY designated by the AUTHORITY.

8.6 The BIDDER(s) accept(s) that the Monitor has the right to access without restriction to all Project documentation of the AUTHORITY including that provided by the BIDDER. The BIDDER will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be under contractual obligation to treat the information and documents of the BIDDER/Subcontractor(s) with confidentiality.

8.7 The AUTHORITY will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the AUTHORITY or its agencies shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

10. Law and Place of Jurisdiction

This integrity will be governed by laws of India for the time being in force. The place of performance and jurisdiction is Delhi.

11. Other Legal Actions

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

12. Validity

12.1 The validity of this Integrity Pact shall be from date of its signing and extend up to 5 years or the complete execution of the contract to the satisfaction of both the AUTHORITY and the BIDDER, including warranty period, whichever is later. In case BIDDER is unsuccessful, this Integrity Pact shall expire after six months from the date of the signing of the contract.

12.2 Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

13. The Parties hereby sign this Integrity Pact at	on			
AUTHORITY		BIDDER		
Name of the Officer		CHIEF EXECUTIVE OFFICER		
Designation				
TRAI				
Witness		<u>Witness</u>		
1	1.			
2	2.			
	G!			