



## **TELECOM REGULATORY AUTHORITY OF INDIA**

**Expression of Interest**

**for**

**Empanelment of Auditors to certify the Metering and  
Billing System of Telecom Service Providers**

**5<sup>th</sup> December, 2013**

**Telecom Regulatory Authority of India  
Mahanagar Doorsanchar Bhavan, Jawahar Lal Nehru Marg  
(Old Minto Road), New Delhi – 110 002**

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## SECTION-I

### **Notice Inviting Proposals for Empanelment as Auditor to Certify the Metering and Billing System of Telecom Service Providers**

Telecom Regulatory Authority of India (hereinafter referred to as “TRAI”), Mahanagar Doorsanchar Bhavan, Jawahar Lal Nehru Marg (Old Minto Road), New Delhi – 110002 invites proposals from eligible audit firms or companies/ Certification Bodies (hereinafter referred to as the “Audit Agency”) for empanelment in the Panel of Auditors to certify the metering and billing system of telecom service providers in accordance with the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006) dated the 21<sup>st</sup> March, 2006, as amended by Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25<sup>th</sup> March, 2013.

The Audit Agency shall have accreditation from the Quality Council of India/ National Accreditation Board for Certification Bodies or from the International Accreditation Forum or should be an audit firm registered with the Institute of Chartered Accountants of India/ Institute of Costs and Works Accountants of India having experience in technical audit of similar nature to carry out the metering and billing of telecom service providers in accordance with the above regulations. The Audit Agency shall have proven experience in the field of audit of metering and billing system of telecom service providers. Similar proven experience in audit of online billing, payment and prepaid charging system involving use of software tools may also be considered. The Audit Agency shall have adequate qualified software/telecom/IT technical professionals to carry out the proposed work.

The proposal in sealed cover, as per the prescribed format given at Appendix I and complete in all respects, should be submitted to **Joint Advisor (QoS), Telecom Regulatory Authority of India, Mahanagar Doorsanchar Bhavan, Jawahar Lal Nehru Marg (Old Minto Road), New Delhi – 110 002, not later than 3.00 PM on 27<sup>th</sup> January, 2014.**

**(Shaji Abraham)**  
**Joint Advisor (QoS)**

## SECTION-II

### Instructions to prospective Audit Agencies

**1. The procedure for submission of proposal for empanelment in the Panel of Auditors, the procedure for selection of Audit Agencies and the terms & conditions of empanelment are contained in this Document seeking Expression of Interest (EOI), which comprise the following:**

- Section-I: Notice Inviting Proposals
- Section-II: Instructions to the prospective audit agencies
- Section-III: Terms of Reference
- Section-IV: Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006) dated the 21<sup>st</sup> March, 2006 and Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25<sup>th</sup> March, 2013.
- Section-V: Letter No.302-22/2012-QoS dated the 16<sup>th</sup> May, 2013 regarding clarifications on implementation of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25<sup>th</sup> March, 2013.
- Section-VI: Order No.302-22/2012-QoS dated the 16<sup>th</sup> May, 2013 prescribing the formats for audit report and action taken report.
- Section-VII: Letter No.302-22/2012-QoS dated the 16<sup>th</sup> May, 2013 prescribing (i) guidelines for audit; (ii) checklist for audit; (iii) format for quarterly progress report of audit; and (iv) format for monthly progress report on action taken by service provider on instances of overcharging reported.
- Appendix I: Format for submitting proposals for empanelment as Audit Agency.
- Appendix II: Checklist on compliance to Terms of Reference and instructions for submission of proposals

2. The proposals for empanelment shall be submitted by the Audit Agency in the format given at Appendix I.
3. **Along with the proposal for empanelment, the Audit Agency shall submit to TRAI a certificate, signed by its authorized signatory, of its acceptance of all the conditions/ clauses of this document seeking Expression of Interest.** The Audit Agency shall also intimate the name, designation, address, telephone number, including mobile number, fax number and e-mail ID of its authorized signatory for correspondence by TRAI and service providers.
4. The proposal should also be accompanied by a checklist showing compliance with the various conditions for submission of proposals, as per the format given in Appendix II.

## SECTION-III

### Terms of Reference (ToR) for empanelment of Auditors to certify the Metering and Billing System of Service Providers

#### 1. **Background:**

1.1 The Telecom Regulatory Authority of India, Act, 1997 mandates TRAI to lay down the standard for quality of service to be provided by service providers and to ensure quality of service so as to protect interest of the consumers of telecom service. Billing related complaints are part of Quality of Service (QoS) parameters.

1.2 In a competitive market, several new and different charging options are being introduced continuously by the service providers, some of which may apply only to a single customer or class of consumers for either a definite period or an indefinite period. These charging options many times lead to billing complaints.

1.3 TRAI has been receiving many billing related complaints from consumers which mainly pertain to overcharging or wrong billing. Many of the complainants alleged lapses / flaws in billing programme of the telecom service providers due to which they are being overcharged. In order to (i) bring uniformity and transparency in the procedures being followed by service providers with regard to metering and billing; (ii) specify standards relating to accuracy of measurement, reliability of billing; (iii) measure the accuracy of billing provided by the Service Providers from time to time and to compare them with the norms so as to assess the level of performance; (iv) minimize the incidences of billing complaints; (v) and to protect the interest of consumers of telecommunication services, TRAI had issued the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006) dated the 21st March, 2006, which were recently amended by the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25th March, 2013 (hereinafter referred to as the “metering and billing regulations”). These regulations have been placed at **Section-IV** and can also be viewed at TRAI website [www.traigov.in](http://www.traigov.in). Through these regulations TRAI has laid down a Code of Practice for Metering & Billing Accuracy, which every service provider has to comply with. TRAI has issued further clarifications on implementation of the

provisions of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25<sup>th</sup> March, 2013 through letter No.302-22/2012-QoS dated the 16<sup>th</sup> May, 2013. A copy of this letter is placed at **Section-V**.

1.4 The metering and billing regulations provide that TRAI may notify a panel of auditors to audit the metering and billing system of service providers. The access service providers have to appoint any auditor from the said panel for auditing their metering and billing system for assessing its compliance with the Code of Practice for Metering and Billing Accuracy. The auditing of the billing system is required to be done on an annual basis. The audit report issued by the auditor is required to be filed with TRAI by the service provider not later than the 31<sup>st</sup> July of every financial year. The charges for such auditing of the billing system shall be borne by the service providers. The service providers are also required to take corrective action on the inadequacies, if any, pointed out by the auditor in the audit certificate and an action taken report containing the details of the action taken on such observations thereon shall be filed with TRAI not later than the 15<sup>th</sup> November of every financial year. TRAI through Order No.302-22/2012-QoS dated the 16<sup>th</sup> May, 2013 has prescribed the format number TRAI/M&B Audit /1 for submitting the audit report and the format number TRAI/M&B Audit /2 for submitting the action taken report. A copy of this Order is placed at **Schedule-VI**.

## 2. **Billing system:**

2.1 A billing system consists of a series of independent applications that, when run together, are referred to as the billing system. Its major components are as under:-

- Call Data Record (CDR) — This is used to record the details of the call. Usual information on a CDR includes start time of call, end time of call, duration of call, originating number and terminating number.
- Guiding— This matches calls to customer calling plans/direction table. The application uses the start and end number and the duration and time of call to decide what the charge should be, based on the calling plans on the customer's record.

- Rating application--- This program applies the rate for the individual guided calls. Rating gives the call, a value to be charged at the time of billing (not including any promotions, discounts or taxes).
- Billing--- This is usually performed once a month. In this all the rated calls that have been stored over the past thirty days are collected. The program adds any promotions and discounts that are associated with the consumer account. For example, if customers have called over a certain number of minutes, they might get a volume discount. In addition, taxes and credit are applied.
- Invoicing--- When the billing job is complete, a file is created that includes entire customer information. This file is sent to a print house to be converted to paper invoices.

### **3. Objective:**

In May 2011, TRAI had notified a panel of sixteen auditors for auditing the metering and billing system of service providers. The validity of the present panel is upto the 18<sup>th</sup> May 2014. TRAI intends to notify a fresh panel by floating Expression of Interest for appointment of fresh panel of qualified, experienced and capable auditors who can audit the metering and billing system of basic and cellular mobile service providers to find out whether the metering and billing system of service providers meet the defined levels of accuracy vis-à-vis the Code of Practice for metering and billing accuracy specified by TRAI and the related directions/ orders issued by it. The Audit Agencies found suitable for the work by TRAI shall be notified for empanelment in the panel of auditors.

***Note: - The existing empanelled Audit Agencies also have to apply afresh for empanelment under this Expression of Interest.***

### **4. Qualifications and experience of Audit Agencies to be considered for empanelment:**

4.1 The Audit Agency shall have accreditation from the Quality Council of India/ National Accreditation Board for Certification Bodies or from the International



Accreditation Forum or shall be an audit firm registered with the Institute of Chartered Accountants of India/ Institute of Costs and Works Accountants of India. The Audit Agency shall be a company or firm registered in India and having presence in India. **The Audit Agency shall submit documentary evidence regarding their accreditation/ registration.** The Audit Agency shall have the experience in technical audit of similar nature to carry out the metering and billing audit as defined in the metering and billing regulations. The Audit Agency shall have proven experience in the audit of metering and billing system of telecom service providers. Similar proven experience in audit of online billing, payment and prepaid charging system involving use of software tools can also be considered. **The Audit Agency shall submit documentary evidence regarding relevant experience.**

- 4.2** The Audit Agency may associate with providers of revenue assurance services/ solutions in their audit work. However, such providers should not be associated with or should not have provided revenue assurance solution to any of the telecom service providers in India. **The details of any tie up arrangement, if any, with revenue assurance service provider shall be submitted along with the proposal.**
- 4.3** The Audit Agency, its director and the staff responsible for carrying out the tasks for which it has been appointed must not be a designer, manufacturer, supplier or installer of electronic communications networks or of communications metering and / or billing solutions. **An undertaking to this effect should also be submitted along with the proposal.**
- 4.4** The Audit Agency shall be independent of telecom service providers and avoid direct involvement in the design, construction, operation or maintenance of electronic communications networks or communications metering and / or billing solutions of a service provider. They shall not represent parties engaged in these activities. These restrictions do not, however, preclude the possibility of exchanges of technical information, including discussion on the means of meeting the requirements, between such organisations and the Agency.

- 4.6 The Audit Agency shall have at its disposal the necessary qualified and experienced staff and facilities to enable it to perform properly and effectively the administrative and technical work associated with the tasks for which it has been appointed. The Audit Agency shall have adequate qualified software/telecom/IT technical professionals to carry out the proposed work. **The Audit Agency shall submit documentary evidence in this regard including proof of employment of qualified software/telecom/IT technical professionals with the agency.**
- 4.7 The staff responsible for assessments shall have:
- sound professional and technical qualifications;
  - a satisfactory knowledge of the evaluations required to be carried out and adequate experience of such assessments; and
  - the ability to draw up the certificates, records and reports required to authenticate the performance of the assessments.
- 4.8 The panel of auditors will be selected by TRAI based on the compliance by the Audit Agency of the terms and conditions of this Document seeking Expression of Interest, experience of the Audit Agency in executing work of similar nature, qualifications and experience of the staff to be assigned for the proposed auditing and certification of metering and billing system of telecom operators and the quantum of similar work executed by the Audit Agency in terms of number of firms and their net worth. The Audit Agency shall submit documentary evidence relating to the above criteria including proof of employment of qualified software/telecom/IT technical professionals with the agency. The decision of TRAI in the matter shall be final.
- 4.9 The details of empanelled Agencies will be displayed on the website of TRAI.

## 5. Scope of work:

The scope of work of the auditor is as under:

5.1 The auditor shall assess through audit of the metering and billing system the compliance of service provider's metering and billing system to the Code of Practice for Metering and Billing Accuracy as laid down in the metering and billing regulations and accordingly issue audit report in the prescribed format.

5.2 TRAI vide its letter No. 302-22/2012-QoS dated the 16<sup>th</sup> May 2013 has issued detailed guidelines for audit of the metering and billing system, illustrative checklist for audit covering the various items of the audit as per the metering and billing regulations, formats of the Quarterly progress report of audit and monthly progress report on action taken by the service provider on instances of overcharging reported, to be submitted by the Auditor to TRAI. A copy of this letter containing the Guidelines for audit, checklist for audit, formats of quarterly progress report of audit and monthly progress report on overcharging is placed at **Section VII**. TRAI may revise the guidelines for audit and checklist for audit, from time to time.

5.3 The auditor shall perform the audit to check compliances by the service provider of the code of practice for metering and billing accuracy as laid down in the metering and billing regulations and in accordance with the guidelines for audit and checklist for audit and based on its assessment Audit Agency shall prepare an audit report in the format prescribed by TRAI. The service provider is required to take action on the observations of the Audit Agency given in the audit report and shall submit to TRAI by the 15<sup>th</sup> November of every year an action taken report, in the prescribed format, containing action taken on the observations of the Audit Agency. The Audit Agency has to verify the action taken by the service provider on audit observations of the previous year submitted to TRAI through the action taken report.

5.4 Each service provider is responsible to bear the costs of auditing of its metering and billing system by the empanelled Agency.

5.5 The chosen Audit Agency will notify TRAI before it begins the auditing process (on a service by service basis) to enable tracking of the implementation of the audit of the metering and billing system of telecom service providers.

5.6 A new Audit Agency shall be required to obtain from the service provider, the details of any other Audit Agency engaged by the service provider earlier for such auditing and of any unresolved or outstanding matters, which will include category 1, 2 and 3 items mentioned in para 22 of Guidelines for audit of the metering and billing system; issued vide letter No. 302-22/2012-QoS dated the 16<sup>th</sup> May 2013.

5.7 Discrepancy Analysis:

The discrepancy analysis is done by execution of the inference engine that performs analysis of the rated CDRs in order to establish causes of the discrepancy based on CDR, subscriber and pricing plan data.

5.8 Bill level discrepancy analysis:

After several cycles of event level discrepancy analysis and database adjustment, when all the event level discrepancies are taken care of, the next step is of bill level discrepancy. The bill level discrepancy reports will be produced & analysed by the Audit Agency.

5.9 Verification of corrective actions:

In this important stage, a verification of successful implementation of the corrective action is performed

**6. Formation & Validity of the Panel:**

6.1 The decision of TRAI to include or not a particular Audit Agency in the panel of the auditors shall be final. The panel will normally remain valid for a period of three years, which may be extended, at the discretion of TRAI.

6.2 TRAI reserves the right to remove any Audit Agency from the panel in case it is found that any of the conditions laid down in the Expression of Interest have been contravened.

6.3 TRAI also reserves the right to remove any Audit Agency from the panel in case it is found that the audit work undertaken is not satisfactory as per the scope of work, metering and billing regulations, checklist of audit and guidelines for audit.

## **7. Reporting Requirements:**

The Audit Agency will report to the Secretary, TRAI. The empanelled auditor has to submit Quarterly progress report in respect of the audit of the metering and billing system being undertaken by him, separately for basic telephone service (wireline) and cellular mobile telephone service, in the Format No. TRAI/M&B Audit/3. The Quarterly report has to be submitted to TRAI within 21 days from the end of the respective Quarter. Also, the empanelled auditor has to submit monthly progress report in respect of action taken by the service provider on instances of overcharging reported under regulation 6A of metering and billing regulations, separately for basic telephone service (wireline) and cellular mobile telephone service, in the Format No. TRAI/M&B Audit/4. The monthly progress report has to be submitted to TRAI, in accordance with clause (f) of sub-regulation (2) of regulation 6B of metering and billing regulations, within 10 days from the end of the respective month.

## **8. Confidentiality**

The Audit Agency shall treat all the information provided by the service provider as confidential and shall not share this information without the written approval of the service providers.

## **9. Other Terms and Conditions:**

9.1 The empanelment shall be subject to unconditional acceptance of the terms and conditions of this document seeking Expression of Interest for empanelment of Audit Agencies to certify the metering and billing system of telecom service providers.

9.2 The Audit Agency shall comply with all the instructions, guidelines etc. issued by TRAI, from time to time, for the purpose of conducting the auditing of the metering and billing system of service providers and reporting thereof. TRAI officials may also associate with the Audit Agency in the conduct of such audit and Audit Agency shall carry out instructions, if any, given by such officials in writing.

9.3 The Audit Agency shall not undertake audit of metering and billing system of any service provider for whom he is also the statutory auditor or internal auditor or concurrent auditor or where he is the consultant to the service provider.

9.4 The Audit Agency shall not undertake audit of the metering and billing system of any service provider consecutively for more than two years.

9.5 Each empanelled Audit Agency after completing audit of one License Service Area (LSA) of any of the service provider for Mobile or Basic Service shall submit the detailed audit report along with the process/procedure and shall also make report/presentation to TRAI.

9.6 TRAI may call the empanelled auditors for meetings/ presentation for seeking/ providing clarifications or for reviewing the progress of audit. The Audit Agency shall attend such meetings/ presentation at their own expenses.

**SECTION: IV**  
**TELECOM REGULATORY AUTHORITY OF INDIA**  
**NOTIFICATION**

**New Delhi, the 21<sup>st</sup> March, 2006**

**File No. 305-8/ 2004 (QoS)**. In exercise of the powers conferred upon it under section 36 read with paragraphs (i) & (v) of clause (b) and clause (d) of sub section (1) of section 11 of TRAI Act 1997, the Telecom Regulatory Authority of India hereby makes the following regulation, namely:

**Short title, extent and commencement**

1. i) This regulation shall be called ***“Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006” (5 of 2006) (hereinafter called the ‘Regulation’)*** .
- ii) This regulation shall be applicable to all the Basic Service Providers, Unified Access Service Providers and Cellular Mobile Telephone Service Providers, including Mahanagar Telephone Nigam Limited and Bharat Sanchar Nigam Limited.
- iii) This regulation shall come into effect from the date of its publication in the Official Gazette.

**Definitions**

2. In this Regulation, unless the context otherwise requires:
  - i) **‘Act’** means the Telecom Regulatory Authority of India Act, 1997.

- ii) **‘Basic Telecommunication Services’** means services derived from a Public Switched Telephone Network (PSTN) and as specified in the licence.
- iii) **‘Cellular Mobile Telephone Services’** means services derived from a Public Land Mobile Network (PLMN) & as specified in the License. This includes both Cellular Mobile Telephone Service provided through GSM and CDMA Technology.
- iv) **‘Quality of Service’** is the main indicator of the performance of a telephone network and of the degree to which the network conforms to the stipulated norms.
- v) Words and expressions used in this Regulation and not defined here shall bear the same meaning as assigned to them in the Act.

**Purpose of laying down the Code of Practice for Metering and Billing Accuracy:**

3. The purpose of laying down the Code of Practice for metering and billing accuracy is to:
- i) Bring uniformity and transparency in the procedures being followed by service providers with regard to metering and billing.
  - ii) Prescribe standards relating to accuracy of measurement, reliability of billing.
  - iii) Measure the accuracy of billing provided by the Service Providers from time to time and to compare them with the norms so as to assess the level of performance.
  - iv) Minimize the incidences of billing complaints.
  - v) Protect the interest of consumers of telecommunication services.



**4. Code of Practice for metering and billing accuracy:**

The service provider is required to comply with the Code of Practice for metering and billing accuracy as laid down in Annexure-1.

**5. Review:**

The code of practice for metering & billing accuracy as given in regulation 4 above may be reviewed by the Authority from time to time. The Authority, on reference from any affected party, and for good and sufficient reasons, may review and modify this regulation.

**6. Auditing of Metering and Billing System:**

The Authority shall notify the panel of auditors to certify the Metering and Billing System of service providers. The service providers shall arrange audit of their Metering and Billing System in compliance with this regulation on an annual basis through any one of the auditors as may be notified by the Authority and an audit certificate thereof shall be furnished to the Authority not later than 30<sup>th</sup> June of every year.

**7. Explanatory Memorandum:**

This regulation contains at Annexure-2, an explanatory memorandum, which explains the background and reasons for its issuance.

**8. Interpretation:**

In case of any doubt regarding interpretation of any of the provisions of this Regulation, the decision of the Authority shall be final and binding.

**(Sudhir Gupta)  
Advisor (QoS)**

**Code of Practice for metering and billing accuracy**

**1. Information relating to Tariffs**

**1.1** Before a customer is enrolled as a subscriber of any telecommunication service, he shall be provided in advance with detailed information relating to the tariff for using that service, in accordance with TRAI's Direction No.301-26/2003-TRAI(Eco) dated 2<sup>nd</sup> May, 2005 and No.301-49/2005-Eco dated 16.09.2005. Further, the service provider should inform the customer in writing, within a week of activation of service, the complete details of his tariff plan. Such information shall be in the format "C" prescribed in TRAI Direction No.301-26/2003-TRAI (Econ.) dated 2<sup>nd</sup> May, 2005. In addition, the following information shall also be provided:

- Quantity related charges (e.g. the charge for each SMS message, or kilobyte of data transmitted).
- Accuracy of measurement of time, duration and of quantity, and also the resolution and rounding rules, including the underlying units, used when calculating the charges for an individual event or an aggregation of events
- Contractual terms and conditions for supply, restriction and cessation of Service

**1.2** The information required in clause 1.1 shall be available on the Service Provider's web site, as prescribed in TRAI Direction No.301-26//2003-TRAI (Econ.) dated 2<sup>nd</sup> May, 2005.

**1.3** Where a value-added service (e.g. download of content, such as a film clip or ring tone) or entry to an interactive service (such as a game) can be selected through a choice of the service user (e.g. by dialing a specific number) then the charge for the service must be provided to him before he commits to use the service.

**2. Provision of Service**

The services provided to the customer and all subsequent changes therein shall be those agreed with him in writing prior to providing the service or changing its provisions.

### **3. Accuracy of Measurement**

- 3.1** All charges must be consistent with the published Tariff applicable to the end-user charged.
- 3.2** Unless otherwise specified in the published Tariff or previously agreed Tariff, a charge shall be determined in accordance with the following limits:
- (a) Where the charge is dependent upon duration, the recorded duration shall be measured to within:
- (i) Between +1 seconds and –1 second; or
  - (ii) Between +0.01% (1:10,000) to –0.02% (1:5,000)
- whichever is less stringent; and
- (b) where the charge is dependent upon the time of day, the time of day shall be recorded to within  $\pm 1$  second, traceable to an appropriate time reference; and
- (c) where the charges are dependent upon the counting of occurrences of a particular type, the count shall be accurate to no more than plus 1/25,000 (0.004%) or minus 1/1,000 (0.1%).
- 3.3** Where measurement under clauses 3.2 (a), (b) & (c) reveals systematic errors in timing or counting that result in overcharged events which are not stated in published Tariffs then correction should take place to ensure accurate Bills.

### **4. Reliability of Billing**

- 4.1** The performance of a Total Metering and Billing System shall be, subject to the tolerances specified in clause 3.2:
- (a) the numbers of items of service usage that are overcharged events or undercharged events, as a proportion of the total number of chargeable events, shall not exceed the limits shown in Table 1; and
- (b) the sum of the values of the errors in the overcharged events or undercharged events, as a proportion of the total value of the total number of Chargeable events, shall not exceed the limits shown in Table 1.

**Table 1 – Total Metering and Billing System reliability performance requirements**

Chargeable events	Performance
Number under or not charged	0.1% (1 in 1000)
Number overcharged	0.004% (1 in 25,000)
Value under or not charged	0.05% (1 in 2000)
Value overcharged	0.002% (1 in 50,000)

- 4.2 Where implementation of an order for a service, feature or discount which depends on the number or duration of chargeable events is applied at variance with published Tariffs, each chargeable event within the scope of the incorrectly applied order shall be an undercharged event or an overcharged event, as appropriate, for the purposes of clause 4.1.
- 4.3 Where an item of service usage is completed other than intended, but the charge applied is correct for the service as delivered, this shall not be regarded as either an undercharged event or an overcharged event.
- 4.4 The increase in duration or number of items of service usage resulting from degraded transmission performance shall not be taken into account when computing the performance of the system.

**5. Applying Credit to Accounts**

- 5.1 For post-pay accounts, payments made by a customer shall be credited to his account within 3 working days of receipt of the cash/ cheque. Where credit is given by the service provider, this shall be applied within one working day of its agreement.
- 5.2 For pre-pay accounts, top-up credit shall be applied to a customer’s account within 15 minutes of its application. Where credit is given by the service provider, this shall be applied within 1 day of its agreement.

**6. Timeliness of Post Pay Billing**

- 6.1 The timeliness of bill issue or bill data file issue shall be subject to systematic processes.
- 6.2 Any chargeable events the details of which are not available when the bill is prepared shall be included in a subsequent bill, but not later than the fourth monthly bill after the chargeable events occurred. Any details not so presented shall be written off and if significant be counted against the performance for undercharged events in clause 4.1. Exceptionally, event details from a separate service provider may be billed up to three months after receipt.

- 6.3** Agreement to extend the timescales described in clause 6.2 may be sought from the TRAI. An extension will only be available on an irregular basis. Decisions will be made on application for an extension concerning:
- (a) the method in which how customers will be informed of a protracted delay in rendering call records onto a subsequent bill; and
  - (b) the integrity of the billing process audit arrangements.
- 6.4** The service provider shall contract with its delivery agent to ensure that an effectual bill or bill data file delivery schedule is in place. The existence of such a contract shall be subject to audit.

## **7. Restriction and Removal of Service**

Where the service provider unilaterally intends to restrict or cease service to the customer, a notice shall be provided to the customer in advance of such action so that the customer has reasonable time to take preventive action to avoid restriction or cessation of service.

## **8. Complaint Handling**

- 8.1** The service provider shall have a documented process for identifying, investigating and dealing with billing complaints and creating appropriate records thereof.
- 8.2** The service provider shall carry out a root cause analysis for each upheld billing complaint, categorise the cause and establish proportionate remedial action to correct it.
- 8.3** Where the root cause affects multiple customer accounts, then all affected Bills shall, if practicable, be included in a recovery programme.
- 8.4** Where remedial action has not been completed and the cause is likely to affect other bills when issued, then the service provider shall take reasonable steps to ensure that they are checked and, if necessary, corrected, before being sent to the customer. If not checked and corrected such Bills shall be included in a recovery programme (clause 8.3).

## **9. Materiality**

Compliance with the requirements contained in this regulation shall need to be demonstrated only in relation to products and services that have a material impact on the customer's bill. This materiality is deemed to be:

- (a) where the service provider's turnover from a product or service comprises 5% or more of its total turnover with the customers targeted for that product or service; or
- (b) where the number of customers subscribing to a product or service offered by the service provider comprises 5% or more of the customers targeted for that product or service; or
- (c) at the specific direction of the TRAI.

**10. Submission of Compliance.**

The service providers shall submit the compliance of above code of practice to TRAI on yearly basis.

**EXPLANATORY MEMORANDUM**

**Background**

1. TRAI has been regularly receiving many billing related complaints, particularly from the mobile customers. For building the confidence of the subscribers in the Billing and Call Charging systems of Telecom Operators, an international consultant had been engaged to help carry out an audit of the metering and billing system of different service providers. The objective of the exercise was to help TRAI define the parameters with benchmarks for fair and reliable metering and billing system. The auditing of the billing systems of mobile operators revealed that while the billing systems being used by various operators are comparable to other systems being deployed by major international players, some of the process/ procedure being followed by the mobile operators leads to customer complaints and the attendant customer dissatisfaction.

2. As a follow-up to the audit of the billing system of mobile operators, the Authority had developed a draft Code of Practice for metering and billing accuracy, which has benchmarks for metering and billing system, so as to bring standardization and transparency in the procedures being followed by various operators. The Authority had undertaken public consultation on the draft Code of Practice for metering and billing Accuracy along with other issues emerged out of auditing of billing systems of mobile operators such as charging for undelivered SMS and short duration calls by releasing a Consultation Paper on these issues on 2<sup>nd</sup> May, 2005. This paper discusses these benchmarks, Code of Practice for metering and billing accuracy, the international practices and regime for regulating the Code of Practice. Open House Discussions with the stakeholders were held at Hyderabad, Kolkata, Mumbai and Delhi in September/ October, 2005. The Authority considered the comments received from stakeholders while finalizing the Regulation.

**Code of Practice for metering and billing accuracy:**

3. The service providers, though broadly in agreement with the benchmarking and Code of Practice, were not in favour of a separate benchmarking other than those given in the QoS Regulation. The parameter given in the QoS Regulation is complaints-based measure of billing accuracy. While analysis of upheld billing complaints to find root causes is useful in preventing further occurrences of a problem, and is to be encouraged, it is a proactive process. System assessment and performance measurement, if done frequently, has the advantage, of identifying problems and rectifying them before the subscriber becomes aware of them. This reduces the incidence of complaints, benefiting the operator through the reduction of costs of complaint handling, and reducing the burden of complaints referred to the

regulator. As such, the Authority felt that it would be appropriate to implement a Code of Practice for metering and billing accuracy.

#### 4. Information relating to Tariffs

4.1. During the consultation process on Billing Issues TRAI had issued the following directions/ order relating to tariff:

i). Presenting, marketing or offering tariff plan in any misleading manner is not permitted. All monthly fixed recurring charges which are compulsory for the subscriber under any given plan shall be conveyed as a single figure under one head (TRAI's Direction dated 16.09.2005).

ii). The Service Providers must inform the customer in writing, within a week of activation of service, the complete details of his tariff plan. In addition, as and when there are any changes in any aspect/item of tariff in the chosen package, the operator shall intimate, in writing, such changes to those subscribers whose tariff packages undergo a change (TRAI's direction dated 29.06.2005 on information to customers about complete details of the tariff plan)

iii). The Service Providers must publish in all communications/ advertisements relating to premium rate services, e.g. ring tones, wall paper, astrology, quiz etc. the pulse rate/ tariff for the service (TRAI's direction dated 03.05.2005 on Premium Rate Services).

iv). Websites of the service providers shall contain comparison of tariff plans in terms of estimated monthly bill. i.e. financial implications based on certain preset assumptions along with the complete details (TRAI's Direction dated 02.05.2005).

4.2. These directions/order are also incorporated in the Code of Practice. The information regarding rounding rules, accuracy of measurement of time and of quantity, and also the resolution and rounding rules, including the underlying units, used when calculating the charges for an individual event or an aggregation of events could be given to a customer in writing at the time of his enrolment or immediately thereafter, but within a week of activation of service. In the case of a pre-paid customer this information could be given along with the SIM Card.

4.3. Presently the service providers are offering a range of value added services, many of which are premium rate services like tele-voting, tele-quiz, games, contests etc. In order that the customer is aware of the different rates for these premium rate services it has been provided in the Code of Practice that the customer should be provided information about the charges for the premium rate service every time before he commits to use the service. The service providers should implement necessary changes in their IVR system for enabling automatic provision of information about premium rate services.



4.4. Regarding Provision of Service at item 4.1(ii), the service providers had represented that SMS may be allowed as a medium for obtaining the consent of the customer for any service. The Authority has accepted this suggestion and SMS could be used as a medium for obtaining the consent of the customer for any service. Such consent through SMS should be explicit and there shall be no deemed consent i.e. consent through default, if no message is received by the service provider.

5. The Authority shall identify a panel of Agencies capable for auditing the billing system. These Agencies are expected to be notified by 30<sup>th</sup> April, 2006. The service providers may appoint any one of these Agencies for auditing their billing system vis-à-vis the Code of Practice for metering and billing accuracy. The certification of the billing system should be done on an annual basis. The Certificate issued by the Agency shall be filed with TRAI not later than 30th June of every financial year. The charges for such certification of the billing system shall be borne by the service providers. The service providers shall take corrective action on the inadequacies, if any, pointed out by the Agency in the Certificate and an Action Taken Report thereon shall be filed by with TRAI not later than 30th September of every financial year.

6. Before finalisation of this regulation, this regulation in its draft form was sent to all the service providers and consumer organizations for their comments.

**TELECOM REGULATORY AUTHORITY OF INDIA**  
**NOTIFICATION**

NEW DELHI, 25<sup>th</sup> March 2013

F. NO. 305-8/2012-QoS.----- In exercise of the powers conferred by section 36, read with sub-clauses (i) and (v) of clause (b) of sub-section (1) of section 11 of the Telecom Regulatory Authority of India Act, 1997 (24 of 1997), the Telecom Regulatory Authority of India hereby makes the following regulations to amend the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006), namely:-

**QUALITY OF SERVICE (CODE OF PRACTICE FOR METERING AND BILLING ACCURACY) (AMENDMENT) REGULATIONS, 2013 (4 OF 2013)**

1.(1) These regulations may be called the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013.

(2) They shall come into force from the date of their publication in the Official Gazette.

2. In regulation 2---

(a) after clause (iv), the following clauses shall be inserted, namely:-

"(iva) "Quarter" means a period of three consecutive months ending on the 30<sup>th</sup> June, the 30<sup>th</sup> September, the 31<sup>st</sup> December and the 31<sup>st</sup> March of the financial year;

(ivb) "year" means the financial year;

3. For regulation 6 of the principal regulations, the following regulations shall be substituted, namely:-

**"6. Audit of Metering and Billing System----**(1) The Authority may, from time to time, notify the panel of auditors, who meet the eligibility conditions specified by the Authority in this regard, to audit the metering and billing system of the service providers.

(2) Every service provider shall, by the 30<sup>th</sup> April of every year, appoint an auditor from the panel of auditors notified by the Authority under sub-regulation (1) to audit at its cost, its metering and billing system of Basic Telephone Service (wireline) and Cellular Mobile Telephone Service on annual basis:

*Provided* that the Authority may, on receipt of request from the service provider, extend the time for appointment of the auditor and the

service provider shall appoint the auditor within such extended time:

*Provided further* that the service provider may appoint an auditor for one or more services:

*Provided also* that the service provider shall not appoint an auditor-

- (a) consecutively for more than two years;
- (b) who is its internal auditor; and
- (c) with whom it has business relationship during the last one year.

*Explanation:* For the purpose of this regulation, audit of the metering and billing system under these regulations shall not be treated as business relationship.

(3) The Authority may, from time to time, issue such guidelines and checklist, as it may deem fit for audit of the metering and billing system of the service provider and every service provider shall arrange audit of their metering and billing system in accordance with such guidelines and checklist.

4. After regulation 6 of the principal regulations, the following regulations shall be inserted, namely----

**“6A. Procedure for auditing of call data records.----**(1) The call data records of one month generated under different tariff plans shall be audited in each Quarter in a manner so as to include.---

- (a) three prepaid plans that have the maximum number of customers at the beginning of the Quarter;
- (b) two new prepaid tariff plans launched during the Quarter;
- (c) two Special Tariff Vouchers having maximum number of customers at the beginning of the Quarter;
- (d) two prepaid data plans having maximum number of customers at the beginning of the Quarter;
- (e) two postpaid plans having maximum number of customers at the beginning of the Quarter;
- (f) two new postpaid tariff plans launched during the Quarter; and
- (g) two new postpaid data plans having maximum number of customers at the beginning of the Quarter:

*Provided* that tariff plans shall not include corporate tariff plans, not offered to all the consumers:

*Provided further* that in case the new tariff plans launched during the Quarter is less than the number of tariff plans specified under this regulation for audit, other tariff plans of the service provider having

maximum number of customers shall be audited.

(2) Every service provider shall provide to the auditor, within thirty days of receipt of request, the call data records and other documents, as may be required by the auditor, for conduct of audit.

(3) If the auditor notices the instance of overcharging, he shall report the instance of overcharging to the service provider, who shall, within fifteen days of receipt of such report, conduct an analysis to verify whether the observation of the auditor is correct and in case, the observation of the auditor is found to be correct, the amount overcharged from the customers shall be refunded to such customers within two months of the receipt of the report and an intimation to this effect shall be sent to the auditor and in case the observation of the auditor is found to be incorrect, the reasons for the same shall be communicated forthwith to the auditor.

(4) Every service provider shall analyse the audit observations and provide to the auditor, for recording in the audit report, detailed comments thereon including--

- (a) reasons for occurrence of the problem;
- (b) date of occurrence of the problem; and
- (c) date of rectification of the problem.

(5) Every service provider shall submit to the Authority by the 31<sup>st</sup> July of every year in which audit of their metering and billing system is completed, an audit report certified by the auditor separately, for Basic Telephone Service (wireline) and Cellular Mobile Telephone Service, for each service area, in such format as the Authority may specify, from time to time, by an order.

(6) Every service provider shall submit to the Authority by the 15<sup>th</sup> November of every year, an action taken report on each audit observation containing therein the details of the action taken on such observations, in such format, as may be specified by the Authority, from time to time, by an order and such details shall include----

- (a) reasons for occurrence of the problem;
- (b) date of occurrence of the problem;
- (c) date of rectification of the problem;
- (d) action taken to address the problem;
- (e) number of customers affected in respect of cases where overcharging was observed by the auditor and total amount involved;
- (f) number of customers under item (e) to whom refunds were made within the time limit specified under sub-regulation (3) and total amount so

refunded;

(g) number of customers to whom refunds were made beyond the time limit specified under sub-regulation (3) and the total amount so refunded; and

(h) number of customers to whom refunds could not be made and total amount which could not be refunded.

**6B. Obligations of auditor---**(1) Every auditor shall----

(a) undertake audit of the metering and billing system of a service provider in accordance with the guidelines and checklist issued by the Authority under these regulations and it shall not undertake audit of a service provider consecutively for more than two years;

(b) comply with the provisions of the regulations, directions, orders and instructions issued by the Authority, from time to time.

(2) Every auditor shall----

(a) ensure that the audit is conducted in fair and transparent manner;

(b) ensure that the confidential data collected during the conduct of audit of a service provider is not shared with any person except in the manner provided under these regulations;

(c) submit to the Authority report on progress of audit in such format and at such intervals as the Authority may specify from time to time;

(d) report immediately to the service provider instances of overcharging noted by it during the conduct of audit;

(e) examine on receipt from the service provider, under regulation 6A, the reasons for non-acceptance of the audit observation on overcharging in excess of the applicable tariff, whether such reasons are acceptable or not and, in case the auditor does not accept reasons furnished by the service provider, he shall report such cases in the audit report along with his observations thereon;

(f) submit to the Authority, a monthly progress report on action taken by the service provider on instances of overcharging reported under regulation 6A, in such format, as may be specified by the Authority, from time to time;

(g) verify the action taken by the service provider on instances of overcharging reported under regulation 6A and shall include the findings thereof in the audit report;

(h) be responsible for completing the audit within the time limit to enable the service provider to submit the audit report to the Authority within the time limit specified under regulation 6A;

(i) check, while auditing the metering and billing system of a service provider, compliances of the service provider to the Code of Practice for Metering and Billing Accuracy laid down in the regulation and, based on

his assessment, he shall prepare an audit report containing ----

- separate audit report for each licensed service area audited by him;
- the methodology adopted for carrying out the audit;
- details of tariff plans audited;
- deficiency noted by him with respect to each of the code or quality parameter laid down in the Code for Practice for Metering and Billing accuracy and his comments on compliance reported by the service provider;
- certificate that he has received all information and explanation from the service provider necessary for the conduct of audit;
- comments on the authenticity of the information received from the service provider for the purpose of the audit;
- details of test calls, sample analysis made and the results thereof, separately for each audit observations;
- analysis of the complaints lodged in the records of the service provider to identify whether the service provider had undertaken root cause analysis of such complaints; and
- verification of action taken on the audit observations in the preceding year; and

(j) include in the audit report all the comments received from the service provider under regulation 6A against each audit observation.

(3) The Authority may refer complaints relating to billing, value added services and other complaints for verification or investigation by the auditor and every auditor, to whom such complaints have been referred by the Authority, shall verify and investigate such complaints and furnish report thereon to the Authority within such time as the Authority may specify, from time to time.

(4) If an auditor fails to comply with the provisions of these regulations, he shall be liable to be removed from the panel of the auditors:

*Provided that* reasonable opportunity shall be given to the auditor to explain the non-compliance observed by the Authority.

**6C. Consequence for failure of the service providers to submit audit report and action taken report-----**(1) If a service provider contravenes the provisions of sub-regulation (5) and sub-regulation (6) of regulation 6A, it shall, without prejudice to the terms and conditions of its licence, or the provisions of the Act or rules or regulations or orders made, or, directions

issued, there under, be liable to pay an amount, by way of financial disincentive, not exceeding rupees one lakh per report for every week or part thereof during which the default continues, as the Authority may, by order, direct:

*Provided that no order for payment of any amount by way of financial disincentive shall be made by the Authority unless the service provider has been given a reasonable opportunity of representing against the contravention of the regulation observed by the Authority;*

(2) The amount payable by way of financial disincentive under these regulations shall be remitted to such head of account as may be specified by the Authority.

**6D. Consequence for failure of the service providers to refund overcharged amounts to customers-----**(1) If a service provider contravenes the provisions of sub-regulation (3) of regulation 6A, it shall, without prejudice to the terms and conditions of its licence, or the provisions of the Act or rules or regulations or orders made, or, directions issued, there under, be liable to pay an amount, by way of financial disincentive, equivalent to the amount overcharged which was not refunded, as the Authority may, by order, direct:

*Provided that no order for payment of any amount by way of financial disincentive shall be made by the Authority unless the service provider has been given a reasonable opportunity of representing against the contravention of the regulation observed by the Authority;*

*Provided further that no financial disincentive shall be levied under this regulation for failure to refund the excess charges if financial disincentive for such overcharging has been levied for violation of the provisions of the Telecommunication Tariff Order, 1999.*

(2) The amount payable by way of financial disincentive under these regulations shall be remitted to such head of account as may be specified by the Authority.

**6E. Consequence for failure to provide comments on audit observations in the Action taken report-----**(1) If a service provider fails to provide details of the action taken on the audit observations under sub-regulation (6) of regulation 6A or it has submitted details of action taken which it knows or believes to be false or does not believe to be true, it shall, without prejudice to the terms and conditions of its licence, or the provisions of the Act or rules or regulations or orders made, or, directions issued, there under, be liable to pay an amount, by way of financial disincentive, not exceeding rupees ten lakhs per action taken report, as the

Authority may, by order, direct:

*Provided that* no order for payment of any amount by way of financial disincentive shall be made by the Authority unless the service provider has been given a reasonable opportunity of representing against the contravention of the regulation observed by the Authority;

(2) The amount payable by way of financial disincentive under these regulations shall be remitted to such head of account as may be specified by the Authority."

5. In the Code of Practice for metering and billing accuracy,----

(a) for clause 1.1, the following clause shall be substituted, namely:-

"1.1 Before a customer is enrolled for any telecommunication service, he shall be provided the detailed information relating to the tariff applicable for that service."

(b) for clause 1.2, the following clause shall be substituted, namely---

"1.2 The customer shall be provided a copy of the Customer Acquisition Form at the time of enrollment and shall also be informed in writing, in accordance with the regulations, directions and orders issued by the Authority, not later than one week after the activation of service, about ----

(i) the tariff plan subscribed by him;

(ii) quantity related charges such as the charge for each SMS message, or kilobyte of data etc.;

(iii) accuracy of measurement of time, duration and of quantity, and also the resolution and rounding rules, including the underlying units, used when calculating the charges for an individual event or an aggregation of event; and

(iv) contractual terms and conditions for provision, restriction and termination of service:

(c) after clause 1.3, the following clause shall be inserted, namely:-

"1.4 The information about the tariff plans, Plan Vouchers, Top Up Vouchers, Special Tariff Vouchers and Combo Vouchers on offer shall be available on the website of the service provider in accordance with the regulations, directions and orders issued by the Authority, from time to time."

(d) for clause 3.1, the following clause shall be substituted, namely:-

"3.1 All charges levied for telecommunication services levied on the customer shall be consistent with the tariff applicable to the customer."

**(Rajeev Agrawal)**  
**Secretary**



Note.1.--- The principal regulations were published in the Gazette of India, Extraordinary, Part III, Section 4, No.42, dated the 22<sup>nd</sup>March, 2006 vide notification number No. 305-8/2004-(QoS) dated the 21<sup>st</sup>March, 2006.

Note.2.--- The Explanatory Memorandum explain the objects and reasons of the Quality of Service (Code of Practice for Metering and Billing Accuracy)(Amendment) Regulations, 2013.

## Explanatory Memorandum

TRAI has laid down the Code of Practice for Metering and Billing Accuracy through the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006) dated the 21<sup>st</sup> March 2006. These regulations contain a Code of Practice for Metering and Billing Accuracy that has to be complied by every Basic Service Provider and Cellular Mobile Service Provider. These regulations also provides for TRAI to notify a panel of auditors to audit the Metering and Billing System of service providers to ensure that the service providers comply with the Code. The service providers have to appoint one of the auditor from the panel notified by TRAI and has to submit an audit report by 30<sup>th</sup> June every year. The service providers shall take corrective action on the inadequacies, if any, pointed out by the auditor in the audit report and an action taken report thereon shall be filed with TRAI not later than 30<sup>th</sup> September every year.

2. The audit of the metering and billing system of service providers has been under implementation since the year 2006-07. Recently, it is observed that the service providers are submitting audit reports late, in a number of cases. From the discussions with the Auditors on delayed submission of audit reports, it emerged that the main reasons for such delays are on account of delays on the part of service providers in providing the required CDRs for the selected plans, supporting documents required and comments on audit observations. In a number of cases the service providers have also submitted the Action Taken Reports late. Hence financial disincentives for such delay in submitting audit reports and Action Taken Reports need to be in place, to strengthen the effectiveness and compliance of the said regulations.

3. To ensure that the service providers take corrective action on the audit observations, including refund of excess charges to affected customers, suitable financial disincentives need to be in place.

4. A Consultation Paper was issued on 27<sup>th</sup> November, 2012, seeking the comments of stakeholders on the following proposed measures for addressing the above issues in the implementation of the regulations:

- a. Financial disincentive at the rate of Rs.50,000/- per day for delay in submission of audit reports and action taken reports by the service providers.
- b. Financial disincentive not exceeding Rs.10,00,000/- per action taken report for false or incomplete information in the action taken report.
- c. Increase in the frequency of audit of Call Data Records to twice in a year, one in each half year, as against the present audit of once a year.
- d. Simultaneous reporting of instances of overcharging to TRAI by the auditor and monthly progress report on the action taken by service

providers on such audit reports so as to ensure that wherever overcharging has been observed by the auditor all the affected customers are refunded expeditiously.

- e. In case the refund to affected customers is not made within one month of the audit observations, financial disincentive equivalent to the amount of overcharged amount to be deposited with TRAI.
- f. Financial disincentives of Rs.10 lakhs per audit report on service providers for giving incomplete audit report without adequate comments.
- g. Service providers to appoint auditor based on nomination by TRAI at audit fees fixed by TRAI.

5. Comments received from various stakeholders were uploaded in the TRAI website. An Open House Discussion on the consultation paper was held on 09<sup>th</sup> January 2013.

6. Regarding the proposals to impose financial disincentives for (i) delay in filing the audit reports and action taken reports; (ii) giving false or incomplete information in the action taken report; (iii) giving incomplete audit report without adequate comments and (iv) delay in refunding the excess charges levied to affected consumers, one of the industry associations and some of the service providers have stated that Telecom Regulatory Authority of India Act, 1997 does not confer upon the Authority power to impose penalty in the form of financial disincentives. In this context, it is stated that the TRAI Act confers power on the Authority not only to regulate but also to ensure the compliance of the provisions of the regulations. The word "ensure" has mandatory connotation, it means "make certain". Furthermore, the Hon'ble Supreme Court, in its judgment dated the 17, Aug, 2007, in Civil Appeal No. 2104/2006 (Central Power Distribution Co. &Ors Vs. CERC &Anr), inter-alia, held that "it is well settled that a power to regulate includes within it power to enforce". It will not be out of place to mention that there are a catena of judgments by the Supreme Court wherein the Hon'ble Court has repeatedly re-stated the proposition that legislation should be read and interpreted so as to further the purpose of its enactment and not in a manner that derogates from its main objectives. The Hon'ble Supreme Court in its judgment in the case of State of Karnataka Vs. Vishwabharthi House Building Co-operative Societies and Ors. [(2004) 5 SCC 430], quoted with approval the judgment of Hon'ble Guwahati High Court in the case of Arbind Das Vs. State of Assam &Ors. [AIR 1981 Gau 18 (FB)] wherein it was inter-alia, held that where a statute gives a power, such power implies that legitimate steps may be taken to exercise that power even though these steps may not be clearly spelt out in the statute. The Hon'ble Court further held that in determining whether a power claimed by a statutory authority can be held to be incidental or ancillary to the powers specially conferred by the statute, the court must not only see whether the power may be derived by reasonable implication from the provisions of the statute, but also whether such powers are necessary for carrying out the purposes of the provision of the statute which confers power

on the Authority in exercise of such powers. The relevant part of the said judgment reads as under:-

*"We are of firm opinion that where a statute gives a power, such power implies that all legitimate steps may be taken to exercise that power even though these steps may not be clearly spelt in the statute. Where the rule-making authority gives power to certain authority to do anything of public character, such authority should get the power to take intermediate steps in order to give effect to the exercise of the power in its final step, otherwise the ultimate power would become illusory, ridiculous and inoperative which could not be the intention of the rule-making authority. In determining whether a power claimed by the statutory authority can be held to be incidental or ancillary to the powers expressly conferred by the statute, the court must not only see whether the power may be derived by reasonable implication from the provisions of the statute, but also whether such powers are necessary for carrying out the purpose of the provisions of the statute which confers power on the authority in its exercise of such power."*

7. In view of the above, the Authority has power to impose financial disincentives on the service providers for non-compliance of the provisions of the Regulations. Keeping in view the comments received from the stakeholders and the need to ensure compliance with the Quality of Service regulations, these regulations have been formulated.

8. There were suggestions from industry association and some of the service providers that there should be provision for extension of time for submission of audit reports and action taken reports on genuine grounds. The Authority felt that the prevailing system of audit, such as late appointment of auditor and CDR audit of the last quarter etc. were contributing to delay. Hence, the Authority has prescribed for sample CDR audit for a month in every quarter, which will be representative of the whole year. Further, the regulations also mandate appointment of auditor by 30<sup>th</sup> April of every year. The Authority feels that because of these new provisions in the regulations the possibility of delay in submission of audit report and action taken report could be dismal. However, since provisions have been made for financial disincentives for delayed submission of audit report and action taken report and in order to have the service provider sufficient time to cover up for unavoidable delays, if any, the Authority has decided to revise the date for submission of audit report to 31<sup>st</sup> July and action taken report to 15<sup>th</sup> November of every year.

9. The Authority will be issuing, from time to time, the Guidelines for Audit and Checklist for Audit of the Metering and Billing System. The audit of the metering and billing system has to be undertaken strictly in accordance with these Guidelines for Audit and Checklist for Audit of the Metering and Billing System.

10. The audit of the Metering and Billing System shall be done annually i.e. only once a year. However, during this audit, the audit of the CDRs shall be done throughout the year in such a way that in every quarter one month CDRs of the selected plans/Special Tariff Vouchers are audited. The service providers and their associations have raised concerns about more than one CDR audit mainly on the ground of more resources and manpower. However, the Authority has prescribed CDR audit every quarter on account of the fact that CDR audit is the most important part of the metering and billing audit. The service providers are launching new plans quite frequently and from the experience of the auditors it has come to know that problems are more often found in new plans. The Authority feels that CDR audit should be representative of the whole year rather than for a particular period. Also this frequency will be easy for the service providers to extract the CDRs when it is live in the system.

11. In these regulations, considering complaints being received about data usage and large number of Special Tariff Vouchers being offered in the market, the Authority has included in the CDR audit, data plans and Special Tariff Vouchers.

12. In case the audit observations find excess charging, the service provider shall refund the overcharged amounts to affected customers within two months. The Authority is of the view that two months time period is sufficient to effect refunds in all cases. In case of violation, the service provider is liable to pay financial disincentive.

13. In these regulations, the Authority has laid down the obligations of the auditor clearly so that there is transparency in the functioning of the auditor. This will also help TRAI in getting timely information about the audit from the auditor and the progress of refunds, if any.

14. To ensure that the auditors function independently without any influence from the service providers, TRAI had taken certain steps in the past, like restriction in the number of service providers an auditor can take work from, restriction on working with a service provider for not more than two years consecutively. But there were still concerns about the quality of metering and billing audit and the auditors had suggested that TRAI may fix the remuneration for the auditor and nominate the auditor for a service provider. During consultation process the service providers and their associations had opposed this proposal. Presently, the panel of auditors is notified by TRAI and metering and billing audit requires considerable expertise in audit of online charging. The Authority will explore the possibility of enlarging this panel. Once this panel is further enlarged, the Authority may consider further restrictions in the appointment of auditor. The Authority has considered the possibility of fixing the audit fees. However, in the absence of

data for fixing audit fee, the Authority has decided not to fix the audit fee for the present. At the same time, the Authority expects that with closer monitoring of the audit and provisions for removal from the panel, provided in these regulations, the quality of the audit could be improved significantly.

## Section-V

F.No. 302-22/2012-QoS

Dated: 16<sup>th</sup> May 2013

To

1. All Access Service Providers.
2. All empanelled auditors of metering and billing system.
3. Cellular Operators Association of India (COAI), 14, Bhai Veer Singh Marg, New Delhi – 110 001.
4. Association of Unified Service Providers of India (AUSPI), B-601, Gauri Sadan, 5 Haili Road, New Delhi- 110 001.

Sub: Clarifications regarding implementation of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated 25<sup>th</sup> March, 2013

Sir,

TRAI had notified "Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated 25<sup>th</sup> March, 2013". These regulations have come into force from their publication in the official Gazette, i.e. 25<sup>th</sup> March 2013. Some of the empanelled auditors and COAI has sought certain clarifications regarding implementation of the above regulations. In this regard, clarifications of the Authority on the various issues are given below:

(i) **Year of applicability of the regulations:** Since the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 have come into effect with effect from 25<sup>th</sup> March, 2013, any action that is to be taken subsequent to the coming into force of these regulations will have to be undertaken as per the provisions of these regulations. Accordingly, the audit report for the year 2012-13 is to be submitted to TRAI by 31<sup>st</sup> July, 2013 and Action Taken Report is to be submitted by 15<sup>th</sup> November, 2013. Any delay in submitting the audit report and action taken report as per sub-regulation (5) and sub-regulation (6) of regulation 6A or failure to provide comments on audit observations in the action taken report will attract financial disincentives as per regulation 6C or regulation 6E, as the case may be. In case the CDR audit for tariff plans has already started, the same may be continued. However, instances of overcharging observed during such audit shall be proceeded as per the provisions of regulation 6A and any failure to refund overcharged amounts shall attract financial disincentives as per regulation 6D.

(ii) **Panel of Auditors:** The validity period of existing panel of auditors has already been extended by TRAI for the audit for FY 2013-14 vide letter no. F.No.302-1/2010-QoS dated 15.4.2013. The service providers have already been advised to appoint the auditors from the existing panel of auditors for the audit for FY 2013-14 by 30<sup>th</sup> April, 2013.

(iii) **Tariff Plan matrix for CDR audit:** In clause (g) of sub-regulation (1) of regulation 6A it is provided that call data records of two new post paid data plans having maximum number of customers at the beginning of the Quarter shall be audited. It is clarified that the call data records of two post paid data plans having maximum number of customers at the beginning of the Quarter shall be audited. Necessary amendment to the regulations in this regard will be issued later.

(iv) **Checklist of Audit:** TRAI shall be issuing the guidelines for audit and revised checklist for audit separately.

(v) **Provision of copy of Customer Acquisition Form (CAF) to customer at the time of enrollment** - The customer shall be provided a copy of the Customer Acquisition Form (CAF) at the time of enrollment as per clause 1.2 of the Code of Practice for Metering and Billing Accuracy even though the subscriber verification guidelines issued by the Department of Telecommunication mandates that counterfoil of the CAF is to be given to the customer, since the terms and conditions of service are generally given as part of the CAF.

(vi) **Provision of information relating to tariff, terms and conditions of service etc. to customers:** In the case of both pre-paid and post-paid customers, the information under sub-clause (i) to (iv) of clause 1.2 of the Code of Practice for Metering and Billing Accuracy shall be provided in writing within one week of activation of service. Provision of such information at the time of taking connection and/or provision of such information in the Start Up Kit (SUK) will meet the requirement of this code.

(Shaji Abraham)  
Joint Advisor (QoS)



**Section – VI**  
**F.No. 302-22/2012-QoS**  
**Telecom Regulatory Authority of India,**  
**Mahanagar Door Sanchar Bhavan, J.L.N. Marg, New Delhi-110002**

....

Dated: 16<sup>th</sup> May 2013

**ORDER**

**Sub: Implementation of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25th March, 2013**

F.No.302-22/2012-QoS---- Whereas the Telecom Regulatory Authority of India (hereinafter referred as the Authority), established under sub-section (1) of section 3 of the Telecom Regulatory Authority of India Act, 1997 (24 of 1997) (hereinafter referred to as TRAI Act), has been entrusted with discharge of certain functions, *inter alia*, to regulate the telecommunication services, ensure technical compatibility and effective inter-connection between different service providers, lay-down the standards of quality of service to be provided by the service providers and ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as to protect the interest of the consumers of telecommunications service;

2. And whereas the Authority has, in exercise of its power conferred by section 36, read with sub-clauses (i) and (v) of clause (b) and clause (d) of sub-section (1) of section 11, of TRAI Act, made the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006) dated the 21<sup>st</sup> March, 2006 (hereinafter referred to as the metering and billing regulation), providing for annual audit of the metering and billing system of the service providers, including compliance with the Code of Practice for metering and billing accuracy laid down in Annexure-1, through one of the auditors from the panel of auditors to be notified by the Authority and submission of audit report and action taken report by the prescribed date;

3. And whereas the Authority has, in exercise of its power conferred by section 36, read with sub-clauses (i) and (v) of clause (b) of sub-section (1) of section 11, of TRAI Act, made the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated the 25<sup>th</sup> March, 2013, amending the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 (5 of 2006) dated the 21<sup>st</sup> March, 2006;

4. And whereas sub-regulation (5) of regulation 6A of the metering and billing regulation provides that every service provider shall submit to the Authority by the 31<sup>st</sup> July of every year in which audit of their metering and billing system is completed, an audit report certified by the auditor separately, for Basic Telephone Service (wireline) and Cellular Mobile Telephone Service, for each service area, in such format as the Authority may specify, from time to time, by an order;

5. And whereas sub-regulation (6) of regulation 6A of the metering and billing regulation provides that every service provider shall submit to the Authority by the 15<sup>th</sup> November of every year, an action taken report on each audit observation containing therein the details of the action taken on such observations, in such format, as may be specified by the Authority, from time to time, by an order and such details shall include----

- (a) reasons for occurrence of the problem;
- (b) date of occurrence of the problem;
- (c) date of rectification of the problem;
- (d) action taken to address the problem;
- (e) number of customers affected in respect of cases where overcharging was observed by the auditor and total amount involved;
- (f) number of customers under item (e) to whom refunds were made within the time limit specified under sub-regulation (3) and total amount so refunded;
- (g) number of customers to whom refunds were made beyond the time limit specified under sub-regulation (3) and the total amount so refunded; and
- (h) number of customers to whom refunds could not be made and total amount which could not be refunded;

6. NOW, THEREFORE, in exercise of power conferred by sub-regulation (5) and sub-regulation (6) of regulation 6A of the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006), the Authority hereby specifies the following formats, annexed to this Order:-

- (a) the format number TRAI/M&B Audit /1 for submitting, by the 31<sup>st</sup> July of every year, the audit report referred to in sub-regulation (5); and;
- (b) the format number TRAI/M&B Audit /2 for submitting, by the 15<sup>th</sup> November of every year, the action taken report referred to in sub-regulation (6),----

of regulation 6A of the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 (5 of 2006).

**(A. Robert J. Ravi)**  
**Advisor (CA&QoS)**

To

- 1. All Access Service Providers.
- 2. Bharat Sanchar Nigam Ltd.
- 3. Mahanagar Telephone Nigam Ltd.

Copy to:

- 1. All empanelled auditors of metering and billing system.
- 2. COAI
- 3. AUSPI.

**Format for Audit Report**  
**Audit Report for ----- Service in \_\_\_\_\_ Service Area for the year--**  
(Indicate service, service area and year of audit)

1. Preliminary Sheet:

<b>Sr. No.</b>	<b>Particulars</b>	
1.	Name of Service Provider	
2.	Name of Licensed service Area	
3.	Licence No.	
4.	Service covered under audit (Basic services, Cellular Mobile services (GSM & CDMA) separately)	
5.	Is billing centralized for all circles? If not, specify decentralized locations	
6.	Software Application(s) used for metering & billing functions (also specify the version)	
7.	Switches( also specify the version)	
8.	Date of Commencement of Audit	
9.	Date of Completion of audit	
10.	Date on which Report was closed with responses from the auditee	

2. The detailed methodology for carrying out the audit. The methodology should cover all points stated in the Guidelines for audit and the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 dated 21.03.2006 as amended by the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25.03.2013.

3. Report on Tariff Plans audited in each Quarter:

(a) Prepaid plans available at the beginning of each Quarter:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
Plan	No. of customers	Plan	No. of customers	Plan	No. of customers	Plan	No. of customers

(b) Prepaid plans selected for audit in each Quarter from out of the prepaid plans available at the beginning of each Quarter:

Quarter-1			Quarter-2		Quarter-3		Quarter-4	
S. No.	Plan selected	Sample size	Plan selected	Sample size	Plan selected	Sample size	Plan selected	Sample size
1								
2								
3								

(c) Prepaid plans launched during each Quarter selected for audit:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
S. No.	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected
1							
2							

(d) Special Tariff Vouchers (STVs) available at the beginning of each Quarter:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
STV	No. of customers	STV	No. of customers	STV	No. of customers	STV	No. of customers

(e) STVs selected for audit in each Quarter from out of the STVs available at the beginning of each Quarter:

Quarter-1			Quarter-2		Quarter-3		Quarter-4	
S. No.	STV selected	Sample size	STV selected	Sample size	STV selected	Sample size	STV selected	Sample size
1								
2								

(f) Prepaid data plans available at the beginning of each Quarter:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
Data Plan	No. of customers	Data Plan	No. of customers	Data Plan	No. of customers	Data Plan	No. of customers

(g) Prepaid data plans selected for audit in each Quarter from out of the data plans available at the beginning of each Quarter:

Quarter-1			Quarter-2		Quarter-3		Quarter-4	
S. No.	Data Plan selected	Sample size	Data Plan selected	Sample size	Data Plan selected	Sample size	Data Plan selected	Sample size
1								
2								

(h) Post paid plans available at the beginning of each Quarter:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
Plan	No. of customers	Plan	No. of customers	Plan	No. of customers	Plan	No. of customers

(i) Post paid plans selected for audit in each Quarter from out of the post paid plans available at the beginning of each Quarter:

Quarter-1			Quarter-2		Quarter-3		Quarter-4	
S. No.	Plan selected	Sample size	Plan selected	Sample size	Plan selected	Sample size	Plan selected	Sample size
1								
2								

(j) Post paid plans launched during each Quarter selected for audit:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
S. No.	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected	Plan selected
1							
2							

(k) Post paid data plans available at the beginning of each Quarter:

Quarter-1		Quarter-2		Quarter-3		Quarter-4	
Data Plan	No. of customers	Data Plan	No. of customers	Data Plan	No. of customers	Data Plan	No. of customers

(l) Post paid data plans selected for audit in each Quarter from out of the data plans available at the beginning of each Quarter:

Quarter-1			Quarter-2		Quarter-3		Quarter-4	
S. No.	Data Plan selected	Sample size	Data Plan selected	Sample size	Data Plan selected	Sample size	Data Plan selected	Sample size
1								
2								

(m) Other observations on tariff plan selection, selection of samples, provision of CDRs by service provider etc. :

4. Comment on clarity/transparency in respect of bill presentation to the customers.
5. Report whether the service provider meet the defined levels of accuracy vis-à-vis the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006.
6. Certificate that the Auditor has received all information and explanation from the service provider, necessary for the purpose of audit. In case of any deficiency on the part of the service provider, comment on that.
7. Comment about the authenticity of the information received from the service provider for carrying out the audit.
8. Audit observations on each item in Table A and Table B of the Checklist of Audit:

Item No.	Quarter	Description of item	Audit observation	Category	Auditee comments	Remarks
1	2	3	4	5	6	7

Note-1: Item No. means Item No. of the Checklist for Audit.

Note-2: Quarter denotes the Quarter in which the test cases or verifications were undertaken.

Note-3: The observation shall contain details of test cases undertaken (detailed test report can be enclosed as Annexure) and reasons/cause for occurrence of deficiency.

Note-4: The auditee comments shall contain service provider's views on audit observations; date of occurrence and date of rectification of the problem; time frame agreed with the auditor for taking action; action taken, if any; details, if any, relating to number of customers affected, amount involved, number of customers to whom refunds were made and amount involved, number of customers to whom refunds could not be made and amount involved.

Note-5: Remarks column may contain auditor's observations on the comments of the auditee.

9. A certificate of compliance with reference to Guidelines for audit and the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 dated 21.03.2006 as amended by the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25.03.2013.
10. Verification report on action taken by the service provider on each item of the previous year's action taken report:

Item No.	Description of item	Audit observation	Category	Action taken as per action taken report	Observations on verification of action taken
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**Format for Action Taken Report**  
**Action Taken Report for ----- Service in -----Service Area for the**  
**year -----**

(Indicate service, service area and year of audit)

1. Preliminary Sheet:

<b>Sr. No.</b>	<b>Particulars</b>	
11.	Name of Service Provider	
12.	Name of Licensed service Area	
13.	Licence No.	
14.	Service covered under action taken report (Basic services, Cellular Mobile services (GSM & CDMA) separately)	
15.	Year of audit	
16.	Details of auditor who had done the auditing	
17.	Details of billing centres	
18.	Software Application(s) used for metering & billing functions (also specify the version)	
19.	Switches( also specify the version)	
20.	Date of certification of the audit report by the auditor	
21.	Date of completion of action taken on audit observations	

1. Observations on the comments of the auditor on Clarity/transparency in respect of bill presentation to the customers (item 4 of the audit report).
2. Observations on the report of the auditor as to whether the service provider meets the defined levels of accuracy vis-à-vis the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 (item 5 of the audit report).
3. Observations on the comments of the auditor, if any, on deficiency on the part of the service provider in providing information and explanation (item 6 of the audit report).



4. Observations on the comments of the auditor on the authenticity of the information received from the service provider for carrying out the audit (item 7 of the audit report).
5. Action taken on audit observations on each item in Table A and Table B of the Checklist of Audit (as per item 8 of the audit report):

**Table (indicate A or B)**

1. Item No.		
2. Quarter		
3. Description of item		
4. Audit observation		
5. Category		
6. Reasons for occurrence of the problem, and		
7. Date of occurrence of the problem		
8. Date of rectification of the problem		
9. Action taken to address the problem		
10. Number of customers affected by overcharging and the total amount involved	No. of customers	Total amount involved
11. Number of customers to whom refunds were made within two months of reporting of overcharging by the auditor and total amount so refunded	No. of customers	Total amount involved
12. Number of customers to whom refunds were made beyond two months of reporting of overcharging by the auditor and total amount so refunded	No. of customers	Total amount involved
13. Number of customers to whom refunds could not be made and total amount which could not be refunded	No. of customers	Total amount involved

6. Observations on the certificate of compliance given by the auditor (item 9 of the audit report)

Place: \_\_\_\_\_ (Name of the representative of the service provider)  
 Date: \_\_\_\_\_ Designation

## Section – VII

F.No. 302-22/2012-QoS

Dated: 16<sup>th</sup> May 2013

To

1. All Access Service Providers.
2. All empanelled auditors of metering and billing system.

**Sub: Implementation of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) dated 25th March, 2013**

TRAI has issued the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 (4 of 2013) on 25<sup>th</sup> March, 2013, amending the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 (5 of 2006) dated the 21<sup>st</sup> March, 2006. With the publication in the Gazette of India, the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 has come into effect from 25<sup>th</sup> March, 2013. In this regard the attention of all access service providers and empanelled auditors of metering and billing are invited to the following provisions of the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013:

*(i) Sub-regulation (3) of regulation 6 provides that "The Authority may, from time to time, issue such guidelines and checklist, as it may deem fit for audit of the metering and billing system of the service provider and every service provider shall arrange audit of their metering and billing system in accordance with such guidelines and checklist".*

*(ii) Clause (c) of sub-regulation (2) of regulation 6B provides that every auditor shall "submit to the Authority report on progress of audit in such format and at such intervals as the Authority may specify from time to time".*

*(iii) Clause (f) of sub-regulation (2) of regulation 6B provides that every auditor shall "submit to the Authority, a monthly progress report on action taken by the service provider on instances of overcharging reported under regulation 6A, in such format, as may be specified by the Authority, from time to time".*

2. In accordance with the provisions contained in sub-regulation (3) of regulation 6, the Authority issues herewith the guidelines and checklist for

audit of the metering and billing system of service providers. All the access service providers and empanelled auditors shall undertake the audit of the metering and billing system in accordance with these guidelines and checklist of audit enclosed at Annex.1 of this letter.

3. The Authority has considered the periodicity for submitting progress report of audit by the auditor, in accordance with clause (c) of sub-regulation (2) of regulation 6B and it has been decided that the periodicity of submitting such report shall be Quarterly. The empanelled auditor has to submit the progress report in respect of the audit of the metering and billing system being undertaken by him, separately for basic telephone service (wireline) and cellular mobile telephone service, in the Format No. TRAI/M&B Audit/3 annexed with this letter. The Quarterly report has to be submitted to TRAI within 21 days from the end of the respective Quarter.

4. The empanelled auditor also has to submit monthly progress report in respect of action taken by the service provider on instances of overcharging reported under regulation 6A, separately for basic telephone service (wireline) and cellular mobile telephone service, in the Format No. TRAI/M&B Audit/4 annexed with this letter. The monthly progress report has to be submitted to TRAI, in accordance with clause (f) of sub-regulation (2) of regulation 6B, within 10 days from the end of the respective month.

**(A. Robert J. Ravi)**  
**Advisor (CA&QoS)**

Copy to:

1. Cellular Operators Association of India (COAI),  
14, Bhai Veer Singh Marg, New Delhi – 110 001.
2. Association of Unified Service Providers of India (AUSPI),  
B-601, Gauri Sadan, 5 Haili Road, New Delhi- 110 001.

## **GUIDELINES FOR AUDIT OF THE METERING AND BILLING SYSTEM**

1. The auditor shall undertake audit of the metering and billing system of service provider in accordance with regulation 6A and 6B of the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 dated 21-03-2006, as amended by Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25-03-2013, and also in accordance with these guidelines for audit and checklist for audit issued by the Authority, from time to time.
2. The auditor may associate providers of revenue assurance services/ solutions in their audit work. However, such providers should not be associated with or should not have provided revenue assurance solution to any of the telecom service providers in India. TRAI shall be intimated forthwith the details of any tie up arrangement, if any, with revenue assurance service provider.
3. The auditor must be independent of telecom service providers and avoid direct involvement in the design, construction, operation or maintenance of electronic communications networks or communications metering and / or billing solutions of a service provider. They shall not represent parties engaged in these activities. These restrictions do not, however, preclude the possibility of exchanges of technical information, including discussion of the means of meeting the requirements, between such organisations and the Agency.
4. The staff of the auditor assigned for audit of the metering and billing system must have:
  - (i) sound professional and technical qualifications;
  - (ii) a satisfactory knowledge of the evaluations required to be carried out and adequate experience of such assessments; and
  - (iii) the ability to draw up the certificates, records and reports required to authenticate the performance of the assessments.

5. The auditor and its staff must carry out the tasks for which they have been accredited with the highest degree of professional integrity and technical competence. They must be free from all pressures and inducements and possess personal integrity beyond doubt, particularly financial, which might influence their judgment or the results of any assessment, especially from persons or groups of persons with an interest in such results.
6. The impartiality of inspection staff must be guaranteed. Their remuneration must not depend on the number of assessments carried out or on the results of such assessments. The auditor is similarly expected to ensure the impartiality of any contract staff.
7. The staff of the auditor is bound to observe professional secrecy with regard to all information gained in carrying out its tasks, although this does not preclude information-sharing with TRAI.
8. The auditor shall comply with all the instructions, guidelines etc. issued by TRAI, from time to time, for the purpose of conducting the auditing of the metering and billing system of service providers and reporting thereof. TRAI officials may also associate with the auditor in the conduct of such audit and the auditor shall carry out instructions, if any, given by such officials in writing.
9. The auditor shall not undertake audit of metering and billing system of any service provider to whom he is also statutory auditor or internal auditor or concurrent auditor or where he is the consultant to the service provider.
10. The auditor shall not undertake audit of the metering and billing system of any service provider consecutively for not more than two years.
11. The auditor shall notify TRAI before it begins the auditing process (on a service by service basis) to enable tracking of the implementation of the audit of the Metering and Billing System of service providers.
12. The auditor shall assess service providers' metering and billing system and certify that service providers' metering and billing system is compliant to the Code of Practice for metering and billing accuracy as laid down in the Quality of

Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 dated 21-03-2006, as amended by Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25-03-2013.

13. The auditor shall evaluate inter alia the correctness of the following: -
  - (i) The generation process of the Call Data Records (CDR) - raw CDRs.
  - (ii) Of the entries in the direction table which is used for rating the raw CDRs.
  - (iii) Of the rated CDR vis-à-vis the rate applied, duration mentioned, origination and destination codes.
  - (iv) In charging of VAS services to the subscribers.
  - (v) In charging of the roaming services to the mobile subscribers.
  - (vi) In charging of SMS on blackout days.
  - (vii) In charging of processing fee on Top Up Vouchers.
14. The auditor shall undertake the verifications of billing and charging by service providers both for prepaid and postpaid customers in accordance with the Code of Practice for Metering and Billing Accuracy in a representative manner within the overall sample size. The number of sample size to be checked in each tariff plan verification should be such so as to achieve a confidence level of ninety five percent with a confidence interval of three percent.
15. The one month period of the CDRs shall be selected in such a manner that it would be easy for the service providers to effect refunds, if any, when the CDRs are live on the billing system. As far as possible, CDR audit for a Quarter shall be conducted within the same Quarter.
16. The auditor shall take the raw CDRs post-mediated and unrated and process the same to generate the bill and then verify with already generated bill for any discrepancy. In all cases metering and mediation process is to be checked first by sample test calls to ascertain that metering and mediation process is

accurate and no systemic deficiency is noticed. After doing the functional testing of the mediation process/software, unrated post-mediated CDRs may be used for generating the bills for audit analysis.

17. In the case of prepaid, rated CDRs are produced by the IN system. In the absence of any un-rated CDRs, sample test calls shall be made using test SIM Cards/ telephone for every possible charge scenario and corresponding accuracy of rating procedures by the IN system may be established. Backward reconciliation of rated CDRs from IN system shall be done to further establish correctness of rating procedures.
18. The auditor shall also undertake backward reconciliation of billing complaints both for post-paid and pre-paid to establish correctness of rating procedures.
19. The Audit Agency shall analyse the discrepancy if detected, and find out the root cause of the same. The discrepancy analysis is done by execution of the rating engine that performs analysis of the rated CDRs in order to establish causes of the discrepancy based on CDR, subscriber and pricing plan data. After several cycles of event level discrepancy analysis and database adjustment, when all the event level discrepancies are taken care of, the next step is of bill level discrepancy. The bill level discrepancy reports shall be produced and analysed by the auditor. The auditor shall perform verification of successful implementation of the corrective action.
20. The auditor shall, while undertaking audit of the metering and billing system of service provider, check whether, in accordance with the directions of the Authority dated 12<sup>th</sup> June, 2012, (i) a Master Table is maintained, service area-wise, to record the events relating to configuration of new number series and (ii) a Master Table is maintained, service area-wise, to record the events relating to configuration of new tariff plans and shall record his findings in the audit report after auditing the entries therein.
21. Areas of concern identified by the auditor during the assessment of a service provider's Metering and Billing System against each item of the Code of Practice for Metering and Billing Accuracy may be identified in the form of:

(a) A non-compliance ~ an instance of failure to comply with an established requirement. The nature of the failure and the requirement in question need to be made explicit in documenting any non-compliance.

(b) A Deficiency ~ an instance of a lack of adequacy in meeting a requirement. An example might be where a billing system has no facility to detect duplication of records for the same service usage. This would be likely to lead to a breach of Code of Practice for Metering and Billing Accuracy, but the absence of a detection facility only causes a problem when such duplication occurs.

(c) An observation ~ a comment about something that has been seen during an assessment, but is not considered sufficiently serious to be a deficiency. However, it may possibly lead to corrective and / or preventative action.

22. The areas of concern identified during audit shall be categorised into three categories as described below:-

(a) Category 1: An important matter of non-compliance or deficiency for which corrective action must be undertaken urgently. In view of the grave consequences of a Category 1 matter, it is expected that a service provider shall resolve it as a matter of utmost importance. In any event a detailed corrective action plan must be agreed within one month and put into effect immediately.

(b) Category 2: A matter of concern, which is to be resolved within a period, agreed with the auditor. In any event a detailed corrective action plan must be agreed and put into effect within three-months.

(c) Category 3: A matter worthy of consideration by the service provider, possibly leading to corrective and / or preventative action, but not of sufficient importance to warrant Category 1 or 2 status.

23. The auditor shall check the integration of Billing System in respect of rent rebate of basic service during the audit and see whether rent rebate is being given to customers in respect of faults not rectified within three days, in accordance with the Standards of Quality of Service of Basic Telephone



Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009 (7 of 2009).

24. The auditor shall verify from the system of the service providers whether there has been any case of levy or collection of migration charges from its subscribers which have been prohibited vide TRAI's direction dated 15.3.2001 and include such findings in the audit report.
25. The auditor shall verify whether TRAI's direction dated 27.06.2005 and 07.06.2005 relating to credit limit is being complied with.
26. The auditor shall verify whether the tariff for any item in the tariff plan with validity of more than six months, including tariff plans with lifetime or unlimited validity and also involving an upfront payment to be made by the subscriber towards such validity period, is increased during the validity period of such plans. The auditor shall verify whether the tariff for any item in other tariff plan is not increased within six months of enrolment in the tariff plan in accordance with the Telecommunication Tariff (43<sup>rd</sup> Amendment) Order notified on 21.03.2006.
27. The auditor shall verify whether CLIP charge is levied as a compulsory item in the tariff plan.
28. The auditor shall verify, check and report to TRAI the true and correct position about specific instances of billing complaints having systemic/ generic implications that are referred to it by TRAI from time to time.
29. The auditor shall obtain from the service provider the audit report, action taken report and details of any unresolved or outstanding matters of previous year of audit and shall verify the action taken on such audit report and action taken report. He shall record his observations thereon in the audit report.
30. The auditor shall check the metering electronically using software or equipments and there shall not be any manual checking of metered duration. He shall record his findings in the audit report along with the details of the test calls made.

31. The auditor shall submit its progress report on a quarterly basis within three weeks from the date of closure of the quarter.
32. The auditor shall prepare the audit report expeditiously in the format prescribed by the Authority, in accordance with clauses (i) and (j) of sub-regulation (2) of regulation 6B of in the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation 2006 dated 21-03-2006, as amended by Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25-03-2013, checklist for audit and guidelines for audit so as to enable the service provider to submit the audit report to the Authority by 31<sup>st</sup> July of every year.
33. The auditor shall not delay the preparation of the audit report, waiting for the comments of the service provider on any audit observation.
34. The auditor shall report to Advisor (QoS), TRAI in all matters.
35. The auditor shall treat all the information provided by the service provider as confidential and shall not share this information without the written approval of the service providers.
36. The auditor shall after completing audit of a License Service Area (LSA) of a service provider for Mobile or Basic Service shall submit to TRAI key findings of the audit report along with the process/procedure and shall also make a presentation to TRAI.
37. TRAI may call the auditor for meetings/ presentation on audit findings or audit reports or for seeking/ providing clarifications or for reviewing the progress of audit. The auditor shall attend such meetings/ presentation at their own expenses.
38. During the audit, TRAI may entrust the auditor to undertake special audit on any issue. The auditor shall undertake audit on such issue as part of the annual audit of metering and billing system and shall report to TRAI about the findings of such audit in such format and in such time frame TRAI may specify in this regard.

**Checklist for audit as per Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006, as amended by Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013**

**Preliminary**

1. Obtain from the service providers list of officers in each billing centre who can be contacted for audit purposes.
2. Establish with the service provider the chain of reporting of audit observations to the service provider for comments.
3. Obtain from the service provider the billing centres of the service provider.
4. Obtain from the service provider the details of the billing system and software deployed by them.
5. Establish with the service provider the contact point(s) for obtaining call data records.
6. Obtain from the service provider the contact details of the complaint centre.
7. Familiarise with the Quality of Service (Code of Practice for Metering and Billing Accuracy) Regulation, 2006 dated 21.3.2006, the Quality of Service (Code of Practice for Metering and Billing Accuracy) (Amendment) Regulations, 2013 dated 25.3.2013, Guidelines for Audit, Checklist for Audit, formats for (i) audit report; (ii) action taken report; (iii) quarterly progress report; (iv) monthly report on action taken by service provider on instances of overcharging, various Tariff Orders, Directions and Regulations relating to tariff.

## Process Review

### Compliance with regard to Code of Practice for Metering and Billing Accuracy

(Table – A)

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
1	<b>Information relating to Tariffs</b>			
1.1	Before a customer is enrolled for any telecommunication service, he shall be provided the detailed information relating to the tariff applicable for that service.	<ul style="list-style-type: none"> <li>▪ Verify the process for enrolment of a customer and check whether he was given information relating to tariff.</li> </ul>		
1.2	<p>(a) The customer shall be provided a copy of the Customer Acquisition Form at the time of enrollment</p> <p>(b) The customer shall also be informed in writing, in accordance with the regulations, directions and orders issued by the Authority, not later than one week after the activation of service, about ----</p> <p>(i) the tariff plan subscribed by him;</p> <p>(ii) quantity related charges such as the charge for each SMS message, or kilobyte of data etc.;</p> <p>(iii) accuracy of measurement of time, duration and of quantity, and also the resolution and rounding rules, including the underlying units, used when calculating the</p>	<ul style="list-style-type: none"> <li>▪ Verify the process for giving copy of the Customer Acquisition Form (CAF) and also verify on sample basis whether the customer has been provided a copy of the CAF.</li> <li>▪ Verify whether the customer has been informed in writing, within one week after activation of service, about the tariff plan subscribed by him and other charges applicable (take sample cases and test check).</li> <li>▪ Verify availability of accuracy of measurement and rounding rules and whether information relating to this has been provided to customer</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	<p>charges for an individual event or an aggregation of event; and</p> <p>(iv) contractual terms and conditions for provision, restriction and termination of service:</p>	<p>within one week after activation of service.</p> <ul style="list-style-type: none"> <li>▪ Verify contractual terms and conditions for provision, restriction and termination of service and whether information relating to this has been provided to customer within one week after activation of service.</li> <li>▪ Verify contractual terms and conditions with reference to bill printed.</li> </ul> <p>(Information at item(i), (ii), (iii) and (iv) can be given along with the Start-up Kit (SUK) or in the CAF, a copy of which is given to the customer)</p>		
1.3	<p>Where a value-added service (e.g. download of content, such as a film clip or ring tone) or entry to an interactive service (such as a game) can be selected through a choice of the service user (e.g. by dialing a specific number) then the charge for the service must be provided to him before he commits to use the service.</p>	<ul style="list-style-type: none"> <li>▪ Take a list of all such value-added services.</li> <li>▪ Take sample from each value-added services and check the procedures completely.</li> <li>▪ Verify whether the charge for the service is indicated before subscriber commits to use the service</li> </ul>		
1.4	<p>The information about the tariff plans, Plan Vouchers, Top Up Vouchers, Special Tariff Vouchers and Combo Vouchers on offer shall be available on the website of the service provider in accordance</p>	<ul style="list-style-type: none"> <li>▪ Obtain website URL.</li> <li>▪ Log onto website and verify whether mentioned details are available for each Tariff plan.</li> <li>▪ Establish whether above information is available</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	with the regulations, directions and orders issued by the Authority, from time to time.	on the website in accordance with TRAI directives dated 16.1.2012.		
2	<b>Provision of Service</b>			
	The services provided to the customer and all subsequent changes therein shall be those agreed with him in writing prior to providing the service or changing its provisions.	<ul style="list-style-type: none"> <li>▪ Verify procedures to log customer requests for services</li> <li>▪ Verify procedures for applying such customer requests</li> </ul>		
3	<b>Accuracy of Measurement</b>			
3.1	All charges levied for telecommunication services levied on the customer shall be consistent with the tariff applicable to the customer.	<ul style="list-style-type: none"> <li>▪ Verify with one month CDRs in each Quarter with reference to tariff plan selected for audit and also by making calls in each selected plan</li> </ul>		
3.2	<p>Unless otherwise specified in the published Tariff or previously agreed Tariff, a charge shall be determined in accordance with the following limits:</p> <p>a) Where the charge is dependent upon duration, the recorded duration shall be measured to within:</p> <ul style="list-style-type: none"> <li>▪ Between +1 seconds and -1 second; or</li> <li>▪ Between +0.01% (1:10,000) to -0.02% (1:5,000) whichever is less stringent; and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Test check on sample basis electronically or using software to establish correctness of recorded duration.</li> </ul>		
	<p>b) where the charge is dependent upon the time of day, the time of day shall be recorded to within <math>\pm 1</math> second, traceable to an appropriate time reference; and</p>	<ul style="list-style-type: none"> <li>▪ Check the reference time used in the switches/exchanges and whether the reference time is uniform in the network.</li> <li>▪ Check whether variation is there between the reference time and timing of the switch/exchange</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
		<ul style="list-style-type: none"> <li>▪ Test check sample records to establish correctness of parameters.</li> </ul>		
	<p>c) where the charges are dependent upon the counting of occurrences of a particular type, the count shall be accurate to no more than plus 1/25,000 (0.004%) or minus 1/1,000 (0.1%).</p>	<ul style="list-style-type: none"> <li>▪ Test check sample records to establish correctness of parameters.</li> </ul>		
3.3	<p>Where measurement under clauses 3.2 (a), (b) &amp; (c) reveals systematic errors in timing or counting that result in overcharged events which are not stated in published Tariffs then correction should take place to ensure accurate Bills.</p>	<ul style="list-style-type: none"> <li>▪ Verify with the records whether corrective action has been taken.</li> </ul>		
4	<p><b>Reliability of Billing</b></p>			
4.1	<p>The performance of a Total Metering and Billing System shall be, subject to the tolerances specified in clause 3.2:</p> <p>a) the numbers of items of service usage that are overcharged events or undercharged events, as a proportion of the total number of chargeable events, shall not exceed the limits shown in Table 1; and</p> <p>b) the sum of the values of the errors in the overcharged events or undercharged events, as a proportion of the total value of the total number of Chargeable events, shall not exceed</p>	<p>Based on the audit procedures applied above, take the total deviation and verify whether the same is in accordance with the limits stated by TRAI</p>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category										
	<p>the limits shown in Table 1.</p> <p><b>Table 1 – Total Metering and Billing System reliability performance requirements</b></p> <table border="1" data-bbox="240 464 634 873"> <tr> <td>Chargeable Events</td> <td>Performance</td> </tr> <tr> <td>Number under or not Charged</td> <td>0.1% (1 in 1000)</td> </tr> <tr> <td>Number overcharged</td> <td>0.004% (1 in 25,000)</td> </tr> <tr> <td>Value under or not charged</td> <td>0.05% (1 in 2000)</td> </tr> <tr> <td>Value overcharged</td> <td>0.002% (1 in 50,000)</td> </tr> </table>	Chargeable Events	Performance	Number under or not Charged	0.1% (1 in 1000)	Number overcharged	0.004% (1 in 25,000)	Value under or not charged	0.05% (1 in 2000)	Value overcharged	0.002% (1 in 50,000)			
Chargeable Events	Performance													
Number under or not Charged	0.1% (1 in 1000)													
Number overcharged	0.004% (1 in 25,000)													
Value under or not charged	0.05% (1 in 2000)													
Value overcharged	0.002% (1 in 50,000)													
4.2	<p>Where implementation of an order for a service, feature or discount which depends on the number or duration of chargeable events is applied at variance with published Tariffs, each chargeable event within the scope of the incorrectly applied order shall be an undercharged event or an overcharged event, as appropriate, for the purposes of clause 4.1.</p>	<p>Verify with reference to tariff plan or Special Tariff Voucher activated by the customer to determine undercharged or overcharged events for the purpose of clause 4.1.</p> <p>Overcharged events to be considered for refunds.</p>												
4.3	<p>Where an item of service usage is completed other than intended, but the charge applied is correct for the service as delivered, this shall not be regarded as either an undercharged event or an overcharged event.</p>	<p>Observation</p>												
4.4	<p>The increase in duration or number of items of service usage resulting from degraded transmission performance shall not be taken into account when computing the performance of the system.</p>	<p>Observation</p>												
5	<p><b>Applying Credit to</b></p>													



Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	<b>Accounts</b>			
5.1	<b>For post-pay accounts,</b> payments made by a customer shall be credited to his account within 3 working days of receipt of the cash/ cheque. Where credit is given by the service provider, this shall be applied within one working day of its agreement.	<ul style="list-style-type: none"> <li>▪ Review the payment credit system.</li> <li>▪ Take payments sample to check whether the credit is applied correctly.</li> <li>▪ Check that the payments made by the customer are regularly updated in the billing system.</li> <li>▪ Updation in respect of post-pay customers to be credited within 3 working days of receipt of the cash/cheque.</li> </ul>		
5.2	<b>For pre-pay accounts,</b> top-up credit shall be applied to a customer's account within 15 minutes of its application. Where credit is given by the service provider, this shall be applied within 1 day of its agreement.	<ul style="list-style-type: none"> <li>▪ Review the system settings and take sample cases to test whether the conditions are met.</li> </ul>		
6	<b>Timeliness of Post Pay Billing</b>			
6.1	The timeliness of bill issue or bill data file issue shall be subject to systematic processes.	<ul style="list-style-type: none"> <li>▪ Review process and procedures for issuance of bill</li> </ul>		
6.2	Any chargeable events the details of which are not available when the bill is prepared shall be included in a subsequent bill, but not later than the fourth monthly bill after the chargeable events occurred. Any details not so presented shall be written off and if significant be counted	<ul style="list-style-type: none"> <li>▪ Review the process of chargeable events.</li> <li>▪ Take sample for such cases (typically where the customers are National or International Roaming)</li> <li>▪ Obtain list of all such events (that have occurred) for the period under review</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	<p>against the performance for undercharged events in clause 4.1. Exceptionally, event details from a separate service provider may be billed up to three months after receipt.</p>	<ul style="list-style-type: none"> <li>▪ Review procedures of inclusion of such events in subsequent bill (Whether such charges are separately identifiable)</li> <li>▪ Review procedures for writing off of such charges.</li> <li>▪ Verify whether all such charges have been included for calculation of 'undercharged events'</li> <li>▪ Check that all calls billed are in respect of the billing period referred on the bill and also to verify whether the discounts, if any, have been properly passed on to the customers without any errors.</li> </ul>		
6.3	<p>Agreement to extend the timescales described in clause 6.2 may be sought from the TRAI. An extension will only be available on an irregular basis. Decisions will be made on application for an extension concerning:</p> <p><b>a)</b> The method in which how customers will be informed of a protracted delay in rendering call records onto a subsequent bill; and</p> <p><b>b)</b> The integrity of the billing process audit arrangements.</p>	<ul style="list-style-type: none"> <li>▪ Review any exceptions sought from TRAI for extension.</li> <li>▪ Review the method in which such clients have been intimated and verify the process for such issues</li> <li>▪ Verify whether there is appropriate audit procedures implemented within the company to address such issues</li> </ul>		
6.4	<p>The service provider shall contract with its delivery agent to ensure that an effectual bill or bill data file delivery</p>	<ul style="list-style-type: none"> <li>▪ Obtain &amp; verify all bill delivery vendor contracts</li> <li>▪ Test &amp; establish effectiveness and</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	schedule is in place. The existence of such a contract shall be subject to audit.	adequacy of procedures and process		
7	<b>Restriction and Removal of Service</b>			
	Where the service provider unilaterally intends to restrict or cease service to the customer, a notice shall be provided to the customer in advance of such action so that the customer has reasonable time to take preventive action to avoid restriction or cessation of service.	<ul style="list-style-type: none"> <li>▪ Understand related procedures and establish adequacy thereof</li> <li>▪ Test similar instances during review period and establish adherence</li> <li>▪ Check that proper notices are sent to the customer in advance where the service provider unilaterally intends to restrict or cease service to a customer.</li> <li>▪ In case of disconnection due to payment made beyond credit period, to check that the services get restored once the payments are made within the period as stipulated by TRAI.</li> </ul>		
8	<b>Complaint Handling</b>			
8.1	The service provider shall have a documented process for identifying, investigating and dealing with billing complaints and creating appropriate records thereof.	<ul style="list-style-type: none"> <li>▪ Check whether the service provider has a documented process for identifying, investigating and dealing with billing complaints.</li> </ul>		
8.2	The service provider shall carry out a root cause analysis for each upheld billing complaint, categorise the cause and establish proportionate remedial action to correct it.	<ul style="list-style-type: none"> <li>▪ Review the Billing Complaint system</li> <li>▪ Review process manual for addressing customer complaints and establish adequacy of procedures</li> <li>▪ Test instances during review period and establish adherence to documented procedures</li> </ul>		
8.3	Where the root cause affects multiple customer accounts, then all affected Bills shall, if practicable, be included in a	<ul style="list-style-type: none"> <li>▪ Review &amp; verify procedures for root cause categorization and</li> </ul>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
8.4	<p>recovery programme.</p> <p>Where remedial action has not been completed and the cause is likely to affect other bills when issued, then the service provider shall take reasonable steps to ensure that they are checked and, if necessary, corrected, before being sent to the customer. If not checked and corrected such Bills shall be included in a recovery programme (clause 8.3).</p>	<p>analyses</p> <ul style="list-style-type: none"> <li>▪ Check whether the service provider carries out root cause analysis for each upheld billing complaint and where the root cause affects multiple customers, whether all affected bills is included in a recovery program.</li> <li>▪ Test and verify instances of remedial action, including refund of overcharges to all affected customers.</li> <li>▪ Verify adequacy of procedures in this regard</li> <li>▪ Check the true and correct position about specific instance of billing complaints having systemic/ generic implications as referred by TRAI.</li> </ul>		
9	<p><b>Materiality</b></p>			
	<p>Compliance with the requirements contained in this regulation shall need to be demonstrated only in relation to products and services that have a material impact on the customer's bill. This materiality is deemed to be:</p> <ol style="list-style-type: none"> <li>a) where the service provider's turnover from a product or service comprises 5% or more of its total turnover with the customers targeted for that product or service; or</li> <li>b) where the number of customers subscribing to a product or service offered by the service provider comprises 5% or more of the customers targeted for that product or service; or</li> </ol>	<p>When taking samples for test checking, the parameter shall be followed in selecting the sample category.</p>		

Sr. No	Audit Area (item name)	Test to be performed	Observation	Observation Category
	c) at the specific direction of the TRAI.			
10	<b>Submission of Compliance</b>			
	The service providers shall submit the compliance of above code of practice to TRAI on yearly basis.	Verify the circumstances for delay, if any, in submitting the audit report of the current year and audit report and action taken report of the previous year and report thereon.		

**Billing & Metering System Review (Transaction Review)  
(Table – B)**

Sr. No.	Audit Area (item name)	Test to be performed	Observation	Observation Category
1	The auditing Agency shall evaluate inter alia the correctness of the following: - (a) In generation process of the CDR-raw CDRs.	<ul style="list-style-type: none"> <li>▪ Test check procedures for CDR recording for both pre-paid and post-paid plans</li> <li>▪ Verify whether CDR's are editable</li> </ul>		
	(b) Of the entries in the direction table which is used for rating the raw CDRs.	<ul style="list-style-type: none"> <li>▪ Verify rating masters to establish procedures for creating and modification of service charges</li> <li>▪ Obtain information about all new tariff plans launched during the Quarter and</li> <li>▪ To verify the proper configuration of all the tariff plans, especially the new tariff plans, in billing system with reference to the entries in the Master Table prescribed vide direction dated 12.06.2012.</li> <li>▪ Obtain information about all the new number series and</li> </ul>		

		<p>verify the correctness of the rating charges and configuration with reference to the entries in the Master Table prescribed vide direction dated 12.06.2012.</p> <ul style="list-style-type: none"> <li>▪ Verify rating masters to establish charges mapped to each tariff plan</li> <li>▪ Test whether rated CDR's are modifiable.</li> </ul>		
	<p>(c) In charging of VAS services to the subscribers.</p>	<ul style="list-style-type: none"> <li>▪ Obtain list of all VAS services and its process and procedure for subscription/ activation and for unsubscription of service.</li> <li>▪ Verify procedures for mapping of charges to VAS services</li> <li>▪ Verify whether the processes and requirements prescribed by TRAI for obtaining the explicit consent of the consumer, as per directions of TRAI, were followed and whether any VAS provided without consumer's consent and charged.</li> <li>▪ In respect of services provided during "Free Trial Period" to subsequently check whether the customer has confirmed the continuance of services once the free trial period has ended and accordingly billed for.</li> <li>▪ Verify the availability of toll free facility of unsubscription of service as per TRAI directions and through</li> </ul>		

		<p>common short code 155223.</p> <ul style="list-style-type: none"> <li>▪ Verify whether the customer is charged for unsubscribing any value added service.</li> <li>▪ Verify whether the records relating to explicit consent is preserved for one year.</li> </ul>		
	<p>(d) Of the rated CDR vis-à-vis the rated applied, duration mentioned, origination and destination codes including STD/ISD destinations, both for mobile and fixed.</p>	<ul style="list-style-type: none"> <li>▪ Verify procedures for mapping of call origination and destination locations.</li> <li>▪ Raw CDR's to be rated according to the Tariff Plans/Special Tariff Voucher and Rating Algorithms (set of tables/ rate masters)</li> <li>▪ Check all billable activities occurring on the network are accurately captured, rated and billed in accordance with customer agreement.</li> <li>▪ Check that there is no delay in updation of billing with latest agreed upon rates/ tariff implementation.</li> <li>▪ Due to non-updation / rating, a CDR generated may go to suspended CDR's pool which may be billed subsequently. In such cases to check that it is billed subsequently for the same period and is in line with the agreed Tariff Plans.</li> <li>▪ To check discounts / schemes not forming part of the original contract are properly passed on by the Service Providers in respect of the various</li> </ul>		

		<p>marketing schemes promoted by the Service Provider from time to time.</p> <ul style="list-style-type: none"> <li>▪ To check the correctness of charging for calls to each of the new number series configured during the year.</li> </ul>		
	(e) In charging of the roaming services to the mobile subscribers	<ul style="list-style-type: none"> <li>▪ Verify procedures for applying roaming charges and also evaluate inter alia the correctness as per the tariff applicable to the customer and orders of TRAI.</li> </ul>		
	(f) In charging of SMS on blackout days.	<ul style="list-style-type: none"> <li>▪ Obtain the list of blackout days.</li> <li>▪ Verify on sample basis the charges applied viz-a-vis the tariff as per the tariff plan subscribed by the customer.</li> <li>▪ Verify whether the direction dated 14.9.2012 are complied with.</li> </ul>		
	(g) In charging of processing fee on Top Up Vouchers.	<ul style="list-style-type: none"> <li>▪ Obtain the list of Top Up Voucher.</li> <li>▪ Verify on sample basis the processing fee levied on these vouchers viz-a-vis the process fee prescribed by TRAI.</li> </ul>		
	(h) In applying credit limits to postpaid customers	<ul style="list-style-type: none"> <li>▪ Verify on sample basis whether postpaid customers were informed about their credit limits in advance as per TRAI direction dated 27.06.2005 and 07.06.2006.</li> <li>▪ Verify whether the bills issued to customers contain information about their credit limit.</li> </ul>		



	<ul style="list-style-type: none"> <li>▪ Verify whether the customers are informed when they reach 80% of their usage as per direction dated 27.7.2012.</li> <li>▪ Verify whether the service was discontinued in cases where the amount due is less than the security deposit.</li> </ul>		
(i) In increasing any item of tariff in a tariff plan.	<ul style="list-style-type: none"> <li>▪ Verify from bills to ensure that no tariff item has been hiked during the prescribed validity period specified in the Tariff Plans.</li> <li>▪ Verify that no tariff item in a tariff plan is increased by the access provider - <ul style="list-style-type: none"> <li>(a) In respect of tariff plans with prescribed periods of validity of more than six months including tariff plans with lifetime or unlimited validity and also involving an upfront payment to be made by the subscriber towards such validity period, during the entire period of validity specified in the tariff plan;</li> <li>(b) In respect of other tariff plans, within six months from the date of enrolment of the subscriber. Telecommunication Tariff Order (43rd amendment) notified on 21.03.06 refers.</li> </ul> </li> </ul>		
(j) In the charging of CLIP charges	<ul style="list-style-type: none"> <li>▪ Verify from bills and also from details of new plans launched during</li> </ul>		

		the year to ensure that CLIP is not charged as a compulsory item in the tariff plan.		
	(k) In moving from one tariff plan to another tariff plan without paying any fee as the customer is free to move from one tariff plan to another without paying any fee for migration.	<ul style="list-style-type: none"> <li>▪ Verify from bills of subscribers who have changed their tariff plans to ensure that no migration charges have been levied.</li> <li>▪ Verify on sample basis whether any charges were deducted from the accounts of prepaid customers for migration to another tariff plan.</li> </ul>		
2	The audit Agency will take the raw CDRs & process the same to generate the Bill and then verify with already generated bill for any discrepancy. The CDRs of one month in every Quarter are to be processed.	<ul style="list-style-type: none"> <li>▪ Obtain CDR's for selected audit sample</li> <li>▪ Apply procedures on selected sample</li> <li>▪ Compare the results to ensure that the service provider systems are functionally correct.</li> </ul>		
3	<p>The audit Agency will analyse the discrepancy if detected, and find out the root cause of the same.</p> <p>Discrepancy Analysis: The discrepancy analysis is done by execution of the inference engine that performs analysis of the rated CDRs in order to establish causes of the discrepancy based on CDR, subscriber and pricing plan data.</p>	<ul style="list-style-type: none"> <li>▪ Discrepancy analysis of the rated CDR's to be done.</li> <li>▪ If required perform further functional testing on system to identify the cause</li> </ul>		
4	Bill level discrepancy analysis: After several cycles of event level discrepancy analysis and database adjustment, when all the event level discrepancies are taken care of, the next step is of bill level discrepancy. The bill level discrepancy reports	To analyze the bill level discrepancy reports as generated by the Service Provider.		

	will be produced & analysed by the audit Agency.			
5	Verification of corrective actions: In this important stage, a verification of successful implementation of the corrective action is performed	Analyse and test check the corrective actions.		
6	Verification of complaints referred by TRAI	<ul style="list-style-type: none"> <li>• Verify from the complaint records the factual position of the complaint.</li> <li>• Investigate the complaint, including checking with the complainant</li> </ul>		
7	Billing system integration for rental rebates (for basic service). (Reference – The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service Regulations, 2009)	<p>Verify that the billing system is integrated so as to ensure that proper rental rebates are passed on to the customer in cases where the faults are not rectified within three days (for basic service).</p> <ul style="list-style-type: none"> <li>• Faults pending for &gt;3 days and ≤7 days: Rent rebate for 7 days.</li> <li>• Faults pending for &gt;7 days and ≤15 days: Rent rebate for 15 days</li> <li>• Faults pending for &gt;15 days: rent rebate for 1 month</li> </ul>		

## Format No. TRAI/M&B Audit/3

(Format for reporting progress report on audit of the metering and billing system)

**Progress report on audit of the metering and billing system of -----  
----- (service provider) for ----- (service) in ----- service area for  
the Quarter ending -----**

(Indicate service provider, service, service area and Quarter)

1. Details of tariff plans selected for audit along with sample size for prepaid tariff plans, Special Tariff Vouchers, prepaid data plans, postpaid tariff plans and postpaid data plans as per sub-regulation (1) of regulation 6A.
2. Date of request to the service provider for CDRs, separately for each category of tariff plan selected.
3. Date of provision of CDRs for the selected samples by the service provider, separately for each category of tariff plan selected.
4. Status of analysis of CDRs undertaken during the Quarter, separately for each category of tariff plan selected.
5. Details of cases of overcharging observed during CDR analysis, which has been accepted by the service provider.
6. Details of cases of overcharging observed during CDR analysis, which has been not been accepted by the service provider, along with the observations of the auditor.
7. Details of cases of overcharging observed during CDR analysis, on which comments of the service provider is pending.

8. Details of other activities undertaken during the Quarter with reference to the Checklist for audit, separately for items in Table A and Table B:

Item No.	Description of item	Details of action taken (with date of start of activity and date of completion of activity)

9. Status of verification of complaints referred by TRAI.

10. Status of verification of action taken on the audit observations in the preceding year.

11. Status of preparation of audit report, as may be applicable:

12. Constraints, if any, in undertaking the audit.

13. Items on which guidance of TRAI is required.

Place:

(Name of the representative of the auditor)

Date:

Designation

For ----- (Name of auditor)



**FORMAT FOR SUBMITTING PROPOSALS**

1. Name of the Audit Agency/ Firm:
2. Registered address:
3. Details of registration with the Quality Council of India or National Accreditation Board for Certification Bodies or International Accreditation Forum or Institute of Chartered Accountants of India or Institute of Costs and Works Accountants of India.
4. Whether registered in India and having presence in India. Attach documentary evidence of accreditation/registration and presence in India.
5. Details of any tie up with revenue assurance service provider.
6. The Audit Agency, its director and the staff responsible for carrying out the tasks for which the firm has been appointed must not be a designer, manufacturer, supplier or installer of electronic communications networks or of communications metering and / or billing solutions. Please state whether you meet this condition and attach an undertaking to this effect.

7. The Audit Agency must be independent of Service Providers and avoid direct involvement in the design, construction, operation or maintenance of electronic communications networks or communications metering and / or billing solutions. They shall not represent parties engaged in these activities. Please state whether you meet this condition.
  
8. Please state the experience of the Audit Agency in the audit of the metering and billing system of telecom service providers or audit of online billing, payment and prepaid charging system involving use of software tools. Attach documentary evidence in this regard.
  
9. Please state whether you have at your disposal the necessary staff and facilities to enable you to perform properly the administrative and technical work associated with the tasks described in the Terms of Reference. Also supply the following information **separately**:
  - (i) In the case of partnership firm, details of partners and their experience.
  - (ii) The details of technical and professional staff proposed to be assigned for the proposed assignment to certify the metering and billing system of service providers giving their name, designation, educational and technical qualification,



details of experience. **Also attach proof of employment of such technical and professional staff with the agency.**

10. All documents submitted along with the proposal shall be signed on each page by the authorized signatory of the Audit Agency.
  
11. The name, designation, address, telephone number, including mobile number, fax number and e-mail ID of the authorized signatory of the firm for correspondence by TRAI and service providers.

**(Signature of Authorized Signatory)**

**Name and Designation**

**Date:**

**Place:**

**CHECKLIST SHOWING COMPLIANCE WITH THE DOCUMENT SEEKING  
EXPRESSION OF INTEREST FOR EMPANELMENT OF AUDITORS**

S.No.	Compliance with Document seeking EOI	Yes/No
1	Whether the proposal has been submitted in the prescribed format?	
2	Whether the certificate as per clause 3 of Section-II regarding acceptance of the terms and conditions of EOI submitted?	
3	Whether the checklist as per clause 4 of Section-II submitted?	
4	Whether the audit agency has submitted documentary evidence regarding its accreditation/registration and presence in India as per clause 4.1 of Section-III?	
5	Whether the audit agency proven experience in the audit of metering and billing system of telecom service providers or have similar proven experience in audit of online billing, payment and prepaid charging system involving use of software tools as per clause 4.1 of Section-III ?	

6	Whether proof of experience of the audit agency in the field of metering and billing System or audit of online billing, payment and prepaid charging system involving use of software tools attached as per clause 4.1 of Section-III?	
7	Whether the audit agency has any tie up with revenue assurance service/solution providers and whether documentary evidence in this regard attached as per clause 4.2 of Section-III?	
8	Whether the undertaking as per clause 4.3 of Section-II (TOR) attached?	
9	Whether the audit agency has at its disposal the necessary staff and facilities, including qualified software/telecom/IT professionals, to enable it to perform properly the administrative and technical work associated with the tasks described in the Terms of Reference (clause 4.6 and 4.7 of Section-III)?	
10	Whether details of experience of the audit agency and its staff and proof of employment with the agency given separately as per item 9 of the Format for submission of proposal?	

11	Whether all documents submitted along with the proposal signed on each page by the authorized signatory of the Audit Agency?	
12	Whether the audit agency has given the name, designation, address, Telephone Number, including mobile number, fax number and e-mail ID of the authorized signatory of the firm for correspondence by TRAI and service providers as per clause 3 of Section-II?	