

**Q1. Do you agree with the scope of technical audit and subscription audit proposed in the consultation paper? Give your suggestions along with justification?**

**Suggestions:**

Currently, the scope for Technical and Subscription audit is limited to Schedule III. However, in addition to Schedule III of the Telecommunication Regulation, the auditors may even incorporate the following additional parameters:

1. Validation of queries used to generate reports from live SMS and CAS databases.
2. Performing synchronization checks between SMS and CAS in order to verify data integrity in the two systems.
3. Determining the inventory of the STBs owned by the MSO/DTH operator.
4. If field samples of STB/VC IDs are made available, the same can be checked for their presence from the MSO's SMS and CAS databases during the audit.
5. Performing simulation testing during audit fieldwork to verify the correctness of channel composition reports extracted from the SMS and CAS databases.

**Q2. Is there a need to have separate panel of auditors for conducting technical audit and subscription audit?**

**Suggestions:**

Currently, successful completion the audit fieldwork and drafting of a final audit report requires the combined effort of multiple stakeholders.

The technical audit is carried out by the technical staff of the broadcaster. The activities of a technical auditor include, but are not limited to, the controls outlined in Schedule III. Field samples (STB/VC IDs obtained from field) are also collected by the staff of the broadcaster.

Subscription audits are carried out by reputed firms appointed by the broadcasters. Activities such as data extraction from the MSO's SMS and CAS, simulation testing, analysis of SMS and CAS data to check for synchronization between these systems and drafting of a final audit report is done by the these audit firms. This report is then shared with the broadcaster for their further action.

We know from our experience of working with Broadcasters that the technical auditors utilize niche technical devices and possess specific expertise which do not lie with the subscription auditor. The objective of a subscription audit and hence the expertise of these audit firms lies in highlighting revenue impact/revenue leakage, more than the piracy aspect of the audit. We thus suggest that there be a separate panel of auditors for conducting technical and subscription audits.

**Q3: Should there be a different list of empanelment of auditors based on the model/make of CAS and SMS installed by distributor? Will it be feasible to operate such panel of auditors?**

**Suggestions:**

There need not be a different list of empanelment of auditors based on the model/make of CAS and SMS. Though every SMS and CAS system may be configured differently and may have different capabilities in generating reports, the basic principle of data extraction for subscription audits remains the same across all makes and models of CAS and SMS.

Additionally, in a scenario where an MSO/DTH operator has multiple SMS/CAS installed at the head-end, multiple empaneled auditors working together for the same audit would lead to inevitable complications.

**Q4: What should be various parameters forming eligibility criteria for seeking proposals from independent auditors (independent from service providers) for empanelment? How would it ensure that such auditors have knowledge of different CAS and SMS systems installed in Indian TV sector?**

**Suggestions:**

In order for a firm to be empaneled and be eligible to perform MSO/DTH audits, the firm as well its employees should at the least but not limited to, have the following skill sets and experience:

- More than 2 years of experience performing DAS audits, and either the firm or its employees having conducting such audits. Further, the audit firm or its employees should have worked on at least 5 different makes of SMS and CAS installed in the Indian TV sector.
- The firm should be well-versed with the broadcasting and distribution industry and must be proficient in:
  - Understanding the network head-end setup
  - Customer lifecycle knowledge and integration of customer details in SMS and CAS
  - SMS and CAS processes and system lifecycle
  - Data extraction from SMS and CAS, irrespective of the make of system.
  - Data analysis of SMS and CAS data not limited to: performing synchronization checks between SMS and CAS, deriving month-end subscriber counts utilizing transaction logs extracted either from the front-end or backend, deriving channel-wise counts etc.
- The employees of the empaneled firm must be proficient with advanced data analytics tools such as SQL, ACL etc.
- The firm should have presence and geographical reach across India to ensure maximum coverage considering the DAS IV implementation. This would ensure that the employees from the nearest branch/city where the office of the audit firm is present would travel for the audit, reducing the overhead expenses (which the MSO/DTH would be forced to incur otherwise)
- The empaneled firm must provide a self-certification declaring its independence from the MSO/DTH operator being audited

- The firm must provide proof of employment for all employees designated to perform these audits, along with declaration of their corresponding skill sets.
- Documents related to experience and accreditation of the employees of the audit firm.
- The audit firm should be registered with the Institute of Chartered Accountants of India/ Institute of Costs and Works Accountants of India which will enhance their credibility.
- The regulator may want to consider conducting personal interviews with the representatives of the audit firms to evaluate their capability in conducting such audits.

**Q5: Should the minimum period of experience in conducting the audit be made a deciding parameter in terms of years or minimum number of audits for empanelment of auditor?**

**Suggestions:**

In order to for an empaneled audit firm to be successfully able to conduct audits of MSO/DTH operators, the firm should be well-versed with the broadcasting and distribution industry and must be proficient in performing activities such as but not limited to:

- Understanding the network head-end setup
- Customer lifecycle knowledge and integration of customer details in SMS and CAS
- SMS and CAS processes and system lifecycle
- Data extraction from SMS and CAS, irrespective of the type of system.
- Data analysis of SMS and CAS data not limited to: performing synchronization checks between SMS and CAS, deriving subscriber counts utilizing transaction logs extracted either from the front-end or backend, deriving channel-wise counts etc.

An audit firm would be proficient in better performing the above mentioned steps along with additional forensic checks with the experience gained from performing audits (across various size operators, head-end setups and different DAS phases) over the span of 2 years or more.

Each DAS phase when implemented had its own set of challenges while performing the audits. The work performed by the audit firms in different DAS phases will ensure that the audit firm has the experience of working in mature DAS setups e.g. DAS Phase I, as well as working in a challenging DAS setup e.g. DAS III and IV.

**Q6: Any suggestions on type of documents in support of eligibility and experience?**

**Suggestions:**

In order for an empaneled firm to substantiate eligibility and experience performing audits for digitally addressable systems, a signed Engagement Letter and sample invoices raised between the audit firm and the broadcaster must be provided. This would highlight the scope of work, activities performed and the final deliverable of audit firm in each of the MSO/DTH audits.

Additionally, in the event of an audit firm offering subscription audit services to broadcasters, the audit firm could present an endorsement provided by various broadcasters, highlighting the number of audits and the skillsets possessed by each of the employees performing such audits.

**Q7: What should be the period of empanelment of auditors?**

**Suggestions:**

The period of 2 years of empanelment for a particular audit firm can be considered currently. This would provide sufficient time to review the performance of all empaneled firms and verify if the scope and objectives defined for an audit of an MSO/DTH have successfully been met.

**Q8: What methodology to decide fee of the auditor would best suit the broadcasting sector? And Why?**

**Suggestions:**

Before arriving at a final audit fee, the following criteria can be taken into consideration:

1. Subscriber base of the MSO/DTH operator
2. Number for SMS and CAS instances installed at the MSO/DTH operator
3. Number of head ends and geographical diversity in which the MSO/DTH operator operates.
4. The audit period (number of months) for which the audit needs to be conducted.

Out of pocket expenses such as travel and lodging can be paid on actuals with a maximum permissible capping defined based on the location of the MSO/DTH operator under audit.

**Q9: How the optimum performance of the auditors can be ensured including maximum permissible time to complete audit? Give your suggestions with justification.**

**Suggestions:**

The timelines of an audit would depend on various factors arising during audit fieldwork as well as the audit analysis and reporting phase. Based on our experience the following factors contribute to the variation of the audit timelines would be:

- Size of the data extracted during the audit directly proportional to subscriber base of the MSO/DTH operator
- Audit period (number of months) in consideration
- Number of head-ends and number of SMS and CAS installed at the MSO/DTH operator
- Complexity of integration of SMS and CAS and formats of the reports generated from these systems
- Support provided by the MSO/DTH being audited in providing all necessary data items on a timely basis
- Whether all data related clarifications are provided by the MSO/DTH to the audit firms during the audit fieldwork phase

In addition to the above mentioned scenarios, we have observed that besides the MSO/DTH Operators' willingness/co-operation in providing the requisite data, another critical scenario to ensure timely completion of an audit is the capability of the SMS and CAS systems of an MSO/DTH operator to generate reports such as:

- Active/Deactive STB/VC wise historical month-end data
- Historical composition of packages,
- Parseable transaction logs etc.

In the event where the above mentioned reports cannot be extracted from SMS and CAS owing to the configuration of these systems, additional effort in data analysis would be required in order to conclude data analysis, resulting in extended time taken in completion of report analysis.

**Q10: What can be the parameters to benchmark performance of the Auditor? What actions can be taken if the performance of an Auditor is below the benchmark?**

**Suggestions:**

The performance of an auditor can be considered to be below the benchmark on the basis of the following criteria:

- In the event of errors observed in the audit report, resulting due to auditor oversight
- In the event of delayed submission of audit report beyond the maximum permissible time decided.
- In the event that re-audit of MSO/DTH operator yields different results/counts.  
It should be the MSO/DTH operator's responsibility to archive and preserve the raw data extracted during the audit fieldwork activity. If it is observed during the re-audit that analysis on the same raw data (extracted during previous audit) yields different counts/results, the audit firm must be held accountable.

**Q11: Should there be different time period for completion of audit work for different category of the distributors? If yes what should be the time limits for different category of distributors? If no what should be that time period which is same for all categories of distributors?**

**Suggestions:**

The timelines of an audit would depend on various factors arising during audit fieldwork as well as the audit analysis phase. The factors contributing to the variation of the audit timelines would be:

- Size of the data extracted during the audit directly proportional to subscriber base of the MSO/DTH operator
- Audit period (number of months) in consideration
- Number of head-ends and number of SMS and CAS installed at the MSO/DTH operator
- Complexity of integration of SMS and CAS and formats of the reports generated from these systems

- Support provided by the MSO/DTH being audited in providing all necessary data items on a timely basis
- Whether all data related clarifications are provided by the MSO/DTH to the audit firms during the audit fieldwork phase

The audit analysis phase should only commence once the audit fieldwork is complete and once all data sets are provided in entirety. Thus, the timelines for completion for audit must be considered only after all data sets as per the data requirements are made available to the auditors for purpose of the audit.

#### Timelines:

The audit analysis phase should only commence once the audit fieldwork i.e. system understanding, requisite data extraction, clarifications on the data received etc. is complete and once all data sets are provided in entirety.

Thus, the timelines for completion for audit must be considered only after all data sets as per the data requirements are made available to the auditors for purpose of the audit (N). For representation purposes, let us assume that 'N' is the yardstick from where the timelines for report completion are to be measured.

Small size distributor:For a distributor catering to a subscriber base of less than 10,000 subscribers, a timeline of N+20 working days can be considered for an empaneled audit firm to draft an audit report.

Medium size distributor:For a distributor catering to a subscriber base of less than 10,000 to 1 lakh subscribers, a timeline of N+30 working days can be considered for an empaneled audit firm to draft an audit report.

Pan India distributor:For a distributor catering to a subscriber base of greater than 1 lakh subscribers, a timeline of N+45 working days can be considered for an empaneled audit firm to draft an audit report.

**Q12: Are the conditions cited above sufficient for de-empanelling an auditor? If not what should be the conditions for de-empanelling the auditor?**

#### **Suggestions:**

The audit firm can be considered for de-empanelment if the performance of an auditor can be considered to be below the benchmark on the basis of the following criteria:

- In the event of errors observed in the audit report, resulting due to auditor oversight
- In the event of delayed submission of audit report beyond the maximum permissible time decided.
- In the event that re-audit of MSO/DTH operator yields different results/counts.

It should be the MSO/DTH operator's responsibility to archive and preserve the raw data extracted during the audit fieldwork activity. If it is observed during the re-audit that analysis on the same raw data (extracted during previous audit) yields different counts/results, the audit firm must be held accountable.

- In the event that an audit firm is found to be colluding with the MSO/DTH operator in order to falsify/under-report the MSO/DTH operator's subscriber base.

**Q13: Comments on re-empanelment if any?**

**Suggestions:**

Audit firm should be permitted to get re-empaneled if it has been de-empaneled as a result of non-compliances to less than three clauses.