

Empanelment of Auditors for Digital Addressable Systems

22nd December 2017

Question 1. Do you agree with the scope of technical audit and subscription audit proposed in the consultation paper? Give your suggestions along with justification?

Response: The guidelines specified under Schedule III of interconnection regulations 2017 (Extract available in Annexure III of the consultation paper); helps broadcasters to attest the DPO's systems' compatibility in the following manner:

- a) The scope defined under technical guidelines which mandates features like FP(ECM/EMM), OSD, signal encryption, etc.
Justification: The compliance defined gives content owners an opportunity to probe in case of piracy events and ensure smooth transmission of TV signals.
- b) With regards to subscription audits, the revised scope defined in Schedule III - to validate the alteration of the databases and restricting activations from CAS (Annexure III, (A), 3 & 4).
Justification: This would help audit team and also the broadcaster to ensure accurate reporting of subscribers.

Apart from the scope defined in the consultation paper below aspects should also be covered in the scope of audit explicitly:

- 1) A detailed walkthrough of the head-end setup of the DPO which shall include the following:
 - i) Understanding the current network architecture
 - ii) Identifying all the areas/territories/regions where the head-end is connected through digital signals
 - iii) Collecting the information about the SMS & CAS servers installed by the affiliate
 - iv) Verification of the information of the installed systems with the system certificates
 - v) Collection of information about the systems installed by the DPOs in the head-end:
 - (a) Information about the Professional IRDs (Make/Model No) issued by individual broadcaster
 - (b) Encoders (Make/Model Number)
 - (c) Multiplexers (MUX) (Make/Model Number)
 - (d) Scramblers (If it is built-in then that will be specified accordingly in the report)
 - (e) QAM Modulators
 - (f) Highlighting the number of channels in HD/SD format
 - (g) Power Backup/ UPS-Installed Capacity
 - (h) Identifying the Video Compression System- MPEG2 OR MPEG4
 - (i) Identifying number of databases along with the IP addresses of individual servers maintaining the logs/records of the VC/STB deployed by the DPO.
 - vi) List of primary / secondary connections: primary meaning direct access points for the DPO. Secondary meaning connections established by the mediator viz. LCO, JV, etc.
 - vii) A detailed list of channels available at the DPO along with the information of the genre wherein the channels have been placed
 - viii) The scope should also be defined with regards to the number of samples wherein the field survey can be conducted in order to re-examine the information captured by the DPO along with the system. Also, the

regulation should explicitly allow TS analysis of the feed available at the subscribers' end (on a sample basis).

All the above specified information should be captured by the empaneled audit in the audit report. This will help broadcaster ensure veracity of the information provided by the DPO while reading the audit report provided by the DPO..

Question 2. Is there a need to have separate panel of auditors for conducting technical audit and subscription audit?

Response: Basis the current methodology for the purpose of auditing Digital Addressable Systems, the audit teams are required to have technical expertise to identify technical compliance adherence of the systems (as per Schedule I), identify number of CA systems installed by the operators, etc. which will in turn help them to identify the network architecture. Also, the teams conduct the simulation testing & system walk-through to identify the Subscriber Creation Process and the linkage to the independent database systems (SMS/CAS) installed by DPOs. Basis the technical architecture the of the operator; the audit teams plan the extractions of the respective CA & SMS VC – STBs details, transaction logs, etc. to identify the exact number of subscribers along with their respective entitlements. Without the above technical expertise, it will be difficult for the audit team to conduct effective assessment of the DPO's systems. Hence under our purview it is very pertinent for the subscription audit team to have the technical understanding of the systems and hence it is not recommended to have separate panel of auditors for conducting technical & subscription audit. The auditor should have both the technical and subscription audit knowledge to conduct the audit.

Question 3. 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?

Response: As explained earlier, the efficacy of the audit depends upon the understanding of the DPOs network architecture and understanding of the DPOs processes (communication within systems - SMS/CAS). Hence regardless of the systems installed by the DPO, a technically thorough audit team – which can understand the processes & can construe the network architecture will be able to review any of the DPOs' systems.

Correspondingly, there are 8+ CAS vendors available in India and the number of such vendors is constantly increasing, hence it wouldn't be a viable solution to empanel different set of auditors based on the different of CA systems.

An auditor who can understand the technicalities of the system can audit any system of CAS/SMS of a distributor.

Question 4. 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?

Response:

The empaneled auditors should have done CAS/SMS audits, this should be the basic criteria for empanelment.

- A. Documents supporting their claim for Experience of working for monitoring & reporting of tv channels on cable head-ends/DTH platforms.
- B. Self-attested copies of work order/PO to be given.
- C. A declaration / Certificate from BR or MSO certifying number of audits conducted by the agency
- D. List of CA systems worked upon by the agency and command descriptions of the transaction logs (generic, irrespective of the version of the CAS)
- E. Team

Question 5. 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

Response: Instead of minimum period, number of audits should be considered. At least 25 or 50 audits experience with more than 3 different independent broadcasters should be a basic criteria for such empanelment.

Question 6. Any suggestions on type of documents in support of eligibility and experience?

Response: Apart from the list of documents specified in the response of Q4; a letter from the broadcasters testifying the agency's claim about conducting audits can also be considered as a supporting document for eligibility & experience.

Question 7. What should be the period of empanelment of auditors?

Response: 3 - 5 Years.

Question 8. What methodology to decide fee of the auditor would best suit the broadcasting sector? and Why?

Response: As explained by the authority in the consultation papers, there are multiple factors influencing the methodology to decide audit fee like number of MSOs, subscriber volume of the DPO, time taken to share the data, Number of Nodes of the DPOs, etc. The factors to decide fee for such audits should be left open to the audit firms/agencies.

Question 9. How the optimum performance of the auditors can be ensured including maximum permissible time to complete audit? Give your suggestions with justification.

Response: There are 1179 MSOs registered with MIB, who are currently exhibiting digital TV signals across India. Basis their network strength and reach individual MSOs are having different volume of subscribers. For the purpose cataloguing; such MSOs are broadly classified into following:

- a) There are MSOs who operates PAN India, (National MSOs – registered with AIDCF)
- b) MSOs who are operating in more than one city/state in India
- c) Individual operators – These operators generally cater their feed to one or two towns/city

The timeframe to audit DPOs, depends upon the volume of the subscriber base and the audit period which needs to be audited. Hence including maximum permissible time to complete audit cannot be a parameter to define optimum performance of an auditor. It should be left to between the auditor and the person appointing such auditor.

Question 10. 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?

Response: Complaint redressal forum set by authority may help benchmark performance of the agencies. Blacklisting for a particular period could be considered after hearing both sides of the story.

Question 11. 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?

Response: As explained in the response for Q.9; there are multiple factors associated in order to complete an assignment. Hence timeframe for completion of audit work should be left open for the agency.

Question 12. Are the conditions cited above sufficient for de-empanelling an auditor? If not what should be the conditions for de-empanelling the auditor?

Response: Yes, the conditions are sufficient.

Question 13. Comments on re-empanelment if any?

Response: The process for empanelment can be applied for re-empanelment as well.

Question 14. Any suggestion relating to the audit framework

1. Currently the information about the system architecture of the DPOs provided to TRAI is not updated once it is submitted originally at the time of the registration. Our suggestion is that the DAS – (CAS & SMS Software, systems installed, etc.) should be updated regularly (say annually) in the records of TRAI/MIB. Or at least whenever the change is made, the change should be intimated and such information should be available online for everyone transparently. This will help the auditors (and even the consumer) to understand the system architecture better before the start of the audit.
2. In our purview it is also observed that a lot of networks gets affiliated with other operators without any prior intimation / declaration to anyone. Such affiliation of multiple operators should be declared online to TRAI (mere intimation and not any approval), and such information should be accessible to the empaneled auditors (and even consumers) which would help the auditors identify architecture of the systems, number of CAS/SMS which needs to be audited and execute the work in a time bound manner.
3. We are not in the favour of the audit being initiated by the DPOs and available to challenge by the Broadcasters. This will not only be worse off than the current audit system but also make the life of a DPO more busy with audit.

This is because, the audit issued on behalf of the DPO can potentially be challenged by the Broadcasters since-

Interconnection regulation of TRAI clearly mentions that ***'In cases, where a broadcaster is not satisfied with the audit report received under sub-regulation (1) or, if in the opinion of a broadcaster the addressable system being used by the distributor does not meet requirements specified in the Schedule III, it shall be permissible to the broadcaster, after communicating the reasons in writing to the distributor, to audit the subscriber management system, conditional access system and other related systems of the distributor of television channels, not more than once in a calendar year.'***

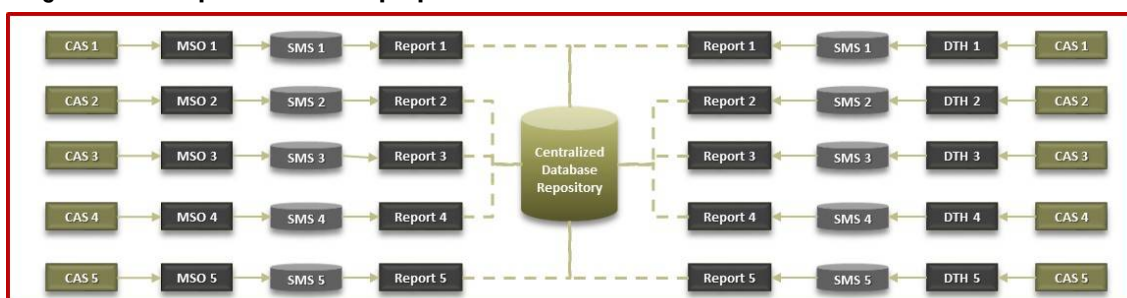
Hence, in view of the above provision, the broadcaster will be eligible for re-audit of systems deployed by the DPO. Therefore, this will not result in any concrete solution to meet the desired objective.

Our recommendations to TRAI concerns:

1. Our suggestion to TRAI for resolving the above ambiguity is to conduct the audit through auditors empaneled with TRAI on the DPO by TRAI itself.

II. As SMS is central to the TV channel distribution eco-system and all information is digitally stored into it, we can use the power of ICT to automate the process of data collection at a central facility. A structured and standardized reporting framework will lead to transparency and trust among the stakeholders. It will also help simplify reporting requirement and bring into operational efficiencies and effectiveness. Hence, we recommend deploying a centralized database and reporting system facility explained as under:

a) Diagrammatic Representation of proposed model:



b) Key Features of model:

- Proposed Model is a Centralized Database Repository to standardized reporting framework.
- Uploading and collecting data from DPOs which would be maintained in database and analyze centrally.
- All the DPO's will be provided with individual login ID (with a read only) & upload access online portal or ftp.
- A common layout will be finalized and circulated to all DPO's for uploading data centrally.
- The DPOs will upload the subscriber details online or ftp in the prescribed standard formats.
- On a daily / bi-monthly / monthly basis the data will be processed by the dedicated expert team on back-end.
- Dashboard will be published to concerned stake-holder.
- On Monthly basis report will be released on-line for Channel-wise assessment and break-down.
- Transparent and centralized reporting mechanism.