

COMMENTS OF TV18 BROADCAST LIMITED .

TO

CONSULTATION PAPER DATED MARCH 29, 2019

ON

THE TELECOMMUNICATION (BROADCASTING AND CABLE) SERVICES

DIGITAL ADDRESSABLE SYSTEMS AUDIT MANUAL

At the outset, we would like to thank Telecom Regulatory Authority of India ("TRAI") for giving an opportunity to stakeholders for placing their views on The Telecommunication (Broadcasting and Cable) Services Digital Addressable Systems Audit Manual. We applaud the initiative taken by the TRAI by endeavoring to provide a level-playing field to all stakeholders for orderly growth of the broadcasting and cable service sector. The objective of fostering competition, reducing disputes, maintaining transparency efficiently and in a sustainable manner can be achieved only through mutual support and cooperation amongst stakeholders. The need of the hour is to establish and nurture strong collaboration between the stakeholders in the broadcasting and cable industry value chain and ensuring benefits for all and formulating a standardized audit manual should pave the way for the same. We are pleased to set forth below, for TRAI's kind consideration, our comments/submission on various issues raised by the TRAI.

Q1. Whether it should be mandatory for every DPO to notify the broadcasters (whose channels are being carried by the DPO) for every change made in the addressable system (CAS, SMS and other related systems)?

TV18 Comment:

- (1) Yes, it is imperative that any changes made to the digital addressable system of a distribution platform operator ("DPO"), such as, changes to CAS, SMS, STB, headend location and other related systems/components which have technical and/or commercial implications or affects technical compliance of the addressable system, are notified to broadcasters whose channels are being retransmitted by such DPO. For example, an installation or integration of additional CAS / SMS, STB software ought to be reported to broadcasters prior to implementation however, in case of exigencies such changes may be notified immediately upon implementation.
- (2) This is necessary so as to enable broadcasters to satisfy themselves that changes being implemented by DPOs will not adversely impact content protection requirements and will not result in revenue leakages. It may be noted that broadcasters provide signals of their

channels to DPOs for retransmission through digital addressable systems of DPOs on the basis of understanding that digital addressable systems shall at all times comply with the parameters set out in Schedule III of the Interconnection Regulation of 2017 ("Schedule III").

- (3) Additionally, to ensure that the changes / modifications being made to the digital addressable systems of the DPO do not adversely impact DPO's obligation to comply with the technical parameters / requirement of Schedule III, it must be mandated that DPOs report changes/modifications to its digital addressable systems and also have them re-evaluated by an empaneled auditor for confirmation that systems continue to remain compliant with requirements of Schedule III. Further, such revalidation certificate ought to be provided to broadcasters on or before thirty (30) days from the date of the such changes being implemented. Any/all costs and expenses associated with such re-evaluation should be borne solely by the DPO who's systems are being re-evaluated.
- (4) Any failure or omission to notify changes / modifications to broadcasters will result in broadcasters being left to rely on market information to ascertain if any changes have been implemented by DPOs. Further, failure to notify may also result in multiple audits to ascertain that the systems of DPOs continue to remain in compliance.

Q2. Whether the Laptop is to be necessarily provided by the Auditee DPO or the Audit Agency may also provide the Laptop? Please provide reasons for your comment.

TV18 Comment:

- (1) We would like to submit that auditors should be allowed to carry their own laptops / equipment (machines) during audit for the following reasons:
 - (a) The auditors who will be entrusted with undertaking audits shall be only those who are empaneled with TRAI. TRAI would have already done background check of such auditors before empaneling them. Hence, we do not see any reason why an auditee DPO would

have any problem with such empaneled auditors using their own laptops / equipment (machines) during audit.

- (b) Auditor's laptops may have customized or third-party applications / software (*e.g., SQL, Oracle, Alteryx, Microsoft Data Access*) for data analysis pre-loaded on them and they would be more comfortable with using their own software / machines for the smooth, effective and timely completion of audit.
- (c) Since personal data pertaining to subscribers (*e.g., name, address, email ids, mobile number*) will not be part of data extraction activity, therefor, use of auditor's laptops / machines would not pose any risk or threat to the confidentiality of such data.
- (d) If auditors get queries from stakeholders of the audit process on the audit report that they have prepared and submitted with broadcasters upon completion of audit, then auditors would be in a better position to respond to such queries in a timely manner since the data would be residing in the laptops / equipment (machines).
- (e) Unscrupulous DPOs will not be able to tamper with data (including by way of modifying data and/or corrupting data) stored on machines by using machine administrator's access.

- (2) Without prejudice to the foregoing, if DPO needs to provide laptop, then it should be mandated that DPOs provide such number of laptops as may be required by auditor, and each such laptop should have such minimum configuration as has been prescribed by TRAI in Annexure 1 of this consultation paper or as may be required by auditor, so as to enable simultaneous analysis of data so that the time taken to complete the audit does not get elongated. Additionally, such laptops should also have MS Office installed on them. Additionally:

- (a) Only the auditors should be entitled to create password(s) for the machines and files which are related to the audit and the DPO should be prohibited from seeking such password(s) from auditors.
- (b) There should not be any tampering (or attempted tampering) of the files/data pertaining to the audit stored in such laptops, including any person (employee of the

DPO or otherwise) trying to remove/reset password from the password protected files and/or deleting/replacing the data stored therein.

- (c) Any/all data pertaining to the audit stored in such laptops should also be simultaneously uploaded on cloud-based servers so as to ensure that upon occurrence of any force majeure event resulting in destruction of the laptops, the data is retrievable from the cloud.

Q3. Whether the Configuration of Laptop vide Annexure 1 is suitable? If not, please provide alternate configuration with reasons thereof.

TV18 Comment:

- (1) The configuration suggested in Annexure 1 of the consultation paper is in line with the general requirement that an auditor would have as per the DPO's subscriber base. However, basic application such as Microsoft Office (e.g. Microsoft Excel, Microsoft Access, etc.) should also form part of laptop configuration requirements for larger MSOs and the overall configuration should be revisited every two years to ensure that only the latest / updated equipment are being used for audit.
- (2) Additionally, the audit manual should specify that the DPO shall be required to provide such number of laptops with the all required configuration / software installed in them (including Microsoft Office) so as to enable simultaneous analysis of data so that the time taken to complete the audit does not get elongated.
- (3) Annexure 1 of the consultation paper should also specify that in case an auditor requires any additional software then such software should be permitted to be downloaded on the machines.

Q4. Do you agree with the provisions regarding seeking of TS recording and ground sample information from IBF/ NBA for verification/ checking by the Auditor?

TV18 Comment:

We submit that under the new regulatory regime brought about by TRAI, ascertaining correct and accurate number of subscribers of a broadcaster's channels is of paramount importance. Since the audit to be conducted would normally be a yearly activity, hence, it is recommended to obtain TS recording and ground sample information from IBF and/or NBA (*since both these entities are federations of broadcasters*) and/or the applicable broadcasters (*i.e., whose channels are being retransmitted on the DPO's digital distribution platform*). It is submitted that verification / checking of TS recording and ground sample information by auditors will be useful in ascertaining the correctness of the DPO's digital distribution platform's system and would also be beneficial in conducting a thorough audit, which is the ultimate goal. Accordingly, it is absolutely essential that TS recordings and ground sample provided by IBF/NBA/broadcaster must form part of the scope of audit as an additional verification parameter for evaluation by the auditors.

- Q5. Do you agree that Data Dump may be cross-checked with weekly data of sample weeks basis? If yes, do you agree with checking of random 20% sample weeks? Please support your comments with justification and statistical information.**

TV18 Comment:

We submit that we do not agree with the proposition that data dump may be cross-checked with weekly data of sample weeks basis and that too checking of random 20% sample weeks data. In this regard, we request TRAI to consider our following submissions:

- (a) Validation / verification of the entire data dump is a must since, it shall ensure a thorough check-up of the DPO's digital addressable systems and also because it has a material impact on the revenues of the broadcasters (*i.e., whose channels are being retransmitted on the DPO's digital distribution platform*) from the auditee DPO.

(b) Considering that the audit to be conducted would largely be a once in a year activity, therefore, it is imperative that the audit process (in terms of data verification) should be comprehensive / exhaustive so as to minimize any error creeping in due to cross verification of weekly data on sample basis. Further, this will also dissuade any mischief on the part of unscrupulous DPOs.

(c) Since the audit would be conducted by professionals who would be empanelled by TRAI and who would be equipped with latest / advanced laptops (*which also has high-end data processing / crunching software installed in them*), hence, audit of the entire data dump would be short-timed activity, i.e., requiring only reasonable timeline.

Q6. Do you agree with the proposed Data extraction methodology? If not, suggest alternates with reasoning thereof.

TV18 Comment:

We agree with the proposed data extraction methodology and submit that the same should be made mandatory for data analysis and for preparation of meaningful audit reports by auditors at the time of conducting technical and subscription audit of DPOs digital addressable systems. In this regard, it may also be note that the standard operating procedure for data extraction methodology is same as has been followed for the last many years by the reputed professional auditors and DPOs are well accustomed with the process. Any need for change in methodology and scope of such change in methodology can be assessed in due course of time.

Q7. Do you agree with verification and reporting of City-wise, State-wise and Head-end wise subscription report? Please provide supporting reasons/ information for your comment.

TV18 Comment:

- (1) It is imperative to note that the Interconnection Regulations of 2017 mandate that the interconnection agreement executed between broadcaster and DPO must have names of specific areas (city) with details of the corresponding states for which channel retransmission right has been mutually agreed between the broadcaster and the DPO ("**Permitted Area**"). Interconnection Regulations of 2017 also provide that if a DPO is desirous of expanding the Permitted Area, then it must seek prior written approval in such regard from the broadcaster. We submit that monthly reporting of city-wise, state-wise and head-end wise subscription report and verification of such submitted data at the time of audit should be made mandatory for the broadcaster to ascertain if (a) the DPO has been in compliance with the terms and conditions of its interconnection agreement with the broadcaster with respect to retransmission of signals of the channels within the Permitted Areas only, and (b) the DPO has been engaged or is engaging in transgression of Permitted Area at the time of retransmission of signals of broadcasters' channels through its digital addressable platform. Monthly reporting of city-wise and state-wise subscription report by DPOs will also assist broadcasters / auditors to verify which all territories are there in which the signals of the channels are being retransmitted by the DPO. In fact, no inconvenience is going to be cause to DPOs since they are in any event required to maintain such data in terms of Interconnection Regulation of 2017. By getting to review city-wise and state-wise data, auditor / broadcaster will also understand what all filters were being applied to either exclude data of certain geographical areas that may have a bearing on the overall count of the Subscriber numbers.
- (2) It is also imperative to note that the data pertaining to subscriber report shall be verified city-wise, state-wise and headend wise, as this is incidental to many provisions of the Interconnection Regulations of 2017. For example, with regards to target market of a DPO, the explanation to Clause 4.3 of the Interconnection Regulations of 2017 states that "*for the purpose of this regulation each Head-end or Earth Station as the case may be, and its associated network used for distribution of signals of television channels shall constitute one distribution network*". Further, most of the broadcasters have linked the incentives

parameters with uptake of channel within particular geography, hence it also works in favor of DPOs to provide city-wise, state-wise and head-end wise subscriber reports. The location-wise details shall also help broadcasters and DPOs to keep track of compliance of various provisions of their Interconnect Agreement(s) and will also serve as a tool to address piracy issues.

- (3) It is respectfully submitted that there ought to be verification of city / State where signals are being retransmitted since, unscrupulous DPOs may indulge in signing Interconnection Agreements for a smaller area of operation and therefore, resort to catering a larger area through multiple CAS and/or SMS. In case, city / State verification is not allowed, then it will cause huge losses to broadcasters and will also be unfair to scrupulous competing DPOs.

Q8. Do you agree with the tests and procedure provided for checking covert and overt fingerprinting? Provide your comments with reasons thereof?

TV18 Comment:

We agree that both overt and covert fingerprinting needs to be performed and displayed by DPOs in presence of auditor(s) since mere certification on covert fingerprinting from CAS and/or STB vendor will not suffice. In any event, such requirement is already there in Schedule III of Interconnection Regulation of 2017 which provides for STBs to support both overt (i.e., visible) and covert fingerprinting and hence, DPOs have to demonstrate both covert and overt fingerprinting to the auditors for each model of STB that the DPO deploys in its network. It is submitted that while auditing systems of DPOs, auditors should also ascertain if there are any shortcomings which may adversely impact use of overt and covert fingerprinting. If so, then such shortcomings must be mentioned in the audit report.

Q9. Any other suggestion/ comments on the provisions on methodology proposed in the Audit Manual.

TV18 Comment:

- (1) We humbly submit that while the prescribed audit manual addresses issue of audit in terms of Regulations 10 and 15 of the Interconnection Regulations of 2017, however, to extensively cover all aspects of conducting Technical and Subscription Audits, the audit manual should also have provision to verify the DPO's compliance with provisions of QoS Regulations of 2017. Compliance of provision of QoS Regulations of 2017 is also an important factor since having robust digital addressable system implemented by DPO will ultimately be a key factor in achieving the desired results of addressability and choice of end-user to choose channels as per their need which is the core objective of Interconnection Regulations of 2017 and Tariff Order of 2017.
- (2) In view of the above, it is imperative that empanelled auditor(s) should also specifically verify the following in order to check compliance of DPOs with QoS Regulations of 2017:
- (a) Whether MRP of all channels available on a DPO's platform is displayed with a "₹" symbol on the EPG of such DPO's platform,
 - (b) Whether the facility to send short messaging service on the registered mobile number of the DPO's Subscriber is available and functional,
 - (c) Whether Consumer Application Form (CAF) details get updated in the SMS,
 - (d) Whether customer care centre is available and operational,
 - (e) Whether customer care number and complaint redressal mechanism are being followed as per QoS Regulations of 2017,
 - (f) Whether a toll-free number of the DPO is available and operational,
 - (g) Whether web-based complaint management system is available and functional,
 - (h) Whether details of Nodal Officer of the DPO is published on its website,
 - (i) Whether the DPO maintains a website with consumer's corner and subscriber login option,
 - (j) Whether various genres are being displayed by DPO on its platform's EPG and also whether channels are placed in their applicable genre as per regulatory / contractual requirements,

- (k) Whether all channels available on DPO's platform are being offered to all Subscribers of its platform for subscription on an a-la-carte basis, and
- (l) Whether basic service tier package is being made available by the DPO.

(3) In addition to the above, we strongly recommend that TRAI should mandate that (a) every DPO should get its digital addressable platform audited (both technical and commercial audit) by a TRAI empanelled auditor within three (3) months of commencement of its interconnection agreement with broadcaster, (b) comprehensive audit must be completed within three (3) weeks of commencement of such audit, i.e., (i) auditor to complete preliminary audit process within fourteen (14) days of commencement of audit and share its queries with the auditee DPO, (ii) the auditee DPO will have time from the date of receipt of the queries from the auditor till the seventeenth (17th) day from the date of commencement of audit to revert on such queries, (iii) the auditor will have time from the date of receipt of revert from the auditee DPO till the twenty-first (21st) day from the date of commencement of audit to cross-verify the auditee DPO's revert and complete the audit process, and (c) empanelled auditor's audit report must be submitted to each broadcaster (whose channels are available in such DPOs digital addressable platform) within seven (7) days from the date of completion of the audit process, i.e., on or before the twenty-eighth (28th) day from the date of commencement of audit. We submit that audit contemplated in the preceding sentence may reduce the need for separate audits to be conducted by broadcasters.

(4) We would also like to draw the kind attention of TRAI towards the following observations in the proposed guidelines for conducting technical and subscription audits:

- (i) The last paragraph at page 17 of the Consultation Paper provides that *'Before submission of final report, a draft report should be shared with the Auditee for giving opportunity to provide clarifications, if any. The final report can be shared after incorporating the Auditees comments. The DPO shall give their comments within seven (7) days failing which the auditor will finalise the report i.e. If no comments are received by the Auditor from the concerned DPO within seven (7) days, the Auditor will finalise*

his/her report.'. In this regard, we would like to submit that this stipulation is susceptible to be misused and may be used to unnecessarily prolong the completion of audit since, DPOs may keep on contesting the findings of the auditor(s). It is for this reason that auditors should have the right to directly submit the audit report to the concerned broadcasters along with a copy of the same to the concerned DPO. Without prejudice to the foregoing, auditors may, at best, share queries with DPOs for their response within a timeline of three (3) days. Further, for the sake of transparency, all queries to DPOs and responses from DPOs, should form part of auditor's reports.

- (ii) Point number 3 under the heading 'Data Extraction' at page 22 of the CP provide that *'Month-end active and de-active STB and VC details with city/state (both SMS & CAS)'*. In this regard we would like to point out that Interconnection Regulations of 2017 stipulates that monthly subscriber numbers of a channel and/or bouquet must be calculated by averaging the number of subscribers recorded four (4) times in a month, i.e., on 7th, 14th, 21st and 28th day of the concerned month at any point of time between 19:00HRS to 23:00HRS of the day. Hence, the same principle should be applied for extracting month-end active and de-active STB and VC details city-wise and state-wise from both CAS and SMS.
- (iii) Point number 4 under the heading 'Data Extraction' at page 22 of the CP provide that *'Channel to package mapping along with service ID (with creation, modification and discontinue date) from SMS & CAS'* and foot note number 8 at page 22 of the CP with respect to the above point number 4 provides that *'As per system capability. In case the system does not allow such information, then DPO to provide an undertaking to this effect.'* In this regard, we humbly submit that this proposal of self-certification by DPOs is in direct contravention of the Interconnection Regulation of 2017. The channel to package mapping modifications have huge bearing in determining the actual number of subscribers subscribing to channels. Hence, it is of utmost importance that DPOs must always maintain the data pertaining to modifications that are undertaken in any packages offered by DPOs. Such modification details must be preserved and made available from CAS as well as SMS to enable the auditors to check and verify the same.

It has been observed at many instances that DPOs remove popular channels from the packages just before audit and show them as only a-la-carte offering which results in drastic reduction of subscriber number for such channels. In view thereof, the prescribed undertaking from DPO for not being able to capture channel to package modification details shall defeat the purpose of conducting a meaningful audit. This kind of leeway to DPOs is uncalled for and detrimental to broadcasters. Further, it can be misused and in turn will lead to under-declaration of subscriber numbers by unscrupulous DPOs.

- (iv) The 2nd column of point number 5 at page 28 of the CP provides that *'It shall not be possible to alter the data and logs recorded in the CAS and the SMS'*. In this regard, it may be noted that the Audit Steps mentioned in the 3rd column of point number 5 at page 28 of the CP only provides for check and balances for CAS. It appears that inadvertently, verification procedures for SMS has been missed out. Hence, we humbly submit that the checks and balances prescribed for CAS should also be made applicable for SMS.
 - (v) Foot note number 17 at page 35 of the CP provides that *'DPO to notify IBF/ NBA of proposed audit atleast 10 days prior to the Audit. IBF/ NBA may provide sample data of not more than 100 such STB/ VCs.'* In this regard we would like to submit that keeping in view that the distribution network(s) operates across India, the prescribed time limit is too short and that sample size of 100 samples is meagre. We would also like to submit that verifying even a larger sample size will not be time consuming by using RELOOK formula in Microsoft excel. In view of the above, we recommend that restriction on sample size not to be more than 100 samples should be removed. Further, the time limit of 10 days should be increased to at least 30 days. Additionally, provision should be made to notify relevant broadcasters whose channels may be retransmitted by relevant DPO so as to enable such broadcaster to provide sample data.
- (5) We would also like to draw TRAI's kind attention towards the checklist provided in the format of audit report (at page number 69 to 72 of the CP). The same is based on provisions

of the digital addressable cable TV system requirement contained under Schedule I of the Telecommunication (Broadcasting and Cable Services) Interconnection (Digital Addressable Cable Television Systems) Regulations, 2012 ("DAS Regulations of 2012"). Since DAS Regulations of 2012 have been repealed in its entirety by the Interconnection Regulations of 2017, the prescribed checklist should be aligned with the provisions of Addressable Systems Requirement mentioned under Schedule III of Interconnection Regulations of 2017. We also submit that the parameters to check QoS Regulations of 2017 should be included in this checklist.

- (6) We would also like to submit that Clause 15 of Interconnection Regulations of 2017 does not provide for any timeline for conducting audit, which may lead to a situation where DPOs may keep the audit lagging till year-end and in the meantime, they may continue to submit false / incorrect subscriber reports, whereby the subscriber numbers are being under-declared, as broadcasters would not have any check on such reported numbers without having right to cause audit. In view thereof, we reiterate that TRAI should mandate that: (a) every DPO should get its digital addressable platform audited (both technical and commercial audit) by a TRAI empanelled auditor within three (3) months of commencement of its interconnection agreement with broadcaster, (b) successfully complete such comprehensive audit within three (3) weeks of commencement of such audit, and (c) submit the empanelled auditor certified audit report to each broadcaster (whose channels are available in such DPOs digital addressable platform) within seven (7) days of completion of such audit.
- (7) Foot Note number 12 at page 24 of the CP provides that *'In cases where data logs for the audit period are not available on live systems and old data is stored in back-up storage. In such cases, the data logs may be re-created using extraction tools from such back-up.'* In this regard, we submit that the audit manual should mandate that the auditee DPO would allow auditors to verify the authenticity and integrity of the archived historical data by performing (including, but not limited to) the following tests:

- (a) Understand SMS and CAS system architecture which includes application servers, database servers and corresponding IP address / hostnames;
- (b) Perform walkthrough archival process and queries (if any) used in archiving data;
- (c) Validate data creation and data modification dates on external storage / archived database.

Once the auditor is satisfied on the veracity of the historical data location that is archived on monthly basis, the auditor may proceed to use the same for data analysis. The above is applicable only for historical data.

- (8) It is imperative to note that that TRAI has (since inception of digitization rollout) engaged Broadcast Engineering Consultants India Limited (BECIL) as an entity for conducting technical (compliance) and commercial audits and also gave broadcasters right to cause audit on DPOs, keeping in view that the digital addressable system's audits require people who are familiar with such technology and have sound knowledge of TV channel distribution as it includes vast elements that are technology related, e.g., multiplexers, scramblers, encryptions system, transport stream analysis to analyze unencrypted and encrypted feeds, CAS systems, SMS, CAS & SMS integration, STB functionality, content protection, etc. Please note that the audits conducted through empanelled auditors will be a meaningless exercise and a futile activity if it does not include IT professionals / CATV Engineers / Broadcasting Engineers as a part of the empanelled auditor's team. Hence, we strongly recommend that empanelled auditor's team should include Broadcasting / CATV Engineers. Hence, the document title 'Expression of Interest for Empanelment of Auditor' that has been issued by the TRAI should be applicably modified.

- (9) To eliminate possibility of any favouritism and corrupt practices, the Authority should also include stipulations mandating that no individual or auditor would be involved in an audit of a DPO, if such person or auditor has been involved in audit of the said DPO any time in the preceding three (3) years, irrespective of whether such audit was initiated at DPOs own volition or at the instance of a broadcaster and whether or not the audit resulted in

discovery of any anomalies or shortcomings. However, the stipulation suggested in the preceding sentence need not apply in case of re-audits being done to check whether anomalies or shortcomings found during audit have been addressed/ rectified or not.

(10) It is imperative to standardize and summarize audit reports. In this regard, TRAI ought to mandate that reports should be prepared by auditors in a tabular form separately for each broadcaster (in addition to the reports to be prepared as per the audit manual). In this regard, please see below information / tables to be covered in each audit report in which information needs to be extracted and tabulated.

(a) "As on date" comparison of VCs active in SMS & CAS

- Count of Active Subscribers/VCs in SMS - _____
- Count of Active Subscribers/VCs in CAS - _____
- Count of De-active Subscribers/VCs in SMS - _____
- Count of De-active Subscribers/VCs in CAS - _____
- Count of Active VCs present in CAS but not in SMS - _____
- Count of Active VCs present in SMS but not in CAS - _____

(b) Monthly reporting Reconciliation (Historical)

(c) On review of the month-end active subscriber reports from SMS and the numbers reported as per subscriber reports for the period ____ to ____, we observed differences between SMS, CAS and numbers reported to the broadcaster as under.

Month	SMS (extracted during Audit) (A)	Reported numbers (B)	Difference (B-A)	CAS (C)	Difference (A -C)

On review of the month-end active subscriber reports from SMS for the period ____ to ____, we observed certain unique VC IDs which were present in CAS but not in SMS and vice-versa. The count of VC IDs are mentioned below:

Month	Present in CAS, but not present in SMS	Present in SMS, but not present in CAS

(d) City / State wise subscriber report from SMS:

City/State	Month											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

(e) Transaction logs reconciliation – Comparison of status of active VCs extracted on the month-end and status of VCs constructed through transaction logs from SMS and CAS (Activations & Deactivations).

- The status of VCs between month-end data extracted and constructed using transaction logs should synchronize from SMS and CAS.
- We extracted SMS & CAS month-end data and transaction logs for the audit period (___ to ___) following variances were noted:

Total Universe								
Month	SMS			CAS			Difference	
	Month-end Extracted	Month-end Constructed through Logs	Difference	Month- end Extracted	Month-end Constructed through Logs	Difference	(D) - (A)	(E) - (B)
	(A)	(B)	(C) = (B) - (A)	(D)	(E)	(F) = (E) - (D)		

- (f) Discrepancies in package composition from SMS and CAS – The historical channel to packages from both SMS and CAS should synchronize with each other. Following is a table highlighting the difference in package composition (count of channels) in SMS and CAS:

CAS						
Package ID	Package Name	Date	SMS	CAS	Count	Count
			Channels		In CAS not in SMS	In CAS not in SMS

		to				

- (g) Channel-wise count of subscribers from extracted SMS, CAS – Following is the tables highlighting the channel-wise count of subscribers for each month-end from SMS and CAS, *To be created as separate Annexure for each broadcaster.*

SMS					
Channel name	Month	Month	Month	Month	Month

CAS					
Channel name	Month	Month	Month	Month	Month

- (h) Discrepancies found in Ground samples and Data provided during Audit – On review of a sample of _____ STBs / VCs active on-ground at the time of review (basis information received from IBF/NBA), we noted _____ VCs were not present in the as-on-date (.....) reports extracted from SMS as well as CAS.

S. No.	VC IDs	City/Town	State

- (i) Details of Additional CAS if any found in TS for which data not provided during Audit
(j) Summary of Exclusions and limitations found during Audit; e.g., Pre-filtered data, Channel-wise package listing not provided, Channel to package mapping from CAS was not provided for review
(k) Summary of Schedule III Compliance (Check List)
(l) Genre LCN details
(m) Executive summary of the audit
(n) Auditor to certify whether the DPOs network is in compliance with TRAI regulations