29 April, 2019

By Email and Hand

Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg
New Delhi - 110002

Subject: **Consultation Paper on The Telecommunication (Broadcasting and Cable) Services Digital Addressable Systems Audit Manual dated 29 March, 2019**

Kind Attn: **Shri Anil Kumar Bhardwaj, Advisor (B&CS)**

Dear Sir,

We thank you for the opportunity to express our views on the above captioned consultation paper. Tata Sky's response to the same is enclosed for your ready reference.

Thanking you.

Yours sincerely,

Himavat Chaudhuri
Chief Legal and Regulatory Affairs Officer

Enclosed: As above

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)?

- Changes occur frequently on our CAS and SMS systems, and it is not feasible to report each and every change.
- Most of the changes effected are insignificant, from the broadcaster's point of view and hence need not be reported.
- The Audit Manual needs to clearly identify the major changes, which require intimation to the Broadcasters, e.g.:
  - ➢ Any Changes in the version number of the Conditional Access System
  - ➢ Change in the ownership/Name of Conditional Access System
  - ➢ Changes in the Simul-crypt status of Conditional access
- We therefore recommend that the Audit Manual may incorporate our inputs above.

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.

- The first right to provide the laptop should rest with the DPO being audited and we appreciate the fact that the Audit Manual correctly captures this requirement.
- The audit best practices recommend that audit should occur within the auditee's premises and the data should not be taken out. In the scenario of the auditor bringing his own laptop/hardware, chances of misuse and security breach increase.
- Tata Sky will be providing the laptop with the relevant specifications and software to the Auditor.

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?

- DTH being a Satellite based technology, with the subscribers being served directly from the satellite, without any ground-based entity in the middle, the TA Recording Audit served no purpose.
- This Audit may be suited for MSOs/LCOs.
- We therefore recommend that the requirement of TS recordings may be excluded from the Audit Manual for DTH Operators.

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.

- We wish to flag a concern that the daily transaction logs from the CAS are very large.
- It would be difficult to share such large dumps and would also be difficult for the Auditor to handle.
- We believe, rebuilding the database using transactional logs is an exercise which take a long time and the Auditor may not be able to complete the Audit within the given time.
- We request that the above concern may be taken into consideration in the final Audit Manual.

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

- Two years of maintaining of Transactional logs is a very large quantum of data. Just one month of data runs into several Terra Bytes for a large operator like us. Maintaining such voluminous records requires considerable resources and will be an expensive exercise.
- We therefore recommend that the storage period for transactional logs should not be more than six (6) months.

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.

- We strongly disagree with the sharing of data with the Auditors on a City-wise, District -wise and State-wise basis. The objective of the audit is to assure the Broadcasters' of their rightful revenue. Such a detailed reporting has no linkage with the objective.
- Tata Sky being a DTH Operator has declared Pan India as its territory. All reports should be linked to the declared territory.
- Subscribers are the core of any business and effort, time and man-hours have been invested in the brand-building and acquiring these customers over the years. Therefore, subscriber data becomes a very sensitive critical data for the DPOs and cannot be shared.
- We cannot share any identifiable subscriber data with the auditors or anyone outside the organization. Such sensitive information could easily be misused to manipulate the system against the interests of the DPO.
- The only exception that may be carved out is for those instances where the DPO has signed up for an incentive scheme basis City, District or State etc.
- We therefore strongly recommend that the requirement for seeking City, State, District data may not form part of the Audit Manual.

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

We wish to highlight certain more concerns which are as follow:

i. *Clause 3.1.6 (Page 17)* a. *DPO shall provide access to CAS, SMS servers and related addressable system to the auditor* *Clauses 4.2 B III (Page 24)* a. *DPO to declare all admin/super admin login access to CAS & SMS servers* b. *DPO to allow auditors to run queries to extract data / logs / reports from live SMS and CAS systems* *Clause 4.3 A (Sl. No. 2) (Page 26)* *(a) DPO to declare all admin/super admin login access to CAS & SMS servers, IT systems & headend equipment to auditors* *(b) DPO to allow auditors to run queries to extract data / logs / reports from live SMS and CAS systems.*

- We will operate/ run commands on the systems in the presence of auditors and auditors can watch/ observe, however cannot access the live systems themselves. We do not and cannot share system ID and Passwords with any external teams. We will also not be sharing the IP credentials.

- Any command requested by auditor will be executed in non-production environments and also evaluated for any system impact.
- In case we have concerns regarding certain commands, we reserve the right to raise the same with the auditor. The auditor will have to resolve the concerns and only after concurrence, the commands would be executed in the live environment.
- We therefore request that the Audit Manual may incorporate the above input.

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ii. *Clause 4.2 B II (Page 22)*
(1) Area wise Active and de-active STB and VC list
(2) Package-wise active STB and VC details

- We will be providing counts of active/de-active STBs and counts of package wise subscribers.
- Providing VC list and/or VC detail needs to be clarified.
- Providing the list of VC numbers of the entire subscriber base will be a voluminous and time-consuming exercise and will not serve the objective of the audit.
- We cannot share any identifiable subscriber data with the auditors or anyone outside the organization. Such sensitive information could easily be misused to manipulate the system against the interests of the DPO.
- We therefore recommend that data requirement may be restricted to counts and any requirement of VC Numbers or any individual subscriber level data may be excluded from the Audit Manual.

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iii. *Clause 4.3 A Sl. No 2 (f) (Page 27)*
*i. Current Active and De-Active Subscriber count in the network with STBs / VC **Location** details*

- The sole objective of the audit is to reassure the Broadcaster that the rightful revenues are protected, and the systems are trustworthy
- Getting into subscriber level data - STB/ VC/ Location details etc. - does not serve any purpose in furthering the objective of the audit.
- The subscriber level data is business sensitive data and therefore should not be mandated to be shared with Broadcasters. Sharing such data with 3rd party auditors brings with its own set of concerns regarding confidentiality and misuse.
- We cannot share any identifiable subscriber data with the auditors or anyone outside the organization. Such sensitive information could easily be misused to manipulate the system against the interests of the DPO.
- We therefore strongly recommend that the requirement of Location information or any other subscriber level information should be excluded from the Audit Manual.

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iv. *Clause 4.3 A Sl. No 13 (Page 31)*
(g) Physically verify CAF/ SAF forms of customers activated in last 6 months with all customers entered in SMS. All mismatches of customers in SMS but no CAF available against that to be reported in Auditor report.

- This activity of verifying CAF is not feasible since the numbers are too large and will consume a lot of time
- This exercise does not serve any additional purpose

- We cannot share any identifiable subscriber data with the auditors or anyone outside the organization. Such sensitive information could easily be misused to manipulate the system against the interests of the DPO.
- This was not discussed during the various meetings of the Audit Manual committee and is a new requirement
- We therefore recommend that CAF verification exercise may be excluded from the Audit Manual.

v.	*Clause 4.3 A Sl. No 16 (Page 35):* *(i) Reconciliation of LCN and Genre declared by broadcaster with the actual LCN and genre found during Audit. All mismatches of LCN and genres found during audit to be reported.*

- Auditing of the LCN and Genre does not form part of the technical and commercial audit.
- TRAI may organise this compliance audit separately.
- We therefore strongly recommend that LCN/Genre audit should be excluded from the Audit Manual.

vi.	*Clause 4.3 A Sl. No 16 (Page 36):* *(p) Auditor to compare VC's from SMS and compare with the VC's on which payment has been received through prepaid system from the customer in last 6 months*

- Auditors accessing our retail-facing prepaid systems is an unwanted intrusion into our core business sensitive systems and cannot be permitted.
- The rest of the checks and balances built in the Audit Manual are comprehensive and meets the objective of revenue assurance. This particular process does not serve any additional purpose.
- We therefore strongly recommend that the requirement of auditing of the Prepaid systems may be excluded from the Audit Manual.

vii.	*Clause 4.2 II (3) requires a month end data to be provided.* *Several references have been made to the month-end data in the Audit Manual*

- With the implementation of the Tariff Order the data extraction is now done on 7th, 14th, 21st & 28th of each month.
- No data extraction is done on month end any more
- Requirement of extracting month-end data will place an additional and unnecessary burden on the DPOs.
- Therefore, we recommend that the Audit Manual should clarify that month-end data implies the data extracted on 28th of the month.

viii.	*Clause 4.3 A Sl. No. 16 (c) (Page 34) refers to Transactional log reconciliation*

- For a large DPO like us, a huge amount of data is generated by the Transactional logs every day.
- Maintaining such voluminous records (data running into Terra Bytes) requires considerable resources and will be an expensive exercise.
- It would be difficult to share the transactional log with the Auditors and the Auditors wold also find it challenging to work on the transactional logs

- Conducting a data re-construction using the transactional logs for reconciliation purposes, would not be a huge challenge for the auditors and is an exercise which requires a very long time.
- These inputs were shared during the committee meetings set up for discussing the Audit Manual.
- We therefore strongly recommend that the Audit Manual should exclude any processing of data related to Transactional logs.

ix. *5 Timelines (Page 46)*
The Auditor shall normally complete the audit within 4 weeks and the report should be submitted within 1 week from the end of audit.

- The Audit Manual has prescribed for a very large amount of data to be shared with the Auditors.
- With so much data being prescribed, it may be difficult to complete the audit within 4 weeks, especially large DPOs like us.
- It is also important to keep the audit short since all the empanelled auditors need to collectively cater to more than a thousand DPOs across the country.
- The data requirements need to be analysed from the perspective of timelines
- We recommend that a balance must be struck between conducting an efficient audit in a reasonable time vis-à-vis the desired levels of detailing and excellence.
- We would recommend that for larger DPOs, the processes should be on a sampling basis, so that the audits may be completed within reasonable time.