TACTV
TAMIL NADU ARASU CABLE TV CORPORATION LIMITED
(A Government of Tamil Nadu Undertaking)

Thiru.I. Ananda Kumar
DRO/General Manager(Admin)

Letter No:207071/TACTV/TRAI/consultation paper/2019, Dated: 19/05/2020

To

Shri. Arvind Kumar
Telecom Regulatory Authority of India(TRAI)
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
New Delhi-110002.

Sir,

Sub: TACTV - TRAI Consultation Paper on Framework for Technical Compliance of Conditional Access System (CAS) and Subscriber Management Systems (SMS) for Broadcasting & Cable Services- submission of comments- Reg.

Ref: TRAI Consultation Paper no 5/2020, dated: 22-04-2020.

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Kind attention sought to the references cited. The Telecom Regulatory Authority of India(TRAI) has requested comments from stake holders for consultation paper on Framework for Technical Compliance of Conditional Access System (CAS) and Subscriber Management Systems (SMS) for Broadcasting & Cable Services .

In this regard our comments are as detailed below.

Q1. List all the important features of CAS & SMS to adequately cover all the requirements for Digital Addressable Systems with a focus on the content protection and the factual reporting of subscriptions. Please provide exhaustive list, including the features specified in Schedule III of

Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) Regulations, 2017?

1. The CAS, do not have any history of hacking.

2. The SMS shall be independently capable of generating, recording, and maintaining logs, for the period of at least immediate preceding two consecutive years, corresponding to each command executed in the SMS including but not limited to activation and deactivation commands.

3. It shall not be possible to alter the data and logs recorded in the CAS and the SMS.

4. The CAS do not have facility to activate and deactivate a Set Top Box (STB) directly from the CAS terminal. All activation and deactivation of STBs shall be done with the commands of the SMS.

5. The SMS and the CAS should be integrated in such a manner that activation and deactivation of STB happen simultaneously in both the systems.

6. The CAS has the capability of upgrading STBs over-the-air (OTA), so that the connected STBs can be upgraded.

7. The fingerprinting should not get invalidated by use of any device or software.

8. The CAS and the SMS should be able to activate or deactivate services or STBs of at least 10% of the subscriber base of the distributor within 24 hours.

9. The STB and Viewing Card (VC) shall be paired from the SMS to ensure security of the channel.

10. The CAS and SMS should be capable of individually addressing subscribers, for the purpose of generating the reports, on channel by channel and STB by STB basis.

11. The SMS should be computerized and capable of recording the vital information and data concerning the subscribers such as:

    a. Unique customer identification (ID)

b. Subscription contract number

c. Name of the subscriber

d. Billing address

e. Installation address

f. Landline telephone number

g. Mobile telephone number

h. E-mail address

i. Channels, bouquets and services subscribed

j. Unique STB number

k. Unique VC number.

12. The SMS should be capable of:

a. Viewing and printing of historical data in terms of the activations and the deactivations of STBs.

b. Locating each and every STB and VC installed.

c. Generating historical data of changes in the subscriptions for each subscriber and the corresponding source of requests made by the subscriber.

13. The SMS should be capable of generating reports, at any desired time about:

   i. The total number of registered subscribers.

   ii. The total number of active subscribers.

   iii. The total number of temporary suspended subscribers.

   iv. The total number of deactivated subscribers.

   v. List of blacklisted STBs in the system.

   vi. Channel and bouquet wise monthly subscription report in the prescribed format.

   vii. The names of the channels forming part of each bouquet.

viii. The total number of active subscribers subscribing to a particular channel or bouquet at a given time.

ix. The name of a-la carte channel and bouquet subscribed by a subscriber.

x. The ageing report for subscription of a particular channel or bouquet.

14. The CAS shall be independently capable of generating, recording, and maintaining logs, for the period of at least immediate preceding two consecutive years, corresponding to each command executed in the CAS including but not limited to activation and deactivation commands issued by the SMS.

15. The CAS shall be able to tag and blacklist VC numbers and STB numbers that have been involved in piracy in the past to ensure that such VC or the STB cannot be re-deployed.

16. It shall be possible to generate the following reports from the logs of the CAS:

a. STB-VC Pairing / De -Pairing

b. STB Activation / De-activation

c. Channels Assignment to STB

d. Report of the activations or the deactivations of a particular channel for a given period.

17. The SMS shall be capable of generating bills for each subscriber with itemized details such as the number of channels subscribed, the network capacity fee for the channels subscribed, the rental amount for the customer premises equipment, charges for pay channel and bouquet of pay channels along with the list and retail price of corresponding pay channels and bouquet of pay channels, taxes etc.

18. The CAS and SMS vendors have the technical capability in India to maintain the systems on 24x7 basis throughout the year.

19. Upon deactivation of any subscriber from the SMS, all programme/ services shall be denied to that subscriber.

20. CAS and SMS should able to send OTP to the STB of the subscriber.

21. OTA for the STB should be designed to play only the encrypted channels. If any channel not encrypted it should not play in STB.

22. Any recorded content of the STB should not be played when the STB is in deactivate condition.

Fingerprinting:

1. The CAS/SMS and STB should support both visible and covert types of finger printing.

2. The finger printing should not be removable by pressing any key on the remote of STB.

3. The finger printing should be on the top most layer of the video.

4. The finger printing should be such that it can identify the unique STB number or the unique VC number.

5. The finger printing should appear on the screens in all scenarios, such as menu, Electronic Programme Guide (EPG), Settings, blank screen, and games etc.

6. The location, font colour and background colour of fingerprint should be changeable from head end and should be random on the viewing device.

7. The finger printing should be able to give the numbers of characters as to identify the unique STB and/or the VC.

8. The finger printing should be possible on global as well as on the individual STB basis.

9. The overt finger printing should be displayed without any alteration with regard to the time, location, duration and frequency.

10. Scroll messaging should be only available in the lower part of the screen.

11. The STB should have a provision that finger printing is never disabled.

12. The watermarking network logo for all pay channels shall be inserted at encoder end only.

Q2. As per audit procedure (in compliance with Schedule III), a certificate from CAS / SMS vendor suffices to confirm the compliance. Do you think that all the CAS & SMS comply with the requisite features as enumerated in question 1 above? If not, what additional checks or compliance measures are required to improve the compliance of CAS/SMS?

Yes a certificate from CAS / SMS vendor suffices to confirm the compliance.

Q3. Do you consider that there is a need to define a framework for CAS/ SMS systems to benchmark the minimum requirements of the system before these can be deployed by any DPO in India?

Yes there is a need to define a framework for CAS/SMS system to benchmark the minimum requirements of the system before these can be deployed by any DPO in India because only leading CAS and SMS vendors only compliance to the regulations. But others are not complying all the regulation points.

Q4. What safeguards are necessary so that consumers as well as other stakeholders do not suffer for want of regular upgrade/ configuration by CAS/ SMS vendors?

CAS/SMS vendors should regularly reconcile the logs of their system at least once in a quarter.

Q5. a) Who should be entrusted with the task of defining the framework for CAS & SMS in India? Justify your choice with reasons thereof. Describe the structure and functioning procedure of such entrusted entity.

A committee can be formed with leading Top 5 CAS/SMS vendors Deployed in India, Top 5 Cable TV MSO's and DTH players. This committee can be headed by TRAI and BECIL officials. These committee can define the frame work for CAS & SMS India by analyzing the models adopted globally.

(b) What should be the mechanism/ structure, so as to ensure that stakeholders engage actively in the decision making process for making

test specifications / procedures? Support your response with any existing model adapted in India or globally.

As stated in Q5.a a committee may be formed to ensure that stakeholders engage actively in the decision making process for making test specifications / procedures.

Q6. Once the technical framework for CAS & SMS is developed, please suggest a suitable model for compliance mechanism.

a) Should there be a designated agency to carry out the testing and certification to ensure compliance to such framework? Or alternatively should the work of testing and certification be entrusted with accredited testing labs empanelled by the standards making agency/ government? Please provide detailed suggestion including the benefits and limitations (if any) of the suggested model.

At present for all electronic equipments including STB's are tested by Electronics Test & Development Centre Labs. As like this once the technical framework for CAS and SMS is developed certification can be issued by accredited testing labs empanelled by the government.

(b) What precaution should be taken at the planning stage for smooth implementation of standardization and certification of CAS and SMS in Indian market? Do you foresee any challenges in implementation?

While making implementation of standardization and certification of CAS and SMS it should be ensured that all existing CAS/SMS able to comply. Else existing investments made by DPO's on CAS/SMS and STB's will become absolute.

(c) What should be the oversight mechanism to ensure continued compliance? Please provide your comments with reasoning sharing the national/ international best practices.

As like BIS certification for STB's the compliance certification on CAS/SMS should renewed periodically by the CAS and SMS vendors.

Q7. Once a new framework is established, what should be the mechanism to ensure that all CAS/ SMS comply with the specifications? Should existing and deployed CAS/ SMS systems be mandated to conform to the

framework? If yes please suggest the timelines. If no, how will the level playing field and assurance of common minimum framework be achieved?

Once a new framework is established As like BIS certification for STB's CAS/ SMS vendors can be asked to produce the compliance certificate obtained from the authorized testing labs.

Time line to adopt new framework for existing CAS and SMS can be decided on discussions with the leading Top 5 CAS and SMS vendors deployed in India.

Q8. Do you think standardization and certification of CAS and SMS will bring economic efficiency, improve quality of service and improve end-consumer experience? Kindly provide detailed comments.

Yes standardization and certification of CAS and SMS will improve the quality of service and end consumer experience because, At present leading CAS/SMS vendors only complying the present regulatory points. Some small CAS/SMS vendors having some lack of regulatory points. So this will make delay in activation, deactivation, payments updation and . Due to this consumers are facing difficulty in getting uninterrupted services. So standardization and certification of CAS and SMS will overcome these issues and bring economic efficiency, improve quality of service and improve end- consumer experience.

Q9. Any other issue relevant to the present consultation.

Nil

Sd/-

General Manager (Admin)

//True Copy//Forwarded by Order//

Deputy Collector(Admin)