ALL INDIA DIGITAL CABLE FEDERATION

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29th April, 2016

Mr. S K Singhal Advisor (B&CS)

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

Sub: AIDCFs response to Pre - Consultation on Set Top Box Interoperability

AIDCF (All India Digital Cable Federation) wishes to express its sincere gratitude to the Telecom Regulatory Authority of India (the Authority) for its support and cooperation in the establishment and growth of Broadcasting & Cable TV industry in India. The Federation further thanks the Authority for providing an opportunity to submit comments/ response on the Pre – Consultation Paper on "Set Top Box Interoperability" as issued by the Authority.

As stated by the Authority, the primary objective of this Pre – Consultation is to identify various issues related to interoperability of STBs, the challenges and concerns of the industry.

In this regard, the Federation would like to comment on the questions raised by the Authority which is mentioned below:

Question 01:

In your opinion, what are the concerns that should be taken care of at the time of development of framework of interoperable of STBs?

Answer 01:

The following are the concerns which we think needs to be looked upon very seriously before developing any framework for STB interoperability:

- First and foremost the Authority needs to fix and freeze the standards even before asking for interoperability of STBs. For this the Authority should form at least 2-3 technology groups/ committees. The Authority should also start registering CAS providers in India as today no legal action can be taken against these vendors as they are foreign players and do not operate out of India.
- A basic minimum format should be decided upon, as today, there are MPEG 2 and MPEG
 4 formats which the MSOs are using. As technology improves there might be advanced
 and much better formats in the markets soon and therefore the Authority needs to fix
 the minimum criteria for interoperability of STBs as only MPEG4 boxes with composite

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output will be required in future to take both MPEG2/ MPEG4 formats for SD. Similarly for HD, MPEG4 HD decoder with HDMI, composite output will be required.

- The Authority is requested to decide on the basic technical interoperability features as well. For example: what are the minimum features which should be made available to the end consumers? We say so as all these features which will be proprietary in nature will get developed by difference CAS vendors which will have difference security team with a different set of infrastructure in place. For this a committee needs to be created which will look into all these issues and then come out with a win-win solution for all.
- The authority also needs to look into the important issue of maintaining security of the platform. It needs to keep in mind that MSOs have already invested heavily in purchasing STBs with Phase III which is currently underway and Phase IV which will start knocking our doors in no time and hence MSOs have to recover the costs which they have already incurred. The authority needs to maintain diversity of security solutions and avoid a single standardised solution which can potentially be prone to hacking.
- The authority also needs to look into
 - basic aspects of STB boot loader like Home frequency, Landing LCN, QAM 64/
 256 etc. for basic technical interoperability,
 - smart card and carless CAS as it is related to chipset capability and techno commercial terms,
 - o also the basic memory & flash requirement keeping in mind middleware requirement and compatibility with middleware.

Question 02:

What are the techno-commercial reasons for non-interoperability of STBs other than those mentioned above? Please provide reasons with full details.

Answer 02:

- Any standard solution for non-interoperability of STBs would intensify the additional costs to our member MSOs.
- Subsidized STBs being taken over by alternate companies without compensation. It therefore breaks our member MSOs business models.

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Question 03:

What are the plausible solutions for technical interoperability of STBs and their impact on the sector growth?

Answer 03:

- A standard base with a proprietary replaceable tier on top either hardware (like CAM, cable-cord or USB dongle ability) or something like a USB SC for serious hacking addressability.
- This may significantly increase the cost per box and with any evolving new technology followed by one operator will bring back the challenge of interoperability as the boxes cannot be forward compatible.

Question 04:

Any other issue which you feel will be relevant for development of technical interoperability of the set top boxes.

Answer 04:

- The Authority should form a committee of technical and commercial people who would set out the guidelines and technical framework for the STB interoperability. They should be from MSO/DTH/STB Vendors/BIS/CAS Vendors.
- The Authority should also ensure that the STBs which have already been deployed or are currently lying in stock should be allowed to be seeded in future as well when the interoperability comes into play.

We hope and believe that the Authority will accommodate and consider the comments which the Federation has mentioned above. As an industry we have always co-operated and received indulgence from Authority for the healthy growth of this sector. Also, please note that the Federation is willing to come and explain its comments mentioned above, if the Authority so desires.

Thanking you

Yours truly,

Saharsh Damani

Secretary General

All India Digital Cable Federation (AIDCF)