RESPONSE TO PRE-CONSULTATION PAPER ON SET TOP BOX INTEROPERABILITY

suresh.babu@actcorp.in

sankara.tejasvi@actcorp.in

anand.sarasambi@actcorp.in

KABLE FIRST INDIA PRIVATE LIMITED No.1, 2nd Floor, Indian Express Building, Queens Road, Bangalore-560001.

Introduction:

At the Outset we would like to thank the Authority for publishing the Pre-Consultation Paper on Set Top Box interoperability and giving us an opportunity to furnish our comments.

We feel that STB interoperability would empower consumers to change their cable TV service provider whenever required, without changing their STBs but there are also other issues of uniformity in technology and Cost of STBs rising which have to factored in by the authority during the decision making progress.

Comments on the issues raised

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

Ans: All MSO's should transmit the signal in both MPEG2 as well as MPEG4 format so that older STB's should be capable to receive the signal.

Standard guideline to be issued to all STB manufacturers, to make only MPEG4 STB's from now on.

The main area of concern is having different encryption or Conditional Access (CA) systems used by operators. These CAS systems are integrated with the middleware and the smart card within the STB. Different MSO choose variant STB vendors with different types of middleware. The middleware is the common interface between CAS and Smart Card to descramble the content. The ECM and EMM messages are carried in an encrypted form.

There are variant number of CAS providers globally use their own proprietary technology or algorithm to secure the content, There are also few STB's with built in Chip in the STB rather than the smart card.

Due to the unique and private methods of EMM & ECM encryption techniques, the content is decrypted to access the control word for viewing, is be decrypted only by their own smart cards or chip on board. This ensures they can't be pirated easily. The algorithms used for ECM/ EMM encryption are not standardized. This makes STB's to get locked and configured to a single operator.

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

Ans: Few operators use proprietary software for STB in order to support various applications such as Electronic Programmable Guide (EPG) with private descriptors which force the user to use their own integrated STB.

 Each operator also needs to put in proprietary authentication lock and proprietary Value Added Services to create differentiator. This lock to be removed whenever the user moves to

a different operator. The new operator will upload his proprietary firmware OTA to the box of the acquired customer. Co-ordination with the CAS vendor is required to remove the STB MAC Id's when it moves to different operator.

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

Ans: Guidelines have to be made to all STB manufacturers to ensure their middleware should be compatible and tested with a registered list of CAS vendors. This means that the STB has to be integrated with all the CAS vendors and their encryption techniques.

All existing STB vendors need to provide a new firmware/middleware version which can be uploaded OTA to the already deployed STB's whenever the customer choses to change his operator.

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

Ans: Currently there are MSO's and DTH operators who are providing the solutions to the

customers. All existing DVB-C STB's cannot work in DTH operator network and vice-versa, since there is hardware tuner dependency. The inter-operability of STB's will be limited to this extent.

All new STB's should be developed with both DVB-C and DVB-S tuners, which can be configured.

****