9th December, 2019

To,
Sh. Anil Kumar Bhardwaj,
Advisor (B&CS),
Telecom Regulatory Authority of India ('TRAI')
Mahanagar Door Sanchar Bhawan,
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Sub: Response to the Consultation Paper on Issues related to Interoperability of Set Top Box

Dear Sir,

At the outset, we, Sony Pictures Networks India Private Limited, would like to thank TRAI for providing us an opportunity to participate in this consultation process and submit our response to the Consultation Paper dated 11th November, 2019 on Issues related to Interoperability of Set Top Box ("Consultation Paper").

Please find enclosed our response to the aforesaid Consultation paper. We hope that our submissions shall be considered favorably by TRAI.

Thanking you,

Yours Sincerely,
For Sony Pictures Networks India Private Limited

Pranali Parekh
Associate Legal

Encl: As above.

Go-Beyond

<u>Comments of Sony Pictures Networks India Private Limited on the Consultation Paper dated 11th November, 2019 on issues related to Interoperability of Set Top Box</u>

Q1. In view of the implications of non-interoperability, is it desirable to have interoperability of STBs? Please provide reasoning for your comment

Comments- At the outset, we believe that there are apprehensions on the ECI standard by various stakeholders when it was drafted and hence the Authority should not be in a hurry in finalizing it. Adequate tests and safeguards should be taken before finalizing any standard. Some consortiums are also talking of a much advanced ECP standard. Also we have apprehension about the broadcaster FP in an interoperable environment – whether the same would pass through. All these issues needs to be addressed before any implementation of interoperability of STBs. While no doubt Interoperability of STBs among the platforms can be a boost to the subscribers, but it shouldn't happen at the cost of content security. The security of the content is of highest importance to the Broadcaster and adequate safeguard measures need to be taken in case interoperability of STBs is proposed to be implemented. There should not be dilution of the anti-piracy security features while making the STBs interoperable. Only on the condition that interest of the broadcaster in relation to its content is being taken care of and no compromise is made in that regard under any circumstances whatsoever, we believe that it would be desirable to have interoperability of STBs since it would benefit the consumers at large. Subscribers would be able to shift to any other DPOs in case of deficiency in services on the part of the existing DPOs. However, it should also be ensured that when the consumers are opting for shifting to other DPOs they should not be charged any additional activation fees. Lastly, we reiterate, while the intent of interoperability is noble, it should not be at cost of broadcaster's content security being compromised thereby exposing the broadcaster to a high risk of revenue leakage.

Q2. Looking at the similar structure of STB in cable and DTH segment, with difference only in the channel modulation and frequency range, would it be desirable to have universal interoperability i.e. same STB to be usable on both DTH or Cable platform? Or should there be a policy/ regulation to implement interoperability only within a platform, i.e. within the DTH network and within the Cable TV segment? Please provide your comment with detailed justifications.

Comments- Universal inter-operability of STBs in Cable and DTH looks non-feasible in given conditions. There are different methods of encryptions, modulations, compressions and the operating systems involved in the current lot of installed STBs and CAS.

Algorithms differ from one manufacturer (STB & CAS) to another and it is proprietary in nature. So, it is difficult to make it universal. Also, safeguarding the security concerns of the content owners is an issue. Even today with proprietary algorithms, the piracy is all prevalent and there are very few systems which are not capable of being hacked.

As a pilot project, Regulator can introduce the interoperability within the Cable or DTH and later can look into transition of the same and make it universal interoperability if found feasible.

Q3. Should interoperable STBs be made available through open market only to exploit benefits of commoditization of the device? Please elaborate.

Comments- Once the policy decision taken, STBs can be made available through open market, provided all the security features are foolproof and governed by Regulations to ensure checks and balances. Also, purchase of STBs should follow KYC norms.

Q4. Do you think that introducing STB interoperability is necessary with a view to reduce environmental impact caused by e-waste generated by non-interoperability of STBs?

Comments-   There may not be any significant environmental impact due to e-waste since in the current regime of non-operability of STBs, the DPOs are reusing the STBs by connecting new consumers with the same STBs. But the introduction of a new inter-operability standard would make all existing systems redundant, which will generate a huge amount of e-waste. Hence, the adoption of interoperability should be done in a phased manner to avoid disruption and black outs.

Q5. Is non-interoperability of STBs proving to be a hindrance in perfect competition in distribution of broadcasting services? Give your comments with justification.

Comments- Non-interoperability is not a major hindrance in distribution of broadcasting services. Presently even when a subscriber wants to change the platform, the earlier DPO takes back his STB and the new provider gives his box at nominal price basis the various schemes introduced by him. We feel that the current system (non-interoperability) is not a hindrance to the distribution of broadcasting services. The current system has been in place for over 15 years and stood the test of time.

Q6. How interoperability of STBs can be implemented in Indian markets in view of the discussion in Chapter III? Are there any software based solution(s) that can enable interoperability without compromising content security? If yes, please provide details.

Comments- According to us as on date there are no foolproof solutions / systems available in the market. Hence there are chances of the content security being compromised due to interoperability unless adequate care and caution are taken to prevent the same as stated aforesaid.

Q7. Please comment on the timelines for the development of eco-system to deploy interoperable STBs for your recommended/ suggested solution.

Comments: We are unable to comment on any definite timelines. However, any implementation must be done in a phased manner to avoid further disruption and potential black out of signals due to unavailability of secure and tamper proof STBs.

Q8. Do you agree that software-based solutions to provide interoperability of STBs would be more efficient, reduce cost of STB, adaptable and easy to implement than the hardware-based solutions? If so, do you agree ETSI GS ECI 001 (01-06) standards can be adopted as an option for STB interoperability? Give your comments with reasons and justifications.

Comments- As of now we are not aware of both the solutions mentioned above. However, w.r.t ECI, we feel that there is anxiety amongst the stakeholders on the ECI standards as they are of the view that ECI does not meet the content security and technology needs of major content providers. The proposed ECI standards

does not meet ECP standards which describes high-level security requirements for the distribution of content. Also, ECI does not require watermarking and does not create a secure location for a watermark. Watermarked content is crucial as it helps in identifying data breaches and protects content stored on computer servers. Detailed analysis and evaluation would be required in respect of software based solutions and hardware based solutions to arrive at a conclusion as to which one is more effective.

Q9. Given that most of the STB interoperability solutions become feasible through a common agency defined as Trusted Authority, please suggest the structure of the Trusted Authority. Should the trusted authority be an Industry led body or a statutory agency to carry out the mandate? Provide detailed comments/ suggestion on the certification procedure?

Comments- Trusted Authority (TA) should be an independent, technically proficient Industry Licensing Authority which can vouch for the security of the Systems through the process of fabrication of key ladders which are fused into the SoC (System on a Chip). However, by shifting compliance responsibility on the TA, it may be difficult to test compliance checks.

Q10. What precaution should be taken at planning stage to smoothly adopt solution for interoperability of STBs in Indian market? Do you envisage a need for trial run/pilot deployment? If so, kindly provide detailed comments.

Comments- Since Indian TV distribution is a vast market and it affects millions of people, proper precautionary measures to be taken prior to the execution. So, trial runs or pilot projects are required, if at all a suitable solution comes up.

This can be tested at small networks initially and later on in a particular town with multiple network at a time. Also, it should be tested in networks having multiple types of STBs and Conditional Accesses (CAS). Also, the issue of STBs for DD Direct needs to be resolved.

Q11. Interoperability is expected to commoditize STBs. Do you agree that introducing white label STB will create more competitions and enhance service offerings from operator? As such, in your opinion what cost reductions do you foresee by implementation of interoperability of STBs?

Comments- We feel that interoperability of STBs would enhance service offering from the operator. The Operator would also be in the fear of losing its subscribers in case of deficiency in services and hence would ensure enhanced service offering to its existing subscribers for retaining them. Also, this will be beneficial to the customers and will help retain customers in the same distribution ecosystem. Otherwise if frustrated by one distributor, the customer may not like to again spend money to procure other STB for moving to another distributor and may decide to go to other modes of delivery (like digital etc) or OTT.

Q.12 Is there any way by which interoperability of set-top box can be implemented for existing set top boxes also? Give your suggestions with justification including technical and commercial methodology?

Comments- The existing CAS / STBs and their algorithms / control words are proprietary in nature and varies with the vendors. For e.g. vendors like NDS, Conex, Irdeto etc will have their own algorithms which would be inbuilt in the STBs for a particular CAS. Hence it will not be possible to integrate the existing STBs with other CAS unless there are some modules to integrate the same. However, going forward, after a suitably agreed cut-off date, all STBs can have interoperability (subject to proper security environment). Only the Smart Card or the software based authorization should come from the DPO and the STBs may be freely available in the market which are compatible for both DTH/Cable modes

Q13. Any other issues which you may like to raise related to interoperability of STBs

Comments- We would like to ensure that TRAI takes note of all the aforesaid critical issues being raised by us. Further, interoperability system should ensure that where multiple feeds are taken by the operator, subscriber switch is made. We must also point out that the industry is having to deal with many regulatory changes almost simultaneously. The migration to the NTO has taken time and also resulted in a drop in the overall subscriber base. Upgrading of infrastructure requires capital funding which is scarce. Hence, any attempt at a systemic change that requires capital investment and consumer education needs to be thoroughly debated and discussed- on the pros and cons before a final decision is taken.