Response/Comments to the specific queries to the consultation paper dated 11th November 2019:

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

Response: It is always good to have interoperability of STBs as already mentioned in various TRAI consultation papers and other available literatures. As on today this segment is extremely vertically fragmented with almost zero interplay between verticals. Major advantages of interoperability are reduction in e-waste, benefit to the end consumers and industrial growth by opening up of the segment.

 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 Response with detailed justifications.

Response: Technically may be feasible, but this should not be attempted in the first phase as part of STB interoperability initiative. First phase of interoperability should focus on interoperability within Cable and DTH segments separately.

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

Response: Yes surely, it will.

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

Response: It is important to conserve our environment and the planet for a better and safer living place. There are various ways of reducing e-waste including STB interoperability.

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

Response: Yes, non-interoperability of STB is a major hindrance for perfect competition today. Consumers are the ultimate sufferers.

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.

Response: An approach such as mobile phone and SIM will be very convenient and all efforts shall move towards this kind of solution.

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

Response: As seen in different news items, about prototype solutions already developed by C-DOT & TRAI, this should be rolled out fast, rather than thinking of a new approach and starting everything altogether now again. Already developed solution can be fine-tuned, if needed to suit the field requirements. This will save time, else a new approach will only delay the rollout and consumers of the country will be denied all the advantages.

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 Responses with reasons and justifications.

Response: Not sure if software based solutions are really safe and easy to practically rollout in a country like India.

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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 Responses/ suggestion on the certification procedure?

Response: No Responses but this entity shall be neutral.

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 Responses.

Response: Precautions should be taken such that no more delays occur in pilot trial and then rollout. Foreign technology/products so far as possible shall be avoided and preference to be given to indigenous solutions.

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?

Response: Yes it will help in cost reduction after sometime.

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?

Response: Not sure, if it is technically possible to make changes needed for interoperability in already seeded STBs. If technically not possible, atleast go for interoperability in new STBs from now onwards.

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

Response: Hurdles and resistance will surely be there to rollout any such solution/regulations/initiatives. A pilot trial to be successfully conducted with support from government/TRAI and then rollout is to be done in a phased manner.