

April 29, 2016

To

Telecom Regulatory Authority of India ("TRAI")

Mahanagar Doorsanchar Bhawan,

Jawaharlal Lal Nehru Marg, New Delhi – 110002

Ref: Pre- Consultation paper dated April 4, 2016 on the Set Top Box Interoperability
("Pre-Consultation Paper").

Dear Sir,

We, IndiaCast Distribution Private Limited, show our appreciation to this opportunity extended to the stakeholders to participate, by way of this Pre-Consultation Paper and the cause thereof.

With best effort to assist your authority in analysing the market reality and various issues relating to implementation of interoperability, we humbly submit our comments to the Pre- Consultation Paper for your kind perusal.

For any further clarification you may write to us or contact us.

Yours Sincerely,

For IndiaCast Distribution Private Limited




Authorized Signatory



COMMENTS/RESPONSE OF
INDIACAST DISTRIBUTION PRIVATE LIMITED
TO THE
PRE-CONSULTATION PAPER ON
SET TOP BOX INTEROPERABILITY
DATED 4th APRIL, 2016

We write in response to the Pre-Consultation Paper issued by TRAI dated April 04, 2016, on Set Top Box Interoperability. Interoperability demonstrates the combination of protection of the consumer interest and the component of promoting competition and growth in the market.

Authorities have earlier observed and mandated interoperability in the DTH platform. In the DTH platform, technical interoperability of the consumer premises equipment ('CPE') is a condition under which a license is issued to a DTH operator by Ministry of Information and Broadcasting, in terms of Section 4 of The Indian Telegraph Act, 1885 and Indian Wireless Telegraphy Act, 1933. The license requires that the STB to be open architecture (non-proprietary) and ensures technical compatibility and effective interoperability among different DTH operators with compliance to the specifications as laid down by the Government from time to time. Furthermore, Bureau of Indian Standards has also stipulated that an STB shall be open architecture (non-proprietary) and shall ensure technical compatibility and effective interoperability amongst different DTH service providers in India. Commercial interoperability of the CPEs in DTH platform has also been experimented and notified *vide* various regulation/orders:

1. The Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007; and
2. The Telecommunication (Broadcasting and Cable) Services (Sixth) (The Direct-to-Home Broadcasting Services) Tariff Order, 2013 repealed and notified the Telecommunication (Broadcasting and Cable) Services (Seventh) (the Direct to Home Services) Tariff Order, 2015 (2 of 2015) dated April 01, 2015.

The guidelines issued by the Ministry of Information and Broadcasting for provisioning of Internet Protocol Television (IPTV) Services stipulates as below:

“(xii) The IPTV service provider either a telecom licensee or a cable operator should provide commercial interoperability so that if the subscribers decide to switch over to any other service provider or platform they should be able to do so at least cost. Commercial interoperability here would mean that in addition to offering the receiver set on an outright purchase basis, a subscriber should also have the option to purchase it on a hire-purchase basis or on rental basis with a provision to return the receiver set on such terms and conditions as may be laid down by regulations issued by TRAI.”

Further interoperability of the CPEs/STB across all platform is in the best interest of the general public/subscribers. Considering a situation in which a subscriber surrenders his connection because of the Operator's services being deficient, not referring to inefficient customer care services and the like but to situations in which an Operator stops showing channels of one or

more broadcasters on its platform. For example, due to a commercial dispute, an operator ceases to retransmit the channels of a particular broadcaster. Another aspect of interoperability is the interoperability of the conditional access platform.

A. Background:

Preliminarily we wish to briefly outline the evolution of the regulation and the developments in terms of the interoperability of the Set Top Box (“STB”) in the Industry.

1. August 25, 2006 recommendation of TRAI on “Licensing issues relating to DTH”:-

The Ministry of I&B, Government of India, had sought recommendations of TRAI on the licensing issues relating to DTH services. The primary issue was whether there is any need for amendment of the license conditions to exclude personal video recorders (PVRs) /digital video recorders (DVR)s from the requirement of interoperability as mandated in clauses 7.1 and 7.2 of the DTH License Conditions.

Articles 7.1 and 7.2 of the DTH License Agreement lay down the following conditions regarding interoperability.

“7.1 The Open Architecture (non-proprietary) Set Top Box, which will ensure technical compatibility and effective interoperability among different DTH service providers, shall have such specifications as laid down by the Government from time to time.

7.2 The Licensee shall ensure subscribers interests through a Conditional Access System (CAS), which is compatible with an open Architecture (non-proprietary) Set Top Box.”

It has been observed by the TRAI that:-

“2.9 It has emerged during the consultation process that it is possible for a STB with a PVR to be technically interoperable for reception of DTH service as well as for the recording, fast forward, rewind and pause functionalities. However, the Electronic Programme Guide (EPG) and Video On Demand functionalities and other advanced features are unlikely to be interoperable.

2.10 While it may be in the interest of consumers to have as many interoperable functionalities as possible, the technical and cost considerations rule out mandating interoperability for advanced features at present. In case of a change in service provider, the disadvantage to a consumer may be of losing a part of the STB functionalities.

2.11 At the same time, the consumer should be aware of possible loss of part of functionalities of an advanced STB with a PVR in case of a change in service provider so that he/she can make an informed choice. The issue of interoperability has also to be viewed in the context of similar provisions for Cable TV, since both the platforms compete with each other in providing pay TV services. In the case of Cable TV there is no requirement of technical interoperability. Instead, the Authority has opted for commercial interoperability for Cable TV (commercial interoperability means the requirement to provide a rental option for STB to the consumers so that they can switch from one service provider to another service provider, if they so wish without taking STB with them).”

Accordingly, the Authority recommended the following:-

- “• There should not be any amendment in Articles 7.1 and 7.2 of the DTH License Agreement which mandate technical interoperability among DTH service providers.
- The license conditions should be amended to provide for casting an obligation on the service provider to inform and educate the consumers about the limited technical interoperability of the Set Top Boxes with Personal Video Recorders/Digital Video Recorders.
- The DTH Service Providers should also be encouraged to provide Basic or Advanced Set Top Boxes to consumers under rental schemes, but there should be no dilution in the technical interoperability conditions as they exist today.”

The Ministry again sought the recommendations on the issue of interoperability of set top box. The Authority *vide* its recommendation dated January 30, 2008, recommended retention of existing technical interoperability conditions and updating of standards for set top boxes, as below:

- “i. There is no need for doing away with the existing technical interoperability conditions. The issue of revision of BIS standards for DTH set top boxes should be taken up by the Government with the Bureau of Indian Standards so that the standards laid down by BIS for DTH Set Top Boxes are updated for advanced technologies. Revision of standards should be prospective and should apply to DTH subscribers who are enrolled after six months from the date of such revision. Such revision should not compulsorily require the DTH operators to upgrade the STBs of existing subscribers to conform to revised standards, though they would be free to do so on their own.
- ii. Clause 7.1 of the DTH license conditions should be amended to read as under:-

“7.1 The Open Architecture (non-proprietary) Set Top Box, should be such as to ensure technical compatibility and effective interoperability among different DTH service providers. The DTH Set Top Boxes supplied to the subscribers shall have such specifications as laid down or as revised by the Government from time to time. However, in cases of revision of specifications such revisions will be applicable prospectively to new subscribers, and the licensee will have a transition period of six months from the date of such revision to ensure full compliance with the revised specifications for the new subscribers.””

Further, TRAI reiterated in July 23, 2014 in response to the Ministry’s reference. TRAI recommended retention of existing technical interoperability conditions and updating of standards for set top boxes, as below:

“i. The license condition prescribed at clause 7.1 of the existing DTH Guidelines should be replaced with the following clause:

“The Set Top Box offered by a DTH service provider shall have such specifications as laid down by the BIS from time to time.”

ii. BIS should come out with updated specifications for STBs from time to time and while doing so, BIS shall consult TRAI.

iii. The license conditions should mandate the licensee to comply with the tariff order/scheme prescribed by TRAI for commercial interoperability.”

2. Consultation Paper dated March 2, 2007:

The regulatory issues relating to DTH set top box were taken up. It was identified that issue in the case of the Set Top Box is that the consumer is required to make an upfront payment to acquire this piece of equipment. If he /she later finds the service not up to the desired levels there should be some mechanism by which he/she can exit the scheme. This can be done in one of two ways: either through the route of technical interoperability or commercial interoperability. In the DTH platform the License conditions prescribe Technical Interoperability.

The consultation paper raised following issues regarding set top boxes for DTH services, namely:-

“(i) Whether the requirement of technical interoperability of set top boxes incorporated in the licence conditions gives an effective exit option to the subscribers. If not, how can these conditions be made consumer friendly through alternative schemes?

(ii) Whether offering the rental or buy back option for DTH Receiver Equipment (set top box along with dish antenna and associated hardware) should be made compulsory for DTH service providers?

(iii) If so, whether the one time deposit and the monthly rentals or the details of the buy-back scheme should be regulated?

(iv) What should be the other conditions regarding such rental options or buy back scheme? Between the rental and the buy-back scheme, should any order of preference be indicated?

(v) If the rental option or buy back scheme is made compulsory, should the condition of technical interoperability be done away with or suitably modified?"

Views of the stakeholders were ascertained on adequacy of technical interoperability of set top box as an effective exit option for the subscribers. Consequently, the Authority notified the Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007. The said regulations make it obligatory on the part of DTH operators to provide set top boxes to subscribers on outright purchase basis or on hire purchase basis or rental basis. These Regulations came into effect from December 1, 2007 onwards.

3. The Direct to Home Broadcasting Services (Standards of Quality of Service and Redressal of Grievances) Regulations, 2007:

8. Prohibition to disable Direct to Home Set Top Boxes.-----

In case the direct to home subscriber does not owe any dues (including any arrear towards installments of hire purchase scheme or arrears of rent for the Direct to Home Customer Premises Equipment of such operator) to a direct to home operator, such operator shall not disable the Direct to Home Set Top Box of such subscriber who does not intend to continue to opt or avail direct to home services offered by such direct to home operator and uses or intends to use the Direct to Home Customer Premises Equipment for viewing the direct to home services of Doordarshan or any other direct to home operator.

4. Tamilnadu Progressive Consumer Center Vs. Ministry of Information & Broadcasting & Ors., Petition No. 60 (C) of 2010 (With M.A. Nos. 261 of 2010 & 136 of 2011) dated 3rd June, 2011:

In the matter of *Tamilnadu Progressive Consumer Center Vs. Ministry of Information & Broadcasting & Ors.*, Petition No. 60 (C) of 2010 (With M.A. Nos. 261 of 2010 & 136 of 2011) dated 3rd June, 2011 –

Alleged that interoperability, which has been compulsorily mandated in the license issued to DTH operators, is not being seriously pursued by a majority of DTH operators. After hearing, Hon'ble TDSAT on 3rd June, 2011, had advised the Union Government and TRAI to go back to the stakeholders and come up with a solution on the contentious issue in a time bound manner. Hon'ble TDSAT also stated that the Union Government must issue appropriate directions to the Bureau of Indian Standard (BIS) to lay down the standards for MPEG-4 technology. The tribunal also held that the DTH operators were bound to comply with the conditions of the license issued:

The relevant para is as under:

“145. It is, however, difficult to agree with the submission of the Learned Counsel for respondent No. 8 that the supply of STB is not a statutory condition. If that be so, it was not necessary for it to supply. It could have asked the consumers to purchase it from the market. But once the conditions of license provided for end to end service and it's job is not only to decoding the signal and not only uplinking and downlinking but also render services so as to comply with the compatibility clause. It was bound to do so.”

5. 2011 – Introduction of CAM Card:

In August 2011 Dish TV had released conditional access module (CAM) cards under the branding of Dish freedom. These CAM cards could be inserted into the empty CAM slots in your existing SD or HD STB's and you could easily switch from your current DTH operator to Dish TV. But this concept didn't take off in the market at that time and Dish TV quickly stopped this offering. Some of the drawbacks are such as the Dish needing to be aligned to the satellite of the new operator and the inability to watch Video on demand content which is only configured in the STB to work with the original operator, also MPEG-4 signals will not work with an MPEG-2 STB.

6. 27th May, 2013 - The Telecommunication (Broadcasting and Cable) Services (Sixth) (The Direct-to-Home Broadcasting Services) Tariff Order, 2013 (No. 2 of 2013):

Tariff Order (TO) namely the Telecommunication (Broadcasting and Cable) Services (Sixth) (The Direct-to-Home Broadcasting Services) Tariff Order, 2013 (No. 2 of 2013) was notified by

the Authority. The intent of this tariff order was, amongst others, to provide an easy exit option to subscribers and, at the same time, to protect the interests of the service providers. The said tariff order, inter-alia, prescribed standard tariff packages for CPEs, to be offered mandatorily by all DTH operators. However, this TO was challenged by a few of DTH operators in the Hon'ble Telecom Disputes Settlement Appellate Tribunal (TDSAT).

The Hon'ble TDSAT through its order dated 1st October 2014, while maintaining that TRAI has jurisdiction under section 11 of the TRAI Act to regulate the tariff of the STB along with other elements of CPE, set aside the said TO.

“.....we find that the STB has a direct nexus and is inextricably linked with the delivery of service and no delivery of service is possible without it. A vanilla STB can only be used to decompress and decode the signals for viewing on a TV and has no other standalone value in the hands of the subscriber. There being no technical interoperability between the STBs provided by different service providers, the same has to be compulsorily taken from the DTH operator as part of the DTH service and is, therefore, a part and parcel of the service provided by the DTH operators. That being the case, the respondent-TRAI has jurisdiction under section 11 of the TRAI Act to regulate the tariff of the same along with other elements of CPE.”

The operative part of the said order states as under:

“.....we find that some elements of cost have not been taken into account and issues raised by the appellants have not been fully addressed by the respondent while passing the impugned tariff order and the same is, therefore, not tenable. The impugned tariff order is accordingly set aside. However, we make it clear that it will be open to the respondent-TRAI to issue a fresh tariff order after taking into consideration the inputs provided by the appellants and addressing the issues raised by them.”

Hon'ble TDSAT has also stated that, in its view, the following issues, raised by the appellants in their appeals, have not been satisfactorily addressed by TRAI:

- (a) Certain important elements of costs of the consumer-premises-equipment (CPE) such as antenna, LNBF, viewing card and connectors, and factors such as foreign exchange rate variations and custom duty have not been taken into account by TRAI in the TO;
- (b) TRAI has not considered the 'modicum of profit' to the operator over the procurement cost of the CPE while making it available to its subscribers;

(c) Aspect of financing of the subsidy, which the operators give on the price of STB and is required to be recovered from subscribers, has not been considered by TRAI in its Tariff order;

(d) In the Tariff Order there is no protection to the appellants (DTH operators) in the event a customer defaults before paying off all the instalments;

7. April 01, 2015 - The Telecommunication (Broadcasting and Cable) Services (Seventh) (the Direct to Home Services) Tariff Order, 2015 (2 of 2015):

The Telecommunication (Broadcasting and Cable) Services (Seventh) (the Direct to Home Services) Tariff Order, 2015 (2 of 2015) dated April 01, 2015 –

(The said tariff order is sub-judice before the Hon'ble TDSAT)

Explanatory memorandum:

Point 2. The Authority has noted that a DTH subscriber gets tied down to an operator once he is subscribed to that service provider. This is because generally, the consumer premises equipment (CPE) of one operator is incompatible with network of another operator/platform. Therefore, if a subscriber wishes to migrate to another operator/platform, he has to again procure a new CPE that is compatible with the network that he wishes to migrate to and the existing CPE is of no use to him. The Authority has also observed that there is a lack of transparency in various schemes offered by operators in the market and the charges levied on the subscriber. The Authority believes that a subscriber must be aware of all the terms and conditions of various schemes and the charges levied therein by the DTH operators. This empowers him to choose his platform/operator for reception of TV signals and also have the flexibility to migrate between operators/platforms without being tied down to a single operator/platform.

Point 3. To address all these issues, there needs to be a mechanism wherein the subscriber has the option to return the earlier CPE back to the erstwhile operator and claim an appropriate refund/payback. This can partially offset the cost of the new CPE that needs to be acquired by him. The erstwhile operator can also reuse this returned CPE in his network. A framework for commercial interoperability enables an effective mechanism to be put in place to achieve this objective. Commercial interoperability is also expected to promote fair competition and discourage monopolistic practices among DTH operators thereby enabling orderly growth of the sector. Given this background and the objective, the Authority has decided to notify this Tariff Order on commercial interoperability of CPEs

for DTH services enabling subscriber to chose operator/platform of his choice and enhancing transparency of charges levied.

Regulation:

“5. Refund on surrender of connection –

(1) The DTH operator shall give to every subscriber an option to return the customer premises equipment in all schemes and for all types of the customer premises equipment: Provided that there shall be no obligation on DTH operator to take back the customer premises equipment if it is tampered with or is not in a working condition at the time of its return.

(2) On return of the customer premises equipment by the subscriber, DTH operator shall refund,-

(a) if the customer premises equipment has been acquired under the standard scheme, the total depreciated value of the said equipment; Provided that if the subscriber discontinues DTH services during the lock-in period and returns the customer premises equipment, DTH operator may deduct, from the amount paid by the subscriber, the depreciation charges for the entire lock-in period.

(b) if the customer premises equipment has been acquired under a rental scheme, the amount paid by the subscriber as the interest free refundable security deposit.

(c) if the customer premises equipment has been acquired in a scheme other than the standard scheme and rental scheme, the amount paid by the subscriber for the customer premises equipment, after deducting the amount of depreciation applicable on such customer premises equipment under the standard scheme:

(3) The depreciation on the price of the customer premises equipment specified by the DTH operator under clause 4 shall be calculated using straight line method at the rate not exceeding 1.7 per cent for every completed calendar month or part thereof.

(4) The DTH operator shall designate one collection centre in every district headquarter for surrender of customer premises equipment.

(5) Every DTH operator shall provide a toll-free telephone number for registering the request of the subscriber for return of the customer premises equipment and shall display the details of such toll-free telephone number on its website.

(6) The DTH operator shall, on the request of the subscriber, collect the customer premises equipment from the premises of the subscriber and may deduct an amount not exceeding rupees three hundred as the collection charge from the amount refundable to the subscriber. Provided that the DTH operator shall not charge any amount as collection charge from the subscriber if the subscriber deposits the customer premises equipment at the designated collection centre of DTH operator.

(7) The DTH operator shall not deduct any other charges by any other name from the amount refundable to the subscriber on return of the customer premises equipment.

(8) There shall be no obligation on the DTH operator to make any payment to the subscriber for the return of customer premises equipment after five years from the date of its purchase by the subscriber.

(9) Every DTH operator shall, within fifteen days of receipt of a request from the subscriber, collect the customer premises equipment from the premises of the subscriber.

(10) Every DTH operator shall, within fifteen days of the receipt of the customer premises equipment, ensure payment of the amount refundable to the subscriber.”

Also under Clause 6 – Publication sub clause (4) –

“Every DTH operator shall specify the details of the amount refundable to the subscriber on the return of the customer premises equipment as specified in Schedule II to this order and publish them on its website.”

B. Issues on interoperability:

1. *In your opinion, what are the concerns that should be taken care of at the time of development of framework of interoperable of STBs?*
2. *What are the techno-commercial reasons for non-interoperability of STBs other than those mentioned above? Please provide reasons with full details.*
3. *What are the plausible solutions for technical interoperability of STBs and their impact on the sector growth?*
4. *Any other issue which you feel will be relevant for development of technical interoperability of the set top boxes.*

With regards to the issues highlighted by TRAI, we hereby submit a consolidated response. We would like to draw the attention of TRAI on the following subjects:

1. TRAI should notify a cut off timeline for provisioning and phase wise implementation (in line with the mandatory implementation of DAS) of interoperability;
2. TRAI may suggest a standard pricing for for interoperable SD, HD STBs (vanilla boxes) to be notified to consumers. Pricing for interoperable STBs with PVR, gaming functionality, 4k etc., should be left to STB manufacturers/DTH operators/market forces to determine. This will give an additional incentive to STB manufacturers/DTH operators to compete & keep innovating the technology and meet consumer requirements.
3. TRAI should introduce a uniform mechanism which would mandate a strict compliance to the CAS/STB vendors in order to ensure that the broadcasting content remains all time secured & no hacking/cloning of STBs happens.
4. Should the consumers be given option of subscribing to multiple service provider through a single STB for example integrating multiple CI slots? This would provide freedom to the customers to choose thereby increasing competition in the market.
5. CAM card return policy from the customer should be mandated, TRAI may introduce a fixed timeline for such retrieval. In the event the customer has stopped subscription of services, the CAM card may be reissued and used by a new consumers.
6. TRAI should also consider the scenarios where a customer desiring to migrate from one platform to another for example a DTH customer desiring to avail a Cable TV service from a DPO. We suggest that the customer shall be allowed to submit the used CPE/STB to the new service provider in exchange of the new CPE/STB (in case of technical non compatibility) with adjustment of depreciation costs etc., and the exchange or retrieval of the used CPE/STB shall vest between the service providers amongst themselves.

It is relevant to bring to the attention of TRAI that some of the operators in their affidavit filed in the Hon'ble TDSAT in the Petition No 60 (C) of 2010 (Tamilnadu Progressive Consumer Centre (TPCC) v/s Ministry of Information and Broadcasting and others) have admitted that they are issuing equipment which are technically interoperable and are following the BIS notified standards/norms for the same. Now, the primary condition requisite in implementation of the STB interoperability is the acceptance of this model by the stakeholders. Regulation has also introduced commercial interoperability. However, on ground reality, the commercial interoperability is a less viable option for the end consumers. It is also definitely evident that interoperability would be more meaningful if TRAI implements a mandate for technical interoperability of the STB. Also, from the operator's position commercial interoperability is less

practical, considering the costs and manpower associated in the retrieval process of the CPE/STB. The CPE activation charges, replaceable CPE collection charges and visiting fees should be regulated taking into account the service areas covered, conveyance costs, nature of complaints, manpower associated would be required for collection, and manpower required to cater to different categories of complaints and the like. Also, in the event, if the consumers are allowed to procure equipment from the open market, then TRAI should entail provision addressing issue of purchase of the STBs of approved quality (as specified by BIS).

Another aspect for consideration before the TRAI would be the intra interoperability across different distribution platforms. For example a technical interoperability within DTH service providers will not provide the option to migrate from an IPTV service provider for which a different STB/CPE will be required. Commercial interoperability in that context is a better option. Another issue that requires the attention of TRAI is the calculation of the depreciation costs of the CPEs calculation and vendors selection of the equipment.

Our opinion on the most feasible models hosted by far, is the adoption of separate conditional access module ('CAM') and STBs featuring a common interface. TRAI has already mandated CI slot featured STBs to be deployed by the DTH operators. If CAM card is adopted widely in the market then the economies of scale are achievable.

As a measure to address the issue of non-compliance of the standards of interoperability by the service provider, TRAI must cast an obligation on the service providers and the licensing conditions should also entail the same even in the Cable TV platform.

Contrary to any as aforesaid, new technologies provide efficient use of available spectrum and transponder space. If a particular technology has been mandated considering the interoperability, the norms and standards of interoperability technology should not form a firewall to any migration to an advanced technology.

With this, we would like to thank TRAI on its constant effort to analyse various aspects and address the issues relating to interoperability and also to bring focus on its impetus for the best interest of the consumers and healthy competition and welfare of the industry.