Date: 6th September 2010

To

Principal Advisor (B & CS)

Telecom Regulatory Authority of India

Mahanagar Doorsanchar Bhawan

Jawahar Lal Nehru Marg

New Delhi – 110 002

Kind Attention: Sh. N. Parameswaran

Subject: Response to the Consultation Paper No. 11 / 2010 on Technical Interoperability of DTH Set top Boxes dated 20 August issued by TRAI

Dear Sir,

We take this opportunity to welcome the initiatives taken by TRAI for promoting digitalization and addressability. We also appreciate the issues offered for consultation in relation to the Interoperability of DTH Set top Boxes.

In view of the issues highlighted in the Consultation Paper, we present our views as under:

Query

3.1 Is it possible to have an Open Architecture based Set Top Box (STB) for DTH services that could ensure technical interoperability i.e. technical compatibility and effective interoperability among different DTH operators who have adopted same or different standards?

Response

It is not possible to have an Open Architecture based Set Top Box (STB) for DTH services that could ensure technical interoperability i.e. technical compatibility and effective interoperability among different DTH operators who have adopted same or different

standards. Use of different CAS, compression, encryption, middleware and EPG make the STB proprietary and hence such STBs cannot be 100% inter-operable. Technical interoperability is possible only by way of a CAM and authorized card from the respective operator, which is the case today. Even with an Open Architecture-based STB for DTH, it is not possible to make it work across any operator without a CAM (only Card) unless the Conditional Access (read security) software for each type (used across platforms) is ported on such a box to make it work for decoding.

- **Inter and Intra interoperability is not possible**

We submit that both Inter (in between) and Intra (within) operator interoperability is not possible amongst different DTH operators since they have been permitted over the last three years to adopt different standards. The Ministry of Information and Broadcasting has stated that if the DTH STB standard is to be revised, it should be such that ensures both Inter (in between) and Intra (within) operator interoperability.

- **Relevance of technical interoperability in the present day**

The rationale behind technical interoperability is that customers should be able to switch from one DTH operator to another without having to purchase a new operator's Customer Premises Equipments (CPE). This rationale was understandable when the DTH market was small with only a few operators, and the cost of the CPE not very competitive. However, today there are six private DTH operators apart from DD Direct. The cost of the CPE is no more prohibitive. Over the last 4 years, market forces have ensured affordability today, as all DTH operators have deployed substantial subsidies directly to all their subscribers. It is an established economic principle that narrowly targeted subsidies are the most economically efficient means of ensuring affordability. The DTH operators have addressed the prime concern of public policy and hence Interoperability is not of material relevance in today's market conditions.

- **Technical and economic feasibility**

Set Top Box compatible with all existing technologies

Today, there are a number of combinations of technologies that can go into making of a single Set Top Box (STB). Different DTH operators are using different combinations, which have already been listed in the consultation paper. If a single STB is to be made compatible with all different technologies, including:

(a) Compression technology: MPEG 2 and MPEG 4;
(b) Transmission technology: DVB-S and DVB-S2; and
(c) different encryption technologies,

the cost is bound to go up significantly. The increased cost of an STB would defeat the very purpose of technical inter-operability, as the additional cost would have to be recovered from customers. Almost all other DTH operators, who entered the market, subsequent to Tata Sky are not using the compression (MPEG 2) and transmission (DVB-S) specification laid down by the BIS (IS 15377: 2003) transmission, so there is no possibility of Tata Sky's subscribers receiving signals of the newer DTH operators without replacement of their CPE. Given the size and scale of DTH operations today the cost of this replacement would be enormous and would have to be borne by some incumbent in the value chain; and this cannot be Tata Sky since it has always been fully compliant with the BIS specifications.

Adoption of uniform technology norms

The other alternative which has often been suggested is to prescribe a single technology norm by Bureau of Indian Standards (BIS) to be adopted by all DTH operators. This norm will naturally have to be in keeping with the currently available technologies. This would mean that DTH operators using older, though not outdated technologies, such as MPEG 2 and DVB-S would have to develop, manufacture and procure new CPE. The cost involved in such an exercise would be substantial, and would have to be borne by any one or any combination from amongst the following:

(a) the Government – which would have mandated uniform technology norms in the first place;

(c) Customers

A serious drawback of any departure from a technology-neutral policy would be the need for constant revision of the prescribed technology norms so that the DTH industry in India keeps pace with, and derives benefit from the latest technological developments globally.

Each time the prescribed technology norms are revised by BIS, existing CPE would have to be replaced.

It is pertinent to mention that TRAI itself, in its most recent recommendations dated on 22.07.2010 on "Policy Issues relating to Uplinking / Downlinking of Television channels in India", has recommended a technology neutral approach. TRAI has endorsed the view that market forces will themselves ensure that the DTH operators adopt the best available technology, and there is no need to issue any mandate in this regard. TRAI, in the aforesaid paper has also noted that choice of technology is not a one-time decision, but a decision that needs to be constantly reviewed and updated.

Technical interoperability by use of CAM

The possibility of providing technical inter-operability by the use of a CAM is economically not feasible, as on date. The idea is that by inserting a CAM provided by the DTH operator whose services are required to be received, the STB will be in a position to receive the services of the concerned DTH operator. However, the cost of a CAM as on date is as high as an STB itself, making it an impracticable idea from an economic viewpoint, as any customer would prefer to buy a new STB from a new DTH operator, rather than purchasing a CAM that would be inserted into an old STB of his previous DTH operator.

- **Other considerations**

Present STB schemes

The fact that some DTH operators are providing STB's free of cost cannot be lost sight of in the present highly competitive context. Any new stipulation in the DTH license agreement that will push the cost of the CPE up, is likely to lead to the withdrawal of free STB schemes, currently on offer. Thus, it is the customer who will be the ultimate loser.

Availability of technologies other than DTH

DTH is not the only option available to viewers of satellite television. Cable TV and IPTV may also be chosen by customers. In this context, if a customer wishes to switch over from a DTH operator to a cable operator or IPTV, technical interoperability will be of little use. Therefore, the fact that there are other technologies with a very large market share, that exist along with DTH technology, can be ignored only to the detriment of consumers at large.

- **Conclusion**

It is a fact that existing technical inter-operability conditions have not delivered, and are unlikely to deliver, the result that they were designed to achieve, i.e., facilitation of actual migration of customers from one DTH operator to another without the need for purchasing new CPE. These conditions have become redundant. The Ministry of Information and Broadcasting in its letter dated 28.09.2007 to TRAI had unequivocally stated that "the interoperability between set top boxes between two DTH operators is practically not feasible to the level of completeness". As the number of operators has multiplied, and newer technologies have arrived, the feasibility of technical interoperability (without significant addition to the cost of STB, thus defeating the very purpose of technical inter-operability), is even less today as compared to 2007 when the Ministry wrote the letter referred hereinabove.

Thus, the lack of interoperability is not on account of poor consumer awareness or the non-availability of CAMs, but because of unfeasibility on fundamental technical and economic grounds.

It is therefore submitted that the present Clause 7 of the DTH licence be done away with in view of the changed market situation.

Query

3.2 If yes, how can the interoperability be implemented and what would be the implications to the stakeholders?

Response

Our stated position is that Interoperability is a redundant concept and is no longer desirable or relevant given the present market dynamics.

Query

3.3 Is there a need to mandate any particular standard so that the objectives of technical interoperability can be achieved? If so, which standard?

Response

Mandating a particular standard is not desirable and would be detrimental to consumer interests as:

i. Such a mandate would be contrary to the consistent 'Technology Neutral' approach being followed across industry sectors eg. Telecom, IPTV, Mobile TV
ii. Such a mandate would act as a deterrent to the advancement and adoption of newer and more efficient technology standards.
iii. It would also cause the added problem of technology stacking as the standard would have to be revised regularly with every dynamic change in the technology standards available
iv. The cost and size of the STB would increase as a result of such technology stacking and hurt consumers.
v. The cost of compliance for legacy boxes already prevalent in the market would have to be borne by either the Government or the consumer
vi. This would discourage the narrowly targeted subsidies on the STB being deployed by various operators and make the CPE more expensive for consumers.

Thus, in our view, mandating a particular standard would be counter productive and defeat the very purpose and intention of the Regulator as well as the Licensor

It is further humbly submitted that BIS standards and specifications do not recognize the dynamics of bourgeoning technological advancements in this sector. Up-gradation of standards in tandem with technological changes is the sine qua non for implementing interoperability. In the absence of refurbished specifications it is extremely difficult to identify a specific standard/ yardstick to achieve the desired interoperability. In fact, the issue of interoperability has become complex on account of different technologies and different

formats adopted by DTH operators. The Ministry of Information and Broadcasting being the administrative authority has sought to address this anomaly and has provided a policy guidance vide its letter dated 01.10.08 addressed to the BIS wherein it has asked the BIS to design appropriate specifications for the DTH STB's so as to ensure effective interoperability both 'intra' and 'inter' (i.e. both within and amongst) DTH operators using both MPEG-2 and MPEG-4 technologies. In our opinion such a standard that ensures inter and intra interoperability amongst operators using different technology standards is likely to be impracticable and unlikely to be feasible.

Query

3.4 If technical interoperability for STB is not possible, is there any other mechanism to safeguard the interests of the subscribers.

Response

It is submitted that the interests of the consumers are now adequately protected given the extensive competition in the industry. This has led to **inexpensive hardware** as well as **rental schemes** being made available to the subscriber by competing DTH operators. The extremely low cost of the STB owing to the narrowly targeted subsidies as well as the commercial inter-operability provisions contained in the DTH QoS regulations ensure that the consumer interest is adequately addressed.

Thanking you,

Yours sincerely,

For Tata Sky Limited

Amit Thukral

Principal Counsel- Legal & Regulatory Affairs