CABLE OPERATORS SANGRAM COMMITTEE

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WEST BENGAL

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Sub: - "Consultation Paper on Interoperability of Set Top Boxes" dated 11th November 2019.

Our Identity:-

We the Organization of Cable Operators of West Bengal are going to utilize another time the opportunity to communicate with the subject matter.

Status of the Cable TV Operators after Digitization:-

The Cable TV Operators own the last-mile access to the viewer homes and the main creator of structural design of today's thousands crores of rupees Cable TV Industry scattered across the country are facing an odd state of affairs because of Set Top Boxes introduced for Digitization of Cable TV.

Requirements of Subscribers:-

Most middle class households in India have installed the Set Top Boxes (STBs) for their televisions and every time the Cable TV Operators have the sense of hearing same criticize from our different Subscribers that to offer the package and or content of package of other MSOs. The Cable TV Operators express their inability to fulfill the choice of Subscribers for the reason that presently it is technically unfeasible to receive Digital Cable TV signal of different MSOs to a particular Set Top Box.

Compelling circumstances to the Subscribers:-

Situation goes beyond of control when a Subscriber shifted from one place to another then the Subscriber, compile to take delivery of Set Top Boxes from the Cable TV Operator of that particular place where the viewer shifted. As the consumer has no alternative but to purchase a set top box from another Cable Operator connected with a different MSO, and as

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a result, the Set Top Boxes (STBs) become scrap. As the Set Top Boxes (STBs) designed to be proprietary in nature, the viewers use Set Top Boxes (STBs) nowadays only work with a single MSO network.

Benefit to the MSOs in absence of portability:-

When the Subscribers request to return their Set Top Boxes (STBs) against the amount they paid then the MSO apply the advantage with the plea of various irrelevant argument to refund collected amount because of Set Top Boxes (STBs) to the Subscribers.

Real-world way out:-

Based on the practice like the portability of the mobile phone, the Subscribers desire similar options with the Set Top Boxes. Instead of having to purchase a fresh Set Top Box every time they should be able to put in any card of choice of MSO on the Set Top Box he or she owned.

Extended time to implement:-

It was a matter of hope that the former Information and Broadcasting Minister Hon'ble Sree Prakash Javadekar ji on 8/10/2014 Chairing the first meeting of the Task Force for Cable Digitization for phases three and four at Vigyan Bhavan. Hon'ble Minister assured that the ministry is working towards bringing in **"interoperability"** to the Set Top Boxes whereby customers would be able to change their service providers by just putting in a new card instead of having to buy a new Set Top Box every time.

The Cable TV Operator over the region were very much optimistic on the assurance of Hon'ble Minister as his excellence desire, that the portability of Set Top Box like Mobile hand set should arrive all over India within a short time. In addition, viewers will be able to use the STBs that can be changed to a different service provider upon changing subscriptions.

INTEROPERABILITY BY MEANS OF COMMON CAS.

Proposal of the Cable TV Operator to provide interoperable STBs common CAS is the only effective solution. The regulatory body may impose regulations to the distributing platform to include common CAS with their existing CAS system.

> **COMMON CAS IS THE EVENTUAL STEP TO DEPLOY INTEROPERABILITY OF THE SET-TOP BOXES.**

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RESPONSE TO ISSUES FOR CONSULTATION

Q 1. In view of the implications of non-interoperability, is it desirable to have interoperability of STBs? Please provide reasoning for your comment.

Based on the experiences of the Cable TV Operators the interoperability of the Set Top Boxes was desirable at the beginning of Digitization to possess the liberty, right and independency for the reason that of entertainment of the Subscribers.

It is too late when the initiation of interoperability of Set Top Boxes is on the table of consideration.

The regulations after regulations like episode 1, episode 2, and episode 3 of Serials of Indian TV is sufficient for the Subscribers to turning away from watching TV programs and / or for list requirement of entertainment or the news of country.

The information of downgrade of Subscribers after the implementation of NTO not only substantiates the truth but also stimulate the shifting to other platform of entertainment like direct delivery via the Internet, to the gazettes of the Subscribers.

On the other hand, when the Cable TV Operators are at the verge to accept the Over-The-Top (OTT) technology on that time the process of implementation of interoperability of the Set Top Boxes will certainly loose its importance.

We take in for questioning that the delayed process to implement interoperability of the Set Top Boxes will be following the proverb *"MUCH ADO ABOUT NOTHING".*

Q 2. 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

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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.

Looking from outside the process of interoperability of the Set Top Boxes, will not cognize that how much technical hurdles to be cross over as well as the cost of module to actuate interoperability as like as the cost of a fresh Set Top Box. The initiation of interoperability of the Set Top Boxes, will lead the proverb *"MUCH CRY AND LITTLE WOOL".*

Q 3. **Should interoperable STBs be made available through open market only to exploit benefits of commoditization of the device? Please elaborate.**

Yes, availability of interoperable Set Top Boxes at open market certainly reduces the price, and the Subscribers will be benefited on directly purchase of interoperable Set Top Boxes. This initiation will calm down the Subscribers with the maxim *"BETTER LET THAN NEVER".*

Q 4. **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?**

Not significantly, apart from Set Top Boxes there are so many gadgets According to **ASSOCIATED CHAMBERS OF COMMERCE AND INDUSTRY OF INDIA** (ASSOCHAM), the **COMPOUND ANNUAL GROWTH RATE** (CAGR) of electronic waste is 30%. Where the Status of e-waste in India according to Yunus and Sengupta report are as follows:

YEAR	2014	2015	2016	2017	2018	2019	2020
DESKTOP	37.25	38.04	39	39.83	40.75	41.66	42.5
LAPTOP	10.8	12	13.2	14.4	15.6	16.8	18
MOBILE PHONE	14.62	16.35	18.1	19.84	21.58	23.33	25.07
TELEVISION	140.04	147.9	155.76	163.62	171.48	179.34	187.2
TOTAL	202.71	214.29	226.06	237.69	249.41	261.13	272.77

Therefore, it is obvious that the interoperability of the Set Top Boxes will enhance to generate more and more e-waste specially when the price of the Set Top Boxes will be lower, and Subscribers will be at liberty to purchase as and when they wish like mobile phone.

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Q 5. Is non-interoperability of STBs proving to be a hindrance in perfect competition in distribution of broadcasting services? Give your comments with justification.

As Association of Cable TV Operators, it can say that in absence of interoperability of Set Top Boxes more than decades all the distributors survive to their business with their own style. Putting into practice of interoperability of Set Top Boxes will not create hindrance in perfect competition in distribution of broadcasting services at the same time the Subscribers will enjoy freedoms of the to choose distribution platform as per their choice.

Q 6. 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.

To justify this process it is require to follow the process of mobile handset "SIM CARD" which will be available from different MSOs according to their CAS system, as and when require then Subscriber can avail the facility to change the service provider**.**

Q 7. Please comment on the timelines for the development of eco-system to deploy interoperable STBs for your recommended/ suggested solution.

It is most ambiguous to comment on the timelines for the development of eco-system to deploy interoperable of Set Top Boxes when different distributor deploys different CAS system. Accelerating the work of interoperable Set Top Boxes is at the hands of the different distributor.

To viable interoperability of Set Top Boxes immediately in favour of the Subscribers positive attitude of the distributors are require to deploys universal CAS system .

Q 8a. 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?

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Yes, the software-based solutions to provide interoperability of STBs would be more efficient reduce cost of STB, which will help the Subscribers economically as the, freedom of choice will enhanced.

Q8b. 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.

At present, any required unique IDs or certificates embedded in **CUSTOMER PREMISES EQUIPMENT** (CPE) in a proprietary way, defined by the provider of the **CONDITIONAL ACCESS/DIGITAL RIGHTS MANAGEMENT** (CA/DRM) system. With respect to interoperability, this is not an appropriate solution, as vendors will most likely not disclose the mechanisms to access their unique IDs or certificates. For example, the **COMMON INTERFACE PLUS** (CI) consortium has demonstrated that it is feasible to transfer the secure handling of certificates to a "Trusted Third Party". Similar solutions are required for interoperable **CONDITIONAL ACCESS / DIGITAL RIGHTS MANAGEMENT** (CA/DRM) systems, which are capable of receiving broadcast and broadband content, to download CA/DRM clients under a trusted environment.

By utilizing downloadable multi-CA/DRM service, entitled consumers can consume broadcast and broadband content, which is controlled by DRM and/or conditional access (CA) systems. CPE does not have a required content-related CA/DRM client available by downloading it from a trusted source into various types of CPEs including Set Top Boxes (STBs), smart TVs, PCs, smart phones and/or smart tablets.

This can only be achieved by interoperability of CPEs regarding CA and DRM, based on appropriate security architecture. Further fragmentation of the market for CPEs can only be prevented and competition encouraged by ensuring a consumer-friendly and context-sensitive exchangeability of CA and DRM systems.

Q 9. 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?

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It is better to depend on the views of the proficient before moving on to developing a Proof-of-Concept on interoperable of Set Top Boxes.

Q **10. 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.**

On the question of Precaution it is necessary to engaged with competent technical experts in the broadcasting field to look into the challenges involved in the interoperability architecture as well as for at planning stage to smoothly adopt solution for interoperability of STBs in Indian market.

Field-testing with third-party CAS solution is essential to conduct with different stakeholders.

As per TRAI the smart card-based solution has been successfully tested in lab conditions using separate instances of **CONDITIONAL ACCESS SYSTEM** (CAS) developed by **Centre for Development of Telematics** (C-DoT), so immediate pronouncement to enable the system to deploy the interoperability of Set Top Boxes.

Q **11. 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?**

Already we have given our views, the white label STB must create more competitions and enhance service offerings from operator.

It is impossible to predict on the sum of cost reductions, before observing the state of affairs after implementation of interoperability of the Set top Boxes.

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?**

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The existing CAS system, for the purpose of authentication, predefined secret key of Set Top Box is placed inside the Smart Card during the Smart Card registration phase. This is a major hindrance to interoperability. By using the secret information of Set Top Box in Smart Card, interoperability cannot be attained, as the objective is to use any Set Top Box with any Smart card of different operator.

For attaining interoperability can be implemented for existing set top boxes is Intra-CAS operability, where a customer shifts within the same CAS system without changing their existing Set Top Boxes.

Q 13. Any other issues which you may like to raise related to interoperability of STBs

Already it is too late, so take initiation to implement interoperability of STBs with immediate effect.

CABLE OPERATORS SANGRAM COMMITTEE support and shout in favour of inception and implementation of **DIGITAL ACCESS SYSTEM** and always uphold the interest of the Subscribers as well as the thinking, recommendations and guidelines of TRAI regarding the **DIGITAL ACCESS SYSTEM**.

We hope sufficient information you meet from the aforesaid statements from our end, and we believe you should extend your hands of cooperation and effort to the Cable TV Operators to get to the bottom of the present challenging situations.

Without prejudice to our rights and contentions to the Consultation Paper on **INTEROPERABILITY OF SET TOP BOXES**, we raise the issues to need consideration of the appropriate authorities.

Thanking You

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