



Telecom Regulatory Authority of India



Recommendations

on

**Listing of television channels in
Electronic Programme Guide**

and

**Upgradation of DD Free Dish platform to an
Addressable System**

8th July 2024

World Trade Centre
4th, 5th, 6th & 7th Floor, Tower F
Nauroji Nagar
New Delhi-110029
Website: www.trai.gov.in

INDEX

Chapter No.	Topic	Page No.
I	Introduction and Background	1
II	Listing of television channels in Electronic Programme Guide	10
III	Roadmap for addressability of DD Free Dish	17
IV	Summary of Recommendations	37
	List of Acronyms	41
	Annexure I	42
	Annexure II	44

CHAPTER I

INTRODUCTION AND BACKGROUND

A. Extant Regulatory Framework of TRAI

- 1.1 Keeping in view the implementation of Digital Addressable Systems (DAS) and to enable the sector to realize its benefits, the Telecom Regulatory Authority of India (TRAI), after due consultation process, published a 'new regulatory framework' for digital addressable systems on 3rd March 2017. This framework comprises of:
 - i. Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) Regulations, 2017 (hereinafter called "Interconnection Regulation 2017"),
 - ii. Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, and
 - iii. Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017
- 1.2 The new regulatory framework was notified in March 2017. However, pursuant to legal challenges to the said regulations, the regulations came into effect from 29th December 2018 after satisfying legal pronouncements.
- 1.3 The framework brought about a paradigm shift to the television distribution value chain. Transparency, non-discrimination and revenue assurance to all stakeholders were the underlying principles of the new framework. The framework enabled consumers, like never before, with full control over their subscribed channels.
- 1.4 In order to address the issues noted during implementation of the framework 2017, the Authority, after due consultation, notified the following amendments to the Regulatory Framework 2017, on 1st January 2020:

- i. The Telecommunication (Broadcasting and Cable) Services Interconnection (Addressable Systems) (Second Amendment) Regulations, 2020
- ii. The Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) (Third Amendment) Regulations, 2020
- iii. The Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff (Second Amendment) Order, 2020

B. The current Consultation Paper

- 1.5 To address certain issues arising out of implementation of amendments to regulatory framework, TRAI issued a Consultation Paper on Review of Regulatory Framework for Broadcasting and Cable services on 8th August 2023 (hereinafter called “consultation paper”).
- 1.6 Comments were received from 86 stakeholders. The Open House Discussion (OHD) in online mode was held on 18th April 2024. The comments and the OHD submissions have been analysed, and as an outcome of the consultation paper, certain amendments have been notified in the regulatory framework. Further, after careful examination of the stakeholders’ comments, it has been found that two issues related to the listing of television channels in the Electronic Programme Guide (EPG) of the Distribution Platform Operators (DPOs) and non-addressable platform of DD Free Dish of public service broadcaster need to be addressed by issuing recommendations to the Government.

C. Listing of television channels in EPG

- 1.7 In addressable systems, the technology provides for an EPG wherein the television channels being carried on a DPO’s network can be arranged in a simple and easy to understand manner so that the subscriber can easily go through this guide and select the channel of choice instead of flipping through all the channels.
- 1.8 In the Interconnection Regulation 2017 (as amended), the broadcasters have been given freedom to declare the genre of their television channels

and in terms of the regulations, it has been mandated that a DPO shall place the channels in the EPG under the respective genres so declared by the broadcasters. Further it has also been mandated that DPOs shall place all the channels available on its platform in the EPG, in such a manner that all the channels of a particular language in a genre are displayed together consecutively and one television channel shall appear at one place only.

- 1.9 In this regard, the Authority received several complaints regarding out of genre running of television channels by distributors. TRAI analysed the data of many distributors and all of them were found to be in non-compliance with provisions of Interconnection Regulation 2017 (as amended). Upon enquiring the reasons behind non-compliance, the distributors informed TRAI that MIB gives permission to a channel in multiple languages. Sometimes, some television channels run programs in multiple languages. Therefore, distributors find it difficult to comply with provisions of Interconnection Regulation 2017 (as amended) especially in case of free-to-air (FTA) channels.

D. Introduction to Prasar Bharati

- 1.10 Prasar Bharati, India's public service broadcaster was established following the enactment of the Prasar Bharati (Broadcasting Corporation of India) Act, 1990¹ by the Parliament of India. Prasar Bharati operates its broadcasting network to fulfil its mandate of public service broadcasting.

- 1.11 Section 12 (1) of the Prasar Bharati Act specifies the main function of Prasar Bharati in the field of radio and television broadcasting as:

“Subject to the provisions of this Act, it shall be the primary duty of the Corporation to organise and conduct public broadcasting services to inform, educate and entertain the public and to ensure a balanced development of broadcasting on radio and television.

¹ <https://prasarbharati.gov.in/prasar-bharati-act/>

Explanation — For the removal of doubts, it is hereby declared that the provisions of this section shall be in addition to, and not in derogation, of the provisions of the Indian Telegraph Act, 1885.”

1.12 The Prasar Bharati Act defines broadcasting as follows:

“broadcasting” means the dissemination of any form of communication like signs, signals, writing, pictures, images and sounds of all kinds by transmission of electro-magnetic waves through space or through cables intended to be received by the general public either directly or indirectly through the medium of relay stations and all its grammatical variations and cognate expression shall be construed accordingly;”

1.13 Prasar Bharati owns and operates a Free-to-Air (FTA) Direct-to-Home (DTH) service namely DD Free Dish (erstwhile DD Direct+) since 2004, an approved scheme of the Government of India. DD Free Dish is an alternative affordable platform for people who do not have means to pay subscription fee of private DTH and cable platforms. DD Free Dish, leveraging its DTH technology reaches to millions of people especially in rural, remote, inaccessible and border areas having low income and is used as a tool not only for entertainment but also for promoting education, health and agriculture.

D1. Background of DD Free Dish

1.14 The Ministry of Information and Broadcasting (MIB) in 2003 had granted permission to Prasar Bharati to use satellite distribution technology in the Ku-band frequency (12-18 GHz) for providing DTH service for offering bouquet of TV channels consisting of 20 channels of Doordarshan and 10 channels of private broadcasters, in FTA mode.

1.15 Prasar Bharati had started its DTH service named DD Direct+ in December 2004, which was re-named to DD Free Dish on 27th August 2013. Initially the coverage of DD Free Dish was confined to Himachal Pradesh, Chhattisgarh, Karnataka, Madhya Pradesh, Rajasthan, Uttaranchal, northeast region and Gujarat, i.e., where the percentage of TV broadcasting services coverage was below national average.

However, at present, the coverage of DD Free Dish services is throughout the Indian territory except Andaman & Nicobar Islands.

- 1.16 The capacity of DD DTH platform was enhanced from 30 to 40 TV channels on in 2004. The bouquet available consisted of 17 channels of Doordarshan and 23 channels of private TV broadcasters. The capacity of DD Free Dish platform kept expanding from time-to-time. After 6th annual (75th) e-auction, i.e., with effect from 01.04.2024 there are total 167 TV channels consisting of 94 MPEG-2² channels, 22 MPEG-4³ channels, 51 educational channels⁴ of Bhaskaracharya National Institute for Space Application and Geo-Informatics (BISAG) and 48 Radio channels, available on the DD Free Dish platform. The list of all these available channels may be referred from [Annexure I](#).
- 1.17 Earlier, Doordarshan used to provide terrestrial television through High Power High Tower (HPHT) television towers and the consumer could receive the signal by installing a Yagi Antenna purchased from the market. The purpose was that any consumer can receive the signal free of charges and without any subscription cost or Know Your Customer (KYC) details, thus facilitating mass reach of the Doordarshan television service to the people.
- 1.18 With the passage of time, the terrestrial TV transmitters, which were required to be placed in each district, could not proliferate and started declining. DD Free Dish made those transmissions available through satellite means to every nook and corner of the country. In place of Yagi antenna, now the consumer needs to place a small aperture parabolic antenna to receive the DD Free Dish signals and a set top box to act as TV channel tuner.

D2. Process of carriage of television channels on ‘DD Free Dish’

- 1.19 Initially private TV channels were chosen randomly for carrying on DD Free Dish platform and no fee was charged from private channels for initial two years. In January 2007, a Core Group, consisting of senior

² <https://prasarbharati.gov.in/wp-content/uploads/2024/03/MPEG-2-LCN-Line-up.pdf>

³ <https://prasarbharati.gov.in/wp-content/uploads/2024/03/After-6th-76th-e-Auction-LCN-Lineup-of-MPEG-4-Channels-from-01.04.2024.pdf>

⁴ <https://prasarbharati.gov.in/wp-content/uploads/2024/04/DD-Free-Dish-LCN-Line-up.pdf>

officers of Prasar Bharati, was constituted to revamp the DD Direct+ (now DD Free Dish) DTH Platform and to decide the carriage fee to be charged from private broadcasters, whose channels are carried in the bouquet. The selection of private channels for placement on DD Free Dish was done by the Core Group amongst the applicant channels based on the genre of the channels.

- 1.20 Some broadcasters approached Telecom Disputes Settlement and Appellate Tribunal (TDSAT) contending that process of selection of channels on Free Dish platform is not transparent. The TDSAT vide judgment dated 16th December 2010, in Petition Nos. 407 (c) of 2010, 410 (c) of 2010 and 416 (c) of 2010 filed by some of the broadcasters, directed Prasar Bharati to frame a transparent policy for the placement of channels on DD DTH Platform.
- 1.21 On 7th June 2011, Prasar Bharati approved an e-auction policy for the placement of private TV channels on DD Free Dish platform. Subsequently, Prasar Bharati Board in its 150th meeting approved guiding principles for framing new methodology for allotment of slots of DD Free Dish to private TV channels. Based on the approved guiding principles, Prasar Bharati notified revised e-auction methodology with differential pricing based on genre (language) for carriage of private channels on DD Free Dish on 15th January 2019, which were amended subsequently from time to time.
- 1.22 Initially only MPEG-2 technology was used by Prasar Bharati for providing DD Free Dish services. In 2019, Prasar Bharati introduced MPEG-4 technology for DD Free Dish and conducted e-auction for MPEG-4 slots also. Reserve price for MPEG-4 slots for channels of all genres was fixed at Rs. 5 lakh which were increased to Rs. 50 Lakh on 22nd February 2021.
- 1.23 As per information available on the website of Prasar Bharati⁵, 78 e-auctions have been conducted so far by Prasar Bharati for allotment of DD Free Dish slots to private satellite TV channels.

⁵ <https://prasarbharati.gov.in/free-dish-4/>

1.24 Private satellite channels which are permitted by the MIB are allowed to participate in the e-auction. Private satellite TV channels desirous of placing their channels on DD Free Dish are allowed to bid only in e-auctions specific to the genre and language they belong to. For this purpose, broadcasters are required to declare genre and language of their channel(s) to Prasar Bharati while applying for e-auction to be eligible to participate, and if successful, are provided a slot, generally valid from 1st April of a particular year to 31st March of the next year.

1.25 Since the platform is non-addressable, in terms of subscribers, no authentic data is available for DD Free Dish viewership. Different industry reports reflect different number of viewers. As per an industry report⁶ around 45 million viewers/consumers are watching television through DD Free Dish connection.

D3. Applicability of Regulations and Orders notified by TRAI on Prasar Bharati

1.26 TRAI Act, 1997 defines ‘service provider’ and ‘licensee’ as follows:

“ ‘service provider’ means the Government as a service provider and includes a licensee;

‘licensee’ means any person licensed under sub-section (1) of section 4 of the Indian Telegraph Act, 1885 (13 of 1885) for providing specific public telecommunication services;”

1.27 The Government in the year 2000 amended the TRAI Act, 1997 and included the proviso to section 2(1)(k) that enabled the Central Government to notify other service to be telecommunication service including broadcasting services.

1.28 In exercise of the powers conferred by the proviso to section 2(1)(k) of TRAI Act, 1997, the Central Government issued gazette notification S.O. 44 (E) on 9th January 2004, notifying the broadcasting services and cable services to be telecommunication service.

⁶ https://assets.ey.com/content/dam/ey-sites/ey-com/en_in/topics/media-and-entertainment/2023/05/ey-me-report.pdf

1.29 Central Government vide Notification S.O. 45 (E) dated 09.01.2004 entrusted the following additional functions to TRAI in respect of broadcasting services and cable services:

“(1) Without prejudice to the provisions contained in clause (a) of Sub-section (1) of Section 11 of the Act, to make recommendation regarding–

(a) the terms and conditions on which the “Addressable systems” shall be provided to customers

(b) the parameters for regulating maximum time for advertisements in pay channels as well as other channels.

(2) Without prejudice to the provisions of Sub-section (2) of Section 11 of the Act, also to specify standard norms for, and periodicity of, revision of rates of pay channels, including interim measures.”

1.30 Some broadcasters filed a petition before TDSAT in August 2008, challenging the carriage fees charged by Prasar Bharati as legally not valid and contesting that TRAI’s Regulations should be applicable to Prasar Bharati.

1.31 Hon’ble TDSAT in the petitions No. 183 (C) of 2008, 195 (C) of 2008 and 216 (C) of 2008, in its para 34⁷ held that Prasar Bharati is a licensee under the Indian Telegraph Act, thereby establishing its categorization as a 'service provider' under section 2(j) of the TRAI Act. Para 34 held that:-

“... In sum, therefore, the contentions of the 1st Respondent, Prasar Bharati, regarding this Tribunal not having the jurisdiction to settle the petitions herein fail. We hold, for the reasons discussed above, that Prasar Bharati is a licensee u/s 4 of the Indian Telegraph Act and being a licensee, that Prasar Bharati is covered under the definition of 'service provider' in section 2 (j) of the TRAI Act. ...” ;

⁷ <https://tdsat.gov.in/Delhi/services/judgment.php>

E. Structure of the Document

- 1.32 Based on the written comments received, inputs provided by the stakeholders during the OHD and their analysis, the Authority has finalized these recommendations. The recommendations have been spread over four chapters. Chapter I provides the Introduction. Chapter II discusses the issues related to listing of channels in Electronic Programme Guide (EPG). Chapter III discusses the roadmap for upgradation of DD Free Dish to an addressable system. Chapter IV summarizes the Authority's recommendations on the subject.

CHAPTER II

LISTING OF TELEVISION CHANNELS IN ELECTRONIC PROGRAMME GUIDE

2.1 According to regulation 18 of the Interconnection Regulation 2017:

“Listing of channels in electronic programme guide.— (1) Every broadcaster shall declare the genre of its channels and such genre shall be either ‘Devotional’ or ‘General Entertainment’ or ‘Infotainment’ or ‘Kids’ or ‘Movies’ or ‘Music’ or ‘News and Current Affairs’ or ‘Sports’ or ‘Miscellaneous’.

(2) It shall be mandatory for the distributor to place channels in the electronic programme guide, in such a way that the television channels of same genre, as declared by the broadcasters, are placed together consecutively and one channel shall appear at one place only:

Provided that all television channels of same language within the same genre shall appear together consecutively in the electronic programme guide:

Provided further that it shall be permissible to the distributor to place a channel under sub-genre within the genre declared for the channel by the broadcaster.”

2.2 Subsequently, distributors of television channels (or distributors) raised certain issues in adhering to the prescribed structure of the EPG. Accordingly, the Authority, after due consultation, amended the above-mentioned provisions of Regulation 18(2) of Interconnection Regulation 2017, on 1st January 2020, to read as follows:

“(2) It shall be mandatory for the distributor to place all the television channels available on its platform in the electronic programme guide, in such a manner that all the television channels of a particular language in a genre are displayed together

consecutively and one television channel shall appear at one place only.”

- 2.3 Similar provisions exist in the Telecommunication (Broadcasting and Cable) Services Standards of Quality of Service and Consumer Protection (Addressable Systems) Regulations, 2017 (as amended).
- 2.4 As mentioned earlier, TRAI received certain complaints regarding out of genre running of channels by distributors. TRAI analysed data of some distributors and it was found to be in non-compliance with provisions of Interconnection Regulation 2017 (as amended). Upon enquiring the reasons behind non-compliance, the distributors informed TRAI that MIB gives permission to a channel in multiple languages. Sometimes, some television channels run programmes in multiple languages. Therefore, distributors find it difficult to comply with provisions of Interconnection Regulation 2017 (as amended) especially in case of free-to-air (FTA) channels.
- 2.5 In the consultation paper, one of the issues raised for consultation was regarding listing of channels in EPG and the question raised was as below:

Q17. Should flexibility be given to DPOs for listing of channels in EPG?

a. If yes, how should the interest of broadcasters (especially small ones) be safeguarded?

b. If no, what criteria should be followed so that it promotes level playing field and safeguard interest of each stakeholder?

Comments of the Stakeholders

- 2.6 In response, many stakeholders stated that flexibility should be given to DPOs for listing of channels in EPG since the DPOs understands the consumer preferences with respect to the language/channel. Some stakeholders further opined that the move to regulate the EPG channel placement infringes upon the fundamental business autonomy of DPOs. Essentially, it is an

inherent right of any platform operator to optimize and monetize its platform. One stakeholder opined that level playing field is already skewed against the DPOs and proposals like regulating EPG would further skew it as this measure is against the business autonomy of DPOs and further, requested TRAI to ignore such suggestions and not irreparably harm a vital stakeholder by impinging on its autonomy by unnecessary micromanagement. Another stakeholder opined that just as broadcasters have the discretion to sequence their programmes and advertisements, DPOs should be afforded the same autonomy in structuring their EPGs. This is a fundamental aspect of their business operations, allowing them to differentiate themselves in a competitive market.

2.7 Other group of stakeholders expressed that flexibility should not be given to DPOs for listing of channels in EPG. One stakeholder propounded that safeguards should be built into the regulations to mandate that all channels of the same genre and language be listed together and numbered consecutively/sequentially in both the logical channel number (LCN) and EPG. TRAI should require DPOs to report their channel line-up in the EPG and LCN to TRAI and relevant broadcasters may monitor compliance and avoid misuse by smaller and independent DPOs.

2.8 Another stakeholder opined that TRAI may ask the broadcasters to specify the primary genre and language of the channel for the purpose of arrangement of EPG. Then DPO would have to mandatorily put channel as per defined language and genre. Another stakeholder submitted that EPG should have a logical numbering which should be easy for the viewers. There is good flexibility presently with the DPOs in terms of placement of channels in genre-language combinations.

2.9 One of the views expressed in the consultation process was that TRAI may prescribe a fair, reasonable, and non-discriminatory basis for the allocation of EPG and LCN in such a manner that there

is no discrimination or arbitrariness being exercised by the DPO. While doing so, the existing broadcasters should be allowed to continue on the same EPG and LCN. Another view expressed was that for better viewing experience for consumers, listing should start with language followed by genre rather than the other way round, which is prevalent today.

2.10 One association submitted that the Authority has given adequate flexibility to the DPOs to place their channel on their EPG once their language and genre is defined by the broadcaster. Authorities should continue to monitor the same to prevent the DPOs from misusing the flexibility granted to them.

2.11 One stakeholder advocated to follow forbearance and permit market forces to prevail and follow same light touch regulatory approach for the broadcasting sector as was applied in the telecom sector.

2.12 In the consultation paper, one of the issues for consultation was as follows:

Q18. Since MIB generally gives permission to a channel in multiple languages, how the placement of such channels may be regulated so that interests of all stakeholders are protected?

2.13 In response, some stakeholders opined that flexibility should be with the DPOs, as the DPOs understand the consumer preferences with respect to the language/channel. Some other stakeholders submitted that broadcasters are required to declare the genre and the language while declaring the channels under RIO. In case, a channel has more than one language, then the primary language or the first language of the channel declared by the broadcaster should be considered by DPOs for placing the channel at appropriate place in the EPG.

2.14 One stakeholder expressed that any mandate on EPG needs to be reconsidered and removed, however, if TRAI has a divergent view, then the channels should be clubbed in the form of a single genre

irrespective of language. A majority of subscribers tend to browse for their preferences using genres, therefore, in the interests of subscribers, channels should be clubbed in the form of a single genre irrespective of language. Another stakeholder stated that only for multi-lingual channels DPOs may be allowed to place channels in such language group which is based on the majority language spoken in their area of operation, i.e., state-wise listing can be allowed. Further, one stakeholder opined that there should be a separate section on multiple languages. This section will mostly have Infotainment, Kids and Sports channels which are available in multiple languages. Multiple languages channels can alternatively be part of a particular language section provided they declare that language as its primary language.

2.15 Few stakeholders opined that it should be left to the understanding of Broadcaster and DPO. Further, there should be no discrimination between the channels of multiple languages. One stakeholder submitted that a channel running programmes in multiple languages should be allowed to choose the language under which it wishes to be listed and accordingly that should be followed. Some other stakeholders opined that DPOs should be given freedom to place the channels in the genre declared by the broadcasters but in the sub-genre finalized by the DPO (based upon language) and the placement sequence may be counted on the basis of sub-genre.

2.16 One of the views expressed was that one possible solution is to allow a channel to be placed in the EPG as per the primary language of the content it shows. The other solution is to promote consumer choice by allowing a consumer to customize their EPG as per their language preference. Another stakeholder opined that choice should be given to the user to select the appropriate language from the STB Remote Control Unit (RCU) button. This will go a long way in helping with channels capacity and optimize the total bandwidth. Another view was that MSO should clearly show all channels with the same language, so that it is easy for the customer. Another

stakeholder suggested that TRAI may prescribe a fair, reasonable and non-discriminatory basis for allocation of EPG and LCN in such a manner that there is no discrimination and arbitrariness being exercised by the DPO.

Analysis of the comments and views of the Authority

- 2.17 The primary objective to regulate the EPG include the following:
- a. To ensure ease of viewing the television channels by consumer.
 - b. To provide flexibility to the distributors to arrange the television channels as per regional/local requirements.
 - c. To ensure that fair treatment is given to broadcasters to place their channels appropriately in respective genre to get the viewership.
 - d. To ensure that the DPOs wilfully do not place channel of few broadcasters out of genre to reduce their adoption by subscribers/viewership.
- 2.18 Considering these objectives, the Authority had decided that the distributors should have flexibility to list the channels in the EPG to some extent to meet the requirement of the subscribers while broadly protecting the interest of broadcaster. Accordingly, the extant provisions provide that distributor will have flexibility to organise the channel on EPG based on Language (L) or Genre (G) ensuring that pair of a channel of the language and the genre remains together. The distributor can devise its own plan with a combination but should keep channels of same language & same genre together as a single group.
- 2.19 However, as mentioned earlier, distributors have informed TRAI that they find it difficult to comply with provisions of Interconnection Regulation 2017 (as amended) as MIB gives permission to a channel in multiple languages and sometimes, some television channels run programmes in multiple languages. They informed TRAI that especially in case of free-to-air (FTA) channels, this problem is more pronounced.

- 2.20 The Authority is of the view that the extant framework provides adequate flexibility to the distributors in organising the channel in the EPG. It also ensures that broadcaster of each genre and language are given adequate protection from any malfeasance and arbitrariness.
- 2.21 However, it is pertinent that the distributor should know Genre and primary language of all channels including FTA channels to arrange each channel in EPG accordingly. Since MIB gives downlinking permission to each and every channel, the Authority is of the view that MIB should get information from broadcasters about sub-Genre of non-news channel (as per Regulation 18(1) of Interconnection Regulation 2017 (as amended)) and primary language of the channel while giving permission to each channel and display the same on its website.
- 2.22 In view of the above, **the Authority recommends that Ministry of Information and Broadcasting (MIB) should seek information from broadcasters about primary language of their television channel and sub-genre of every non-news channel (as per Regulation 18(1) of Interconnection Regulation 2017 (as amended) notified by the Authority) while giving permission to each channel. The Authority also recommends that the information so obtained may be displayed on Broadcast Seva portal of MIB so as to enable the distributors to arrange each channel in EPG accordingly.**
- 2.23 **The Authority further recommends that MIB may seek the above information also for the existing permitted channels of broadcasters and display the same on Broadcast Seva portal of MIB so that the existing channels may also be arranged appropriately in EPG by the distributors.**

CHAPTER III

ROADMAP FOR ADDRESSABILITY OF DD FREE DISH

- 3.1 To avail the broadcasting services of DD Free Dish, the consumer has to purchase Consumer Premise Equipment (CPE) including Set-Top-Box (STB) and a small sized dish antenna from the open market. This requires a one-time investment of around Rs. 2000 and the services are available with no additional subscription cost. However, the quality of consumer premise equipment may not be guaranteed and the STBs so obtained may be susceptible to piracy. As a result, the quality of viewing experience deteriorates for the consumers. Moreover, due to its non-addressable nature, the actual number of DD Free Dish subscribers cannot be determined. Further, TRAI's regulatory framework which is applicable to addressable systems only, is not applicable to DD Free Dish which is a non-addressable system.

A. Non-applicability of 2017 regulatory framework and availability of 'pay channels' on DD Free Dish

- 3.2 In the said consultation paper, TRAI has also raised issues pertaining to non-level playing field and non-addressability of DD Free Dish vide question numbers 11, 12 and 13.

Comments of the Stakeholders

- 3.3 Question 11 of the consultation paper reads as under:
Q11. Should Tariff Order 2017, Interconnection Regulations 2017 and Quality of Service Regulations 2017 be made applicable to non-addressable distribution platforms such as DD Free Dish also?
- 3.4 In response, majority of the stakeholders, particularly the DPOs including both DTH operators and MSOs have strongly advocated for making the DD Free Dish platform addressable, thereby subjecting it to TRAI's regulatory framework of broadcasting and cable service of 2017. They mentioned that DD Free Dish has ventured beyond its initial mission, transitioning into a commercial entity that capitalizes on its

network capacity. DD Free Dish allots its slots to broadcasters through e-auctions, whereas private DPOs are not allowed to auction their network capacity, instead are mandated through regulations to provide their network on first come first serve basis to broadcasters.

- 3.5 In contrast, Prasar Bharati alongwith few broadcasters through their comments have submitted that DD Free Dish is a free-to-air, non-addressable system and hence 2017 regulatory framework is not applicable on DD Free Dish. They added that upgrading DD Free Dish to an addressable platform would incur huge cost. The stakeholders further mentioned that Tariff Order is applicable only to a pay and addressable platform, wherein money is collected either by way of carriage fee from broadcasters or by subscription fee for a specified channel/bouquet opted by the subscribers. While Prasar Bharati's DTH platform being completely free to air, no tariff order is required at all.
- 3.6 Regarding Interconnection Regulations, they further commented that considering the unique nature of DD Free Dish, its capacity constraints and the manner of allocation of slots by e-auction, there is no need for the Interconnection Regulations to be made applicable to DD Free Dish. Interconnection Regulations are incompatible with the structure and functioning of DD Free Dish.
- 3.7 In so far Quality of Services and Consumer Protection Regulations, stakeholders opined that such regulations deal with various charges for installation, activation, restoration, reactivation, visiting and relocation and provisions like display of Maximum Retail Price (MRP) on EPG, setting up of a customer care centre, provision of toll-free number, establishment of website, CPE schemes, billing, maintenance of services, etc. Such requirements are not applicable on free to air non-addressable platform like DD Free Dish.
- 3.8 TRAI has notified the Telecommunication (Broadcasting and Cable) Services (Eighth) (Addressable Systems) Tariff Order, 2017 (Tariff Order 2017) as amended. Clause 3(2) of Tariff Order 2017 is as follows:

“(2) Every broadcaster shall declare ----

- (a) the nature of each of its channel either as ‘free-to-air’ or ‘pay’; and*
- (b) the maximum retail price, per month, payable by a subscriber for each of its pay channel offered on a-la-carte basis:*

Provided that the maximum retail price of a pay channel shall be more than ‘zero’:

Provided further that the maximum retail price of a channel shall be uniform for all distribution platforms.”

- 3.9 As per the above clause, a broadcaster is free to declare its channels as Pay or FTA. In case of a pay channel, the broadcaster is required to declare its MRP, which has to be uniform for all distribution platforms. In this regard, Clause 1(2) of the Tariff Order 2017 is reads as under:

“(2) This Order shall be applicable to broadcasting services relating to television provided to subscribers, through addressable systems, throughout the territory of India.”

- 3.10 The above clause suggests that the Tariff Order 2017 applies exclusively to addressable systems. Given that DD Free Dish operates as a non-addressable platform, the provisions of Tariff Order 2017 do not extend to it. Consequently, this allows for the availability of pay channels of broadcasters on the DD Free Dish platform as free to air. Due to this disparity, the CP raised the following question:

Q12. Should the channels available on DD Free Dish platform be mandatorily made available as Free to Air Channels for all the platforms including all the DPOs?

Comments of the stakeholders

- 3.11 Q12 of the consultation paper deals with the issue of channels declared as ‘pay’ by the broadcasters but are available as free to the consumers of DD Free Dish with no subscription cost. Stakeholders expressed their concerns regarding this phenomenon of availability of pay channels on DD Free Dish is resulting in a non-level-playing field between DD free Dish and other private DPOs. They demanded that either pay channels

should be entirely unavailable on the DD Free Dish platform or, if available, they should be declared as FTA by the broadcasters across all distribution platforms.

- 3.12 The stakeholders mentioned that subscribers of other DPOs should not be made to pay for the same channel which is being enjoyed for free by the subscribers of DD Free Dish. Uniform pricing across DPOs and DD Free Dish needs to be promoted. To maintain the integrity of the broadcasting sector, ensure fair competition and uphold consumer interests, it is imperative that channels maintain their designated status (be it 'pay' or 'FTA') consistently across all DPOs.
- 3.13 On the other hand, Prasar Bharati and the other stakeholders advocated that Prasar Bharati is a distinct entity vis-a-vis other private DPOs, since it is not similarly placed either under law or regulatory regime. The number of pay channels that use DD Free Dish is a minuscule number of 20, which does not warrant any intervention by the Regulator.

Analysis of the comments and views of the Authority

- 3.14 Based on the Guiding Principles of e-auction methodology⁸ laid by Prasar Bharati, broadcasters participate in an e-auction to place their channels on DD Free Dish Platform. Such channels of the broadcasters are categorized under various buckets as per genre and language of the TV channels, as attached at [Annexure II](#). Presently, 75⁹ private television channels are available on DD Free Dish platform permitted by MIB, of which 20 channels are declared as 'pay' channels by the respective broadcasters. However, these 20 channels are available at no monthly subscription cost to the consumers of DD Free Dish.
- 3.15 The stakeholders have submitted that the existing price disparity of the pay TV channels among private DPOs and DD Free Dish has resulted into loss of subscriber base of the private DPOs, as more and more

⁸ <https://prasarbharati.gov.in/wp-content/uploads/2023/12/E-auctionmethodology27-01-2023.pdf>

⁹ <https://prasarbharati.gov.in/wp-content/uploads/2024/04/Genre-wise-Channels-on-DD-Free-Dish-as-on-10.04.2024.pdf>

consumers are shifting on DD Free Dish platform, wherein both FTA and pay channels are available without any monthly charges.

- 3.16 To address this disparity, the Authority has amended the relevant clause in the Tariff (Fourth Amendment) Order, 2024. In clause 3 of the principal Tariff Order, in sub-clause (2b), after the second proviso, the following proviso has been inserted, namely:

"Provided that a channel, which has been granted downlinking permission by the Central Government and is available at no subscription fee on the direct to home platform of the public service broadcaster, shall not be declared as pay channel for addressable distribution platforms."

B. Addressable system

- 3.17 Addressability is an efficient and effective way to transmit television signals in an encrypted form, which can be decoded by the STBs at the consumer premises within the limits of the authorization made. These addressable STBs are procured from authorised sources which ensures quality of viewing experience to the consumers. Such STBs prevent unauthorized re-transmission/distribution of television channels, manage subscriber information and enhances overall service quality.
- 3.18 Question No. 13 raised the requirement of DD Free Dish platform to addressable system, which is reproduced as under:

Q13. Whether there is a need to consider upgradation of DD Free Dish as an addressable platform? If yes, what technology/ mechanism is suggested for making all the STBs addressable? What would be the cost implications for existing and new consumers? Elaborate the suggested migration methodology with suggested time-period for proposed plan. Please provide your response, with justification.

Comments of the Stakeholders

- 3.19 Regarding the need for addressability and migration to the addressable platform, stakeholders commented that to establish a level playing field, it is imperative to subject it to the TRAI regulatory framework. This

necessitates transitioning DD Free Dish into an addressable platform. Some LCO associations mentioned that this change will benefit all stakeholders including customers as increase in competition always pays positive dividends for customers. They flagged that DD Free Dish has been functioning in violation of DAS regulations and is also against the rights of equality and right of justice and livelihood of cable operators. Few stakeholders mentioned that there have been instances in the past where the distribution of channels on DD Free Dish has occurred illegally and without authorization. Once made addressable, and fall within the regulatory ambit, this piracy would be effectively halted.

- 3.20 They further opined that addressability would allow for tracking viewership patterns like consumer consumption patterns, content planning, advertisement targeting, providing consumers with better quality of service. No platform or entity, irrespective of ownership, intent, market or target audience should be allowed to offer channels or services in a non-addressable mode as it is against the law.

Analysis of the issue and views of the Authority

B1. Upgradation of DD Free Dish to an addressable system

- 3.21 As per the extant regulatory framework of TRAI, addressable system is defined as follows:

‘addressable system means an electronic device (which includes hardware and its associated software) or more than one electronic device put in an integrated system through which transmission of programmes including re-transmission of signals of television channels can be done in encrypted form, which can be decoded by the device or devices at the premises of the subscriber within the limits of the authorization made, on the choice and request of such subscriber, by the distributor of television channels.’

- 3.22 Addressability is the ability of a digital device to individually respond to a message sent to many similar devices. In the television distribution framework (DTH or cable or through IPTV etc.) an addressable system

enables and controls the distribution of television channels, by encrypting the signal and ensuring only authorized users can receive channels using a STB and TV set.

- 3.23 Addressable STBs enable efficient transmission of television signals through an STB installed at the customer's premises, facilitating conditional access and ensuring content security. Further, STBs provided by authorized manufacturers and distributors would be of good quality and come with after sales services also, resulting in value for money to the subscribers. Moreover, use of a Subscriber Management System (SMS) linked to the STB enables the generation of accurate subscriber-wise data, management of subscriber information, channel details and other related activities, thereby enhancing the quality of service provided to subscribers.
- 3.24 Presently, there is no effective mechanism to identify and verify the number of subscribers accessing DD Free Dish services. While some industry reports indicate there are 45 million¹⁰ households with DD Free Dish, others indicate some other numbers. This discrepancy in subscriber data highlights the need for addressability. Implementing addressability would allow for accurate tracking and verification of subscriber numbers. Addressability would thus provide a much-needed breakthrough to resolve the current inconsistencies by providing a reliable count of households using the DD Free Dish service.
- 3.25 The Authority has been informed that certain operators utilize the unencrypted feed from DD Free Dish connections and re-transmit these signals to their customers, charging a fee determined by the operator. Since, there is no check/curbing mechanism deployed by DD Free Dish, certain set of customers get these pirated channels at their premises.
- 3.26 It may be noted that the introduction of DAS has enabled addressability, transparency, high channel carrying capacity and provided technical feasibility to offer choice to the consumers. In a DAS

¹⁰ https://assets.ey.com/content/dam/ey-sites/ey-com/en_in/topics/media-and-entertainment/2024/ey-in-india-s-media-entertainment-sector-is-innovating-for-the-future-03-2024-v1.pdf

based environment, CAS and SMS are an integral part and the quality of service is dependent on the CAS and SMS systems. Under a conditional access system, only an authorized receiver/STB can decrypt the broadcast content. Essentially, CAS ensures that content delivery pipe from the operator to the STB is secured and provides a mechanism of addressing each STB uniquely. Whereas SMS primarily stores and manages details of each subscriber and the TV channels that are subscribed to by the subscriber.

- 3.27 Therefore, the Authority believes that to leverage the potential benefits of the addressable system, DD Free Dish platform needs to be upgraded to addressable systems in a time-bound manner with a defined sunset date. MIB should notify the upgradation of Prasar Bharati's DD Free Dish platform to an addressable system in a phased manner within a specified timeframe, throughout the territory of India.
- 3.28 To enable addressable systems for DD Free Dish, Prasar Bharati needs to replace the existing non-addressable STBs at consumer premises with addressable STBs. This transition involves significant technical upgrades, including the deployment of a CAS module for encryption, SMS to maintain accurate records of subscribers. These enhancements are essential to ensure that only authorized users can access the content, thereby increasing security and enabling quality consumer experience.
- 3.29 The Authority believes that MIB should provide Prasar Bharati with adequate transition time to carry out the preparatory work necessary for this significant upgrade. This transition period is critical to ensure a smooth and effective migration process, minimizing disruptions for the millions of households currently using DD Free Dish. Adequate time would enable Prasar Bharati to address potential technical challenges, educate consumers about the new system and ensure that all subscribers are transitioned without loss of service.
- 3.30 After the acceptance of the recommendations and the administrative approval by MIB, Prasar Bharati would be required to initiate transition

to the addressable system for DD Free Dish in the defined timeframe. To enable this transition for the public service broadcaster, requisite exemptions in TRAI's Regulations will be examined and notified, if required, to facilitate the continuation of free television services by the public service broadcaster, after Government's administrative/in-principle decision on migrating DD Free Dish to an addressable system.

3.31 In view of the above, **the Authority recommends that:**

- a. MIB should notify the upgradation of Prasar Bharati's 'DD Free Dish' platform to an addressable system in a phased manner within a specified timeframe to ensure quality of viewing experience, prevent unauthorized re-transmission of the television channels to combat piracy and maintain the record of subscribers.**
- b. Such notification by MIB should provide adequate transition time to enable Prasar Bharati to carry out the preparatory work for upgradation of its system and migration of the subscribers. Public service broadcaster will be provided with the requisite exemptions of TRAI Regulations, once such notification is issued by MIB.**

B2. Deployment of indigenous CAS, SMS and interoperable STBs

3.32 TRAI in its recently released Recommendations on 'Inputs for formulation of National Broadcasting Policy-2024' dated 20th June 2024¹¹ has emphasized on promoting and adoption of indigenous broadcasting technologies and equipment. It has been mentioned that most of the broadcast equipment are not available in the Indian market and are being imported. Also, Indian firms are not competitive on account of pricing and quality. This makes reliance on other countries for import of STBs, CAS and other broadcasting equipment. Therefore, to reduce this dependency and bolster the broadcasting industry's growth, it is imperative to invest in and develop indigenous manufacturing capabilities for the broadcasting ecosystem.

¹¹ https://traigov.in/sites/default/files/Recommendations_20062024.pdf

- 3.33 In line with the indigenous manufacturing of broadcasting equipment and technologies, the sector is predominantly dependent upon imports for the deployment of equipment in the distribution networks. The share of locally manufactured equipment continues to remain insignificant. These concerns become even more noteworthy while considering global industry reports. The global broadcast equipment market¹² is expected to reach around USD 6.7 billion by 2028 from USD 5.2 billion in 2023, registering a Compound Annual Growth Rate (CAGR) of approximately 5.3% from 2023 to 2028.
- 3.34 It may be specified that during an interaction with C-DOT, it was informed that C-DOT has developed the technologies for indigenous products¹³ for the broadcasting sector, including SMS, CAS and STBs for OTT, DTH and other segments. Engaging C-DOT or any other Indian organization to develop key technologies for DD Free Dish can save costs, boost the local economy and reduce dependency on foreign technologies. This approach would also support national initiatives like ‘Make in India’, promoting self-reliance and technological innovation.
- 3.35 Additionally, working with local organizations would lead to faster and more efficient implementation of indigenous broadcasting technologies. It would help to build a skilled workforce and enhance India's technological capabilities. In this context, the Authority believes that Prasar Bharati should consider deploying the C-DOT products in its network. Additionally, the Government should facilitate the transfer of these indigenous technologies/products developed by C-DOT to Indian vendors. This initiative would promote the indigenization of broadcasting equipment, making India more self-reliant and reducing dependence on imported services.
- 3.36 The Authority in its Recommendations on ‘Inputs for formulation of National Broadcasting Policy-2024’ dated 20.06.2024 has recommended for ‘*Mandating public service broadcaster to procure and*

¹² <https://www.marketsandmarkets.com/Market-Reports/broadcast-equipment-market-111738599.html>

¹³ https://www.cdote.in/cdoteweb/web/product_category.php?lang=en&catId=8

deploy indigenous broadcasting technologies and equipment in certain proportion'. The Authority believes that Prasar Bharati should come forward conducting suitable trials and deploying indigenous broadcasting equipment manufactured by Indian vendors. This would create a conducive environment, enabling private operators also to utilize indigenous broadcasting equipment, thereby reducing dependency on imports.

- 3.37 Further, the Authority is of the view that along with the promotion of indigenous broadcasting equipment, this is the appropriate time to implement interoperability of STBs. Although presently STBs in the market use different compression techniques, coding techniques, encryption system, middleware and operating system. It has been learnt from C-DOT that its interoperable STB (CiSTB)¹⁴ makes STBs independent of service providers. It also addresses the issues related to content security and can work in a non-interoperable mode as well.
- 3.38 In view of the above, **the Authority recommends that Prasar Bharati should engage C-DOT or any other Indian organization for utilizing indigenous technologies for Conditional Access System (CAS), Subscriber Management System (SMS) and interoperable Set-Top-Box (STB) for adoption by 'DD Free Dish'**.
- 3.39 Referring to TRAI's recommendations on 'Interoperability of Set-Top Box' dated 10th April 2020¹⁵, the Authority recommended that '*All the Set-Top-Boxes in India must support technical interoperability in principle, i.e. every STB provided to a consumer must be interoperable.*' Interoperability of STBs would overcome the manifold consequences of non-interoperable STBs. For instance, non-interoperability restricts the choice of the consumer. Any consumer desirous of changing the service provider has to pay for the STB of the new service provider. This entails additional cost, thereby becoming a deterrent for the consumer. Such

¹⁴ https://www.cdote.in/cdotweb/web/product_page.php?lang=en&catId=6&pId=33

¹⁵ https://traigov.in/sites/default/files/Recommendation_11042020.pdf

migration cost often leaves consumers stuck with their current service provider, thereby infringing upon their freedom of choice.

- 3.40 Further, non-interoperable STBs that become inactive or remain idle for a long time also have significant financial implications. Since these inactive STBs cannot be used to receive services from other operators, the investment in the STB gets wasted. Such non-reusable STB contributes to electronic waste (e-waste). According to the Global E-waste Monitor 2024¹⁶, India generated about 4100 billion kg of e-waste in 2022 and ranked second among Asian countries after China in terms of e-waste producing countries.
- 3.41 The Authority, therefore, is of the view that MIB should come out with guidelines mandating all the service providers and Prasar Bharati to start providing interoperable STBs to the consumers. Interoperability of STBs empowers consumers to switch between different service providers without purchasing a new STB, making it easier to choose the best service for their needs. Additionally, this measure helps reduce e-waste. The Authority is of the view that Prasar Bharati should act as a catalyst in adopting interoperable STBs. Simultaneously, MIB may also direct private DPOs also to start adopting and implementing interoperable STBs.
- 3.42 Accordingly, **the Authority reiterates that all the Set-Top-Boxes in India must support technical interoperability in principle, i.e. every STB provided to a consumer must be interoperable. The Authority recommends that Prasar Bharati should adopt interoperable STBs for ‘DD Free Dish’ for transitioning the entire ecosystem from operator-based STBs to interoperable STBs to empower consumers’ choice. MIB may also direct private Distribution Platform Operator (DPOs) to adopt and implement interoperable STBs.**

¹⁶ https://ewastemonitor.info/wp-content/uploads/2024/03/GEM_2024_18-03_web_page_per_page_web.pdf

B3. Conformity of CAS, SMS and STBs with Indian Standards

- 3.43 It may be noted that TRAI has designated Telecommunication Engineering Centre (TEC) as the testing and certification agency for CAS and SMS used for broadcasting and cable TV services as per Order dated 20th September 2021¹⁷. Further, TRAI issued an Order on 9th August 2023¹⁸ to all DPOs, mandating their deployed CAS and SMS systems to undergo testing in accordance with the test guides provided by TEC by accredited laboratories and subsequently certified by TEC. The Authority is of the opinion that Prasar Bharati while deploying the indigenous CAS and SMS should conform to the testing and certification requirements, as notified by TEC.
- 3.44 Moreover, the Authority believes that the interoperable STBs should be compliant with specified standards of the Bureau of Indian Standards (BIS), or any other standard authorised by the Government. BIS registration ensures quality, safety and reliability of products in accordance with Indian Standards (IS). BIS registration ensures quality, safety and reliability of products in accordance with Indian Standards. The BIS registration under Compulsory Registration Scheme (CRS) was introduced by the Ministry of Electronics and Information Technology (MeitY) in 2012 for 15 product categories. The BIS-CRS registration mainly covers products in IT, electronics and lighting categories.
- 3.45 In light of the above, **the Authority recommends that the indigenous CAS and SMS should conform to the testing and certification requirements as notified by the Telecommunication Engineering Centre (TEC). The STBs should be compliant with the specified Bureau of Indian Standard (BIS) specifications, or any other standard approved by any agency authorised by the Central Government.**

¹⁷ https://traigov.in/sites/default/files/Order_CAS_SMS_20092021.pdf

¹⁸ https://traigov.in/sites/default/files/Order_09082023_0.pdf

B4. Suggested transition for encryption and uplinking of television channels

- 3.46 It needs to be emphasized that conversion from analog to DAS for the DPOs in the private sector started in 2012 and was completed by March 2017, wherein cable operators made huge investments to implement DAS to provide encrypted signals of TV channels through STB deployed at the consumer premises. However, DD Free Dish still being a non-addressable system, channels available at the DD Free Dish platform are unencrypted.
- 3.47 As a first step, to address the issue of level playing field with private television channels, TRAI in its recommendations on 'Inputs for formulation of National Broadcasting Policy-2024' recommended that: *'Enabling addressable systems for 'DD Free Dish' platform to maintain subscribers' detail, ensuring quality of service and preventing unauthorized distribution of the content to address the issue of level playing field particularly for the private television channels'.*
- 3.48 The Authority believes that by leveraging the potential benefits of the addressable system would enable Prasar Bharati to fulfil the mandate of delivering quality content and services in public interest. Therefore, DD Free Dish platform needs to be upgraded to addressable systems in a time-bound manner with a defined sunset date, giving a reasonable notice period, say until expiry of current agreement with the broadcasters, to fulfil the existing contractual obligations. The process of encryption of television channels may be initiated in a phased manner, by prioritizing encryption of the television channels of the private broadcasters in first place followed by the other television channels of Doordarshan, educational and radio channels available on DD Free Dish.
- 3.49 In view of the above, **the Authority recommends that Prasar Bharati should initially start the encryption of the television channels of private broadcasters available at the 'DD Free Dish' headend, giving a reasonable notice period to such broadcasters for meeting their**

existing contractual obligations. Subsequently, all other television channels of 'DD Free Dish' may also be transmitted in encrypted form.

- 3.50 To upgrade the DD Free Dish platform to an addressable system, Prasar Bharati needs to deploy CAS module sourced from Indian vendors, featuring advanced encryption software at the DD Free Dish headend. This CAS module, equipped with a sophisticated lock and key arrangement for encryption, is essential to combat piracy and secure content. The transition to an addressable system necessitates the replacement of existing non-addressable STBs with new, addressable ones. This significant upgrade will not only enhance security but also enable precise tracking and management of subscriber data, thereby allowing for improved service delivery and targeted content offerings.
- 3.51 To fulfil its mandate to inform, educate and entertain the masses, the Authority advocates a phased approach to encrypt the feed at the DD Free Dish headend:
- i. In the first phase, the signals of all channels (presently 75) from private broadcasters, including both pay and FTA channels, as well as foreign channels (presently 3), should be encrypted at the DD Free Dish headend, after giving a reasonable notice period to the broadcasters, say until the expiry of their existing broadcasting agreements. This encryption would help secure content and prevent unauthorized access, ensuring that only legitimate subscribers can view these channels.
 - ii. Meanwhile, the signals of educational channels (presently 51), Doordarshan channels (presently 41, including the two channels of Central Government which broadcasts the proceedings of the two Houses of Indian Parliament and other public affairs programming) and radio channels (presently 48) may continue to remain unencrypted. Keeping these channels unencrypted ensures that the consumers who have already invested in unencrypted STBs, retain free and easy access to essential educational and public service content until the reasonable lifespan of STBs, say four years.

However, after the specified timeframe all the DD channels should be transmitted in encrypted form.

- 3.52 The Authority recognizes that during the transition to addressable STBs, there would be a certain group of consumers who have recently purchased the STBs and would not be willing to replace. For such consumers, the Authority is of the view that they may continue to have access to all 140 Government channels. Given the typical lifespan of a STB as 4-5 years, the Authority believes that after a period of 4 years, all non-addressable STBs in use should be replaced mandatorily.
- 3.53 The Authority is of the view that the sale of non-addressable STBs should be prohibited in the market from 1st January 2025, in consultation with MeitY, after arrangements for the provision of addressable STBs are put in place by the public service broadcaster. Accordingly, a prior notice should be issued to all the manufacturers and sellers to cease the production and distribution of non-addressable STBs.
- 3.54 Further, the Authority is of the view that the encryption process at the DD Free Dish headend shall commence from 1st April 2025. This timeline would provide Prasar Bharati with sufficient time to undertake necessary preparations for the upgrade, including technical integration, procurement of equipment and consumer education initiatives. This strategic phased approach is crucial for the successful implementation and sustainability of the upgraded DD Free Dish platform. Additionally, this would ensure that consumers are not unduly burdened and there is a smooth transition to addressable system.
- 3.55 Apropos to the above discussion, **the Authority recommends that with effect from 1st April 2025, encryption of the feed/transport streams of the television channels at ‘DD Free Dish’ headend should be done in the following manner:**
- a. **Signals of permitted satellite television channels of the private broadcasters available on the platform of ‘DD Free Dish’ should be encrypted before uplinking.**

- b. Signals of other television channels including educational channels of the Government, Doordarshan channels and radio channels of Prasar Bharati may continue to be uplinked unencrypted.**

3.56 Further, **the Authority recommends that:**

- a. Eventually all the television channels including the DD channels, should be mandatorily encrypted before uplinking from 'DD Free Dish' headend within a period of four (04) years from the date notified for stopping sale of non-addressable STBs.**
- b. The sale of non-addressable STBs should be prohibited in the market from 1st January 2025, in consultation with MeitY, after arrangements for the provision of addressable STBs are put in place by the public service broadcaster.**

B5. Introduction and distribution of indigenous addressable STBs in the market for 'DD Free Dish'

3.57 Presently, the non-addressable STBs of the DD Free Dish have very basic functionality as compared with the addressable STBs utilized by the DTH and cable operators. Recognizing the potential benefits of the addressable STBs, the Authority believes that the existing non-addressable STBs of the DD Free Dish needs to be upgraded to an addressable STB within a defined time frame. Considering, the base figure of 45-50 million STBs as per industry estimates, the Authority believes that Prasar Bharati should authorize adequate number of Indian STB manufacturers for manufacturing of addressable STBs. These addressable STBs may be made available to the consumers through the distribution network of such manufactures, and/or the distributors authorized by Prasar Bharati for sales and aftersales services such as installation, repair and maintenance of STBs for DD Free Dish. This model will ensure a wide accessible distribution network, with adequate competition in the market, making it easier for consumers to install and obtain aftersales services such as installation, repair and maintenance of their STBs from such authorized dealers.

- 3.58 The Authority believes that the introduction of these addressable STBs from 01st January 2025 would ensure a timely transition while giving Indian manufacturers adequate time for production and roll-out.
- 3.59 It may be mentioned here that TRAI in its Recommendations on 'KYC of DTH Set Top Boxes' dated 24th October 2019¹⁹ recommended the process of KYC of DTH services. Accepting TRAI's Recommendations, MIB issued an Order on 15th February 2021, mentioning that the Government has decided to implement customer identification for providing DTH services. The Order directed all the DTH operators to maintain KYC of STBs in a specified manner and to furnish compliance report on quarterly basis. The same process may be followed by Prasar Bharati through its authorized STB distributors.
- 3.60 Further, the Authority is of the view that the addressable STBs can be made available or replaced for the underprivileged and marginalized sections of the society at a subsidized cost or through appropriately framed Direct Benefit Transfer (DBT) scheme, if the Government so decides.
- 3.61 Based on the discussions above, **the Authority recommends that Prasar Bharati should authorize Indian STB manufacturers to manufacture, and such indigenous interoperable addressable STBs should be:**
- a. **introduced in its market by not later than 1st January 2025.**
 - b. **made available to the consumers through the distribution network of the manufacturers and/or distributors authorized by Prasar Bharati for sales and aftersales services such as installation, repair and maintenance.**
 - c. **provisioned for after fulfilling the KYC process, as notified by MIB from time-to-time, for the records of Prasar Bharati.**
 - d. **made available for the underprivileged and marginalized sections of the society at a subsidized cost or through**

¹⁹ https://tra.gov.in/sites/default/files/Recommendation_24102019.pdf

appropriately framed Direct Benefit Transfer (DBT) scheme, if the Government so decides.

B6. Awareness amongst consumers for uptake of addressable STBs

- 3.62 To make the public aware of the benefits of addressability as well as various timelines decided by Prasar Bharati for transitioning DD Free Dish to addressable system and replacement of subscribers' STBs, Prasar Bharati would be required to run consumer awareness campaigns for the targeted subscribers and customised on the basis of factors such as socio-economic background, language, region etc. Such communication may be made through TV scrolls, advertisements in print media such as newspaper or through other means, as deemed fit.
- 3.63 Besides spreading awareness about the benefits and necessity of replacing old STBs with new addressable ones, the objectives of such campaigns should focus on communicating the following information to the consumers:
- Sale of non-addressable STBs will be stopped from 01st January 2025.
 - Channels of private broadcasters will not be available in the non-addressable STBs with effect from 1st April 2025.
 - Educational channels, Doordarshan channels and radio channels will continue to remain available in their existing non-addressable STBs until 31st March 2029 through non-addressable STBs. After that all the DD Channels will be available, only through addressable STBs.
 - Information about the arrangement made by Prasar Bharati for the consumers to obtain the addressable STBs from the market through the distribution network of its authorised manufacturers.
 - Display list of manufacturers and distributors, and addresses of their distribution outlets on its website to facilitate consumers to obtain the addressable STBs and disseminate this information through other means also.

- 3.64 Through these campaigns, consumers would become more aware of the advantages and the improved functionalities of the new addressable STBs. They would understand why it's important to upgrade their old equipment. The campaigns might include information on the process for obtaining a new one, and any potential costs or incentives associated with the upgrade.
- 3.65 Overall, these campaigns would play a crucial role in educating consumers, encouraging them to take action and ensure a smooth transition to the new technology.
- 3.66 Accordingly, **the Authority recommends that Prasar Bharati should run awareness campaigns through TV scroll, advertisements in print media, and/or other suitable means to inform the consumers about various timelines for transitioning 'DD Free Dish' to addressable system and replacement of their existing non-addressable STB with the new addressable STB to continue receiving the signals of the television channels of the private broadcasters besides making them aware about the benefits of using addressable STBs.**
- 3.67 The Authority believes that the above-mentioned steps of introducing addressability would yield several significant benefits. Firstly, it would provide quality of viewing experience to the consumers. Encrypted television signals will prevent their illegal re-transmission and hence will keep a check on piracy. It would provide accurate data on the number of consumers watching DD Free Dish and the locations of installed STBs, including detailed insights into districts, regions and states. This information would enable more precise and effective content creation, tailored to the preferences and needs of different audiences. Additionally, advertisers would be able to target their advertisements more effectively, enhancing the relevance and impact of their campaigns. Overall, addressability would lead to improved service delivery, better audience engagement, combat piracy and increased opportunities for targeted advertising.

CHAPTER IV

SUMMARY OF RECOMMENDATIONS

A. Listing of television channels in EPG

- 4.1** The Authority recommends that Ministry of Information and Broadcasting (MIB) should seek information from broadcasters about primary language of their television channel and sub-genre of every non-news channel (as per Regulation 18(1) of Interconnection Regulation 2017 (as amended) notified by the Authority) while giving permission to each channel. The Authority also recommends that the information so obtained may be displayed on Broadcast Seva portal of MIB so as to enable the distributors to arrange each channel in EPG accordingly.
- 4.2** The Authority further recommends that MIB may seek the above information also for the existing permitted channels of broadcasters and display the same on Broadcast Seva portal of MIB so that the existing channels may also be arranged appropriately in EPG by the distributors.

B. Addressability of DD Free Dish

B1. Upgradation of DD Free Dish to an addressable system

- 4.3** The Authority recommends that:
- a.** MIB should notify the upgradation of Prasar Bharati's 'DD Free Dish' platform to an addressable system in a phased manner within a specified timeframe to ensure quality of viewing experience, prevent unauthorized re-transmission of the television channels to combat piracy and maintain the record of subscribers.
 - b.** Such notification by MIB should provide adequate transition time to enable Prasar Bharati to carry out the preparatory work for upgradation of its system and migration of the subscribers. Public service broadcaster will be provided with the requisite

exemptions of TRAI Regulations, once such notification is issued by MIB.

B2. Deployment of indigenous CAS, SMS and interoperable STB

4.4 The Authority recommends that Prasar Bharati should engage C-DOT or any other Indian organization for utilizing indigenous technologies for Conditional Access System (CAS), Subscriber Management System (SMS) and interoperable Set-Top-Box (STB) for adoption by ‘DD Free Dish’.

4.5 *The Authority reiterates that all the Set-Top-Boxes in India must support technical interoperability in principle, i.e. every STB provided to a consumer must be interoperable.* The Authority recommends that Prasar Bharati should adopt interoperable STBs for ‘DD Free Dish’ for transitioning the entire ecosystem from operator-based STBs to interoperable STBs to empower consumers’ choice. MIB may also direct private Distribution Platform Operator (DPOs) to adopt and implement interoperable STBs.

4.6 The Authority recommends that the indigenous CAS and SMS should conform to the testing and certification requirements as notified by the Telecommunication Engineering Centre (TEC). The STBs should be compliant with the specified Bureau of Indian Standard (BIS) specifications, or any other standard approved by any agency authorised by the Central Government.

B3. Transmission of encrypted television channels by ‘DD Free Dish’

4.7 The Authority recommends that Prasar Bharati should initially start the encryption of the television channels of private broadcasters available at the ‘DD Free Dish’ headend, giving a reasonable notice period to such broadcasters for meeting their existing contractual obligations. Subsequently, all other television channels of ‘DD Free Dish’ may also be transmitted in encrypted form.

4.8 The Authority recommends that with effect from 1st April 2025, encryption of the feed/transport streams of the television channels at ‘DD Free Dish’ headend should be done in the following manner:

- a. Signals of permitted satellite television channels of the private broadcasters available on the platform of ‘DD Free Dish’ should be encrypted before uplinking.**
- b. Signals of other television channels including educational channels of the Government, Doordarshan channels and radio channels of Prasar Bharati may continue to be uplinked unencrypted.**

4.9 The Authority recommends that:

- a. Eventually all the television channels including the DD channels, should be mandatorily encrypted before uplinking from ‘DD Free Dish’ headend within a period of four (04) years from the date notified for stopping sale of non-addressable STBs.**
- b. The sale of non-addressable STBs should be prohibited in the market from 1st January 2025, in consultation with MeitY, after arrangements for the provision of addressable STBs are put in place by the public service broadcaster.**

B4. Introduction and distribution of addressable STB in the market

4.10 The Authority recommends that Prasar Bharati should authorize Indian STB manufacturers to manufacture, and such indigenous interoperable addressable STBs should be:

- a. introduced in its market by not later than 1st January 2025.**
- b. made available to the consumers through the distribution network of the manufacturers and/or distributors authorized by Prasar Bharati for sales and aftersales services such as installation, repair and maintenance.**

- c. provisioned for after fulfilling the KYC process, as notified by MIB from time-to-time, for the records of Prasar Bharati.**
- d. made available for the underprivileged and marginalized sections of the society at a subsidized cost or through appropriately framed Direct Benefit Transfer (DBT) scheme, if the Government so decides.**

4.11 The Authority recommends that Prasar Bharati should run awareness campaigns through TV scroll, advertisements in print media, and/or other suitable means to inform the consumers about various timelines for transitioning 'DD Free Dish' to addressable system and replacement of their existing non-addressable STB with the new addressable STB to continue receiving the signals of the television channels of the private broadcasters besides making them aware about the benefits of using addressable STBs.

List of Acronyms

Abbreviations	Description
BISAG	Bhaskaracharya National Institute for Space Application and Geo-Informatics
BIS	Bureau of Indian Standards
CAS	Conditional Access System
CAGR	Compound Annual Growth Rate
C-DOT	Centre for Development of Telematics
CiSTB	C-DOT's Interoperable Set-Top-Box
CPE	Consumer Premise Equipment
CRS	Compulsory Registration Scheme
DAS	Digital Addressable System
DBT	Direct Benefit Transfer
DPO	Distribution Platform Operators
DTH	Direct-To-Home
EPG	Electronic Programme Guide
e-waste	Electronic waste
FTA	Free-To-Air
HPHT	High Power High Transmitter
IS	Indian Standards
KYC	Know Your Customer
LCN	Logical Channel Number
MeitY	Ministry of Electronics and Information Technology
MIB	Ministry of Information and Broadcasting
MRP	Maximum Retail Price
OHD	Open House Discussion
RCU	Remote Control Unit
SMS	Subscriber Management System
STB	Set-Top-Box
TDSAT	Telecom Disputes Settlement and Appellate Tribunal
TEC	Telecommunication Engineering Centre
TRAI	Telecom Regulatory Authority of India

Annexure I

DD Free Dish LCN Lineup

Brief Details of DD Free Dish channels as on 01.04.2024 Satellite GSAT- 15, 93.5 °E					
TS-1	TS-2	TS-3	TS-4	TS-5	TS-6
Freq (MHz)U/L-14140 D/L - 11090, Pol.-VS.R. -29.5 Sps, FEC - 3/4	Freq (MHz)U/L-14220 D/L -11170, Pol.-V S.R. - 29.5 MSps,FEC- 3/4	Freq (MHz)U/L-14270 D/L- 11470, Pol.-V S.R.- 29.5 MSps,FEC - 3/4	Freq (MHz)U/L-14310 D/L-11510, Pol.-V S.R.- 29.5 MSps, FEC - 3/4	Freq (MHz) U/L-14350 D/L- 11550, Pol.-V S.R.- 29.5 MSps,FEC -3/4	Freq (MHz)U/L-14430 D/L -11630, Pol.-VS.R.- 30MSps, FEC - 3/5
<i>CHANNELS (As per MPEG 4 set top box decoding)</i>					
1 DD News	19. Manoranjan Grand	37. Dungal 2	55. Star Utsav Movies	75. DD Yadagiri	95. Aashtha Bhajan
2. DD National	20. Popular TV	38. Colors Cineplex Superhits	56. News 18 India	76. DD UP	96. Chardikala Time TV
3. DD Kisan	21. DD Tamil	39. Movie Plus	57. Ishara TV	77. DD Himachal Pradesh	97. DD Goa
4. 9XM	22. DD Punjabi	40. Manoranjan Movies	58. Sony Wah	78. DD Rajasthan	98. DD Haryana
5. Nazara	23. DD Sahyadri	41. Big Magic	59. India Daily Live	79. DD Sports	99. India News
6. Sun Marathi	24. Fakt Marathi	42. B4U Kadak	60. DD India	80. DD Bihar	100. DD News HD
7. Showbox	25. Sports18 Khel	43. ManoranjanTV	61. P e a r TV	81. DD Jharkhand	101. BansalNews
8. DD Gimar	26. Sansad TV	44. TV9 Bharatvarsh	62. Mastii	82. DD MP	102. Sudarshan News
9 B4U Music	27. Sansad TV (Rajya Sabha)	45. Aastha	63. Sadhna TV	83. DD Tripura	103. News 18 UP/UK
10. Raapchik	28. Shemaroo TV	46. Filamchi Bhojpuri	64. India TV	84. DD Chhattisgarh	104. DD Meghalaya
11. B4U Bhojpuri	29. Dungal	47. Unique TV	65. News Nation	85. DD Kashir	105. DD Manipur
12. B-4U Movies	30. Bhojpuri Cinema	48. Zee Anmol Cinema	66. Times Now Navbharat	86. DD Chandana	106. DD Nagaland
13. Good News Toady	31. Zee Biskope	49. NDTV India	67. Republic Bharat	87. DD Uttarakhand	107. DD Mizoram
14 News 24	32. Sun Neo	50. Star GoldThrills	68. Aaj Tak	88. DD Saptagiri	108. DD India HD
15 Shemaroo Umang	33. Goldmines	51. Zee News	69. ABP News	89. DD Malayalam	109. ABZY Cool
16 Dhamaal	34. The Q	52. Goldmines Movies	70. Action Cinema	90. DD Assam	110. VTV News
17. Dhinchaak	35. Colors Cineplex Bollywood	53. Chumbak TV	71. Zee Chitramandir	91. DD Odia	111. BTV World
18. Manoranjan Prime	36. Goldmines Bollywood	54. Sanskar TV	72. Zee Punjabi	92. DD ArunPrabha	112. KBS World
			73. Zee Anmol Cinema 2	93. DD Bangla	113. DD National HD
			74. DD Bharati	94. RT	114. DD Urdu

RADIO CHANNELS (As per MPEG 4 set top box decoding)					
1. AIR Live News	9. AIR Gujarat	17 AIR Karnataka	25. AIR Ragam	33. AIR Nagaland	41. FM Rainbow Delhi
2. AIR Telangana	10. AIR Goa	18. AIR West Bengal	26. AIR Jharkhand	34. AIR Mizoram	42. FM Gold Delhi
3. AIR Maharashtra	11. AIR Punjab	19. AIR Hindi	27. Akashvani Aradhana	35. AIR Arunachal	43. AIR Darbhanga
4. AIR Tamil Nadu	12. AIR Puducherry	20. AIR NEService	28. AIR Odisha	36. AIR Tripura	44. AIR Nazibabad
5. Vividh Bharati	13. AIR Srinagar	21. AIR Uttarakhand	29. AIR Kerala	37. AIR Ladakh	45. AIR World Ser 1
6. AIR Haryana	14. AIR UP	22 AIR Partblair	30. AIR Assam	38. AIR Himachal	46. AIR World Ser 2
7. AIR Andhra	15. AIR Bihar	23. AIR Rajasthan	31. AIR Chhattisgarh	39 AIR Jammu	47. AIR N'hood Ser 1
8. AIR Manipur	16. AIR MP	24. AIR Sikkim	32. AIR Meghalaya	40. Aakashvani Varanasi	48. AIR N'hood Ser 2

Brief Details of Educational 51 Channels available on DD Free Dish STBs on Satellite GSAT- 15, 93.5 E		
TS-7	TS-8	TS-9
Freq (MHz)U/L-14390 D/L - 11590, Pol-V S.R. -29.5 MSps, FEC - 3/4	Freq (MHz)U/L-14470 D/L -11670, Pol-V S.R. -29.5 MSps, FEC - 3/4	Freq (MHz)U/L-14350 D/L- 11550, Pol.-H S.R.- 29.5 MSps, FEC - 3/4
117. DD SWYAM Prabha 1	134. DD SWYAM Prabha 18	151. DD Vande Gujarat 1
118. DD SWYAM Prabha 2	135. DD SWYAM Prabha 19	152. DD Vande Gujarat 2
119. DD SWYAM Prabha 3	136. DD SWYAM Prabha 20	153. DD Vande Gujarat 3
120. DD SWYAM Prabha 4	137. DD SWYAM Prabha 21	154. DD Vande Gujarat 4
121. DD SWYAM Prabha 5	138. DD (SWYAM Prabha 22	155. DD Vande Gujarat 5
122. DD SWYAM Prabha 6	139. DD eVidya 1	156. DD Vande Gujarat 6
123. DD SWYAM Prabha 7	140. DD eVidya 2	157. DD Vande Gujarat 7
124. DD SWYAM Prabha 8	141. DD eVidya 3	158. DD Vande Gujarat 8
125. DD SWYAM Prabha 9	142. DD eVidya 4	159. DD Vande Gujarat 9
126. DD SWYAM Prabha 10	143. DD eVidya 5	160. DD Vande Gujarat 10
127. DD SWYAM Prabha 11	144. DD eVidya 6	161. DD Vande Gujarat 11
128. DD SWYAM Prabha 12	145. DD eVidya 7	162. DD Vande Gujarat 12
129. DD SWYAM Prabha 13	146. DD eVidya 8	163. DD Vande Gujarat 13
130. DD SWYAM Prabha 14	147. DD eVidya 9	164. DD Vande Gujarat 14
131. DD SWYAM Prabha 15	148. DD eVidya 10	165. DD Vande Gujarat 15
132. DD SWYAM Prabha 16	149. DD eVidya 11	166. DD Vande Gujarat 16
133. DD SWYAM Prabha 17	150. DD eVidya 12	167. DD DigiShala
Total TV Channel capacity: - 167 TV (145 Channels in MPEG-2, SD (including 51 Educational channels) + 18 channels in SD MPEG-4, + 4 HD channel in MPEG-4) Total RADIO Channels capacity: - 48 Total available TV Channels at present: - 167 (145 channels in SD MPEG-2 (including 51 Educational channels) + 18 channels in SD MPEG 4 + 4 HD channel in HD in MPEG-4)		

Annexure II

Categorization of DD-Free Dish slots for e-Auctions

1. For MPEG-2 slots:

S. N.	Bucket	Genre/Language
i)	BUCKET A+	GEC (Hindi) Channels
ii)	BUCKET A	a. Movie (Hindi) Channels b. Teleshopping channels
iii)	BUCKET B	a. Music (Hindi) Channels, b. Sports (Hindi) Channels, c. All channels of Bhojpuri language
iv)	BUCKET C	News & Current Affairs (Hindi) channels
v)	BUCKET D	a. All other remaining Genre of Hindi b. Devotional/Spiritual/Ayush c. All Genres of Marathi, Punjabi & Urdu channels d. News & Current Affairs (English) Channels
vi)	Bucket R1	*This bucket is for all channels in Languages not covered above

Table-1

** If a particular Indian language is represented on DD Free Dish by any channel(s) under Bucket R1 for 02 years continuously then that concerned language shall be deemed as represented and it shall be shifted from Bucket 'R1' to Bucket 'D' from next year.*

2. For MPEG-4 slots: Bidding in the e-auction of vacant MPEG-4 slots opens to all genre (language) Channels without any bucket categorisation.