



**Telecom Regulatory Authority of India**



Supplementary Consultation Paper

on

Roadmap to Promote Broadband Connectivity and  
Enhanced Broadband Speed

New Delhi, India

19<sup>th</sup> May 2021

Telecom Regulatory Authority of India  
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**Stakeholders are requested to furnish their comments to Advisor (BB&PA), TRAI by 03.06.2021 and counter-comments by 10.06.2021. Comments and counter-comments would be posted on TRAI's website [www.trai.gov.in](http://www.trai.gov.in). The comments/counter comments may be sent, preferably in electronic form, to Shri Sunil Kumar Singhal, Advisor (Broadband and Policy Analysis), Telecom Regulatory Authority of India on the e-mail id [advbbpa@traigov.in](mailto:advbbpa@traigov.in) with a copy to [ja3-nsl@traigov.in](mailto:ja3-nsl@traigov.in)**

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# **CHAPTER 1**

## **INTRODUCTION**

- 1.1 The year 2020 was an unprecedented year. The nations and people world over have faced challenges one would never have imagined forcing changes in the life of citizens and the way we transact and interact. It was also the year when we were more dependent than ever on our broadband connections, be it for our daily jobs or education or entertainment or to even attend social functions. The COVID-19 pandemic is far from over. And the dependence on high speed and reliable broadband connectivity is continuously increasing. Post-pandemic era will see a change in the ways we live, work, and interact. We will live in a world which facilitates socializing and economic activities with reduced human contact. The demand for broadband connectivity will further increase. To meet this growing demand for high-speed and reliable broadband connectivity, more investments would be required in the telecom infrastructure. The widespread availability and use of broadband have both economic and social benefits. Broadband connectivity has become vital, and it would be difficult to imagine life without it.
- 1.2 Although almost everything has switched to the online mode during the pandemic, one major change was noticed with tremendous increase in the demand of videos (video streaming used for entertainment purposes or video calls and conferencing used for real-time communication). The real-time video interactions saw an increase, since more users relied on videos for office meetings, education, or to stay in touch with their loved ones. As we know, fixed-line Broadband is the most reliable medium for video streaming and conferencing applications.
- 1.3 Even before the pandemic hit our lives, during the last two decades, in an increasingly knowledge-driven globalized world, telecommunication has emerged as a key driver of economic and social development.

Communication services such as voice, video, data, Internet, and wideband multimedia have become indispensable in the modern society.

- 1.4 Keeping in view the increasing requirement of broadband services, the Authority issued its Recommendations dated 17<sup>th</sup> April 2015 to the Government on “Delivering Broadband Quickly: What do we need to do?” These recommendations covered a wide range of topics such as Spectrum Licensing, Right of Way (ROW), National Optical Fibre Network (NOFN), Towers, Fixed-line Broadband, Cable TV, Satellite, Hosting of Contents in India, License fee on ISPs, Infrastructure Sharing, and Promoting Adoption of Broadband. The details of these recommendations are available at the website of TRAI and can be accessed at <https://traigov.in/sites/default/files/Broadband%3D17.04.2015.pdf>.
- 1.5 Vide these recommendations, one of the recommended action points was: *“To promote fixed line BB [Broadband], the license fee on the revenues earned on fixed line BB should be exempted for at least 5 years.”*
- 1.6 Subsequently, after the notification of the National Digital Communications Policy–2018, the Department of Telecommunications (DoT) vide three separate references sought the recommendations of the Authority on issues relating to the broadband speed, infrastructure creation, and broadband proliferation. In pursuance of the same, the Authority issued a Consultation Paper dated 20<sup>th</sup> August 2020 on *“Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed”*. The comments, counter-comments, and inputs of stakeholders during the Open House Discussion have been received by the Authority.
- 1.7 While the Authority was in the process of finalizing its recommendations on the abovementioned issues, it received a letter dated 12<sup>th</sup> March 2021 from DoT, appended as **Annexure A**, wherein a reference has been made to the abovementioned TRAI’s recommendation, i.e., *“To promote fixed line BB [Broadband], the license fee on the revenues earned on fixed line BB*

*should be exempted for at least 5 years.*” Vide this letter; DoT has informed that this recommendation has been considered by the Government and during deliberations, the following issues have emerged:

(a) The said recommendation requires a review as the factual matrix and relevant issues may have undergone a change with the passage of time (from the year 2015 to 2021).

(b) Whether proliferation of Fixed-line Broadband services can be better promoted by providing direct benefit to consumers for usage of Fixed- line Broadband services?

(c) Whether there is a likelihood of misuse by the licensees through misappropriation of revenues due to the proposed exemption of the License Fee on the revenues earned from Fixed-line Broadband services? That is, whether the licensees are likely to claim the revenues earned from telecom services, on which higher license fee is applicable, as those earned from the Fixed-line Broadband services for which license fee is proposed to be exempted?

1.8 Further, DoT vide its letter dated 12<sup>th</sup> March 2021 also referred to Q.23, i.e., *“What policy measures should be taken to improve availability and affordability of fixed broadband services?”*, of the Consultation Paper on *‘Roadmap to promote Broadband Connectivity and Enhanced Broadband Speed’* dated 20<sup>th</sup> August 2020.

1.9 In view of the above, DoT has referred the aforesaid recommendation relating to exemption of License Fee on the revenues earned from fixed-line broadband to TRAI for its reconsideration under the terms of sub-section (1) of section 11 of the Telecom Regulatory Authority of India Act, 1997 (as amended). DoT vide its letter dated 12<sup>th</sup> March 2021 has requested TRAI to provide consolidated and updated recommendations in the light of the aforesaid consultation on *“Roadmap to promote Broadband Connectivity and Enhanced Broadband Speed”* dated 20<sup>th</sup> August 2020, and after taking into consideration the issues mentioned in paras 1.7 and 1.8 of this chapter.

1.10 It is pertinent to mention here that since the aforesaid recommendations on “Delivering Broadband Quickly: What do we need to do?” were issued in the year 2015, many significant developments have taken place in ICT sector including, *inter-alia*, certain changes in the licensing framework of broadband. After accepting the Authority’s recommendations on issues relating to Virtual Network Operators (VNOs), DoT had issued the guidelines for Unified Licenses (UL) VNO in the year 2016 and subsequently DOT vide its order dated 24th October 2018 amended the UL (VNO) licence to allow Lease line/ Bandwidth charges as pass through charges. Further, on 11.12.2020, after considering the Authority’s recommendations on ‘Proliferation of Broadband through Public Wi-Fi Networks’ dated 9th March 2017 and the Authority’s response dated 05.06.2020 to the DoT’s back-reference dated 29th May 2020 on these recommendations, the Government announced the registration guidelines for PM-WANI (Pradhan Mantri - Wi-Fi Access Network Interface) framework.

1.11 Vide DoT letter dated 12<sup>th</sup> March 2021, certain new issues like exemption of the license fee on the revenues earned from fixed-line broadband keeping in view the current factual matrix and relevant issues, likelihood of misuse by the licensees through misappropriation of revenues due to the proposed exemption of the License Fee on the revenues earned from Fixed-line Broadband services, and promoting proliferation of fixed-line broadband by providing direct benefit to consumers for usage of fixed-line Broadband services have been raised. Since these issues were neither explicitly consulted with the stakeholders in the Consultation Paper (CP) on ‘*Delivering Broadband Quickly: What do we need to do?*’ dated 17<sup>th</sup> April 2015 nor in the CP on ‘*Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed*’ dated 20<sup>th</sup> August 2020, the Authority has decided to issue a supplementary CP on the above issues to provide its consolidated and updated recommendations for proliferation of fixed-line broadband services after following the due consultation process.

1.12 Further, while in the CP dated 20<sup>th</sup> August 2020, the issues relating to cross-sector collaboration for infrastructure creation and sharing, use of electric poles for aerial fibre installation, RoW permissions for erection of telecom infrastructure, and sharing of electric poles for hosting 5G small cells infrastructure have been discussed at length, there is no explicit reference to the use of Street Furniture for rollout of 5G networks. Accordingly, a section on this issue has also been added in Chapter 2 of this supplementary CP.

1.13 This CP is divided into four chapters. Chapter 1 introduces the background in which this consultation is being initiated. Chapter 2 deals with the supply side issue in promoting fixed-line broadband in the country. Chapter 3 discusses the demand side issues relating to proliferation of fixed-line broadband. Chapter 4 lists the issues for consultation.



## CHAPTER 2

### SUPPLY OF FIXED-LINE BROADBAND

#### **Fixed-line broadband**

- 2.1 Fixed-line broadband is an always-on and high-speed data connection provided at the customer's premises. It can be provided using Unshielded Twisted Pair (UTP) of copper cable or Optical Fiber Cable (OFC) or Coaxial copper cable or hybrid fiber cable networks. The cable connects to a modem, which can then be connected to the customer's devices using either Wireless Local Area Network (WLAN) or an Ethernet cable. Other types of fixed broadband connections are delivered through Fixed Wireless Access (FWA) and satellite networks. These modes of connection make use of spectrum for last mile connectivity. However, FWA and satellite broadband are not under consideration presently in this CP.
- 2.2 Fixed-line broadband characteristics such as higher reliability, low latency, and higher speed makes it suitable for accessing cloud-based enterprise applications, electronic communications, video streaming, online gaming, video conferencing, online education, tele-health etc. It can deliver symmetric download and upload speed of up to Gigabit per second. However, provisioning of fixed-line broadband services is capital and manpower intensive. It is a time-consuming activity and its maintenance is also challenging. Fixed-line broadband service stands out when it comes to cost per GB of data consumption. Hence, it is economical to use fixed-line broadband to access data heavy applications.
- 2.3 As per the existing licensing framework for telecommunication services, Access Service providers (viz., licensees holding UASL [Unified Access Service License]/ UL [Unified License] with Access Service authorization/ UL (VNO) with Access Service authorization) and Internet Service Providers

[ISP] (viz. licensees holding ISP license/UL with Internet Service authorization) can provide fixed-line broadband services.

### **License fee regime**

- 2.4 As per the UASL/UL/UL(VNO)/ISP licensing framework for telecommunication services, an annual license fee, as a percentage of Adjusted Gross Revenue (AGR), is required to be paid by the Licensee, for each authorized service from the effective date of the respective authorization. Presently, the license fee is fixed at the rate of 8% of the AGR, inclusive of Universal Service Obligation (USO) Levy, which is presently 5% of AGR.
- 2.5 A brief description of the licensing regime for the Internet Service Providers in India is provided in the Annexure attached with the DoT reference dated 12<sup>th</sup> March 2021. The same is summarized here to provide the necessary perspective to the issues under consultation.
- 2.6 In the year 1998, Internet service sector was opened for private participation with a view to encourage growth of Internet and increase its penetration. Initially, there was no license fee for the ISP licenses issued under 1998 guidelines. In the year 2002, ISPs were allowed to offer Internet Telephony (IT) service after signing amended ISP license (referred to as 'ISP-IT license') issued under 2002 guidelines.
- 2.7 Till 31<sup>st</sup> October 2003, there was no license fee for the ISP licensees (with or without Internet Telephony). A token license fee of Re.1 per annum was imposed on all ISP licensees (with or without Internet Telephony) with effect from 1<sup>st</sup> November 2003. Through an amendment dated 3<sup>rd</sup> March 2006, license fee as 6% of Adjusted Gross Revenue (AGR) was imposed on ISP-IT licensees with effect from 1<sup>st</sup> January 2006; revenue from pure Internet service (i.e., charges from Internet access, Internet content and Internet access related installation charges) was excluded from the Gross Revenue to arrive at the AGR.

- 2.8 In the year 2007, DoT issued revised guidelines for granting license for operating Internet services. In the ISP licenses issued under 2007 guidelines, a license fee of 6% of AGR was imposed; revenue from pure Internet service (i.e., charges from pure Internet service and activation charges from pure Internet subscribers) was excluded from the Gross Revenue to arrive at the AGR.
- 2.9 In the year 2012, to adopt a uniform license fee regime, DoT vide its letter dated 29<sup>th</sup> June 2012 revised the license fee on all ISPs @ 8% of Adjusted Gross Revenue (AGR) w.e.f. 1<sup>st</sup> April 2013. Before this, different category of ISP licenses had different provisions for license fee. As per the aforesaid DoT letter dated 29<sup>th</sup> June 2012, revenue for the purpose of license fee for ISP category shall provisionally include all types of revenue from Internet services, allowing only those deductions available for pass through charges and taxes/levies as in the case of access services, without any set-off for expenses.
- 2.10 In the year 2013, Unified License (UL) regime was instituted in the country. Internet Services authorization is one of the authorizations under the UL. License Fee at the rate of 8% of AGR is to be paid by a licensee under the UL regime; AGR for UL (Internet service authorization) does not exclude revenue from pure Internet services.
- 2.11 As provided in the DoT's reference dated 12<sup>th</sup> March 2021, the provisions of the DoT's order dated 29<sup>th</sup> June 2012 were challenged by licensees and their association before TDSAT and the same were either set aside or made non-applicable. Accordingly, it appears that most of the ISPs while calculating the license fee, as per the erstwhile provisions of the ISP licenses, were claiming the revenue earned from Internet services as pass through and paid negligible amount of license fee on other revenues only.
- 2.12 Through separate petitions filed before the Hon'ble TDSAT, Internet Service Providers Association of India and a few licensees having UL

(Internet service authorization) challenged the definition of AGR as provided in the UL (Internet service authorization) on the plea of non-level playing field, in respect of license fee obligation, between them and licensees operating under the earlier ISP License regimes. They prayed before the Hon'ble TDSAT to exclude the revenue earned from pure Internet service for arriving at AGR for ISPs operating under the UL regime. Hon'ble TDSAT, on 18<sup>th</sup> October 2019 decided these matters in favour of the petitioners. DoT has filed a Civil Appeal against the said judgment before the Hon'ble Supreme Court of India.

2.13 Now, through two separate amendments to the ISP licenses, dated 31<sup>st</sup> March 2021, DoT has made applicable an annual license fee @ 8% of Adjusted Gross Revenue (AGR) inclusive of the USO levy fee which is presently 5%. These amendments have been made to both types of ISP licenses, i.e., the licenses granted as per the 2002 guidelines and the licenses granted as per the 2007 guidelines. After these amendments, the definition of AGR in the ISP licenses has become similar to what is provided in the Internet Service authorization under UL. As per the amended definition of AGR, the revenue from pure Internet services has not been excluded from the Gross Revenue to arrive at the AGR.

### **Growth of fixed-line broadband subscribers**

2.14 In Table 2.1, as on 31<sup>st</sup> December 2020, the numbers of Internet subscribers in the country are mentioned. It can be observed that at the end of December 2020, out of total 747.41 Million broadband subscribers, there were only 22.29 million fixed-line broadband subscribers. The fixed-line broadband subscribers are a small fraction of the total subscribers. In terms of penetration, only 8.93 per 100 households have subscribed to fixed-line broadband services.<sup>1</sup>

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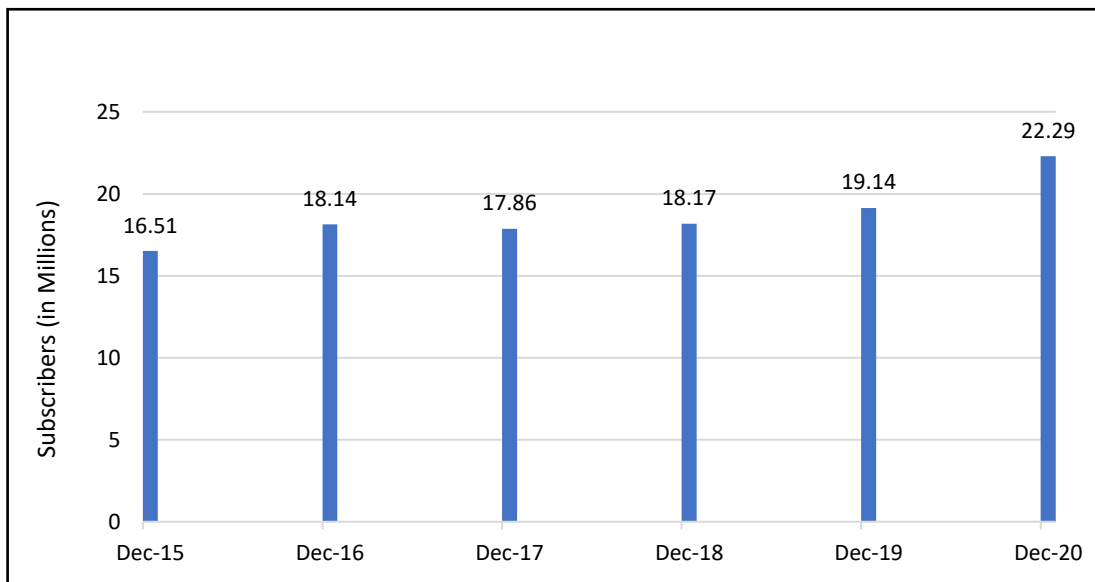
<sup>1</sup>Based on 2011 Census, India has 249.5 Million households

**Table 2.1 Internet Subscribers as on 31<sup>st</sup> December 2020**

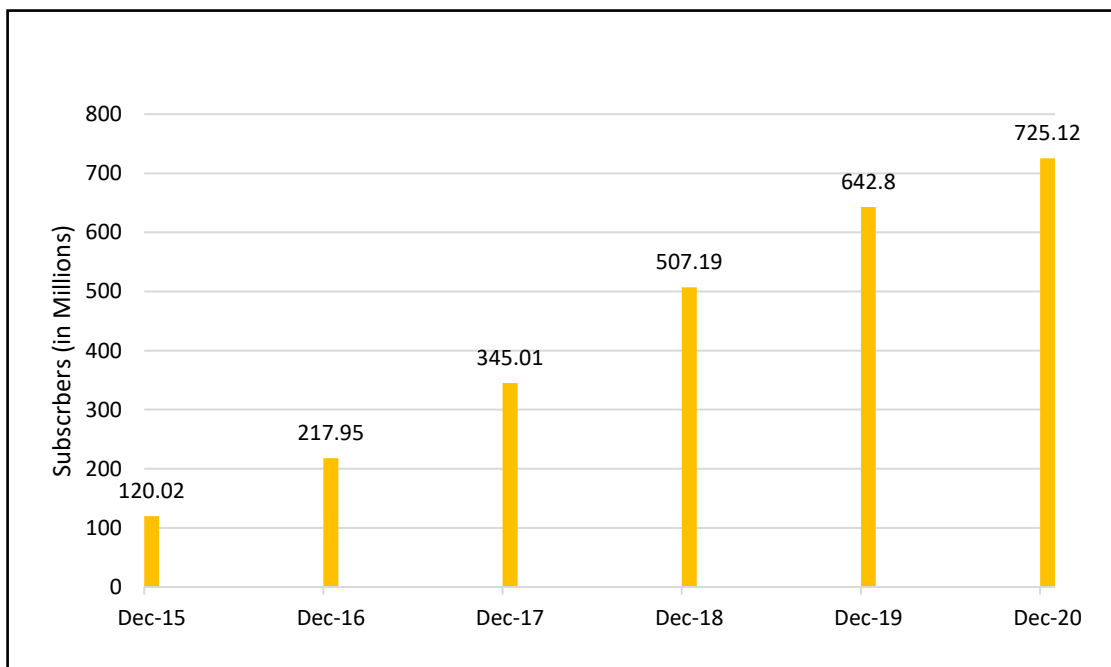
Segment	Mode of Access				Total Subscribers (in million)
	Fixed-line Subscribers (in million)	Wireless Subscribers (in million)			
		Fixed Wireless (Wi-Fi, Wi-Max, Radio & VSAT)	Mobile Wireless (Phone + Dongle)	Total Wireless	
Broadband	22.29	0.65	724.46	725.12	747.41
Narrowband	3.24	0.004	44.52	44.53	47.77
<b>Total</b>	<b>25.54</b>	<b>0.66</b>	<b>768.99</b>	<b>769.64</b>	<b>795.18</b>

2.15 In fact, during the last five years, while the wireless broadband subscribers have grown exponentially from 120 Million to 725 Million, the fixed-line broadband subscribers have grown slowly from 16.5 Million to 22.3 Million only. The annual growth trend of fixed-line and wireless broadband subscribers during the last five years, is shown in Figures 2.1 and 2.2 below. It is evident from Figure 2.2 that except a small spurt seen in last year which could be due to the pandemic, fixed-line broadband subscribers have largely remained constant during the three years preceding the last year i.e. 2020.

**Figure 2.1: Fixed-line broadband subscribers (in millions)**



**Figure 2.2: Wireless broadband subscribers (in millions)**



2.16 The reason for such a poor penetration of fixed-line broadband in India may be either due to supply side constraints (non-availability of service) or demand side constraints (like affordability or perceived benefits issues).

Supply side constraints have been discussed in this chapter, while the demand side constraints would be discussed in the next chapter.

### **Supply side constraints**

2.17 There could be several reasons for supply side constraints. Broadly these reasons could be divided into two categories: a) difficulties in rolling out fixed-line networks across markets b) much higher requirement of capital expenditure and maintenance cost in comparison to the wireless networks. Some of the probable factors for supply side constraints could be:

- Issues related to RoW (Right of Way)
- Restricted access to building complexes and societies
- Higher cost of installation and maintenance of fixed-line network infrastructure

2.18 Most of the issues related to the supply side constraints have already been discussed in the CP: “*Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed*” dated 20<sup>th</sup> August 2020. In response to this CP, many stakeholders, through their comments and counter-comments, and after citing the earlier recommendations of TRAI (issued on this issue in 2015), have highlighted the need to incentivize fixed-line infrastructure creation in the country by exempting license fee on the revenues earned from the delivery of fixed-line broadband services. Many stakeholders have argued that the supply side constraints result into additional cost burdens on the service providers and exemption of the license fee can reduce that cost burden to a certain extent.

2.19 However, there could be arguments against exemption of license fee on the revenues earned from the delivery of fixed-line broadband services also. With the improvements in wireless technologies, the broadband speed delivered using 4G cellular mobile network has also improved a lot. Moreover, with the rollout of 5G networks the reliability and latency

characteristics of wireless broadband may further improve. As noted earlier, fixed broadband could be delivered through Fixed Wireless Access (FWA) networks also. Keeping in view the technological developments, the fixed broadband services in the country may also be delivered very soon using the Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) satellites. A probable argument could be that any license fee exemption on the revenues earned from delivery of the fixed-line broadband services only may create a non-level playing field between the fixed-line and wireless broadband services. However, this non-level playing field argument could be contradicted by others by citing the fact that in case of broadcasting distribution also, while the DTH operators who deliver broadcasting services using wireless medium are required to pay the license fee, the cable operators who also deliver the same broadcasting services but using fixed-line network are, on the other hand, exempted from paying the license fee. Here it is also pertinent to mention that while the DTH license is granted under Section 4 of the Indian Telegraph Act, 1885; cable services are registered under the Cable TV Networks (Regulation) Act, 1995.

2.20 As elaborated in the DoT reference letter dated 12<sup>th</sup> March 2021 and summarized earlier in this chapter, due to litigations and the judgments/orders of the Hon'ble TDSAT in respect of license fee for ISPs, many ISP licensees have not paid, now for almost last eight years, the license fee on revenues earned from the delivery of pure internet services under the ISP licenses/ authorizations. As the fixed-line broadband services are mostly delivered under the ISP licenses/ authorizations, in a way many ISPs have already availed the intended benefit of exemption of license fee on the revenues earned from delivery of fixed-line broadband services. Despite this, the growth in the fixed-line broadband subscribers has not been remarkable during the last 8 years. Therefore, another argument against exemption of license fee on the revenues earned from delivery of fixed-line broadband services could be that such exemption



alone may not be sufficient measure to boost fixed-line broadband penetration.

2.21 Another fact which may be relevant here is that there are broadly two categories of service providers who are providing the fixed-line broadband services in the country (a) those having only ISP licenses/ authorizations, and (b) those having both Access Service and ISP licenses/ authorizations. Generally, while the first category service providers are providing broadband services alone, the second category of service providers are providing the bundled voice and broadband services. In case of bundled products, it may not be feasible to calculate the revenues earned from voice and broadband services separately. Further, nowadays, many service providers are also bundling content and other value-added services like IPTV, video streaming, video conferencing, music, security services, etc. along with broadband services. In such cases, question arises whether the exemption of the license fee should be limited to the revenue earned from the broadband services alone, or the license fee should be exempted on all kind of revenues earned by the licensees from fixed-line networks for supporting the growth of fixed-line networks. While this may address issues relating to the likelihood of misuse by the licensees through misappropriation of revenues owing to the proposed exemption of the license fee on the revenues earned on fixed-line broadband services to a large extent, the impact on the Government revenue may also be required to be examined.

2.22 In this regard, it is worthwhile to refer to the provisions of the National Digital Communication Policy (NDCP)-2018. The said policy *inter-alia* prescribes the strategies for “*Catalyzing Investments for Digital Communications sector*”. Under this head, the NDCP-2018, in respect of fixed-line services, envisages “*Reviewing the rationalization of license fees on fixed line revenues to incentivize digital communications*”. So, in the case of fixed-line revenues, the policy does not distinguish between the revenue earned from broadband and other type of services.

2.23 Another kind of convergence is happening between the wireless and fixed-line services at network as well as product level. With the evolution of technology, the core network for wireless and fixed-line broadband services has become common. Further, it is a fact that most of the online services and applications can be accessed by subscribers through wireless as well as fixed-line broadband connectivity. So, if a consumer subscribes to both types of broadband i.e. wireless and fixed-line broadband services from a service provider, in that case while the revenue realized by the service provider from that subscriber would definitely increase, the load/traffic in the network of the service provider may not change much. Realizing this fact, many service providers have started offering bundled products consisting of wireless and fixed-line services for the complete family. In such cases, how the likelihood of misappropriation of revenues by the licensees should be addressed?

2.24 In addition to the scenarios discussed above, is there any possibility of licensees declaring the Internet Leased Line (ILL) delivered through the fixed-line network as fixed-line broadband connectivity and then the licensee claiming exemption of license fee on the revenues earned from such ILL connectivity? There may be other scenarios with the possibility of misappropriation of revenue. What could be the other areas of concerns from the revenue perspective and what are the ways to plug all such possibilities? How the system can be designed to ascertain revenue from fixed-line broadband services so as to ensure proper verification of the operator's revenue streams through possible ways of assessment, collection, proper allocation and accounting of revenue for this stream.

2.25 In case, exemption of license fee on the revenues earned from the delivery of fixed-line broadband services is considered, one must also decide on the duration of the exemption. Should it be for a pre-identified fixed duration or till the time the Government reviews the license fee framework again? In case of the fixed duration, whether 5 years is a reasonable period?

Whether this exemption may be gradually reduced or tapered off with each passing year so as to motivate and incentivize early investors?

2.26 In addition to the risk of misuse by the licensees through misappropriation of revenues, another concern in the exemption of the license fee on the revenues earned from delivery of fixed-line broadband services could be that it would incentivize the service providers for existing as well as new subscribers. In that case, the service providers who have higher existing revenue from the delivery of fixed-line broadband services could be benefitted more than the service providers who intend to grow faster and support the proliferation of fixed-line broadband services. In such a case, another alternative could be, as the focus is on to address the supply side constraints and incentivize the creation of new infrastructure, instead of providing the indirect incentives for proliferation of fixed-line broadband through exemption of license fee, providing direct incentives to the fixed-line service providers for creation of new infrastructure. This may also address the risks relating to disturbance of the level playing field and misappropriation of revenues. However, for providing the direct incentive, the question arises is: What could be the indisputable metric to provide such incentive and what should be the quantum?

2.27 Based on the various arguments in favour of and against the exemption of licence fee on the revenues earned from delivery of fixed-line broadband services that have been discussed above, the Authority seeks the views of the stakeholders on the following:

**1. What should be the approach for incentivizing the proliferation of fixed-line broadband networks? Should it be indirect incentives in the form of exemption of license fee on revenues earned from fixed-line broadband services, or direct incentives based on an indisputable metric?**

- 2. If indirect incentives in the form of exemption of license fee on revenues earned from fixed-line broadband services are to be considered then should this license fee exemption be limited to broadband revenue alone or it should it be on complete revenue earned from services delivered through fixed-line networks?**
- 3. In case of converged wireless and fixed-line products or converged services delivered using the fixed-line networks, how to unambiguously arrive at the revenue on which license fee exemption could be claimed by the licensees?**
- 4. What should be the time period for license fee exemption? Whether this exemption may be gradually reduced or tapered off with each passing year?**
- 5. Is there a likelihood of misuse by the licensees through misappropriation of revenues due to the proposed exemption of the License Fee on the revenues earned from fixed-line broadband services? If yes, then how to prevent such misuse? From the revenue assurance perspective, what could be the other areas of concern?**
- 6. How the system to ascertain revenue from fixed-line broadband services needs to be designed to ensure proper verification of operator's revenue from this stream and secure an effective check on the assessment, collection, and proper allocation and accounting of revenue. Further, what measures are required to be put in place to ensure that revenue earned from the other services is not mixed up with revenues earned from fixed-line broadband services in order to claim higher amount of incentive/exemption.**
- 7. Is there any indisputable metric possible to provide direct incentive for proliferation of fixed-line broadband networks? What**

**would be that indisputable metric? How to ensure that such direct incentives will not be misused by the licensees?**

### **Street Furniture**

- 2.28 Cellular networks are typically deployed using macro-cellular Base Transceiver Stations (BTS) mounted onto very-high telecommunication towers. Mobile service providers also use smaller wireless communications equipment (commonly referred to as small cell equipment) to make their networks denser, bringing the network closer to their customers. These small cells are a miniature version of the traditional macro-cell because the attributes of a macro-cellular Base Transceiver Stations (BTS) are compressed into a low-power, easy-to-deploy radio device. Small cells typically have a range varying from 10 meters to a few hundred meters and are used by mobile service providers either to offload traffic from the macro-cellular network in a high-density, short-range environment, or to strengthen the range and efficiency of a mobile network.
- 2.29 Street furniture is a term used to define objects in public spaces that—in the context of wireless infrastructure—house small-cell units in boxes and are considered visually commonplace and acceptable to the public. Street furniture must have a power source for the wireless equipment to function. Common examples of street furniture used for small-cell networks include utility poles, billboards, lamp posts, lit signage, mailboxes, park benches, traffic signals and other structures that have a nearby power source.
- 2.30 To make street furniture suitable for small-cell networks, it must be able to accommodate power, antenna, and associated cabling equipment. In addition, good design and engineering is crucial for successful deployments of small cells on street furniture. Small cells can be deployed in or on the existing structures like government buildings/railway stations/metro rail stations/ airports/ stadiums etc. as well as private buildings which are accessible to public like malls/ shopping

complexes/multiplexes/theatres etc. These could also be deployed easily on utility poles, lamp posts, bus stops, information kiosks, and billboards etc. Small cell architectures will become increasingly relevant as mobile networks evolve to 5G technology.

2.31 As per the Make in India 5G Ready report developed in August 2018, by the 5G High-Level forum constituted by DoT<sup>2</sup>:

*"5G will require massive addition of both above and below the ground infrastructure, both in passive and active categories. These include backhaul radios, antennas, towers, street furniture, and ducts, etc. In the long term, 5G infrastructure densification can exceed 1,000 Base Stations per Sq. Km."*

2.32 While rolling out 5G networks, street furniture would play a significant role in offering good quality services by expanding the network coverage and going closer to the consumers. The present system of granting access to public spaces/ structures for installing small cells may not be uniform across the States/ Local Bodies. Exact issues and challenges in getting access to street furniture may also not be available with any one central agency. These may vary from State to State or City to City. Putting in place a uniform, simple, and efficient process for granting access to street furniture for installing small cells is need of the hour.

2.33 Granting access to public places like government buildings/railway stations/metro rail stations/ airports/ stadiums etc. and street furniture, such as bus stop shelters, utility poles, lamp posts or traffic lights, owned by municipalities, at reasonable cost could remove a significant hurdle in 5G site deployment. While smaller wireless communications equipment deployed in or on the public places, and on street furniture can provide enhanced coverage - indoor and outdoor, and additional capacity in the dense urban areas, umbrella coverage could continue to be provided by the macro cells.

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<sup>2</sup> <https://dot.gov.in/5g-steering-committee-report>

2.34 Now, the question arises is how to permit the use of public places and street furniture for effective rollout of 5G networks. It is also pertinent to understand the process which can be used by local bodies to grant permissions for use of street furniture and the associated policy and regulatory interventions.

2.35 In view of the above, the Authority seeks the view of the stakeholders on the following issue:

**8. What are key issues and challenges in getting access to public places and street furniture for installation of small cells? Kindly provide the State/ City wise details.**

**9. How to permit use of public places and street furniture for the effective rollout of 5G networks? Kindly suggest a uniform, simple, and efficient process which can be used by States/ Local-Bodies for granting access to public places and street furniture for installing small cells. Kindly justify your comments.**

## Chapter 3

### DEMAND OF FIXED-LINE BROADBAND

3.1 As discussed in the primary CP dated 20<sup>th</sup> August 2020 on this subject, in growth of fixed broadband connectivity availability, affordability, and accessibility of services are of considerable importance. In addition to these factors, demand for broadband services could be another significant parameter. Many subscribers, who have experienced the benefits of wireless broadband services, may be interested in subscribing to fixed-line broadband connectivity also. Wide gap between wireless and fixed-line broadband subscriptions, approximately 725 Million vs 22 Million respectively, indicates that the demand for broadband services may not be the limiting factor. However, the question arises is whether the demand for fixed-line broadband is getting logged effectively with the service providers? On sample check with the leading Internet Service Providers (ISPs), it appears that there is no uniform, transparent, and consumer friendly mechanism for booking of fixed-line broadband connections by potential customers. Also, it appears that there is no uniform, transparent, and consumer friendly mechanism of maintaining of waiting list of applicants for fixed-line broadband by service providers in case of non-feasibility to provide the connections on demand for technical or other reasons beyond the control of Licensee.

3.2 In this respect, it is pertinent to refer to the clause 30 of chapter V in the Unified License, which is reproduced below:

*“30.1 The LICENSEE shall register demand/request for telephone connection and or any other Telecom Service without any discrimination from any applicant, at any place in the service area for the service(s) authorized and provide the Service, unless otherwise directed by the Licensor. The LICENSEE shall not in any manner discriminate between subscribers and provide service on the same commercial principle and **shall be required to maintain***



**a transparent, open to inspection, waiting list.** The LICENSEE shall clearly define the scope of Service to the Subscriber(s) at the time of entering into contract with such Subscriber(s). Licensor shall have right to impose suitable penalty, not limited to a financial penalty, apart from any other actions for breach of this condition. The LICENSEE shall commence the Service on commercial basis only after starting subscriber registration in the manner prescribed. **Before commencement of Service in an area, the LICENSEE shall notify and publicize the address where any subscriber can register demand /request for Telecom Service.** Any change of this address shall be duly notified by the Licensee. **(emphasis supplied)**

Provided that nothing contained herein will affect or prejudice the rights of the LICENSEE to carry out check on credit worthiness of applicants for its services.

**30.2 The LICENSEE shall widely publicize provision of service and shall not refuse registration of demand in the service areas in which the Licensee has commenced services.** In case the provision of telephone connection or the requested telecom service to an applicant is not feasible for technical or other reasons beyond the control of Licensee, then the LICENSEE shall endeavour to make arrangement for providing connections/Service in such cases within a reasonable time.” **(emphasis supplied)**

- 3.3 As per the license conditions cited above, licensees are required to maintain a transparent and open to inspection waiting list for authorized telecom services. The question arises is, to establish uniform, transparent, and customer friendly mechanisms for publicizing provisioning of service and registration of demand by Licensees, which all type of channels of communication should be standardized? Such transparency can lead to

better demand assessment and future network planning in non-feasible areas.

- 3.4 Further, nowadays, generally the converged devices such as Smartphones and Tablets are commonly used for accessing wireless as well as fixed-line broadband. Therefore, the affordability of accessing device may not be of much concern as the existing wireless broadband subscribers can access fixed-line broadband services also using the same device. Further, the CPE (Consumer Premises Equipment), used for terminating the fixed-line connection in the subscriber premises, is generally bundled with the fixed-line broadband subscription plan and it may not cost extra to the subscriber. Accordingly, to a large extent, the issue of accessibility may not be the limiting factor in growth of fixed-line broadband. The issues relating to availability (supply side factor) have already been discussed in the primary CP and Chapter 2 of this CP. The issues relating to affordability are being discussed here.
- 3.5 Unlike wireless broadband which can be made available to thousands of subscribers through a macro base station, ensuring availability of the fixed-line broadband requires laying of the network up-to individual premises. Further, even in areas where subscription demand is low, the expansion of wireless networks in those areas could be justified in the name of roaming subscribers. This may not be possible in the case of fixed-line networks as the services of these networks could be utilized by the residents of those areas only. Therefore, it has to be a business case on the basis of the demand in a particular area for service provider to rollout the fixed-line broadband network. In case of fixed-line broadband, in a way, supply is directly linked to the demand in a particular area.
- 3.6 Further, the tariff of the fixed-line broadband would also depend upon the subscription ratio, i.e., the ratio of the number of the subscribers and the coverage in terms of potential customers of the network. As incremental cost of extending an additional connection may be negligible in

comparison to the cost of rollout of new network in an uncovered area, if the subscription ratio could be increased by any means in a service area, the tariff for individual subscribers may become more affordable. One way of increasing the subscription ratio could be to create additional demand for fixed broadband services. This could be a win-win scenario for customers as well as service providers. It can also make business case in certain uncovered areas for service provider to rollout the new fixed-line broadband network.

- 3.7 As discussed earlier in the primary CP dated 20<sup>th</sup> August 2020, the widespread availability and use of broadband have both economic and social benefits. In the post-pandemic era, like potable water and electricity, access to broadband would become a basic necessity. Importance of broadband in India can be emphasized by the simple fact that, *“for developing countries in the low- and middle-income brackets, broadband is a key driver of economic growth and, according to a study by the World Bank, provides a boost of 1.38 additional percentage points to GDP growth for every 10-percentage-point increase in broadband penetration — higher than any other 3 telecommunication service”*<sup>3</sup>.
- 3.8 It is an established economic principle that reduction in prices of goods or services generally increases the demand. Increased demand would translate into increase in supply and due to economy of scale principle, further reduction in prices. This virtuous cycle creates an environment for healthy growth. We have already experienced this phenomenon in case of wireless broadband. During the last five years, due to reduction in prices and increasing affordability, the numbers of wireless broadband subscriptions have increased exponentially from about 120 Million to 725 Million. The question arises is : Can this cycle of healthy-growth be induced for fixed-line broadband services also?

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<sup>3</sup> Broadband: A Platform for progress, A report by the Broadband Commission for Digital Development

- 3.9 It is worth referring to the Economic Survey 2019 in this regard which emphasized on use of ‘nudge’, a concept in behavioral economics, to encourage desirable social and economic change in the country. The ‘Nudge Theory’ got international spotlight in 2017 when Richard Thaler bagged the Economics Nobel that year for his work on behavioral economics. The ‘Nudge Theory’ is based on the premise that human beings, being not-so-rational, often need encouragement or intervention — a nudge — to get going and do what is best for themselves or for the country or society at large. It says that people, rather than being forced, can be encouraged, and influenced to pursue or desist from certain actions through nudges.
- 3.10 Someone can argue that in an environment where the need for broadband services, due to ongoing pandemic conditions, is at its peak and accessibility is not an issue, a nudge from the Government, may be in the form of subsidy in monthly rentals, could create the virtuous cycle for proliferation of fixed-line broadband services. Once the sufficient supply gets created to support this induced demand, the services may become affordable on their own. Increasing use of the fixed-line broadband services would facilitate faster growth of the digital economy and in-turn additional revenue to the Government. This subsidy could be delivered either in the form of Direct Benefit Transfer (DBT) to the subscribers or in the form of direct incentives to service providers. The latter has already been discussed in Chapter 2.
- 3.11 DBT mission was started by Government of India on 1<sup>st</sup> January 2013 to reform Government delivery system by re-engineering the existing processes in welfare schemes for simpler and faster flow of information/funds and to ensure accurate targeting of the beneficiaries, de-duplication, and reduction of fraud.<sup>4</sup> This mission aims to transfer subsidies directly to the people through their bank accounts. DBT brings

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<sup>4</sup><https://dbtbharat.gov.in/>

efficiency, effectiveness, transparency, and accountability in the Government system and infuses confidence of citizen in governance.

- 3.12 DBT could be beneficial for such individuals in whose area fixed-line broadband coverage is available but they cannot afford fixed-line broadband. It may be beneficial to such individuals also in whose area fixed-line broadband coverage is presently not available as the additional demand may make business case for service providers to lay the network in such areas and provide fixed-line broadband services.
- 3.13 However, before deciding on using DBT to promote fixed-line broadband, there may be several issues that have to be considered and decided. Should DBT be made applicable to all subscribers of fixed-line broadband services or it should be made applicable to a segment of subscribers? In case DBT is meant for a particular segment of the subscribers only, there would be a need to finalize the segmentation criteria and the identification process.
- 3.14 As the objective of the Government intervention would be to create an additional demand by making fixed-line broadband affordable to those who need it and presently not able to afford the same, the Government could subsidize the entry level basic broadband connectivity. The characteristics of such entry level basic broadband connectivity could be defined in advance. Those individuals who require faster connectivity can continue to subscribe on their own. This way the broadband population would be segmented in two classes based on use cases which indirectly is linked to the economic prosperity also.
- 3.15 Another way of segmentation could be based on residential and households vs commercial and enterprise customers. However, in the extant licensing regime, there is no mechanism for categorization of customers between residential/household and commercial/enterprise. An alternative approach could be to segment the customers based on

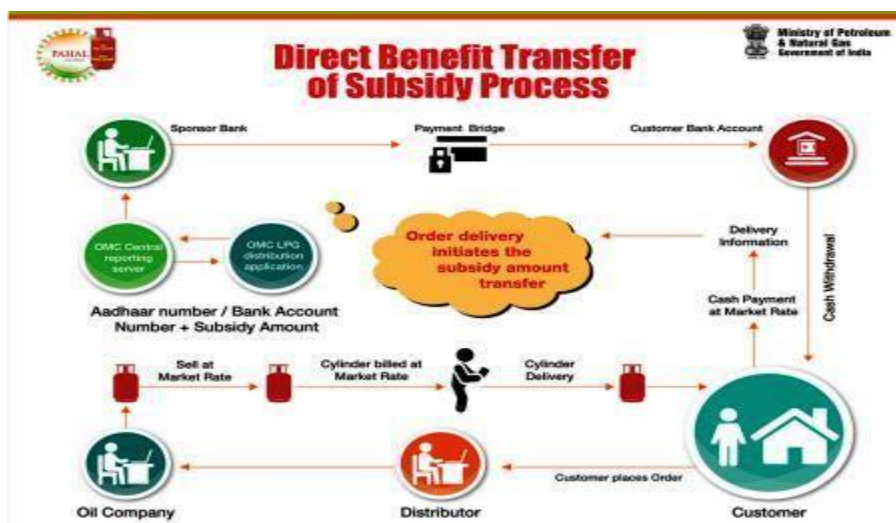
geographical location i.e. remote and rural areas vs urban areas. For remote and rural areas, as per the extant legal framework, USOF could be used for bridging the divide. However, in case of fixed-line broadband, the penetration is not so good even in urban areas. The segmentation for disbursement of DBT could also be based on economic conditions of individual families. This would require a reliable and dependable database of families for the purpose of segmentation.

- 3.16 Further, the quantum of subsidy per connection may also be required to be decided. Should this be equivalent to the cost of fixed-line broadband connection to the pre-identified segment of individuals or DBT of some fixed amount, say Rs. 200.00 per month, to those who subscribe to basic category fixed-line broadband connection. In the previous case, there may be a possibility of misuse of the Government subsidy as individuals would not be required to contribute anything from their own pocket. The latter case may require individuals to contribute in a monthly rental from their own pocket for availing the services. This may ensure genuine use of the Government subsidy and on a medium- to long-term basis, the need for subsidy may disappear.
- 3.17 Another question, which probably needs to be decided in advance, would be the duration of the offer and the maximum period of the Government subsidy. Should it be kept open-ended initially or should it be specified in advance that the offer shall be open for one year to register the demand and another one year to fulfill that demand. To attract immediate investment in rollout of fixed-line broadband network, the second option may be a better option. Further, once the connection gets established, what would be the maximum period for which the Government would provide the subsidy?
- 3.18 The next important issue is to decide on how the scheme can be administered. Under the PAHAL scheme for giving benefit of DBT, the LPG consumer can receive subsidy in his bank account by two methods. Such

a consumer will be called CTC (Cash Transfer Compliant) once he joins the scheme and is ready to receive subsidy in the bank account. The two options are:

- A) Option I (Primary): Wherever Aadhaar number is available it will remain the medium of cash transfer. Thus, an LPG consumer who has an Aadhaar Number has to link it to the bank account number and to the LPG consumer number.
- B) Option II (Secondary): If the LPG consumer does not have an Aadhaar number, then he can directly receive subsidy in his bank account without the use of the Aadhaar number. This option which was introduced later in the modified scheme ensures that LPG subsidy is not denied to an LPG consumer on account of lack of Aadhaar number. In this option, either consumer can present the bank account information (bank account holder name/account number/IFSC code) to the LPG distributor for capture in LPG database OR present LPG consumer information (17-digit LPG consumer ID) to his bank. The process of disbursement of subsidy for LPG cylinders has been explained in Figure 3.1

**Figure 3.1: Process of disbursement of subsidy for LPG cylinders**



Source: <https://vikaspedia.in/social-welfare/direct-benefit-transfer/direct-benefit-transfer-of-lpg-dbt-l-scheme>

- 3.19 So, if a decision to implement DBT to fixed-line broadband subscribers would be taken, then the detailed process of administering the scheme to eligible customers would also need to be finalized.
- 3.20 Opponents of such DBT proposal may argue that to support telecom services in the rural and remote areas, Universal Service Obligation Fund (USOF) in the past has taken the following subsidy support steps<sup>5</sup>:
- (i) **Rural Household Direct Exchange Lines (RDEL) installed prior to 1<sup>st</sup> April 2002:** A subsidy support was given from USOF to eligible operators for operational sustainability of rural wireline household DELs installed prior to 1<sup>st</sup> April 2002 in lieu of ADC (Access Deficit Charges) being phased out. This support was provided for a period of three years.
  - (ii) **Provision of Rural Household Direct Exchange Lines in specified Short Distance Charging Areas (SDCAs) – installed between 1<sup>st</sup> April 2002 and 31<sup>st</sup> March 2005:** The scope of the agreement signed was the operation and maintenance of RDELs installed by M/s BSNL and M/s RIL between 1<sup>st</sup> April 2002 and 31<sup>st</sup> March 2005 in some specified SDCAs, where the cost of providing telephone connections was more than the revenue earned. Annual subsidy was to be given for a maximum period of five years from the installation of these RDELs.
  - (iii) **Provision of Rural Household Direct Exchange Lines in specified Short Distance Charging Areas (SDCAs) installed between 1<sup>st</sup> April 2005 and 31<sup>st</sup> March 2007:** Agreements were signed by USOF administrator with M/s BSNL, M/s RIL, M/s TTL and M/s TTL(MH) for operation and maintenance of RDELs in specified SDCAs. Subsidy was payable towards RDELs installed between 1<sup>st</sup> April 2005 and 31<sup>st</sup> March 2007, which was extended up to 31<sup>st</sup> March 2010.

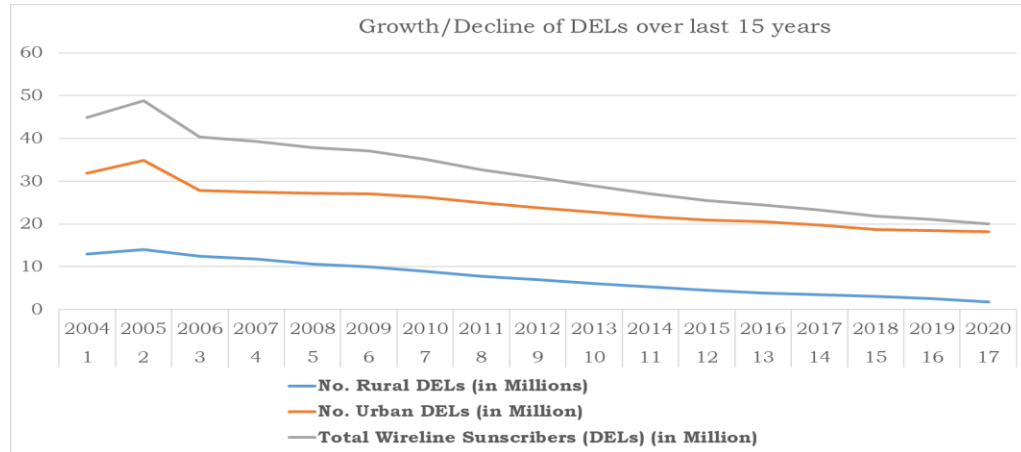
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<sup>5</sup><http://www.usof.gov.in/usof-cms/usof-implementation-status.jsp>



3.21 However, these steps could not stop the decline of rural DELs as is evident in the following graph:

**Figure 3.2: Growth/Decline of DELs over the last 15 years**



3.22 Though these subsidies were not in form of DBT, but the fact remains that they did not prove very effective in achieving the goal of increasing rural fixed-line telephones penetration. So, it can be argued by someone that providing DBT support for fixed-line broadband may also not prove beneficial in increasing the penetration of fixed-line broadband.

3.23 It is a matter of debate as to whether the decline in fixed-lines during the last 15 years, which is seen across the urban and rural areas, is due to end of subsidy by USOF or due to changes in need of the subscribers or for other reasons. Over a period of last fifteen years, for voice connectivity, the mobile technology has emerged as the preferred choice of consumers.

3.24 In view of the above, the Authority seeks the view of the stakeholders on the following issues:

**10. Which all type of channels of communication should be standardized to establish uniform, transparent, and customer friendly mechanisms for publicizing provisioning of service and registration of demand by Licensees?**

**11. Whether proliferation of fixed-line broadband services can be better promoted by providing Direct Benefit Transfer (DBT) to subscribers of fixed-line broadband services? If no, elucidate the reasons.**

**12. If answer to Q11 is affirmative, then:**

- i. Should DBT scheme be made applicable to all or a particular segment of fixed-line broadband subscribers? Kindly justify your comments.**
- ii. If you recommend supporting a particular segment of fixed-line broadband subscribers, how to identify such segment of the subscribers?**
- iii. How to administer this scheme?**
- iv. What should be the amount of DBT for each connection?**
- v. What should be the period of offer within which individuals need to register their demand with the service providers?**
- vi. What should be the maximum duration of subsidy for each eligible fixed-line broadband connection?**

**13. Any other related issue.**

## **CHAPTER 4**

### **ISSUES FOR CONSULTATION**

4.1 Stakeholders are requested to provide their answers/comments on the following issues:

- 1. What should be the approach for incentivizing the proliferation of fixed-line broadband networks? Should it be indirect incentives in the form of exemption of license fee on revenues earned from fixed-line broadband services, or direct incentives based on an indisputable metric?**
- 2. If indirect incentives in the form of exemption of license fee on revenues earned from fixed-line broadband services are to be considered then should this license fee exemption be limited to broadband revenue alone or it should be on complete revenue earned from services delivered through fixed-line networks?**
- 3. In case of converged wireless and fixed-line products or converged services delivered using the fixed-line networks, how to unambiguously arrive at the revenue on which license fee exemption could be claimed by the licensees?**
- 4. What should be the time period for license fee exemption? Whether this exemption may be gradually reduced or tapered off with each passing year?**
- 5. Is there a likelihood of misuse by the licensees through misappropriation of revenues due to the proposed exemption of the License Fee on the revenues earned from fixed-line broadband services? If yes, then how to prevent such misuse? From the revenue assurance perspective, what could be the other areas of concern?**

- 6. How the system to ascertain revenue from fixed-line broadband services needs to be designed to ensure proper verification of operator's revenue from this stream and secure an effective check on the assessment, collection, and proper allocation and accounting of revenue. Further, what measures are required to be put in place to ensure that revenue earned from the other services is not mixed up with revenues earned from fixed-line broadband services in order to claim higher amount of incentive/exemption.**
- 7. Is there any indisputable metric possible to provide direct incentive for proliferation of fixed-line broadband networks? What would be that indisputable metric? How to ensure that such direct incentives will not be misused by the licensees?**
- 8. What are key issues and challenges in getting access to public places and street furniture for installation of small cells? Kindly provide the State/ City wise details.**
- 9. How to permit use of public places and street furniture for the effective rollout of 5G networks? Kindly suggest a uniform, simple, and efficient process which can be used by States/ Local-Bodies for granting access to public places and street furniture for installing small cells. Kindly justify your comments.**
- 10. Which all type of channels of communication should be standardized to establish uniform, transparent, and customer friendly mechanisms for publicizing provisioning of service and registration of demand by Licensees?**
- 11. Whether proliferation of fixed-line broadband services can be better promoted by providing Direct Benefit Transfer (DBT) to subscribers of fixed-line broadband services? If no, elucidate the reasons.**
- 12. If answer to Q11 is affirmative, then:**

- i. Should DBT scheme be made applicable to all or a particular segment of fixed-line broadband subscribers? Kindly justify your comments.**
  - ii. If you recommend supporting a particular segment of fixed-line broadband subscribers, how to identify such segment of the subscribers?**
  - iii. How to administer this scheme?**
  - iv. What should be the amount of DBT for each connection?**
  - v. What should be the period of offer within which individuals need to register their demand with the service providers?**
  - vi. What should be the maximum duration of subsidy for each eligible fixed-line broadband connection?**
- 13. Any other related issue.**

### List of Acronyms

Sl. No.	Acronym	Description
1	AGR	Adjusted Gross Revenue
2	BB	Broadband
3	BSNL	Bharat Sanchar Nigam Limited
4	COVID-19	Coronavirus Disease of 2019
5	CPE	Customer Premises Equipment
6	DBT	Direct Benefit Transfer
7	DoT	Department of Telecommunications
8	DTH	Direct to Home
9	FWA	Fixed Wireless Access
10	ISP	Internet Service Provider
11	LPG	Liquefied Petroleum Gas
12	NOFN	National Optical Fibre Network
13	OFC	Optical Fibre Cable
14	RIL	Reliance Infocomm Limited
15	ROW	Right Of Way
16	TDSAT	Telecom Disputes Settlement and Appellate Tribunal
17	TSP	Telecom Service Provider
18	TTL	Tata Teleservices Limited
19	UASL	Unified Access Service License
20	UL	Unified License
21	UL (VNO)	Unified License (Virtual Network Operator)
22	UTP	Unshielded Twisted Pair
23	Wi-Fi	Wireless Fidelity
24	WLAN	Wireless Local Area Network

**Annexure A (Chapter No. 1/Para No. 1.7)**

**Reference Dated 12<sup>th</sup> March 2021 from DoT**

**Government of India  
Ministry of Communications  
Department of Telecommunications  
Access Services Wing  
Sanchar Bhawan, 20, Ashoka Road, New Delhi-110001**

No.: AS-15/1/2020-AS-V

Date: 12.03.2021

To,  
**The Secretary,**  
**Telecom Regulatory Authority of India,**  
Mahanagar Doorsanchar Bhawan,  
Jawaharlal Nehru Marg (Old Minto Road),  
New Delhi-110002

**Subject: Proliferation of Fixed-line Broadband Services in the Country**

1. The Government received 'Recommendations on Delivering Broadband Quickly: What do we need to do?' dated 17.04.2015 from Telecom Regulatory Authority of India (TRAI). These recommendations covered a wide range of topics such as Spectrum Licensing, Right of Way (ROW), NOFN, Towers, Fixed-line Broadband, Cable TV, Satellite, Hosting of Contents in India, License Fee on ISPs, Infrastructure Sharing and Promoting Adoption of Broadband. One of the recommendations under serial number No. 6 on page No. 113 is given below:


*"To promote fixed line BB, the license fee on the revenues earned on fixed line BB should be exempted for at least 5 years"* (hereinafter referred to as '**the said recommendation**').

2. The said recommendation has been considered by the Government. During deliberations, the following issues have emerged:

- (a) The said recommendation requires a review as the factual matrix and relevant issues may have undergone a change with the passage of time (from the year 2015 to 2021).
  - (b) Whether proliferation of Fixed-line Broadband services can be better promoted by providing direct benefit to consumers for usage of Fixed-line Broadband services?
  - (c) Whether there is a likelihood of misuse by the licensees through misappropriation of revenues due to the proposed exemption of the License Fee on the revenues earned from Fixed-line Broadband services? That is, whether the licensees are likely to claim the revenues earned from telecom services, on which higher license fee is applicable, as those earned from the Fixed-line Broadband services for which license fee is proposed to be exempted?
- i. Further, it has come to the notice of the Government that TRAI has issued 'Consultation Paper on Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed' dated 20.08.2020. Through the Q. 23 of the consultation paper dated 20.08.2020, TRAI has sought inputs of stakeholders on, *inter-alia*, the question of "*What policy measures should be taken to improve availability and affordability of fixed broadband services?*".
- . In view of the above, **the said recommendation is being referred back to TRAI for its reconsideration under the terms of sub-section (1) of Section 11 of the Telecom Regulatory Authority of India Act, 1997 (as amended).**
- . TRAI is, hereby, requested to provide consolidated and updated recommendations in light of the afore-mentioned consultation paper dated 20.08.2020 after taking into consideration the issues mentioned in para 2 & 3 above.



6. For a ready reference, a brief description of the licensing regime for Internet Service Providers in India is enclosed as **Annexure**.
7. This letter is being issued with the approval of the Hon'ble Minister of Communications, Government of India.

  
(S.B. Singh)

Deputy Director General (AS)

Tel: 011-23036918

**Brief Description of  
the Licensing Regime for Internet Service Providers (ISPs) in India**

**A. Licensing regime for ISPs prior to UL regime**

1. In the year 1998, Internet service sector was opened for private participation with a view to encourage growth of Internet and increase its penetration. Initially, there was no License Fee for the ISP licenses issued under 1998 guidelines.
2. In the year 2002, ISPs were allowed to offer Internet Telephony (IT) service after signing amended ISP license (referred to as 'ISP-IT license') issued under 2002 guidelines.
3. Till 31.10.2003, there was no License Fee for the ISP licensees (with or without Internet Telephony). A token License Fee of Re. 1 per annum was imposed on all ISP licensees (with or without Internet Telephony) with effect from 01.11.2003.
4. Through an amendment dated 03.03.2006, License Fee as 6% of Adjusted Gross Revenue (AGR) was imposed on ISP-IT licensees with effect from 01.01.2006; revenue from pure Internet service (i.e. charges from Internet access, Internet content and Internet access related installation charges) was excluded from the Gross Revenue to arrive at the AGR.
5. In the year 2007, DoT issued revised guidelines for grant of license for operating Internet services. In the ISP licences issued under 2007 guidelines, License Fee of 6% of AGR was imposed; revenue from pure Internet service (i.e. charges from pure Internet service and activation charges from pure internet subscribers) was excluded from the Gross Revenue to arrive at the AGR.

6. In the year 2012, DoT revised the License Fee for all ISP and ISP-IT licensees. In this regard, the DoT's letter dated 29.06.2012 provided as below:

*"In pursuance of the right of Licensor to modify at any time the terms and conditions of the License Agreement for provision of Internet Services, in public interest or for the proper conduct of the services, the Licensor hereby intimates that :*

*A uniform license fee rate of 8% of "Adjusted Gross Revenue (AGR)" shall be adopted for all ISP and ISP-IT licenses, in two steps starting from 01.07.2012 as follows:*

Category of License	Details	Annual License Fee Rate as % of AGR	
		For the period from 01.07.2012 to 31.03.2013	For year 2013-14 and onwards
ISP	License for provisioning of Internet Services issued under 1998 guidelines (without Internet Telephony)	4%	8%
ISP-IT	License for provisioning of Internet Services (including Internet Telephony) issued under 2002 guidelines, License for provisioning of Internet Services issued under 24.08.2007 guidelines	7%	8%

2. Revenue for the purpose of license fee for ISP category shall provisionally include all types of revenue from Internet Services, allowing only those deductions available for pass through charges and taxes/ levies as in the case of access services, without any set-off for expenses; revenue from Internet Services will also be included in the definition of applicable AGR

*provisionally for ISP-IT category till government takes a final decision after obtaining TRAI recommendations in this regard.*

*3. Necessary amendment(s) to the License Agreement(s) to above effect will be issued in due course of time. ..."*

7. Through a judgment dated 12.10.2012 passed in the Petition No. 429 of 2012 (Internet Service providers Association of India & Ors. Vs. Union of India), the Hon'ble TDSAT set aside the para-2 of the afore-mentioned order dated 29.06.2012.

8. Later, through an order dated 30.05.2018 passed in the Telecom Petition No. 418 of 2014 (M/s World Phone Internet Service Pvt. Ltd. Vs. Union of India), the Hon'ble TDSAT ordered as below:

*"7. ... we note that para 3 of the order dated 29-6-2102 which states that "Necessary amendment(s) to the License Agreement(s) to above effect will be issued in due course of time." No amendment to this effect has been shown to have been issued to the petitioner. Hence, the rate of 7/8% is not applicable in respect of the license fee payable by the petitioner in absence of any amendment in relevant terms and condition of the license. We however, hasten to add that the petitioner is liable to continue to pay license fee at 6% in accordance with terms and condition of the license and the amendment dated 3-3-2006 to the license. ..."*

9. At present, the Department is considering a proposal to amend the ISP licenses issued under all the regimes prior to UL to incorporate the definition of Gross Revenue, Adjusted Gross Revenue and rate of License Fee as provided in the UL (ISP authorisation).

#### **B. Licensing regime for ISPs under UL regime**

10. In the year 2013, Unified License (UL) regime was instituted in the country. Internet service authorization is one of the authorizations under the UL. License Fee at the rate of 8% of AGR is to be paid by a licensee under the UL

regime; AGR for UL (Internet service authorization) does not exclude revenue from pure Internet services.

11. Internet Service Providers Association of India and a few licensees having UL (Internet Service authorization) filed several petitions before the Hon'ble TDSAT on the plea of non-level playing field between the licensees in UL regime and pre-UL regime in respect of levy of License Fee; they prayed to exclude the revenue earned from pure Internet service for arriving at AGR for ISPs under UL regime. The Hon'ble TDSAT passed its judgment in the Telecom Petition No. 169 of 2014 on 18.10.2019 and ordered, *inter-alia*, as below:

*"... 42. As a result, the decision to include revenue from pure Internet services in the AGR for levy of license fee on the ISPs under Unified License regime is set aside on the grounds already considered and decided in favour of the petitioners. Accordingly, the impugned demands of license fee are set aside with a direction to raise revised demands for license fee on the basis of same concept of AGR as is being done in respect of ISPs holding licenses under the old regime. ..."*

12. DoT filed a Civil Appeal Diary No. 14382/2020 (Union of India vs. Internet Service Providers Association of India & Ors.) before the Hon'ble Supreme Court of India against the judgment dated 18.10.2019 passed by the Hon'ble TDSAT in Telecom Petition No. 169 of 2014. The Hon'ble Supreme Court heard the matter on 05.01.2021 and, *inter-alia*, directed that the appellant (i.e. DoT) shall not be required to refund any amounts in pursuance of the impugned order of the Hon'ble TDSAT dated 18.10.2019.