



**MONEYLIFE
FOUNDATION**
THE RIGHT THING TO DO

Moneylife Foundation

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16 October 2020

Shri Sunil Kumar Singhal,
Advisor (Broadband & Policy Analysis),
Telecom Regulatory Authority of India (TRAI)

Subject: Comments in relation to TRAI's Consultation Paper (CP) No. 06/2020 on Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed

Dear Mr Singhal,

We are writing and addressing a response on behalf of Moneylife Foundation, to the Consultation Paper (CP) No. 06/2020 dated 20/08/20. We are a non-profit organisation based out of Mumbai and work for the benefit of common citizens on a wide range of issues - financial literacy, consumer issues, RTI, grievance redressal and more. A fact file, elaborating on the details and activities of Moneylife Foundation has been attached for your reference.

When we were first made aware of this CP put forward by TRAI, we facilitated a discussion on the same with prominent individuals from the telecom industry and some consumer activists. This discussion was led by Mr Brijendra Syngal, former chairman of VSNL, Dr Mahesh Uppal, Director of ComFirst India and Mr Alhad Apte, former Chief of National Technical Research Organisation (NTRO). The discussion also had contributions from Mr Ramani Iyer, former Chief General Manager in MTNL, Mr Ajit V. Shenoy, consumer activist and Mr Dilip Modi, telecom expert.

Based on their discussions, we are attaching our collective comments on the CP and are additionally also sharing below a few key points which were not necessarily covered in the CP.

- Broadband proliferation should not be limited to factors of bandwidth, speed and connectivity, examined in isolation. These factors are interconnected and should be considered collectively when defining an ideal service for consumers.
- The CP does not consider the factor of 'devices'. As an example, consider that during the lockdown enforced by the covid pandemic, seniors citizens have relied heavily on broadband, as smartphone devices have become increasingly difficult for them to use and reliance on cellular internet and data for this group has decreased significantly. This is due to the factor of devices that are available, and the relative 'ease of use' of the same. Hence, broadband proliferation will also depend on devices available to consumers as well.
- Speed should not be the sole defining factor for broadband's definition. Speed and bandwidth are relative to each consumer, based on their specific needs whether it be for the reason of working from home, watching videos or attending online classes. Furthermore, speed and bandwidth will also evolve with time and technology, hence the definition should not be limited with such fixed parameters.
- Rather than speed, consumers are more interested in transparency from service providers. They should be able to make an informed decision based on the data and reports made available to them. A regulatory agency should enforce that service providers submit timely reports on the nature of their service, along with data for all 'Quality of Service' parameters, and make such reports available to the consumer, allowing them to make an well informed decision when choosing a broadband service provider.
- Although the CP has talked at length about speed and bandwidth, there is no mention of network downtime. For instance, during the lockdown many people have joined online yoga groups or e-learning classes. But it has been commonly observed that they have difficulty in regularly attending such an online class due to network connectivity issues and constant disconnections. Reliability of broadband and cellular networks is abysmal in many cases and is something that needs to be improved upon drastically. The CP speaks about Contention Ratios and other such diagnostic parameters, however it neither elaborates on this further nor does it offer any solutions to improve connectivity. This is again related to overall 'Quality of Service' parameters and needs to be something that is enforced by the regulatory agency.
- When it comes to sanctioning a building's occupation certificate (OC), many factors such as water supply, electric supply, fire extinguishing services, etc are considered and only then it is sanctioned. Broadband infrastructure should also be made

mandatory as one of the prerequisites for sanctioning of an OC for a building. This will certainly help in promoting proliferation of broadband services in India.

- The CP does not comment on affordability of internet and data services or the tariff for such services. Data and bandwidth use should be charged on the basis of a “pay-as-you-go” model, as it is for other essential services such as water, gas or electricity. The package model benefits the service providers revenue assurance, but is decidedly anti-consumer. It is high time this anomalous situation is corrected.
- True penetration of broadband in India will also require closer examination of available spectrums, optimum utilization of existing infrastructure laid out by different government agencies like MTNL, BSNL, Railtel, GAIL, NHAI lines, which can be integrated to form a grid and repurposed, along with extensive use of public hotspots. These factors will ultimately define whether it is feasible to introduce broadband services in rural areas, where cellular networks have perhaps become a cheaper alternative.
- ‘Dig once’, is a sound approach and should be followed to bring in cost effectiveness, along with putting in pipes and ducts on all state and national highway that are under construction.
- It appears that Right Of Way (ROW) or “Way Leave” remains a disputed topic. A suggestion was collectively made during our discussions, that there should be a ROW or Way Leave Council modelled on the GST Council for resolution of ROW issues.
- As a whole, all technologies must be explored and utilised for real proliferation of broadband. This would require a holistic approach towards Policy and Regulation. A balance needs to be struck between implementation and cost, ultimately giving consumers the choice to either opt-in or out.

We hope that the aforementioned suggestions from industry stalwarts and activists, along with the attached comments on the CP will be given due consideration, while framing the recommendations to the Government of India.

Yours truly,
Akshay Naik,
Project Director, Moneylife Foundation

Encl.: 1. Comments on TRAI’s Consultation Paper on Broadband
2. Fact File on Moneylife Foundation

Comments on TRAI’s Consultation Paper on “Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed”

Q. No.	Question	Response	Comment
1	<p>Should the existing definition of broadband be reviewed? If yes, then what should be the alternate approach to define broadband? Should the definition of broadband be:</p> <p>A- Common or separate for fixed and mobile broadband?</p> <p>B- Dependent or independent of speed and/or technology?</p> <p>C- Based on download as well as upload threshold speed, or threshold download speed alone is sufficient?</p> <p>D- Based on actual speed delivered, or on capability of the underlying medium and technology to deliver the defined threshold speed, as is being done presently? Kindly suggest the complete text for revised definition of the broadband along with the threshold download and upload speeds, if required for defining broadband. Kindly provide the reasons and justifications for the same.</p>	<p>Yes. It needs to be reviewed.</p> <p>A- It may be common definition.</p> <p>B. It should be two part definition, one static part and the other dependent on speed.</p> <p>C. It should be based on both download and Upload speeds.</p> <p>D. Though parameter Actual Speed may not figure in the Broadband definition itself, declaration of QoS related parameters is advisable, as responded by us against question numbers 27, 28 and 30.</p> <p>Suggested Text: Broadband is the telecommunications capability (a) that enables users to originate and receive high-quality multimedia data using any technology and (b) has the capability of the minimum speeds in both download and upload directions as specified in ‘Broadband Speed’ to an individual subscriber from the point of presence (POP) of the service provider intending to provide Broadband service.</p>	<p>With changing user demands, present definition needs to be updated.</p> <p>A- As mobile speeds are now getting competitive, a common definition may serve the purpose.</p> <p>B- Speeds are dynamically changing. It is suggested that the definition may have two parts, a static part and a part which may be revised periodically depending on technology progress and user demand.</p> <p>C- With growing application for WFH, On-line Education, Multimedia meetings, the Uplink speeds have become equally important.</p> <p>D- Though actual speed is the preferred parameter of performance. it may not become part of the Broadband definition, owing to complexities involved in deciding thresholds.</p>

Q. No.	Question	Response	Comment
2	If you believe that the existing definition of broadband should not be reviewed, then also justify your comments.	Not applicable.	
3	<p>Depending on the speed, is there a need to define different categories of broadband?</p> <p>If yes, then kindly suggest the categories along with the reasons and justifications for the same.</p> <p>If no, then also justify your comments.</p>	<p>Yes. It would be beneficial to provide several categories of Broadband.</p> <p>Suggested categories: Super High Speed, High Speed and Standard Speed.</p> <p>Actual Speed Thresholds of the three categories may defined under "Broadband Speeds" and may be revised every two or three years based on technology progress.</p>	Considering diversity in the country in user demands, it would be beneficial to provide several categories of Broadband service.
4	<p>Is there a need to introduce the speed measurement program in the country?</p> <p>If yes, please elaborate the methodology to be implemented for measuring the speed of a customer's broadband connection.</p> <p>Please reply with respect to fixed line and mobile broadband separately.</p>	Yes, because we emphasise on identifying actual speed and Quality of Service (QoS) finally delivered to the users as the performance parameters.	As Actual Speeds also depend on Core Network, End Systems and en-route TSPs if any, it is necessary to have a standard test set up for <u>end-to-end speed measurements of the particular TSP domain</u> to verify compliance with the SLA between TSPs and users.
5	Whether the Indian Telegraph Right of Way (RoW) Rules 2016 have enabled grant of RoW permissions in time at reasonable prices in a non-discriminatory manner? If not, then please suggest further changes required in the Rules to make them more effective.	No comment.	Some consideration has to be given to cables hanging on top of the buildings all over all the metros and towns. This not only causes unreliability and makes the skylines shabby, but many instances of disturbing/cutting Competitors' cable also have been seen. This emphasises the importance of underground ducting

Q. No.	Question	Response	Comment
			and efficient mechanism for giving Right of Way.
6	Is there any alternate way to address the issues relating to RoW? If yes, kindly elucidate.	No comment.	
7	Whether all the appropriate authorities, as defined under the Rules, have reviewed their own procedures and align them with the Rules? If no, then kindly provide the details of such appropriate authorities.	No comment.	
8	Whether the RoW disputes under the Rules are getting resolved objectively and in a time-bound manner? If not, then kindly suggest further changes required in the Rules to make them more effective.	No comment.	
9	What could be the most appropriate collaborative institutional mechanism between Centre, States, and Local Bodies for common Rights of Way, standardisation of costs and timelines, and removal of barriers to approvals? Justify your comments with reasoning.	No comment.	
10	Should this be a standing coordination-committee at Licensed Service Area (LSA) level to address the common issues relating to RoW permissions? If yes, then what should be the composition and terms of reference of this committee? Justify your comments with reasons.	No comment.	
11	Is there a need to develop common ducts along the	Common ducts would certainly be useful for faster deployment and	Even sharing of OFC by multiple TSPs, either with separate cores or

Q. No.	Question	Response	Comment
	roads and streets for laying OFC? If yes, then justify your comments.	maintenance of Broadband; it would also be consistent with Dig Once strategy.	sharing bandwidth through DWDM, can be considered.
12	How the development of common ducts infrastructure by private sector entities for laying OFC can be encouraged? Justify your comments with reasoning.	No comment.	
13	Is there a need to specify particular model for development of common ducts infrastructure or it should be left to the landowning agencies? Should exclusive rights for the construction of common ducts be considered? Justify your comments with reasoning.	No comment.	
14	How to ensure that while compensating the land-owning agencies optimally for RoW permissions, the duct implementing agency does not take advantage of the exclusivity? Justify your comments with reasoning.	No comment	
15	What could be the cross-sector infrastructure development and sharing possibilities in India? Justify your comments with examples.	Cross sector sharing of power cables and OFCs, and telephone cables and OFCs, would be feasible and advisable. Sharing of power cables and telephone cables is not advisable owing to SNR issues.	Cross sector sharing of TV distribution and Telephony/Internet OF cables are definitely feasible and in many metropolitan areas working successfully. It is desirable in such cases to lease out dark fibres rather than lease out bandwidth.
16	Whether voluntary joint trenching or coordinated trenching is feasible in India? If yes, is any policy or	No comment.	

Q. No.	Question	Response	Comment
	regulatory support required for reaping the benefits of voluntary joint trenching and coordinated trenching? Please provide the complete details.		
17	Is it advisable to lay ducts for OFC networks from coordination, commercial agreement, and maintenance point of view along with any other utility networks being constructed?	No comment.	
18	What kind of policy or regulatory support is required to facilitate cross-sector infrastructure sharing? If yes, kindly provide the necessary details.	No comment.	
19	In what other ways the existing assets of the broadcasting and power sector could be leveraged to improve connectivity, affordability. and sustainability.	Sharing space in the Power Receiving Stations and OFC Plants might be feasible.	Though ducts for power and telecom/broadband cables can be shared there should be partitioning to prevent magnetic interference and spread of fire. Due to high voltage operation of the Power utilities, the operational maintenance of Telecom /cable TV fibres in the same duct will become risky unless power shut downs could be enforced for such operational requirements.
20	For efficient market operations, is there a need of a marketplace supported by GIS platform for sharing, leasing, and trading of Duct space, Dark Fibre, and Mobile Towers? If yes, then who should establish, operate, and maintain the same? Also,	No comment.	

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	<p>provide the details of suitable business model for establishment, operations, and maintenance of the same.</p> <p>If no, then provide the alternate solution for making passive infrastructure market efficient.</p>		
21	<p>Even though mobile broadband services are easily available and accessible, what could be the probable reasons that approximately 40% of total mobile subscribers do not access data services? Kindly suggest the policy and regulatory measures, which could facilitate increase in mobile broadband penetration.</p>	<p>Many users use only feature phones. There also may be a significant number who access data only from their homes through Fixed Line as these are presently more reliable and cheaper.</p> <p>The 40% usage appears to be from the 'pre lockdown' data. The usage has definitely gone up during the lockdown. A normal household with two school/college going children, working/learning from home online concurrently has definitely boosted the broadband usage. The limitation earlier was the availability of only two smartphones at home for the elders (children not being permitted mobile phones in schools). During the lockdown, all the available devices (laptop, ipad, smartphone, desktop) are used for online activities increasing the usage and at the same time enormously increasing the demand for speed/ bandwidth at home.</p>	<p>Statistics on use of feature phones and smartphones not using data, and statistics on smartphone data being used only on fixed lines may be collected to get further direction.</p>
22	<p>Even though fixed broadband services are more reliable and capable of</p>	<p>Fixed line usage for telephone is on decline due to poor service by</p>	

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	delivering higher speeds, why its subscription rate is so poor in India?	MTNL/BSNL since last few years. FTTH may help in improving it in times to come.	
23	What could be the factors attributable to the slower growth of FTTH subscribers in India? What policy measures should be taken to improve availability and affordability of fixed broadband services? Justify your comments.	Affordability and inadequate coverage of fibre infrastructure, especially in the last mile, may be the reasons. Insufficient investment by govt and private companies in fixed line networks.	
24	What is holding back Local Cable Operators (LCOs) from providing broadband services? Please suggest the policy and regulatory measures that could facilitate use of existing HFC networks for delivery of fixed broadband services	LCOs do not have technical competence to handle reliability and quality required for broadband business. Most are small entities who are individuals who just provide connection and collect revenue for distributors.	Current rules make it difficult for cable operators to provide broadband services because a cable operator, with an ISP licence, who provides TV and broadband, must share 8% of the total Adjusted Gross Revenues (AGR) with the government. This amount can be high since the AGR includes revenues from not just broadband, but also from TV services which may well be the larger component of its revenues.
25	When many developing countries are using FWA technology for provisioning of fixed broadband, why this technology has not become popular in India? Please suggest the policy and regulatory measures that could facilitate the use of FWA technology for delivery	No comment.	

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	of fixed broadband services in India.		
26	<p>What could be the probable reasons for slower fixed broadband speeds, which largely depend upon the core networks only?</p> <p>Is it due to the core network design and capacity?</p> <p>Please provide the complete details.</p>	<p>Access Router Contention Ratio is one probable reason.</p>	
27	<p>Is there a need of any policy or regulatory intervention by way of mandating certain checks relating to contention ratio, latency, and bandwidth utilisation in the core network?</p> <p>If yes, please suggest the details.</p> <p>If no, then specify the reasons and other ways to increase the performance of the core networks.</p>	<p>There definitely is the need to have checks on QoS parameters. Present speed guarantee is only between PoP to CPE and is not adequate. <u>End-to-end QoS assurance is necessary from Users' perspective.</u></p>	<p>Presently Broadband does not guarantee QoS. In addition to downtimes, users often experience soft problems such as speed variations, intermittent outages, which are difficult to establish and quantify. A test set up suggested at point 4, would be necessary to measure actual speed, bandwidth utilisation, latency, contention ratio and error rates.</p>
28	<p>Should it be mandated for TSPs and ISPs to declare actual contention ratio, latency, and bandwidth utilisation achieved in their core networks during the previous month to their customers while communicating with them or offering tariff plans? If no, state the reasons.</p>	<p>It is certainly advisable from transparency point of view to declare the contention ratio, latency and bandwidth utilisation ratio.</p>	<p>The parameters contribute to the QoS and would help in resolving the soft problems such as speed variations and intermittent outages experienced by the users.</p>
29	<p>What could be the probable reasons for slower mobile broadband speeds in India, especially when the underlying technology and equipment being used for</p>	<p>Probable reason could be low signal strengths and inadequate coverage, especially inside buildings, and higher contention ratios.</p>	

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	<p>mobile networks are similar across the world? Is it due to the RAN design and capacity? Please provide the complete details.</p>		
30	<p>Is there a need of any policy or regulatory intervention by way of mandating certain checks relating to RAN user plane congestion? What should be such checks? If yes, then suggest the details, including the parameters and their values. If no, then specify the reasons and other ways to increase performance of RANs.</p>	<p>Yes. RAN user plane congestion is apparently one of the main reasons for loss of connections and loss of data.</p>	<p>Service Providers should periodically convey their data to Regulatory Authorities about the number of users and traffic calculations on the RAN user plane.</p>
31	<p>Is there a need of any policy or regulatory intervention by way of mandating certain checks relating to consumer devices? If yes, then please suggest such checks. If no, then please state the reasons. Is there a need of any policy or regulatory intervention by way of mandating certain checks relating to consumer devices? If yes, then please suggest such checks. If no, then please state the reasons.</p>	<p>No.</p>	<p>Such intervention may adversely affect device choices and prices and will not serve much purpose.</p>
32	<p>Is there a need of any policy or regulatory intervention by way of mandating certain checks relating to consumer devices? If yes, then please suggest such checks. If no, then please state the reasons.</p>	<p>No.</p>	<p>Such intervention may adversely affect device choices and prices and will not serve much purpose.</p>
33	<p>To improve the consumer experience, should minimum standards for consumer devices available in the open market be specified?</p>	<p>It may help to categorise user devices based on their network technologies and specify Broadband speeds for different categories.</p>	<p>The actual Broadband speed may vary depending on the network technologies available in the devices.</p>

Q. No.	Question	Response	Comment
	Will any such policy or regulatory intervention have potential of affecting affordability or accessibility or both for consumers? Please justify your comments.		Hence, if devices are categorised on the basis of technologies, such as carrier aggregation, the minimum Broadband speeds can be specified for devices with and without the technologies.

About Moneylife Foundation: (<https://www.mlfoundation.in/>)

Moneylife Foundation is a not-for-profit organization involved in advocacy for consumers, citizens and investors and in spreading financial literacy. We take pride in being fiercely independent, non-partisan and always pro-consumer. While I have attached a fact file about us at the end of this note here are some key facts about us:

We are among the fastest growing NGOs in India in the consumer space and have over 1,27,000 members (membership is free).

We have conducted well over 475 workshops/seminars and other events educating people of various age groups.

We run two helplines and conduct counselling sessions every day to help people with filing consumer complaints, financial issues, Right to Information, issues with insurance, housing and realty, redevelopment and alternate dispute resolution etc.

Our advocacy is focused on financial issues faced by ordinary people and we lobby the RBI, Ministry of Finance and Ministry of Consumer Affairs for safer regulation.

Moneylife Foundation Fact File:

Activities: Moneylife Foundation is engaged in building consumer awareness, advocacy, spreading financial literacy and protection of savers and investors. We have more than 1,27,000 members across India; the membership is Free. In the past 10 years, we have conducted over 475 workshops and seminars in Mumbai and other cities. We also run two helplines (A Legal Resource Centre and a Credit Helpline) and conduct Daily Guidance Sessions every evening at the Moneylife Knowledge Centre to offer free counselling to people on a wide range of issues.

Website: <http://www.mlfoundation.in>

Established: February 2010

Registrations: Registered under Bombay Public Trust Act with Registration No: E-26571 (Mumbai) issued on 12th January 2010

80G registration: Reg No: DIT(E)/MC/80G/685/2010-11 dated 7.2.11 effective 8.9.2010.

12A registration: Reg No: 43377 under 12AA(1)(b)(i) of the income Tax Act, 1961

FCRA registration: FCRA Registration No: 083781387 | N0.II/21022/68(0210)/2013-FCRA-II
Ministry of Home Affairs, Govt. of India

PAN: AACTM4377J

Member: Advocates for International Development as 'Development Partner' and OECD's International Network on Financial Education.

Accreditations: One of the 20 NGOs that has been accredited by the Depositors Education & Awareness Fund of the Reserve Bank of India.

Awards: 10th M.R. Pai Memorial Award in September 2014

Trustees: Mr TS Krishnamurthy, former Chief Election Commissioner of India; Dr KC Chakrabarty, former Deputy Governor of the Reserve Bank of India; Mr Walter Vieira, a well-known management consultant; Ms Sucheta Dalal, Journalist, Padma Shri awardee and author; Mr Debashis Basu, author, award-winning journalist and researcher.

Our guest speakers: Our guest speakers have included Dr Subramanian Swamy, Mr. Hardeep Singh Puri, Mr Vinod Rai, ex-CAG, Mr Devendra Fadnavis, Dr K C Chakrabarty, RBI, Deputy Governor, Ms Nirmala Sitharaman, Dr R C Sinha Advisor, Ministry for Surface Transport & Ministry of Shipping, Dr Ashok Khemka, secretary of the Govt of Haryana, Dr Wajahat Habibullah (former Chief Information Commissioner). Other eminent speakers have included Dr SY Quraishi, Chief Election Commissioner, Mr Dinesh Trivedi (former Railway Minister), Mr Baijayant Panda, Mr Rajeev Chandrashekar, Mr Hari Narayan, ex-Chairman IRDA, Justice Sujata Manohar, Ms Aruna Roy and Nikhil Dey, Ms Sindhutai Sapkal, eminent social activist, Supreme Court lawyers (late) Anil Divan, Arvind Datar, Usha Ramanathan, Tax Experts Soli Dastur, Anil Harish, K K Ramani former CIC Mr Shailesh Gandhi, Sanjay Nirupam and our trustees among many others.

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