

**ISP AI response to TRAI Consultation paper on "Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed"**

**Q.1: 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:**

**a. Common or separate for fixed and mobile broadband?**

**ISP AI response** – Broadband definition has to be specific. If Mobile service providers want to offer different service other than the defined broadband, it should be called mobile internet.

**b. Dependent or independent of speed and/or technology?**

**ISP AI response** – It has to independent of technology and should be same for all services.

**c. Based on download as well as upload threshold speed, or threshold download speed alone is sufficient?**

**ISP AI response** – Both download as well as upload need to be considered.

**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?**

**ISP AI response** – Broadband speed is to be specified from standard user device till defined ISP node. Speed available for 95 percentile time should be the speed.

**Please 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.**

**ISP AI response** –

Definition: Broadband speed is to be specified from standard reference device at user premises till defined ISP node. Measurement of Speed should be Speed available for 95 percentile of reference time of 5 minutes. Download speed of 2 Mbps and upload speed of 512 Kbps should be defined so as to include ADSL equipment still deployed widely in the networks.

**Q.2: If you believe that the existing definition of broadband should not be reviewed, then also justify your comments.**

**ISPAI response** – Same as answer of Q1.

**Q.3: Depending on the speed, is there a need to define different categories of broadband? If yes, then kindly suggest the categories along with the reasons and justifications for the same. If no, then also justify your comments.**

**ISPAI response** – No. There should be only one definition of Broadband, Multiple definitions would not be understood by the user and would lead to constant conflicts and disputes.

Service providers offering different speeds should use different names for service e.g. narrowband, internet service, mobile internet etc.

**Q.4: Is there a need to introduce the speed measurement program in the country? If yes, please elaborate the methodology to be implemented for measuring the speed of a customer's broadband connection. Please reply with respect to fixed line and mobile broadband separately.**

**ISPAI response** – Yes a common speed measurement tool is very much required. These measurement servers have to be with good capacity so as not to slow down the speed and be available at defined locations in ISP network disclosed transparently and at nearest internet exchange location.

**Q.5: Whether the Indian Telegraph Right of Way (RoW) Rules 2016 have enabled grant of RoW permissions in time at reasonable 101 prices in a non-discriminatory manner? If not, then please suggest further changes required in the Rules to make them more effective.**

**ISPAI response** – No. There should be common policy for all central government bodies, state government bodies and local authorities. And one central co-coordinator at each district level with direct supervision of DoT need to be created with precise timeline to grant permission for RoW.

**Q.6: Is there any alternate way to address the issues relating to RoW? If yes, kindly elucidate.**

**ISPAI response** – All state electricity poles and street light poles under local bodies must be allowed to lay OFC cables, and their permission also need to be monitored as per Q-5 answer. This will enhance the speed of rollout and this need to be done without any discrimination. For all new road construction a separate channel need to be kept for ducts of OFC to be laid in future.

Right of way charges should be enabled to be paid over a period of 15 years. Fiber Capacity should be allowed to be shared and transferred without need of additional Right of way charge. This would increase value of investment made by infrastructure creator in Fiber infrastructure. For RoW, there should be a single window clearance with active cooperation of all local bodies. All state electricity poles, municipal poles should be allowed to use for laying of OFC cable and a proper mechanism for the same needs to be worked out.

**Q.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.**

**ISPAI response** – Still there is no clarity and transparency in getting time to approve and the charges for ROW. There are wide variations in time to approve and the charges.

**Q.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.**

**ISPAI response** – RoW requests are not resolved in time bound manner. Rules have to specify max approval time.

And there needs to be an appeal process in case there are delays/costs variations etc.

**Q.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.**

**ISPAI response** – As stated earlier, there has to be a single window for approval.

**Q.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.**

**ISPAI response** – Yes there should be coordinating committee at LSA level. There can be representatives from state government, local bodies and members from local license service providers need to be involved.

**Q.11: Is there a need to develop common ducts along the roads and streets for laying OFC? If yes, then justify your comments.**

**ISPAI response** – Yes it is very much required. There has to common infrastructure required to lay ducts along all the roads. This can reduce damage to roads, delay in infrastructure creation, and will enhance the reach of information super highway.

**Q.12: How the development of common ducts infrastructure by private sector entities for laying OFC can be encouraged? Justify your comments with reasoning.**

**ISPAI response** – Development project should be such it is acceptable for lending by Banks. Basically such ducts etc. should be easily transferable to the buyer and should get benefit of charges paid by the seller.

**Q.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.**

**ISPAI response** – Basically charge should be defined as a term and condition of development. Further there should be upper cap specified for charges by land owning agencies. There should no exclusive right. There is need to at least 2, preferably 3 agencies having common ducts.

**Q.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.**

**ISPAI response** – Same as answer to Q13.

**Q.15: What could be the cross-sector infrastructure development and sharing possibilities in India? Justify your comments with examples.**

**ISPAI response** – No comments.

**Q.16: Whether voluntary joint trenching or coordinated trenching is feasible in India? If yes, is any policy or regulatory support required for reaping the benefits of voluntary joint trenching and coordinated trenching? Please provide the complete details.**

**ISPAI response** – Yes this should be explored.

**Q.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?**

**ISPAI response** – Yes this is very much needed and is a common practice abroad for all infrastructure development.

**Q.18: What kind of policy or regulatory support is required to facilitate cross-sector infrastructure sharing? If yes, kindly provide the necessary details.**

**ISPAI response** – Very light touch regulations are required for creation of any kind of infrastructure. Policies have to facilitate bankability of Fiber infrastructure.

**Q.19: In what other ways the existing assets of the broadcasting and power sector could be leveraged to improve connectivity, affordability, and sustainability.**

**ISPAI response** – As suggested all utility poles, ducts or any other infrastructure have to be made available to create and enhance the connectivity super highway.

**Q.20: For efficient market operations, is there a need of e - 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, provide the details of suitable business model for establishment, operations, and maintenance of the same. If no, then provide the alternate solution for making passive infrastructure market efficient.**

**ISPAI response** – Marketplace needs to be created. However there has to be upper cap on both price and on holding the capacity by one company/entity. There should be upper cap of 50 percent to be owned by company and excess capacity after merger/purchase of company etc to be offloaded in market. This would prevent monopolies and exploitation.

**Q.21: 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.**

**ISPAI response** – No Comments

**Q.22: Even though fixed broadband services are more reliable and capable of delivering higher speeds, why its subscription rate is so poor in India?**

**ISPAI response** – Need government intervention for creating robust infrastructure, adoption of high speed wireline connectivity and encouragement by way of policy for investors to create such infrastructure. As stated earlier, such projects have to be bankable and transferable.

**Q.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.**

**ISPAI response** – There should be upper cap on charges by commercial building/complex owners/RWAs.

ISPs should be allowed sharing of infrastructure both active and passive. Further, this would enable optimal higher capacity utilization and this incentivize quick ramp up of network to meet growth of customers, customer's requirements for higher speeds and more capacity of downloads. Return on investment would also be such as to create more infrastructures.

Innovation has to be fully encouraged for all, including ISPs. ISPs should be encouraged to innovate and provide new services/applications. Any new service application should be automatically allowed subject to appropriate reporting norms. There may however be an explicit Negative list after consultation with stake holders.

**Q.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.**

**ISPAI response** – Lack of proper technological knowhow and trained manpower are few key reasons, apart from large amount of investment without sustainable future business projections

**Q.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 of fixed broadband services in India.**

**ISPAI response** – FWA spectrum has to be made available and charged on allocation basis to ISPs. FWA was being used very widely earlier but all allocations in 2.7 GHz, 3.3 GHz bands were withdrawn by DoT. There is need to reconsider to allow these bands for link by link allocation and charges.

**Q.26: What could be the probable reasons for slower fixed broadband speeds, which largely depend upon the core networks only? Is it due to the core network design and capacity? Please provide the complete details.**

**ISPAI response** – Uncertainty in Row and lack of infrastructure sharing are the reasons.

**Q.27: 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? If yes, please suggest the details. If no, then specify the reasons and other ways to increase the performance of the core networks.**

**ISPAI response** – There should only be light touch regulation by ensuring speed as specified to be measured by independent agencies as per standard specified process.

**Q.28: 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, while**

to their customers while communicating with them or offering tariff plans? If no, state the reasons.

**ISPAI response** – No. This would lead to various disputes and some for past period. Further these issues of past are not resolvable at all.

**Q.29: What could be the probable reasons for slower mobile broadband speeds in India, especially when the underlying technology and equipment being used for mobile networks are similar across the world? Is it due to the RAN design and capacity? Please provide the complete details.**

**ISPAI response** – No comments

**Q.30: 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.**

**ISPAI response** – No Comments

**Q.31: Should it be mandated to TSPs to declare actual congestion, average across the LSA, recorded during the previous month over the air interface (e.g., LTE Uu), in the radio nodes (e.g., eNB) and/or over the backhaul interfaces between RAN and CN (e.g., S1-u), while reaching out to or enrolling a new customer? If so, then suggest some parameters which can objectively determine such congestions. If no, then specify the reasons and other ways to increase performance of the RAN.**

**ISPAI response** – No Comments

**Q.32: 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.**

**ISPAI response** – There need to be standard device to measure specified speed and not on all user devices.



**Q.33: To improve the consumer experience, should minimum standards for consumer devices available in the open market be specified? Will any such policy or regulatory intervention have potential of affecting affordability or accessibility or both for consumers? Please justify your comments.**

**ISPAI response** – Yes there should be standards to be specified by TEC / ISI etc. and all devices need to be take approval to certify meeting the standards.