

Response to TRAI consultative Document on Broadband

By

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5.1 What should be done to increase broadband demand? (Reference Para 2.23)

Broadband demand will primarily depend largely on the availability of relevant content available to users conveniently and affordably. Further, potential users will subscribe to the service if the price and quality of the service is acceptable. It follows therefore that supply of broadband is as important if we wish to expand demand.

Every step must be taken to improve the broadband ecosystem. In this government can play an important role especially by bringing scale which will help boost the economics of broadband delivery. By bringing government services, taxation, banking, municipal services etc online will directly impact demand for broadband. Industry too can help boost demand by innovating on models for services of popular appeal e.g. entertainment, cricket etc.

5.2 What, according to you, will improve the perceived utility of broadband among the masses? (Reference Para 2.23)

This will happen when services of interest to citizenry can be deployed on telecom networks

effectively,

transparently and

cheaply

Also, when the applications running on the networks have widespread appeal, are easy, safe and cheap to access.

5.3 What measures should be taken to enhance the availability of useful applications for broadband? (Reference Para 2.23)

1. Direct funding or subsidy for those creating useful applications.
2. Public-private partnership in creating applications
3. Need surveys to estimate potential of specific services
4. Assistance with marketing and sales

5.4 How can broadband be made more consumer friendly especially to those having limited knowledge of English and computer? (Reference Para 2.23)

This will require more and effective support for multimedia applications in local languages where language or literacy are less of a deterrent

Customer Support in will also be critical in handholding users in the initial stages.

5.5 Do you agree with projected broadband growth pattern and futuristic bandwidth requirements? (Reference Para 2.35)

It is worth remembering that almost such estimates turn out to be conservative.

5.6 Do you agree that existing telecom infrastructure is inadequate to support broadband demand? If so what actions has to be taken to create an infrastructure capable to support futuristic broadband? (Reference Para 2.35)

Yes. The focus should be leverage the speed and cost advantages of wireless technologies, especially 3G/BWA. For a country like India with a large itinerant population, wireless is also the most democratic option. Optical fibre will mitigate the risk of spectrum scarcity but cannot be seen as a last mile option for a majority of users other than those in large built up areas or institutions.

5.7 What network topology do you perceive to support high speed broadband using evolving wireless technologies? (Reference Para 3.22)

5.8 What actions are required to ensure optimal utilization of existing copper network used to provide wireline telephone connections? (Reference Para 3.22)

Much, though not a major part, of India's Copper network of BSNL/MTNL can support DSL. This must be leveraged to the hilt. Efforts must be made to ensure all who can derive value from it can access it on fair competitively neutral terms.

Fixed-mobile convergence allows much of the in-building copper to be more effectively used.

5.9 Do you see prominent role for fibre based technologies in access network in providing high speed broadband in next 5 years? What should

be done to encourage such optical fibre to facilitate high speed broadband penetration? (Reference Para 3.22)

Please see answer to 5.6

5.10 What changes do you perceive in existing licensing and regulatory framework to encourage Cable TV operators to upgrade their networks to provide broadband? (Reference Para 3.22)

All steps must be taken to remove barriers to use of any existing cable infrastructure. This may not always require cable operators to become UASL players; pro-competition interconnection/infrastructure sharing rules will go a long way.

5.11 Is non-availability of optical fibre from districts/cities to villages one of the bottlenecks for effective backhaul connectivity and impacts roll out of broadband services in rural areas? (Reference Para 3.39)

Not really. Optical fibre though in short supply, is not the critical bottleneck. Other lower barriers- price, devices, narrow band service availability- discussed above have yet to be crossed.

5.12 If so, is there a need to create national optical fibre network extending upto villages? (Reference Para 3.39)

This should be a medium term goal. Wireless is the immediate priority. We have to free up unused spectrum and use transparent pro market rules for it allocation and pricing.

5.13 In order to create National optical fibre core network extending upto villages, do you think a specialized agency can leverage on various government schemes as discussed in para B? (Reference Para 3.39)

Probably, if it can be created with a clear mandate and is accountable to stakeholders. Else, it could be another problem.

5.14 Among the various options discussed in Para 3.35 to 3.37, what framework do you suggest for National Fibre Agency for creating optical fibre network extending upto village level and why? (Reference Para 3.39)

See above.

5.15 What precautions should be taken while planning and executing such optical fibre network extending upto villages so that such networks can be used as national resource in future? What is suitable time frame to rollout such project? (Reference Para 3.39)

See above

5.16 Is there a need to define fixed and mobile broadband separately? If yes, what should be important considerations for finalizing new definitions? (Reference Para 4.18)

The differences are academic. Users will choose what is best and suits them if the market is competitive. The issue of definitions is largely irrelevant. Even 256kbps which is easy to obtain on wireline or wireless are quite adequate as definition of broadband. We must remember that in a market like telecom, competition and technology advance will soon make all such distinctions meaningless. Retaining them will encourage abuse by vested interests.

5.17 Is present broadband definition too conservative to support bandwidth intensive applications? If so, what should be the minimum speed of broadband connection? (Reference Para 4.18)

Current definition (of 256k) is not the problem. Higher threshold will deter growth of promising technologies that evolving speedily. It will reward technologies which may offer the speed but offer none of the economies.

5.18 What specific steps do you feel will ease grant of speedy ROW permission and ensure availability of ROW at affordable cost? (Reference Para 4.30)

Effective coordination between state and central agencies is the key. Leadership of TRAI, which would be perceived as an honest broker, can be critical.

5.19 Does the broadband sector lack competition? If so, how can competition be enhanced in broadband sector? (Reference Para 4.42)

YES. The following will help

- Release of more spectrum
- Unbundling of the local copper loop

- Technology neutral regulation

5.20 Do you think high broadband usage charge is hindrance in growth of broadband? If yes, what steps do you suggest to make it more affordable? (Reference Para 4.42)

Yes. However, market growth will remedy that as it has in case of mobile telephony.

5.21 Do you think simple and flat monthly broadband tariff plans will enhance broadband acceptability and usage? (Reference Para 4.42)

It will allow better budgeting. This is a great incentive for usage and growth of services.

5.22 Should broadband tariff be regulated in view of low competition in this sector as present? (Reference Para 4.42)

No. This is unnecessary. TRAI must work with industry to improve economies of the business and competition, so that prices fall on their own.

5.23 What should be the basis for calculation of tariff for broadband, if it is to be regulated? (Reference Para 4.42)

This is not required. See above.

5.24 How can utilization of International Internet bandwidth be made more efficient in present situation? (Reference Para 4.42)

5.25 How can use of domestic and international internet bandwidth be segregated? Will it have direct impact on broadband affordability? If so, quantify the likely impact. (Reference Para 4.42)

This is unnecessary.

5.26 What steps should be taken to bring down the cost of international internet bandwidth in India?(Reference Para 4.48)

Competition to grow the market and improve the economics of the business.

5.27 How can competition be enhanced in the International bandwidth sector? (Reference Para 4.48)

5.28 QoS of broadband, availability of bandwidth, adherence to given contention ratio, affordability, availability and spread are some intricately linked parameters. In your opinion what should be done to ensure good quality broadband to subscribers? (Reference Para 4.59)

Markets are best suited to deal with these issues. TRAI can help by helping users to choose wisely by providing usable information/analysis. It has largely failed in this area and concrete steps are necessary in consultation with consumer groups.

5.29 Do you think that bad quality of broadband connection is impacting the performance of bandwidth hungry applications and hence crippling the broadband growth? If so, please suggest remedial actions. (Reference Para 4.59)

Yes. See above. Competition is our best bet.

5.30 Is there a need to define new/redefine existing quality of service parameters considering future bandwidth hungry applications, time sensitivity of applications and user expectation? What should be such parameters including their suggestive value and should such parameters be mandated? (Reference Para 4.59)

No. Empowering users to determine quality of service is more important.

5.31 What measures do you propose to make Customer Premises Equipment affordable for common masses? Elaborate your reply giving various options. (Reference Para 4.64)

Market growth will improve economies. Enabling bundling- as in the US for example- can reduce the cost of entry for most customers provided TRAI can prevent abuse of consumers through lock-ins.

5.32 What measures are required to encourage development of content in Indian vernacular languages? (Reference Para 4.68)

Extensive support for R&D is the key. Better terms from operators for creators of applications. Help with user familiarization and education can be helpful.

5.33 Do you perceive need for any regulatory or licensing change to boost broadband penetration? (Reference Para 4.71)

The unified license (with spectrum to be procured separately) will remove any existing disincentives for players to grow the market.

5.34 Are there any specific competition and market related issues that are hindering growth of broadband? (Reference Para 4.71)

See above.

5.35 What other fiscal/non-fiscal measures should be considered to boost broadband penetration? (Reference Para 4.71)

Subsidies from the USOF in all cases where market failure. The subsidies must be competitively neutral on all accounts such as technology, function etc. They should under no circumstances be limited to those who paid into the USOF. Any player working on technologies, services or applications that are deemed important but commercially unsustainable must qualify for subsidy.

