

Response to “Consultation paper on National Broad band Plan”

Introduction:

At least since 2004 when the first broadband plan was announced by the then telecom minister, the government at various levels has been aware of the usefulness of connectivity for governance, efficiency and commercial reasons. It's use as an effective medium of connecting the whole country, especially the rural areas; thereby bringing the vast multitude of citizens under with the developmental discourse by making up for the lack of effective physical infrastructure has also been well recognized.

The 2004 policy made two significant recommendations: a) the broadband policy framework visualized creation of infrastructure through various access technologies that can mutually co-exist such as optic fibre, DSL on cooper loop; cable TV network, satellite, terrestrial wireless and future technologies b) it had dedicated one chapter to the incentives to be given to private players engaged in the manufacturing of broadband equipment and committed to take up fiscal issues with the relevant ministry.

The second broadband plan was released in 2008 at a time when it was clear to everyone that the target set up under the first Broadband Plan would not be met. It was also perhaps realized that the emphasis should be more not on “Why broadband?” But, “How broadband?” This is clear in the broad recommendations made in 2008: a) PSU telecom service providers to appoint franchisees to supplement efforts, b) Allocation of 3G and BWA spectrum, c) right of way, d) use of USO to subsidise backhaul charges initially for three years and e) provisioning of broadband services through DTH.

The current set of recommendations, therefore, is the third in series and by all counts, the most pragmatic of all.

The broad recommendations that it makes are simple yet bold and effective. It assumes correctly that: a) there is a need to create a backbone for delivery of broadband beyond the 8 largest metros; b) that there has been a failure of the market in so far as the private players and PSUs have not been able to deploy this infrastructure; c) that unless the necessary backend infrastructure is created, consumers will not have the necessary connectivity; d) that the cost of deployment and the cost to consumers would remain expensive for private players and therefore the need for the government to be involved and e) that the cost of building the basic infrastructure has to be met by the government and the initial project has to be created and implemented by the government; f) finally, it lays out a correct process of infrastructure building when it suggests that once the backhaul capability is created with optic fibre, various other private players with varied technology solutions can plug into it and provide access to the end user. We are of the view that the

TRAI proposal alongside and in parallel with the developments in the marketplace viz., arrival of 3G and BWA will be able to user in a true broadband revolution in India.



It is for these reasons that IAMAI as one of the major stakeholders on the issue of internet/broadband penetration completely supports the recommendations of TRAI.

In order to implement the recommendations made in the National Broadband Plan 2010 a few basic questions need to be answered:

1. *In this age of market economy where government are advisedly asked to stay away from business and any other function which is not directly connected with governance, is it justified to spend public money on broadband penetration?*

The answer is that there are enough examples across the world and across economies to show that governments need to invest heavily in the building of e-infrastructure, if not for anything else but to provide an environment for economic and social progress and to take governance to people.

We must also take a cue from some developed nations who have been comparatively quite successful on Broadband front. The French government was the first in the world to actually invest over US\$3,000 per household for “computer-phones” for access to even private services like laundry, groceries, etc. Singapore saw telephony as the recipe for respite from traffic by encouraging people to talk. Now broadband has had the whole world excited far more. President Barack Obama’s focus is to use broadband to correct delivery of education with a stimulus of US\$7.2 billion to be disbursed by September. Former Prime Minister Gordon Brown thought broadband is the only way to keep Britain competitive and wanted taxpayers’ money to spur the country’s slow roll out with healthcare as priority. The Australian government has just concluded a US\$31 billion public-private-partnership for ushering in a nation-wide network. Even countries like Jordan, Bahrain and UAE want broadband to be the backbone of their initiatives for quality education and other social issues.

Social and economic issues are much more urgent in India than in most of the countries cited above. In addition, over the years, investment in physical infrastructure has been perhaps the lowest in India compared with the countries mentioned above. Finally, it is a fact that the benefits of e-infrastructure are proportionately more in a developing country like India than in more developed economies.

It is, therefore, justified on part of the government to spend/invest in building an e-infrastructure.

2. *Even if there are ample socio-economic reasons to invest in broadband, where is the money going to come from?*

Here too, TRAI paper has shown much ingenuity and provisioned for the fund seamlessly with the government’s expenditure plan and available current corpus. By suggesting that part of the funding

which is needed as labour cost, be allocated from the MGNREGA and part of the cost [of equipment] be funded from the USOF, TRAI has clearly shown that at present funds are available to undertake the project. More appropriately, TRAI suggested funding fits seamlessly with the socio-economic priorities of the government.

3. *The third question that could be raised is, is a separate government agency like the National Optic Fibre Agency to implement this plan, especially with so many private and PSU organizations already in the fray?*

This is an interesting question in the sense that there are quite a few private companies and PSUs which have over the years “invested” in optic fibre. But the issue remains here of lighting up those networks and making them viable in terms of business. This is unlikely to happen in the near term because a) these fibre optic networks are scattered across a multitude of agencies with little or no coordination and unity of purpose among them; b) till there is a viable model neither PSUs nor private companies are going to make their O/F networks available to customers.

There is a larger issue of creating a market in broadband rather than servicing an already existing market. While PSUs and private companies are interested in servicing an available market; it is only a government agency that can create a market in a socially useful good like broadband. Illustrative here is the role of National Highways Authority of India – a semi-independent agency which has done some credible work in coordinating and implementing the upgradation of highways across the country.

In our view an independent authority can:

- a) Rise above short term business goals.
- b) Have certain inherent advantages [such as right of way as a government agency implementing a public interest project]
- c) Access to public funds.
- d) Coordinate between various PSUs like GAIL and RAILTEL, BSNL which already has a wide network of O/F. Similarly, it would be easier for this agency to arraign the existing O/F network built with public funds by various PSUs and create a centralized network under its aegis.

In conclusion to this opening remarks, IAMAI would submit that while the TRAI plan looks crisp and clear, as a follow up to the consultation paper, a detailed implementation plan needs to be drawn up in consultation with various relevant stakeholders. IAMAI and its members extend their full support to the consultation paper and would like to contribute actively to the implementation of this Plan.

Answers to Questions for Consultation:

CHAPTER 5: Summary of Issues for Consultation

CHAPTER 2: Broadband – Demand & Supply

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

- Make broadband available at an affordable price
- Lower costs of devices and services by providing large-scale demand and reducing unnecessary taxes, duties and other levy on them.
 - Making available content in local languages and making available “relevant” and utilitarian content. E.g., since income tax returns are now filed online many SMEs are discovering the use of internet.
 - Allow a variety of technologies, like 4G broadband wireless access technologies such as WiMAX and LTE to co-exist
 - Create High quality and high speed public internet centers, like schools, libraries, Post Offices, hospitals, CSCs and other public centers
 - Promoting high speed internet kiosks and cyber cafes in general since common access points continue to be the most important point of access in India. Cyber Cafes should be treated and promoted like the PCOs of yesteryears.

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

- Awareness and training on use of internet/BB and other ICT tools
- Making internet training mandatory for all schools, colleges, universities, government establishments and their employees. IAMAI’s campaign in 200 schools among 2 Lakh students last year found that while students were willing to use internet widely, it was the parents who were resistant.

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

- Every citizen has to interact with the government starting at the panchyat to the parliament and from block to the central government level. Government services whether they are informational or transactional at all levels should be available online. This one of the most potent ways of increasing broadband. The greatest example of how a government service can increase penetration of internet are the cases of IRCTC with railway ticket booking and IT departments successful efforts to accept ITRs only online from companies.
 - Awareness and training on use of internet/BB and other ICT tools right at the schools level. Indians are by and large not aware of the usefulness of internet, if the usefulness of internet is not know or explained, internet adoption will remain a distant dream.
 - Local language content and applications are going to be a major driver of internet use. However, private companies will not develop local language content and application till the internet users remain limited to 100 million odd English language users. In order to encourage local language content, it is

necessary at this stage to incentivise online services that make an effort and investment to provide local language content and services. Overall, internet platforms, content and application providers are the new technology vanguards of the country today and they are unlike the software service industry of the previous generation, are primarily focuses on e-enabling Indian citizens. This is one industry that has since its inception in the mid-1990s not received any incentive from the government. It is time that this industry primarily represented by internet and mobile value added services providers be given some fiscal benefits for the service that they provide.

- Provide education programme and connect all government funded schools.
- Encourage cloud computing

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

- Create public investment in technologies like voice to text, text to voice in a multiplicity of Indian languages
 - The most important issue to be addressed here is awareness and usefulness of internet/broadband among the people. At present very few people even in urban centres are aware of the usefulness of internet. IAMAI suggests a national campaign in internet. IAMAI is planning to conduct such a campaign on a small scale and if other stakeholders can join hands, the campaign will be far-reaching and more effective. The campaign as envisioned by IAMAI is along the lines of the campaigns for Milk and Eggs carried on in an earlier era by the National Dairy Development Board and National Egg Coordination Committee.
 - As mentioned, incentivisation of content and service providers, especially those in local languages is another step.
 - Cost of access is a third factor connected also with the ease of use and customer experience. It might well be the case that people who are capable of paying less perhaps need from bandwidth and vice versa.

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

- We agree in concept that the future bandwidth requirements will be large to support the needs of Indian citizens, and encourage the planning projections to ensure that the needs are met not only for today, but also for the future.
- We are of the view that more detailed studies based on ore granular data e.g.; from the Authority itself is required in the public domain to make a realistic assessment of future broadband requirements.

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)

- The telecom infrastructure in India is almost totally in private sector and as is well-known, a private sector company will always take decision based on business prospects. It will always look for potential customer and pay-off time before building infrastructure. In case of broadband, the RoI on broadband infrastructure takes 10-15 years. In our view private sector can not be expected to work on such long gestation periods.

- **CHAPTER 3: National Broadband Network**

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

- All IP Ethernet based technologies are the ones which should be supported.
- The topology should be technologically neutral and should not be locked into any specific technology.
- Beyond these general remarks this is a complex technical issue and we are happy to provide more information separately if required.

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

- Such copper infrastructure is very limited and consequently banking on that will not be fruitful.

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)

- Fibre is the only option for providing high-speed low cost connectivity.

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)

- To the best of our knowledge the Department of Information Technology has a working group on these issues and would be well aware of the regulatory changes that might be necessary to encourage cable operators upgrade their networks to provide broadband.
- In our view all types of re-sellers (Cable TV operators, Cyber Cafes and others) should be allowed to connect to the Nation Fibre backbone without any licensing need.

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)

- Yes. The absence of a core network is a fundamental disadvantage to rolling out rural connectivity

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

- Yes, there is. This can be done in a phased manner with District Headquarters to be connected in the first phase.

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)

- Yes- only a specialized agency will bring the requisite focus.

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)

- For reasons mentioned in the introduction to this submission, we are of the view that option 3.35 i.e., setting up of an autonomous national level agency, would be the best way forward.

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)

- The agency, if formed, should be sufficiently empowered/funded and technically competent to carry out the task in a time bound manner. In a previous generation we have seen rapid deployment of telecom infrastructure and terrestrial television infrastructure by the government in the form of technology mission mode [on top of which much of the current success of mobile phone and cable TV was built.]. A similar model needs to be adopted here.
 - No discrimination should be made among various players and various technologies while connecting to this network as long as the aim remains that of providing broadband services.
 - In mission mode this project can be executed in 36 months.

CHAPTER 4: Regulatory Challenges and Future Approach

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)

- Such differences are not very important: a blend of wired and wireless technologies will need to be deployed in the last mile.
- However, it is insightful of the TRAI to recognize that broadband definitions are not static, and are required to improve over time. In context, fixed broadband technologies such as fibre can generally provide higher throughput than wireless technologies can today, and ergo it is logical to differentiate between fixed and mobile broadband.
- What is important is that the QoS norms should be set and clearly communicated to the customer.

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)

- Yes, in its present form, it is way too conservative. Yes, we recommend for an emerging economy like India, depending on local circumstances, we should ensure that most citizens are able to get at least 1-2 Mbps initially, at high quality and affordable rates, and as expeditiously as possible at least in fixed broadband. Minimum broadband speed on mobile, in our view is more difficult to define because of the changing technologies. In many cases, technology allows or will allow the so called bandwidth intensive applications to be experienced well on low bandwidths.

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)

- There is a substantial body of literature and policies on RoW for private sector companies. For the purposes of this consultation paper we assume that the National O/F agency would be a government/semi government body which ipso facto enjoys certain rights and privileges in terms of RoW for implementing public interest projects. NHAI and DMRC are illustrative examples in this regard.

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

- Competition needs to be stimulated at the retail end among cybercafés, cable TV Local Operators and ISPs. This can be done by making it easy to connect to the National Fibre Agency.

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, they are a major hindrance. The sunken costs with the customer is high and the cost of download is also very high. There are enough studies around the world to show that cost to customer of broadband in India is very high. An entry level price of Rs 200/m as a flat price for unlimited use always on connection with a minimum guaranteed speed of 256kbps download and 64 kbps upload is the price point at which a mass market for broadband will develop.

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

- Yes. This is absolutely essential to drive usage.
- In our view, every broadband service provider should provide one standard tariff package in addition to other packages
 - There should be simple plans of use clearly laid out. Most people don't even know what is a download. Is it download if you download a music clip? If a bandwidth heavy sight like Google Earth is downloading with all the images but the user is actually not saving anything is that download? The user does not know.
 - There should be no sunken cost for the customer in any form. Broadband is a service and not a product. A customer should only pay for the service.
 - And in our view, higher usage should be incentivized and low use disincentivised through innovative pricing.

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

- A regulatory system is necessary to ensure that bottle neck monopolies which currently exist at the international landing points is forced open.
- Similarly all players must be forced to peer at NIXI down to the District Headquarter level. Only a regulatory system can achieve this.
- At the same time, as earlier noted, entry at the retail point must be license free.

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

- Mentioned above

5.24 How can utilization of International Internet bandwidth be made more efficient in present situation? (Reference Para 4.42) By removing the bottle-neck monopolies that exist today, as earlier noted.

- Any entity willing to contract for international bandwidth should be allowed to contract with the respective submarine cable company and the Authority can fix certain access charges payable to the operator of the respective submarine cable landing station.
- The last time the Authority had revised and reviewed tariffs for domestic leased circuits (DLC) and international private leased circuits (IPLC), the tariffs in the market have not seen steep decline thereafter though availability has definitely gone up. Hence, the Authority should urgently undertake revision of tariffs both for DLC And IPLC.
- There is a need for both licensed and unlicensed spectrum, especially in the sub – 1 GHz band and hence, the Authority should aggressively and proactively look at identifying and allocating specific bands for such usage.

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)

- By forcing all players to peer at NIXI

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

- As mentioned above.

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

- As mentioned above

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)

- QoS measures should be subject to definition and strict metrics.
- These should be developed in consultation with stakeholders.

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)

- In our view poor quality connection affects the most critical of all broadband applications, payment systems and by implication all commercial transactions are affected. Commercial transactions are critical to the success of broadband penetration.
- Quality of service also affects time sensitive applications. There is no broadband user in India who has not suffered the agony of “buffering” or “timed out”

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)

- Yes. As mentioned above in consultation with stakeholders and the QoS should be clearly communicated to the consumer.

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)

- For the last 10 years the CPE cost [PCs, Laptops and now netbooks] have been going down steadily in line with other consumer durables. This has been partly made possible by various progressive measures taken by the government including restructuring of taxes.

- We would like to make two observations here: a) cost of PCs, Notebooks and Laptops would keep going down due to local and macro economic factors at the same time, there would still be a niche market for very expensive PCs, notebooks and Laptops; b) there is still a considerable gap between PC penetration and internet penetration which indicates that incentives to CPEs do not necessarily mean increased internet penetration. From these we make the following suggestions:

- Incentives if any should be given to innovative and new gadgets that specifically promote internet use. A case in the point can be a mobile phone which comes connected with internet or a courier's handheld device that inputs the data and synchronises it with a server real time

- Incentives for general purpose CPEs should again be given to end users such as schools, institutions, NGOs at a higher rate of depreciation if such are also used to access internet.

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

- The issue of local language content is exactly the same as broadband penetration. Currently the market is so small that commercial business models do not work.

- Here again the lead has to be taken by government services, especially at the state level. We are of the view that in all government e-content and service initiatives, the official language policy should be implemented.

- It also must be borne in mind that local language content is developed by small companies and individual entrepreneurs. If they need to be encouraged a proper structure of incentives has to be built into the business model. For example, any content or service provider in local languages [both on mobile or on internet] will not pay any taxes [including service tax] till the turnover of the company/entrepreneur is say 5 crores specifically from local language services or the service has a customer base of 5 million [audited].

- A strong awareness campaign as mentioned above should also encourage local NGOs and entrepreneurs to create online presence in local languages including encouragement to use the .in domain.

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

- See comments above
- In addition, we would also like to submit that the Authority needs to look at the question of what happens when a licensee does not provide a service which it is licensed to provide [e.g., VoIP]

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

- See comments above

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

- Some other specific measures which would lead to increased broadband penetration and proliferation, thereby increasing the demand for broadband, would include the following:
 - Fiscal incentives for the following:
 - Infrastructure in smaller towns and rural areas
 - Local language content and services
 - Awareness campaigns and training
 - Innovative net connected CPEs
 - Fiscal incentives at the hands of the customer for using broadband

Appendix Additional Suggestions on Question 5.3

Taxation Related suggestions:

A. Indirect Taxes

1. Central Excise & Service Tax

(Automation of Central Excise & Service Tax- ACES project)

- a. Online scrutiny and replies by assesses have begun but need to be made mandatory.
- b. Refund Claims, Intimations, Permissions are online but need to be made mandatory.
- c. Responding to the summons through in person appearances is the most common form of trouble for taxpayers. Hence, notice for investigations, summons and for furnishing additional information should be sent to the assesses through e-mail and it should suffice for the company officials to respond in such matters by e-mail and/or through secure online forms, Only if the reply is not satisfactory and when physical documents have to be necessarily tendered for examination and/or cross-verification, should the company officials be summoned for in-person appearance.

2. Import / Export Customs processes :

(Indian Customs EDI System-ICES version 2 and Risk Management System –RMS)

- a. Filing of Bill of Entry and all supporting documents including invoice, bill of lading etc. Scanned copies of documents should be accepted and so should electronic invoices.
- b. Claim for refund of duty along with supporting documents should be accepted online.
- c. Queries (for cases under scrutiny) by tax officials and Customs officers should be communicated online and online replies to the same should be accepted

3. Value Added Tax (VAT)

Some states have electronic filing and e-payment facilities and have made it mandatory for certain classes of dealers. This needs to be more widespread both across other states and also the mandate be extended to other categories of dealers.

4. Goods & Service Tax (GST)

Introduction of GST presents a great opportunity for not only streamlining the processes but also leverage IT for better, faster & more efficient tax realizations. Mandating online filing, scrutiny, audit & investigation (to the extent possible) should be implemented for State Goods & services Tax (SGST), Central Goods & Services Tax (CGST) and Inter-State GST besides proactively enabling online payment & refund

5. Real-time Credits

Last but not the least, for all the indirect taxes where **credits** are due, the same **must be available on real-time basis** rather than the **prevailing approach of pay now, claim later**. In fact, this itself can be a positive incentive for motivating the taxpayers move online ASAP especially considering that all the indirect taxes allow for certain credits to be availed in many cases, assesses keep waiting for years to receive the refunds (e.g. in case of Special Additional Duty on imports) and thereby often resort to pass on such temporary tax outgo to the end-customer.

B. Direct Taxes

1. Online filing, scrutiny, audit & investigation (to the extent possible) should be mandated (at least) for the body corporates.
2. Online status of income tax return audit, and refund claim should be available.