CHAPTER 2: Broadband – Demand & Supply

5.1 What should be done to increase broadband demand?

Following Measures may be taken to increase broadband demand:
1. Low Computer/Laptop/CPE Prices at door step.
2. Availability of Last Mile/Local Lead either Wireline or Wireless to the customers.
3. Fillings of Digital Gap in between Rural and Urban Areas.
4. Hardware and Software availability and maintenance at affordable price is also necessary to the consumers, thus a subsidy, USO Fund or any promotional program may be extended to the Computer/Laptop/CPE service providers to fill up the digital gap in between rural and urban areas.
5. Bundling of the services like VOIP, IPTV, and VAS with Internet.
6. Exemption on License fee on Pure Internet Services should be extended for further 5 years TILL India achieve its Broadband Target.
7. Broadband Services should be free of Taxes and levies for next 5 years as has been done in many developed economies during its initial stages

5.2 What, according to you, will improve the perceived utility of broadband among the masses?

1. Sharing of Government Informations and Resources on net, online publication, digital library, E governance, E Educations and of course an awareness program may improve the utility of Broadband.
2. Unrestricted Internet Telephony.
3. Affiliation of Government to the E Education, E health, E Commerce, E Learning etc. to enhance the utilization of Broadband Services.

5.3 What measures should be taken to enhance the availability of useful applications for broadband?

1. Content Industry should be recognized. OSP Registration may be extended to VAS to motivate Content Industry In India.
2. Availability of More useful Contents through NGOs, E Governance Programme.
3. Multilingual Operating Systems and Contents.
4. Computer as a compulsory subject at government Primary Schools onwards.
5. Migration from 2.5GHz to 2.7GHz like situation has scared the ISPs for planning. Any specific forward path like future spectrum availability its auction planning, sufficient availability of Bandwidth in delicensed band , mandating telcos to provide last mile access to ISPs, regulations on Backhauls tariffs are the few measures may be taken to enhance the availability of useful applications for broadband.

5.4 How can broadband be made more consumers friendly especially to those having limited knowledge of English and computer?
1. through Interactive Computers and Multilingual Supports.
2. Rural Friendly Computer in respect of Power Supply, Repair and Maintenance.

5.5 Do you agree with projected broadband growth pattern and futuristic bandwidth requirements?

Yes

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?

Yes. The Existing Telecom Infrastructure is inadequate to take care of broadband demands and penetrations expected. We should enhance the Last Mile capability and the Backhaul as well of the network to support the demand.

The responsibility of Broadband penetration has been given to the UASLs and BWA operators who have been given 20 MHz spectrum with an eligibility to get UASLs after auction and facility to do what so ever services they can provide. The misuse of such an scarce resources should be avoided by restricting them to provide Broadband services first to achieve the objective of the spectrum made for. Parallely ISPs may be granted sufficient delicensed Bandwidth to enhance their capabilities as local lead till the last mile fiber are not available to reach rural areas.

Currently, TRAI has recommended revenue share to the Internet Services which are not as per Telecom Policy. The recommendation on revenue share on pure Internet services may be withdrawn to maximize the penetration in rural areas.

CHAPTER 3: National Broadband Network

5.7 What network topology do you perceive to support high speed broadband using evolving wireless technologies?

> Both Wire line and Wireless may be mixed for the best topology to provide minimum 2 Mbps broadband link to the end consumers.

5.8 What actions are required to ensure optimal utilization of existing copper network used to provide wireline telephone connections?

> Unbundling of Local Loop as well as Infrastructure Sharing should be allowed apart from the Unrestricted Internet Telephony already recommended to the Licensor.

5.9 Do you see prominent role for fiber 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?

> Yes. Fibre based technologies in access network is the best solution to provide high speed broadband. Specially in presence of high scarcity of Spectrum, fiber is the solution which can fulfil the requirements. The Utilization of USO Fund but thru ISPs only for Broadband may be exercised to encourage the optical fiber technology through out the nation.

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?
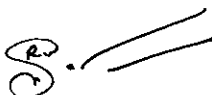
> Cable TV Networks are the main resources which are not being utilized for broadband penetration in India. However, ISP license has been amended but lack of Digitalization and due to some regulatory constrains it has not been evolved. Following initiatives may be taken for this.
> 1. Cable TV Infrastructure may be treated as Telecommunication network and limit of Foreign Investment must be increased to increase the Investment to enhance digitalization as well as the quality of the cables.
> 2. Infrastructure sharing must be allowed to sell/lease the cables to other ISPs/Telcos.
> 3. Cable Tv service providers should be allowed/motivated to provide Broadband services as they are the major players who have last mile infrastructure and capability of fiber direct to home customers.

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?

> No, availability of the fiber to Villages/Rural Area can't make out of the situation. In the first step it should be made available to the tier 2 and tier 3 cities. In second step it should be stretched to the District Level. Till the E Governance, Digital Gap, Multilingual Platforms, Useful rural Contents are not in place stretching it to rural/villages will not make sense.

5.12 If so, is there a need to create national optical fibre network extending upto villages?

> Yes, but not instantly. It should be step by step. In first step it should be up to District level then sub division level to cater the facility to the most desired people. Extending it to Village level should be the third step because of viability of the network.

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?

> There is no harm in making an agency to look after and monitor the fiber network and its status across the Nation. It is also required to see the equal distribution and availability through India.

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?

> We believe in creating an agency under TRAI, to make an status of available Fiber its utilizations, further requirements and planning.

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?

> All District Head Quarters may be connected with the State Head Quarters with the maximum B/W capacity under a State Coordinator appointed by Central/State Govt who should further report to agency under TRAI. A Post may be created at each DM Office and if reqd. at Sub Division Office to taking care of the Fiber. For B/W one must apply to TRAI thru same channel so that the utilization may be monitored closely. An online booking may be a best solution to this.

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?

> Yes the definition that min. 256 Kbps as broadband may be changed to 2 Mbps. In presence of Convergence, technology evolution and market demand it is not relevant to constraint the market by defining it as wireless or wireline network.

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

> Now it seems conservative because of the evolutions of new technology and applications available in the market. 2 Mbps should be the minimum speed of a Broadband connection.

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

> ROW should be the right of Telecom Licensee/Operators to Lay Optic Fiber for Telecommunications Purposes under the terms and condition of License itself. A Single window system may be made at District magistrate office to expedite the ROW permission.

5.19 Does the broadband sector lack competition? If so, how can competition be enhanced in broadband sector?

Yes, presently there is no Competition at all in the field. Availability of Service by minimum ten to twelve service providers can improve the situation. The monopolistic and uncooperative nature of major telcos the penetrations has not been achieved.

5.20 Do you think high broadband usage charges is hindrance in growth of broadband? If yes, what steps do you suggest to make it more affordable?

Yes, Broadband charges are too high. The Cost of Computers/Laptops are the another reason for not achieving the goal. Broadband charges and Cost of Computer/Laptops/CPEs needs to be reduced.

5.21 Do you think simple and flat monthly broadband tariff plans will enhance broadband acceptability and usage?

Yes.

5.22 Should broadband tariff be regulated in view of low competition in this sector as present?

Yes, specially for retail customers the tariff must be regulated. It is again hereby mentioned that the services are being delivered by ISPs who are taking Bandwidth from telecos who are taking 6% revenue shares from ISPs. ISPs providing services to the end consumer will have to share 6% revenue share taking from end user. Based on the above facts the rate at end users is sometimes getting increased by 20%.
We suggest the Retail Minus Concept to be implemented as soon as possible to minimize the tariff at end user.

5.23 What should be the basis for calculation of tariff for broadband, if it is to be regulated?

It may be on the basis of utilization on per minute or bit basis taking monthly rent as minimum as possible. We suggest the tariff should be as minimum as possible. It is also suggested to have the provision of 50 rupees plan as mandatory like in Broadcasting for FTA services.

5.24 How can utilization of International Internet bandwidth be made more efficient in present situation?
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.
5.26 What steps should be taken to bring down the cost of international internet bandwidth in India?
5.27 How can competition be enhanced in the International bandwidth sector?

The above points needs to be discussed in detail and we would like to request authority to please bring in detail the consultations on Bandwidth utilization and its pricing. At present the bandwidth market is totally irregulated and there is no MRP system of the Bandwidth either upstream or Downstream. The market is totally running on Negotiations and the difference in the amount for the same product is very different from one Customer to another. Specially company like us, who have lots of experiences in IT and IT Enabled services can't deliver the Services affordably. HCL would Like to suggest the Retail Minus Model or any such transparent arrangement so that the margin money may be minimized and the end user may be benefited. The revenue share model of the licensor to pay revenue share through out the chain is also needs to be visited, because in a big country like India a few service provider can't serve the whole nation. To participate to enhance the penetration Incumbents need to share their Infrastructure whole heartedly and on the basis of minimum revenue share model so that the objective can be achieved.

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?

At present Industry needs all above regulations in current format till the market is not matured enough to take care of automatically.

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.

The present guidelines on Customer Services, Quality of services,

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?

The present guideline on this is sufficient to cater the situation.

5.31 What measures do you propose to make Customer Premises Equipment affordable for common masses? Elaborate your reply giving various options. 5.32 What measures are required to encourage development of content in Indian vernacular languages?

Scheme of Broadband with a Computer on EMI an initiative taken by BSNL was welcomed by People across India. Therefore a subsidy on Computer/laptop manufacturing or any USO Fund like assistance on this may encourage the Manufacturer to extend these services with other Incumbent Operators also.

5.33 Do you perceive need for any regulatory or licensing change to boost broadband penetration?

The Industry needs immediately changes in regulatory and licensing to boost the broadband penetration. Following majors may be taken for this:
1. Granting a dedicated Frequency Band exclusively to ISPs to increase the Broadband Penetration. Frequency may be granted in phase Manner to examine the max utilization of spectrum.
2. The Monopolistic nature of Incumbent Players should be solved.
3. Allow ISPs to create franchisees and Block levels under intimation to DOT so that small Business man can enter into the business. Big ISPs can streatch the hands of their operations to Rural Areas.
4. Tariff Ceiling thru DLC/IPLC regulation has been failed, and in absence of such regulations the price cap should be revisited according to latest market trends.

5.34 Are there any specific competition and market related issues that are hindering growth of broadband?
Following are the other issues which are hindering growth of broadband:
1. The Cost of Computers and laptops and their maintenance cost are so high.
2. Unavailability of useful contents on net.
3. Revenue Sharing/License fee planned for pure Internet Services.
4. ISP Licensees are not being given the charge of enhancing the Broadband Penetration.
5. Inadequate and high cost backhaul bandwidths are the issues which hinder the growth of Broadband.

5.35 What other fiscal/non-fiscal measures should be considered to boost broadband penetration?

No Comments.