



**VNL's comments on the issues raised in TRAI Consultation Paper No.12/2014
on Delivering Broadband Quickly: What do we need to do?**

Q.No	Issues for Consultation	VNL Response
Q1.	What immediate measures are required to promote wireline technologies in access networks? What is the cost per line for various wire line technologies and how can this cost be minimized? Please reply separately for each technology.	No Comments
Q2.	What are the impediments to the deployment of wireless technologies in the access network? How can these deployments be made faster? Please reply separately for each technology.	<p>Major impediments in deployment of wireless technologies in access network is lack of economic viability, especially in rural & remote areas.</p> <p>ISP license fee should be reduced especially for the rural / remote areas which are considered non-viable. This will encourage small ISPs in rural & remote areas to set up their services</p> <p>As far as unlicensed spectrum is concerned, it is highly congested. Therefore, there is a need for assigning more than 200MHz in unlicensed band for Wi-Fi applications.</p>
Q3.	The recommendations of the Authority on Microwave backhaul have been recently released. Are there any other issues which need to be addressed to ensure availability of sufficient Microwave backhaul capacity for the growth of broadband in the country?	<p>It is understood that broadband in rural & remote areas are not getting impetus as per the government mandate. In order to achieve the same, the spectrum charges for the microwave should be lowered so that ISPs/TSPs show interest in setting up their services in these areas, at least initially for a period of 5 years.</p> <p>Additionally, the unused frequency bands in 5.8 GHz may also be unlicensed for Microwave Backhaul for rural & remote areas.</p>

Q4.	The pricing of Domestic Leased Circuits (DLC) have been reviewed in July 2014. Apart from pricing, are there any other issues which can improve availability of DLC?	No comment
Q5.	What are the specific reasons that ISPs are proactively not connecting with NIXI? What measures are required so that all ISPs are connected to the NIXI?	Unless it is made compulsory that all connectivity should be through NIXI, it will be difficult to enforce connection through NIXI by all ISPs. It will also help security agencies to monitor centrally.
Q6.	Would the hosting of content within the country help in reduction of the cost of broadband to a subscriber? If yes, what measures are required to encourage content service providers to host content in the data centre situated within India?	Yes, hosting of content in the country is expected to help reduce cost of broadband to the subscriber while ensuring security as well as fast access to the content. In our view, it should be mandatory to host content in India only.
Q7.	Are PSUs ideal choices for implementing the National Optical Fibre Network (NOFN) project?	In our opinion, PSUs are the ideal choice for implementing the NOFN project considering their experience and competence. Also it is relevant to highlight that BSNL has done the most significant contribution for rural telecom connectivity.
Q8.	Should awarding of EPC turnkey contracts to private sector parties through International Competitive Bidding (ICB) be considered for the NOFN project?	The Consultation paper discusses the cumbersome decision making processes of PSUs. This shall not be construed as a reason for awarding EPC turnkey contracts to private sector through ICBs. However, PSUs should be made accountable and managed in an efficient manner for executing the projects.
Q9.	Are there any ways in which infrastructure development costs can be reduced? Is it possible to piggyback on the existing private sector access networks so as to minimize costs in reaching remote rural locations?	For the infrastructure development projects, wherever USOF / Government fund is utilized, existing network from PSUs should be utilized. This will reduce the overall cost of the project.

Q10.	What can the private sector do to reduce delivery costs? Please provide specific examples.	<p>It may be noted that in the last few months, there have been sharp increase in fixed-line broadband as well as mobile internet tariffs offered by private operators.</p> <p>Broadband services provided by the PSUs in the rural areas may be subsidized initially till the rural market becomes viable.</p>
Q11.	What are the major issues in obtaining right of way for laying optical fibre? What are the applicable charges/ constraints imposed by various bodies who grant permission of right of way? In your opinion what is the feasible solution?	No comments
Q12.	Should the Government consider framing guidelines to mandate compulsory deployment of duct space for fibre/ telecommunications cables and space for telecommunication towers in all major physical infrastructure construction projects such as building or upgrading highways, inner-city metros, railways or sewer networks?	Yes. It should be made mandatory.
Q13.	What are the impediments to the provision of Broadband by Cable operators? Please suggest measures (including policy changes) to be taken for promoting broadband through the cable network.	No comments
Q14.	What measures are required to reduce the cost and create a proper eco system for deployment of FTTH in the access network?	No comments
Q15.	Are there any regulatory issues in providing internet facility through Wi-Fi Hotspots? What are the reasons that installation of Wi-Fi hotspots has not picked up in the country? What type of business model needs to be adopted to create more Wi-Fi hotspots?	One of the issues for not picking up the Wi-Fi hotspots may be the congestion of unlicensed spectrum for which more than 200 MHz spectrum may be assigned in the unlicensed band.

Q16.	What are other spectrum bands which can be unlicensed for usage of Wi-Fi technology or any other technology for provision of broadband?	The consultation paper discusses various aspects of Wi-Fi over 2.4 GHz and 5.8 GHz unlicensed spectrum bands. However, in view of the growing demand of Wi-Fi solutions, it is highly recommended that at least 200 MHz frequency Band may be unlicensed in these bands for Wi-Fi in rural & urban areas and also explore possibility of higher bandwidth assignment.
Q17.	How much spectrum will be required in the immediate future and in the long term to meet the target of broadband penetration? What initiatives are required to make available the required spectrum?	Refer Ans. to Q NO. 15 & 16 above.
Q18.	Are there any other spectrum bands apart from the ones mentioned in Chapter-2 to be identified for provision of wireless broadband services?	For fixed point to point and point to multipoint wireless solutions, possibilities may be explored in various frequency bands for higher bandwidth assignment.
Q19.	What are the measures required to encourage Government agencies to surrender spectrum occupied by them in IMT bands?	Spectrum assigned to Defense agencies in critical frequency bands such as 698-806 MHz, should not be asked to surrender as that are being for utilized for national security applications.
Q20.	What should be the time frame for auctioning the spectrum in 700 MHz band?	No comments
Q21.	Do you agree with the demand side issues discussed in Chapter 5 and Chapter 6? How these issues can be addressed? Please also indicate any other demand side issues which are not covered in the CP.	No comments
Q22.	Please give your comments on any related matter, not covered above	No comments