Association of Unified Telecom Service Providers of India

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New Delhi – 110002.

Subject: AUSPI's Response to TRAI Consultation Paper No. 12/2014 on 'Delivering Broadband Quickly: What do we need to do?'

Dear Sir,

Attached please find AUSPI's Response to the TRAI Consultation Paper No. 12/2014 on 'Delivering Broadband Quickly: What do we need to do?'.

We request you to please take AUSPI's views into consideration while TRAI comes out with its recommendations on the subject.

Thanking you,

Yours faithfully,

Ashok Sud
Secretary General
Mob: 9312941515

Encl: As above

Copy to :

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AUSPI's Response to TRAI Consultation Paper on "Delivering Broadband Quickly: What do we need to do?"

Q.1. What immediate measures are required to promote wireline technologies in access networks? What is the cost per line for various wireline technologies and how can this cost be minimised? Please reply separately for each technology.

AUSPI's Response:

The following measures are needed to promote the wireline technologies in access networks:

- Unbundling of outside plant of BSNL and MTNL.
- Street side cable installation permission to TSPs.
- Mandatory broadband connectivity in buildings like water and electricity connections.
- NOFN should be realised fast by pooling the unused /spare assets of the private TSPs so as to make the supply side bandwidth available in plenty and in much faster time thus making bandwidth at much more affordable rates.

For Cost Minimization, following steps are need for Wireline broadband access technologies:

- Reduce Customs duty and declare Customs Holiday for wireline broadband access infrastructure and CPE.
- Get Wireline Infra and CPE to be manufactured in India.
- Apart from the above suggested measures, Government can also incentivize TSPs in terms of lower license fee especially in rural India.
- Uniform/ Nil RoW for promotion of wireline based services.

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.

AUSPI's Response:

We believe that the key impediments in the deployment of wireless technologies in the access network are as follows:

- Lack of Adequate Access Spectrum.
- Lack of shared Back Haul Systems.
- High RoW cost and non-uniform, random and conditional in Nature

- Complex and time consuming grant of permissions by local bodies for setting up of access network and backhaul facilities

- Free Access to creation of IBS/DAS /WiFi /Small Cell installations in buildings, complexes etc.

Measures to improve the deployment of the wireless technologies in the access network:

- Entire Spectrum as per IMT bands should be released for commercial usage from other agencies by the end of 2015.

- Mandate regulations for simplified and timely grant of permissions for Access NW establishment.

- It is critical that the administrative bottlenecks and outdated processes such as 'import licence' and 'wireless operating licence', which are hindering the network planning and growth of telecom infrastructure, should be abolished for licensed service providers.

- Need for further simplification of the process to have a single window clearance and timely approvals by SACFA.

- **Need to mandate and enact a Central Govt Policy for least cost based uniform RoW across the country.**

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?

AUSPI's Response:

With respect to the above mentioned TRAI recommendations on the allocation and pricing of Microwave backhaul carriers, we would like the Authority to consider the following points:

- 15 carriers are available in 15 GHz band for allocation to 7-8 operators per circle, a cap of max. 2 MWA carriers need to be defined per operator in 15 GHz band.

- Excess carrier especially in 15 GHz should be withdrawn immediately and should be distributed equally among all TSPs.

- MWB allocation should be done on exclusive basis and the charging for these carriers should continue to be on AGR i.e. circle basis.

We believe that the above suggested measures will ensure availability of sufficient MW backhaul for the growth of the broadband in the country.

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?*

AUSPI's Response:

Some issues as follows amongst others are needed to improve the availability of DLC:

- Mandate free and neutral access to all potential multitenant campuses, buildings and apartments.
- Tiered and Nil charging across Cities /Towns for Right of Way (RoW) and simplified and timely Permissions to TSPs.
- Permission for P-MP radio links and the corresponding spectrum availability on appropriate Radio bands for DLC extension in the last mile.
- E band to be made available for provisioning last mile especially in areas where it is difficult to lay Fibre.

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?*

AUSPI's Response:

Presently, the unfavourable economics of connecting to NIXI is the primary reason for the ISPs to avoid connecting directly to it. Some of the key reasons are:

- **Local Content Availability.** The lack of availability of local vernacular based internet content.
- **Local Hosting of Content.** Due to lack of economic competitiveness and inferior network infrastructure.
- **Cost of Connecting to NIXI.** It is most economical for an ISP to get connected, at the nearest point, to a higher level ISP who in turn is connected to the NIXI.

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?*

AUSPI's Response:

- **Cost Effectiveness of Local Hosting.** One of the main benefits that accrues from hosting content locally is that Service Providers can limit the need to purchase costly international bandwidth which can enable the service providers to offer better broadband services at affordable prices.

Measures required to encourage Local Hosting of Content

- **Local hosting is an unlicensed activity and therefore revenue earned from hoisting should not be included in AGR.** This will ensure level playing field between licensees and other hoisting operators.
- **Hosting of content has potential to earn Foreign exchange. SFIS benefit for telecom sector should be reintroduced in Foreign Trade Policy.**
- **Fostering content development.**
- **Expanding connectivity.** It is suggested that an important area for the governments' focus should be to be an enabler for increasing international Internet connectivity with India. .
- **Exemption of 'Right of Way' (ROW) charges for laying optical fibre.** The ROW charges for laying Optical fiber is very high in Metros & Tier 2 Cities where the generation & hosting of the content will be highest which makes it very difficult to provide high speed Internet to broadband users.
- **Subsidize power for development of domestic content hosting services.**
- **Subsidizing land & Infrastructure for Indian data centers.**
- **Tax holidays for content provider hosted in Indian data centers.**

Q7. Are PSUs ideal choices for implementing the National Optical Fibre Network (NOFN) project?

AUSPI's Response:

- **We do not see PSUs as an ideal choice for the implementation the NOFN project. Private TSPs should be entrusted with the task of quick deployment of NOFN.**
- It is suggested that NOFN should be used only as Backhaul / Backbone Network.

Q8. Should awarding of EPC turnkey contracts to private sector parties through International Competitive Bidding (ICB) be considered for the NOFN project?

AUSPI's Response:

We request that existing TSPs who are experienced and already contributing towards increase of broadband penetration should be entrusted with the task of building and evolving the NOFN project.

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?

AUSPI's Response:

Investments of private telcos need to be exploited by encouraging them to contribute to the coverage of BHQ, Village Panchayat level and Village level.

Q10. What can the private sector do to reduce delivery costs? Please provide specific examples.

AUSPI's Response:

Private sector can contribute to the quick deployment of NOFN and reduce the delivery cost in the following ways:

- Offer of procurement efficiency for quality NOFN Infrastructure material, products and Services.
- Bring best Industry practices of engaging globally proven, time-tested and stable vendors base through the Managed Services expertise.
- Offer of Excess/Spare/Unused capacity to the realization of NOFN plans.

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?

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Q14. What measures are required to reduce the cost and create a proper eco system for deployment of FTTH in the access network?

AUSPI's Response:

Key Issues related to RoW are as follows:

- Local bodies & Municipal Authorities are reluctant to follow a simplified policy driven and time bound delivery at reasonable rates of one time RoW charges.
- Different Municipal authorities and local bodies craving for Recurring charges on per km /per year charges.
- Municipal authorities and local bodies counting Fiber Route Kms on a per Operator basis in a common duct by the number of telcos sharing the duct.
- Rates being different for in different Zones of the city like CBD etc.
- Not allowing Aerial fiber for speedy deployment on a temporary basis and converting them into a Regular trench based OFC.
- To approach multiple agencies for obtaining RoW clearance, leading to delays in network rollout.

Some suggestions:

- **No RoW charges for laying of fibre by Pvt. TSPs. This is similar to the RoW waiver provided for the NOFN project.**

- JNURM Cities to be graded into a tiered model and rates to be Uniform and to be fixed by the Ministry of Urban Development and to be accepted by State Governments.

- Electricity Boards to allow the use of Electricity Distribution NW to be used for Aerial fiber distribution also and at a Regulator determined rate.

- Urgent need for a centralized and common procedure for RoW permissions and charges. The Central Government should issue guidelines on RoW under the Section 7 of the Indian Telegraph Act.

- Involvement of TSPs in the Government's Smart City projects from the beginning.

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?*

AUSPI's Response:

There is no doubt that a strong network backbone is critical for the provision of broadband service that is fast, uninterrupted and reliable. Based on projections of future demand, it is essential to augment capacities in existing backhaul and access networks.

- To enhance fibre density in the country, the Government should entrust OFC rollout in a PPP mode to potential implementing agencies (such as agencies with a proven track record of meeting target time frames).

- During development of a sector/town, all infrastructure agencies such as roads/bridges should have utility ducts provisioned to lay OFC at a later stage.

- All buildings/towers should be provisioned with vertical conduits for carrying out last mile building wiring for FTTH services.

- Change building by-laws which currently deem only electricity, water, and fire safety as necessary infrastructure for the issue of a completion certificate. Including mandatory inclusion of either ducts /optical fibre with well-defined access mechanisms in all upcoming office complexes, commercial spaces and residential complexes would have a measurable net positive impact on the goal of constructing national broadband highways.

- Use of wireless for providing last mile broadband access is critical. In addition to backhaul, such access requires a large number of towers and small cells. Non-discriminatory access to government land and street infrastructure (street lights etc.) for putting up such towers and small cells is needed. In order to improve the efficiency of resources and reach the masses, such infrastructure should be

allowed to be deployed, especially if it is shared among broadband service providers.

- Share existing Fibre backbone infrastructure among all operators to reach up to the block level.
- Policy for arrangement with the power companies for deploying fiber along the transmission needs.
- Places where digging is not possible and RoW is not available, there should be proper overhead space for pulling fiber and associated infra.

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.*

AUSPI's Response:

In our opinion, the key impediments to the provision of broadband by cable operators are as below:

- Cable operators' networks have been evolved in much haphazard and unregulated manner and thus lack structured delivery of services and competition.
- Investment capability of Cable Operators to upgrade NWs for Global Standards based Forward and Return path Upgrade enabled BB service delivery capability with Network powering.
- Indifference of Cable operators to deploy Global Class deployment Architectures, and Solutions to support BB Service delivery as per Telco Grade.

Measures to promote BB through Cable TV operators:

- Regulator to mandate for Global Standards guide lines.
- To bring Cable Operators under licensing and Interconnect Regime and hence also make QoS provisions of TRAI applicable on them also.

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?*

AUSPI's Response:

Deployment of WiFi network in India has the following challenges:

- Not easy to get permissions from Premise owners to establish hotspots.

- Other Right of Way (RoW) Permissions and RoW charges.
- Business models do not support WiFi based Internet services extension due to high costs of RoW, lack of proper backhaul bandwidth, limited coverage around hotspots etc.
- Lack of availability of uninterrupted power for WiFi equipment.
- Lack of physical security of the network and WiFi hotspot infrastructure.
- KYC of users accessing internet through non SIM (only WiFi) devices / cumbersome authentication process for usage of WiFi hotspot facility, as defined.

In order to catalyze the deployment of WiFi networks in India, it is imperative that policy and regulatory support is extended for development of an economically viable business case for the Telcos. Towards this end, following policy and regulatory changes / modifications / facilitations are proposed to be effected.

- Declaring Telecom as a Priority Sector & advising State Governments for Single Window Clearance for RoW, site survey, site deployment, space and power availability and support during implementation for new fiber rollout, especially for backhaul of Wi-Fi networks.
- Time bound and highly subsidized / free ROW for developing backhaul infrastructure for deployment of Wi-Fi Hotspot based network.
- Considering construction of proper utility corridor for telecom services especially within the cities.
- Permitting sharing of public infrastructure like electric poles, traffic light poles, telephone lines poles, etc shall enable deployment of WiFi hotspots.
- WiFi hotspots being low power transmitters should be exempted from SACFA clearances.

Q16. What are other spectrum bands which can be unlicensed for usage of Wi-Fi technology or any other technology for provision of broadband?

AUSPI's Response:

De-licensing and subsequent provisioning of newer bands like 60 GHz for deploying WIFi access shall aid faster broadband deployment.

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?

AUSPI's Response:

Requirement of spectrum to meet the target of broadband penetration:

- All Major operators are expected to have at the least 25 to 35% of the existing 2G/3G subscribers with Smart phone adoption as they constitute the potential mobile broadband subscribers with expectations of better grade of service at higher speeds supporting Video clip capable downloads.

- In order to meet this requirement, adequate spectrum needs to be made available.

- Shift non commercial Agencies other than Telecom Service Providers from 900 MHz and 1800 MHz and make available requisite spectrum to TSPs.

- Ensure the Availability of entire spectrum as identified for IMT Bands for commercial usage by TSPS in each band i.e. 800/900/1800/2100 MHz.

Q18. Are there any other spectrum bands apart from the ones mentioned in Chapter-2 to be identified for provision of wireless broadband services?

AUSPI's Response:

In order to meet the requirements of mobile broadband in the country, the following bands should be made available for allocation in the near future:

- **470-698 MHz** – This band is already having a co-primary allocation to the mobile service in the Asia Pacific region. This band is essential to provide widespread mobile broadband access, especially inside buildings and in rural areas.

- **2.6 GHz** – Presently this band is used by Department of space for satellite uplink however the same is being done in some pockets and rest of the spectrum can be made available for broadband use.

- **3400-3600 MHz** – This band has already been identified for IMT in India as well as by few other major countries in the Asia Pacific region. This is a good spectrum for areas of high population density.

Q19. What are the measures required to encourage Government agencies to surrender spectrum occupied by them in IMT bands?

AUSPI's Response:

- India is a signatory to WRC recommendations and ITU recommendations. DoT to make every effort to comply to Global harmonized Band Allocations as per IMT Spectrum bands and make the full spectrum available for Cellular Industry.

- DoT to pursue with the MoD to move on to 3 Ghz + bands and free up the entire sub Ghz bands and the entire 2+Ghz bands from strategic use and make them available for Cellular industry .

- DoS with all its proven, recognized and reputed R&D capabilities should also design, and produce Satellite Communication terminals and migrate to Global Standards for making Tablet form factor Satellite terminals for Defence forces usage. This band could be refarmed for TSPs usage.

- MIB should also enable the release of the entire 700 MHz band which is conformant to Global harmonized Spectrum band allocations as this is the most popular techno-economical spectrum band for Mobile BB Service delivery.

Q20. What should be the time frame for auctioning the spectrum in 700 MHz band?

AUSPI's Response:

We understand that 700 MHz band is particularly well suited for provisioning of mobile broadband services as it has good propagation characteristics. In India, this band has been identified for IMT services and India has also adopted the APT 700 model for using this band in FDD mode.

It is suggested that the Government should examine auctioning of this band only after two years. Till such time it is more critical to make available the spectrum in other bands including 800, 900, 1800 and 2100 MHz so as to make them usable for broadband services.

21. 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.

AUSPI's Response:

For encouraging the stakeholders playing vital role in mobile broadband growth, following additional measures are suggested in addition to operationalizing NTP'12 strategies:

a. **Availability of affordable devices**

- Even though the cost of handsets has fallen significantly, the rural households may still perceive mobile handsets or access devices to be expensive.

- It has been a long standing view of the industry that the bundling of handsets should be encouraged and the **receipts from sale of standalone handsets, accessories, etc. should not be included in AGR.**

- **Tax relief in terms of custom duty, import duty** should be considered in order to reduce the cost of CPE imported in the country.

b. **Availability of digital content**

- It is essential to provide the right kind of application to the right customer. This is possible by developing applications and content that is relevant, usable and understandable by the local people.

- To enable this, **Government supported initiatives** would be extremely important. This should include mandating of m-governance for all Government Departments. This will help drive the demand for Broadband, thus helping the business case for operators to rollout networks and coverage.

- **Funding and financial support to entrepreneurs and service providers** to help them generate and maintain localized, packaged content – in various regional languages would be required.

Q22. Please give your comments on any related matter, not covered above.

AUSPI's Response:

Creation of Broadband Fund: We suggest that a special Broadband Fund may be set up to specifically meet the national broadband objectives of the Government. A part of earnings from the spectrum auction say 1% from those auctions should be transferred to the National Broadband Fund to support national level broadband activities.

Rationalization of Levies and Duties on the Sector

- The Indian mobile industry is burdened with a very high cost structure and also subject to multiple duties and levies, both at the central as well as the state level which hamper expansion of affordable service.

- There is a need to reduce and rationalize the cost structure of the sector to bring it in line with comparable regimes so that affordability of services can be improved further. With respect to provisioning of broadband, it is essential that these levies are rationalized as this will not only serve to increase demand of service but will also improve usage.

- Companies providing Internet and broadband connectivity be exempt from income tax for ten years under section 35 (A) of Income Tax Act.

- Lowering of customs duty on broadband network deployment products & user devices.

- Tax relief in terms of custom duty, import duty should be considered in order to reduce the cost of CPE imported for broadband in the country.

- 100% depreciation should be allowed on capital expenditure on Information technology and telecom/ broadband equipment.

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