

1178/TRAI/ISPAI/11

February 7, 2011

The Principal Advisor (TD)  
Telecom Regulatory Authority of India  
Mahanagar Doorsanchar Bhavan  
Old Minto Road, Near Zakir Husain College  
New Delhi - 110002

Sub: **Consultation Paper on Issues related to Telecommunications  
Infrastructure Policy**

Dear Sir,

With reference to the above, ISPAI's reply to the specific questions mentioned in the consultation paper is enclosed herewith.

We sincerely believe that the Authority would consider our response in perspective and expect a forward-looking recommendations incorporating ISPs' concerns on the subject matter.

Thanking you,

Yours truly,

for **Internet Service Providers Association of India**

S P Jerath

Secretary

ISPAI Response to Consultation Paper on Issues related to Telecommunication  
Infrastructure Policy

**Overview of Telecom Infrastructure**

**6.1** Do you agree with the classification of infrastructure elements described in this chapter? Please indicate additions/modifications, if any, particularly where you feel that policy interventions are required.

**Ans.** Yes. IP1 should be allowed to install & operate all kind of active telecom & IT equipment. IP1 providers and Telecom Service Providers should be able to share infrastructure with all Licensed Telecom service providers.

**6.2** What measures can be taken to encourage more ILDOs and ISPs to set up cable landing stations?

**Ans.**

**Internet Exchange Point**

**6.3** Do you perceive the need for effective Internet exchange point(s) in the country to efficiently route domestic IP traffic?

**Ans.** Currently 7 NIXI NOCs are in operation and some of them are under utilized. Most of Internet subscribers and Data Centres are located in 4-5 big metro cities. Without adequate data centers and Internet subscribers, opening of Internet eXchange Points (IXPs) will not yield any result. Government should take concrete steps to penetrate broadband and encourage setting up more data centre across country. ISPs should be encouraged to pump in more traffic at the existing NIXI NOCs. If required, necessary changes should be made in NIXI policies.

**6.4** If your answer to issue in 6.3 is in affirmative, please comment on the licensing framework of the entities for setting up Internet Exchange Points in India.

**Ans.** There should not be any license for operating IXPs as it facilitates the exchange of Internet traffics amongst the service providers only. Neutrality is the key for IXPs. Once it has been tag with any license, neutrality will be compromised.

**6.5** Will it be desirable to permit those Unified licencees to setup IP exchange points in the country who have no vested interest in routing of the IP traffic?

**Ans.** Not-at-all. Unified licenseees are also providing Internet Services to the users as well as resources to ISPs. In-fact they also own infrastructure across the country. Permitting them to set up IXPs, will be tantamount to compromise the neutrality of the IXP. Expecting them to be neutral / fair with all type of service providers is difficult to believe, especially for the ISPs, which are already facing discrimination while getting infrastructure resources from UASL. Government should not consider such proposal. NIXI is doing fine and if require, necessary policy may be amended to make it robust and effective IXPs.

## **Mobile Virtual Network Operator**

**6.6** Please give your comments on the changes proposed in para 3.5 of Section C of Chapter 3.

**Ans.** No Comments at this moment.

## **In- Building Solutions**

**6.7** What methods would you propose for reduction of the number of towers?

**Ans.** Number of towers can be reduced by following methods.

- In building System to provide better RF coverage inside large buildings & off load capacity of macro BSTs.
- Encourage users to use high speed Wi-fi connectivity ( VoIp) when users are with in the Coverage of Wi-Fi AP( which is having wired WAN connectivity) to offload traffic of Macro BSTs. It will helps to reduce resource utilization and hence reduction in no of towers.

This can be facilitated by allowing sharing of active infrastructure of IP1 and other Service Providers with all Service Providers.

**6.8** In what ways do you think that IBS can be encouraged for better in- building coverage, better QoS and reduction in level of radiated power from Macro cell sites?

**Ans.** By helping telecom operator to get fiber backhaul to the buildings which are identified for implementing IBS at reasonable tariff. Implementing IBS will help telecom operator to generate more revenue by providing better QoS (without adding additional site or over powering the RF)

**6.9** How can sharing of IBS among service providers be encouraged? Does TRAI need to issue any guidelines in this regard?

**Ans.** By helping telecom operator to get fiber backhaul to building which are identified for implementing IBS at reasonable tariff. And propose a method to create shared IBS in large building (IT parks, business centre's) and share the cost (entire cost or some percentage of total cost) among telecom providers operational in each circle.

## **Distributed Antennae Systems**

**6.10** Do you agree that innovative technologies such as 'Distributed Antenna System' (DAS) can be effectively utilised to reduce number of towers and migrate towards tower-less cities?

**Ans.** DAS can be adopted for providing coverage inside the tunnels and large buildings. There will be operational issues to take DAS for City wide coverage.

**6.11** What are the impediments in adoption of new technologies such as DAS and how can these be removed?

**Ans.** We need to address following issues if we need to take DAS for city wide coverage.

- How to provide stable Power to active components (10000's of sites) spread across the city
- Op-ex (Rental , backhaul fiber lease, billing of power based for each site/active components), and municipal tax/charges for deploying DAS.

### **Standardization of Tower Design**

6.12 Would you agree that the design of towers can and should be standardised?

6.13 If yes, how many different types of towers need to be standardised?

6.14 What are the important specifications that need to be included in these standards?

6.15 Which is the best Agency to standardise the tower design?

6.16 What is the likely cost of camouflaging the towers?

**Ans.** 6.12 – 6.16 – No comments at this moment.

**6.17** Can camouflaging be made mandatory? If so, can this be made part of the design standards of the towers?

**Ans.** ISPAI would like to mention here that ISPs mast are different from Mobile towers and should be treated differently and this aspects must be kept in mind while making any policy / framing guidelines

### **Clearances From Local Authorities**

**6.18** Do you consider that the existing framework of different civic authorities to grant permission for telecom towers is adequate and supportive for growth of telecom infrastructure?

**Ans.** No. There should be single window clearance for Service Providers to get all the clearances from civic agencies at State and Central level.

**6.19** Is there a need to set-up a single agency for approval and certification of towers? Is there an existing agency that can do this work? If a new agency is proposed, what should be its composition and framework?

**Yes.** There is definitely a need to set up a single agency for approval and certification of towers. We don't see any single existing agency which can do this work. Government may create a new agency wherein persons from relevant departments and Service Providers or its industry associations should be part of the agency. Such agency should be empowered with adequate power (e.g. fixation of tariff and other guidelines) so that it can provide give single window clearance to Service Providers.

**6.20** Is it feasible to have a uniform framework of guidelines including registration charges, time frame, single window clearance etc for granting permission for installation of telecom towers and laying of optical fibre cables? If so, can it be prescribed by the Licensor or the Regulator?

**Ans.** It is very much desirable to form a uniform framework of guidelines for

necessary clearance of towers and laying down cables across the country. The Regulator through its consultation process should prescribe it so that every stakeholder can contribute and a comprehensive policy/framework can be prepared.

6.21 What can be an appropriate time frame for grant of permission for erection of towers?

6.22 How can a level playing field be ensured for telecom service providers vis-à-vis other utility service providers especially in reference to tower erection?

6.23 Which agency is best suited to inspect the buildings and certify the structural strength of the buildings in case of roof based towers?

**Ans.** 6.21 – 6.23 – No comments at this moment.

**6.24** Should sharing of mobile towers be mandated?

**Yes.** It will help the new service providers to quickly roll out the services and existing infrastructure can be utilized optimally.

**6.25** Should sharing of active infrastructure, created by themselves or infrastructure providers, be allowed?

**Yes.** It should be allowed to all Service Providers and amongst the different service providers. It will help service providers to reduce capex and opex upto an extent in highly competitive market.

#### **Use of USO for rural areas**

**6.26** Please comment on the issues raised in para 5.6 of Section-A of Chapter 5.

**Ans.** Support from USO fund should not be restricted to particular service providers. It should be available to all such service providers which are capable of providing broadband services by using innovative ways and ideas, to the remote and rural areas.

Since local/ small ISPs are closer to the user and in a position to know their social and financial conditions better than multiple service providers can provide the best possible route to entrepreneurship to rural masses with a sense of fulfillment of a larger social goal.

**Accordingly, support from USO fund should be available to all service providers / operators with compensation to be fixed by predefined norms, which should be suggested by an independent agency.**

Before awarding the support following needs to be clarified :

- (i) Proof of concept
- (ii) Preference for Green & Indian Equipments
- (iii) Compensation to be fixed by an independent agency.

The “Indian products” and Indian Telecom Equipment manufacturers need to be

supported. This has not been done in the past and needs a push at this time. Contribution, in term of revenue, of Service Industry towards GDP is very high, we should as well promote Telecom manufacturing in the country so that contribution of manufacturing in the GDP could be increased.

## **IPV6**

**6.27** What measures are required to encourage the deployment and adoption of IPv6 in the country?

**Ans.** It is pertinent to note that Government has been the key factor in various countries in driving this movement and has funded up-gradation of such infrastructure for the ISPs in China & Taiwan. We are of an opinion that Department should also start such initiatives. Besides, Department shall also ensure that all the equipment/network used in e-governance, CSC etc. should be IPv6 enabled. Emphasis should be given to spread awareness of IPv6 amongst the stakeholders.

Government should make IPv6 test bed available so that end-to-end IPv6 traffic can flow. This would reduce IPv6 rollout time as well as help all service providers, as they need not spend time/cost to learn about IPv6 connectivity. This would avoid lots of duplication of costs.

**6.28** In your opinion, what should be the timeframe for migration to IPv6 in the country?

**Ans.** Though Indian ISPs are conscious about implementation of IPv6 and are working in this direction. Since both v4 & v6 will co-exist for years to come, the Indian ISPs/Service Providers are doing their best to moving towards IPv6

ISPAI is of the view that no time line should be fixed to migrate from IPv4 to IPv6. Let the ISPs/Service Providers decide how and when this transition shall happen in India, keeping pace with similar development in other parts of the world.

Government needs to facilitate ISPs by should set up more test bed across the country and extending fiscal support

## **IPTV**

**6.29** What measures do you suggest to enhance provision of IPTV services by various service providers?

**Ans.** There should be uniform conditions for Cable operators, ISPs and other service providers. All serious service providers should be allowed.

The regulation should create framework of Content being available including regulated prices to IPTV providers. There should be clear guidelines among Broadcasting, Telecom, Cable licenses to facilitate this.

**6.30** Should there be any restriction on ISPs for providing IPTV services?

**Ans.** Not-at-all. IPTV is a value added service on the IP platform which make Internet/broadband more attractive especially in the small towns, remote and rural areas. It could prove a killer application in the rural areas as entertainment remains at the top while communications comes next. It is a service phenomenon that goes beyond just the delivery of TV channels and includes offerings like interactive TV and even, personalized channels.

ISPs are geared to offer IPTV, however, Government's decision to impose Rs. 100 crore net worth for ISPs who wish to start IPTV services has put most of the ISPs out of the IPTV bandwagon. Whereas a cable operator can offer IPTV without any extra fee or obligation. It is leading to a monopolistic situation where in few service providers dominate the market.

#### **General**

**6.31.** Please give your comments on any related matter not covered above.

**Ans.** For the proliferation of the Broadband, government should de-license additional frequency bands i.e , about 150 MHz in 3 GHz ( 2900-3050 Mhz and about 200 MHz in 5 Ghz ( 5070- 5150 MHz) bands.