Ubico Networks Private Limited reply on Trai Telecom Infrastructure Policy Consultation Paper No. 1/2011

Comments on Issues for consultation

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.

Yes. IP1 should be allowed to install & operate all kind of active telecom & IT equipment. IP1 and Licensed 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?

No Comments

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?

No Comments

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 Point in India

No Comments

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

No Comments

Mobile Virtual Network Operator

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

In- Building Solutions

6.7 What methods would you propose for reduction of the number of towers?
It is suggested to reserve separate 3 MHz Spectrum in 900 /1800 / CDMA bands for In-building applications to take out the load on outdoor BTSs capacity in urban and dense urban areas. This would reduce number of macro BTSs to large extent.

This can be on the same lines as "LOW POWER GSM" in UK (3.3 Mhz) & Netherlands (5Mhz)

Encourage street furniture such as electric poles, walls of buildings for transmitting low power at low height. This would provide a good street level coverage without discontinuities.
Right of Way

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?
It is a well-known fact that over 70 to 80% of the calls are made when a person is inside the building.

To encourage IBS for better in-building coverage, better QoS and reduction in level of radiated power from Macro cell sites, we suggest that a separate 3 MHz spectrum in GSM/CDMA bands may be reserved for IBS

Other Service Providers (OSPs), should be allowed to use this spectrum to offer in-building coverage on active infrastructure sharing to all telecom service providers / MNO's on infrastructure sharing basis.

Government should also consider giving incentives linked with number of operators sharing the IBS in a particular facility.

Local administration should make it mandatory while approving/clearing the construction of new facilities, such as multiplexes, malls, hotels, and recreational facilities etc. to facilitate IBS inside the facility and take an undertaking from identified OSPs to ensure execution of IBS in such facilities

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

As stated in 6.8 above, the government should encourage Other Service Providers (OSPs) to own or operate a transmission facility, to offer telecommunication services to the public for compensation in identified facilities.

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?

Yes, the innovative technologies such as "Distributed Antenna System (DAS)" should be introduced in the urban and semi urban areas. There is a need to have a cost effective, time efficient, environment sensitive solution to be shared by multiple operators.

The advantage of planning a network with distributed antenna system is:

i. Possibility of allocation of centralized radio resources dynamically depending upon the availability of spectrum and traffic.

ii. Easy network extension- coverage of hot spots and holes

iii. Good system performance. Since the antennae will be installed at a lower height, with low power radiation, the interference will be very low.

iv. Easy future up-gradation and introduction of new technologies.

v. The network can be shared by multiple operators for different wireless services.

vi. It is expected that the capital and operating cost will be lower by about 15-40%.

vii. Since BTS and handsets will be radiating low power of less than 1 watt, the apprehension of health hazard will not be there to the users.

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

The adoption of DAS type of technology requires a disciplined coordination between all private and public departments while digging, repairing, laying pipes, cables and widening roads.

DAS or use of street furniture for providing cellular services can be effective way for reducing number of towers, but may not eliminate the use of towers. There are issues restricting the use of this technology, specifically in India.

One such solution could be:

a) Locating antennas near the users, i.e. on the electricity poles/ bus stops/ other govt infrastructures in/ nearby the streets

b) Low power transmission (Radiation) from the antennas, since located near the users.

c) Feed RF signal over optical fibre in the form of optical signal from a centrally located BTS and reconvert back into RF at the antenna site for radiation.

d) The same infrastructure can be used for wireless broad band services.

Standardization of Tower Design

6.12 Would you agree that the design of towers can and should be standardised?
No Comments

6.13 If yes, how many different types of towers need to be standardised?
No Comments

6.14 What are the important specifications that need to be included in these standards?
No Comments

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

No Comments

Reducing Visual Impact of Towers

6.16 What is the likely cost of camouflaging the towers?
It depends from site to site & cannot fixed. It may be from 10,000 to 50,000 Rs per site.

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

Yes, it should be made mandatory. It can not be made part of the tower design, because the camouflaging will depend on each site.

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?
The existing frame work is not suitable.

The mushrooming growth of telecom towers in India is at the cost of public health.

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?
No need for a single agency. It should be the responsibility of the Municipal corporation, in the same way, as they approve the building plans. In fact in many states the law prohibits, any structure (pole or tower) of more than 5 meter height from the height of building approved.

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 lying of optical fiber cables? If so, can it be prescribed by the Licensor or the Regulator?

There should be uniform framework including Right of Way for laying of Optical Fiber Cables and single window clearances for all licensed service providers

6.21 What can be an appropriate time frame for grant of permission for erection of towers?
No Comments

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?
No Comments

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?
No Comments

Infrastructure sharing

6.24 Should sharing of mobile towers be mandated?

It should be incentivized and not mandated.

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

Yes, sharing of active infrastructure created by IP1 and Telecom Service providers should be permitted among all Licensed Service Providers.

Use of USO for rural areas

6.26 Please comment on the issues raised in paragraph 5.6 of Section A of Chapter 5.

We agree, that no action should be taken by Government on the recommendations made on 19th March 2009.

IPV6

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

No Comments

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

No Comments

IPTV

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

No Comments

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

No Comments

General

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