

CONSUMER PROTECTION ASSOCIATION HIMMATNAGAR : 383 001 DIST. SABARKANTHA GUJARAT

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.

We agree with the Classification of infrastructure elements described. We want to add as below :

There Should be an Emergency infrastructure as emergencies are enforceable in magnitude, time and place. It is important for the telecommunications operators to be prepared for emergency situations by having their own emergency plan to combat disasters and accidents. The operators should submit their " Emergency plan " to TRAI and should be reviewed by TRAI and updated annually. When emergency is declared by the relevant authority, the operators should be activate their telecom emergency plan. They must have a temporary yet highly stable telecommunications infrastructure. The operators should identify, in their emergency plan, the critical infrastructure elements in their networks, identify the vulnerabilities, and identify the inter-dependency between telecommunications infrastructure and other infrastructures. The purpose of this is to establish a real-time ability to share information with TRAI or any relevant authority. Ultimately, the goal is to protect critical infrastructure by reducing the known vulnerabilities to minimum.

The following network vulnerabilities should be identified and assessed by the operators :

- Probable technical points of failure in case of disaster such as earthquake, floods, cyclones, fiber cuts or other emergencies that have a physical impact on telecommunications infrastructures.
- Interdependencies or support elements such as power supply, fuel access generators in case of power failure, and physical factors related to physical access to reach critical infrastructures.
- 3. Lack of capacity, network overload or network degradation in time of disaster in order to take appropriate measures... etc..

The service providers should include in their Emergency Plan the necessary actions to be taken in order to ensure facilitating the provision of services and systems response to immediate needs for extraordinary operations (Disasters or exceptional public emergency incidents) or in replacing or re-habilitating equipment for networks destroyed or degraded.

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

(A) There should be three steps to encourage more ILDOs and ISPs to set up cable

landing stations :

- 1. For Government :
 - (a) More convenient policies
 - (b) Simplification in procedure
 - (c) Better Governance & transparency
 - (d) Increase competition
 - (e) Govt. should subsidies or fund for this purpose in future years.
 - (f) Govt. should spend significant amount of money in initial stage.
 - (g) As a part of policy, the Govt. should take steps to encourage private sector investment in improving rural telecommunications services and should take steps to further open up the market to alternative delivery media.
 - (h) Matching fund should be established. This fund can share the upfront cost between the Central Govt., State Govt. and the network builders. After a network is completed, the network builders can get ownership and responsibilities for maintenance.
 - (i) There should be no hurdles from state governments as well as local authorities.
 - (j) If state government or municipal corporation are interested to build up the network , they should be encouraged by providing constitutional support.

As the possible entry of the state Govt. or Municipality into the market

may provide great incentive for the private sector. The legal authority

should examine the possibilities.

The authorities should ensure that the rights of municipalities to develop their own networks is an essential part of the overall national internet service strategy.

2. For ISPs :

- 1. Better service
- 2. Increase down load speed High speed network
- 3. Proper traffic management
- 4. Low cost
- 3. For Consumers :
 - 1. Increase awareness
 - 2. Computer Education
 - 3. Encouragement to internet connectivity to home and business
 - 4. Encouragement to on line business
 - 5. Encouragement in on line distance education program etc..
- (B) There should be a periodical evaluation of the progress.
- (C) There should be a cyber security.
- (D) Workers training

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

Yes

4. If your answer to issue #4 is in affirmative, please comment on the licensing framework of the entities for setting up Internet Exchange Points in India.

Licensing and other process should be under the close supervision of TRAI.

- 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? Yes, under the close supervision of TRAI.
- 6. What methods would you propose for reduction of the number of towers? Administration should make sure that at least three cell phone service providers utilize each tower without affecting connectivity.
- 7. 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?

IBS must have coverage, capacity or quality up to the cellular standards. One of the challenges of in-building solution is around roaming or handover, as it is a fixedmobile convergence space, specifically enabling the seamless connection of service without any interruption, as a customer move between networks. There should be competing technologies to address the roaming challenge.

There is a challenge of poor in-building coverage due to the high frequencies. At higher frequencies it becomes more difficult for the RF signal to

penetrate building structures, such as walls, windows, ceilings and so on. There should be a solutions for improving in-building coverage.

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

Yes, TRAI should issue guidelines.

An in-building solution may be offered in many different ways. There is always a trade-off between quality and cost. The implementation of dedicated in-building coverage enables new traffic for the mobile operators in areas that previously were "black holes" and offloads the macro system in areas with overlapping in-building and macro network coverage, thereby increasing overall system coverage and capacity.

Coverage given by IBS may attract new subscribers due to the enhanced mobile network quality and accessibility to mobile Internet and other value added services.

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

Yes.

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

 The cellular network with DAS enhanced in-building coverage may provide effective coverage, but may chronically be challenged to provide adequate bandwidth for emerging mobile multimedia services, and will not provide the premises network connectivity desired. A private wireless LAN is still required to support the premises network mobile multimedia applications. One may use copper twisted pair, fiber optics, or coaxial cabling for the distribution of the cellular call information throughout the building.

2. The cost is another problem but pathway, space and facilities can be

shared to reduce the cost of the independent wireless LAN and DAS infrastructure.

3. The originating and terminating billable minutes should be closely monitored.

In summery, It appears that both the cellular network and the wireless LAN need to coexist and to provide complete building-wide coverage. The two networks may provide complementary services, and both must be designed to provide multimedia capabilities. Both the DAS for cellular coverage, and the wireless LAN, should be designed for robust RF coverage throughout the building. Coordination in design, installation and deployment can result in a cellular DAS overlay on wireless LAN with consequential reduction in deployment cost.

11. Would you agree that the design of towers can and should be standardized?

Yes

12. If yes, how many different types of towers need to be standardized?

Maximum two types – ground based.

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

Save consumer rights, Consumer's privacy and safety with low radiation.

14. Which is the best Agency to standardize the tower design?

15. What is the likely cost of camouflaging the towers?

Depends

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

No.

17. 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?

Yes

18. Is there a need to set-up a single agency for approval and certification of towers?

No

Is there an existing agency that can do this work? If a new agency is proposed, what should be its composition and framework?

Yes

19. 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?

Yes

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

Maximum Three month

21. 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?

Good Governance by state superior authority and local authority participation.

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

Local authorities with CAG members.

23. Should sharing of mobile towers be mandated?

Yes

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

Yes

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

No comment.

Very good efforts and steps taken by TRAI

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

It should be mandatory to all.

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

Maximum 2 years

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

As above

30. Should there be any restriction on ISPs for providing IPTV services in this competitive environment?

No. But regulatory control should be their.

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