



TTL response to Consultation Paper on
“Review of Scope of Infrastructure Providers Category-I
(IP-I) Registration”

Question 1. Should the scope of Infrastructure Providers Category – I (IP-I) registration be enhanced to include provisioning of common sharable active infrastructure also?

TTL Response

As per the Digital Economy & Society Index connectivity report 2019, published by European Commission, internet traffic per user in Western Europe is currently 44 GB per month, whereas in India, per user internet usage is only 10 GB per month. In India the growth in internet traffic has its own limitations due to spectrum unavailability constraints and non-availability of optical fibre in the backhaul network, most of the BTS are working on Microwave backhaul transmission link only. At the end of financial year 2018-19, only 30% of total BTS were connected through optical fibre.

The widespread deployment of optical fibre for faster fixed line broadband network as well as backhaul for connecting 4G & 5G BTS will require substantial amount of fresh investment across the country. The upgradation of the existing mobile network to 5G will require fresh capital infusion at an accelerated pace. Since the roll out of 5G network is expected to make use of higher band frequency, it will require large number of cells, leading to massive increase in the number of BTS as compared with the existing networks.

Fiberisation of the telecom networks by each Licensee in a non-sharing mode may be a quite costly proposition and would increase the cost to the network operator and the cost of service delivery.

Considering the above. TTL is of the view that the scope of Infrastructure Provider Category – I (IP-I) registration may not be kept limited to sharing of Passive Infrastructure, but may be enhanced to include provisioning of common sharable Active Infrastructure also. This will result in reduction of cost & faster roll out and enhancement of service quality to the Network Operators.

Question 2. In case the answer to the preceding question is in the affirmative, then

- i) **What should be common sharable active infrastructure elements which can be permitted to be owned, established, and maintained by IP-I for provisioning on rent/lease/sale basis to service providers licensed/ permitted/ registered with DoT/ MIB? Please provide details of common sharable active infrastructure elements as**



well as the category of telecommunication service providers with whom such active infrastructure elements can be shared by IP-I, with justification.

- ii) Should IP-I be allowed to provide end-to-end bandwidth through leased lines to service providers licensed/ permitted/ registered with DoT/ MIB also? If yes, please provide details of category of service providers to it may be permitted with justification.

TTL Response

In India, currently Cat IP-I are restricted to sharing of passive infrastructure only, limited to Dark Fibres, Right of Way, Duct Space and Towers. The IP-I can install the active elements, limited to antenna, feeder cable, Node B, RAN (Radio Access Network) and transmission media only, for and on behalf of Telecom Licensee.

In case the telecom infrastructure (Both Active & Passive) is owned and maintained by IP-I, the TSPs apart from reducing their cost, they will be able to concentrate on their core competency of providing telecommunication services to the end user and IP-I will be able to focus and invest on creating active and passive telecom infrastructure. As mentioned in the consultation paper, TTL is of the opinion that IP-I registration may include to own, establish and maintain antenna, feeder cable, BTS (eNodeB/ gNodeB), Radio Access Network, transmission systems for backend end-to-end bandwidth (On Microwave or OFC), wired access (FTTX) network and In-building solutions systems.

Since Access Service Providers, National Long Distance Operators and Internet Service Providers have already heavily invested in creating the infrastructure for provisioning end to end bandwidth through lease lines to provide services like MPLS/ ILS/ VPN/ CUG etc, hence we would suggest to include the common sharable active infrastructure elements and with these category of telecommunication service providers only, by IP-I. Other telecommunication service providers such as Cloud Service Providers, M2M connectivity providers etc., who are presently licensed/ registered or not licensed/ registered with DoT/ MIB, shall continue to get the access of active and passive elements of telecommunication infrastructure through Access Service Providers only.

Apart from this, we also suggest that M2M & OTT services should also be brought under license regime so that they are able to use the active & passive resources offered by IP-I. The sharing of active/ passive infrastructure by IP-I should be based on 'first-come first serve' criteria. The scope of IP-I authorization should be enhanced to offer these services and IP-I may be treated at par with other licenses. Also IP-I services should be offered on non-discriminatory and non-predatory basis.



- iii) Whether the existing registration conditions applicable for IP-I are appropriate for enhanced scope or some change is required? If change is suggested, then please provide details with reasoning and justification.
- iv) Should IP-I be made eligible to obtain Wireless Telegraphy Licenses from Wireless Planning and Coordination (WPC) wing of the DoT for possessing and importing wireless equipment? What methodology should be adopted for this purpose?
- v) Should Microwave Backbone (MWB) spectrum allocation be permitted to IP-I for establishing point to point backbone connectivity using wireless transmission systems?

TTL Response

Since TTL has recommended in to allow IP-I to own, establish and maintain the active and passive telecom infrastructure on rent/ lease/ sale basis, the existing registration conditions are not appropriate to include this enhanced scope for IP-I. The active network infrastructure includes "wireless telegraph" apparatus and IP-I would require, to obtain license for possessing such apparatus, which comes under the purview of Indian Wireless Telegraph Act, 1993. IP-I will also require to an import license from the Wireless Planning & Coordination wing of Department of Telecommunication for importing such equipment. Hence it is suggested that changes are brought into the existing registration conditions applicable for IP-I to include obtaining of license to own the network infrastructure, which falls under the "wireless telegraph" apparatus and also to include obtaining an import license from WPC Wing of DoT.

Since IP-I would need to activate the wireless backbone transmission system, they would require Microwave Backbone Spectrum (MWB) also for establishing point to point communication links. Hence, we are of the view that Microwave Backbone (MWB) Spectrum should be permitted to IP-I for establishing this point to point backbone connectivity using wireless transmission system.

Question 3. In case the answer to the preceding question in part (1) is in the negative, then suggest alternative means to facilitate faster rollout of active infrastructure elements at competitive prices.

TTL Response

N/A

Question 4. Any other issue relevant to this subject.