

INPUTS/COMMENTS ON IP1 CONSULTATION PAPER

CHAPTER 5

Summary of the issues for consultation

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

- Yes. This will encourage new investment from non-licensed Telecom Service Providers such as OTT's, CSP's, CDN's and data center operators which is critical for growth of our telecom infrastructure and industry especially in the current scenario wherein licensed Telecom Service Providers are not in a position to invest heavily. Moreover, there are some very specific requirements of non-licensed service providers (OTTs, CSPs, Data Centers operators, etc.) which need a different type of investment strategy which the licensed TSPs may not be interested in. We need to encourage new set of providers to invest for such requirements. There is very strong global evidence across multiple countries whereby the increase in the number of infrastructure providers and the type of services these providers can offer, including high capacity WDM/ transport, and dark fiber infrastructure has resulted in increased investments by OTT's, cloud providers, and other internet businesses driving the rapid growth of bandwidth and services and the telecom industry as a whole.

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.

- IP1 service providers should be encouraged to invest in building out the metro and pan Indian fiber optic networks which are the foundation of all telecom services. These networks can be used to meet the specific requirements of a broad range of customers, as an example, there is a big need for point to point fiber network connecting two nearby buildings of an IT/ITES company or two nearby data center buildings of the same company enabling them to expand beyond one building for which they need a campus type of network between the buildings. In many markets around the globe IP1 like operators have built and leased dark fiber networks to specific types of customers (including OTT's, CDN's, ISP's, TSP's, etc.) accelerating the growth of their investments and increasing the revenue and profitability of both the IP1 and TSP providers.
- Second level of change in present regulation could be allowing IP1 service provider to light their dark fiber and offer very high bandwidth (10G/100G) pt. to pt. connectivity solutions between two nearby IT/ITES buildings or data centers.
- IP1 providers should be able to provide both passive and active infrastructure

to specific non licensed end customers and pay revenue share for such services. This will meet an existing unfulfilled demand in the market and further encourage investment and expansion by non-licensed end customers such as OTT's, CDN.s, etc. and increase the telecom sector revenue for all players.

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.

- IP1 should be allowed to provide passive infrastructure like dark fiber to non licensed Service Providers like Cloud Service Providers, Internet Exchanges Data Centers or even IT/ITES companies for pt. to pt. connectivity connecting the resources of the same customer between two nearby locations without the need to deploy additional transmission equipment.
- Currently only Licensed Service Providers can buy dark fiber from IP1 providers which drastically limits the market and discourages increased investment in passive fiber optic networks thereby restricting the range and amount of fiber available in the market. If the market for IP1 providers were expanded allowing them to provide dark fiber to specific non-licensed customers for short distance pt. to pt. networks which require no transmission equipment (end customer's router/switch port at both ends can drive signals through short distances) the IP1 business model would become much more viable and drive more investment in fiber networks across India including the utilization of high capacity (432/864) fiber cables.

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.

Ans:

A change would be required in existing registration conditions for IP1 to provide passive fiber pairs to certain categories of non-licensed users like OTT/ CSPs/ Data Centers ,or even IT/ITES companies wanting to connect their own infrastructure in two nearby buildings using dark fiber without requiring any transmission equipment. Additional changes would also include revenue share with the DOT.

- If IP1 providers are allowed to sell lit bandwidth to non-licensed service providers by deploying transmission equipment, IP1 registration may include service guarantees and also revenue share with DoT . Objective is to create a level playing field but allowing new players to make investment and build infrastructure and at the same time ensuring the Government does not lose revenue .

iv) Should IP-I be made eligible to obtain WirelessTelegraphy 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?

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.

4) Any other issue relevant to this subject.