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Subject: ISPAI Response to TRAI Consultation Paper on Review of Tariff for Domestic Leased Circuits (DLCs)

Dear Sir,

We thank the Authority for providing us the opportunity to submit our response on this important subject.

We have enclosed our comprehensive response for your consideration.

We believe that the Authority would consider our submissions positively on the subject matter.

Thanking you,

Yours Sincerely,
For Internet Service Providers Association of India



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ISPAI Response to TRAI Consultation Paper on Review of Tariff for Domestic Leased Circuits (DLCs)

Preamble

1. We appreciate the Authority for providing stakeholders an opportunity to submit their views on the Consultation Paper titled “Review of Tariff for Domestic Leased Circuits (DLCs)”.
2. Small ISPs (particularly B & C) play a critical role in extending broadband connectivity, enterprise services in Tier-2, Tier-3, rural, remote and niche enterprise markets. Over the years, these ISPs have invested substantially, and massive fibre infrastructure has already been laid by B & C category ISPs throughout the country which can be effectively leveraged for provisioning DLC services, thereby enhancing competition, reach, and service availability.
3. Although India has more than 70 National Long Distance (NLD) licensees, in practice, ISPs are able to procure NLD/DLC services from only a very limited number of operators—typically two or three.
4. Even the government-owned operator, BSNL, does not extend any preferential or facilitative support to private ISPs and continues to treat them purely as competitors, further aggravating the challenges faced by smaller service providers in accessing essential backbone and leased line infrastructure.
5. As mentioned in the Consultation paper, Department of Telecommunications formalized in the Draft Telecommunications (Authorisation for Provision of Main Telecommunication Services) Rules, 2025, released on September 5, 2025, explicitly stating that Internet Service Providers (ISPs) would be authorised to provide domestic leased circuits.
6. Permitting ISPs to provide DLCs will **significantly enhance competition**, especially in enterprise and wholesale segments. Allowing ISPs to offer DLCs will expand supply options, promote infrastructure utilisation, and reduce dependence on a small number of dominant players.
7. Based on prevailing market conditions and ongoing trends in enterprise connectivity, we are of the considered view that no additional tariff regulation is required at this stage. On the contrary, the level of market maturity and existing competitive pressures justify a move towards **complete tariff forbearance**.
8. **Shift to Next-Generation Technologies** - The traditional DLC product itself is rapidly becoming less relevant in the context of enterprise connectivity. Enterprises are increasingly migrating to more advanced, scalable, and software-driven solutions such as IP-VPNs, SD-WAN, Internet Leased Lines (ILLs), and cloud-based networks. These technologies are not only more efficient but also better aligned with the digital transformation goals of businesses across sectors. Continued tariff fixation on legacy DLC offerings risks disincentivizing this transition and could create artificial barriers to the adoption of future-ready network solutions. Model of cloud maturity – India is still in the journey from single cloud to multi cloud environment to hybrid cloud. This tariff regulation will kill the nascent market.

9. **Allow Pass through Charges to NLDOs and ISPs** – To encourage deployment of Infrastructure by Service Providers to offer the DLC services in underserved areas such as remote/hilly areas, it is recommended that there be a mechanism in which the service provider offering DLC services is incentivized by way of allowing Pass through benefit to ISPs buying services from operator. Such a framework would incentivize network expansion in difficult geographies while ensuring commercial viability for service providers and improved availability for end users.
10. The Universal Service Obligation Fund (USOF) has been established with the objective of ensuring equitable access to telecom services in rural, remote, and commercially unviable areas. However, the benefits of USOF-funded infrastructure have not fully percolated to ISPs due to limited and expensive access to backbone and leased line connectivity.

TRAI may consider recommending that USOF fund should be made available for laying the DLCs in rural areas

11. **Leveraging BharatNet for Competitive DLC Provisioning** - BharatNet represents one of the largest publicly funded fibre backbones in the world and was envisioned as an open-access, non-discriminatory network to enable last-mile service providers, including small ISPs.

Despite this intent, access to BharatNet fibre for provisioning DLCs and enterprise connectivity remains limited, operationally complex, and commercially unviable for many small ISPs. In several cases, BharatNet infrastructure is effectively leveraged by only a few large operators.

12. Create a distinction between high capacity (enterprise) and small enterprise (SME) who may not require large capacity circuits and circuits <1G may suffice.

Q1: What is expected to be the likely impact on competition and tariffs in the DLC sector, if the ISPs are permitted to provide DLCs in the future? Please provide your response with justification.

Response – As Department of Telecommunications has formalized in the Draft Telecommunications (Authorisation for Provision of Main Telecommunication Services) Rules, 2025, released on September 5, 2025, explicitly stating that Internet Service Providers (ISPs) would be authorised to provide domestic leased circuits

Allowing ISPs to offer DLC services would bring new players into a market and will significantly enhance competition.

ISPs often compete primarily on flexibility and customer experience. They may bundle DLC with other services (cloud connectivity, managed VPNs, security services) leading to high innovations in service offerings. Competition encourages service improvements as firms seek competitive.

Many ISPs have strong last-mile presence in Tier-2, Tier-3 cities and industrial clusters. However, due to regulatory restrictions, they are unable to provide enterprise-grade leased circuits despite having infrastructure capability.

Allowing ISPs to provide DLCs will:

- Improve enterprise connectivity in non-metro regions
- Increase availability of reliable dedicated circuits in underserved areas
- Promote balanced digital infrastructure growth

This will deepen competition beyond metro cities.

With ISPs entering the market:

- Competitive pricing will emerge
- Enterprises will benefit from alternative offers
- Tariffs will become more market-driven

Healthy competition will rationalize prices without compromising sustainability.

Q2: What is the likely impact of tariffs for DLC on the bandwidth charges (including the transmission costs) or any other costs incurred by ISP operators, especially for ISP B & C operators who do not have their own transmission infrastructure? Further, what are the specific elements of DLC tariff which can be addressed in the regulation to make it more relevant for ISP B & C business? Please provide your response with justification.

Response –

DLC tariffs constitute a **major portion (40–70%) of operating costs** for ISP B & C operators who lack owned transmission infrastructure.

Currently, DLC market in India is expected to continue its upward trajectory, supported by the digitalization of the economy, growth in enterprise IT spending, AI related and ongoing infrastructure investments. In a forbearance regime, tariffs are determined based on competition, cost of delivery, customer requirements, bandwidth requirements and service differentiation. Larger customers benefit from economies of scale, while pricing for smaller customers is optimized through bundling or managed solutions. Internal benchmarking, competitive intelligence, and customer feedback are key drivers in tariff determination.

Therefore, it is an opportune time to make the DLC tariffs also under forbearance which, in our view, will further boost adoption and competition in the sector.

Q3: Should the MPLS-VPN DLCs be brought under the tariff regulation framework? Please provide your response with justification.

Response - No. MPLS-VPN DLCs should not be brought under tariff regulation and may be more appropriately kept under a forbearance regime.

Multiprotocol Label Switching (MPLS) is a routing technique that directs data from one node to the next based on short path labels rather than long network addresses, allowing for the creation of Virtual Private Networks (VPNs) over shared infrastructure.

While MPLS offered scalability in the past, it is increasingly viewed as a "legacy" or "declining" technology. Enterprises are rapidly migrating to SD-WAN (Software-Defined Wide Area Network) and Cloud-based DLCs, which offer superior dynamic routing, better integration with cloud services, and significantly lower operational costs.

Q4: What are the key differences in cost structure and service delivery between traditional P2P-DLCs and MPLS-VPNs that should be reflected in tariff regulation? Please provide your response with justification.

Response –

- a) P2P-DLC (Point-to-Point): These provide a dedicated, non-shared transmission bandwidth between two fixed locations, ensuring a direct and fully secure link. Their cost structure is largely distance-sensitive and capacity-based, with significant capital expenditure on transmission infrastructure (fibre, SDH/DWDM systems), last-mile access, and associated maintenance.
- b) MPLS-VPN: These leverage shared infrastructure to create logical circuits, offering significantly higher flexibility and scalability. Unlike the static nature of P2P, VPNs are increasingly delivered as Managed Services. Costs are driven more by network design, QoS class, redundancy levels, routing intelligence, and customer edge equipment rather than pure physical distance.

In light of the above, MPLS-VPN DLC services function within a highly dynamic, competitive, and technology-driven environment where market forces — including commercial negotiations, enterprise bargaining power, and service differentiation — naturally ensure fair pricing. Subjecting these services to tariff regulation would constrain innovation, limit infrastructure investments, and disrupt the natural evolution of enterprise connectivity solutions. Therefore, MPLS-VPN DLCs should continue to operate under a forbearance-based regulatory regime.

Q5: What has been the impact of deployment of DWDM, SD-WAN and Ethernet over Fibre on provisioning of DLCs, in terms of operations, costs and tariffs? Should the regulation incorporate these technological changes in the ceiling tariff framework? Please provide your response with justification.

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Q6: Are there any other technological changes apart from the ones mentioned in above paragraphs in provisioning of DLCs in India? If yes, what has been the impact of deployment of such technologies on provisioning of DLCs, in terms of operations, costs and tariffs? Should the regulation incorporate these technological changes in the ceiling tariff framework? Please provide your response with justification. Telecom Regulatory Authority of India

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Q7: As an alternative to Q5 & Q6, should the Authority consider technology-neutral tariff models, focussing on bandwidth and service commitments rather than provisioning

technologies? If yes, what should be the criteria for the same? Please provide your response with justification.

Response –

We submit that the existing forbearance-based tariff regime has served the sector well by allowing market forces to determine competitive pricing and provided a foundation for market growth and competition but faces challenges in keeping pace with technological evolution, market diversity, and the needs of both customers and service providers.

Thus, the Authority should maintain regulatory forbearance in respect of tariffs for DLCs across all capacities and technologies

Q8: What are the various service commitments (such as bandwidth, SLA requirements such as uptime, latency, packet loss, response time etc.) bundled as part of managed DLC service, for both P2P & VPN based DLC? How are the service commitments offered as part of managed DLC services linked with the tariffs? Please provide your response with justification.

Response – No Comments

Q9: Should the proposed regulation include staggered tariffs in line with service commitments, possibly further staggered for different regions, for both VPN & P2P based DLC? If yes, what are the service commitments, mentioned as reply to Q8, which should be considered for tariff regulation?

Response – The Authority should maintain with a regime of regulatory forbearance.

Q10: What reporting mechanisms should be mandated to ensure transparency in discounts and service bundling for DLCs? Please provide your response with justification.

Response –

No additional reporting mechanisms should be mandated for Domestic Leased Circuits (DLCs).

The existing regulatory framework, including reporting requirements on tariffs, service offerings, and compliance obligations, already provides adequate transparency and oversight.

Q11: Should the Authority mandate standardized tariff disclosure formats for all DLC service providers? Please provide your response with justification.

Response – The Authority should not mandate standardized tariff disclosure formats for DLC service providers. Such a requirement is unnecessary, commercially intrusive, and inconsistent with a regime of regulatory forbearance.

Q12: Should TRAI use the same cost methodology i.e. BU-FAC for computing cost based ceiling tariffs for P2P DLCs as was used in 2014? Please provide your response with justification.

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Q13: In case response to the above question is affirmative, what values of the following items should be used for estimation of ceiling tariffs for DLCs:

- (i) Return of Capital Employed (ROCE) Telecom Regulatory Authority of India
- (ii) Useful lives of transmission equipment and Optical Fibre Cable separately
- (iii) Average no. of fibre pairs lit in OFC in trunk segment and local lead segment separately
- (iv) Utilization factor of OFC system in trunk segment and local lead segment separately
- (v) % of use for the transmission equipments used at local lead junction points and in trunk segment for DLCs
- (vi) If the repeaters are still being used in the trunk segment, what is the average distance between two repeater sites?
- (vii) What is the factor of use (no. of circuits in underlying OFC system) to be taken into consideration at local lead and trunk segment for computation of ceiling tariffs?

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Q14: As an alternative to the BU-FAC methodology, or in addition to it, should LRIC or any other methodology be considered for computing ceiling tariffs for P2P DLCs? Please support your view with detailed justification along with data and assumptions

Response –

ISPai is of the view that rather than deliberating on the merits of specific cost methodologies like BU-FAC, the Authority should move toward a **complete tariff forbearance regime** for P2P DLCs.

Q15: What should the bandwidth capacities be, including the minimum and maximum bandwidth capacity, of P2P DLC for which ceiling tariffs need to be prescribed? In case of bandwidth capacities not regulated in the 2014 TTO, what should be the concomitant value of the relevant factors mentioned at Q13? Please provide your response with justification.

Response – The Authority should maintain regulatory forbearance in respect of tariffs for DLCs across all capacities and technologies.

Q16: Should the Authority consider the cost methodologies used in other countries for determining tariffs for P2P-DLCs? If so, which methodologies would be appropriate for the present exercise? Please provide your response with justification along with data and assumptions. Telecom Regulatory Authority of India

Response – The Indian market's dynamics are fundamentally different and are best served by the continued reliance on market-led price discovery under a forbearance-based framework.

Q17: Is there a need for prescribing separate ceiling tariffs for local lead and trunk segment? Should the Authority adopt different cost methodology for local lead and trunk segment for provisioning of DLCs? If yes, please provide your response with justification.

Response – The authority should focus should remain on a holistic, technology-neutral approach that favours complete tariff forbearance, allowing the market to continue providing simplified, bandwidth-based managed services to enterprises.

Q18: Should the Authority adopt BU-FAC, LRIC or any other methodology for computing ceiling tariffs for VPN DLCs? Please support your view with a detailed justification along with data and assumptions.

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Q19: What should the bandwidth capacities, including the minimum and maximum bandwidth capacity, of VPN DLC for which ceiling tariffs need to be prescribed? Please provide your response with justification.

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Q20: Should the Authority consider the cost methodologies used in other countries for determining tariffs for VPN-DLCs? If so, which methodologies would be appropriate for the present exercise? Please provide your response with justification along with data and assumptions.

Response - ISPAI is of the view that VPN DLC tariff should continue to be governed by forbearance regime. Under a policy of forbearance, it has allowed the market to mature naturally without regulatory distortions

Q21: Should the spectrum charges recommended for a point-to-point link of 28 MHz paired bandwidth in the 6 GHz(lower) band, be taken as reference for DLC ceiling tariff? If yes, what could be the approximate order of multiple between the backhaul link charges and DLC ceiling tariff? Should the reference be considered for local lead or trunk segment or on overall basis? Please provide your response with justification.

Response – As notified by the Ministry of Communications vide Gazette Notification dated 20 January 2026 (issued on 21.01.2026), the frequency band 5925–6425 MHz has been made available on a license-exempt basis for low-power indoor (LPI) and very low-power indoor (VLP) wireless access systems, including Radio Local Area Networks (RLANs).

In view of the above policy decision, the issue under reference no longer remains relevant.

Q22: Is the distance-based pricing, based on distance slabs contained in the 2014 TTO (57th Amendment), still relevant for prescribing ceiling tariffs for P2P DLCs? Should the Authority consider new distance slabs, separately for both the local lead and trunk segments, for prescribing ceiling tariffs for P2P DLC? Please provide your response with justification.

Response – The Tariffs should continue to be governed under a **market-led forbearance regime**.

Also, as per TRAI Telecommunication Tariff (Fifty-Ninth Amendment) Order issued in November 2014, exempts small Internet Service Providers (ISPs) having less than 10,000 subscribers from the mandatory tariff reporting requirements.

Q23: Is there a need for prescribing separate ceiling tariffs for remote and hilly areas? What criteria should be used to define such regions? Please provide your response with justification. Telecom Regulatory Authority of India

Response – ISPai strongly believe that the tariffs should continue under a market-led forbearance regime as the segment is competitive, technology-driven, and largely based on bilateral commercial negotiations. In most urban and commercially viable areas, multiple service providers are present, ensuring competitive price discovery and service innovation without the need for ceiling.

However, in remote, rural, and hilly areas only where there are very few or limited operators and infrastructure, ISPai suggests that a tariff ceiling mechanism may be considered. Such a calibrated approach would prevent excessive pricing in non-competitive regions while preserving the broader framework of forbearance in competitive markets.

Q24: How can the Authority ensure affordability in low-competition areas, such as remote and hilly areas, without distorting market incentives? Please provide your response with justification.

Response – Same as Q.23.

Q25: Are there any other relevant issues related to revision of tariff framework for DLCs which the Authority should keep in mind, while carrying out the present review exercise, to further the broad objectives as espoused in this Consultation Paper? Please provide full details and justification for consideration of the same.

Response –

In order to support our views on tariff forbearance regime for DLC and VPN services in India, we wish to highlight the Authority that Global experience also demonstrates that tariff regulation for enterprise-grade connectivity—whether leased lines, DLC-equivalents, or VPN-based services—is overwhelmingly based on forbearance, with intervention applied only in markets lacking competition, with intervention applied only in markets lacking competition. In the United States, the FCC has explicitly proposed ending remaining rate regulation and tariffing obligations even for legacy DS1/DS3 Business Data Services, while packet-based enterprise services have long been fully deregulated and priced entirely by market forces. Canada follows the same model, granting forbearance even for legacy enterprise access services when competition or alternatives are available, confirming a global regulatory consensus towards market-based pricing in enterprise data services. The United Kingdom follows an SMP-based framework where tariff controls apply only in limited geographies where BT/Openreach holds Significant Market Power, while the wider leased line and Ethernet markets—including enterprise VPN connectivity—remain under competitive, market determined pricing rather than tariff regulation. Similarly, Singapore also follows a predominantly market-driven approach to enterprise connectivity, including leased-line and VPN-based DLC-equivalent services. Regulation is administered by the Info-communications Media Development Authority (IMDA), which adopts a technology-neutral, competition-oriented framework under the Telecommunications Act. Similar approaches exist across the EU and advanced Asia Pacific markets (Japan, South Korea, Australia) where leased line and VPN services are forborne except in narrow wholesale monopoly segments, reflecting a view that enterprise connectivity is best supported through innovation and competition rather than prescriptive tariff controls.
