TATA

02 March 2026

Shri D Manoj,
Principal Advisor (Financial & Economic Analysis),
Telecom Regulatory Authority of India
Tower F, NBCC World Trade Centre,
Nauroji Nagar,
New Delhi-110029

Subject: Tata Communications Limited's response to TRAI Consultation Paper titled 'Review of Tariff for Domestic Leased Circuits (DLCs)'

Dear Sir,

This is with reference to the TRAI Consultation Paper No. 01/2026 dated 23-01-2026 on **'Review of Tariff for Domestic Leased Circuits (DLCs)".**

In this regard, please find enclosed herewith Tata Communication Limited's inputs for your kind consideration as **Annexure**.

We request TRAI to kindly consider our submissions while examining the need for a review of DLC tariffs in light of technological advancements and market dynamics.

We would be happy to provide any additional information, if required.

Thanking You,

Yours Sincerely,

Alka Selot Asthana
Global Head - Regulatory
Tata Communications Limited

Enclosed: As above

Annexure

Tata Communications Limited's response to TRAI Consultation Paper on Review of existing Tariff for Domestic Leased Circuits (DLCs)

At the outset, we thank TRAI for providing us an opportunity to submit our comments to the Consultation paper on Review of Tariff for Domestic Leased Circuits (DLCs) and lauds TRAI for its continued efforts to foster a competitive, innovation-driven and transparent digital communications ecosystem in India.

In this regard, we are pleased to submit our views in support of the current forbearance regime, along with recommendations for further relaxation of regulatory constraints to encourage business growth, investment, and innovation.

Context:

TRAI has been regulating the domestic leased tariffs since the beginning, and the last review was made in the DLC tariff regulation by TRAI in 2014. Since then, TRAI has been monitoring the customer dynamics and technological developments undertaken in the DLC and VPN market over a period of time. The flexibility provided by tariff forbearance has been instrumental in fostering innovation and enabling service differentiation across geographies and sectors in the DLC market.

With the technological advancements, enterprise customers increasingly demand higher bandwidth (e.g., 100G circuits) to consolidate their requirements, reducing the number of circuits but shifting demand to premium, high-capacity services. The Indian DLC market is highly competitive, with Service Providers offering tailored discounts based on enterprise needs, geography, and volume. This trend aligns with global practices where leased circuit tariffs are market driven. Moreover, strict tariffs hinder operators from designing custom solutions (e.g., SD-WAN integration, cloud-optimized circuits) demanded by enterprises. Additionally, VPN tariffs are also not governed under any regulation.

Moreover, the primary objective of tariff regulation is to address demonstrable market failure and safeguard consumer welfare. Where competitive alternatives exist and enterprise customers exercise bargaining power depending upon its business requirements, prescriptive ceiling regulation may not represent the most proportionate regulatory instrument. A calibrated tariff forbearance-led framework supported by periodic monitoring and targeted intervention in cases of identifiable market distortion, would better align with contemporary market realities.

Accordingly, any review of the existing framework should be guided by the following principles:

- Technology neutrality, recognizing layered cost structures across core, access, and managed service components.
- Preservation of investment incentives to ensure network resilience, redundancy, and expansion into underserved geographies.
- Targeted oversight, where warranted, in high-cost or structurally low-competition regions rather than uniform tariff compression.
- Clear regulatory distinction between traditional P2P-DLCs and value-added MPLS-VPN or managed enterprise services.
- Alignment with global regulatory practice, where enterprise leased line and business data services are largely subject to light-touch or forbearance regimes.

The objective of reform should therefore be to advance competition, affordability, service reliability, and digital inclusion in a sustainable manner. A forward-looking framework anchored in expanded forbearance, coupled with continued market surveillance and transparency safeguards, would best support enterprise growth, infrastructure resilience, and India's broader digital transformation objectives.

Tata Communications, being an enterprise service provider, strongly recommend to **TRAI that DLC tariffs should be put under forbearance and governed by market dynamics. In our view, there is no regulatory intervention needed for the DLC and VPN market considering that the regulatory intervention risks distorting DLC market efficiency and stifling innovation; therefore, allow market forces to determine pricing, as done for VPNs and higher-capacity DLCs.** However, it is essential that a level playing field be maintained by ensuring that only valid licensed entities are continuing to offer such services.

Global experience also demonstrates that tariff forbearance promotes healthy competition, encourages customer-centric service design, and supports rapid technology adoption.

Our issue-wise comments are as follows:

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.

Tata Communications Response:

- The DLC market—particularly for medium and large customers—already reflects effective competition, with multiple national long-distance operators participating in tender-based procurement models. With technological evolution and viable substitutes such as MPLS, SD-WAN, Ethernet, and cloud connectivity, enterprises now have significant flexibility to choose between licensed operators and 17 registered Virtual Network Operators. In enterprise-grade DLCs, pricing is not purely bandwidth-linked; it incorporates SLA obligations, uptime guarantees, redundancy design, cybersecurity compliance, and end-to-end network management. These differentiated service commitments naturally justify price variation and ensure commercial viability. Given these market dynamics, along with ample customer choice and flexibility, allowing ISPs to offer DLC services may lead to marginal tariff reductions in certain segments. However, it is unlikely to trigger any structural or disruptive price decline in the enterprise DLC market.

- Moreover, permitting ISPs to provide domestic leased circuit would adversely impact the financial viability of long-distance authorizations viz NLD & ILD authorization considering the substantial decline in the NLD & ILD voice revenues due to death of domestic long-distance voice (STD) services & its revenues and proliferation of OTT voice services. Now, the financial viability of NLD/ILD Authorization depends upon the leased circuit/VPN service revenues only. Sharing of this right and privilege with numerous existing ISPs will adversely impact on the long-distance service providers.

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.

Tata Communications Response:

- While tariffs for DLCs constitute an important input cost for ISP operators- particularly ISP B & C category licensees who may not possess their own transmission infrastructure, they represent only one component of a broader cost structure. The overall cost of service delivery for such ISPs typically includes wholesale bandwidth procurement, leasing of optical fibre or transmission capacity, colocation and PoP infrastructure, power and maintenance expenses, statutory levies, as well as equipment deployment and operational overheads. Therefore, the retail pricing of broadband services offered by smaller ISPs is determined by a composite of these factors, rather than DLC tariffs in isolation.

- Considering the ongoing market trends, tariffs for DLCs have a direct impact on the bandwidth charges and transmission costs incurred by ISP B & C operators, particularly those without their own transmission infrastructure.

- ISP B & C operators largely depend on leasing bandwidth capacity from the larger Operators. Regulated ceiling tariffs for DLCs restrict commercial negotiations and may increase the effective input costs for such ISPs.

- Thus, we submit that continued tariff forbearance remains the most effective mechanism to support the sustainability of smaller ISPs while encouraging competitive outcomes.

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

Tata Communications Response to Q3 & Q4:

- It is submitted that MPLS-VPN–based DLCs should not be subjected to any tariff regulation, as their service architecture and delivery model differ fundamentally from traditional point-to-point DLCs. MPLS-VPNs operate over shared, multi-tenant network infrastructure and have evolved as managed, SLA-driven services—distinct from dedicated P2P leased lines in terms of cost structure, scalability, and network engineering.

- Extending tariff ceilings to MPLS-VPN services risks constraining operator flexibility in designing enterprise solutions, limiting innovation in advanced network architectures, and introducing regulatory asymmetry relative to other managed enterprise connectivity services that remain under forbearance. The consultation paper also highlights how technological evolution—such as SD-WAN, DWDM, and modern managed network platforms—has significantly transformed cost structures, further underscoring the need for a differentiated regulatory approach rather than applying legacy tariff constructs to MPLS-VPN offerings. The MPLS VPN services are bundled with complex Service Level Agreements (SLAs), uptime guarantees, security layers and 24/7 managed support which increase the complexity in determination of cost and do not follow a simple distance-based cost model. Imposing a standard tariff ceiling would ignore these critical value-added components and could lead to a decline in service quality.

- Further, MPLS-VPN services play a critical role in enabling cloud adoption, data center interconnectivity, and 5G backhaul support. As enterprises increasingly rely on distributed applications and edge computing models, the need for low-latency, high-capacity, and secure connectivity becomes paramount. Investments in DWDM systems, optical transport networks, AI-enabled network optimization, and 5G-integrated backhaul are capital-intensive and require regulatory certainty and pricing flexibility to remain sustainable.

- Moreover, there are structural differences between P2P-DLCs and MPLS-VPNs. P2P-DLCs involve dedicated end-to-end bandwidth with cost drivers primarily linked to distance and physical infrastructure. MPLS-VPNs, by contrast, use shared core networks, benefit from traffic aggregation, and are priced based on service parameters rather than distance alone.

- In view of the above, it is submitted that MPLS-VPN DLC services operate in a dynamic, competitive, and technology-driven ecosystem where commercial negotiation, enterprise bargaining power, and service differentiation ensure fair pricing. Bringing such services under tariff regulation may restrict innovation, constrain infrastructure investment, and undermine the organic evolution of enterprise connectivity solutions. Accordingly, MPLS-VPN DLCs should continue to remain under a forbearance-based regulatory framework.

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.

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.

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.

Tata Communications Response to Q5, Q6, Q7:

- 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.

- Emerging technologies such as DWDM, SD-WAN and Ethernet over Fibre, NFV, and cloud-based routing are reshaping how enterprises consume connectivity. These technological solutions often integrate or bypass traditional DLC services, underscoring the need for a flexible tariff environment that accommodates hybrid models and fosters innovation without regulatory friction. These technologies allow scalable capacity augmentation, operational efficiencies, and integration of value-added managed services led to transformation of the enterprise connectivity from static, distance-based solutions to demand-based, on-demand solutions.

- Enterprise customers expect integrated SLAs, cloud integration, and analytics. For instance, customers in sectors like BFSI, IT/ITES, healthcare, manufacturing, and government, are demanding higher bandwidth, low-latency, and highly reliable connectivity to support data-intensive applications, cloud adoption, and remote work. This has resulted in diverse tariff models that have evolved with customer needs, shifting from rigid distance-based structures to pricing driven by bandwidth demands and integrated service quality.

- Smaller operators and new entrants in India's DLC market face barriers related to capital requirements, pricing pressures, infrastructure rollout, and technology adoption. Addressing these challenges will require targeted policy support, rationalization of levies, and initiatives to foster a more level playing field in the market. Any move towards tariff regulation could disproportionately affect them by constraining pricing flexibility and business innovation.

- Thus, in our view, technology evolution and competition have been effective in improving efficiency and affordability in the DLC segment, thereby supporting the continued relevance of a tariff forbearance framework governed by the market dynamics which is better suited to promote innovation and accommodate ongoing technological change.

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.
and
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?

Tata Communications Response to Q8 and Q9:

- The existing tariff system for DLCs has 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.

- Under the forbearance regime, service providers have developed dynamic tariff structures based on bandwidth scalability, technology (e.g., fiber, wireless, OTN, Ethernet), distance, and redundancy requirements. Tariffs are increasingly bundled with SLAs, security, and managed services, offering value-added benefits to customers beyond raw bandwidth. 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, any prescriptive tariff framework would limit such flexibility. The current model enables enterprise service providers to set prices based on market dynamics, customer demand, and technological advancements, which fosters competition and encourages investment in infrastructure, ultimately supporting the broader goals of digital transformation.

- Please also refer our response provided in Q3 & Q4 above.

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

Tata Communications Response:

- The DLC market has evolved into a highly customized, bandwidth-driven service environment, where tariff structures reflect diverse enterprise requirements rather than standardized offerings. Mandating granular reporting of every discount or bundle would:
    - Increase compliance burden without delivering meaningful consumer benefit.
    - Constrain commercial flexibility, which is essential for enterprise-grade managed services such as P2P and VPN-based DLCs, acknowledged by TRAI as part of the evolving DLC ecosystem.
    - Risk disclosure of commercially sensitive information, potentially distorting competition.

- In view of the above, we submit that no reporting mechanisms should be mandated for discounts or service bundling in the DLC segment and reduce operational agility without addressing any demonstrated market failure.

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

Tata Communications Response:

- We respectfully submit that mandating a standardized tariff disclosure format is neither necessary nor desirable in the DLC market.

- DLCs today operate as bespoke, SLA-driven managed services, where pricing is influenced by multiple customer-specific parameters including bandwidth, uptime commitments, managed service layers, and network architecture. TRAI itself notes that DLCs have evolved beyond legacy distance-based models into complex, technology-driven offerings with varied service commitments.

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.

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)

(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?

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.

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.

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.

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.

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.

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.

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.

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.

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.

Tata Communications Response to Q12 to Q22:

- TRAI has been regulating the domestic leased tariffs since the beginning, and the last review was made in the DLC tariff regulation by TRAI in 2014. Since then, TRAI has been monitoring the customer dynamics and technological developments undertaken in the DLC and VPN market over a period of time. The flexibility provided by tariff forbearance has been instrumental in fostering innovation and enabling service differentiation across geographies and sectors in the DLC market.

- Now, the DLC market has evolved into a highly customized, bandwidth-driven service environment, where tariff structures reflect diverse enterprise requirements rather than standardized offerings and driven by dynamic tariff structures based on bandwidth scalability, technology (e.g., fiber, wireless, OTN, Ethernet), distance, and redundancy requirements.

- Enterprise customers now seek high-speed, secure, scalable, and flexible connectivity solutions. Static, distance-based DLC models are giving way to demand-based, on-demand solutions. Customers also expect integrated SLAs, cloud integration, and analytics—features that rigid tariff regulations would be ill-suited to address. For instance, Customers in sectors like BFSI, IT/ITES, healthcare, manufacturing, and government, are demanding higher bandwidth, low-latency, and highly reliable connectivity to support data-intensive applications, cloud adoption, and remote work.

- Similarly, VPN-based DLC services operate in a dynamic, competitive, and technology-driven environment, and their architectures differ fundamentally from traditional point-to-point DLCs. Extending tariff regulation to such services would limit innovation, deter investment, and hinder the natural evolution of enterprise connectivity.

- In view of the above submissions, Tata Communications strongly recommend that **DLC tariffs should be put under forbearance and governed by market dynamics**. In our view, **there is no regulatory intervention needed considering the fact that the regulatory intervention risks distorting DLC market efficiency and stifling innovation; therefore, allow market forces to determine pricing for DLC and VPN DLC.**

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.

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.

Tata Communications Response to Q23 and Q24:

- Tariff differentials across regions reflect underlying cost structures, terrain challenges, infrastructure availability, and demand density. For instance, remote or hilly regions may face higher costs due to limited fiber reach or right-of-way issues.

- A market-based approach allows for these differences to be absorbed in pricing, ensuring commercial sustainability. Such regional differences are a natural outcome of market dynamics, therefore, imposing standardized tariffs across all regions will restrict the incentives for investment in underserved areas thereby limit the growth of Telecom infrastructure which is instrumental in enabling Digital inclusiveness. Thus, it is our submission that **tariffs for DLCs should be put under forbearance**.

- Please also refer our submissions made in response to Q12 to Q22.

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.

Tata Communications Response:

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

Further, there is a clear shift from analog to digital leased lines, with fiber-based solutions becoming the norm due to their superior speed, uptime, and scalability. Enterprises increasingly expect managed leased line services that include network monitoring, security, support, and simplified management, rather than just raw connectivity. Customers look for end-to-end solutions that can be tailored to their specific business needs, including SLAs for uptime and performance. Moreover, Enterprises also require flexible contracts and scalable bandwidth options to accommodate fluctuating needs, seasonal spikes, or rapid expansion. All these requirements can only be enabled with the customised services which will have a price differentiation. Therefore, TRAI should bring the DLC tariffs under forbearance.

To support our above views, we would like to highlight that the global experience also shows that tariff regulation for enterprise-grade connectivity—whether leased lines, DLC-equivalents, or VPN-based services—is overwhelmingly based on forbearance in mature markets to encourage technological evolution (e.g., SD-WAN, MPLS, cloud connectivity.), with intervention applied only in markets lacking competition.

In this regard, we would like to submit following international practices supporting our submissions:

- **United States (FCC)**: The FCC allows market-based pricing for Business Data Services (BDS), including DLCs, promoting innovation and substantial investment in enterprise-grade networks. The FCC relies on market-based pricing, intervening only where a carrier is dominant or lacks competition. Pricing oversight is largely ex-post, not ex-ante, reflecting a broad philosophy of competitive discipline rather than tariff regulation. Further, 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.

  The U.S. regulatory regime demonstrates one of the strongest global examples of tariff forbearance for enterprise connectivity.
  - Most BDS pricing is already deregulated,
  - Packet-based DLC/VPN-DLC equivalents have always been under forbearance,
  - Legacy services are now being detariffed, moving toward a fully market-driven environment.

- **United Kingdom (Ofcom)**: 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.

- **European Union (EU Electronic Communications Code)**: EU markets maintain price flexibility for enterprise services, including VPN-based DLCs, intervening only in monopoly scenarios. Across the EU, leased lines and business connectivity markets have progressively been **deregulated** through the EU's "Significant Market Power (SMP)" framework wherein only operators with SMP face obligations; non-SMP operators are fully forborne. Many countries (UK, Norway, France) apply benchmarking and asymmetric regulation only where a dominant provider exists; otherwise, leased-line tariffs are left to the market. Moreover, the EU's deregulation in competitive areas has led to significant investment in leased lines and business broadband services.

- **Canada (CRTC):** The Canadian Radio-television and Telecommunications Commission (CRTC) adopted **forbearance even for Legacy and Enterprise Connectivity Services** and routinely grants service-specific forbearance for enterprise connectivity products, including leased-line-like services where competition or alternatives exist, confirming a global regulatory consensus towards market-based pricing in enterprise data services. For example: in 2025, the CRTC approved forbearance from tariff regulation for Bell Canada's Digital Exchange Access (DEA) service, permitting commercial negotiations instead of regulated tariffs.

- **Asia-Pacific (Benchmark Countries: Japan, South Korea, Australia):** Similar approaches exist across advanced Asia-Pacific markets, where leased-line and VPN services are predominantly forborne except in narrow wholesale monopoly segments when an operator has SMP, reflecting a view that enterprise connectivity is best supported through innovation and competition rather than prescriptive tariff controls.

- **Singapore (IMDA)**: Singapore 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. IMDA does not impose ex-ante tariff controls on enterprise data services; instead, licensed operators such as Singtel publish their own commercial tariffs and customised service schemes—covering MetroEthernet, IP-VPN, and Gigawave services—which are filed as operator-determined offerings rather than regulator-mandated price controls. This structure reflects the absence of tariff regulation and the reliance on transparent commercial pricing in a competitive multi-operator environment. The IMDA's forbearance approach has led to a rapid rollout of high-capacity leased lines and Ethernet services, benefiting data-intensive sectors like finance.