*******************

*"Views expressed are personal"*

**Introduction**

Appreciate the Authority's initiative to review the tariff framework for Domestic Leased Circuits (DLCs) in light of technological evolution, increasing enterprise demand, and changes in competitive dynamics.

DLCs remain foundational to enterprise connectivity, mobile backhaul, government networks, banking, and critical infrastructure. However, the cost structures, provisioning methodologies, and traffic characteristics have significantly evolved due to DWDM deployment, IP/MPLS architectures, Ethernet interfaces, and fibre densification.

Accordingly, while regulatory oversight remains relevant, the framework requires modernization to reflect contemporary network economics and segment-wise competition.

---

**Question-wise Response**

---

**Q1–Q3: Continued Need for Tariff Regulation and Ceiling Tariffs**

- Competition in trunk/long-haul segment has intensified due to multiple fibre route availability and excess capacity.
- However, the access (local lead) segment remains infrastructure-constrained and location-specific.
- Barriers such as Right of Way (RoW), fibre trenching cost, and building entry restrictions create localized dominance.

Therefore:

- Complete forbearance may expose downstream service providers to discriminatory pricing in access-dominated locations.
- At the same time, rigid tariff ceilings may constrain commercial flexibility in competitive trunk segments.

**Submission:**
Retain ceiling tariffs but adopt a segment-sensitive and light-touch framework, with periodic review linked to cost trends.

---

**Q4 & Q8: Applicability Across Bandwidths and Bandwidth Slabs**

The current bandwidth categorization is derived from legacy SDH structures (E1, DS3, STM levels). However:

- Ethernet-based provisioning now supports flexible capacities (e.g., 10 Mbps, 100 Mbps, 1 Gbps, 10 Gbps and beyond).
- Cost per Mbps has declined significantly due to DWDM and fibre pair scaling.

**Submission:**

- Rationalize bandwidth slabs aligned to Ethernet granularity.
- Apply stronger regulatory safeguards for lower bandwidth circuits (where competition may be limited).
- Allow greater flexibility for higher capacities where commercial negotiations dominate.

---

**Q5–Q7: Impact of Technology (DWDM, SD-WAN, Ethernet) and Definition of DLC**

Technological changes have altered the economics of DLC provisioning:

- DWDM significantly reduces incremental trunk transmission cost.
- MPLS/IP and Ethernet allow statistical multiplexing and dynamic bandwidth allocation.
- Provisioning timelines have improved through automation and centralized NOCs.

However, from a service perspective:

- P2P DLC continues to provide deterministic bandwidth with strict SLA adherence.
- MPLS-VPN is logically isolated but rides on shared infrastructure.

**Submission:**

- Adopt technology-neutral service definition based on functional characteristics:
    - Dedicated symmetric bandwidth
    - SLA-backed QoS
    - End-to-end transparency
- Avoid tying regulation to underlying transport protocol.

---

**Q9–Q11: Distinction and Substitutability Between P2P DLC and MPLS-VPN**

While both services cater to enterprise connectivity:

| **Parameter** | **P2P DLC** | **MPLS-VPN** |
|---|---|---|
| Capacity | Dedicated | Shared core |
| Routing | Deterministic | Label-switched |
| Latency predictability | High | Application-dependent |
| Cost model | Capacity reservation | Aggregated traffic |

Certain sectors (banking, telecom backhaul, broadcasting, defence) require deterministic P2P circuits.

Substitutability is therefore partial and use-case dependent.

**Submission:**
Continue regulatory differentiation; avoid benchmarking P2P DLC tariffs directly against MPLS-VPN prices.

---

**Q12–Q13: Costing Methodology Review**

Legacy costing frameworks were based on circuit-switched architecture assumptions. In present networks:

- Core transmission cost per Mbps has declined sharply.
- Access fiber remains high-cost and largely location-dependent.
- Shared infrastructure reduces average cost but not necessarily incremental access cost.

**Submission:**

- Adopt forward-looking, bottom-up cost modelling with realistic WACC and utilization assumptions.
- Recognize distinct cost drivers for:
    - Local lead
    - Trunk
    - Customer premises equipment
- Simplify compliance burden while ensuring transparency.

---

**Q14–Q15 & Q18: Access vs Trunk Segmentation**

Segmentation remains valid because:

- Access (last-mile) is high-cost, low-competition.
- Trunk is capacity-rich and competitive.
- Operational provisioning may be integrated, but cost behaviour differs significantly.

**Submission:**

- Continue separate regulatory treatment of access and trunk.
- Apply stricter oversight to access segment.
- Consider gradual deregulation of trunk segment subject to competition assessment.

---

**Q16: Pricing Flexibility**

Rigid tariff constructs may limit:

- Bundled offerings
- Long-term IRU-style contracts
- Volume discounts
- Enterprise-custom SLAs

**Submission:**

Permit conditional pricing flexibility provided:

- Transparency is maintained.
- No discriminatory practices.
- Ceiling tariffs remain as safeguards.

---

**Q17 & Q21: Geographic Differentiation and Remote/Hilly Areas**

Cost drivers vary significantly across:

- Metro vs non-metro
- Plains vs hilly/remote terrain
- Fibre-dense vs fibre-scarce regions

Challenges include:

- Higher trenching cost
- Lower demand density
- Limited infrastructure sharing

**Submission:**

- Permit cost-adjusted ceilings for remote/hilly regions.
- Define objective criteria (terrain classification, fibre density index, or demand density thresholds).
- Avoid cross-subsidization that distorts investment signals.

---

**Q19–Q20 & Q22: Distance-Based Pricing and 2014 Slabs**

Distance remains a cost factor, but:

- Impact has reduced due to fibre abundance.
- Long-haul transmission marginal cost is significantly lower than access cost.
- Excessive slab fragmentation increases compliance complexity.

The 2014 slab structure may not accurately reflect current cost gradients.

**Submission:**

- Retain distance-based differentiation but reduce number of slabs.
- Broaden trunk slabs.
- Maintain separate slabs for local lead and trunk.
- Base revised structure on empirical route cost data.

---

**Conclusion**

DLC services continue to play a critical role in India’s digital ecosystem. While competition has increased in core transport networks, structural bottlenecks remain in access segments. Therefore:

- Regulatory oversight remains necessary but should evolve.
- Legacy constructs (bandwidth hierarchy, excessive distance slabs) require modernization.
- A calibrated, technology-neutral and competition-sensitive framework will balance consumer protection with infrastructure investment incentives.

Submitted By :-

**Surender Singh**

E-Mail : snrssingh@gmail.com

***"Views expressed are personal”***

*******************