

## **Response for Sify Technologies Limited**

### **Response to TRAI Consultation on Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India**

Undersea cables play a crucial role in connecting countries and continents across the world. They are the backbone of the global communication infrastructure, providing high-speed, reliable, and secure communication networks.

India is witnessing exponential growth in data traffic which would further expected to multiply with the launch of 5G, New Data Centres. Having connectivity to the outside world with diverse and multiple cable will make India stronger in Digital world. It is crucial to have clarity in global connectivity. In order to do that, there are now multiple terrestrial options to the CLS and then multiple sub-sea networks to route across oceans with diverse landings in the next continent. The availability of multiple routes both sub-sea and terrestrial is crucial to become a true CLS hub. A cable system cannot land at a site and be stranded with one back haul provided. Multiple back haul routes create truly diverse options, which in turn can allow both for collaboration, as well as competition. If one carrier is not providing necessary interconnection, with a robust ecosystem, there are half a dozen other choices.

To cater to this growing demand, submarine cable capacity will need to be increased at huge investments costs hence it is important to have serious, long-term Telecom operators and entities who are financially capable of establishing submarine cables and CLS in India. Moreover India position on the global map has got its own advantage especially to Connect Europe, US to Asia and APAC countries and so by proper regulatory this can ease and encourage more landing in India. Therefore, the licensing and regulatory frameworks must encourage entry of financially viable Telecom licensees with serious, long-term investments while providing security protection.

#### **Q1. What limitations are being posed by existing licensing and regulatory provisions for laying submarine cables and setting up of CLS in India? Please answer with the detailed justification for changes required, if any.**

New age cable systems are designed with multiple fiber pairs (12-24 based on technology/distance and business viability). Each of the fiber pairs are today capable of 16-24 tbps per pair based on technology and demand. This is significantly different from most of the cables that are functional in India (private and consortium systems) from the standpoint that customers at a system level own fiber pair and not capacity. For example – a single system into India could have multiple ILDO's with their own fiber pairs with one ILDO leading the engagement to land the system. Existing regulatory framework does not separate a CLS owner from an ILDO owner (end to end ownership is expected). A more open CLS policy supporting the following will make India a more attractive destination for new systems where in:

- a. Separation between CLS owner (system level, passive infrastructure) and fiber pair owners (active SLTE infrastructure) in terms of responsibility

- b. Allow access to the CLS both at a capacity level (all types of customers) or fiber pair level (for ILDO's only) with a change in RIO/AFC regime – Open access Policy

**Q.2 Which of the conditions, as stated in Para 2.10 be made applicable on the ILD licensee for applying permission /security clearance for laying and maintaining the submarine cable and setting up CLS in India? Please answer with the detailed justification.**

A submarine system has many international termination points along the way. For example, a system from Europe to India would have multiple landing in many countries along the way (for example in Gulf Countries). The business viability of a system is derived from dropping traffic in many segments along the way and in India. Consortium members take significant financial risk related to:

- a. Geopolitical issues
- b. Tax and financial risks across many countries and jurisdictions
- c. Regulatory challenges within each country

For those operators seeking to focus their engagement on specific countries such as only India joining the consortium is unviable. Therefore to support more players in India and to develop diversity in the CLS eco-system and submarine capacity availability it is advisable to make the following applicable:

1. India segment is owned by any Indian operator/entity for the purpose of co-ordination and compliance
2. Fiber pair termination is done by licensed operators (ILDO) to take care of national security and regulatory requirements for landing capacity in India. For fiber pairs that do not terminate in India and is getting landed only for the reamplification and is passing through is to be kept away from any such requirement is needed.
3. Participation in overall consortium is left to the discretion of individual parties based on business viability of each participant to participate at a consortium level. Each party can assess its viability based on their business objectives.

**Q.3 Would an undersea cable repair vessel owned by an Indian entity help overcome the issues related to delays in undersea cable maintenance? Please provide justification for your answer.**

**Q.4 If the answer to the above question is yes, then please suggest possible mechanisms along with detailed justification and financial viability analysis for implementing this proposal.**

Any undersea cable repair ship either owned by an Indian entity or based in an Indian port will overcome the issues related to delays in undersea cable maintenance. The current process of importing a ship and crew is significantly costly and time consuming.

The development of an Indian ecosystem in this segment will eliminate the dependency on foreign-based repair vessels

Further it could address the following:

- Long mobilization times: Currently, foreign vessels take 30 days, depending upon the availability of the vessel and its transit to an Indian port. With an Indian vessel, this time could be significantly reduced.
- Lack of cost efficiency: The total cost of a 30-day mobilisation and demobilisation period is currently levied on cable owners. **Undersea cable repair vessels owned by an Indian entity would reduce the foreign exchange spent by the country.**
- Lack of time efficiency: Typically, 20 to 30 days are consumed in trying to comply with the various port and permit formalities of Indian ports. This can be easily avoided by having an Indian Flag vessel and crew.
- Inefficient cable infrastructure: The availability of Indian vessels will improve cable infrastructure availability which will therefore improve the overall digital economy of the country.

**Therefore, in-order to promote the entry of Indian entities into this 3ecognize3d business, the Government may consider the following:**

- Tax exemption to be introduced, since this will result in a reduction of FOREX spent by the country.
- A single window clearance mechanism for permits and approvals is required.
- Existing / planned routes should be tagged as critical cable corridors with clear guidelines should be released with a view to safeguarding cable assets.
- Provsion to be provided to develop 'Cable Depot..
- The government could provide an incentive and support and encourage Indian entities and/or Indian ILDOs to form a consortium that owns a cable ship with the Indian Flag stationed at the Indian port within the country.

**Q.5 What measures should be undertaken for promoting Domestic submarine cables for connecting coastal cities in India? What limitations are being posed by existing licensing and regulatory provisions for laying domestic submarine cables in India? What are the changes required in the existing licensing and regulatory framework? Please answer in detail with the supporting document, if any.**

**Q.6 Are any limitations being envisaged in respect of getting permissions and/or associated charges/ fee for laying domestic submarine cable and its Cable Landing Station? What are the suggested measures to overcome limitations, if any?**

In the current regulatory regime, all traffic terminating, or transiting is treated equally. For the development of both international and domestic cables source-destination based regulation can be enforced:

Source	Destination	License	Regulatory Regime
International	Domestic	ILDO	CAF/LIM/RIO

			&AFC as per current ILDO regime with changes for fiber pair ownership
International	International	ILDO	Elimination of CAF/LIM – RIO/AFC per market conditions
Domestic	Domestic	NLD	CAF/LIM as per NLD licensing

Telecom operators should be permitted to use the same cable infrastructure for domestic and international connectivity under their respective license agreements. Domestic submarine cables will require equipment that can potentially switch traffic between existing terrestrial systems/routes and submarine systems and will require a different technical architecture that prevents existing lawful interception to be used effectively.

There should be enabling licensing provisions/clarity for NLDO for creating an Indian underseas submarine cable network for domestic traffic and both networks (land and undersea) should be permitted to connect with each other. Since such a network will be created within Indian territory/territorial waters, there should be no requirement of lawful interception for domestic traffic. Furthermore, such a network/connectivity should only be used for carrying domestic traffic.

The creation of a coastal corridor could also be explored as a possibility since most coastal towns may not consume a lot of bandwidth due to the lack of data centres and a content market. Out of all the major coastal cities, Mumbai and Chennai serve as the two largest data consumption points in India. This necessitates that the NLD network between these two locations be stable. However, since all the NLDOs have built redundant NLD networks between these locations, the terrestrial networks are subject to many cuts, which has led to network switching, flaps and a deterioration in performance and outages. This will not only help in bringing in cost efficiencies, but also provide a resilient alternate route for domestic traffic.

This may be permitted only to an entity holding both ILDO and NLD licenses as well as owning the Cable Landing Station.

**Q.7 Will it be beneficial to lay Stub-Cables in India? If yes, what should be the policy, licensing, and regulatory framework for laying, operationalizing, and maintaining the stub cable in India? Please answer in detail with the supporting documents, if any.**

The economic viability of stub cables may not be justified, however as a policy decision stub cable development should be allowed so that they can serve as ready infrastructure for future cable or fibre pairs coming into India

Stub cable providers can be treated as IP1 license provider with no other obligations for providing active service components. Existing IP license can be extended to providers

that wish to develop Stub Cables.

Stub-cable fibre pairs may be declared to the respective DOT Unit, beyond while using the Stub-cable it should be intimated to DOT with deemed approval with a declaration to adhere to the required regulatory compliances.

**Q.8 What challenges are being posed by existing telecom licensing and /or any other framework for establishing terrestrial connectivity between different CLSs in India? What are possible solutions to such challenges? Please support your answer with detailed justification.**

No Comments

**Q.9 In comparison with other leading countries, what further measures must be undertaken in India for promoting investment to bring submarine cable in India? Please answer in detail with the supporting documents, if any.**

Many countries in the neighbourhood of India have significantly more cable systems landing vs the population density as compared to India as they have a policy that support transit. With the India regulatory framework transit is unviable in India. For the promotion of more cable systems into India transit (traffic not bound for India but just passing through) should be treated differently through the creation of:

**Elimination of Lawful interception** for transit traffic

**No AGR and GST** to be imposed for transit traffic which would help Indian ILDO to compete with Global pricing.

**Pass through Charges** should be introduced for DATA traffic

Aks: Consortium is anyway paying T-segment cost as a pass through charges. Any new charges introducing by govt would be an additional burden the consortium/parties and this would rather discourage them to land on such countries. Landing is happening by force due to certain limitation. Eg. People doesn't prefer to land Egypt due to NTRA (one of the cause).

**Cable laying & repair services** should be designated as 'mission critical and should have priority for 'Permits in Principle' and clearances from Government agencies. At present earliest we can get is 3-4 months in India, while if we see in Singapore it gets within 15 days of time.

**Single Window Website** to be introduced for MOHA and MOD Clearance also with a provision of Auto renewal in case of no changes in the earlier data provided.

**Custom duty and clearance:** This process also to be looked into for subsea operations and for has to be treated in a better manner to facilitate them in a faster manner.