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TELECOM EQUIPMENT MANUFACTURERS ASSOCIATION OF INDIA

(Electronics, Mobile, Telecom, ESDM, Manufacturing & Innovations Association)

To:
The Advisor, (BPA)
Telecom Regulatory Authority of India (TRAI)
Jawaharlal Nehru Marg,
New Delhi: 110 002

30th January 2023

Attention: Shri Sanjeev Kumar Sharma, Advisor, (Broadband and Policy Analysis).

Sub: Consultation Paper on Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India

Dear sir,

With reference to your Consultation Paper No.15/2022, dated 23 December 2022, on Licensing Framework and Regulatory Mechanism for Submarine Cable Landing in India, Telecom Equipment Manufacturers Association (TEMA), would like to provide our point wise response as below.

Q.1 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.

a. Several Indian TSPs (having NLD license) are interested in deployment of Domestic submarine cable network to connect major coastal cities of our Country. The necessity for the same has arisen due to rather not very high network availability but for the reliability issues of terrestrial OF cable faced by the TSPs. Whereas as per the current licensing conditions, NLD operator cannot setup CLS for submarine cable.
b. For setting up of Submarine Cable for domestic network, there are following three possibilities/s scenarios for laying in sea and using submarine cable to connect mainly coastal cities.: -

I. To lay the Submarine cable within territorial waters of India only for carrying domestic telecom traffic.
II. To lay Submarine cable mainly in territorial water but also partially lying outside of territorial waters of India (within EEZ) for carrying Domestic telecom traffic alone.
III. To lay Submarine cable in territorial water as well as outside of territorial waters of India (in EEZ) and international water for carrying Domestic as well

We would like to submit with reference to scenario at Point no. III) that this scenario has already been permitted by the DOT to ILD Operators , where the Submarine cables have been traditionally used for international connectivity and partly being also for carrying domestic traffic, for which Department of Telecommunications (DOT), have already provided guidelines for laying & setting up the landing station in India.

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c. However, as per Chapter X of UL License of DoT, which deals with NLD services, presently there is no specific provision of setting up of submarine cable landing station and installation of the submarine cable within India for domestic traffic purposes as the chapter is silent on use of submarine cable by the NLD operator within Indian waters.

d. BSNL has already deployed CANI submarine cable system connecting Chennai to Andaman & Nicobar islands and also executing Kochi-Lakshadweep cable system by laying submarine cable in Indian territorial, EEZ as well as in International waters. Therefore, it is inferred that Ministry of Communication , Depart of Telecom has already formulated its policy regarding laying of submarine cable through Indian as well as EEZ and International waters for carrying/handling domestic telecom traffic.

e. But the policy has not been documented or published. Due to which NLD operators are being deprived of setting of CLS for domestic use. Thus, the said policy is not available in public domain. Therefore, the NLD operators desirous to lay submarine cable to build their own domestic submarine cable network under UL License are currently unable to do so due non availability of the reference policy in public domain. This is one of the limitations of the existing ILD/NLD license which does not allow operators to lay domestic cable

f. We request DOT to kindly publish its policy for the benefit of Indian TSPs regarding deployment of submarine cables and establishment of cable landing station for domestic traffic by laying submarine cable in domestic as well as international waters. Needless to say that proposed submarine cable for domestic telecom traffic shall ensure robust & reliable connectivity between various important coastal towns of India which in turn shall contribute towards economic growth and development of the country

g. In light of above, It is reiterated that laying of submarine cable systems solely for domestic traffic and setting of CLS may please be permitted under NLD license, where DOT shall also allow to get it further integrated with the international cables, if such requirement occurs. Further, it should also be permitted to lay the domestic submarine cable network, through EEZ and International water due techno-commercial benefits.

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.

No comments

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.

a. Due to increased number of submarine cable systems in India the maintenance has become important aspects for telcos. To explain our viewpoint, as a background, we wish to bring to your kind attention the follow points;

b. Currently there are 17 Submarine Cable systems that are landed and working in India, which are spread across in 5 different cities. All subsea cables coming to India, connecting multiple countries are owned by various Telecom service provider either directly or through Consortium of partners across the globe. It is also worthwhile to mention that the age of 8 international Submarine cables working in India are 15 years or more. Out of 15 which, 9 Submarine cables shall be fully retired around 2032.

c. In South east Asia, India is biggest data traffic generating country with 30% India terminating traffic in any submarine cable touching India. Any cable planned between Europe and South East Asian countries like Singapore, Malaysia, Thailand etc. necessarily land in India.

d. Looking at such potential, the new entrants like, NTT, Datawaves, Lightstrorm, JIO and ADANI have planned/are planning to build their high-capacity submarine cable networks (over 200 Tbps Design Capacity each cable system) touching India and connecting to various other countries across the globe and they are likely to be available for service by 2023–2025-time frame.

e. It is also worthwhile to mention that currently 11 new submarine cable systems planned for landing in India. Out of which, 3 subsea systems (MIST, IEX and IAX) are already under construction. Besides there are 6 domestic cable systems which are planned to be connected along the coastal cities of India.

f. Post deployment, the maintenance of the submarine cable systems becomes major and utmost concern/priorities for the telcos to get a damaged cable repaired as soon as possible.

g. Currently about 2-3 cable cuts a year are considered average in shallow waters. This figure might increase in light of a greater number of cables going into operation in time to come and increased ship movements.

h. Normally, all cable systems are maintained by agency like SEAIOCMA/Emarine on BMH-to-BMH basis. (BMH- Beach manhole)

i. For carrying out deep water repairs (>15mtr water depth), maintenance agency like SEAIOCMA/Emarine use their own Vessel & machines /manpower on board

j. However, for shallow waters repairs (<15 mtr water depth), these agencies prefer the local contractor capable of handling such repairs due to shallow waters as local contractor are well versed with following aspects associated with the shallow waters repair job;
   - Availability of Barge/ships
   - Marine/diving spread with UJ people, Divers & other experts
   - Local conditions/knowledge,
   - Sources of all equipment and manpower
   - Various types of permissions and
   - Negotiations with the slums/ fisheries etc.

- Dependencies of SEAIOCMA/Emarine on local contractor for arranging jointing equipment as per repair program as SEAIOCMA's jointing equipment is ideally fitted with their cable ship which they never want to de-install and then re-install.

k. Currently the cable repair in shallow water is quite vulnerable and sometimes takes a year due to following constraints;
   - Very large time consumed in securing MOHA approval to carry out repairs (typically around 4 months)
   - Port Formalities (8 days)
   - Customs Formalities (1 month)
   - Naval formalities (5 days)
   - Non availability of requisite cable ship, marine spread (sometimes 6 months)
   - Non- availability of jointing equipment in India (sometimes 6 months) and
   - Non- availability of skilled UJ people

l. Currently there are no jointing equipment and skilled UJ staff available in India, for which Indian firms carrying out repairs are always dependant on foreign vendors

m. Also, unfortunately there are no Cable ships available in India for carrying out deep and shallow water repairs.

n. This is one of the limitations where India is lagging in terms of cable depot, specialized jointing equipment and the UJ skilled people and therefore the repairs are quite delayed in India.

o. Yes, undersea cable repair vessel owned by an Indian entity will certainly help overcome the issues related to delays in undersea cable maintenance and this need to be encouraged and incentivised.

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.

a. We believe that DOT must intervene to ensure that India becomes Hub for submarine cable, where items like Cable ship, cable depot, jointing equipment, UJ skilled and other marine experts, marine protections, submarine cable, Land cable, power cable, beach joint, terrestrial cable shall remain available in India at any given time thereby achieving quick repairs and also reducing dependency on the foreign vendors.

b. In order to help the Indian operators, it is important to have demarcation agreed between SEAIOCMA/Emarine and Indian government (who would set up cable depot in India in consortium with Indian telecom companies, having experience in repair, installation, testing and commissioning and/or maintenance of the submarine cables), whereby any cable repair upto territorial water shall be undertaken by the Indian government while beyond territorial waters, by default, shall be undertaken by SEAIOCMA/Emarine, for which;

- GoI (Government of India) should promote Indian firms under AtmaNirbhar policy of Prime Minister of India
- GoI should treat these Repair services like TATKAL SEVA which would ease the entire cable repair process in much effective manner.
- GoI in consortium with Indian telecom companies, having experience in repair, installation, testing and commissioning and/or maintenance of the submarine cables to set up cable depot in India for storing critical items for expediting repairs for which land on subsidized rate shall be given to Indian firm in duty free zone.
- In the interest of country, GoI should arrange funding with zero percent interest to Indian firms (who are eligible and having experience in repair, installation, testing and commissioning and/or maintenance of the submarine cables) for setting up the cable depot in India including procurement of the required Vessel/Barge/Tug, jointing equipment, space for cable depot and other associated marine spreads.
- GoI to waive off the custom duties/taxes for any material coming and going out of cable depot.
- GoI to allow Indian firms (who are eligible and having experience in repair, installation, testing and commissioning and/or Maintenance of the submarine cables) to carry out any administrative approvals like MOHA/MOD at later stage (post repair) so that the repair/laying can be accomplished as fast as possible.
- The commercials for building cable depot, buying Vessel/Barge, jointing equipment and ROV is around: 15mn USD (Second hand vessel has been considered to avoid exaggerated cost of setting up depot in India).

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.

Same response as at Q1 above

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?

a. Obtaining permits in Principle (PIP) is time consuming process. Sometimes it takes a year to get PIP for the new cable system, due to which the project timelines gets stretched. We therefore believe that it needs to be shortened to 2- 3 months so as to achieve better planning and execution of the new submarine projects in India.

b. Although LEA becomes mandatory requirement for any international submarine cable landing in India, however there should not be any such restriction on telcos for deployment of the same for domestic submarine cable projects under amended policy.

MOHA approvals from recognised telecom companies (who are eligible and having experience in repair, installation, testing and commissioning and/or maintaining of the submarine cables) should be processed on fast track basis like TATKAL SEVA so that it could be received in 7 days in place of 3 - 4 months), pending completion of the administrative formalities at later stage (post completion of any repair/New cable lay).

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.

a. A stub cable is a new concept of placing pre-laid dark fiber from the CLS through a Beach Manhole (BMH) into the territorial waters. This concept shall be quite interesting and encouraging for Indian telcos to grow in the field of submarine cable.

b. This kind of concept was never implemented previously in India, however looking at the benefits/economy to the Indian firms, we believe that this would not only create value additions of the Indian firms but also boost economy.

c. We therefore believe that DOT must intervene to publish required guidelines to the operators stating that Stub cable upto territorial water shall be laid and kept ready for foreign vendor so that it could be easily integrated. It would bring in following benefits;

   - Indian firms and India economy may witness tremendous growth in the field of submarine cables
   - Indian firms to play vital role in reducing the capex and opex cost of the cable system
   - Indian firms to gain more expertise on submarine cables
   - Indian firms to create more submarine resources for UJ and UQJ
   - India to create more business opportunity for manufacturing submarine cable and avoid its dependencies on foreign suppliers
   - India becomes Hub for submarine cable, where Cable ship,, jointing equipment, UJ skilled and other marine experts, marine protections, submarine cable, Land cable, power cable, beach joint, terrestrial cable shall be easily available at any given time
   - Implementation of any new system shall be faster, smooth & efficient.
   - Avoid complex customs and other administrative processes for foreign vendors
   - Avoid forex going out of India as far as the area upto territorial water is concerned.

We therefore believe that, in order to promote Indian companies, thumb rule should be made with foreign suppliers where the items like, Cable ship, jointing equipment, UJ skilled and other marine experts, marine protections, submarine cable, Land cable, power cable, beach joint, terrestrial cable of the required scope & specifications upto territorial waters including cable depot services should be taken from Indian firms only.

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.

Not applicable

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.

a. As we all know that the content providers like Google, Facebook, Amazon, and Microsoft, are huge drivers for capacity demand across the globe and are moving from capacity purchasers to cable owners.

b. These companies are the dominant users of international bandwidth, accounting for two-thirds of all used international capacity as of 2020. These players now driving where cables are going, they are also helping to push along new innovations inside of the cable systems.

c. Unlike traditional cable owners, companies like Facebook, Google, and Microsoft, do not necessarily need to build infrastructure in locations with a variety of interconnect options. Instead, they favour locations that provide economic and cost saving benefits to reduce the operational expenditure impact of their data centre facilities. Also, the need for increased route diversity and more direct control over critical infrastructure has led to the surge of new submarine cable systems.

d. Given the above change in trends and promoting investment in submarine cable, we should try to;
    - relax licensing conditions for big players as mentioned above in such a way that ILDOs not having any stake in consortium but signing agreement of ownership of submarine cable in Indian waters and submitting undertaking that they are owning the asset in Indian territorial waters.
    - Optimize the timelines for PIP (Permits in Principle) and should be available within 2-3 months so as to achieve better planning and execution of the submarine cable projects.
    - Optimize % of LEA equipment to be deployed in the CLS (Around 5% is suggested)
    - Optimize the timelines for final clearances, so that the services on new submarine cable for commercial traffic could be kicked off (One month is suggested)
    - Reduce the licensing penalty % in case of violation of few conditions (which may be specifically mentioned under the amended license condition)

- Equipment certification could be certified from any foreign or local agency, who possesses such required qualifications
- MOHA approvals should be processed on fast-track basis (like TATKAL SEVA) so that it could be received in 7 days in place of 3 - 4 months, pending administrative formalities to be done at the later stage (post completion of repair/new lay).
- On sea deliverables, the customs duty & taxes should be applicable only upto 12nm and not beyond as the customs notification in respect of filing of the customs duties & taxes are not very clear.
- The Customs duties and taxes on submarine cable should be charged NIL or at the most 5% for all types of submarine cable landing in India and also this should be applicable for future domestic subsea cable projects.
- Customs duties should be waived off on all Cable depot spares/replenishment (assuming the GoI shall allot depot space in Duty free zone) such as Repeaters, BU's, jointers, submarine cable, jointing kits, including jointing, testing, Survey and ROV equipment.

Submitted for your information and necessary action.

Thanking you

Sincerely
For **Telecom Equipment Manufacturers Association (TEMA)**

Prof N K Goyal
Chairman (Emeritus)

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