Comments on TRAI Consultation Paper

on

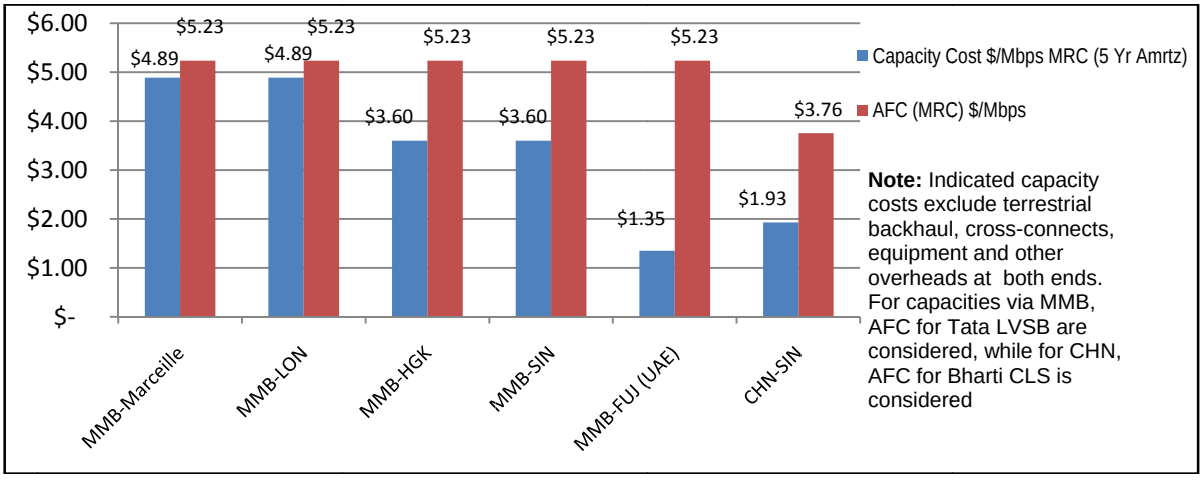
Access Facilitation Charges and Co-location Charges at Cable Landing Stations

RCOM Comments : Consultation Paper on "Access Facilitation Charges and Co-location Charges at Cable Landing Stations"

Background:

1. India has a potential to become major data user if the data usage and the data enabled devices are made available to the general public at affordable rates. With more than 53% world's population within 6000 Kms of Indian borders, India can also become world's favourite Internet content destination. However, v**ery high Access Facilitation Charges (AFC) by Owners of Cable Landing Station (OCLS) have significantly increased cost of Internet bandwidth in India. The cost is almost 15-20 times compared to USA/EU, resulting into slower growth of Internet / broadband penetration and Internet based Service Industry in India.**

2. Currently AFC is between 100%-350% of the cost of subsea capacity, depending on submarine route or landing station i.e AFC are even higher than the cost of international capacity or Internet ports. In this regard the following chart may be referred which indicate that the AFC is higher that the all other costs taken together on all major routes.



3. The AFC in 2007 were only 5% of the IPLC prices but now have increased to more than 50% in 2012. Despite falling cost AFC has not been reviewed. The ratio of 'AFC' to 'Capacity Cost' in India is increasing. Internet Bandwidth cost in India is $23-35 / Mbps which is 20 to 50 times compared to US/EU markets, where it is only $1-3 per Mbps. Excluding the terrestrial backhauls and equipment, in India,

the biggest contributor to Internet costs is AFC. The AFC are one of the highest in the world as is evident from the chart below:

Location	Annual AFC for 10G capacity (US$)	Remarks
USA	0	No AFC charges, only Cross-Connect charges ~$6000 pa
UK	0	No AFC charges, only Cross-Connect charges ~$3000 pa
Singapore	0	No AFC charges, only Cross-Connect charges ~$700 pa
Hong Kong	0	No AFC charges, only Cross-Connect charges ~$2500 pa
Marceille	0	No AFC charges, only Cross-Connect charges
India - Mumbai (FAL RCOM)	$150600	Regulated. INR 0.75 Crore
India - Tuticorin (BLCS BSNL)	$256900	Regulated. INR 1.28 Crores
India - Chennai (TIC Tata)	$276200	Regulated. INR 1.38 Crores
India - Chennai (SMW4 Bharti)	$450600	Regulated. INR 2.25 Crores
India - Mumbai (SMW4 Tata)	$628100	Regulated. INR 3.14 Crores
India - Mumbai (EIG Bharti)	$687200	Regulated. INR 3.44 Crores

4. In India, AFC has increased the cost of bandwidth to such an extent that compared to hosting content even domestic content within India, users find it more cost effective to host content in other major hubs like USA/EU.

5. For the recently concluded tender process by a PSU (BSNL, Jan 2012) for Internet services, following is the comparison between the CLS AFC and the total price of the Internet service provided in India, by the service providers at 'L1 prices'. The cost of the Internet service included global Internet peering and upstreams ports, international capacity, AFC, cross-connects and other overheads.

- ***For the Port+Pipe configuration requested (i.e. Internet Port in USA/Europe, along with extension to India with International Submarine capacity, and Indian CLS AFC included) was quoted at Rs. 1.25 Crs per year for STM16 capacity. The CLS AFC at Mumbai on SMW4 cable itself is Rs. 70,66,496, which corresponds to 56% of total price. (all prices exclude taxes)***

- ***For Internet port at various locations in India, the L1's quote was Rs. 1.39 Crores per annum (which includes global Internet ports, peering, upstreams, international capacity, AFC, domestic NLD backbone and access network, cross-connects and other overheads). The CLS AFC at Mumbai is therefore close to 51% of the total L1's price.***

- ***Kindly note that in all the above cases, there service providers are required to furnish bank guarantees, provide SLAs, account for rebates, and bear third party costs, including payments to most suppliers in advance (e.g. for CLS AFC and capacity, the payment is required to be made in advance).***

6. The OCLS are taking advantage of their CLS facilities by charging astronomically high fees for interconnections between the submarine and terrestrial operators at the CLS facility. In addition to the AFC, OCLS also charge collocation and O&M charges thus making total Access Charges to be very high.

7. OCLS-ILD-ISP integrated operators have significant market power and providing services in both upstream and downstream markets. Above example clearly established that they are charging very high fees for accessing CLS but the prices for downstream services like internet and bandwidth are such that it is not possible for standalone ILD operator to effective compete these integrated operators. It is therefore necessary check vertical price squeeze and revise AFC to such levels, which create effective level playing field and competition among the standalone and integrated ILD operators.

8. **The Authority is requested to urgently close the review of AFC, CLC as any further delay would give huge competitive advantage to the owners of Cable Landing Station at the cost of other ILDOs accessing bandwidth through those CLS. <u>The Access Facilitation charges should be in line with the International charges and not more than 2-3% of the prevailing charges.</u>**

<u>Issues for Consultation:</u>

Q.1 which of the following method of regulating Access Facilitation Charges and Co-location charges (AFC & CLC) should be used in India?

(a) The prevalent method i.e. submission of AFC & CLC by owner of the cable landing station (OCLS) and approval by the TRAI after scrutiny
(b) Submission of AFC & CLC by OCLS and approval by TRAI after consultation with other stakeholders
(c) Fixing of cost based AFC & CLC by TRAI

(d) Left for mutual negotiation between OCLS and the Indian International Telecommunication Entity (ITE)

(e) Any other method, please elaborate in detail.

Response:

(i) TRAI should fix AFC on the basis of cost.

(ii) The costing methodology must take into account that the OCLSs get reimbursement of most cost components at CLS from Cable owners. As per accounting and costing practices the costs which have already been reimbursed should not be part of the AFC. Therefore, TRAI should not take into account any cost which has been reimbursed by consortiums, private cable owners, or collocated access providers and such costs should be excluded while determining the new AFC and CLC.

(iii) Further, the costs of network elements or other elements which are not involved in providing the services at the CLS should be ignored. For example with 10G interfaces and above, the connections can be delivered with fiber optic cross-connects within the CLS facility or short distances. Therefore other equipment like Cross Connect, Multiplexers should not be part of AFC.

(iv) We strongly oppose method (d) as adequate competition among OCLS does not exist at present in accessing international bandwidth. Therefore, to create effective competition in the sector, AFC and CLC should be regulated with appropriate ceilings, on all cable landing stations including those which will be commissioned in the future.

(v) In view of the above, we suggest that TRAI adopt the methodology which is

(a) cost based/oriented;
(b) take into account most costs at CLS have been reimbursed by Cable Owners;
(c) exclude network elements which are not relevant for accessing bandwidth

Q.2 In case AFC & CLC are regulated using method (a) or method (b) above, is there a need to issue guidelines containing algorithm and network elements to be considered for calculating AFC & CLC to the OCLSs? If yes, what should be these guidelines?

Response

(i) As we are suggesting cost based charges, there is no need to issue any guidelines.

(ii) The following is the list of network elements for a typical CLS relevant for AFC:

a) Optical/Digital Distribution Frame
b) Add-Digital Cross Connect only for sub-10G (lambda) capacities
c) Add-Drop Multiplexers only for sub-10G (lambda) capacities
d) Optical Fiber Patch Cords or Cables

(iii) As per general accounting principles cost which have been reimbursement should not be again considered for AFC. As the consortium/ cable owner reimburse most costs at CLS, only uncovered and relevant costs should be considered for AFC.

(iv) In most cases, especially for 10G circuits and above, the subsea equipment like Submarine Line Terminating Equipment(SLTE) can be directly connected to the terrestrial access POP equipment at the CLS via simple optical fiber cross-connects. TRAI should ensure that the OCLS do not unnecessarily introduce additional elements in the traffic path to split a 10G circuit into lower order channels and re-combine them before handover to local access provider, or any other methods to inflate the costs.

The TRAI costing methodology/Guidelines should take into account the following

a) The consortium / cable owner generally reimburse costs for beach-manhole to ODF/DDF, and hence these network elements should not be included in AFC.

b) SLTE can be directly connected to terrestrial access POP equipment and hence for accessing 10 G or above capacity the cost of ODF, OCC, Drop Multiplexers should not be included in AFC.

c) The charges are expected to be only 2-3% of the prevailing charges.

Q.3 In case, AFC & CLC are regulated using method (a), (b) or (c) above, please suggest the value of pre-tax WACC, method of depreciation and useful life of each network element? Please provide justification in support of your answer.

Response:

<u>Pre-Tax WACC</u>

(i) TRAI, in its recent costing exercises has allowed 15% Return on Capital Employed (RoCE)/ Weighted Average Cost of Capital (WACC). This estimate is reasonable and in line with the market reality and therefore it is suggested that pre-tax WACC 13% - 15% may used for determining AFC and CLC.

Rate Base

(ii) The consortium/ cable owner generally reimbursed costs for beach-manhole to ODF/DDF and all submarine cable related equipment including SLTE, PFE (Power Feeding Equipment) etc. The TRAI should exclude costs pertaining to these network elements for purpose of estimating WACC.

Depreciation Method

(iii) TRAI, in its earlier tariff and costing exercises has allowed depreciation @ 10% per annum based on Straight Line Method. We suggest that same method should be retained and used in calculating depreciation of assets.

In view of the above we suggest following values for WACC and Depreciation:

- **WACC: 13-15%**
- **Depreciation- 10% SLM**

Q.4 which cost heads/ network elements should be included/ excluded while calculating Access Facilitation and Co-location charges? Please enumerate the items with specific reasons.

Response:

(i) The following is the list of network elements typical CLS

a) Optical/Digital Distribution Frame
b) Optical Fiber Patch Cords or Cables
c) Digital Cross Connect – applicable only when accessing sub-10G (or lambda) capacities
d) Add-Drop Multiplexers – applicable only when accessing sub-10G (or lambda) capacities

(ii) The OCLS gets reimbursed most cost components at CLS. Therefore. Cost towards most network elements mentioned above would not be part of AFC

Q.5 what should be periodicity of revision of AFC & CLC? Support your view with reasons.

Response:

The Authority may review charges every year or **Specify charges for 3 years based on projected increase in capacity utilization.**

Q.6 In case, cost based AFC & CLC are fixed by TRAI, which costing methodology should be applied to determine these charges? Please support your view with a fully developed cost model along with methodology, calculation sheets and justification thereof.

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Q.7 Whether Access Facilitation charges and O&M charges should be dependent on capacity (i.e. STM-1, STM-4 or STM-16) activated? Support your view with reasons.

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Q.8 If Access Facilitation charges and O&M charges are fixed on the basis of capacity activated;

(a) Should the charges be linearly proportionate to the capacity activated;

Or

(b) Should the interface capacity as provided by the submarine cable system at the cable landing station be charged as a base charge while higher or lower bandwidth be charged as the base charge plus charges for multiplexing/ de-multiplexing?

Response:

AFC Costing Methodology

(i) The cable owner reimburse most costs at CLS to the OCLS. Therefore, TRAI should adopt the methodology based on only relevant cost items which have not been reimbursed by cable owners.

(ii) The cost for accessing bandwidth is not linear to the capacity..The per-Mbps cost reduces as higher order circuits / higher capacity is used. Customers are usually charged X / 2.5 for an STM16/OC48 circuit circuit, where X is the cost of STM64/OC192/10G. Similarly, the price of STM4 or OC12 is 2.5 times lower than STM16 or OC48, and so on. For Sub-10G circuits, additional equipment may be required to be deployed by the OCLS, and hence per-Mbps AFC rate for such circuits should be higher than per-Mbps rate for 10G/40G/100G circuits.

(iii) The new AFC regime should consider 10G capacity cost for 40G and 100G as for 10G circuits and above as no additional active elements are required to provide the interconnection between the Subsea and the Terrestrial Access equipment within a limited area. The sub-10 G capacities have additional cost due to multiplexing and therefore AFC may be higher as suggested in the above model compared to 10G and higher capacities ,

AFC for Transit

(iv) High AFC is also not justifiable on transit traffic as the only network elements involved for transit is a cross-connect for interconnecting different submarine cables at the landing station.

(v) The Authority is requested to regulate the prices for transit capacity along with the capacity being accessed in the country, and enable fair competition between the ILD players in the country.

OPEX Component

(vi) As submitted above the consortium/ cable owner generally reimbursed costs i.e CAPEX as well as OPEX for beach-manhole to ODF/DDF submarine cable equipment such as SLTE, PFE and other related active elements,, and hence these network elements should not be included in OPEX toward Access. Therefore, any cost already reimbursed should not be part of OPEX for Access. We believe OPEX towards access facilitation is nearly zero.

Co-Location Charges

(vii) It is noted that OCLS allows few access networks POPs to be located within CLS, while others are located in a Virtual Colo. This is discretionary and TRAI should monitor rejection of any request by OCLS for collocation.

In view of the above it is suggested that:

- **In case TRAI wishes to continue with the existing methodology then the revised AFC should be as under:**
  - **AFC for STM64 to be based on direct costs for fiber cross-connects**
  - **AFC for STM16 = AFC for STM64 (divided by) 2.5, plus proportionate costs for necessary active electronics**
  - **AFC for STM4 = AFC for STM16 (divided by) 2.5, plus proportionate costs for necessary active electronics**

- **There should be no AFC for transit traffic**

Q.9 whether there is a need to fix Access Facilitation charges for all types of submarine cables? If no, which kind of submarine cables may be exempted and why?

Response:

(i) As per the current regulation all owners of Cable Landing Stations have to publish the "Cable Landing Station – Reference Interconnect Offer" after approval by TRAI. The present requirement of approving AFC and CLC on all CLS may continue.

Q. 10 Is there a need to introduce any new provision or to modify/ delete any of the clauses of the 'International Telecommunication Access to Essential Facilities at Cable Landing Stations Regulation 2007', in order to facilitate access to essential facilities at cable landing station?

Response:

(i) In order to desist OCLS to get involved in any anti-competitive practices followed by OCLS, such as accessing international capacity on half circuit basis by an ILD operator, in the name of OCLS itself to save AFC. In other words, OCLS selling half circuit capacity to an ILD operator similar to IPLC service, by accessing the capacity in the OCLS's own name and bundling AFC with capacity costs, for actual use by another ILD operator, instead of access sought by the ILD provider itself. This practice makes it impossible for any capacity seller to match the prices of same capacity on same cable sold by the OCLS itself, effectively OCLS creating a monopolistic market.

(ii) TRAI should make it mandatory for OCLS to file the details for

a) each activated capacity on a quarterly basis with TRAI, including Cable, CLS, Capacity, Owner/activating party, half/full circuit (and operator providing other half circuit), Connectivity details and AFC collected.

b) ILDOs should also file the details of activated capacity and AFC paid. These records can be then reconciled with OCLS filed records, and help identify any anti-competitive practices.

c) The CLS building should give preference to access / backhaul providers for collocation. After reservation for any projected growth for next 5 years, the unutilized space / power may be allocated for any other purpose such as hosting customer servers / cache etc.

d) OCLS should permit Passive Interconnects from SLTEs to local access / backhaul providers hosting their equipment in nearby buildings. This is useful in cases where OCLS cannot provide Collocation to Access / backhaul provider's equipment within the CLS.