

## **IBSL's Comments on Consultation Paper on "Access Facilitation Charges and Co-location Charges at Cable Landing Stations"**

The draft NTP-2012 has the vision of 'Broadband on Demand' and envisages leveraging telecom infrastructure to enable all citizens and businesses, both in rural and urban landscape, to participate in the Internet and web economy thereby ensuring equitable and inclusive development across the nation. Such a step forward is impossible unless the access rates to the broadband services are brought down substantially from current high rates for mass proliferation. One of the components to facilitate cheap broadband services is the cost effective availability of international bandwidth. At present, these prices are controlled majorly by the Cable Landing Station Owners because of which the impact of drastic drop in International Bandwidth Charges is unable to translate into the tariffs of end users. Although, the international bandwidth charges have reduced to one-fifth from 2008-12, the Access Facilitation Charges (AFC) and Co-location Charges (CLC) at Cable Landing Stations have remained flat despite drastic increase in capacity utilisation. Hence, it has become essential to monitor/regulate these prices to have a level playing field and transfer the benefits of competition to the end users.

The consultation paper on "Access Facilitation Charges and Co-location Charges at Cable Landing Stations" is, therefore, most timely. We are grateful to the authority that it recognizes the fact that access to the Cable Landing Stations falls under "bottleneck" category and hence there is need to regulate the charges payable for these facilities till the level of competition is such that there is no need to regulate and control the prices.

TRAI had issued 'International Telecommunication Access to Essential facilities at Cable Landing Stations Regulation, 2007' which mandated the owner of cable landing station (OCLS) to provide access to their facilities to any eligible licensed telecom operator on fair and non-discriminatory terms and conditions. For this, OCLS is required to submit a "Cable Landing Station Reference Interconnect Offer (CLS RIO)" to TRAI, in a specified format, containing the terms and conditions of access and co-location facilities including landing facilities for sub-marine cables at its cable landing stations and publish the said CLS-RIO after the due approval of TRAI.

The AFC and CLC, approved by TRAI, are in place since almost four years; and have not been revised since then despite substantial increase in the capacity utilisation at the Cable Landing Stations. The cost of International Private Leased Circuit (IPLC) to the service provider consists of two components namely cost of international bandwidth and the cost of interconnection at CLS consisting of AFC and CLC. During this period, the prices of international bandwidth have come down drastically however prices of AFC and CLC have remained constant. The AFC, which used to be just 12% of the

bandwidth charges in 2008, is now around 56% of the bandwidth charges, as shown in the table below:

Access Facilitation Charges (AFC) as % of Bandwidth Charges:

<b>Annual Charges (Rs. mn)</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
AFC Lease Charges/ Annum	3.0	3.0	3.0	3.0	3.0
AFC O&M Charges/ Annum	4.1	4.1	4.1	4.1	4.1
<b>STM-16 CLS AFC/Annum</b>	<b>7.1</b>	<b>7.1</b>	<b>7.1</b>	<b>7.1</b>	<b>7.1</b>
<b>STM-16 BW Charges/Annum</b>	<b>60.0</b>	<b>41.7</b>	<b>14.9</b>	<b>12.8</b>	<b>12.6</b>
<b>Access Facilitation Charges as % of BW Charges</b>	<b>12%</b>	<b>17%</b>	<b>47%</b>	<b>55%</b>	<b>56%</b>

The current trade practices show that most of the Submarine Cables have foreign carriers as consortium partners who also own bandwidths on these cables and can offer the carriage facility to the Indian operators. However, since the AFC and CLC have gained the proportionate share in the total IPLC, these carriers are unable to compete with the Indian OCLS, who out price these carriers and as a result this bandwidth capacity with foreign carriers cannot be leveraged to bring down the international bandwidth prices. Therefore, it can be concluded that CLS Access Charges, comprising of AFC and CLC, continue to be acting as a "bottleneck" for reduction in overall prices of International Bandwidth.

In the present scenario, more than 90% of the CLSs/Submarine Cables/Activated Bandwidth Capacity is controlled by merely two operators, giving them an opportunity to manipulate the effective IPLC prices for an end customer to maximize their profitability. This is a case of "Vertical Price Squeeze" as both these players are providers of Internet, Broadband and Wireless/Wire line data services and control the International Internet Bandwidth which is an essential input to the retail product pricing. This is turning out to be a major issue in proliferation of internet and broadband services as operators not having access or access at higher price are out priced by the operators having cheaper access to these resources which distort competition in the market and disturb the level playing field. Therefore, in order to let the end users benefit from the growing competition, it is our humble submission that the Regulator must intervene and regulate the pricing of AFC and CLC to liberalise this "Bottleneck Facility".

It is pertinent to mention here that since majority of the Internet Servers are still hosted outside India, due to more reliable and robust Internet Data Centre infrastructure across the world, the growth of Internet and Broadband will push the demand of International Bandwidth exponentially until the Internet Data Centre infrastructure in India reaches the desired level. In such a scenario, AFC and CLC become most critical for fair and just competition in retail pricing and need to be carefully regulated by TRAI.

Subject to the above observations/submissions, the response to the questions raised by TRAI in the consultation paper is submitted below:

**Q1: 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.*

A1: The prevalent arrangement i.e. submission of AFC and CLC by owner of the cable landing station and approval by the TRAI after scrutiny has not served the purpose. In the last four years, the bandwidth charges have come down significantly but AFC and CLC have remained the same. These charges are now as high as 56% of the total bandwidth cost which is quite significant and will stifle competition in the international bandwidth market, if not brought down.

The method, as specified in (b), of submission of AFC and CLC by OCLS and approval by the TRAI after due consultation with the stakeholders will be time consuming as it will require frequent consultations with all stake holders including the OCLSs who will like to delay this to the extent possible.

The method of fixing cost based AFC and CLC by TRAI is the most appropriate in the given situation when these charges are significantly high as a percentage of the BW charges. This method should then continue until the competition is able to take care of these charges as well as the Bandwidth charges, and the AFC and CLC align themselves with the international prices.

**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?**

A2: As submitted above, we are of the view that these charges should be prescribed by the Authority. However, in the event TRAI decides to regulate the AFC and CLC using method (a) or (b), the methodology and the network elements to be considered for calculating the AFC and CLC must be prescribed by the Authority to ensure transparent determination of AFC and CLC by the OCLSs and its universal applicability including on OCLS's own products in a non discriminatory manner so that it does not derive an undue advantage to out price the competition. Further, it is submitted that

CLSs have come over different periods and cater to different capacities of bandwidth; TRAI must, therefore, ensure equivalence of costs in such a way that these variations are neutralized to the maximum extent. Following may be considered as a part of the specific guidelines:

- (a) The specific network elements which should be considered for determination of AFC and CLC. It should exclude all those elements which are capitalized under Construction and Maintenance Agreement (C&MA).
- (b) Specify RoCE/WACC (Pre-tax), Depreciation rate and life of various network elements to be considered.
- (c) Apportionment of cost of certain elements like DXC towards Access Charges.
- (d) Specify some parameters related to passive infrastructure like space, power etc. so that there is parity amongst different CLSs.
- (e) Specific % as Manpower, Management, Setup and Miscellaneous costs.

***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.***

A3: The pre-tax WACC can be derived from the 10 years G-Sec yield of GoI which is around 8% at present and the risk premium for equity @ 5%. Based on this, a pre-tax WACC rate of around 13% can be taken for the purpose of determination of AFC and CLC. However, TRAI, in its recent determination of IUC has allowed RoCE @ 15% for the purpose of calculation of termination charges. It has been stated that RoCE has distinct advantage over WACC in terms of uniformity across companies vis a vis different WACC for different companies, agnostic to different capital structures, incentivizing the cost efficient companies and used by other sector regulators. In such a case, RoCE @ 15% may be used to arrive at the AFC and CLC.

The life of the network equipments like DXC, Transmission Equipments etc. is generally taken as 12 years where as the life of the Submarine Cable is taken as 15 years. In addition, other passive assets like ducts, space and other infrastructure have much higher life period. Hence, the Depreciation @ 8% with Straight Line Method may be most appropriate for calculation of AFC and CLC.

***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.***

A4: It is submitted that costs of all the equipments up to DXC level in CLS is included in the overall project cost of the Submarine Cable and is reimbursed by the

consortium to the OCLS. Hence these costs shall be excluded from the costs attributable to AFC and CLC.

(i) Access facilitation at CLS:

The network elements whose costs should be included are

- Ducts
- DXC for interconnecting with the backhaul links
- Optical Distribution Frame (ODF) and
- Cost of space and other passive infrastructure directly attributable for Access Facilitation and Co-location.

(ii) Access facilitation at Alternate Co-location:

The network elements whose costs should be included for Alternate Co-location are

- DWDM Transmission Equipment
- Optical Fiber Cable for connecting to the Alternate Site
- DXC for interconnecting with the backhaul links
- Optical Distribution Frame (ODF) and
- Cost of space and other passive infrastructure at Alternate site directly attributable for Access Facilitation and Co-location.

(iii) Access facilitation at Virtual Co-location:

The network elements whose costs should be included for Virtual Co-location are

- Duct and Cabling for In-building connectivity
- Optical Fiber Cable for connecting Manhole to CLS
- Optical Distribution Frame (ODF), Miscellaneous Equipment

Here, it is pertinent to mention that all network equipments deployed for Access Facilitation and Co-location are available globally at almost the same international pricing. In spite of this the AFC and CLC filed by OCLSs with TRAI are many times higher than what they are in other countries. This fact has already been recognized by the Authority in its consultation. The endeavor now should be to fix cost based tariffs in line with international trends.

*Q5: What should be periodicity of revision of AFC & CLC? Support your view with reasons.*

A5: The AFC and CLC charges were approved by TRAI in 2007-2008 and no further review has taken place since then. The capacity utilization of the submarine cable is the key criterion for determination of AFC and O&M charges. With the proliferation of data and broadband services, the requirement of International Internet Bandwidth is likely to grow exponentially and hence the capacity utilization levels will increase. As the International BW prices fall further, the AFC and CLC charges has become a major part of the total cost of the BW charges and hence need a hard regulation to maintain a fair

competition level and affordable retail pricing. Therefore, it will be appropriate to have a bi-annual review of these charges by the Authority.

*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.*

A6: The prevailing AFC and CLC are very high not only from the standpoint of international pricing for such facilities but also because of the fact that they constitute about 56% of the bandwidth charges. As submitted earlier, it is essential that cost based AFC and CLC are fixed by the Authority to promote competition in the international bandwidth market which will enable fast proliferation of the broadband services. The Long Run Incremental Cost (LRIC), being used by the Regulators world over for determining interconnection charges, will be the most appropriate method for fixing the cost based AFC and CLC. LRIC methods provide enough compensation for the incumbent to provide the necessary inputs to the entrant, including a fair return on common costs.

*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.*

A7: From the CLS-RIO filed by various OCLS, it is evident that the AFC and O&M charges are purely based on the capacity of link and are directly multiplied by the multiplier of the bandwidth. This is not correct as the cost involved in provisioning of Access and O&M for STM-4 or STM-16 or STM-64 may be only incremental w.r.t. the Access and O&M of STM-1. Hence the AFC and O&M charges should not be dependent on the capacity and TRAI should not allow OCLS to levy AFC on capacity dependent basis.

It is submitted that the cost should depend upon only the number of cables landed and the number of links backhauled. As far as the cost relating to multiplexing/de-multiplexing is concerned, this should be determined based on the cost attributable for such equipment and the same can be levied as an Add-on cost over and above the base charges fixed for standard capacity supported by CLS.

*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?*

A8: As already stated in our reply to Q.7, there is no rationale for fixing charges based on the capacity activated. Depending upon the interface for minimum capacity which can be activated on a particular Submarine Cable, the base charges can be fixed applying the cost based principle and for sub-rates lower than the standard capacity, Add-on charges can be prescribed taking in to consideration the cost attributable to network elements utilized for multiplexing/ de-multiplexing. This would bring more transparency in AFC and CLC and would also encourage operators to activate higher capacities to bring down their cost of bandwidth.

*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?*

A9: The AFC and CLC are a significant part of the bandwidth cost and hence impact the overall cost of providing the services. Although a Submarine Cable can be a privately owned one but since CLSs are to be seen as “bottleneck facility”, there is no justification for exempting a privately owned cable. Hence AFC and CLC should be fixed for all CLSs irrespective of their ownership.

*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?*

A10: As already stated in our reply to Q.1, if TRAI decides to fix the AFC and CLC on its own, there would not be any need for publishing any AFC and CLC charges by OCLS.