BANGLADESH SUBMARINE CABLE COMPANY LIMITED (BSCCL)

BIDDING DOCUMENT

Name of the Service: Invitation of Bid for taking lease of International Internet Bandwidth from Singapore for Operation of BSCCL's IP Transit Service.

Tender No: **Date:** ------------------

Issued To:

Date of Issue:

Bangladesh Submarine Cable Company Limited (BSCCL), Rahmans' Regnum Center (7th Floor), 191, Tejgaon-Gulshan Link Road, Dhaka-1208.

1. INIVITATION FOR BID PROPOSAL AND INSTRUCTIONS TO THE BIDDER

1.1 Bangladesh Submarine Cable Company Limited (BSCCL) is an International Long-Distance Communications (ILDC) and International Internet Gateway (IIG) operator in Bangladesh and is providing IPLC & IP Transit services through the Submarine Cable network. BSCCL is a member of SEA-ME-WE-4 and SEA-ME-WE-5 Submarine Cable Consortiums. In order to facilitate IP Transit services to its clients, BSCCL intends to take lease of International Internet Bandwidth from BSCCL's Singapore PoP. Hence, BSCCL is floating this bid in order to take lease IP transit services from Singapore. Taking lease of the said IP transit services will be for an initial period of two years.

1.2 BSCCL may consider selecting multiple upstream providers in Singapore to ensure redundancy and better routing.

1.3 Detailed scope of service has been given in the subsequent paragraphs.

1.4 The bidders are requested to follow the process for submission of the bid proposal mentioned in clause 6.

2. Method of Procurement: International Tender

3. Source of Fund: Company's Own Fund

4. ELIGIBILITY REQUIREMENTS OF THE BIDDERS

4.1 The bidder offering the IP transit service shall have the authority to sell the IP Bandwidth internationally where the offered IP node is located.

4.2 Any IP transit provider having existing connectivity with BSCCL will be eligible for this tender.

4.3 The position of the bidder offering the IP transit service shall be within the first 25 in the AS ranking of CAIDA project website (https://asrank.caida.org) during evaluation period.

4.4 The bidder must not have been declared bankrupt or filed for bankruptcy in any country.

4.5 The bidder must have legal capacity to enter into a contract with BSCCL.

4.6 Bidders registered in Israel or having their origin in Israel are not eligible for participation in this bid.

5. SCOPE OF SERVICE REQUIREMENTS FOR THIS PROPOSAL

5.1 The Bidder shall deliver IP transit facility at SG3 Data Center, Equinix, Singapore

5.2 The bidder will be responsible for the local backhaul (if required) and cross-connection to connect the bidder's router ports to BSCCL router at SG3, Equinix, Singapore.

5.3 BSCCL intends to take lease of IP transit service having capacity of 11x10G ports. The intended capacity may be increased or decreased.

5.4 BSCCL will activate any 10G circuit, whenever it is required, within the two years after the signing date of the contract with the successful bidders. Service of each activated 10G port will continue for two years from the date of activation.

5.5 The following Diagram will illustrate the method of connection for providing the IP bandwidth.

Bidder's Router

BSCCL's Router
at SG3, Equinix,
Singapore
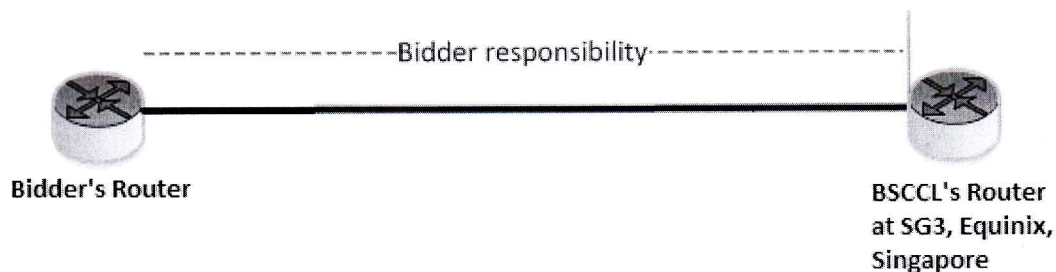
5.6 BSCCL is requesting the bidders to quote for the services as follows:

Table 1: IP-Transit service in Singapore

Data Center where BSCCL will take the service	NRC (if any)	MRC per Mbps for Committed (7.5 Gbps) Bandwidth		MRC per Mbps for Burstable (upto 2.5Gbps) Bandwidth		Total Price for 2 years (as per formula*)
		Year-1	Year-2	Year-1	Year-2	
Equinix SG3, Singapore						

* Formula is given in Annexure-1 with example.

--Bidder must mention "per Mbps" price in the above table.
--For evaluation purpose, prices quoted in **Annexure-1** will be considered.
--Definition of Committed bandwidth, Burstable bandwidth and 95th Percentile has been given in **Annexure-3**.

5.7 The prices should be quoted as per quotation forms given in Annexure-1.

5.8 The offer shall include commissioning and testing of the ordered capacity on Router IP port to provide IP transit service to the Internet backbones complying with applicable international standards.

5.9 The asked Bandwidth must be symmetric.

6. SUBMISSION OF OFFER

6.1 The technical proposal and the financial proposal shall be submitted separately in two separate files mentioning the type of proposal (Technical or Financial). The hard copy of the offer shall be submitted in person or should reach by postal mail to the following address within the date and time stipulated in the invitation notice;

> Managing Director
> Bangladesh Submarine Cable Company Limited
> Rahmans' Regnum Center (7th Floor),
> 191, Tejgaon-Gulshan Link Road,
> Dhaka-1208.

6.2 The bidder may also submit their offer in PDF format through email to the following addresses;

> a) tender@bsccl.com
> b) And a copy (cc) to bsccl.tender@gmail.com

The late bids will not be considered for evaluation and will be rejected.

The pdf file of the financial offer should be password protected. The password should be sent to md@bsccl.com within the bid opening time as per clause 15.

7. VALIDITY OF OFFER

7.1 Price offer must remain valid for 120 (One hundred and twenty) days from the last date of submission of the bid. Bid validity shorter than the specified period shall be considered as **'Non-responsive"**. The bidders shall note that no bid security is required to participate in the bid.

8. CLARIFICATION OF OFFERS

8.1 The evaluation committee of BSCCL may ask the bidder for any clarification regarding their offer if needed.

8.2 The request for the clarification and the response of the bidder may be through official letter or via email. The bidder must give their response to any query within the time period mentioned in the query. **Any failure may result in declaring their bid as "non-responsive".**

9. CLARIFICATION AND AMENDMENT OF DOCUMENTS

9.1 Prospective Bidder requiring any clarification on the bid document may notify such queries to tender@bsccl.com copying bsccl.tender@gmail.com.

9.2 At any time prior to the deadline for submission of the bid, BSCCL may, for any reason whether at its own initiative or in response to a clarification requested by a prospective Bidder, amend/modify the bid document.

9.3 Any amendment of the bid document will be notified to all prospective Bidders and will be published in BSCCL's web site. Such amendment, if made, shall become an integral part of the bid document and will be binding on all prospective bidders. BSCCL reserves the rights to add/ delete/ modify any clause of the bid document.

9.4 In order to provide reasonable time to the prospective Bidders to take the amendment into account in preparation of their bids, BSCCL may at its own discretion, extend the deadline for the submission of the bid by any reasonable period.

10. TECHNICAL REQUIREMENTS FOR THE SERVICES

10.1 DOCUMENTS TO BE SUBMITTED WITH THE BID

10.1.1 Clause by clause compliance statement for the relevant clauses related with the service with supporting document, if applicable, must be submitted by the bidders. If any bidder fails to submit supporting documents, then BSCCL may take their own decision on any matter as per their understanding.

10.1.2 A copy of network diagram showing interconnection points, backup links, and details of peering with Internet Exchanges (i.e Hong Kong Exchanges, BBIX) as well as diagram for Inter Asia, Asia to Europe, Europe to Asia, Asia to USA using Trans-Pacific route and Asia to USA using Trans-Atlantic route along with backbone capacity and redundancy. Details about Diversity and Redundancy in the Internet Bandwidth should be provided for evaluation purposes and shall form part of the agreement.

10.1.3 Copy (ies) of the Service Level Agreement (SLA) and any other agreements/documents to be signed by both BSCCL and the successful bidder, containing at least the requirements stated in those documents. Moreover, the SLA will include at least the following Parameters:
- ➢ Round Trip Delay/Network Latency
- ➢ Packet Loss
- ➢ Throughput
- ➢ Service availability
- ➢ Planned Maintenance window

10.2 Service Availability, RTD, Throughput & Packet Loss:
10.2.1 Service Availability, RTD, Throughput & Packet Loss:
10.2.1.1 RTD shall be measured by computing the average RTD for one thousand (1000) pings (with the acknowledgment for each previous packet received) of sixty-four (64) bytes each. In case of International Internet Bandwidth, this will be measured from the BSCCL Gateway Router at Singapore to the different destinations in USA, Europe or Asia Pacific. The commitment RTD shall be as below:

SL No.	Destination	From BSCCL Gateway Router
1	USA (Trans-Atlantic)	220~270 ms
2	USA (Trans Pacific)	180~200 ms
3	Europe (UK)	120~140 ms
4	Europe (France)	120~140 ms
5	Europe (Germany)	120~140 ms
6	Asia Pacific (Singapore)	1~3 ms
7	Asia Pacific (Hong Kong)	30~40 ms
8	Asia Pacific (Japan)	90~110 ms
9	Asia Pacific (China)	140~170 ms
10	Asia (India)	60~80 ms

RTD Summary In case of International IP Transit Port of bidder's network.

SL No.	Location/Intra/Inter Region	RTD
1	Intra- Europe	40 ms
2	Intra- USA	60 ms
3	Intra- Asia	130 ms
4	USA-Europe	100 ms
5	USA-Asia	200 ms

The bidders are requested to provide the regional based IP and the latency headed the destination IP (BSCCL Gateway router) as mentioned in **Annexure-2**. If any bidder fails to meet the latency mentioned above, the bid will be treated as "**non-responsive**".

10.2.2 Packet Loss:

    10.2.2.1 The average monthly packet loss to the last hop router in any PoP of the successful bidder shall be less than 0.3%, measured from the IP gateway router port of BSCCL Equinix PoP. Packet Loss shall be measured by computing the percent loss of one thousand (1000) pings (with acknowledgment for each previous packet received) of sixty–four (64) bytes each.

10.2.3 Throughput

    10.2.3.1 The bidder would provide an un-contended bandwidth (1:1) with guaranteed throughput of the contracted bandwidth capacity as measured on physical layer. Bidder shall guarantee a throughput of contracted bandwidth on 1:1 Full Duplex (both ways) on 24 hours x 7 Days basis.

10.2.4 Availability

    10.2.4.1 Services shall be provided at a guaranteed level (except for the planned maintenance). In the event that service level falls below guaranteed level due to International Backhaul, IP PoP, Transmission Equipment, Latency etc. the following compensation shall be payable to BSCCL:

Cumulative Downtime in any Calendar Month	Compensation equivalent to Prorated monthly rental charge
Up to 10.0 minutes	Nil
10.1 minutes – 4 hours	1 day's charge
4 hours – 12 hours	3 day's charge
More than 12 hours	3 day's charge plus 1 day's charge for each full hour beyond 12 hours

*1 (one) day's charge shall be calculated dividing the monthly recurring charge by 30 (thirty)

    10.2.4.2 The service would be assumed to be unavailable if RTD/Packet Loss is not met continuously as per specification for a period of 30 minutes. If RTD/Packet Loss varies intermittently for period less than 30 minutes between acceptable to unacceptable limits and if such behavior is observed continuously for one hour, then service will be considered to be unavailable for one hour. Each slab of

unavailability of thirty minutes or part thereof observed over a period of six months shall be taken into account for calculating the liquidated damages for service degradation.

10.2.4.3 The planned maintenance should not exceed once in a quarter and maximum allowable outage due to the planned outage is 0.45% of total hours in any quarter (3.24 hours). Any planned outage beyond 0.45% shall be considered as unavailability for the purpose of calculating service unavailability credits.

10.2.4.4 In case the above-mentioned parameters exceed for consecutive three months then BSCCL shall have the right to terminate the Service Agreement with the Service provider.

10.2.4.5 Compensation due for failure to meet "Availability" or "Round-trip delay" or "Packet Loss" or "Throughput" requirements will be adjusted from periodic rental charge payment of the respective bidder.

10.2.4.6 The total maximum aggregated compensation payable by respective bidder to BSCCL in any month shall not exceed total monthly recurring charge (MRC). The combined cumulative compensation to be issued during the contract period shall be limited to 20% of the total contract value.

10.2.4.7 Failures, interruptions, defects or delays in transmission due to any of the following reasons shall not be counted toward the calculation of service downtime
  a. Any Force Majeure events
  b. Any interruptions resulting from defects in BSCCL end equipment
  c. Any service modification or alteration through mutual agreement between BSCCL and Service provider

10.2.4.8 The bidder shall provide BSCCL necessary access to the router looking glass.

10.2.4.9 The bidder is required to provide comprehensive service support on 24 x 7 basis from the date of commencement of the services for the entire agreement **period** without any additional fees and charges.

10.2.4.10 In order to protect from DDoS attack mitigation, the bidder have to allow remote Black holing of malicious IP addresses (any between /24 to /32) through BGP announcements from BSCCL end. Black holing can be done based on community or separate black-hole BGP peering.

10.2.4.11 The successful bidder shall support dual stack IPv6 & 4-Byte ASN implementation in addition to IPv4 and 2-Byte ASN.

10.2.4.12 The successful bidder shall submit Escalation Matrix to communicate any fault related issues.

10.2.4.13 The bidder shall carry out any service affecting schedule maintenance in its network between 04:00 and 07:00 Hrs (GMT+6) and schedule maintenance window must notify BSCCL before at least 3 (three) Bangladesh working days (Sunday to Thursday) in advance. Otherwise, schedule maintenance carried out

outside the above-mentioned time frame shall be taken into calculations of service availability credits.

10.2.4.14 All Scheduled testing requirements shall be notified at least 7 days prior to the testing. Test plans shall be provided at least seven business days prior to the test.

10.2.4.15 The service provider shall provide the mechanisms to BSCCL, to measure and monitor the SLA requirements mentioned above.

10.2.5 **Each circuit will be activated initially for one year; then after successful completion of one year it will be renewed for another one year. But, if the performance of any circuit is not satisfactory to BSCCL then the circuit will not be renewed for the second year, also no additional circuit will be activated with that bidder.**

11. LEAD TIME TO ESTABLISH THE SERVICE

11.1 The bidder, in the bid, shall indicate clearly the lead-time to establish the service after work order is issued to them, which should not be more than 2 (two) weeks after issuance of Work Order or after signing of the service order form.

11.2 There will have maximum three days of testing period of each circuit after commissioned a circuit.

11.3 Within this test period the problem (if any) needs to be resolved.

12. FINANCIAL PROPOSAL

12.1 All prices must be quoted in US Dollars.

12.2 VAT and Tax payable in Bangladesh will be borne by BSCCL.

12.3 Any applicable tax, GST and duties payable outside Bangladesh shall be borne by the bidder.

12.4 As BSCCL will not deliver the purchased IP transit in Singapore, GST will not be applicable for BSCCL. So, if the GST is mentioned in invoices BSCCL will deduct GST before remitting the billed amount.

12.5 Amount of discount, if any, must be clearly mentioned.

12.6 Bids with any conditional price offer shall be treated as 'Non-responsive".

12.7 The evaluation will be conducted by adding all recurring and non-recurring charges over a period of two years contract period.

12.8 The bidder shall submit the financial offer as per the table provided in **Annexture-1**.

13. Bills and Payments

13.1 BSCCL will pay the recurring charges on post-paid basis.

13.2 When a monthly charge applies for a portion of a billing month (whether due to an installation or discontinuation of service during the billing month, a rate change during the month or otherwise) the partial charge is to be calculated based on a daily rate ($1/30^{th}$ of monthly charge).

13.3 Invoices shall be submitted by the Bidder headed billing@bsccl.com making a copy to billing.bsccl@gmail.com within 10 working days after each month.

13.4 The burstable usages information including graph and calculation of raw data (as per Annexure-3) shall be mailed to billing.bsccl@gmail.com.

13.5 If there is any dispute in any bill BSCCL will raise objection in writing within 30 (Thirty) days of receiving the invoice.

13.6 However, the undisputed amount will be paid within 30 days of receiving the invoice.

13.7 BSCCL needs to obtain the permission from the central Bank of Bangladesh for making foreign payment. In such case, BSCCL needs three or four months to pay the first invoice but once the permission is obtained all the invoices will be cleared within 30 days of receiving the invoices.

14. BSCCL reserves the rights to accept or reject any or all bids without assigning any reason whatsoever.

15. Date of Submission:

Last Date & Time for submitting bid: **Month xx, 2022 12:00 BST (GMT+6)**
Date & Time for opening the bid: **Month xx, 2022 12:30 BST (GMT+6)**

16. Evaluation of the offers and award of the contract

16.1 The evaluation committee will first examine technical proposals of the bids received within the prescribed date and time to determine the eligibility against the eligibility requirements mentioned in clause 10 and 4 above. Only the 'Eligible' bids will be considered for further evaluation. The evaluation committee will then examine every 'Eligible' bid to determine their conformity against different requirements of the bid document regarding, scope, required documents and technical & financial requirements. Any negative determination regarding a bid may result in declaration of the bid as "**Non-Responsive**".

16.2 Only the bids to be determined as "**Responsive**" after this stage of general and technical evaluation will be considered for financial evaluation. During financial evaluation the evaluation committee will check the financial offers of the responsive bids to determine their conformity against the requirements of BSCCL mentioned in the bid document. The committee will also check and correct the arithmetic errors, if any. If any arithmetic error is found during examination, the evaluation committee will make necessary correction and will inform the concerned bidder regarding the error and the proposed correction. If the
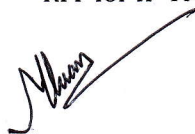
bidder refuses to accept the proposed correction, then his bid will be declared as "**Non-Responsive**" by the evaluation committee.

16.3 Upon completion of financial evaluation, the evaluation committee will determine the '**Evaluated Price**' for each responsive bid. Bidders shall note that the '**Evaluated Price**' may not be the same as the '**Quoted Price**'. After determination of the '**Evaluated Price**' for each responsive bid, the evaluation committee will list the responsive bids in chronology of the '**Evaluated Price**' with the lowest value of the '**Evaluated Price**' at the top of the list; the bidder with the next higher value of the '**Evaluated Price**' shall be in second place and so on.

16.4 BSCCL may select multiple successful bidders. The responsive bidder with lowest evaluated price for IP Transit service at Singapore will be considered as the "1st Successful Bidder" for IP Transit service at Singapore. Then BSCCL will select the "2nd Successful Bidder" and the "3rd Successful Bidder" for the IP Transit service at Singapore in the following manner:

    a. The four 10G circuits will be awarded to the lowest evaluated successful bidder.

    b. The other four 10G circuits will be awarded to the second lowest evaluated successful bidder if the second successful bidder agreed to provide the service with the same price of the first lowest successful bidder. In such case, if second bidder does not agree then BSCCL will offer to the third lowest bidder with same procedure.

    c. The rest of the circuits will be awarded to the third successful bidder (after selection of second successful bidder) if the third successful bidder agreed to provide the service with the same price of the second lowest successful bidder. In such case, if third bidder does not agree then BSCCL will offer to the fourth lowest bidder with same procedure.

16.5 If the procedure 16.4 (b) and 16.4 (c) fail to select the successful bidder then BSCCL will go for the fresh tender to select the bidder for the remaining 10G circuits.

Annexure-1

Financial Offer for IP Transit Service:

Option A1: 7.5 Gbps Committed Bandwidth with up to 2.5 Gbps Burstable (for each 10G IP Port):

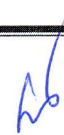<div align="right">(All Price in US$)</div>

Data Center	NRC (if any)	MRC per Mbps for Committed (7.5 Gbps) Bandwidth		MRC per Mbps for Burstable (up to 2.5Gbps) Bandwidth		Total Price (as per formula)
		Year-1	Year-2	Year-1	Year-2	
Equinix SG3, Singapore						

Formula for Total price = NRC + (12 x Per Mbps Committed MRC x 7500 for 1st yr + 12 x Per Mbps MRC x 2500 for 1st yr) + (12 x Per Mbps Committed MRCx7500 for 2^{nd}yr + 12 x Per Mbps MRC x 2500 for 2nd yr)

For example, follow below table.

Data Center	NRC (if any)	MRC per Mbps for Committed (7.5 Gbps) Bandwidth		MRC per Mbps for Burstable (upto 2.5Gbps) Bandwidth		Total Price (as per formula)
		Year-1	Year-2	Year-1	Year-2	
Equinix SG3	800	0.6	0.5	0.4	0.3	120,800

Total price = NRC + (Total MRC for committed bandwidth for 1st year tenors + Total MRC for burstable bandwidth for 1st year tenor) + (Total MRC for committed bandwidth for 2nd year tenors + Total MRC for burstable bandwidth for 2nd year tenor)

= 800 + (12 x 0.6 x 7500 + 12 x 0.4 x 2500) + (12 x 0.5 x 7500 + 12 x 0.3 x 2500)

= 120,800

Annexure-2

d. Latency measurement:

Sl.	Country/Region	Country/Region IP Address	Bidder IP Address (Router at Singapore as source)	Latency
1	USA (Trans-Pacific)	54.244.242.4		
2	Asia Pacific (Singapore)	101.32.110.254		
3	Asia Pacific (Japan)	58.138.102.205		
4	Asia Pacific (Hong Kong)	59.148.233.201		
5	Asia Pacific (China)	219.142.83.55		
6	Asia Pacific (India)	136.232.148.178		

N.B:
- Bidder need to measure the latency from bidder's gateway router located at Singapore and need to share the ping and trace report separately.

Annexure-3

Definition of Committed Bandwidth: Committed Bandwidth means the Bandwidth usage committed to by provider on a monthly basis, as specified in the Order Form.

Definition of 95th percentile: 95th Percentile is a widely used mathematical calculation to evaluate the regular and sustained bandwidth utilization of a connection. According to 95% rule, the monthly samples are sorted; the top 5% both the inbound and outbound traffic samples are discarded; and the next highest remaining data sample on either the inbound or outbound is the "95th Percentile" value. This number is used as the basis for the calculation of any additional monthly charges. If the 95th percentile number falls below the minimum monthly committed amount, no additional charges will occur.

Definition of Burstable Bandwidth: Burstable bandwidth means that there is no limit (i.e. cap) as to how fast data transfer can occur. The only limits will be the physical limits of the hardware and the network connections themselves. Burstable bandwidth will be calculated as below formula:

Burstable Bandwidth = 95th percentile of Bandwidth usage – Committed Bandwidth

Example:
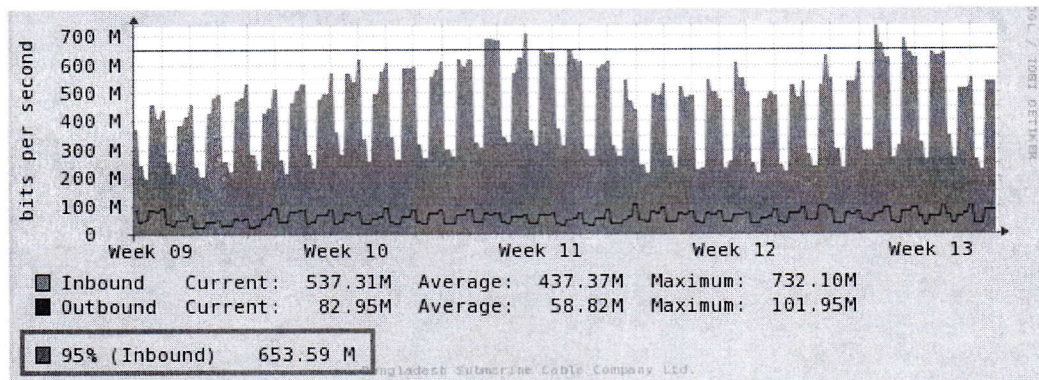
If a customer has committed to 600Mbps per month as per Order Form and according the MRTG data samples for one month and sorts them from highest to lowest, discarding the top 5%. For the purpose of this example, the 95th percentile for the month is 653 Mbps. The company will bill the customer for the additional charges of 653 Mbps, minus the previously invoiced 600Mbps of contractually committed bandwidth, or 53 Mbps. The 53Mbps is treated as burstable bandwidth and will be invoiced for.