

Consultation Paper on Review of Quality-of-Service Standards for Access Services (Wireless and Wireline) and Broadband Services (Wireless and Wireline)					
SI No	Chapter No.	Regulation No/ Clause No	Proposed provision in consultation paper	Suggested modification	Justification/ Global references with supporting data points if any
1	Chapter No. 3 , Draft Regulation	Clause No 9 , QUALITY OF SERVICE (QoS) PARAMETERS FOR BROADBAND SERVICE (WIRELINE AND WIRELESS)	Quality of Service Parameters for which compliance reports are to be submitted to the Authority.– (1) Every Service Provider having Internet Service Authorisation and providing broadband service shall meet the benchmarks for the following QoS parameters, namely:		
			Sr. No. 5 : Minimum download and upload speed against the minimum subscribed speed in offered data plans	We request you to kindly modify the clause as "Minimum download and upload speed against the minimum subscribed speed in offered data plans shall be verified as per RFC 6349 TCP Throughput Test (Layer4)."	0
2	Chapter No. 7 ,Issues for Consultation	Clause No 3	Question-1: What are the possible reasons for increasing gaps between the QoS reported by the service providers and the QoS experienced by the consumers? How this gap can be bridged?	In the network, the SLA (Service Level Agreement) provided to consumers is generally based upon Layer 2/3 criteria such as bandwidth, latency, packet loss, and delay variations (jitter). Consumers are coming to the realization that the services they use may not map to these Layer 2/3 testing criteria. In order to provide meaningful results with respect to user experience, it is critical to measure TCP Throughput. IETF has defined the framework to quantify the user experience; which it calls "QoE (Quality of Experience). QoE gives the service provider a method to test the end user experience of the network. IETF has defined the QoE methodology in IETF RFC 6349 ( <a href="https://datatracker.ietf.org/doc/html/rfc6349">https://datatracker.ietf.org/doc/html/rfc6349</a> ) QoE testing with RFC6349 is a TCP throughput measurement methodology to give a definite way to measure the user experience of the service.	Adaptation of RFC6349 Layer 4 throughput measurement will reduce the gap between the metrics reported by the operator, and those experienced by the user.