COMMENTS AND VIEWS ON CONSULTATION PAPER 6/2017,DATA SPEED UNDER WIRELESS BROADBAND FROM UPBHOKTA SANRAKSHAN KALYAN SAMITI,KANPUR,CONSUMER ADVOCACY GROUP MEMBER OF TELECOM REGULATORY AUTHORITY OF INDIA,NEW DELHI

Q.1 Is the information on wireless broadband speeds currently being made available to consumers is transparent enough for making informed choices?

In our views the respondents in our state were well aware of their data plans but had little information regarding the exact quantity data being used every of month. The level of awareness was significantly low in case of bandwidth usage. Most of the respondents clearly expressed a desire to know more about these issues so ,information asymmetry needs to be dealt with by providing more information to consumers in a simplistic manner, so as to empower them to make an informed decision while purchasing or using a broadband service/plan.

Q.2 If it is difficult to commit a minimum download speed, then could average speed be specified by the service providers? What should be the parameters for calculating average speed?

Two benchmark measurement sets may be explored to assess the speeds being offered:

a. Upper-Bound: TSPs/ISPs may conduct their own measurements by downloading data on a long-lived Transmission Control Protocol (TCP) connection as specified in the measurement methodology prescribed by the 2012 Wireless Data Service Regulations issued by TRAI. These speeds, observed over multiple tests and across multiple locations, will give an upper bound to the speeds offeredbecause such measurements in controlled test environment ensure that server or user device are not bottlenecks. Thus, speeds attainted are entirely dependent on the combined effect of Backhaul and RAN network capacity.

b. Lower-Bound: TSPs/ISPs may measure the speeds experienced by different consumers by instrumenting the data downloaded during active times of the connection. This information is already collected by them for billing and traffic shaping purposes as per the location-specific plans purchased by consumers. These speeds will give a lower bound to the speeds offered because user device, server bandwidth or application requirements may not utilize the network in full capacity, thus, projecting an estimate lower than what the network infrastructure may provide.

For both measurements, distribution may be considered in the form of deciles[i] or quartiles[ii], rather than just the average. Difference between the two distributions will give some sense of a measure of unused capacity, which may ideally differ by more than a 50% ratio. With such a measurement technique, a reasonable commitment from providers may be taken to rationalise values

commitments may not be Revaluated on per-consumer or per-connection basis, but may be averaged.

Service Providers	'Minimum Download Speed's reported by the TSPs for various Technologies (in Kbps)				
	CDMA 1X	HSD	EVDO	2G	3G
SP1	46.70	599.17	1158.53	81.16	2055.76
SP2				82.28	2547.94
SP3				97.06	1539.64
SP4				87.29	2310.3
SP5				74.78	
SP6				84.81	1489.88
SP7				55.14	739.582
SP8	66.10	415.86		65.46	1349.17
SP9				21.42	399.49
SP10		749.28			
SP11				39.27	
SP12				79.08	
SP13				22	
Average	56.40	588.10	1158.53	65.81	1553.97

TABLE No: 1.1 'Minimum Download Speed's reported by the TSPs.

Q.3 What changes can be brought about to the existing framework on wireless broadband tariff plans to encourage better transparency and comparison between plans offered by different service providers?

1. Information Disclosure: TSPs/ISPs must disclose complete information to consumers on mobile internet services, at the time of sales as well as on their websites. Strict rules should be imposed against misleading advertisements by TSPs/ISPs and the reported performance must be compared with the performance that was originally advertised to understand the differences arising between promised and achieved performance. A disclosure code is being practiced in United Kingdom, which providesconsumers a fair idea on the QoS. Singapore has also mandated a complete information disclosure by the operators, so as to equip consumers with sufficient information for an informed choice making and also to strengthen the Quality of Experience (QoE).

2. Performance Ranking: A system of ranking on QoS performance should be introduced for TSPs/ISPsto instil competition and enhance QoS efficiency and innovation.Ranking parameters may include reported QoS indicators, data usage and pricing slabs, specific performance enhancing methods deployed by different providers such as data compression and transcoding proxies, content delivery network linkages, fast DNS servers, network capacity, backbone connectivity, etc. The parameter values may be displayed on labels and ranks may be presented as star ratings for each provider.

Q.4 Is there a need to include/delete any of the QoS parameters and/or revise any of the benchmarks currently stipulated in the Regulations?

There is no need to delete any of the existing QoS parameters been reported by TSPs/ISPs to TRAI.

Q.5 Should disclosure of average network performance over a period of time or at peak times including through broadband facts/labels be made mandatory?

A phased approach may be considered while implementing such a mechanism. A recent case study undertaken by CUTS regarding the Bureau of Energy Efficiency's (BEE)Energy Star Labelling Programme[iii] explored the implementation process of energy efficient star labels for electrical appliances in India and highlighted the fact that BEE launched this programme on a voluntary basis for fewer appliances andgradually transited these to a mandatory phase as market preparedness and receptivityincreased. For the same, voluntary labelled products were tracked with a view to assessthe penetration of these products in the market. Once the market-share of voluntarylabelled products became more than 50 percent, introduction of mandatory labelling forthat product was considered.

Similarly, once a certain percentage of consumers are actively and consistently using these labels basis, TRAI may consider to mandate the mechanism. Moreover, introducing a new label would also mean that it may have certain limitations, which will be strengthened over time with constant improvisation and evolution. Thus, mandating it right away might not be the best option. Pilot projects may also be considered by TRAI and operators to assess the effectiveness and efficiency of such labels. It is extremely important to get a buy-in of all the relevant stakeholders i.e. industry and consumers. Pilot projects would provide TRAI with this opportunity to be able to receive their responses/concerns and accordingly, be able to finalise the strategy for implementation of the labels.

Q.6 Should standard application/websites be identified for mandating comparable disclosures about network speeds?

The following existing platforms must necessarily be enabled and utilised for mandating comparable disclosures about network speeds:

a. TRAI Website

b. TRAI MySpeed Mobile App

c. TSP/ISP Website

d. TSP/ISP Mobile App

e. Websites of Consumer Organisations/NGOs registered with TRAI

Apart from these options, other platforms may also be used for such information disclosures, namely marketing collaterals displayed and provided at retail stores, brochure inserts within the sim-card packs, television and social media commercials of the operators, etc.

Q.7 What are the products/technologies that can be used to measure actual end-user experience on mobile broadband networks? At what level should the measurements take place (e.g., on the device, network node)?

1.Technology: Whitebox by SamKnows[iv]is a prominent solution used by many regulators and consumers globally to capture QoS experienced by consumers and extrapolate the indices to measure the overall QoS in a particular geographical region. TRAI may explore this option to measure user experience.

2. Reporting Level: The spatial granularity for existing QoS reports must also be increased to allow for good comparisons. Currentlythese reports are prepared at circle-level and expanding them to district and city levels, categorically separated into rural/urban areas, should provide greater information to consumers specific to their geographies.

Q.8 Are there any legal, security, privacy or data sensitivity issues with collecting device level data? If so, how can these issues be addressed? Do these issues create a challenge for the adoption of any measurement tools?

There are no security or privacy issues in reporting user performance in aggregate, measured through the network. Crowd-sourced information similarly has no liability attached as long as aggregate data is revealed for performance comparison, and data even at the backend is stored through anonymization. However, it should be ensured that consumer consent is taken into account while sourcing user-level information to protect privacy and maintain transparency in the system.

However, there might be applications collecting sensitive data than required. Thus, there has be vigilance to ensure that such malign practices are not adopted by applications.

Q.9 What measures can be taken to increase awareness among consumers about wireless broadband speeds, availability of various technological tools to monitor them and any potential concerns that may arise in the process?

1. Marketing Campaign & Promotions by TRAI: Taking ques from the successful 'Jago Grahak Jago' campaign driven by Department of Consumer Affairs and the Star Labelling Programme implemented by BEE, TRAI may strategise similar marketing and promotion campaigns to build consumer awareness and give thrust to all stakeholders to ensure smooth implementation. TRAI could consider launching a Slogan Contest at Pan India level to receive inputs from citizens for the title of the campaign for broadband labels.

2. e-Labelling: TRAI may explore pre-loadingsuch information via websitesand apps on all new computing devices that access wireless broadband services and are manufactured for Indian markets.

Q.10 Any other issue related to the matter of Consultation.

Data Provisioning for CAGs, Academia & Think-tanks: An issue remains of how to audit of existing data being reported by TSPs/ISPsis been conducted. Therefore, standardized log collection formats, anonymizationand use of large scale analytics on this audited data (along with crowd-sourced data) may be enabled and made accessible to academic institutions, consumer groups registered with TRAI, global/domestic think-tanks so that periodic, independent and unbiased audit, research and data analytics are performed for consumer benefits.