

To,

The Advisor (CA & QoS)
TRAI, New Delhi

Sub. : Comments on TRAI consultation paper on “Amendment to the standards of Quality of Service for Wireless Data Services Regulations,2012”.

TRAI issued consultation paper on 21.04.2014 on the aforesaid subject and asked the various stakeholders to comment on the issues mentioned in the consultation paper. The following comments are made for consideration & submission to TRAI:

Question-1:-What are your views on prescribing of benchmarks for minimum download speed as above? Pl. give your comments with justification.

MTNL Comments:-The benchmarks for minimum download speed can not be prescribed in 2G, CDMA and 3G services due to following reasons:-

- The radio resource is a pooled resource, therefore, it is not possible to earmark/dedicate some portion of the resource for customers. RF network is designed on some assumptions for cell coverage, number of simultaneous users, path losses, etc., for data service. But these variables are not accurately controlled in network.
- The data speed at any location depends upon the various factors like, distance from BTS, interference, geography and construction of surrounding area, subscriber is on the move or static, capabilities of device/handset used by subscriber, the applications being used, the technology deployed etc., most of these factors are beyond the control of TSP.
- RF indoor coverage depends on general link budget with assumption of in-building penetration losses but actual losses depend on design and building material used.
- Since all the above factors will be dynamically changing across the network and affect coverage, a customer's experience of data speed across the network is unlikely to be stable. In such practical scenario, prescribing minimum assured data speed is impractical as many uncontrollable variables determine data speed in network.
- Availability of data speed is greatly affected by the traffic patterns and number of customers simultaneously accessing data services. Since it is

not possible to predict the traffic pattern as well as customers behavior, therefore, minimum download data speed can not be prescribed.

- Due to various restrictions imposed by local authorities and judicial courts, it is not possible to erect towers at all the desired locations as required in accordance with proper networks planning. Many occasions, service providers are compelled to remove cell site due to EMR issues abruptly and providing even RF coverage is challenging in such situations.
- As per the information available in public domain, “ITU has not provided a clear definition of the data rate, users can expect from 3G equipment or providers. ITU does not actually clearly specify minimum required rates, nor required average rates, nor what modes of the interfaces qualify as 3G, so various data rates are sold as '3G' in the market”. Among Japan, US and Singapore wireless Broadband plans does not specify any such minimum download speed.
- The data speed also depends on the equipment technology installed by the operator. E.g. the peak download and upload speeds for various technologies in 3G services are as given:

Feature	3GPP Release	Peak DL Speed	Peak UL Speed
Current N/w HSDPA (3.6 Mbps)	Release5	3.6 Mbps	384 Kbps
HSDPA (14.4 Mbps)	Release5	14.4 Mbps	384 Kbps
HSUPA (5.76 Mbps)	Release 6	14.4 Mbps	5.76 Mbps
HSPA+ (64 QAM)	Release 7	21.1 Mbps	5.76 Mbps
HSPA+ (64 QAM) MIMO	Release 7	42.2 Mbps	11.5 Mbps

Therefore the download speed cannot be generalized for different technologies deployed by operators as proposed by TRAI in Consultation paper (MTNL has deployed HSPDA (3.6 Mbps) service in 3G network).

- Since MTNL has been operating overlaid 2G and 3G networks there is no way to identify the speeds being offered in two networks separately. as the benchmarks shall have to be complied based on CDRs and that shall make reporting difficult. Currently speeds upto a value have been mentioned and conveyed to customers.

Even if, TRAI goes ahead to define minimum download speed, it may be fixed at the lowest speed provided by the operators in the last three quarters.

Question-2:- Should the service provider be mandated to inform the minimum download speed to customers along with each tariff plan?

MTNL Comments:- Due to the technical reasons mentioned in reply of question-1, it is not possible to inform the minimum download speed to customers with each tariff plan. Further in the absence of any mechanism to measure download speeds based on CDRs the minimum download speed information may not be provided with tariff plans. Prescribing minimum data speed to customers may lead to more complaints from users as occasional slow data speed due to RF conditions will not be acceptable to user.

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