



Association of Unified Telecom Service Providers of India

AUSPI/12/2014/ 032

19th May 2014

Shri A.Robert J.Ravi,
Advisor (QoS),
Telecom Regulatory Authority of India,
Mahanagar Doorsanchar Bhawan,
Jawahar Lal Nehru Marg,
New Delhi - 110002.

**Sub: AUSPI's Response to TRAI Consultation Paper No. 3 / 2014 on
"Amendment to the Standards of Quality of Service for Wireless Data Services
Regulations, 2012"**

Dear Sir,

Attached please find AUSPI's Response to the TRAI Consultation Paper on
'Amendment to the Standards of Quality of Service for Wireless Data Services
Regulations, 2012'.

We request the Authority to kindly take AUSPI's views into consideration.

Thanking you,

Yours faithfully,

Ashok Sud
Secretary General

Mob: 9312941515

Copy to :

1. Dr. Rahul Khullar, Chairman, TRAI
2. Shri R K Arnold, Member, TRAI
3. Smt. Vijayalakshmy K Gupta, Member, TRAI
4. Shri Sudhir Gupta, Secretary, TRAI



AUSPI's comments on TRAI Consultation paper No. 3/2014 on Amendment to the Standards of Quality of Service for Wireless Data Services Regulations, 2012

Introduction

The world of mobile networks, devices and services is changing at a blistering pace, driven by a combination of technology innovation, strong competitive forces and apparently limitless demand from customers. In this competitive market, Service providers are focusing on **delivering a superior customer experience**.

In India, internet penetration is driven largely by mobile phones, as we have some low cost handset models with and most basic hand-sets offering access to the internet. The main reason for growth of internet penetration in rural India is being driven largely by the mobile phone and the wide choice of Data packs being offered by Service providers to meet the end user's requirement. As per reports, 70% of rural India's active internet population access the web via mobile phones as there is still difficulty in accessing PCs.

With the movement of data and rich applications across networks, studies have shown that Indian consumers are spending lot of time online and access large amount of data and use a broader array of applications. While the typical Indian user primarily uses the Internet in the form of email and Web browsing, social media is also an important driver of internet use in India.

Though there is no standard Internet user - each person on the Internet makes use of different applications to access the content, applications and services that matter most to the end user.

The Internet has a "long tail" of many different applications. Hence, different user needs as well as speed and performance demands put together, there emerge distinct profiles of what different consumers demand from their network connection. Profile of users could be basic utility, emerging multimedia, full media, and advanced.

The basic utility user would require actual download speeds of **X** Mbps while emerging multimedia and full media users would require actual download speeds of **Y** Mbps, depending on the quality demands of particular applications they might use.



In view of the above mentioned reasons, QoS expectations of internet users will vary from service to service but what is more important is to provide and enhance **Quality of Experience (QoE)** for the Customer.

AUSPI's comments on the specific queries raised by the Authority in this consultation paper are as follows:-

- Q.1 What are your views on prescribing benchmarks for minimum download speed as above? Please give your comments with justification.**
- Q.2 Should the service provider be mandated to inform the minimum download speed to customers along with each tariff plan? Please give your comments with justification**

While we agree that a customer expects a certain level of QoS, defining the Internet Speed or prescribing benchmark for Internet speed will not help the Consumers' experience. As the speed of the packet data is dependent on various factors such as number of subscribers browsing the data services, amount of, low coverage area, location of the customer, peak/ off peak time, kind of device being used, etc., which are dynamic in nature and service provider does not have any control on the same. Various parameters which affect minimum download speed are given below:

- a. **Quality of Spectrum** The user experienced throughput is a function of spectrum and depends on the quality of spectrum and quantum of spectrum dedicated for data services.
- b. **Quantum of Spectrum used for Data services:** The throughput is directly proportion of quantum of spectrum. Since different amount of spectrum may be dedicated for data services within an operator's network in a service area, the throughput experienced by the user will be different using the same data device in different geographies with varying amount of spectrum.
- c. **User mobility-** Data throughput is lower when the user is in mobility compared to the data services being used in stationary mode.
- d. **Time of access –** The user behavior of data services varies across the day. At lower radio network utilization conditions the throughput experienced will be higher compared to scenarios when the network is more utilized.



- e. **Number of users in the network** - There might be instances where for a short span of time, the users are high, during such periods the throughput experienced by each of the users will be lower, even if all the users are in best of the radio network environment.
- f. **Concentrated usage** –The data usage is non-uniform across the network coverage geography. There are many pockets like commercial areas, office complexes, educational institutional areas, railway stations, airports etc where the usage is higher compared to other areas and as a result the throughput experienced will be lower in such areas of higher data usage.
- g. **Coverage – The user** is unlikely to experience the same network coverage across the operator's network in a telecom circle. There may be multiple technologies deployed and therefore seamless coverage of same technology- across the circle geography may not be possible. Customer may face different experience in EVDO and 1X network.
- h. **User device settings:** User end device also plays an important role in data services. The variable hardware configurations and software settings can impact the user experience. In addition to this any unknown applications or virus etc on the user end device (laptop/desktop) may also impact the throughput. The telecom service providers have no control or check mechanism on these user devices.
- i. **Erection of Towers and ROW issues:** TSPs are facing challenges / opposition from RWAs in erection of towers due to many reasons, including misconceptions regarding EMF radiations coupled with delayed/denied ROW permission.
- j. **Frequency Interference:** Interference from other EM sources in the vicinity of the users' user equipment can be a factor denying him the stipulated throughput.

The test results shared for measurement criteria are in a controlled environment whereas the customer might access the internet in different scenarios (in an uncontrolled/dynamic environment) dependent on various factors mentioned above.

The Authority is requested to take note of the fact that for wireless Broadband services, most countries are moving away from regulating QoS and promote competition in the market so that consumer has choice to select the operator which provides good quality of service. Regulating QoS increases cost for all operators at the expense of increasing coverage, capacity etc. The minimum



upload and download numbers do not paint the whole picture as these are dynamic and depend on innumerable factors mentioned above.

We recommend that the service providers should not be mandated to inform minimum download speed to customers at this stage. Any regulatory requirement w.r.t the minimum download speed will create confusion in the customer mind and hence lead to more consumer complaints.
