



9<sup>th</sup> August, 2012

**Telecom Regulatory Authority of India**  
Mahanagar Door Sanchar Bhawan  
Jawahar Lal Nehru Marg, Old Minto Road  
New Delhi 110002.

**Kind Attn.: Mr. A. Robert J. Ravi**  
**Advisor (CI & QoS)**

**Subject: Response to TRAI's Draft Regulations on "Standards of Quality of Service for Mobile Data Services Regulations, 2012" dated 9<sup>th</sup> July, 2012.**

Dear Sir,

Due to low PC penetration of around 4% and high wireless tele-density of 79.3%, the mobile phone has become an alternative medium to provide data services to the masses. Also, the adoption of smart phones and availability of contents such as facebook, twitter, youtube, etc. on mobile has increased the wireless subscribers using data services. In a scenario of intense competition, it has become imperative for the Indian telecom operators to regularly monitor their networks to provide good Quality of Service to their customers. Moreover, with comparable tariffs and equivalent services, the operators themselves are under pressure to maintain their QoS in case they need to attract new customers as well as retain their existing customers. Hence, Quality of Service (QoS) is driven by market forces rather than by Regulatory intervention.

Based on the above, it is submitted that as the competition increases and market evolves, **we should progressively move towards a regime of forbearance with regard to QoS for mobile.**

Notwithstanding the above, our comments on the draft Mobile data services parameters as proposed by TRAI are as follows:

S. No	Name of Parameter	Benchmark	TTL Comments
3.1	Service Activation / Provisioning	Within 3hrs with 95% success rate.	Provisioning completion can be done within 4hours once the Activation request hits the IT systems. Activation request means confirmation request in case of Prepaid; and Customer order entry completion in postpaid. However, there must be exclusions if activation is done in peak hour/maintenance window / NW issues etc. We therefore suggest that the

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			Benchmark should be "within 4 Hours with 90 % success rate" and within 24hours for activation through other modes such as web, SMS and IVR.
3.2	Successful data transmission download attempts	>90%	90% benchmark is ok.
3.3	Successful data transmission upload attempts	>85%	85% benchmark is ok.
3.4	Minimum download speed	To be measured by the service provider and reported to TRAI	<p>The speed of the packet data is dependent on various factors such as number of subscribers browsing the data services, low coverage area, location of the customer, peak/ off peak time, kind of device being used, external factors like website behavior, etc., which are dynamic in nature and service provider does not have any control on the same. TRAI has also acknowledged this fact in its draft Regulation.</p> <p>Also, Internationally, no regulator has prescribed/set such benchmarks and has left it to the operator's discretion to adopt a measurement methodology that best reflect their operating environment and conditions. We, therefore, recommend that measurement of this parameter should be strictly based on the test results (using dedicated server and dedicated bandwidth within the operator's Network) being conducted under controlled conditions at few locations in a circle. Also, as per the definition this is to be measured by downloading a specified test file from a test server to a user's device. This will help to discard/ address the user behavior related issues</p>
3.5	Average Throughput for Packet data	>90% of the subscribed speed	The Authority is proposing that an average throughput for packet data should be 90% of the subscribed speed. In this regard, it should be noted that the subscribed speed is a theoretical maximum speed at ideal conditions and should not be compared/used for measuring QoS. Also, it is technically not feasible to specify a uniform average speed for Wireless data services across all wireless networks covering all service providers as data speed is being determined basis various factors which may be beyond service provider's control at any point of time.



			<p>Informing Average data speed to the customer to may not be useful and it may be construed as misleading information since same is dependent on various factors which are dynamic in nature and service provider does not have any control on the same.</p> <p>We, therefore, suggest that we may inform the peak speed in the communication to the customers with the disclaimer.</p> <p><b>As far as this parameter is concerned, it is recommended that this KPI/ parameter should not be made a part of QoS Regulation.</b></p>
3.6	Percentage of Node B / BTS carrying less than 80% of the average throughput in a license service area	<10%	<p>We request TRAI to provide more clarity and measurement procedure, as the metric can be generated from OSS reports but it is difficult to analyze this KPI, as values reported may not be consistent. Since throughput per BTS is user dependant e.g. if there are no subscribers or there is no activity by the subscriber, we may not get the actual speed. Since this KPI is based on Average throughput, this KPI will be around 50%.</p> <p>Since the variance between the Node B's are quite high in terms of data usage and customer behaviors / applications, it is therefore suggested that this <b>should only be a monitoring KPI and should not be a part of QoS regulation.</b></p>
3.7	Latency	<p>Audio &lt; 150msec;  Video &lt;100msec;  Data &lt; 250msec;  Data (interactive) &lt;75msec</p>	We suggest 500 msec for all categories.
3.8	PDP Context Activation Success Rate	≥95%	We suggest a Benchmark of 90%. However, there must be exclusions for cases like IP address occupied, User authentication failure, Insufficient balance and wrong password in computing the success rate.





3.9	Drop rate	$\leq 2\%$	We suggest a Benchmark of $< 5\%$ . Since it is not only a network feature but also dependent on subscriber behavior in terms of the usage, longer session duration and in building limitations. For non real time applications like data a benchmark of $< 5\%$ is highly recommended.
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We sincerely hope that our views expressed herein, will be given due cognizance by the Authority.

Thanking you and assuring you of our best attention always.

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'Anand Dalal', written over a blue grid background.

**Anand Dalal**  
**Senior Vice President – Corporate Regulatory Affairs**  
**For Tata Teleservices Limited**  
**And**  
**Authorised Signatory**  
**For Tata Teleservices (Maharashtra) Limited**