VIL/LT/12-13/87
3rd September 2012

Telecom Regulatory Authority of India
MTNL Telephone Exchange Building,
Jawahar Lal Nehru Marg,Old Minto Road,
New Delhi - 110 002

Kind Attention : **Shri A. Robert J. Ravi, Advisor (QOS)**
Subject   : **Draft regulations on The Standards of Quality of Service for Mobile Data Services Regulations, 2012.**

Dear Sir,

This is with reference to the Draft Regulation issued by the Authority on 9th July 2012 on the captioned subject.

We are pleased to submit our comments and views on the draft regulations on "The Standards of Quality of Service for Mobile Data Services Regulations, 2012".

We hope that our submissions will merit your kind consideration.

Thanking you,

Yours sincerely,
For Vodafone India Limited, Vodafone Mobile Services Limited, Vodafone West Limited, Vodafone South Limited, Vodafone Digilink Limited, Vodafone Cellular Limited, Vodafone Spacetel Limited and Vodafone East Limited.

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<u>Vodafone's Response on Draft regulations on "The Standards of Quality of Service for Mobile Data Services Regulations, 2012"</u>

India is a fledgling market from the data perspective and its utility. Applications, utilities, content, proliferation of Smart phones and access are still to develop. Despite the introduction of 3G and BWA, the demand beyond some top cities still has to take off. In such a scenario we have very limited experience available. The networks for mobile data are still to evolve and usage patterns still to emerge to determine where the demand exists. At this stage, to prescribe stringent standards for measuring and achieving benchmarks for data services, be it for 2G, 3G, EVDo or BWA, would be premature. We may as a market exchange the experience and growth in demand however, achieving stringent benchmarks on a predominant voice network will impact the future development and growth of networks. **We suggest at this stage we should track the growth of data services to make a more informed regulation which will serve the consumers and protect the interest of all stakeholders including service providers.**

In a scenario of intense competition and MNP it is inherent, and now intrinsically built into the nature of the Indian telecom market environment for the operators to regularly monitor their networks to provide good Quality of Service to the 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.

In light of 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 rather than introducing new/ additional parameters of QoS, our aim should be to progressively reduce the parameters reported to TRAI.**

We strongly urge the Authority that the QOS parameters for data services should be monitor on a quarterly basis and not on a monthly basis.

Our Point wise response is provided below:

1. **Service Activation/provisioning**

For service activation/provisioning there are various modes available to a subscriber, such as IVR, SMS, USSD, Easy Recharge and Call Center etc. All the network services (except for bundled offers/ services) are provisioned within a well-defined TAT. However, HLR service like BB, 3G bundled offers involve validation of existing services and the request service. Eligibility factor in terms of offer combinations are also need to be validated, for these validations the TAT would be more than 3 hours and sometimes it varies from 8 to 24 hrs. Hence, the 3 hours TAT for service provisioning is not feasible.

We therefore recommend that benchmark for this parameter should be 24 hrs.

2. **Successful data transmission download attempts (Proposed Benchmarks >90%)**

   AND

3. **Successful data transmission upload attempts (Proposed Benchmarks >85%)**

We submit that the successful data transmission including uploading and downloading is directly linked with the consumer/user behavior and other 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. Based on these factors meeting the proposed benchmark in normal/practical conditions is not feasible. **Therefore, it is proposed that this parameter should only be for monitoring purposes and should not form part of QoS regulation.**

In case, if the authority is keen to propose above benchmarks we recommend that the measurement/reporting of these parameters should be strictly based on the drive test that is being conducted under controlled conditions at few locations in a circle.

4. **Minimum download speed:**

This is the speed at which a subscriber can download information on his device from the web. Download speed will vary based on coverage conditions, applications, user devices etc.

As 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 operators does not have any control on the same.

We recommend that the measurements for this parameter should not be mandated for WAP/GPRS/EDGE and measurement should be based on test results done in the operator's network under controlled conditions.

5. **Average Throughput for Packet data:**

Average throughput should be greater than 90% of subscribed speed. We don't provide a speed based subscription and hence the parameter should not be applicable for us

We submit that we are not providing any speed based subscription and hence this parameter should not be applicable to us.

However we would also like to state that there are several factors that affect the average throughput speed of Data Packet; broadly includes the mobile device, radio network, number of concurrent users, radio resource availability, data network, internet, site that is accessed and the traffic & congestion at that site.

And the subscribed speed is a theoretical maximum speed at ideal conditions and it is not technically feasible to specify a uniform average speed for wireless data services, as data speed is being determined basis various factors (as stated above) which may be beyond our control.

In view on the above, we recommend that parameter should not be a part of QoS Regulation.

6. **Percentage of Node B/ BTS carrying less than 80% of the average throughput in a license service area**

This parameter is completely traffic dependent and depends on data traffic/user behavior/applications used are concentrated over a smaller set of sites. For example, sites where we have few data customers will have

less throughput, which won't provide the correct insight into the network performance. **We suggest that this KPI should not be a part of QOS Regulation.**

7. **Latency (Audio <150 ms, video <100 ms; Data<250 ms, Data interactive <75ms)**

There are limitations in measuring the latency for real time services like Audio and Video. The methodology stated by TRAI for measuring the latency cannot be used for Real time Services.

We have only one way of measuring network latency. Therefore, we recommend for measurements from one location in a circle, which can be representative of the network.

8. **PDP context Activation Success rate (Proposed benchmark >=95%)**

We agree with the proposed benchmark.

9. **Drop rate (proposed benchmark <=2%)**

This is a network level KPI and it is recommended **to keep the drop rate at 5% initially and then revise with the further growth** of the data services in the country.

We would further like to submit the following:

1. **The measurement should be based on drive tests results which should be conducted under controlled conditions at few locations in a service area.**

2. **The Test Server Specifications and the formula for calculation of sample size for QoS parameter which is to be used for measurements are not clearly indicated.**

3. **Drive test measurements during the Time Consistent Busy Hour (TCBH) is not feasible.**

4. **Different protocols are mentioned for file transfer (http, ftp), however it is not clear which one is to be used for specific tests.**

5. **The measurement of these parameters should be done on quarterly basis instead on monthly basis.**