Information note to the Press

For Immediate Release

Information note to the Press (Press Release No. \$\frac{3}{2}2017) Telecom Regulatory Authority of India

TRAI Releases "The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017"

New Delhi, 18th August 2017: The Telecom Regulatory Authority of India (TRAI) has today issued "The Standards of Quality of Service of Basic Telephone Service (Wireline) and Cellular Mobile Telephone Service (Fifth Amendment) Regulations, 2017" and is available on TRAI's website http://www.trai.gov.in/release-publication/regulation.

TRAI undertook a public consultation on Quality of Service (QoS) matter by releasing a consultation paper on 'Review of network related Quality of Service standards for Cellular Mobile Telephone Service' on 5th August 2016. Following this, an Open House Discussion (OHD) was held with stakeholders at Chennai on 21st December, 2016. The Authority, after considering the comments received from stakeholders during consultation process and considering appropriate statistical measures for the assessment of quality of service has released these regulations.

- 2. In present methodology of assessment of Drop Call Rate (DCR), averaging was being done to evaluate the performance of the network over entire service area and it was being averaged over month. The averaging of DCR in effect hides the poorly performing cells or BTS having bad performance for some days during observation period. As a result, while service providers were meeting the benchmarks but customers were complaining about the poor Quality of Service (QoS). Authority decided to redefine the framework for assessment of network quality of service.
- 3. Some of the key highlights of the amendment to the QoS Regulations issued today are:
 - a) Revised methodology for assessment of Drop Call Rate (DCR) will be on percentile basis instead of existing methodology of average of call drop of all BTSs. It will remove the anomaly which was getting introduced due to averaging

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of DCR of bad performing Cells in the network with good or excellent performing Cells. The revised methodology will have measures for Spatial Distribution of DCR and Temporal Distribution of DCR. It will capture cross sectional view of DCR, as Spatial measure for DCR will reflect area-to-area variations in DCR and Temporal measure for DCR will reflect day-to-day variations in DCR observed in a network.

- b) Revised approach for DCR will give better insight into the network performance of service provider and will help to identify local areas where Cell(s) have not performed well for many days and also to identify Day(s) on which many cells in the network have not performed well. It will also help to highlight the specific areas and specific days when network performance was excellent or good or poor.
- c) With new parameter for DCR Network_ $Q_{SD}(90,90)$, to be known as DCR spatial distribution measure, networks meeting benchmark of 2% will, give confidence that at-least 90% of Cells in the network performed better than specified 2% benchmark on at-least 90% of days.
- d) Similarly, with another new parameter for DCR Network_Q_{TD}(97,90), to be known as DCR temporal distribution measure, networks meeting benchmark of 3% will, give confidence that on at-least 90% of Days, network performed better than specified 3% benchmark for at-least 97% of the Cells.
- e) Revision of assessment methodology has taken a step towards the technology agnostic performance measurement and now DCR benchmark assessment is to be done for all technologies GSM, CDMA, WCDMA, LTE etc. as a whole.
- f) Network QoS parameters and benchmarks for VoLTE services have been defined on the similar lines as of Circuit Switch Voice services.
- g) Graded financial disincentives in case service providers fail to meet the DCR benchmarks have been introduced, in which amount payable may depend upon the extent of deviation from the DCR benchmarks. For not meeting DCR benchmark, service provider may be liable to pay by way of financial disincentive amount upto Rs.5 Lakhs against one parameter depending upon extent of deviation of performance from the benchmark. In case of consecutive contravention of the benchmarks for two quarters, financial disincentive may be upto one and half times and in case of consecutive contravention of benchmark for more than two quarters, it may be twice the amount.
- h) Earlier, it came to notice that some of the service providers in some areas have configured Radio Link Timeout (RLT) value on higher side. Inappropriate high values of RLT may affect DCR statistics and the calls which were supposed to be registered as call dropped by the network may be registered as call released by the user as user will initiate release of call because of poor QoS. In revised

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regulation, measures have been specified for any inappropriate use of RLT parameter values. Service providers have to keep record of all BTS exceeding the specified RLT high value.

- 4. Amendment to the QoS regulation issued today will be effective from 1st October 2017.
- 5. In case of any clarification, Shri. Asit Kadayan, Advisor (QoS) can be contacted at Tel. No. +91-11-2323-0404 or at email.id: advqos@trai.gov.in.

(S. K. Gupta)
Secretary In-charge