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भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)

No . MOB-60/GPRS-Genl. Corres-2014/9

Dated: - ~~July 31, 2014~~ August 01, 2014

To

Chief General Managers,
All Telecom Circles / Metro Districts.

Subject:- Benchmarking of 3G Data Services.

A number of comprehensive steps taken in last one year has resulted in the volumes as well as data STV sales becoming more then doubled. The data usage is still on an unabated rise and needs continuous monitoring.

2. It is felt that there is a need to self-test and benchmark the 3G data services being provided by BSNL vis-à-vis the leading private telecom operators of the Circle. It is further envisaged that such an exercise will help BSNL to get a clear insight, from customer perspective, of its own services as well as that of the leading private operators. Such an input should be aimed carrying out all the desired corrective measures.

3. A similar benchmarking exercise of 3G data services has been carried out by Gujarat Circle with encouraging results and insights and it has now been decided that a similar exercise be carried out by all Circles. In this regard, a suggestive procedure for performing such 3G data testing and a standard proforma for recording such test results are placed at **Annexure-I and Annexure-II.**

3. You are requested to take immediate necessary action in this regard, starting with high data usage areas in big cities namely the malls, airports, railway stations, bus stands, busy crossings, educational institutions, hospitals etc.

4. This issues with the approval of Director (CM), BSNL Board.

(Kishore Bhagtani)
DGM (NWO-CM-II)

Encl: As above.

ANNEXURE -I

Suggestive Procedure for performing 3G Data testing

Selection of Network operator:-

- Use test SIMs of BSNL & the leading private operator of your circle for testing.

Tool used:-

- As drive test kit can not be carried inside malls / private buildings for security reasons so normal handset with apps like G-net track (free download) may be used, it would also gives a real picture of how the customer experiences the data .

Phone Setting:-

- Turn on your GPS for noting the Latitude and Longitude of the place of testing.
- If the leading private operator in your circle is using HSPA+ (up to 21.1 Mbps) network, the same should be tested by configuring your handset accordingly. Strictly use HSPA+ phone (phone modem capacity more than 14.4 Mbps) if the network is supporting the same. Lower technology support phone may give inappropriate results.
- With dual SIM phone this testing is possible but changing n/w mode take some time so if 2 mobiles are available then try with 2 phones. Also it is difficult to differentiate between Test results of Dual SIM phone, so better use 2 separate phone for testing.

Android Application Setting:-

- One may use G-NetTrack for knowing the serving cell. Note down serving cell ID and later on from Cell ID fill Cell name in report.
- Always exit G-NetTrack APP after testing is complete otherwise this APP continues to run in background and keep recording all the cell ID you receive while moving from one hotspot to other.
- One may use latest speedtest.net APP version 3.1.1 for testing. In setting of that App fix the server and keep that same for all teams of Circle (e.g Hathway Mumbai).

Testing Procedure:-

- The test must be conducted at Prime hot spot of city (Malls, Multiplex, University, Hospitals etc).
- Perform this test 3 times at any location with both BSNL and leading UMTS operator of your circle).
- Perform this test at different time of day (Early Morning, Late Night etc). Prefer n/w highest traffic time that is generally after evening 6 pm to 11 am for this test to get actual field situation. This time may be different for every city and place of circle so choose accordingly. (e.g. University busy time may be 10 am to 6 pm, Mall busy time 6 pm to 10 pm).
- For any hotspot average of all 3 results should be consider final and same will be used for further preparation of report.

ANNEXURE-II

SSA	Name of Spot	Coordinates of the spot	Accessibility				Throughput / Speed Downlink (DL) in Mbps					
			No of Attempts to connect		No. Of succesful attempts		Max. Speed DL		Min. Speed DL		AVG Speed DL	
			BSNL	Comp.	BSNL	Comp.	BSNL	Comp	BSNL	Comp	BSNL	Comp

Throughput / Speed Uplink (UL) in Mbps						Latency in milliseconds					
Max. Speed UL		Min. Speed UL		AVG Speed UL		Max. Latency		Min. Latency		AVG Latency	
BSNL	Comp	BSNL	Comp	BSNL	Comp	BSNL	Comp	BSNL	Comp	BSNL	Comp