



कुलदीप गोयल

अध्यक्ष एवं प्रबंध निदेशक

Kuldeep Goyal

Chairman & Managing Director

D.O. No. 33-40/2009-TPL(OF)

Dated: 15th Dec., 2009

Dear Shri

This is regarding synchronisation of all telecom elements namely switches (TAXs, exchanges, BSC/MSCs etc.) transmission elements and all IP equipments such as Routers, LAN switches etc. BSNL has procured 21 PRCs and 322 SSUs for synchronisation of the elements to improve the network quality.

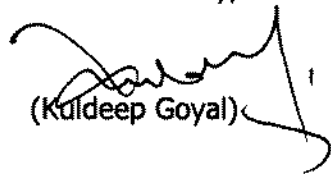
As per the information received from Project Circles, all these elements have been installed and commissioned. They are pursuing with Regions and Circles for synchronisation of all the elements as mentioned above and it is understood most of the elements have already been synchronised. However, as seen from the reports of some of the Project circles and Regions, many of the elements such as local switches, TX systems, VMUX/PMUX etc have not been synchronised yet. I would request you to ensure that all the telecom network elements are synchronised. However, following inputs are given for the information of CGMs, for which the field units are supposed to coordinate with respective Project/Mtce. Wings.

- (i) For some of the elements such as RSUs, GSM BSC/BTSs which does not have provision to extend external clock, the same are to be synchronised with retimed E1s provided by MADM equipment in consultation with Region/Project Circles.
- (ii) For the IP equipment such as routers, switches & DSLAMs etc clock is now obtained from international timing source using Network Timing Protocol (NTP). As NTP module is now available in the SSUs co-located with PRCs, the same can be used to synchronise the IP equipment.

I request you to do the same on priority and complete the synchronisation of all elements by end of Dec., 2009 and report on improved network quality may be sent to me in the first week of Jan., 2010.

With best wishes,

Yours sincerely,



(Kuldeep Goyal)

To,
All Heads of Telecom Circles/Telecom Districts/Regions/Projects
Bharat Sanchar Nigam Limited,