



# Association of Unified Telecom Service Providers of India

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AUSPI/13/2007/ 410

6<sup>th</sup> October, 2007

Thiru A. Raja,  
Hon'ble Minister of Communications & IT,  
Government of India,  
Electronics Niketan,  
6, CGO Complex, Lodhi Road,  
New Delhi-110 003.

**Sub: Submission of AUSPI Comments**

Hon'ble Sir,

We are grateful to the Hon'ble Minister of Communications & IT for allowing AUSPI to give submissions subsequent to the meeting held on 3<sup>rd</sup> Oct. '07. Sir, we would like to submit that CDMA operators have contributed immensely towards the growth of mobile services in the country. The market share of the CDMA operators has grown from 2% to 27% during the last 5 years. About 27% of the subscriber additions are from CDMA operators every month. Out of a total of 200 Million mobile subscriber base, the contribution of the CDMA operators is about 54 Million. It was the entry of CDMA operators which had triggered the fall of tariffs in the country. This has been well recognized by the Government and the TRAI.

**GSM tariff at the time of introduction of service was Rs. 16.00 per minute whereas with the introduction of CDMA service in the year 2002, the tariff went down drastically due to intensive competition and aggressive marketing plan of the CDMA operators. TRAI, in one of its statements regarding level of competition in mobile telephony has stated that "*CDMA mobile operators admittedly contributed mobile telephony in a big way*".**

2. Sir, even though a non level playing field exists in the allocation of spectrum to the CDMA operators vis-à-vis the GSM operators, we want to assure you that CDMA operators would do their best in achieving the Government targets of 500 Million subscriber base by 2010.
3. It was brought out by the COAI in their presentation in the meeting that much higher spectrum has been allocated to the GSM operators in most of the European countries and even in China. We feel that such a comparison is not tenable since the spectrum was available in abundance and there was no other use of that particular spectrum band

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in these countries. GSM technology was also in nascent stage and, therefore, required more spectrum than what is required today as lot of spectrum efficient innovations have been developed since then. It may be worthwhile to mention that no spectrum has been allocated in most of these countries during the last 4 years.

4. The COAI's comparison of China in 1998 vis-à-vis India 2007 is completely flawed and ill-founded as large scale technological innovations have taken place during this decade which has enabled the GSM operators to use the spectrum much more efficiently. It may be worthwhile to mention that even today, on an average, mobile operators in China serve 8.5 Million subscribers per MHz vis-à-vis 3.9 Million subscribers per MHz in India. It would, thus, be seen from the table below that spectral efficiency of GSM operators is much lower in India as compared to China:

S.N.	Country	Technology	Spectrum Released (MHz)	Subscribers (in Mn)	Subs (Mn) / MHz)
1	India	GSM	37.2	148	3.9
2	China	GSM	50.0	425	8.5

5. It is true that the spectrum is the lifeline of cellular services and adequate supply of spectrum is a must for achieving the national telecom growth, but it has to be kept in mind that the spectrum is also a limited resource and as such has to be utilized efficiently and not wasted. It may be recalled that one of the main objectives of the NTP-99 is to achieve the efficiency and transparency in the spectrum management. The NTP-99 (Para 3.1.1) stipulates that review of the spectrum utilization should be taken up from time to time keeping in view the emerging scenario of spectrum availability, optimal use of spectrum, requirements of market competition and other interest of public.

The Clause 23.5 of UASL also stipulates that the frequency shall be assigned by the WPC based on usage, justification and availability. The Clause 43.5 of the license also stipulates that the maximum allocable frequency to the cellular operators based on GSM technology is 6.2 + 6.2 MHz and for CDMA technology is 5 + 5 MHz. Additional spectrum beyond this stipulation may be considered for allocation after ensuring optimal and efficient utilization of the already allocated spectrum. However, spectrum not more than 5 + 5 MHz in respect of CDMA systems or 6.2 + 6.2 MHz in respect of TDMA based systems shall be allocated to any new UASL. Therefore, the operators do not have rightful claim beyond 5 + 5 MHz in case of CDMA technology and 6.2 + 6.2 MHz in the case of GSM technology which is their contracted spectrum.

6. As a matter of fact, the GSM operators have already been allocated spectrum beyond this contracted limit, while CDMA operators are still

languishing at 5 MHz or below 5 MHz, which is the contracted spectrum for them. Thus, a non level playing field has been created and needs to be corrected without further delay. Internationally, the regulators are moving to spectrum allocation on a technology neutral basis.

7. Unified Access Service license stipulates spectrum of only 6.2 + 6.2 MHz to GSM operators. It further states that spectrum not more than 6.2 + 6.2 MHz for TDMA would be allocated to any Unified Access Service licensees. Similar stipulation is also there in the CMTS license. In view of this, operators do not have any right to claim spectrum beyond 6.2 + 6.2 MHz under the GSM technology platform. Therefore, any operator having spectrum beyond the contracted amount should be charged suitably based on the **market forces**. Due to technology neutral policy, CDMA operators should also be given equal amount of spectrum as allocated to GSM operators.

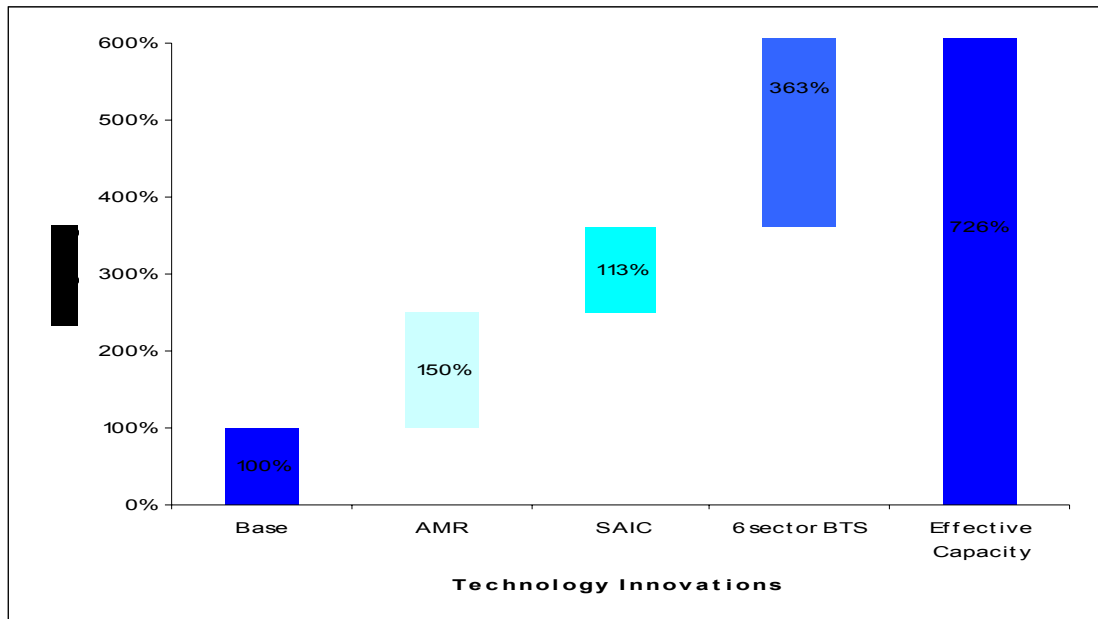
We would like to point out that leading GSM operators in Mumbai & Delhi having 10 MHz spectrum have been meeting TRAI's QoS standards for the last 6 quarters. The table below provides QoS data of GSM operators for the country [source TRAI]. It is clear from the table that the so called "shortage of spectrum" with GSM operators has not impacted their QoS performance seriously.

Parameters / Benchmarks		Overall		
		Total	Comply	%
Connection with good voice quality	>95%	134	130	97
Call Setup Success Rate	>95%	135	133	98.5
SDCCH / PCH Congestion	<1%	135	128	94.8
TCH Channel Congestion	<2%	135	126	93.3
Call Drop Rate	<3%	134	132	98.5

**In view of that, we do not believe there is any justification for further allocation of additional spectrum to the GSM operators.**

8. We will also like to mention here that following innovations for spectral efficiency have taken place in respect to GSM technology in the recent past:
  - (i) Adaptive Multi-Rate CODEC Technique (AMR)
  - (ii) Single Antenna Interface Cancellation (SAIC)
  - (iii) In-Building solutions-Low Power FEMTO Cells
  - (iv) Six Sector BTS

100% AMR penetration can result in nearly 150% capacity enhancement. AMR is only a function of handset and 100% of the GSM networks are AMR capable. Similarly, the SAIC technique is being deployed this year and around 45 to 50% additional capacity gain is expected with the introduction of this technology. The deployment of Six Sector BTS is expected to give capacity increase of more than 300%. Thus, taking all these innovations together, a capacity gain of around 700% is technically possible and feasible. We feel that with all these innovations in GSM technology, there is a need to bring parity in the spectrum allocation between GSM & CDMA.



In one of the slides in its presentation, COAI has mentioned that spectrum allocation in some countries is much more than in India and therefore, there is need for further allocation of spectrum. It is also illogical to compare India with countries like France, Spain, UK, Netherlands, Germany etc with reference to number of operators. This argument of COAI is flawed. India is a country of about 110 crore people with about 7 to 8 mobile operators, meaning that one operators serve every 15 crore people. Serving of subscribers in a network is dependent on the distribution and disbursal of population, availability of spectrum in the country, network engineering, resources to be deployed in that country etc.

If same criteria as in China is applied here, it will be very clear that three times more subscribers are served in the GSM network than India.

10. It is understood from the press reports that more than 300 applications have been received by the DOT for new licenses. We recommend that a thorough scrutiny of each application is carried out with respect to net worth and other eligibility criteria, so that non serious operators do not enter the telecom industry and spoil the scene by hoarding the scarce spectrum without rolling out the services. To increase the reach of mobile services to the rural people, incentives may be built up like reduction in the USOF contribution. The Government may reduce the payment towards USOF as per the following table instead of the flat 5% at present:

<b>Coverage of Development Block Headquarters</b>	<b>Payment towards USOF</b>
75%	3%
85%	2%
95%	1%

11. Kind attention is also invited to a number of TRAI recommendations pending adoption in the DOT. Some of the recommendations e.g. Mobile Number Portability & Carrier Access Codes may be accepted with immediate effect as they are in the interest of individual subscribers.

Similarly, the recommendations on Active Infrastructure Sharing & definitions of Adjusted Gross Revenue (AGR) should also be accepted without further delay as it will lessen the burden on the mobile operators.

12. The rationalization of UASL license fees which is 10%, 8% & 6% at present for A, B & C Circles, is overdue. This license fees needs to be rationalized to 6% in line with the NLD & ILD license fees.

Thanking you,

Yours faithfully,



**S.C.KHANNA**  
**SECRETARY GENERAL**