

No.101-19/2007-MN
13th September 2007

Dear Shri Mathur,

Kindly refer to DO letter No. 101-19/2007-MN dated 29.8.2007 of Chairman, TRAI vide which, TRAI had sent its recommendations on "Review of license terms & conditions and capping of number of access providers." In the said recommendations, at Annexure VII (Subscriber number possible to serve with the spectrum amount), inadvertently a preliminary calculation sheet got attached instead of final sheet. The final sheet is attached herewith for your record. However, it may kindly be noted that the initial assumptions for calculation and final result for the allotment of spectrum based on number of subscriber remains the same.

A copy of this letter is being put on TRAI website www.trai.gov.in.

With

Yours sincerely,

(R.N.Prabhakar)

Shri D.S.Mathur,
Secretary (T)
Department of Telecommunications,
20 Ashoka Road, Sanchar Bhawan,
New Delhi – 110001.

Encl: As above

Annex VII Subscriber number possible to serve with spectrum amounts

Weighted Average Method of Calculation of spectrum allocation

Scenerio1 :- When 6.2 Mhz spectrum is allotted			
Number of BTSs* installed	1000		
Freq Reuse Pattern-4/12			
		Subscribers	Remark
BTS Configuration-		1475700	1Carrier reserved for IBS
2+2+2	10%		
4+4+4	90%		
Assuming traffic 40m Erl/Subscriber			
Traffic=Weighted Avg erl/0.04	1475.70		
	Rounded Off	15 lakh	
Hence with allotment of 6.2 Mhz the operator should reach to 15 lakh subscribers figure before he is allotted further spectrum (8Mhz)			

Scenerio 2:- When 8 MHz spectrum is allotted			
Number of BTSs* installed	1400		
Freq Reuse Pattern-5/15			
		Subscribers	Remark
BTS Configuration-		2224110	2TS/Sector reserved for Data(GPRS & EDGE) and 3 Carriers for IBS
4+4+4	60%		
5+4+5	40%		
Assuming traffic 40m Erl/Subscriber			
Traffic=Weighted Avg erl/0.04	1588.65		
	Rounded Off	20 lakh	
Hence with allotment of 8 Mhz the operator should reach to 20 lakh subscribers figure before he is allotted further spectrum (10MHz)			

* Only Macro BTS have been considered. Additional in building solution/micro BTS will vary based on the requirement.

Weighted Average Method of Calculation of spectrum allocation

Scenerio 3 :- When 10 MHz spectrum is allotted			
Number of BTSs* installed	1800		
Freq Reuse Pattern-5/15			
		Subscribers	Remark
BTS Configuration-			
4+4+4	50%	3475845	1 carrier reserved for GPRS/EDGE & 4 carriers for IBS
5+5+5	30%		
6+6+6	20%		
Assuming traffic 40m Erl/Subscriber			
Traffic=Weighted Avg erl/0.04	1931.03		
	Rounded Off	30 lakh	

Hence with allotment of 10 MHz the operator should reach to 30 lakh subscribers figure before he is allotted further spectrum (12.4MHz)

Scenerio 4 :- When 12.4 MHz spectrum is allotted			
Number of BTSs* installed	2300		
Freq Reuse Pattern-5/15			
		Subscribers	Remark
BTS Configuration-			
4+4+4	30%	5490675	4Carriers reserved for IBS and 1 carrier for Data & Misc
5+5+5	20%		
6+6+6	30%		
8+8+8	20%		
Assuming traffic 40m Erl/Subscriber			
Traffic=Weighted Avg erl/0.04	2387.25		
	Rounded Off	50 lakh	

Hence with allotment of 12.4 Mhz the operator should reach to 50 lakh subscribers figure before he is allotted further spectrum

*** Only Macro BTS have been considered. Additional in building solution/micro BTS will vary based on the requirement.**