

TELECOM REGULATORY AUTHORITY OF INDIA
(Quality of Service Division)

Dated: 12th May, 2010

Point of Interconnection (POIs) Congestion report of the Cellular Mobile Telephone Service Providers (CMTS) and Basic Telephone Service (Wireline) Providers for the months of October, November & December 2009.

The growth of mobile network is rapid and about 18 million subscribers are added every month. In order to ensure seamless interconnection, TRAI has been monitoring the level of congestion at the Point of Interconnection (POI) between various service providers on a monthly basis. This parameter signifies the ease with which a customer of one network is able to communicate with a customer of another network. This parameter also reflects as to how effective is the interconnection between two networks. The benchmark notified by TRAI in the QoS Regulations for this parameter is <0.5%. This means out of 200 calls between two operators only one call should face congestion. The result of the monitoring reveals that in a number of areas, the degree of congestion between the operators is far more than this benchmark.

A. Cellular Mobile Telephone Service :

Cellular Mobile Service Providers (CMSPs) have submitted their POIs Congestion Reports to TRAI for the months of October, November and December 2009.

- This report include only the Service Providers who do not meet the TRAI stipulated POI Congestion benchmark of <0.5% in any of their service areas.
- The POI Congestion Report analysis for the month of October, November and December 2009 shows that the performance of the CMSPs with respect to the congestion on POIs has deteriorated in the month of December 2009 as compared with the performance in September 2009. During the period Cellular Mobile Telephone Subscriber base has increased from 471.73 million in September 2009 to 525.09 million in December 2009. The number of POIs having congestion has increased from 50 in September 2009 to 61 in December 2009.
- Out of these 61 POIs having congestion in December 2009, 33 POIs are having congestion more than 5% as compared to 28 POIs in September 2009.
- The number of worst affected POIs where the level of congestion is more than 10% is 25 in December 2009, whereas it was 21 in the month of September 2009. Out of these 25 POIs, in 6 POIs the level of congestion is more than 40% which is same as in the month of September 2009.
- In respect of POIs from Private CMSPs to BSNL/MTNL, the number of POIs having congestion is at the same level of 11 in September 2009 and also in December 2009.

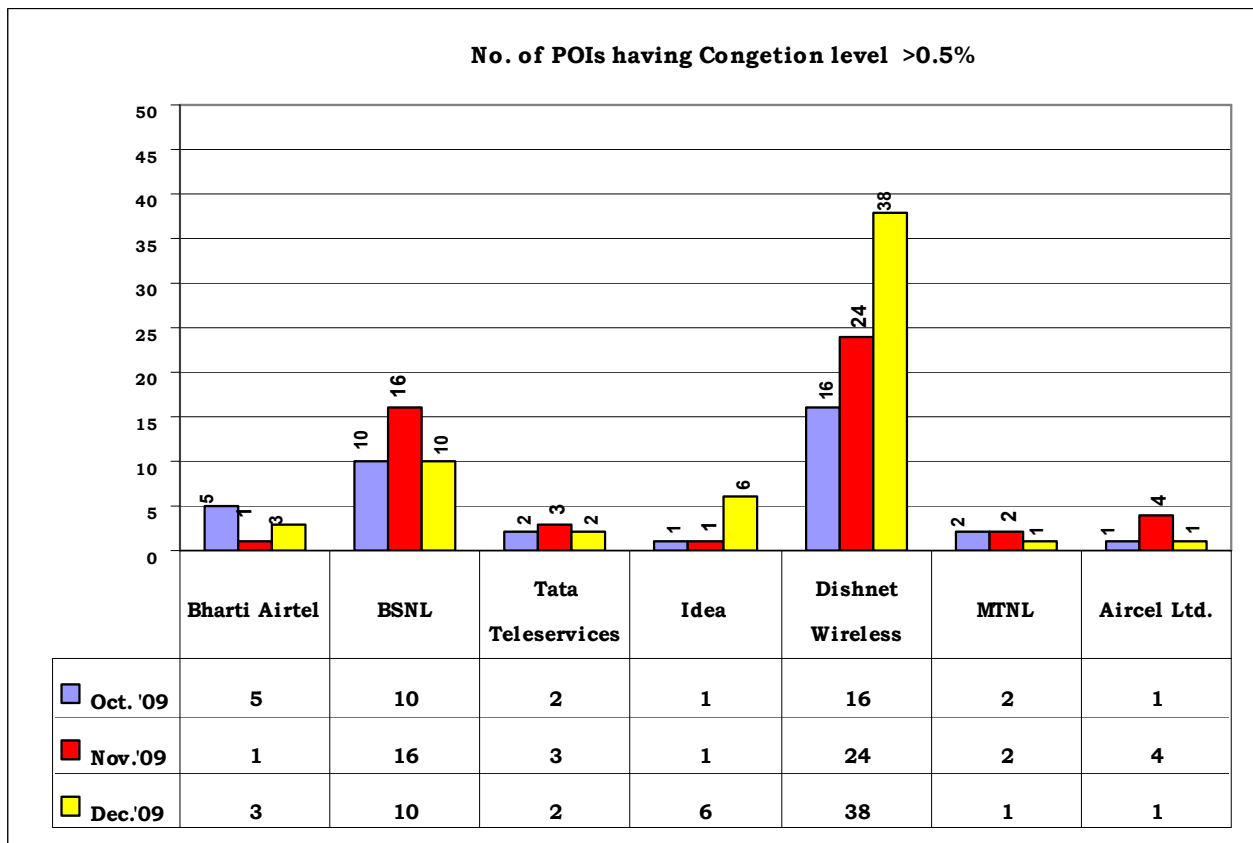
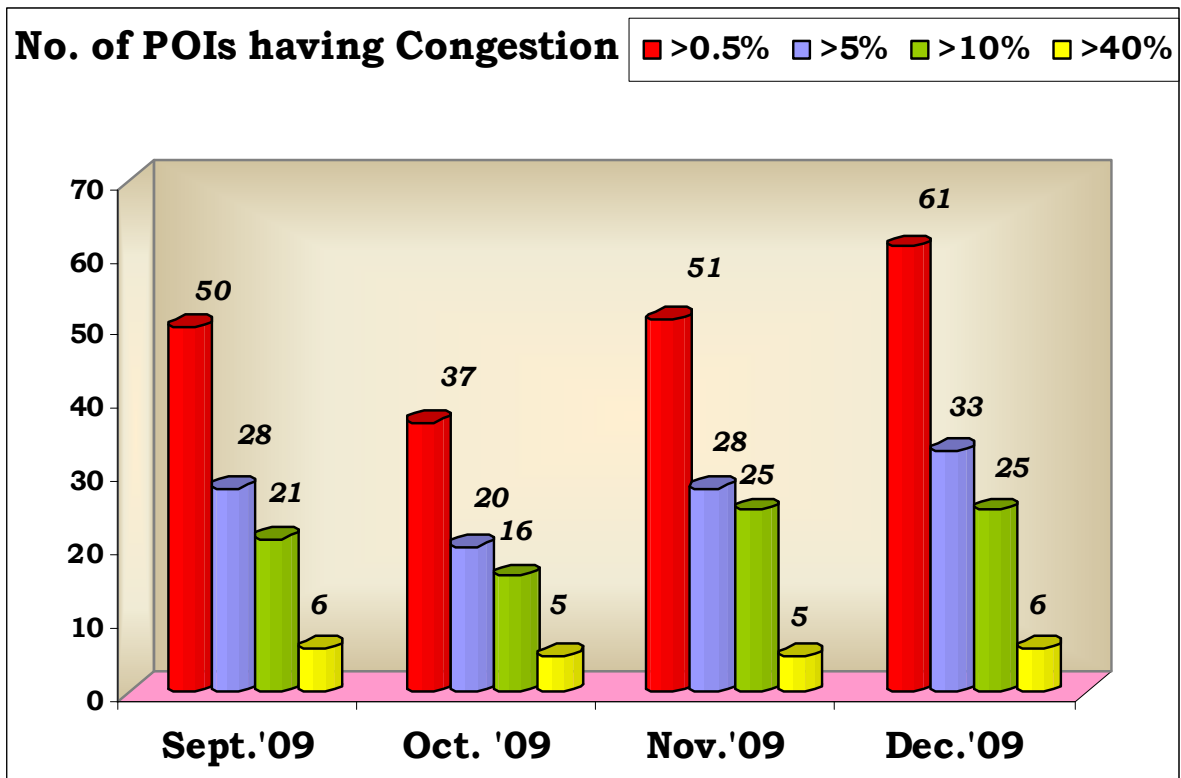
- During the same period, the number of POIs having congestion among the Private CMSPs has increased from 39 in September 2009 to 50 in December 2009.
- Amongst the service providers as of December 2009, Dishnet Wireless have congestion in (38 POIs) followed by BSNL (10 POIs), Idea (6 POIs), Bharti Airtel (3 POIs) and Tata Teleservices (2 POIs).
- The Circles/ States more affected due to POI congestion are Himachal Pradesh (12 no. of congested PoIs) followed by Kolkata (8 PoIs), Bihar and West Bengal (each 7 PoIs) and J&K, Orissa (each 6 PoIs) .

B. Basic Telephone Service (Wireline) :

As per the new Regulations, 2009, Basic Telephone Service (Wireline) Providers have submitted their POIs Congestion Reports to TRAI for the months of October, November and December 2009.

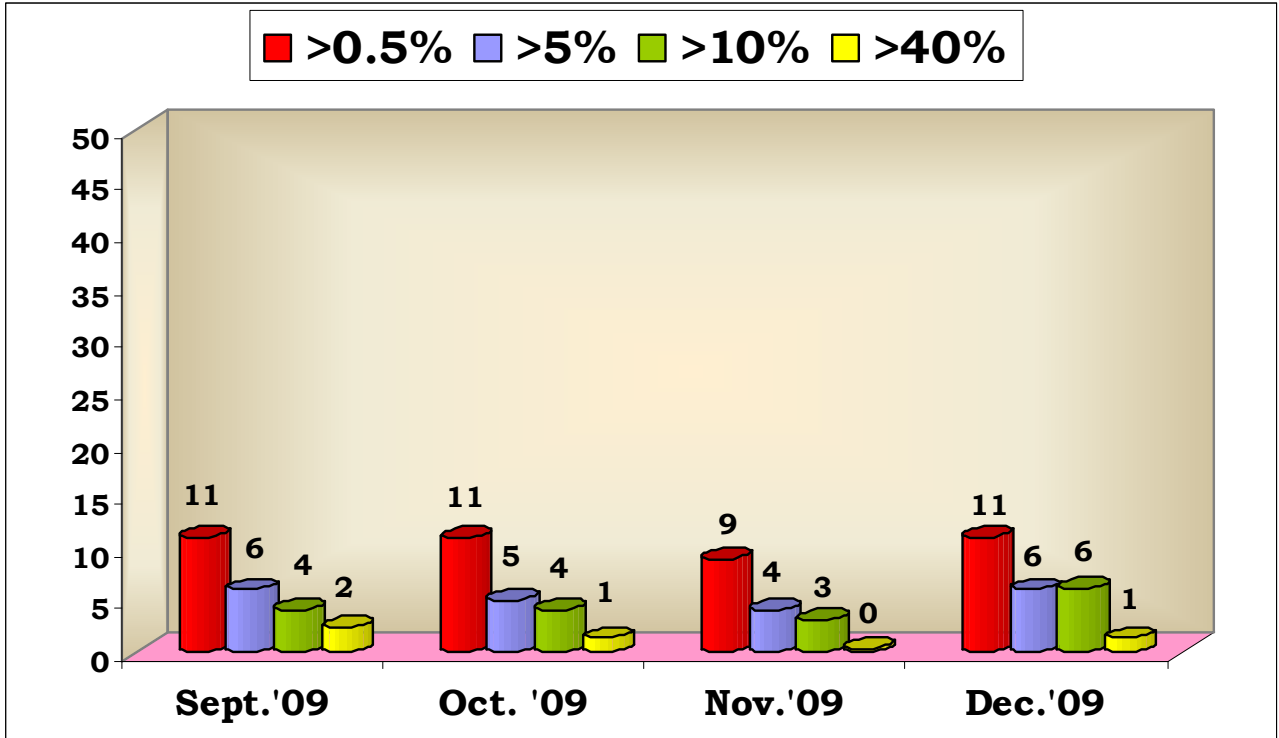
- This report include only the Service Providers who do not meet the TRAI stipulated POI Congestion benchmark of <0.5% in any of their service areas.
- The POI Congestion Report analysis for the month of October, November and December 2009 shows that the performance of the Basic Telephone Service (Wireline) providers with respect to the congestion on POIs has improved in the month of December 2009 as compared with the performance in September 2009. During the period, Basic Telephone Service (Wireline) Subscriber base has decreased from 37.31 million in September 2009 to 37.06 million in December 2009. The number of POIs having congestion has decreased from 21 in September 2009 to 11 in December 2009 .
- Out of these 11 POIs having congestion in December 2009, 8 POIs are having congestion more than 5% as compared to 16 POIs in September 2009.
- The number of worst affected POIs where the level of congestion is more than 10% is 6 in December 2009, whereas it was 12 in the month of September 2009. Out of these 6 POIs, in 1 POI the level of congestion is more than 40% whereas it was 9 in the month of September 2009.
- In respect of POIs from Private Basic Service Providers to BSNL/MTNL, the number of POIs having congestion is 3 in the month of December 2009 whereas there was no congestion in the month of September 2009.
- In December 2009, the number of POIs having congestion among the Private Operators is 8 whereas it was 21 in the month of September 2009.
- Amongst the service providers as of December 2009, BSNL have congestion in (6 POIs) followed by Bharti Airtel (5 POIs) .
- The Circles/ States more affected due to POI congestion are Madhya Pradesh (4 no. of congested PoIs) followed by UP-W (3 PoIs) and Delhi, Haryana, J&K and Mumbai (each 1 POI).

C. (i) The analysis of the degree of congestion in the POIs of Cellular Mobile Telephone Service is given below:-

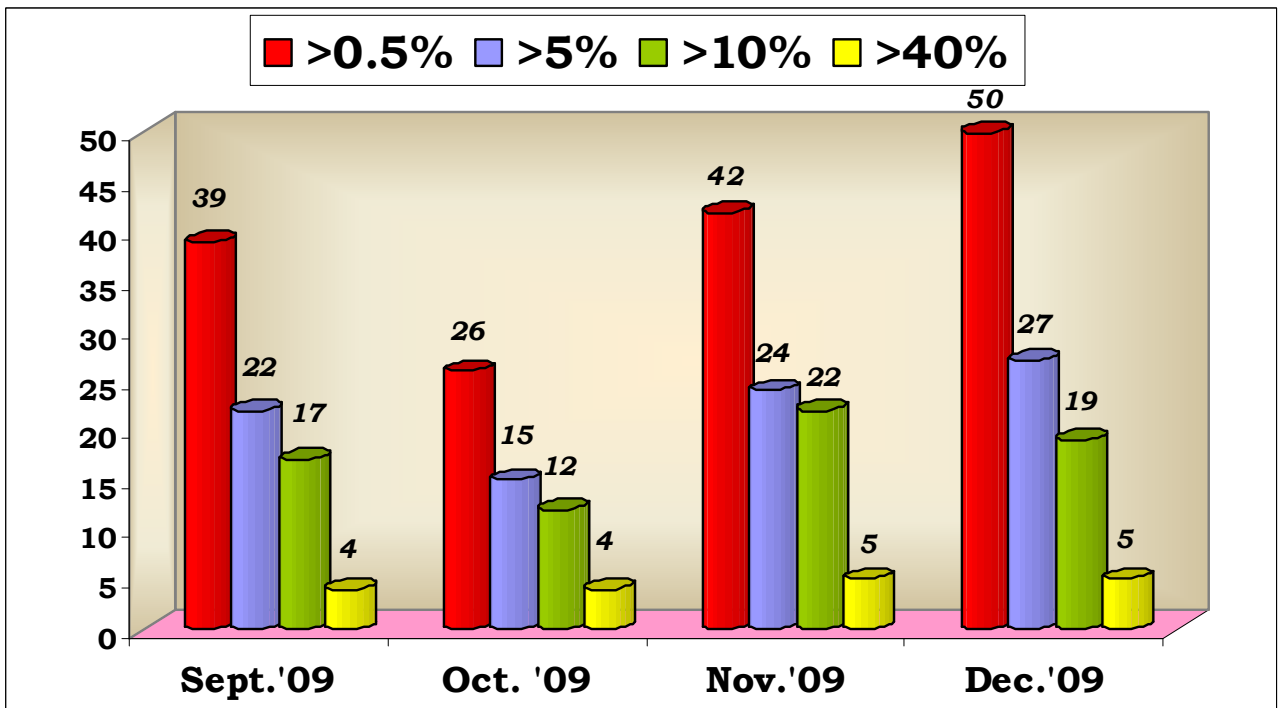


The POI congestion level between Private Service Providers and BSNL, and also among the Private Service Providers is given below in graphs: -

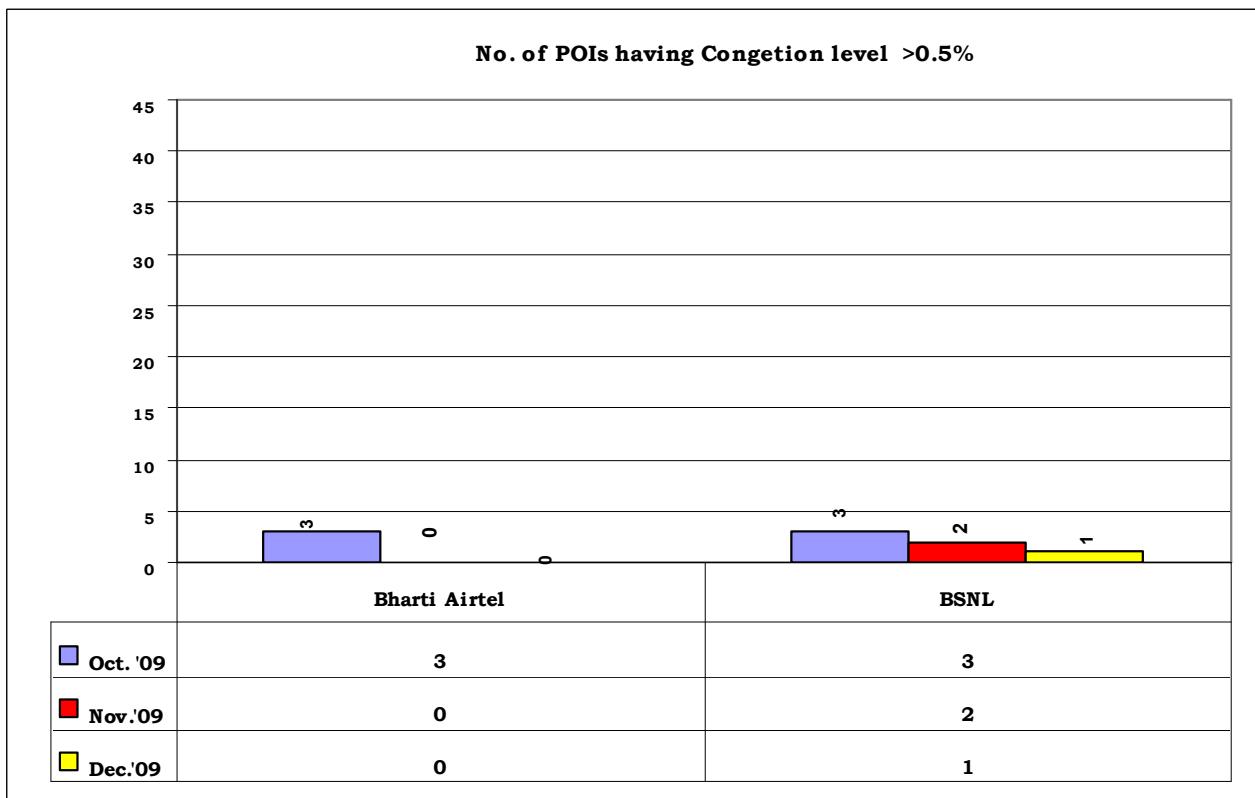
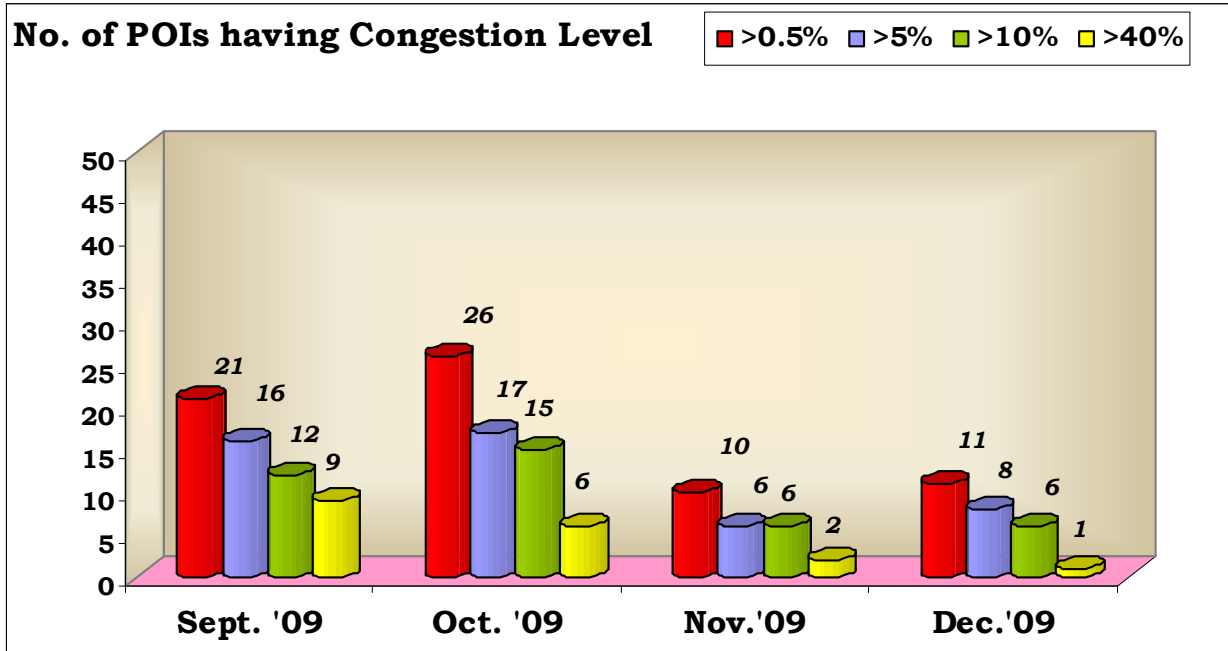
(ii) Number of POIs having congestion level between Private Service Providers and BSNL/MTNL



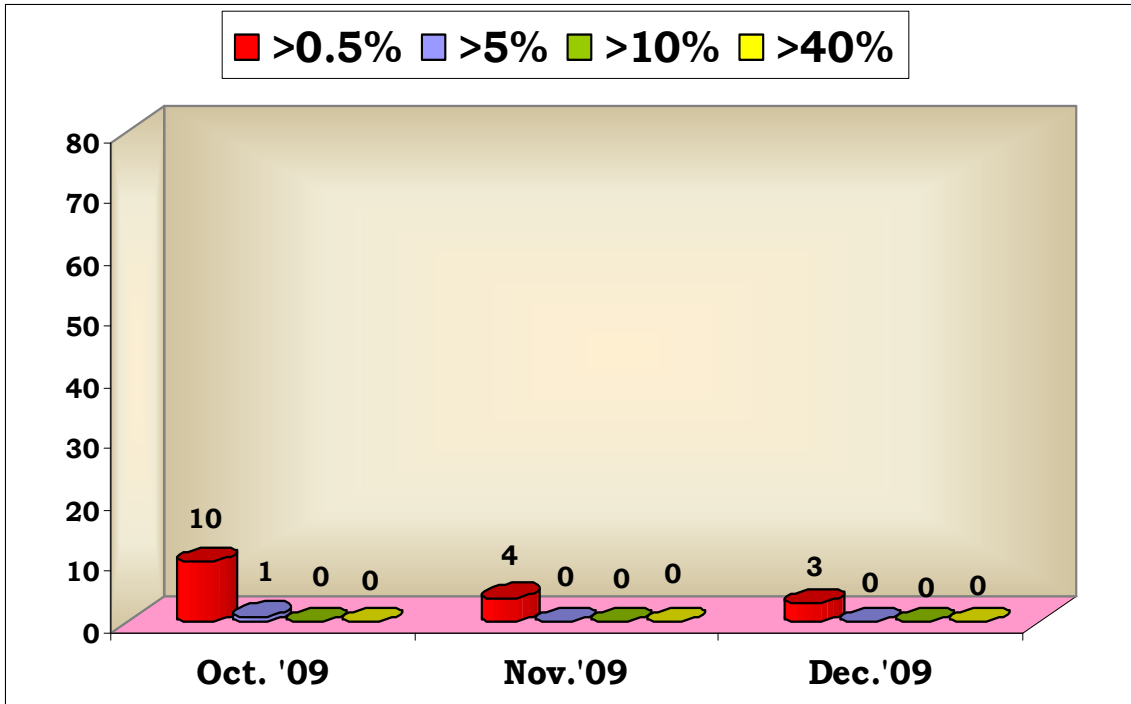
(iii) Number of POIs having congestion level among the Private Service Providers



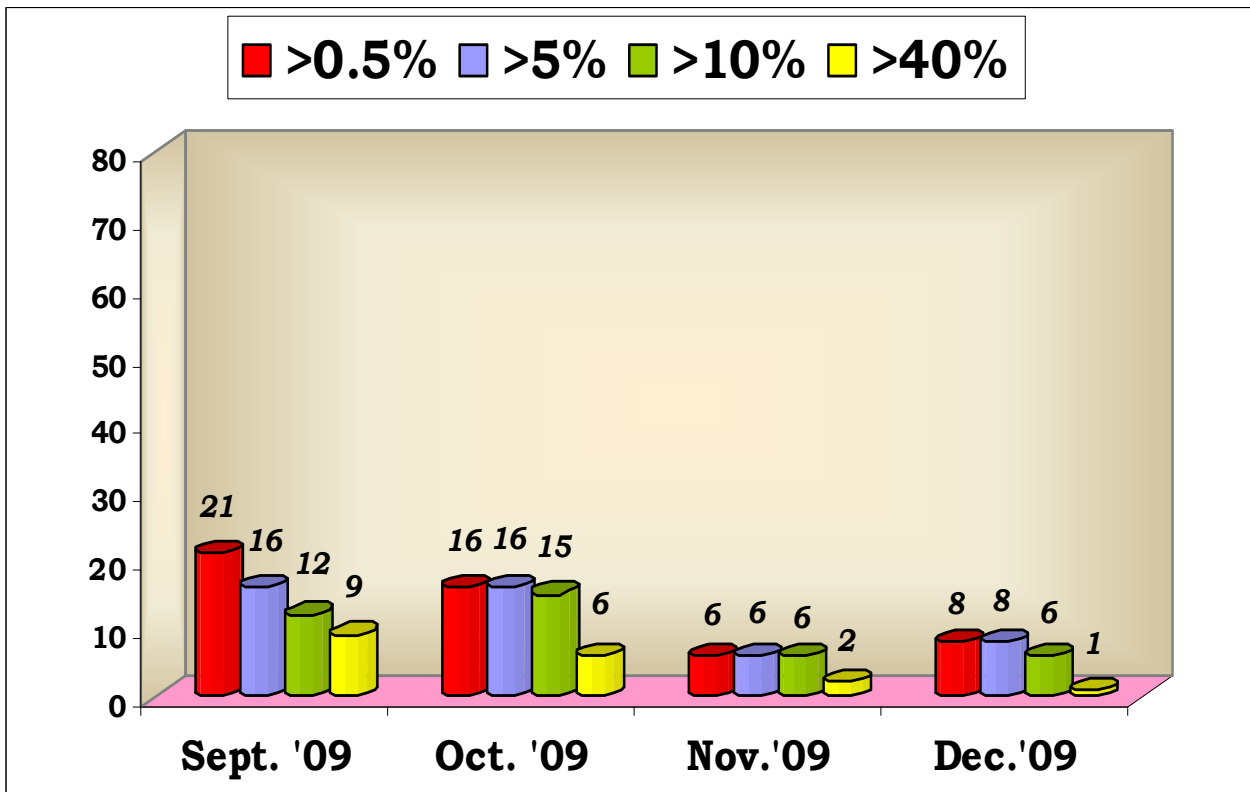
D. (i) The analysis of the degree of congestion in the POIs of Basic Telephone Service (Wireline) is given below:-



(ii) Number of Basic POIs having congestion level between Private Service Providers and BSNL/MTNL



(iii) Number of Basic POIs having congestion level among the Private Service Providers



E. Critical Analysis of Cellular Mobile Telephone Service – Operator wise:

The worst affected POIs where Congestion level on point of interconnections (POIs) is more than 10%, from Private Service Providers to BSNL and Private Service Providers to Private Service Providers for the month of December 2009 :-

POIs between Private Operators and BSNL/MTNL						
Bharti Airtel	Tata Teleservices	Reliance Com/ Reliance Telecom	Idea Cellular	Vodafone	Dishnet Wireless	BSNL
-	AP :- BSNL Vijayawada = 18.48%	-	-	-	NE :- Cellone Shillong = 12.78% J&K :- Cellone Srinagar = 55.35% Level – 2 Srinagar Local = 17.38% HP :- Cellone = 19.08% Level – 1 Shimla = 18.17%	With Pvt. Opt. HP :- RTL MSHE-1 = 38.65% Bharti Airtel = 22.81% RTL MSHN-1 = 53.98% Dishnet Aircel = 11.17% Idea Cellular = 47.96% UP-W :- Reliance Mobile = 23.5%

POIs among the Private Operators						
Bharti Airtel	Tata Tele.	Reliance Com/ Reliance Telecom	Idea Cellular	Vodafone	Dishnet Wireless	Aircel
-	-	-	MH :- Reliance Mobile - 27.18%	-	Mumbai :- Reliance Local = 12.94% West Bengal:- Airtel, WB (Kharagpur) = 23% RTL WB (Durgapur) = 45% RIM WB (Kharagpur)= 67% RTL Kolkata = 20% Orissa :- Airtel BHU Local = 30.38% Stel Local = 21.81% J&K :- Aircel ABS = 10.01%	-

					Bihar :- Airtel Local = 11.25% RIM = 21.03% STel = 11% Sistema = 46.41%	
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F. Critical Analysis of Basic Telephone (Wireline) – Operator wise:

The worst affected POIs where Congestion level on point of interconnections (POIs) is more than 10%, from Private Service Providers to BSNL and Private Service Providers to Private Service Providers for the month of December 2009 : -

Bharti Airtel	BSNL	MTNL
Delhi :- Airtel DMSU3 = 25.5%	J&K :- Airtel Cellular Local = 26.44% UP-W :- Reliance CMTS = 33.14% Reliance GSM = 47.78% MP :- Tata Mobile (Chattisgarh) = 21.03% Haryana :- Reliance GSM = 18.37%	--

The non-provisioning and insufficient provisioning of telecom circuit resource as per traffic requirements leads to:

- inter-network congestion at the Point of Interconnection (POI)
- loss of calls
- repeated call attempts by consumers
- deterioration in Quality of Service (QoS)
- consumer dissatisfaction

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Authorised for issue

Advisor (QoS)

Comparative POI Congestion level of Cellular M

Operators	September, 2009				October, 2009			
	>0.5%	>5%	>10%	>40%	>0.5%	>5.0%	10.0%	40.0%
Bharti Airtel	2	0	0	0	5	2	1	0
BSNL	1	1	1	0	10	3	3	1
Tata Teleservices	1	0	0	0	2	2	2	0
RCL	0	0	0	0	0	0	0	0
RTL	0	0	0	0	0	0	0	0
Idea	0	0	0	0	1	1	0	0
Vodafone	0	0	0	0	0	0	0	0
Loop Mobile	0	0	0	0	0	0	0	0
Dishnet Wireless	45	27	20	6	16	12	10	4
MTNL	0	0	0	0	2	0	0	0
Aircel Ltd.	1	0	0	0	1	0	0	0
Total	50	28	21	6	37	20	16	5

Mobile Service Providers

November, 2009				December, 2009			
>0.5%	>5.0%	>10.0%	>40.0%	>0.5%	>5%	>10%	>40%
1	0	0	0	3	0	0	0
16	10	10	4	10	7	6	2
3	2	2	0	2	2	1	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	6	3	1	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
24	15	12	1	38	21	17	4
2	0	0	0	1	0	0	0
4	1	1	0	1	0	0	0
51	28	25	5	61	33	25	6