Telecom Regulatory Authority of India

Summary of Stakeholders' Responses

on

Consultation Paper 16/2008

Dated 18th December, 2008

Consultation Paper

On

Review of Quality of Service (QOS) Performance Parameters of Basic Service (wireline) and Cellular Mobile Telephone Service

Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan,
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Sl.No	STAKEHOLDERS NAME	Abv.
Service Providers Associations (2 Nos)		
1.	Association of Unified Telecom Service Providers of India	AUSPI
2.	Cellular Operators Association of India	COAI
CAGs/Consumer Groups (9 Nos)		
3.	Surya Foundation	Surya
4.	Voluntary Organization in Interest of Consumer Education	VOICE
5.	National Center for Human Settlements & Environment	NCHSE
6.	Bharat Jyoti	Bharat Jyoti
7.	Federation of Consumer and Service Organizations	FCSO
8.	Kerala Consumer Service Society	KCSS
9.	Consumer Forum (R)	CF
10.	Consumer Protection Association	CPA
11.	Upbhokta Sanrankchhan & Kalyan Samiti	US&KS
Service Providers (5 Nos)		
12.	Sistema Shyam Teleservices	Sistema
13.	Bharti Airtel Ltd.	Bharti
14	Bharat Sanchar Nigam Ltd.	BSNL
15.	Reliance Communications Ltd.	RCOM
16.	Tata Teleservices Ltd.	TTSL
Others (5 Nos)		
17.	Parijat Garg	Parijat
18.	Market Pulse	Market
19.	Sasken Communication Technologies	Sasken
20.	Nielsen Telecom Practice Group	Nielsen
21.	Ravi Dhameja	Ravi
22.	Joglekar	Joglekar

Summary of Stakeholders' Responses
On
Review of Quality of Service (QOS) Performance Parameters of Basic Service (wireline) and
Cellular Mobile Telephone Service

1. PRELIMINARY/GENERAL COMMENTS

1.1. AUSPI - In an environment of competitive market with telecom growth in abundance and new technological evolution, specifying special QoS should not form a part of regulations, we believe that in a competitive market place of telecom services there should be no regulation on QoS as the operators would take care of the same to survive & to retain customers and with MNP implementing shortly QoS Regulation will have no significant role to play.

1.1.1. Competition Scenario in the Telecom Market

As mobile penetration is increasing, competitive pressure to attract new customers and retain existing customers has resulted in concerted efforts by most service providers to continuously improve the quality of service. There is continuous flow of investment in the network and is also a key element of service provider's strategies for improving service quality. The improving quality standard is also evident from TRAI surveys on quality parameters and quarterly performance monitoring reports published by the Authority.

We appreciate the Authority's viewpoint that the markets work best when consumers are informed about the quality of service they are buying. Therefore there is need to give the relevant information to the consumer about the QoS so that consumer makes an informed choice of service provider. However this viewpoint does not support the need of setting up of QoS targets through regulatory intervention especially when the market is competitive. **In the existing market there is no evidence that the competition in market is failing especially in the mobile sector requiring continued existence of excessively regulated QoS obligations.**

1.1.2 International Regulatory Approaches for QoS in the Competitive Markets

Generally regulators stop regulating the QoS parameters when the markets are enough competitive and does not require constant monitoring. In this regard the <u>Canadian</u> regulator notes that:

"While the CRTC regulates several areas of the Canadian telecommunications industry, the degree of the regulation varies depending on the services being offered and the degree of competition. In the cellular (wireless) telephone services industry, the Commission continues to play a role in ensuring the confidentiality of customer information and ensuring that customers are not subject to undue preference or unjust discrimination. *However, the CRTC does* *not regulate the rates, quality of service or business practices of cellular (wireless) service providers.*

Cellular telephone subscribers who have complaints about their service should contact their provider directly. *In a competitive telecommunications environment it is in the provider's best interest to address the needs and concerns of its current and potential subscribers."*

The issue of specifying QoS parameters for mobile services was reviewed by the Australian Communications Authority in 1998 and its decision is given in its report on "Review of the Telecommunications Customer Service Guarantee (CSG). The Australian Authority after detailed review of the market when only three mobile operators were present in the market concluded that:

"It is not necessary or justifiable to include additional services (such as mobiles or Internet access services) in the CSG Standard, *principally because there is effective competition in these areas* and there is little evidence to suggest there is poor performance in the delivery of these services."

In USA, there are no QoS parameters defined for the cellular services. The Ireland regulator has also not specified any parameters for the cellular services. The UK regulator Ofcom has adopted the co-regulatory approach and left for the cellular industry to define the QoS parameters. The Authority has given few International best practices on QoS standards at Annexure 2 to the consultation paper. It is noted that both Singapore and Australia are not regulating or specifying the QoS standards for the wireless networks. The Singapore Authority is just monitoring the QoS Parameters. It is pertinent to note that the Indian market is much more competitive in terms of HHI index then these cellular markets. The competitive scenario is going to get more intense with the introduction of MVNOs and likely introduction of new 3G operators.

1.1.3. The current status of QOS status for Wireless Networks

The TRAI had commissioned a study for objective measurement Quality of Services performance. The Audit module of this study assessed the Quality of Service for Wire line, and Wireless networks by conducting drive tests as well as live measurements and comparing them with quality of service benchmarks stipulated by TRAI. The Authority recently published the study findings wherein it emerged that the most wireless networks are achieving the notified benchmarks for the network elements.

It is clearly emerging that the competition is putting pressure for continuous improvement of call handling capacity, better voice quality and higher call-completion rates. *The study result can be effectively used to conclude that the falling tariffs are not at the cost of compromising the network quality.*

1.1.4. Quality of Service and Differentiator of Service

The service providers are taking Quality of Service issues more seriously is also evident from the marketing strategies adopted by them. Service providers are pursuing marketing strategies designed to differentiate their brand from rival offerings based on dimensions of service quality such as superior network coverage, reliability, and voice quality etc. Therefore the competition is shifting from price to the quality improvement.

1.1.5. Mobile Number Portability and Likely Impact on Quality of Service

The international experience shows that the Mobile Number Portability has major impact on competition. The operators are forced to increase resources with regard to keeping existing subscribers since it is easier for them to leave while retaining their number. The churn can be controlled only when subscriber is provided quality service and also it is perceived to be better than the competitor. Thus the Mobile Number Portability is going to increase competitive pressures on the service provider and continuously improve services. The operators are getting ready for the launch of Mobile Number Portability and customers will benefit from the enhanced quality of service.

1.1.6. QoS Achievement: Enforcement or Encouragement

There are two approaches to regulate quality of service. In the competitive markets the regulators adopt the *encouragement* approach and rely on the power of publicity, and ultimately competition. The service providers are simply required to measure and publish specified aspects of their performance. The targets are generally set by the operators and not specified by the regulators. There is general conception that the quality parameters decided by the operators in the competitive markets are more efficient and realistic then the parameters defined by the operators.

Although enforcement seems to be better but is not necessarily in the consumer interest. When targets are set by the regulator then the attention is only on a few areas of performance, to the possible detriment of others. The market led quality of service is more holistic.

The Indian telecom market especially wireless access market is much more competitive than most of the countries which have adopted the encouragement policy for QoS implementation. The regulation would never be able to determine all the quality requirements for all classes of subscribers and specify the efficient measurements which are optimized. The flexibility with the services for the service providers and the consumers.

The Authority may focus on issuance on competition reports and other QoS monitoring activities like conducting survey and publishing comparative performances reports and let the market forces play the vital role in QoS areas. The QoS should be enforced only in areas where markets have failed or there is not enough competition to ensure that the consumer interest shall be protected.

The Authority has always believed in the light touch regulation and always gave more weightage to the improvement in the competition. In the competitive market, the operators are best judge to decide the level of quality and corresponding tariffs. The targets set through regulatory intervention are not always best and also may not be in the interest of consumers. It is therefore suggested that the Authority may consider easing of the QoS norms and let the operators decide their own QoS benchmarks. The Authority may adopt the encouragement policy *and limit itself to the monitoring and making appropriate information available for the consumer.*

1.2. **COAI -** As the Authority is aware, the mobile sector in India is characterized by intense competition with already 7-8 operators in the market and expected to go up to 14 once the new licenses roll out their networks. The competitive scenario is going to get more intense with the introduction of MNP, MVNO & 3G. Thus the level of competition in India is far higher than witnessed in any other part of the world. Further the sector is characterized by very low ARPUs and tariffs that are the lowest in the world. In fact it is this affordability of mobile services that is driving the take up and usage of service.

The mobile market is growing at a rapid pace with subscriber additions in the range of 9 to 10 million every month. However, it is also a fact that the basic resource and infrastructural facilities required to serve the rapidly growing subscriber base have not been made available proportionately. Attention is specifically drawn to the non-availability of spectrum and augmentation of interconnection facilities in an adequate and timely manner.

In such a scenario of intense competition, every service provider makes an all out effort to retain existing subscribers and increase market share. The endeavor of every service provider is to provide best quality seamless service to their subscribers. Hence Quality of Service (QoS) is driven by market forces rather than by Regulatory intervention. All service providers constantly endeavor to meet & surpass QoS parameters prescribed by TRAI to a few most important/ critical parameters only.

Even internationally, mostly the regulators do not specify the QoS parameters. They either stop regulating when there is enough competition or they just monitor QoS parameter. In this regard, the Canadian regulator notes that –

> "While the CRTC regulates several areas of the Canadian telecommunications industry, the degree of the regulation varies depending on the services being offered and the degree of competition. ………**However, the CRTC does not regulate the rates, quality of service or business practices of cellular (wireless) service providers."**

Also, even the Australian Communications & Media Authority's "Customer Service Guarantee" standard does not apply to mobile phone services. This can be seen from Annexure 2 of the Authority's Consultation paper, wherein Australia is not specifying the QoS standards for wireless networks. Also, Singapore is just monitoring the QoS parameters.

In light of the above, we would like to respectfully submit that as the competition increases and market evolves, we should progressively move towards a regime of forbearance with regard to QoS for mobile. *Rather than introducing new/ additional parameters for QoS, our aim should be to progressively reduce the parameters reported to TRAI.*

We also believe that the efforts of the Authority should be focused on making Regulations so as to ensure timely availability of spectrum and other controlled infrastructure to the service providers in order to facilitate the delivery of high quality services to the consumers.

1.3. **Bharti -** Customer satisfaction has been the key philosophy of Bharti Airtel from the very beginning. We have been constantly strengthening our market share through our customer centric strategies. We have been constantly studying the market needs and customer requirements. This keen interest of keeping in touch with customers has been helping us to evolve our processes to deliver better quality of service continuously.

We appreciate the Authority's efforts in the direction of improving the quality of Customer service and we acknowledge the contribution of various regulations for the cause of customer welfare. The mobile sector in India is characterized by intense competition. As compared to other parts of the world, the number of service providers in a service area is the highest and the tariffs are the lowest. The mobile service is extremely affordable and the same is driving the take-up and usage of service. We also acknowledge the role of market forces to drive the cause the customers' welfare.

1.4. **TTL -** The present review of the QoS is based on the feedback received by the TRAI from the environment. We are all well aware of the tremendous expansion of Telecom services in the country and the intense competition in the market. The original QoS parameters were prepared on the basis of QoS parameters of other countries besides technical arguments to support specific values for a given parameter. It is well understood that the Authority has based its observations in this Consultation on the documented performance parameters of each telecom circle, however we would have appreciated if the "reasons for being above or below" the performance parameters on circle wise basis of different operators would have been indicated for our transparent analysis and consultation. Some aspects (such as spectrum shortage, regular availability of power supply, and steady supply / availability of human resources particularly in rural areas) are beyond the control of the Telecom service providers. We recommend these for attention of the Authority as they directly affect the QoS compliance costs and achievement of specified parameters.

We at Tata Teleservices pride ourselves on being an operator with a difference having a strong customer services focus and are very particular on meeting the QoS parameters.

Keeping in mind the cost of compliance, low ARPUs, it is for consideration of the Authority that there be different levels for QoS for differentiated customers as is the case in the Banking industry.

Given the market conditions and with the increasing competition each operator is very conscious of delivering better quality of service to his customers. This combined with the forthcoming implementation of MNP will automatically encourage better service delivery to retain customers. It is therefore recommended that we only have a minimalist set of QoS parameters for regulation by the Authority.

1.5. **RCOM -** The Telecommunication services in the India are constantly evolving. The Indian Cellular mobile service market has significantly changed due to multiplicity of competition where in there are 7-8 operators now and the number of operators will be further going up to 10-12 operators per service area. Now more operators are offering more products and services to the consumers than ever before. The significant changes in the market conditions and in the patterns of consumer behaviour require a periodic re-assessment of the QoS Regulation. We welcome the TRAI's initiative to review the QoS regulatory arrangements in the context of the new market dynamics and consumer behaviour.

This consultation exercise should enable TRAI to decide what policy should apply in relation to the current market situation. We fully support and endorse the Authority's view that there is need to reduce or eliminate unnecessary requirements in the QoS Regulation. The extent of regulatory intervention to specify the QoS benchmarks should depend on the competitive scenario of the market. The best regulatory approaches should be examined and the policies which best suit our requirements adopted.

1.5.1. Competition and Quality of Service

(i) As mobile penetration is increasing, competitive pressure to attract new customers and retain existing customers has resulted in concerted efforts by most service providers to continuously improve the quality of service. There is continuous flow of investment in the network and a key element of service providers strategies for improving service quality.

(ii) The continuous expansion of network coverage, improving the call handling capacity and network upgrades is improving service quality. The same is even evident from TRAI surveys on quality parameters and quarterly performance monitoring reports published by the Authority. There is improving trend of better voice quality, higher call-completion rates and fewer call drops.

(iii) The cell sites are being increased and micro-cell sites additionally deployed to increase the quality of service.

(iv) We appreciate the Authority's viewpoint that the markets work best when consumers are informed about the quality of service they are buying. Therefore there is a need to give the relevant information to the consumer about the QoS so that consumer makes a informed choice. However this viewpoint does not support the need of setting up of QoS targets through regulatory intervention when the market is competitive. **In the existing market there is no evidence that the competition in market is failing especially in the mobile sector requiring continued existence of excessively regulated QoS obligations.** To the contrary, there is evidence that the market is functioning well: there is strong competition in the sector, with more than a dozen telephony providers offering services. In light of this, there is need to review the regulatory approach to deal with the QoS issues.

1.5.2 International Regulatory Approach for QoS in the Competitive Markets

(i) Most regulators stop regulating the QoS parameters when the markets are enough competitive and do not require constant monitoring. In this regard the Canadian regulator notes1 that:

"While the CRTC regulates several areas of the Canadian telecommunications industry, the degree of the regulation varies depending on the services being offered and the degree of competition. In the cellular (wireless) telephone services industry, the Commission continues to play a role in ensuring the confidentiality of customer information and ensuring that customers are not subject to undue preference or unjust discrimination. However, the CRTC does not regulate the rates, quality of service or business practices of cellular (wireless) service providers. Cellular telephone subscribers who have complaints about their service should contact their provider directly. In a competitive telecommunications environment it is in the provider's best interest to address the needs and concerns of its current and potential subscribers."

(ii) The issue of specifying QoS parameters for mobile services was reviewed by the Australian Communications Authority and its decision is given in its report on "Review of the Telecommunications Customer Service Guarantee (CSG). The Australian Authority after detailed review of the mobile market at a time when there were only three mobile perators, concluded that:

"It is not necessary or justifiable to include additional services (such as mobiles or Internet access services) in the CSG Standard, principally because there is effective competition in these areas and there is little evidence to suggest there is poor performance in the delivery of these services."

(iiii) In USA, there are no QoS parameters defined for the cellular services. The Ireland regulator has also not specified any parameters for the cellular services. The UK regulator OFCOM has adopted the co-regulatory approach and left for the cellular industry to define the QoS parameters.

The Authority has given few International best practices on QoS standards at Annexure 2 to the consultation paper. It is noted that both Singapore and Australia are not regulating or specifying the QoS standards for the wireless networks. The Singapore Authority is just monitoring the QoS Parameters. It is pertinent to note that the Indian market is supposed to be much more competitive in terms of HHI index then most of these markets. The competitive scenario is going to get more intense with the introduction of MVNOs and new 3G operators.

The current status of QOS for Wireless Networks. TRAI had commissioned a study for objective measurement Quality of Services performance as per the published QoS notifications. The Audit module of this study assessed the Quality of Service for Wireline, and Wireless networks by conducting drive tests as well as live measurements and comparing them with quality of service benchmarks stipulated by TRAI.

The Authority recently published the study findings wherein it emerged that the most wireless networks are achieving the notified benchmarks for the network elements. The number of operators audited and the Audit findings with respect to the performances of the networks is given below :

Circle	Operators	Audited Study Findings
UP(E)	Bharti, Vodafone, Idea, BSNL, TTSL, RCOM	Most of the service providers are meeting most of the benchmarks.
Punjab	Bharti, Vodafone, Idea, BSNL, TTSL, RCOM	Most of the service providers are meeting most of the benchmarks
Haryana	Bharti, Vodafone, Idea, BSNL, TTSL, RCOM	For almost all network parameters, all the service providers meet the TRAI specified benchmark.
Delhi	Bharti, MTNL, Vodafone, TSL, Idea, RCOM	For almost all network parameters, all the service providers meet the TRAI specified benchmark.
Bihar	Bharti Airtel, BSNL, RCOM, TTSL, Dishnet and.RTL	Most of the service providers do not meet the benchmarks for some of the parameters
Kolkata	Bharti Airtel, BSNL, RCOM, TTSL, Dishnet and.RTL	For almost all network parameters, all the service providers meet the TRAI specified benchmark.
Mumbai	Bharti-Airtel, BPL, MTNL, Vodafone, RCOM and TTML	For most of the network parameters, all the service providers meet the TRAI specified benchmark.
Maharashtra	Bharti-Airtel, Idea, BSNL, Vodafone, Tata Teleservices and RCOM	For most of the network parameters, the service providers meet the TRAI specified benchmark.

It is clearly emerging that the competition is putting pressure for continuous improvement of call handling capacity, better voice quality and higher call-completion rates. **The study effectively concludes that the falling tariffs are not at the cost of compromising the network quality.**

1.5.1 Quality of Service and Differentiator of Service

The service providers are taking Quality of Service issues more seriously. The same is also evident from the marketing strategies adopted by them. Service providers are pursuing marketing strategies designed to differentiate their brand from rival offerings based on dimensions of service quality such as superior network coverage, reliability, and voice quality etc. RCOM's main strategy has been to inform the subscribers about the network coverage and the superior voice quality. The other operators are also trying to differentiate the service on the basis of superior customer support. Therefore the competition is shifting from price to the quality improvement.

1.5.2 Mobile Number Portability and Likely Impact on Quality of Service

The international experience shows that the Mobile Number Portability has major impact on competition. The operators are forced to increase resources with regard to keeping existing subscribers since it is easier for them to leave while retaining their number. The churn can be controlled only when subscriber is provided quality service and also it is perceived to be better than the competitor. Thus the Mobile Number Portability is going to increase competitive pressures on the service provider and continuously improve services.

1.5.3 Enforcement or Encouragement

(i) There are two approaches to regulate quality of service. In the competitive markets, the regulators adopt the **encouragement** approach and rely on the on the power of publicity and ultimately competition. The service providers are simply required to measure and publish specified aspects of their performance. The targets are generally set by the operators and not specified by the regulators. There is general conception that the quality parameters decided by the operators in the competitive markets are more efficient and realistic then the parameters defined by the operators.

(ii) Although enforcement seems to be better but is not necessarily in the consumer interest. When targets are set by the regulator then the attention is only on a few areas of performance, to the

(iii) possible detriment of others. The market led quality of service is more holistic. There are number of the QoS parameters which are important for large section of consumers like coverage, roaming, availability of value added service including data services. These parameters are not included in the specified QoS parameters.

(iv) The Indian telecom market especially wireless access market is much more competitive then most of the countries which have adopted the encouragement policy for QoS implementation.

(v) The regulation would never be able to determine all the quality requirements for all classes of subscribers. The flexibility with the service providers would allow the operators to provide the pricing and quality packaging which best suits the subscriber. The QoS should be enforced only in areas where markets have failed or there is not enough competition to ensure that the consumer interst shall be protected.

(vi) It is therefore suggested that the Authority may consider easing of the QoS norms and let the operators decide their own QoS benchmarks. The Authority may adopt the encouragement policy and limit itself to the monitoring and making appropriate information available for the consumer.

1.6 **VOICE-** The review was needed and is most timely. Tough WIRELINE subscribers are very few, but being mostly RURAL based, need Special consideration.. BSNL, being the main service provider has not disseminated the QoS parameters and the customers are being exploited by the staff. *Classic example is REFUND OF SECURITY on surrender of phone. On one pretext or the* other, it has been denied. It is worthwhile to FIND OUT the number of phones surrendered and refunds made.

1.7 **Parijat Garg -** I would like to thank you and TRAI for being such an open and responsive organisation. Public participation through channels like these reinforces ones belief in the notion of participative democracy.

1.8 **Ravi –** I appreciate the involvement of TRAI for benefit of telecom users. Thanks a lot to all of you for active and constructive support from end users perspective.

1.9 **FCSO -** With all respects and regards, we are pleased to submit the following suggestions to improve the hazardous free cellular mobile telephone service. The TRAI first and foremost give the top priority to the harmless and peaceful service ensured to the Consumers. The Consumer Protection Act, 1986 is guaranteed to the Consumer for RIGHT TO SAFETY. In contrary all the Service Providers are racing in marketing their products without considering the safety to the Consumers.

Now days, the Mobile Cell Phones are misusing by sending SMS to the unknown persons with ugly texts numerously. In such case, there is no system available for immediate redress to the aggrieved Consumers. In this regard, we are pleased to suggest the following for your kind perusal:

(i) The Service Providers should sell their Sim cards only after verified the identity and address proof of the Applicant. Most of the Service Providers are selling the SIM card on collection of the documents in Xerox. There is the possibility any one can obtain the SIM with forge document. In a case, a person expressed shock and unaware about a mobile number allotted in his name and claimed he is innocent.
(ii) The Service Providers also establish a wing for enquire or investigate the complaint received from the Consumer about the misusing their respective net works.
(iii) They also ensured to block the SIM, if any complaint received against the number for misusing immediately, it only restore after the verification.
(iv) The Service providers should fix the responsibility for misuse their respective net works.
(v) The maximum time would fix to the Service providers for disclose the details of their Customer, if require by the investigation agency as listed by the TRAI. At present in a Case, Tiruchirappalli City Police (Tamil Nadu) seek the copy of the application of a mobile Number from the Airtel since 26.11.2008, but it is yet to be complied.

We hope, that your good self would consider our suggestions and do the needful in the larger interest of the public especially youths from the brutal verbal attacks by the unknown miscreants in taking advantage of the service providers policy in maintain their Customer details as confidential.

1.10. KCSS - We are extremely happy and thankful to TRAI for its proposal to tighter norms of quality of service, after reviewing of existing QoS parameters.

We regret to inform you that as on today call drop rates are more than 5% in practice. Your decision to monitor the billing and metering credibility for prepaid subscribers is noteworthy. Monitoring of post paid subscribers too must be intensified. Decision to reduce time period for refunds to 1 week is welcome. The decision to eliminate information pertained to lower order is most welcome. Congestion levels for fixed line operators on par with mobile operators is on the increase only. This is especially worst in the case of BSNL.

We wish that TRAI's power to impose penalty will be restored by the telecom tribunal soon. Steps may be accelerated for an early decision by the tribunal. Relief given to customers for poor quality should be the maximum possible. Regulations for enforcement can be taken only if the regulators arms are strengthened.

1.11 Joglekar - TRAI has been revising norms regarding benchmarks for Quality of Service parameters after due process of consultation with the industries. Yet TRAI has been required to revise these benchmark downwards since the industries are not able to come anywhere near the benchmarks. In this connection I would cite the survey reports regarding 12 circles published around 18th December 2008. In case of almost all the benchmarks the expected norm for customer satisfaction was 90 or 95% whereas the performance figures reported in these 12 surveys are generally in the range 60 to 70% and occasionally exceeding 75% but never exceeding 80% satisfaction. The question therefore arises whether TRAI has been empowered to take any action against the defaulting service providers by way of imposing fines etc. The answer which appears to me is that TRAI has been rendered a toothless regulating body after the constitution of TDSAT. Thus the service providers are in a position to file disputes with TRAI on various issue and TDSAT takes its own time to settle the disputes. This is inspite of the fact that at the time of formation of TDSAT it was stipulated that the disputes will be settled within 90 days.

However as reported by TRAI itself a dispute which COAI had filed against TRAI in respect of point of interconnection in March 2006 has yet to reach the stage of hearing. The last date was somewhere around 15th October 2008 and TDSAT gave the next date as 6th February 2009 which was more than 4 months . So how could TDSAT ever meet its own benchmark of 90 days for settlement of disputes.

Service Coverage: The benchmark for service coverage is In door >= -75 dBm, Invehicle and >= -85 dBm and Out door- in city >= -95 dBm. TRAI needs to provide references from ITU documents etc how these values were arrived at.

I had earlier pointed out that this parameter needs to be specified in statistical terms namely coverage at say 95% age of locations for 95 % age of time.

TRAI had after long correspondence admitted that as it stands it was only an indicative parameter.

Further, the customer has the right to have information about areas where network coverage is available so that he can make an informed choice about the service. Hence, it is suggested that the service providers shall publish information about service coverage for cellular mobile telephone service areas. Such publication may be through web site. Also such information should be provided to consumers through sales outlets and customer care/ helpline numbers.

2.

ISSUES FOR CONSULTATION

Q No.8.2.1	Please comment on the proposals in Chapter – 2 relating to Quality of Service for each of the parameter and its benchmark for Basic Service (wire line) along with reasons and details thereof, including measurement methodology?

Responses:

- ***AUSPI –***
  - **Provision of a telephone after registration of demand (100% in <7 days):**

    In present day scenario it is irrelevant to set benchmark -100%<7days since there is a tremendous growth in Telecom sector which makes it imperative for Service provider to improve upon this parameter keeping its business economic and potential in view. Only exceptional cases where cable pair is not available and wireless access is not feasible such as difficult terrains and absence of permission for laying of cables or erecting of Cellular towers(RoW). Further more the demand of fixed line connection is decreasing month on month hence this parameter may be of least significant. Moreover mobile phones are increasingly used as a substitutable service for fixed line telephones. Hence it is felt this parameter may be prescribed for monitoring purposes by the licencees.

  - **Fault incidence (No. of faults/100 subs/month) (<3) :**

    The benchmark for this parameter is less than 3 faults per 100 Subscribers in a month w.e.f.31st March, 2008 as per the existing quality of service regulation. AUSPI is of the opinion that this parameter may be identified for the future growth of Subscribers base and quality control.

    The faults which may be excluded from the count are proposed as under:

    Faults due to natural calamities such as fire, flood, cyclone, earthquake or any other force-majeure including fibre cable cut nationally or internationally etc. which are beyond the control of service providers. The benchmark is not achievable due to cable cuts on account of building construction activities, road expansion leading to cable cuts, water seepage in cables and right of way (ROW) issues.

  - **Fault Repair by next working day:**
    AUSPI concur with the view expressed by TRAI and present set of norms may be followed such that:
    In the present Quality of Service Regulations there is a provision for rent rebate in case the fault is not rectified within three days. This rebate is provided with three slabs, as given below:
    (i) Faults pending for >3 days and <7 days: rent rebate for 7 days
    (ii) Faults pending for >7 days and <15 days: rent rebate for 15 days
    (iii) Faults pending for >15 days: rent rebate for 1 month.

Delay at customer' end , Building owner or Society objections, cable cuts, cable thefts, water seepage in cables, power outages, and RoW issues should be allowed to be excluded for calculation of benchmarks

- **Mean Time to Repair (<8 Hrs):**
  Delay at customer' end , Building owner or Society objections, cable cuts, cable thefts, water seepage in cables, power outages, and RoW issues should not be accounted for in the calculations. Subject to these exclusions, the Present norms appears to be ok.

- **Metering and billing credibility:**
  The existing benchmark may continue in both the case i.e.Prepaid /Post paid billing. (No more than 0.1%of bills issued should be disputed over a billing cycle).

  The Payment made not credited is not connected to accuracy in metering and charges billed for services rendered. There is no acknowledgement given for cheques dropped in drop box which could result in false claims by customer to tackle collection team. There could be reasons like cheque returned , cheque not completed properly or not signed due to which payments are not credited. Many times payment reflect automatically after customers complaint is accepted . Hence this parameter should not be part of the billing complaints.

  Similarly payment made on time but Late payment charges charged wrongly should not be included. Its very difficult to establish that the customer has made his payment on time but reflection was delayed since most cases the cheques are collected at drop boxes.

- **Resolution of billing/charging complaints**
  AUSPI agrees with TRAI proposal to introduce this parameter also for basic service (wire line), with the same benchmark of 100% within 4 weeks. Monitoring of this parameter will help the service provider in collection of dues and also avoidable bad debts.

  Period of all refunds/payments due to customers from the date of resolution of complaints", Thus, a billing complaint has to be resolved within four weeks and any credit/waiver/adjustment arising out of resolution of that complaint has to be made to the customer's account within one week of resolution of the complaint and intimation there to the customer, post-paid/pre-paid. Further, in case of post paid customer the same may also be reflected in the next bill to be issued.

- **Customer Care (Promptness in attending to customers requests) 95% of requests (Shifts: <3 days, Closures : <24 hrs. and Additional Facility <24 hrs.):**
  The service providers are making significant efforts to provide toll free customer support. The capacities are being expanded on regular basis to support the growing subscriber base. Since market is reacting positively to the need, it is requirement more stringent benchmarks should not be specified

which may not be beneficial for the over growth of the sector.

- **Shift (<3 days):**
  It is proposed that this parameter may be taken out of QoS regulation.

- **Closures: <24 hrs:**
  It may be as per the direction on termination of service or a new benchmark to be considered.

- **Additional Facility <24 hrs.:**
  In the present scenario of competition, customer choice and substitution of wire line phone with mobile phone this parameter has less importance for monitoring by TRAI. As such, it is proposed that this parameter may be taken out of QoS regulation**.**

♦ **COAI -** pertains to basic services

♦ ***VOICE-*** We agree with proposals made for the parameters, Provision of telephone after registration of demand, fault incidence, fault repair, rebate system and Meantime to Repair. Proposed clarification about REBATE must be reflected on the REVERSE of the BILL***.***

(i) Billing complaint needs to include—Bill for service NEVER ACTIVATED or PROVIDED.

(ii) Resolution of billing / charging 100% with in 4 weeks is IDEAL.

(iii) REFUNDS with in a week of resolution are VERY REASONABLE.

(iv) CLOSURE < 24 Hours: This parameter is abided by DEFIANCE and harassment of customer than ABIDANCE.

- *100% requests or closure of telephone / termination of service to be complied within 24 hours.*
- *allot unique service request number, called docket number*
- *arrange collection of CPE*
- *Raise bill / Refund after adjusting the security deposit*

v. While assessing CUSTOMER SATISFACTION, the service provider must provide the NUBER of CLOSURES and refunds made.

vi. In most cases, the customer forgets about REFUND because of FRUSRATION.

- Response Time to Customer or assistance –
  With ICT, assistance, new hurdle has been created. After reaching the Call Centre / Customer Care , the CUSTOMER IS HELD on line FOR LONG " YOU ARE IN QUEUE—" The menu options should not be TOO MANY and time need be specified.
- Refunds- This must be retained, though it is VIOLATED in every case, under one.
- Pretext or the other and REFUNDS not made.

vii. Please read above for CLOSURE and REFUND.

♦ ***SISTEMA -***

- **Provision of a telephone after registration of demand-** As proposed this parameter may be prescribed for monitoring purposes only. However relaxation should be given to the operators by way of excluding this parameter from reporting.

- **Fault incidences (No. of faults/100 subscribers/month)-** Time duration for rectification of faults related to technical/network, simcard & billing can be undertaken with in the prescribed parameters of < 3 days but faults with regard to handsets in case of CDMA is not under the control of the operator as it is linked to the handset manufacturer, which requires additional time frame.

- **Fault repair by next working DAY-** Proposed to continue the same benchmark with more clarity on calculation of the number of days.

- **Mean Time to Repair (MTTR)-** MTTR of < 8 hours is accepted, other than Handset related complaints.

- **Grade of service**- The proposal with regard to grade of service is accepted

- **Call completion rate within local network should be better than-** The benchmark of call completion rate within local network should be > 55% is accepted.

- Metering and billing credibility- The current benchmark of < 0.1% of bills issued should be disputed is accepted.

- **Billing complaints per 100 bills issued- Prepaid charging.-**The benchmark for billing complaints per 100 bills- pre paid charging should be increased to 3 %.

- **Resolution of billing/charging complaints-**100% resolution of billing or charging complaints within 4 weeks is accepted.

- **Period of all refunds/payments due to customers from the date of resolution of complaints.-** The new parameter of one week is accepted

- **Customer care (Promptness in attending to customers request) 95% of requests- Shifts-**The parameter for < 3 days is accepted.

- **Customer care (Promptness in attending to customers request) 95% of requests- Closure-** The proposed benchmark should be increased to 3 days

- **Customer care (Promptness in attending to customers request) 95% of requests- Additional facilities**. - The parameter for < 24 hours is accepted.

- **Response time to the customer for assistance.-**The response time for customer assistance by operator voice to voice should be 2 minutes for 1. 3 minutes & 5 minutes for 3 minutes.

- **Time taken for refund of deposits after closures.-**The existing benchmark of 100% of refund within 60 days is accepted.

- **POI Congestion. -** The proposal for introduction of this parameter is accepted.

- ***SURYA -*** The weakness in the external plant leads to deterioration of service. It will be helpful if Right of Way is established for service providers. Not only BSNL and MTNL but also those in the private sector will be beneficiaries. It is true that this will not be easy to implement but it should be attempted.
- ***NCHSE -***
  - **Provision of a telephone after registration of demand-** OK.

  - **Fault incidences (No. of faults/100 subscribers/month)-** OK

  - **Grade of service-** Parameters grade of service should continue with more specified mandatory compliance

  - **Call completion rate within local network should be better than-** If AS is acceptable to other service providers, it should be adopted otherwise call completion rate should continue. In case of ASR the bench mark should be >70%.

  - **Billing complaints per 100 bills issued- Prepaid charging.-**New Parameter is acceptable

  - **Period of all refunds/payments due to customers from the date of resolution of complaints.-** New Parameter is acceptable

  - **Customer care (Promptness in attending to customers request) 95% of requests- Shifts-**Ok.

  - **Customer care (Promptness in attending to customers request) 95% of requests- Closure-** It should be as per the request of the customer otherwise , 24 hrs should be adhered in computing the performance**.**

  - **Customer care (Promptness in attending to customers request) 95% of requests- Additional facilities. -** Ok

  - **Response time to the customer for assistance.-**Title of the parameter will now be more clear.

  - **POI Congestion-** Ok

- ***Bharat Jyoti -*** The QoS parameters are all very good and most of them address the concerns of an ordinary telephone user. But the general perception is that the benchmarks are not adhered to by the service providers, particularly a) Fault Repair by next working day; b)Resolution of billing/charging complaint within 4 weeks, c) Closure of Telephone within 24 hrs. etc.
- **Bharti –**
  - **Provision of a telephone after registration of demand (100% in <7 days) -** We are in agreement with the proposal that the above parameter shall not be reported to TRAI for its compliance. As there is no prescribed template for monitoring, we measure this parameter as per our internal performance benchmarks and do carry out the gap analysis wherever required. The action

plan is developed and implemented to close the performance gaps.

- **Fault incidence (No. of faults/100 subs/month) (<3) -** We propose to change the benchmark to <5 faults per 100 subscribers. This should exclude the faults occurring because of external reasons like cable cuts etc. Cable cut is very big reason of inducing faults in network. Frequent cable cuts are experienced due to infrastructure development activities like road expansion and highway construction. We already have raised this issue to TRAI through a separate representation in the past.

- **Fault repair by next working day -** Bharti Airtel is in agreement with Authority's proposal

♦ **TTSL -**

- **Provision of a Telephone after registration of demand (100% in 7days) -** We Agree with this proposal of the Authority.

We recommend that the instances where :

- A request is made more than seven days in advance and it is technically feasible the connection be provided as per customer's request.
- Cases where telephone requests are made but the delay is on the customer end such as customer is not present at the premises in the 7 days, installation location is not ready/ under construction etc , be excluded from this monitoring with reasons indicated.

- **Fault Incidence (No. of faults /100 subs /month) (<3) -** The Authority has well appreciated the problems faced on account of cable cuts, RoW issues, etc. We recommend that this parameter be modified to <5 as suggested by the Authority.

- **Fault Repair by next working day -** We agree with the proposal of the Authority.

- **Mean Time to Repair (<8 Hrs>) -** We Agree with the proposal to retain this benchmark. The duration should be from the time of the complaint till the time to repair of the fault, excluding non working hours (6 PM to 8 AM) and Holidays (Saturday , Sunday) and holidays.

♦ **BSNL –**

- **Fault Incidence (No. of faults /100 subs /month) (<3) -** As already pointed out by TRAI in Para 2.2.2 the other BSO are having network mostly in urban areas where as BSNL has maintained landline network in rural/hilly areas. BSNL wire-line network is based on legacy cables as compared to other operator which have primarily focused on wireless technologies. In recent past there has been large scale road and fly over construction activities going on almost in every metro city, thereby causing large scale damage to BSNL cables. In addition, the circles like J&K, NE-I, NE-II and UHL have difficult hilly terrain which is inaccessible and some of these are facing insurgency. In view of these factors, maintenance of wire-line network suffers a lot. To ensure the level playing field with other BSOs the benchmark for the parameter may be revised to 5 faults per 100 subscribers per month.

- **Fault Repair by next working day -** As already pointed out by TRAI in Para 2.2.2 the other BSO are having network mostly in urban areas where as BSNL have network in rural/hilly areas. Also due to legacy network occurrence of fault are more. Especially in Hilly areas occurrence of fault are more due to overhead cable etc. Only BSNL is having significant presence in rural/hilly areas where fault repair is difficult and time consuming in comparison to the urban areas where other BSOs operate. In view of above this Parameter may be modified as following:

Fault repair by next working day	90%
Fault repair within 3 days	95%
Fault repair within 5 days	100%

- **Mean Time to Repair (<8 Hrs>) -** this parameter may be modified as MTTR < 9 hrs.
- **Customer care (Promptness in attending to customers request) 95% of requests- Closure**
  The benchmark for physical closure of telephone should be 7 days in all 100% cases where immediate closure is requested by the applicant. In case where closure is requested on a subsequent date more than 7 days from the date of application, the termination n of service may be made as per request of the customer and such case may be excluded while computing the performance.

- **MTNL** –
  - **Provision of a Telephone after registration of demand (100% in 7days**
    In case of Cable breakdown or during monsoon or due to subscriber reason (such as subs not available at the premises/subscriber apply much in advance/subs premises under construction. It is difficult to achieve the value of 100% in, 7days and such cases be exempted from reporting to TRAI.
  - **Fault Incidence (No. of faults /100 subs /month) (<3) -**
    In case of following
    (i) Outdoor n/w having PCUT cble
    (ii) Cable cut due to development activities in unauthorized colonies.
    (iii) Cable cut due to massive digging activities by civic agencies like,DMRC,MCD,MMRDA etc being done repeatedly
    (iv) Cable theft cases
    (v) Fault in conduit wiring provided by subscribers. It is difficult to achieve the value of <3 and such cases be exempted.
  - **Fault repair by next working day:**
    i. Outdoor n/w having PCUT cable
    ii. Cable cut due to development activities in unauthorized colonies.
    iii. Cable cut due to massive digging activities by civic agencies like,DMRC,MCD,MMRDA etc being done repeatedly
    iv. Cable theft cases
    v. Fault in conduit wiring provided by subscribers. It is difficult to achieve the value of <3 and such cases be exempted.
    vi. Subscriber reason(such as subs not available at the premises/subscriber apply much in advance/subs premises under construction,etc)

    It is difficult to achieve the value of 90% and such cases be exempted from reporting to TRAI.It is suggested that the figure be modified to 80% and 100% within 7 days instead of 3 days.

MTNL wants that rent rebate be prescribed where fault pending is more than 7 days as per above proposal.

- **Mean Time To Repair (MTTR):**
  MTNL proposal for revision of parameter to 15 hours due to
  i. Outdoor n/w having PCUT cable
  ii. Cable cut due to development activities in unauthorized colonies.
  iii. Cable cut due to massive digging activities by civic agencies like,DMRC,MCD,MMRDA etc being done repeatedly
  iv. Cable theft cases
  v. Fault in conduit wiring provided by subscribers. It is difficult to achieve the value of <3 and such cases be exempted.
  vi. Subscriber reason(such as subs not available at the premises/subscriber apply much in advance/subs premises under construction,etc)

Response Time to the customer for assistance

- **% age of calls Answered (Voice to voice):**
  within 60 secs- 60% against existing 80%
  within 90 secs – 80% against existing 95%

♦ **RCOM –**

- **Fault Incidences (No of Faults / 100 subscribers / month)**: Faults arising due to Forcemajeure and customer's internal wiring, major power outages in Circles need to be excluded from the calculations

- **Fault repair by next working day:** Delay at customer' s end , Building owner or Society objections, cable thefts, power outages, and RoW issues should be allowed to be excluded for calculation
- **Mean Time To Repair (MTTR):** : Delay at customer' end , building owner or Society objections, cable cuts, cable thefts, power outages, and RoW issues should not be accounted for in the calculations.

Customer Care

- **Shifts -** agree with TRAI recommendation for this parameter
- **Closures -** A new benchmark needs to be specified. We recommend a period of 15 days instead of 7 days from the time request made at Contact Centre provided, customer clears all his past dues. It has been observed that customers make a request for termination but do not clear their outstanding payments for few days to process. Therefore, it is not possible to process and complete the termination request in 7 days. The benchmark shall be applicable from the period the customer clears the dues and returns the CPE.
- **Additional Facilities -** We agree with the recommendation

Response Time to the customer for assistance

- **% age of calls Answered (electronically):** within 20 secs = 80%, within 40 secs = 95%
- **% age of calls Answered (Voice to voice):** within 60 secs = 80%, within 90

secs = 95% -

The service providers are making significant efforts to provide toll free customer support. The capacities are being expanded on regular basis to support the growing subscriber base. Since market is reacting positively to the need, such stringent benchmarks should not be specified which may not be beneficial for the overall growth of the sector. There is a need to ease these benchmarks.

- **Provision of a telephone after registration of demand: (100% in <7 days) -** The benchmark has lost its relevance in the present competitive scenario. We therefore support the Authority's proposal to exclude this benchmark from reporting requirements for wire line services.

- **Metering and billing credibility -** Though the Authority is proposing no revision in the parameter, it has specified the types of complaints to be considered for this parameter. We submit that a billing complaint should be considered as a billing complaint when upon investigation, it is found that the customer is wrongly charged and a refund is due to him. Hence the definition of billing complaint should cover only those complaint types which get covered under above mentioned principle.

  However in the bill complaint definition, there are some complaint types which are not related to accuracy of metering and billing. For example, the complaint type" The Payment made not credited" is not connected to accuracy in metering and charges billed for services rendered. There is no acknowledgement given for cheques dropped in drop box which could result in false claims by customer to tackle collection team. There could be reasons like cheque returned, cheque not completed properly or not signed due to which payments are not credited. Many times payment reflects automatically after customers' complaint is accepted. Hence this parameter should not be part of the billing complaints.

  Similarly the complaint type "Payment made on time but Late payment charges charged wrongly" should not be included in the billing complaint category. It is very difficult to establish that the customer has made his payment on time but payment reflection in the bill got delayed ; since in most cases the cheques are collected at the drop boxes.

♦ **CF –** Parameters relating to various aspects of telephone service have to be prescribed not only for monitoring purposes but also to be reported to TRAI. Because in the absence of independent assessment, service providers will definitely float the regulation.

- If the provision of telephone after registration of demand will not be possible, then separate benchmark has to be fixed, say within 30 days or 45 days. It is essential from the point of view of the rural consumers.
- It is our experience as a consumer organization that fault incidences go beyond 3 or 5 faults per 100 subscribers. So existing parameter should be maintained. A separate provision may be laid down wherein service provider has to give the explanation for crossing this benchmark with valid reasons.
- We fully agree with the proposal to continue the fault time to repair and also rent rebate.
- We support the proposal to continue the present Mean Time to Repair.

♦ **CPA –** At the end of the proposal the words "The service providers shall inform the registered consumers in writing within seven days the reason for not providing the

telephone" may be added.
CPA proposes that all refunds should be made within 7 days in place of 60 days. As interest on bank loan is over 12% per annual penal interest should be increased from the proposed 10% per annum to 2% per month.

- **US&KS –** The QoS parameters can be made easily through survey of customers interest and locality. Customers want to provide service as soon as possible as under: A minmum Connection Fees should be minimum and time limit should be determined for new connection maximum 7 to 10 days. In case of normal fault of wireline complaint should be attended within minimum 2 to 5 hrs. Billing correction contain minimum one working hour.
- **Joglekar-**

  - Parameters relating to **Provision of telephone after registration of demand** and **Shifts** have been prescribed only for monitoring purposes and need not to be reported to TRAI. This is not correct because many times shifts are delayed deliberately according to the customer's opinion.
  - **Fault incidences (No. of faults /100 subscribers/month), fault repair by next working day, Mean Time to Repair, metering and billing credibility.** - No changes are proposed in the benchmarks for the parameters These benchmarks need to be reported city wise rather than circle wise.

Q.No. 8.2.2 What are your views on the parameters Grade of Service? Should Grade of Service parameter to be continued or the parameter circuit seizure efficiency need to be introduced?

Responses:

- ***AUSPI –*** Grade of Service is defined as the number of calls lost to the number of call attempts for a route or circuit group. Presently grade of service benchmark are specified for four categories:
  a) Junction between local exchanges – 0.002
  b) Outgoing junctions from TAX to local exchange – 0.005
  c) Incoming junctions from local exchange to TAX – 0.005
  d) Incoming or out going junctions between TAX's - 0.005

  Considering the large number of exchanges and circuit groups and the difficulties involved in the estimation of the parameter in the required format, there is no need to monitor this parameter as it is difficult to estimate the benchmark.

- **COAI -** pertains to basic services

- ***VOICE-*** It should be made "MANDATORY COMPLIANCE" and not left to service provider .SELF REGULATION is not in their dictionary.

- ***SURYA -*** Parameter of Grade of Service is important and should be continued. This gives a realistic picture of the health of the network
- ***Bharat Jyoti –*** *No comments*
- **Bharti -** As GoS is basically used for dimensioning and augmentation of the POI circuit groups. This parameter can be specified only as a guideline. We maintain that there is no need to introduce another parameter for Circuit seizure efficiency as Authority has proposed to include the Point of Interconnect Congestion parameter.

- **TTSL -** We recommend that these parameters for this GoS, should continue to be implemented for " Mandatory Compliance" . We do not recommend it to be specified only for design/augmentation only. This is because of the fact that, a large number of calls from mobile subscribers or to mobile subscribers are terminated at or initiated from fixed line networks. If the Grade of Service is not good on these junctions the QOS of mobile networks will also be affected. Therefore, there should not be any relaxation in this parameter nor should it be limited to only design. Hence we do not agree to the proposals to relax these norms.
- **BSNL -** Grade of service may be specified only for the purpose of designing and augmentation of circuits groups by the telecom service provider as guideline.
- **MTNL -** Agreed
- **RCOM -** Considering the large number of exchanges and circuit groups and the difficulties involved in the estimation of the parameter in the required format, there is no need to monitor this parameter as it is difficult to estimate the benchmark.
- **CF –** In place of GoS parameter, parameter circuit seizure efficiency may be introduced.
- **CPA –** Parameter GoS should continue for mandatory compliance. Present benchmark should be enforced. And it should be gradually improved.
- **US&KS –** In case of GoS, as per your opinion Sr. no. 2.6.1 will be best way to reform the complaints. GoS is a design parameter of the telephone exchange for trunks groups. Service quality will be better among the junction network in the long distance call or local call. If the telephone exchange should be highly techno / modernized.

Q.No.8.2.3 Whether the parameter Call Completion Rate (CCR) within the local network is to be retained or replaced by the new parameter called Answer to Seizure Ratio (ASR) and what should be its benchmark?

Responses:

- ***AUSPI* –** Call Completion Rate is defined as the ratio of the number of successful calls to the number of call attempts. Not all call attempts result in successful calls i.e. called party answers. A variety of reasons such as called line busy, no answer and congestion in the network as well as subscriber behavior like premature release, wrong dialing etc. are responsible for the failure. Congestion or blocking occurs due to either common control equipment congestion in the exchange or congestion in the trunk circuit /junction group to handle the calls.

  Due to the difference in the Network Architecture with various service providers, there is a constraint in the measurement of the local network Call Completion Rate for some of the service providers.

  AUSPI is of the view it may be replaced by parameter ASR and this benchmark need to be aligned with international norms on ASR measurement.

- ***COAI - pertains to basic services***

- **VOICE -** *It may be retained as CCR and to provide leverage Reliance*

Communication may be allowed ASR.

- **Parijat -** CCR should be replaced by ASR benchmark. I am sure that the practice of "missed calls" is recognised for its widespread use, especially in India. Given this practice, I would imagine that both CCR and ASR measures would be very noisy, in that they would significantly affect the QoS metric that we wish to monitor the service provider on. Whether CCR is retained or ASR is introduced, is the effect of "missed calling" taken into consideration. Also, is there any statistic used to measure the tendency of users to utilize this method of communication?

- ***SURYA* -** Parameter of Call Completion Rate should be retained.

- ***Bharat Jyoti – Parameter*** CCR should be retained ,as it includes the call attempts,while ASR does not show the clear picture.From consumer angle,CCR is better.

- **Bharti -** ASR within network has significance only in the circles where service provider has multiple switches because it can be measured on circuit group only. Also, ASR includes calls failed due to consumer behavior like number busy, no answer, which is not in the control of the service provider. Therefore it is proposed to continue with the parameter CCR within local network, which gives the actual performance of service provider's network.
- **TTSL -** While we appreciate the concern of the Authority, and international practices on this, however it is submitted that in the Indian context this will be significantly dependant on customer behavior and calling pattern. Depending on traffic subscribers often prefer to give missed calls and expect a call from other side. This is more prevalent in low ARPU customers. This will adversely affect ASR monitoring, similarly if customers are busy, out of coverage area, switched off, silent mode etc will also adversely affect ASR and monitoring this as a quality parameter. It may not adequately fulfill the purpose of benchmarking this parameter. It is recommended to continue with the existing method.
- **BSNL -** No, CCR parameter is continued to be used as the required information is readily available in the existing technology switches deployed in BSNL network. Moreover, ASR doesn't measure the network capacity or efficiency to convert every call attempt into successful Seizure of resources.
- **MTNL-** Agreed for replacement of CCR by ASR and value should be more than 50%

- **RCOM -** The CCR within local network may be replaced by terminating ASR independent of the call being local, national or international. In view of mixing of the traffic it is not possible to provide CCR for local calls. Terminating ASR (consolidated local+national+international) data gives the true picture of the network performance for wire line terminating calls. The Authority may therefore replace CCR within the local network by ASR.
- **CF –** Reporting on CCR may be exempted and ASR can be adopted for the service providers who are having technological constraints, but for others CCR should continue.
- **US&KS –** Benchmark of complaint rate should be determined through availability of area Network, means service provided by service provider among rural network & urban network. Normally, urban network always faulted, bysy or congestion in

network. So complaint rate are usually high in rural aera. Therefore, rate of calls should be determined after review of the problems of customers. Local call rate within local network should be 25% per call and 75% in another or other network. A feedback always obtained by customers during the year for their service performance either network, billing, fault and also service action.

Q.No.8.2.4	Please comment on the proposals in Chapter – 3 relating to Quality of Service for each of the parameter and its benchmark for Cellular Mobile Telephone Service along with reasons and details thereof, including measurement methodology?

Responses:

- ***AUSPI –***
  - **Parameters related to Network Performance:** This parameter basically refers to "Network Availability" where service was expected.
    Depending on the kind of network failure, it can be seen as no coverage in the mobile, as an impossibility to make calls having coverage or as an impossibility to access the service. The community isolation could be due to the service not available on account of outages in the network in MSC or Base Station Controller (BSC) or BTS or due to trunk failure. The service providers need to monitor all such cases where there was community isolation and consequently service accessibility was not possible in any of the area served by a BTS.
    The benchmark proposed for the parameter "BTSs accumulated downtime (not available for service)" is ≤1% and for the parameter "Percentage of worst affected BTSs due to downtime" is ≤2%.

  - **Call Set-up Success Rate (CSSR) within licensee's own network:** CSSR is an important parameter to assess the health of the radio network. As such, it is very essential to have this Quality of Service parameter. AUSPI proposes to retain this parameter with the existing benchmark of *>95%.*

  - **Service Access delay:** Considering the fact that this parameter is generally complied with by the service providers and that the measurement of this parameter is not available in the switch, AUPSI proposes that this parameter along with the benchmark may be taken out of QOS Regulations as suggested by TRAI in its Consultation paper.

  - **Blocked Call Rate:** Blocked call means a call that is not connected because there is no free channel to serve a call attempt. Numbers of blocked calls are those times where there is no free channel to serve a call attempt. Hence this parameter represents congestion in the network. The congestion may be at SDCCH level or TCH level.
    This objective parameter is an accepted engineering level for determining the Hardware and software requirements in any network. As regards the benchmark prescribed for this parameter, for the SDCCH Congestion [in respect of Global System for Mobile Communications (GSM) network)/ Paging Channel Congestion in respect of Code Division Multiple Access (CDMA)

network] the benchmark is <1%. For the TCH Congestion the benchmark is <2%.In view of the importance of this parameter to the consumers, AUSPI proposes no change to the existing benchmarks for this parameter.

- **Call Drop Rate:** The call drop represents the service provider's ability to maintain a call once it has been correctly established. The parameter gives a reliable measurement of the mobile network used by the service provider for maintaining a call once it has been correctly established. Failures in coverage, problems with the quality of the signal, network congestion and network failures have important impact on this parameter. This parameter measures failure in coverage, problems with the quality of the signal, network congestion and network failure. In Indian context also it is noted that the service providers have taken initiative for implementing such technological advancement.

  In view of above understanding AUPSI propose to revisit this benchmark for this parameter, thereby making it more stringent.

- **Worst affected cells having more than 3% TCH drops (call drop rate):** with the advancement of technologies driving present day networks optimizing the network utilization and enhancing the network efficiency it is pertinent to expect an improvement upon this parameter. AUSPI suggest better ratio. The benchmark proposed is Percentage of worst affected cells having more than 3% TCH drops (call drop rate) ≤ 3%.

- **Connections with good voice quality:** In the case of CDMA, the fundamental performance measure for voice quality is the Frame Error Rate (FER). It is the probability that a transmitted frame will be received incorrectly. The frame includes signaling information and error detection bits as well as user voice/data. This metric includes the error detection/correction coding inherent in the system.
  Good voice quality is 0-4 %. FER value For FER of 4% for CDMA EVRC System, the Speech Quality Rating is MOS score of 3.6. Further, for Bit Error Rate of Rx Quality 0 to 4 for GSM EFR system, the Speech Quality Rating is MOS score of 3.4.
  It is propose to have System generated measurement for this parameter.

- **Service Coverage:**
  <u>TRAI present Recommendation on In-Building Coverage</u>

1. In fact, **TRAI too has subsequently reconsidered and re-examined** this issue in its recent consultation of Review of license terms etc, and has gone on to recommend as below :

2. "… Moreover, in-building coverage is required only in places where there is sufficient number of high rise buildings i.e. primarily in urban areas and the operators usually provide it as a part of their business plan/on demand. TEC, in the relevant GR, has also defined different parameters for areas with different characteristics. *Therefore, the Authority is of the opinion that in-building coverage may not be insisted upon for compliance of roll out obligation.* However, in order to ensure that adequate coverage is available, the Authority recommends that the street level signal strength should be >= -

85dBm for at least 90% of the area. The service quality tests conducted by TEC would certify that the laid down street coverage parameters are achieved and is satisfactory”. (Para 5.19).

3. The TRAI has also adequately clarified that this recommendation is only for the purpose of assessing compliance for meeting the rollout obligation.

4. *It is submitted that these norms specified by TRAI* in its July 2005 Regulation *are far too stringent and are impossible to meet.* Further, the Regulations are *incorrect and anomalous in as much as they require a higher signal strength inside the building* (-75dBM) *than at street level.*

5. A simple construct of this provision would be that 90% of the area should street and in-building coverage as “required”. Thus clearly the coverage was to be determined by market forces.

6. Further, the *TRAI criteria is also incorrect in as much as it prescribes that in-building coverage will be measured through a drive test* of the mobile network .It is submitted that the *service providers deploy in-building solutions,* wherever required to provide the necessary in-building coverage. The *efficacy of these solutions* and the coverage available inside the building *cannot be measured from the street level.*

7. *As was rightly noted in the meeting with the Secretary,* DoT and his senior colleagues *on March 14, 2008, the fact that practically all service providers have defaulted* in fulfilling in-building roll-out obligations indicates that there may be need to re-look at this criteria. It was most correctly noted that *licensing conditions should be such that there would normally only willful defaulters would need to be penalized.*

International Practices

1. It is pointed that *as far as we are aware, nowhere in the world are wireless operators mandated to provide indoor building coverage.*

2. In fact a *study of international practices of 26 countries* from Asia Pacific, Africa, Middle East and Europe in this regard *clearly shows* that :

- *There is no stipulation on indoor cellular coverage* and the same is also not part of the rollout / coverage requirement.
- The geographical *coverage applies to street coverage only*
- *In building coverage is left to market forces.*

That it is further submitted in this era of intense competition, issues of coverage and rollout are being led by *competition and market forces and wherever required,* in-building solutions are being provided by each and every operator at huge costs and to that extent This is also the view of TRAI which has recommended that *“in-building coverage may not be insisted upon for compliance of roll out obligation”.To sum it up AUSPI recommend only external coverage for this parameter.*

- **Point of Interconnection (POI) Congestion:** AUSPI agree with the proposal of TRAI by proposing to maintain the same standards as have been incorporated in the QoS norms. Existing benchmark of <0.5%.

- **Response Time to the customer for assistance:**

(i)The benchmark proposed is minimum 95% calls to be connected successfully and not more than 5% calls shall encounter congestion or busy signal or no reply or any other failure.

(ii) % age of calls answered by operators (voice to voice) within 60 seconds = 90% and not more than 5% calls shall encounter busy signal or no reply or any other failure in getting connected to operator.

It is submitted that enormous number of calls are handled by the customer care center. Service providers are adding capacities on regular basis. The IT infrastructure is being augmented to support and enhance Self Service option and call taking capacity for each location. With these initiatives, percentage of calls answered in 60 Sec & 90 Sec keep improving considerably. In addition to above, service providers give exhaustive information to subscribers through brochures at the customer touch points in order to reduce the need for the customer to call Operator desk.

The service providers are making significant efforts to provide toll free customer support. The capacities are being expanded on regular basis to support the growing subscriber base. Since market is reacting positively to the need, it is requirement that more stringent benchmarks should not be specified which may not be beneficial for the over growth of the sector.

- **Billing complaints:** Present norms and set benchmarks appear to be ok.

- **Metering and billing credibility:** In cellular mobile telephone service more than 85% of the customers are pre-paid customers. Hence, in order to protect the interest of pre-paid customers, it is desirable to have parameters separately for post-paid billing and pre-paid charging, credit & validity.

- **Resolution of billing/charging complaints:** AUSPI agree with the Proposal of TRAI "the benchmark Resolution of 100 % billing complaints/charging complaints within 4 weeks".

- **Period of all refunds/payments due to customers from the date of resolution of complaints:** It is proposed that all such refunds in the form of credit/waiver/adjustment to be applied to customers should be made within 10 working days from the date of resolution of the complaint. In case of Post Paid customer this may be reflected in the next bill to be issued.

- **Closure of mobile telephone/termination of service:** The benchmark may need to cover any effort to be made for retention of the customer by the service provider.
  If this does not materialize then benchmark of 100% requests for closure of telephone/ termination of service to be complied within 24 hours as per the

existing regulation.

In today's competitive scenario, it is the endeavor of every service provider to retain its subscribers. We appreciate the Authority's understanding and suggestion to include the period required for retention in the benchmark. However we do not support inclusion of the parameter in the QoS benchmarks as termination of contract depends on number of issues like settlement of all outstanding dues, return of CPEs etc. The Authority's direction is enough to take care of the consumer interest. The specific benchmarks as such are not needed.

In case the Authority still feels need for monitoring the termination of connections the it is requested to kindly provide 15 days time from the date request termination of service to make an effort to resolve the issues and hence retain the customer

- **Time taken for refund of deposits after termination of service:** The existing direction to refund the security deposit within the 60 days is sufficient and a separate QoS guideline. In case there is delay then subscriber is eligible to receive interest @ 10%. Therefore the parameter is not required to be included in the QoS benchmarks.

- **COAI -** Notwithstanding our submission that QOS should be left to market forces, we believe that it is desirable to lay down parameters and benchmarks for the same so as to enable the operators to comply with the same in a self-regulatory manner.

<u>Network Performance</u> :

- **Accumulated down time of community isolation**

Community isolation happens when the entire BTS has failed and the entire community served from that BTS has been isolated. However in a practical scenario, as also noted by the Authority, the benchmark is met by most of the service providers, as the contiguous BTS take over, in case of failure.

However, we welcome the concept of Network availability, as it would bring in more clarity into the network performance parameter. The following has been proposed:

- BTSs accumulated downtime (not available for service) <=1%
- Percentage of worst affected BTSs due to downtime <=1%

The Authority has indicated that it would consider only those BTS whose downtime is more than 1 hour.

In this regard, we would like to submit that since the operators are expanding into rural/remote areas, downtime as mentioned above may not be possible to achieve in a practical and realistic scenario, as there are several difficulties which the operators face, such as:

- Difficulty in maintaining sites (including travel time of maintenance staff) in remote areas.
- Law & order problems.
- Owner issues, including objection of using DG by neighbours, etc.

For reasons mentioned above, it takes more than one hour to even reach the site to attend to the problem. It may be appreciated that these constraints among others may result in delay in rectifying the problem, thereby affecting Network Availability.

Moreover, the issue of non- availability of power is a major concern, as stable power is a pre requisite for smooth operation of the telecom equipment.

In view of the above, it is submitted that the Benchmark for both of the parameters, i.e. BTSs accumulated downtime (not available for service) and Percentage of worst affected BTSs due to downtime should be pegged at <=2% and only BTS with outages more than 2 hours should be considered.

It is also suggested that initially the benchmark should be kept at <=2%, which can be reconsidered and revised later, based on actual experience of most of the operators.

Moreover, there may also be external factors, which are beyond the control of service providers, like:

- Natural Calamities
- War, riots etc.
- Accidental factors like Lightning.
- Permissions not granted by civic authorities for work like road cutting for cable repair work.
- Failures outside the control of service providers.

We would like to respectfully submit that the downtime or unavailability of BTS due to the above, **should be excluded** while determining the proposed benchmark of <= 2%

- **Call Set-Up Success Rate (CSSR) -** We agree with the proposal to retain the parameter with existing benchmark of >95%.
- **Service Access Delay -** We agree with the proposal to take out the parameter out of QOS regulations.
- **Blocked Call Rate -** We agree with the proposal to make no change in the parameter and existing benchmark.
- **Call Drop Rate -** It is submitted that the operators are deploying all the technologies available in the world and are regularly optimizing the network to provide world-class cellular services to the subscribers.

The Authority in its consultation paper stated that the data submitted by service providers in PMR report is mostly within the range of < 1.5%. It is submitted that this data is for existing coverage and as the operators also expand their operations further in rural areas, the ubiquity of network coverage may not be absolute, resulting in a possible increase in call drop rates. There are also several reasons for call drops, which are directly not in control of service providers, such as:

- Spectrum unavailability.
- Frequent fibre cuts due to infrastructure projects are recurring phenomena in almost all circles.
- Microwave links fading due to weather conditions/ rain
- Leased line unreliability
- Site outages on account of long power failures and delay in restoration of power supply by electricity boards
- Owner/legal issues – This is an important factor, because if the operator don't get the permission to set up the cell site, the call would be dropped.

In light of the above, it is recommended that the existing benchmark of call drop < 3% should continue.

- **Worst affected cells having more than 3% TCH drops** - The Bouncing Busy Hour (BBH) is the time during which the cell is carrying the maximum traffic and is fully loaded. Hence, we believe that it would not be appropriate to apply a network level benchmark to cell level due to different level of GOS at cell level. The cell level benchmarks should be generally more liberal as compared to network level KPIs (Key Performance Indicators).

In our view, since this is the new parameter introduced, we recommend that the benchmark figure should be decided only after monitoring from the operator's data over a period of time.

- **Connections with good voice quality -** With the rapid growth of subscribers (9-10 million per month) and due to various factors including lack of spectrum availability, **it is recommended that the present benchmark of >95% should be revised and should be brought down to >90%.**

- **Service Coverage -** In our view, TRAI criteria for signal strength for in building in vehicle and outdoor coverage are technically anomalous as:
  - It prescribes higher signal strength inside building than at street level
  - Signal strength at street level & in-building are inter-linked – one can be calculated from the other. Assuming attenuation of -6dBm/wall for say, 3 walls:
    - -95 dBm at street level = -113 dBm inside the building
    - -75dBm in building = -55dBm at street level- This is clearly an incorrect & unrealistic requirement.

It may be noted that signal strength at street level prescribed at -95dBm by

TRAI, is similar to the street level signal of –93dBm prescribed by TEC

It is also pointed that as far as we are aware, nowhere in world are wireless operators mandated to provide indoor building coverage and the geographical coverage applies to street coverage only.

It is therefore submitted that TRAI should only prescribe outdoor signal strength of - 93/95 dBm. Insofar as in building coverage is concerned, it is submitted that the same should not be monitored/ regulated and should be left to market forces.

- **POI Congestion -** We agree that the existing benchmark should be retained for POI congestion. **However, it should exclude the delays arising due to issues that are not within the control of operator**, such as:
  - Fibre cut
  - Delay in other operator granting E1s due to port/ equipment issues, etc.

Customer Help Lines :

- **Response Time to Customer for Assistance -** The existing benchmarks for this parameter is as follows:

  (i) % age of calls answered (electronically)
  within 20 seconds =80%
  within 40 seconds = 95%

  (ii) % age of calls answered by operators (voice to voice)
  Within 60 seconds =80%
  within 90 seconds = 95%

  However, TRAI has proposed to revise the benchmarks as follows:

  (i) % age of calls answered (electronically)
  - Min. 95% calls to be connected successfully
  - Not more than 5% calls shall encounter congestion/busy signal/No reply etc.

  (ii) % age of calls answered by operators (voice to voice) within 60 seconds = 90%
  - Not more than 5% calls shall encounter busy signal/No reply

- At the outset it is submitted that number of calls handled by the customer care centers are huge and is continuously on the increase.

  It may also be noted that a considerable part of these calls are frivolous calls, which deprives the genuine needy customer's reach to the call centre by keeping the lines busy for longer duration. This also increases the cost of providing the customer care services by service providers to the customers. The number of frivolous callers can be gauged from the fact that the average percentage of repeat callers who makes more than 5 calls a month for one of the major operator at a pan India level lies normally in the range of 10%-20%, which attribute to almost 50% of calls made to customer care.

Hence, in this scenario it is very difficult to even meet the existing benchmarks for response time to the customer assistance.

It is further submitted that the purpose of the calls made by the customer to the call centre may be broadly classified into queries and complaints/grievances.

In order to minimize usage of call center resources for frivolous calls, it is suggested that the following distinction be made for customer help lines:

- **Customer complaints/grievances –** This service could be provided free of cost.
- **Customer query –** This service could be provided with nominal charges beyond certain number of calls by a single customer in a month. For example, the customer could be charged beyond say 3 calls per month.

We would like to reiterate that the aim to levy the charges, is only for the purpose of acting as a deterrent to only those subscribers who are making maximum number of frivolous calls to the call centre without any justified reason. It can also be left to the operator's discretion to charge or provide this service free of cost.

However, operators would ensure that information/ solution to possible queries & provision of service request is offered extensively through various other channels like company owned outlets, website, SMS etc.

<u>Billing Complaints</u> :

➢ **Billing complaints per 100 bills issued -** The title of the parameter is proposed to be changed to metering and billing credibility and to have separate parameters for post paid and pre-paid billing.

Prepaid complaints have been defined as complaints relating to charging/credit and validity.

- *It is submitted that the scope of the existing parameter should be retained and should not be extended to include other billing related services.*
- We would like to submit that the benchmark of <0.1% is right for only metering errors. However, if the Authority wishes to include different types of billing complaints (as proposed), the benchmark should be revised to < 5%, as it would be difficult for the operators to handle host of billing complaints

with the same benchmark.

- Moreover, complaints like ‘bill not received’ and ‘bill received late’ should not be made part of billing complaints, as the customer may dispute without any proof and it would be difficult to prove the genuineness of customer’s complaints.

  Also any billing complaints, which may lead to waiver or refund, should not be included as many times the waiver & adjustments are given just to retain the customer even if there is no billing error.

➢ **Percentage of billing complaints resolved within 4 weeks -**

- It is submitted that existing benchmark of 4 weeks should be continued for post paid services and for pre paid, wherein the complaints has been lodged within 30 days of the credit.

- While, for prepaid complaints lodged after 30 days, it is requested to provide 6 weeks time as it takes significant amount of time to retrieve the data from the archive.

➢ **Period of all refunds/payments due to customers from date of resolution of complaints -** It is submitted that the Authority’s proposal to revise the present benchmark <4 weeks to less than 1 week is too stringent. **We believe that at least 2 weeks time should be given to refund all dues** to the customers from the date of the resolution of the complaints.

This is due to the fact that the internal process within the organization takes time to clear/adjust the payments and refund the same. In addition to this, the contractual obligation with international operators suggests that the timeframe to provide the TAP files is of 30 days, thereby making it difficult to meet the new proposed benchmark.

➢ **Closure of mobile telephone/ termination of service -** In today’s competitive scenario, it is the endeavor of every service provider to retain its subscribers. In this regard, it is submitted that there is a need to simplify the Service termination process. Irrespective of method of customer request, following steps can be used for closing the customer’s services.

- Major chargeable services like STD/ISD calls, monthly rentals could be stopped within 48 hrs after receiving the customer request irrespective of any mode. His basic services (local outgoing and incoming calls) could continue for 15 days.
- On 15th day all his services would be disconnected, after checking with subscriber.

- In view of the above, **it is requested to kindly provide 15 days time (from termination of service) to make an effort to resolve the issues and hence retain the customer**.

- Observing the current trends of fraudulent cases towards these requests, we would also like to suggest that written request from the subscriber should be made the preferred mode with regard to the termination of service. The same will also serve as a means of authentication before the service is terminated.

➢ **Time taken for refund of deposit after termination of service -**The benchmark proposed for this parameter is 100% refund within 60 days of request for termination of service.

We are in agreement with the Authority's proposal to refund security with in 60 days of the request for termination of service. **However, the period of 60 days should start only after 15 days of retention efforts have been made**.

♦ **VOICE-** Use of "Network Availability" in place of Accumulated downtime of community isolation" is more rational and desirable. With ICT assistance, new hurdle has been created. After reaching the Call Centre / Customer Care , the CUSTOMER IS HELD on line FOR LONG " YOU ARE IN QUEUE—" The menu options should not be TOO MANY and time need be specified. Metering & Billing Credibility. Separate parameters for prepaid customers are a welcome move. We approve of other proposals in the chapter.

♦ **SISTEMA -**

➢ **Accumulated down time of community isolation-** Accumulated down time of community isolation is <24 hours is Accepted.

➢ **Call set up success rate (within licensees own network)-** Call set up success rate with the existing benchmark of >95% is Accepted.

➢ **Service access delay**- Proposal of taking out of Service access delay out of QOS regulations is accepted.

➢ **Blocked call rate-** Blocked call rate, SDCCH congestion <1% & TCH congestion < 0.02 is accepted.

➢ **Call drop rate**-Call drop rate < 3% is accepted.

➢ **Worst affected cells having more than 3%TCH drops (call rate drop)-** Introduction of this parameter is accepted.

➢ **Connections with good voice quality-**At present there is no system generated report for measuring connections with good voice quality, however clarification is required from TRAI for the same.

➢ Service coverage-The present benchmark for service coverage is accepted.

➢ **POI Congestion-**POI Congestion < 0.5% is accepted.

<u>Customer Helpline:</u>

- **Response time to customer for assistance-**The response time for customer assistance by operator voice to voice should be 2 minutes for 1.3 minutes & 5 minutes for 3 minutes.

Billing Complaints:

- **Billing complaints per 100 bills issues- Post paid charging**.- The existing benchmark <0.1 % is accepted.

- **Billing complaints per 100 bills issued- Pre paid charging**-The proposed benchmark <0.1 % is accepted.

- **%age of billing complaints resolved within 4 weeks-**The existing benchmark 100 % is accepted.

- **Period of all refund/payments due to customer from the date of resolution of complaints as in (ii) above**- The existing benchmark of < 4 weeks should be kept as it is & no change in the benchmark is proposed.

- **Closure of mobile telephone/termination of service**-Clarity required for LTV Cards.

- **Time taken for refund of deposits after termination of service**- As the proposed parameter already exist in basic service the same should also be incorporated for cellular service with the time from of 60 days for 100% refund for the request of termination of service.

♦ **SURYA -** Congestion in the Point of Interconnection will have serious impact on the QOS. Results of measurement will be of interest. Emphasis needs to be given on removing the shortcomings. In mobile mode the calls are made over from one cell to another. Measurements may be taken to see how effective this is and the benchmarks may be fixed.

♦ **NCHSE-**

- **Accumulated down time of community isolation-** Proposed new parameter is acceptable.
- **Call set up success rate (within licensees own network)-** OK
- **Service access delay-** OK
- **Call drop rate-Call drop rate –** Proposed change will tighten the performance of the operators**.**
- **Connections with good voice quality-**System generated data is fine
- **Service coverage-**OK

Customer Helpline:

- **Response time to customer for assistance-**It should have similarity to that of Basic Service (Wireline)

Billing Complaints:

- **Billing complaints per 100 bills issues- Post paid charging**.- Ok.

- **Billing complaints per 100 bills issued- Pre paid charging**-Proposed new parameter is fine

- **%age of billing complaints resolved within 4 weeks**-Ok

- **Period of all refund/payments due to customer from the date of resolution of complaints as in (ii) above**- Reducing the period from 4 weeks to one week is fine

- **Closure of mobile telephone/termination of service**-It should be alike to existing parameters for basic service

♦ ***Bharat Jyoti* –** All the QOS performance parameters with respect to CMTS are quite exhaustive and address the genuine concerns of an ordinary consumer.The measuring methodology is okay.The main issue is whether the figures given by various service reveal the true picture. The benchmarks of parameters like a) Blocked Call Rate b) Call Drop Rate c) Service Coverage d) Good voice quality e) Billing complaint resolution, f) Closure of mobile telephones and time taken for refund are not being adhered to by most of the service providers. The monitoring and measurement of these parameters need to done more frequently perhaps once a month atleast and by an independent reputed agency to reveal the true picture.

♦ **Bharti –**

Network Performance :

- **Accumulated down time of community isolation -**Community isolation happens when the entire BTS has failed and the entire community served from that BTS has been isolated. However in a practical scenario, as also noted by the Authority, the benchmark is met by most of the service providers, as the contiguous BTS takes over, in case of failure.

However, Airtel welcome the concept of Network availability, as it would bring in more clarity.

We would like to submit that since Airtel as other service providers, is expanding into rural/remote areas where we have to face lots of practical difficulties in maintaining the desired uptime, due to following reasons:

- Difficulty in maintaining sites in remote areas.
- Law & order problems.
- Owner issues, including objection of using DG by neighbours.
- Delays in getting power connection from State Electricity boards, etc.

All these issues result in delay in rectifying the problem, thereby affecting Network Availability. Moreover, external factors, which are beyond the control of service providers, should also be excluded. These could be:

- Natural Calamities
- Exigencies like riots etc.
- Accidental factors like Lightning.
- Permissions not granted by civic authorities
- Failures outside the control of service providers.

For reasons mentioned above, it takes more than one hour to even reach the site to attend the problem, therefore benchmark mentioned above is not realistic and practical to achieve.

In view of the above, we would like to state that the Benchmark for both of the parameters, i.e. BTSs accumulated downtime (not available for service) and Percentage of worst affected BTSs due to downtime should be <=2% and only BTS with outages more than 2 hours should be considered.

- **Call Set-Up Success Rate (CSSR) within licensees's own network -** We agree with authority's proposal.
- **Service Access Delay -** We are in agreement with authority's proposal to take out the parameter out of QOS regulations.
- **Blocked Call Rate –** Bharti Airtel is in agreement with authority's proposal to make no change in the parameter and existing benchmark should continue.
- **Call Drop Rate -** It is submitted that we are deploying state of the art technologies available in the world and are periodically optimizing the network to serve the world class cellular services to the subscribers.

The Authority in its consultation paper stated that the data submitted by service providers in PMR report is mostly within the range of <1.5%. It is submitted that this data is for current coverage areas and since the operators would be expanding their operations further in rural areas, this figure would go high. There are several other reasons causing call drops, which are directly not in control of service providers. Some of them are highlighted below namely;

- Spectrum unavailability.
- The increase in the number of operators would lead to interference.
- Frequent fibre cuts due to infrastructure projects are recurring phenomena in almost all circles.
- Microwave links fading due to weather conditions/ rain
- Leased line unreliability
- Site outages on account of passive infrastructure failures mainly due to delay in provision of power supply from Electricity boards
- Owner/legal issues

In light of the above, it is recommended that the existing benchmark of call drop <3% should continue.

- **Worst affected cells having more than 3% TCH drops -** The Bouncing Busy Hour (BBH) is the time during which the cell is carrying the maximum traffic and is fully loaded. Hence **the Network**

level benchmark cannot be applied to Cell level due to different level of GOS at cell level. The cell level benchmarks should be generally more liberal as compared to network level KPIs.

In our view, since this is the new parameter introduced, we recommend that the benchmark figure should be decided only after monitoring from the operator's data over a period of time.

- **Connections with good voice quality -** Due to various factors including lack of spectrum availability, it is recommended that the present benchmark of >95% should be revised and should be brought down to >90%.

- **Service Coverage –** In our view, TRAI criteria for signal strength for in building, in vehicle and outdoor coverage are technically anomalous as:

  - It prescribes higher signal strength inside building than at street level
  - Signal strength at street level & in-building are inter-linked – one can be calculated from the other. Assuming attenuation of -6dBm/wall for say, 3 walls:
  - -95 dBm at street level = -113 dBm inside the building
  - -75dBm in-building = -55dBm at street level- This is clearly an incorrect & unrealistic requirement.

It may be noted that signal strength at street level prescribed at -95dBm by TRAI, is similar to the street level signal of –93dBm prescribed by TEC.

It is submitted that TRAI should only prescribe outdoor signal strength of -93/95 dBm. Insofar as in building coverage is concerned, it is submitted that the same should be left to market forces.

Further, we do not agree with the Authority's suggestion to publish information about Service Coverage on their websites to inform the subscribers.

It is submitted that publishing such parameter would be misleading.

- **Point of interconnection (POI) Congestion -** We agree to retain the parameter with the existing benchmark. However, it should exclude the delays arising due to:
  - Fiber cut
  - Other operator in granting E1s due to port/ equipment issues.
  - All other issues (as mentioned above) which are not in control of operator.

We are in agreement of the Proposal for including the above parameter for basic services with the same benchmark ie <.5% as that for CMTS. However the following issues need to be excluded

- Fibre cut
- Other operator in granting E1s due to port/ equipment issues.
- All other issues (as mentioned above) which are not in control of operator.

➢ **Response Time to the customer for assistance:**

(i) Accessibility of Call Centre number i.e. % age of calls answered (electronically)

(ii) % age of calls answered by operators (voice to voice) within 60 seconds = 90%

At the outset it is submitted that number of calls handled by the Customer Contact Centers are huge and is continuously showing an increasing trend. According to our estimate, there are about 5 Lakh calls handled by a well-established operator per day per circle.

It may also be noted that a significant part of these calls are frivolous calls, which deprives the genuine needy customer's reach to the call centre by keeping the lines busy for longer duration. This also increases the cost of providing the customer care services by service providers to the customers.

Hence, in this scenario it is very difficult to even meet the existing benchmarks for response time to the customer assistance.

It is further submitted that the customers call up the Contact Centers for basically two reasons, one, for seeking information on new products and bill plans (Queries) and two, for raising some of his grievances (Complaints). On an average more than 70% of the calls fall under first category i.e. queries. The genuine grievance related calls are very few in number.

In order to provide the good service levels to customers for assistance and dissuade the frivolous callers, it is proposed that the following distinction be made for customer help lines:

- There should be a dedicated toll free number (say 198) for customer complaints/grievances only.
- All customer queries can be handled through a separate number which should not be toll free.
- For frequent caller at 198, there should be a top stop of 3 calls per subscriber per month. Beyond which the calls should not be toll free.

We would like to reiterate that the aim for proposing to remove Query Calls from Toll Free Category is only to create a deterrent to those subscribers who are making frivolous calls to the call centre without any justified reason. The Authority may take a favourable view to allow the telecom operators to offer the packages with no call centre facility with a clear communication to the end subscriber.

In addition to the above we would like to submit that current help line benchmarks are quite stringent and Service providers find them difficult to achieve therefore there is no need to revise the parameters and make them more stringent.

- **Billing Complaints -** It is submitted that bench mark of <0.1 % is right for metering errors only. If other proposed categories are to be included in billing complaints then bench mark should be revised to <5%.

  Bill not received and bill received late should not be made a part of billing complaints. It is very difficult to prove to customer that he had received the bill on time. Most of the customers who delay their bill payment due to whatever reasons claim that they did not receive the bill to avoid the late fee charges.

  Also any billing complaints which may lead to waiver or refund should not be included as many times the waiver and adjustments are given as service gesture to retain the customer. A waiver given does not necessarily prove that there was a genuine error in customer's bill.

- **Resolution of billing / charging -** It is submitted that existing benchmark of 4 weeks should be continued for post paid services and for pre paid, wherein the complaints has been lodged within 30 days of the credit.

  However for prepaid, complaints lodged after 30 days, it is requested that Service providers should be provided with minimum 6 weeks time for quality resolution as it takes significant amount of time to retrieve the data from the archive.

- **Period of all refunds/payments due to customers from date of resolution of complaints -**It is submitted that reducing the time period to 1 week would be too stringent and minimum of 2 weeks time should be given to refund all dues to the customers from the date of the resolution of the complaints. This is due to the fact that the internal process within the organization takes time to clear/adjust the payments and refund the same.
- **Closure of mobile telephone/ termination of service -** There is a need to simplify the Service termination process. Irrespective of method of customer request following steps can be used for closing the customer's Requests for Service Termination: .

  Step 1: Considering the large number of customer's requests for Service Terminations due to various reasons, it is actually difficult to work on all requests within 24hrs. Therefore it is submitted that as step one all monthly rentals and chargeable service could be stopped within 72 hrs after receiving the customer request irrespective of mode. However his incoming service could continue for another 15 days. During these 15 days service provider shall contact the subscriber and make retention efforts.

  Step 2: On 16^{th} day all his services shall be disconnected. Therefore at least 15 days of time should be given to retain the customers.

- **Time taken for refund of deposit after termination of service -** We are in agreement with the Authority proposal to refund security amount within 60 days of the request for termination of service.

♦ **TTSL -**

- **Accumulated downtime of community isolation -** We agree with this proposal of the Authority.

- **Call Set-up Success Rate (CSSR) within licensee's own network -** We agree with this proposal of the Authority.

- **Blocked Call Rate -** We agree with this proposal of the Authority.

- **Service Access Delay -** We agree with this proposal of the Authority.

- **Call Drop Rate -** We agree with this proposal of the Authority.

However we would like to highlight that the instances which are not in the direct control of the operators should not be included in the calculation of this benchmark:

- Non allocation/delayed allocation of adequate Spectrum .
- Disruptions in OFC connectivity due to infrastructure projects
- Poor reliability of Leased lines.
- Site outages on account of passive infrastructure failures mainly due to delay in provision of power supply from electricity boards
- Legal impediments which are on an increase.

- **Worst affected cells having more than 3% TCH drops (call drop rate) -** The worst call drop rate is usually poor due to inadequate infrastructure in Central Business Districts and which are visited by a large number of customers. Setting a norm which is poorer than the overall norm is therefore not desirable. It should also be kept at a very low figure. International benchmarks should be studied and aimed at.

- **Connections with good Voice Quality -** We are in agreement that the system generated reports will be a better method for monitoring this parameter, however, presently various systems in our network do not support to generate reports on this parameter hence we suggest to continue with current method philosophy. Systems deployed in TTSL network contains Huawei, ZTE, Ericsson and Lucent. Ericsson, ZTE and Huawei have confirmed that they are not having a facility to generate automatic reports on FER and voice quality. This would be a common aspect with other operators also. Hence it is recommended that we continue with drive test.

- **Response time to the customer for assistance -** We agree with this proposal of the Authority. However it is recommended that the Authority should define the formula, as congestion can be at multiple levels. While the respective operator can ensure no congestion at own end they are not responsible for incoming call from other networks. Therefore the formula should be – (calls answered / calls offered at the IVR) x 100

The 90% calls (voice to Voice) answered within 60 seconds will have cost implications as we would have to renegotiate contracts with call Center vendors and they would need to staff more agents to be able to meet this target. In the current situation we cannot afford such cost impacts. Our current SLAs with partners matches TRAI's norm. If this has to be 'raised' to 90% we have to augment resources which would be a financial burden on us. We also believe that it not would have a perceptional impact on the customer as long as we are 'open' to handling all calls.

We agree with the second part of the proposal ie not more than 5% calls shall encounter busy signal etc.

- **Metering and billing capacity**

  - **Postpaid Billing -** We recommend to exclude the parameters :

"calls or messages made disputed", since they often pertain to customer perception and not wrong billing.
"credit agreed to be given but not accounted in the bill" , "overcharging and under charging" should be excluded since it is often a customer understanding issue.
"bill received late" and "bill not received" If these are to be included then the benchmark of 0.1% is not possible to be met.
We agree with the proposal to retain the parameter of 0.1% of the bill should not be disputed.

We invest resources in ensuring that the address of the customer is right and that the 1st bill onwards is delivered; through customer visit and/or tele calling. Post that our experience has been that the delay in most cases happen because either the customer is not at his billing address, or we are not allowed (by security) to approach his address or the customer has shifted without intimating us. Therefore we believe that we should not be penalized for this.

We agree with the proposal of the Authority to change the title of the parameter to Metering & Billing Credibility, to align it with the parameter existing for the basic services (wireline).

- **Prepaid Charging -** We agree with this proposal of the Authority that for prepaid charging, credit/validity , the charging complaints per 100 customers should not be more than 0.1%.

- **Resolution of billing/charging complaints -** We agree with this proposal of the Authority.

- **Period of all refunds/payments due to customers from the date of resolution of complaints -** We agree with this proposal of the Authority.

- **Closure of mobile telephone/termination of service -** We agree with this proposal of the Authority. However it is recommended that operators be given reasonable time (Ten Working Days) to make an effort to retain customers. We have a 72 hour OG Barring. From day 4 rentals are not charged, Day 10-termination, post which deposit is adjusted and permanent disconnection done.

- **Time taken for refund of deposits after termination of service -** We agree with this proposal of the Authority.

♦ **MTNL-**

- **Call Set-up Success Rate (CSSR) within licensee's own network:** Agreed
- **Service Access Delay –**Agreed
- **Blocked call rate –** TCH Congestion benchmary may be modified to <3%
- **Call Drop rate -** May be retained at the existing value of <3%
- **Wost Affected Cells having more than 3%TCH drops –** Proposed benchmark may be considered at <=5%
- **Service Coverage –** No change is proposed
- **POI Congestion –** Monitority by Telcos on monthly basis. Reporting by Telco on quaterly basis.
- **Respons time to Customer assistance –** Percentage of call answered by operators
  Within 60 seconds- 60%
  Within 90 seconds- 80%

♦ **RCOM –**

- **<u>Network Performance Parameters</u> -** As submitted above the competitive pressure to attract new customers and retain existing customers has resulted in concerted efforts by most service providers to continuously improve the quality of service. There is continuous flow of investment in the network which is a key element of service provider's strategy for improving service quality. The continuous expansion of network coverage, improving the call handling capacity and network upgrades is improving service quality.

  The TRAI surveys also conclusively prove that most of the operators meet most of the network related benchmarks. There is generally better voice quality, higher call-completion rates and fewer call drops. The cell sites are being increased and micro-cell sites additionally deployed to increase the quality of service.

  Operators monitor and analyse the Network Management System statistics on daily basis. The drive tests are conducted and optimization is carried out on monthly basis and city wise detailed performance drive test every quarterly. Drive tests are also carried out as and when a new site gets added to a particular area and also based on customer complaints. During drive tests, short calls are made to analyze Call setup success rate and long calls to ascertain coverage, drop call rate etc. The drive test performance is further verified based on the parameters like Mobile Rx power, Mobile TX power and Frame Erase Ratio etc.

In the existing market there is no evidence that the competition in market is failing especially in the mobile sector requiring continued existence of excessively regulated QoS obligations. To the contrary, there is evidence that the market is functioning well: there is strong competition in the sector, with more than a dozen telephony providers offering/going to offer services. In light of this, there is need to review the regulatory approach to deal with the QoS issues. We suggest that the TRAI should only monitor the QoS performance of different operators and not regulate the same.

In any case the existing benchmarks should not be further tightened or additional network performance indicators specified as it is not going to serve any additional usefulness and only add to the already massive record keeping. The continuous improvement in the QOS is indicative of an effective competition and does not require regulatory intervention to further tighten the existing norms or add new norms. We would like to draw attention to the following main quality parameters where the Authority has proposed certain changes:

- **<u>Accumulated down time of community isolation</u> -** Community isolation happens when the entire BTS has failed and the entire community served from that BTS has been isolated. However in a practical scenario, as also noted by the Authority also, the benchmark is met by most of the service providers, as the contiguous BTS take over, in case of failure.

  The revised parameter is not desirable especially when the services are being rolled out in the remote areas by the established networks and in the urban areas by new licensees. The stringent guidelines are required when the networks rollout have matured in all areas. It would be unfair for the new operators and for the existing operators who are providing and setting up networks in the areas which are remote and not easily accessible. Many areas are also facing law and order problem, local resistance against using DG sets for power backups, long outages of power, cable cuts and delay in obtaining permission from local authorities for digging etc. Either such BTSs be allowed to be excluded from the benchmark estimation or the existing benchmark should not be made stringent.

- **<u>Customer Service</u> -** The Authority has issued number of directions and regulations for defining time line for refund of security deposits and interest payable when there is delay in the refund, information to the subscribers on tariff plans and whenever tariff undergo any change, informing subscribers about the credit limit and when they approach the credit limit, informing subscribers about the three level of complaint resolution process, timelines for resolution of the complaints, system for carrying out root cause analysis whenever the complaints are generic in nature etc.

  The existing regulatory framework is enough to take care of most of the consumer grievances. We would like to draw attention to the following main quality parameters where the Authority has proposed certain changes:

- **Response Time to Customer for Assistance -** TRAI has proposed following revised benchmarks for this parameter:

  (i) % age of calls answered (electronically)
  - Min. 95% calls to be connected successfully
  - Not more than 5% calls shall encounter congestion/busy signal/No reply etc.

  (ii) % age of calls answered by operators (voice to voice) within 60 seconds = 90%
  - Not more than 5% calls shall encounter busy signal/No reply

  It is submitted that enormous number of calls are handled by the customer care center. Service provider are adding capacities on regular basis. RCOM added about 1500 seats in Call Centres during June 2008 to January 2009 and augmented IT infrastructure to support and enhance Self Service option and call taking capacity for each location. With these initiatives, percentage of calls answered in 60 Sec & 90 Sec has improved considerably. In addition to above, we are providing exhaustive information to our customers through brochures at the customer touch points in order to reduce the need for the customer to call Operator desk.

  The service providers are making significant efforts to provide toll free customer support. The capacities are being expanded on regular basis to support the growing subscriber base. Since market is reacting positively to the need, more stringent benchmarks should not be specified which may not be beneficial for the over growth of the sector.

- **Billing Complaints -** The title of the parameter is proposed to be changed to metering and billing credibility and to have separate parameters for post paid and pre-paid billing.

  The large number of complaints relating to the post paid bills is relating to the payment made not credited. Such complaints are not related to the accuracy of the bill. Therefore such complaints should not be allowed to be part of the overall complaints. It is submitted that the scope of the existing parameter should be retained and should not be extended to include other billing related services.
  The Authority has laid down strict Code of Practice for Metering and Billing Accuracy. The service providers are getting their system audited by the Auditors approved by the Authority. Most of the complaints relating to the billing and mentioned in the consultation
  paper are tariff related and subject to auditing. When a strict code of practice is in place, there is little need to have separate QoS targets.

  However, if the Authority wishes to include different types of billing complaints (as proposed), the benchmark should be revised to < 5%.

- **Closure of telephone/termination of service -** In today's competitive scenario, it is the endeavor of every service provider to retain its subscribers. We appreciate the Authority's understanding and suggestion to include the period required for retention in the benchmark. However we do not support inclusion of the parameter in the QoS benchmarks as termination of contract depends on number of issues like settlement of all outstanding dues, return of CPEs etc. The Authority's direction is enough to take care of the consumer interest. The specific benchmarks as such are not needed.

In case the Authority still feels need for monitoring the termination of connections the it is requested to kindly provide 15 days time from the date request termination of service to make an effort to resolve the issues and hence retain the customer.

- **Sasken & Nielsen –**
  - ***Connections with Good Voice Quality*** - It is observed that currently no robust methodology is used for the determination and reporting of the above metric. Hence there is a need to specify more stringent and comprehensive set of QoS parameters to check end-to-end quality of calls and "user perceived speech quality". Since it is one of the most important parameters as observed by subscribers, it is suggested to conduct an end-to-end network call quality test that compares the received signal at the receiver to the original recorded reference signal **as per defined International Telecommunications Union (ITU) recommendations (ITU-T P.800 and P.862) to arrive at Mean Opinion Score (MOS) / Perceptual Speech Quality Measure (PESQ) score is an effective way to benchmark the speech quality across different networks**.

    Following methodology is suggested:

    Call is originated at the mobile in the field and is received by the server on a wireline network (to control the impact of terminating mobile network). The server computes a MOS score in the range 1 to 5 by comparing the received signal with the original reference signal stored at the server. This technique measures the call quality over the entire end-to-end network; not just the mobile access network.

    The number of calls (i.e. sample size) should be sufficient to stand statistical validity of the measurement.

    Since the methodology can be used for both GSM and CDMA calls, the difference in measurement methodology currently adopted can be overcome.

    It is to be noted that this metric should not be arrived at from OMC data of the network equipment; but should truly reflect the quality as perceived by subscribers through live listener test.

    It is known, that by adjusting certain parameters such as Radio Link Timeout (RLT), drop call timer etc. on the network equipment, operators can continue to meet benchmark levels such as drop call rates, however offering poor voice quality for the end user. Hence it is important to have a robust methodology and metric for measuring quality of voice calls.

    TRAI's recent recommendations allowing for unregulated Internet Telephony further necessitates the need for stringent quality metrics for assessing speech quality, not only for Public Switched Telephone Network calls but also for Voice over Internet Protocol (VoIP) calls as presented in ITU-T P.VTQ.

Hence QoS framework should migrate from the measurement of network-centric data to user-centric data. The above methodology will also be useful for measuring handed-off voice quality due to interference in adjacent cells.

- **CF –** We agree the proposals in Chapter-3 about QoS for Cellular Mobile Telephone Services.
- **CPA –** Only after independent survey across all the circles there should be any change.

  Customer Helpline – Proposal (ii) *"% age of calls answered by operators (voice to voice) within 60 seconds*" may be changed to *"% age of calls answered by operators (voice to voice) within 30 seconds".*

  Billing Complaints – All refunds should be made within 7 days in place of 60 days. As interest on bank loan is over 12% per annual penal interest should be increased from the proposed 10% per annum to 2% per month.
- **US&KS -** Accumulated down time of community isolation basically rural network faults maximize in rural areas against urban areas. Performance report should be properly monitored by Authority and benchmark of down time should be determined 20 hours during the month i.e. in 30 days but not more than one hour in a day under normal circumstances.
- **Joglekar –**

  - **Call Set-up Success Rate, Blocked Call Rate – SDCCH Congestion and TCH Congestion, connections with good voice quality, POI Congestion and Billing complaints per 100 bills issued**. - These benchmarks also need to be reported city wise rather than circle wise.

  - It is proposed to revise the benchmark for the parameter **"Call Drop Rate"** to = 2% from the existing benchmark of <3%. - This is a correct thing to do.

  - It is proposed to introduce the parameter **"Percentage of worst affected cells having more than 3% TCH drops (call drop rate)"** to assess percentage of BTSs having excessive call drops. - I do not understand what purpose this bench mark will serve.

Q.No. 8.2.5 Do you agree with the parameters and benchmarks for customer perception of service, as discussed in Chapter-4? If not, please give your views with reasons thereof?

Responses :

- ***AUSPI -***

  Customer Assessment Achievement :

  1. When drawing any conclusion from the Consumer Satisfaction Surveys on the quality of service, it is important to keep in mind that they are based on consumers' subjective perceptions of service quality. There are several points to

note in this regard:

(i) The perceived quality of any service depends partly on its price, and a consumer's evaluation of the relationship between price and quality determines his or her level of satisfaction.
(ii) When customers make a purchase, they are choosing a price/quality package that they expect to meet their needs and desires. Ordinarily, higher price is associated with higher quality.
(iii) Consumer perceptions can change independently of actual changes in network performance as their expectations evolve.

2. The customer satisfaction surveys can also be misleading when the sample size not sufficiently large and therefore prone to number of sampling and non-sampling errors. The respondent's bias discussed above can be minimized in case the sample size is large enough for each individual operator. The sample size should be at least 5% of the subscriber base to minimize the sampling and non-sampling errors. The sample should also be multistage sampling representing all geographical areas and not limited to few cities in the country. The larger sample size may increase the cost and therefore the survey may be carried out once a year instead of 4 times a year. In Australia for example, the quality of survey are performed every 12 months.

Need of Customer Perception Surveys :

The operator's QoS measurements are reported on regular basis to the TRAI which are published in the quarterly performance monitoring reports. These parameters are also cross verified through auditing by an independent agency. The performance monitoring reports and the audit reports are released for access by the subscribers. The customer have sufficient information on the QoS performance by various service providers and as such the customer satisfaction surveys are not needed.

Generally the customer satisfaction survey are conducted when the QoS benchmarks are not set by the regulator and there is no periodic reporting of the QoS parameters and the customer satisfaction surveys are required for assessment of the Quality of service. When the Authority has the actual information on the QoS then there is little need for the surveys.

Therefore it is suggested that the surveys may be conducted only when there the Authority ceases to specify the quality benchmarks and requires regular reporting by the service provider. The surveys and the regulation has overlapping objective and no useful purpose will be served by specifying the need to have both the survey and regular reporting of quality parameters.

- **COAI –** The existing parameters and the benchmarks for the cellular mobile telephone service are as follows:
(i) %satisfied with the provision of service (>95%);
(ii) % satisfied with the billing performance (>90%);
(iii) % satisfied with help services (>90%);
(iv) % satisfied with network performance, reliability and availability (>95%);
(v) % satisfied with maintainability (>95%);
(vi) Overall customer satisfaction (>95%);

(vii) Customer satisfaction with offered supplementary service % satisfied (>95%).
We would like to submit that the benchmarks mentioned above are too stringent, as it does not give the true picture of the situation. This is due to the fact that the customer perception depends upon various factors including customer's experience at that particular point of time, depending upon how customer perceives the quality, based on price, value added services and various other factors.

Therefore, we request you to relax the benchmarks mentioned above.
For overall assessment of QoS, the existing methodology of **Weighted Satisfaction Scores should continue** and there is no need to introduce a new parameter such as Mean Opinion Score. Hence, it is respectfully submitted that weighted satisfaction scores should be retained.
In view of the above mentioned parameters, we would like to suggest a more realistic approach, wherein the revised benchmarks could be taken from the last audited data, with an % improvement factor year on year.

- **VOICE-** We agree with the parameters and bench marks for customer perception of service. This is QUITE EXAUSTIVE. What is most important that THE METHODOLGY 7 QUESTIONS framed in ASSESSING the above.
- **SISTEMA -** The benchmark should be incorporated in the PMR to understand the level of satisfaction. If these benchmarks are sufficient then the operators can start reporting these figures, TRAI can study the same and if required these can again be put in for consultation.

- **NCHSE-** Item No. 17(ii) & 17(iii) should also have .95 satisfaction in relation to customer perception
- ***Bharat Jyoti –*** *We agree*
- **Bharti** - It is submitted the benchmark should not be more than 60% against top two boxes. Most of customers, while rating, the score tend to follow the central tendency.
  For assessment, the existing methodology of Weighted Satisfaction Scores should continue and there is no need to introduce a new parameter such as Mean Opinion Score. Hence, it is respectfully submitted that weighted satisfaction scores should be retained.
- **TTSL -** We feel this should be retained as it is.
- **MTNL-** A separate parameter may be included as proposed by TRAI
- **RCOM –**
  - **Customer Assessment Achievement -** When drawing any conclusion from the Consumer Satisfaction Surveys on the quality of service, it is important to keep in mind that they are based on consumers' subjective perceptions of service quality. There are several points to note in this regard:
    - (i) The perceived quality of any service depends partly on its price, and a consumer's evaluation of the relationship between price and quality determines his or her level of satisfaction.
    - (ii) When customers make a purchase, they are choosing a price/quality package that they expect to meet their needs and desires. Ordinarily, higher price is associated with higher quality.
    - (iii) Consumer perceptions can change independently of actual changes in network performance as their expectations evolve.

    The customer satisfaction surveys can also be misleading when the sample size is not sufficiently large and therefore prone to number of sampling and non-sampling errors. The respondent's bias discussed above can be minimized in case the sample size is large enough for each individual operator. The sample size should be atleast 5% of the subscriber base to minimize the sampling and non-sampling errors. The sample should also be multistage sampling representing all geographical areas and not limited to few cities in the country. The larger sample size may increase the cost and therefore the survey may be carried out once a year instead of 4 times a year. In Australia for example, the quality of survey are performed every 12 months.

- **Need of Customer Perception Surveys -** The operator's QoS measurements are reported on regular basis to the TRAI which are published in the quarterly performance monitoring reports. These parameters are also cross verified through auditing by an independent agency. The performance monitoring reports and the audit reports are released for access by the subscribers.

  The customer have sufficient information on the QoS performance by various service providers and as such the customer satisfaction surveys are not needed. Generally the customer satisfaction surveys are conducted when the QoS benchmarks are not set by the regulator and there is no periodic reporting of the QoS parameters and the customer satisfaction surveys are required for assessment of the Quality of service. When the Authority has the actual information on the QoS, there is little need for surveys.
  Therefore it is suggested that the surveys may be conducted only when the Authority ceases to specify the quality benchmarks and requires regular reporting by the service provider. The surveys and the regulation has overlapping objective and no useful purpose will be served by specifying the need to have both the the survey and regular reporting of quality parameters.

- **CF –** We agree with the overall parameters and benchmarks for customer perception of service as in chapter-4. But an additional parameter should be introduced to assess the perception of Redressal of grievance mechanism services.
- **CPA –** Benchmark based on % satisfaction may be retained. There may be independent survey for finding out the deficiencies with the service providers. And there should be a regulation for imposing punitive damage upon the defaulter service providers and the damage should be distributed to the customers of the particular service provider.
- **US&KS –** Agree with the opinion as per chapter-5
- **Joglekar –** Mean of scores is a preferred criterion.

Q.No. 8.2.6 What are your views on the assessment of customer satisfaction achievement? Whether satisfaction scores are to be represented as Overall Weighted Satisfaction Score or as Mean of Opinion Score?

Responses :

- **AUSPI -** Basically, Quality of Service represents a measurable set of parameter that defines the level of service that a service provider can be accountable. The quality of the service that the user received is one of the key factors which decide customer satisfaction and as such the quality of the service should be kept at a level that fulfils customer requirements along with the necessary technical and customer care requirements.

It is not possible to include all the quality preferences of subscriber. Few subscribers prefer service coverage, roaming, other value added services including data services to the basic services which are generally met by most operators. Therefore the weights of each quality preference would also need objective analysis.

AUSPI opposes the proposal to represent the survey as overall weighted satisfaction score or as mean of opinion score as the weights for each parameter would differ from customer to customer. Further these scores represent ranking or indexing of the service providers which may influence the customer buying behaviour. The Authority's role may be limited to provide the information to the consumers and the actual ranking or indexing on the basis of survey which in any way is subject to number of sampling and non sampling errors. In providing the mean score there cannot be any tolerance of error which are inherent part of all sampling survey techniques.

- **COAI -** Common reply. (as replied in Q. No. 8.2.5.)
- **VOICE-** Mean of Opinion Score [MoS] is more suited for assessment. An additional / separate parameter relating to GRIEVANCE Redressal Mechanism is a must. This will be the real INDICATOR of SATISFACTION. To my knowledge, introduction of this has INCREASED SATISFACTION, DISPUTES/ COMPLAINTS have reduced.
- ***Bharat Jyoti** – No Comments*
- **Market Pulse –** Satisfaction scale has the following Top 2 gradations - Very satisfied and Satisfied (and not somewhat satisfied). Balance is representative of the dissatisfied customers.

<u>Main Issue with the Current Computation Method</u>

- Can the Semantic Differential Scale be assumed to be an interval scale? In case, it can not be, weighted mean scores are not relevant.
- In case, the current scale can be assumed as an interval scale, do the benchmarks need to be changed? How should the benchmarks be decided because in the current scenario, the service providers will never achieve score of much excess than 70%?

<u>Opinion of Market Pulse on Performance Parameters</u>

- In our opinion the Semantic Differential Scale being currently employed is not an interval scale, it is an ordinal scale. Hence it is not amenable for calculation of mean scores. The reasons why the ordinal scale cannot be used to calculate mean scores are:
  - (i) The scores being given to the scale descriptors are no more than codes. Therefore, while the scale currently ranges from 4 to 1, the scale range could as well range from 10 to 1 or 100 to 1.
  - (ii) The score allocation implicitly assumes that the distance between very satisfied and satisfied (distance = 4 - 3 is the same as that between satisfied and dissatisfied (distance = 3 – 2).
- Hence, the only statistically correct method to adopt is to present % of respondents falling in each scale descriptor.

<u>Establishing Performance Parameters</u>

- The acceptability of a service provider's service should be determined by the combined % of the top two boxes i.e. % of respondents who are very satisfied or satisfied with the service. For instance, a service provider's service is acceptable if the % of very satisfied/satisfied respondents is 90% or more.

- Of the service providers whose service has been found satisfactory, a gradation or ranking can be obtained by considering the % of respondents who are very satisfied. For instance, if out of three service providers (called A, B and C), 15% respondents are very satisfied with the service provider A, while the corresponding statistic for B and C is 10% and 5%, then the A is ranked 1, B is ranked 2 and C is ranked 3.

Comment on the Proposed MOS

- MOS: The item Fair is not easily understandable by consumers; some take it as a positive indicator and some as a negative one. Maybe, Average needs to be mid-point.
- No distinction should be made between Poor and Bad as a respondent who provides either of the answers is in any case dissatisfied with the service.

♦ **Bharti –**Common reply. (As replied in Q. No. 8.2.5.)

♦ **TTSL -** There is a cultural issue in using a 5 point scale. In many languages/cultures 'Fair' is considered as good by customers, infact it becomes difficult to translate the 5 point scale into vernacular. This leads to confusion and also leads to most customers choosing the middle point which does not mean that they are dis-satisfied with their service provider but we will get penalized for the same never-the-less.

Therefore we suggest that we retain the current 4 point scale as it is very easy to administer and also very easy for customers to understand.

We do not recommend a merger of the grievance redressal mechanism with the existing parameters. It should be kept separate as knowledge of the grievance mechanism is very different from satisfaction with the same. Since many customers may not have had any occasion to use the redressal of grievance mechanism they would not have any feedback about their satisfaction on the same.

However, we agree that, it is important for all concerned (Operators) to ensure that their customers are aware of the mechanism available for their use should they feel the need to do so.

♦ **BSNL –** No comments

♦ **MTNL –** No comments

♦ **RCOM –** Common reply. (As replied in Q. No. 8.2.5.)

♦ **Sasken & Nielsen –** As indicated in this section, currently customer satisfaction achievement is measure through surveys conducted by an independent agency. While this may be good way to capture customer satisfaction on Service Provision, Billing, Help Service, Maintainability, and Supplementary Services, it is not appropriate as mentioned for capturing customer perception on "Network Performance, Reliability and Availability". "Satisfaction with voice quality", which is one of the sub parameters is best measured through MOS/ PESQ methodology as is hinted in the consultation paper.

We suggest that Network Performance parameter is best measured not through surveys of subscribers; but by conducting extensive drive tests conducted by an independent agency and by having end-to-end call quality measurement systems for assessing call quality.

- **CF –** Alternative approach of MOS may be introduced to assess the customer satisfaction data.
- **US&KS –** Assessment of quality of service relating to service provider can be made through feedback. Feedback should be directly sent to subscriber alongwith bill. And to submitted by subscriber with bill. % of satisfaction contain marks of each questionnaires. Maximum marks indicate satisfaction of customers.
- **Joglekar –** Mean of scores is a better parameter.

Q. No. 8.2.7 Do you agree with the proposals for record keeping and reporting, including internal audit system, given in Chapter-5? If not, please give your views with reasons thereof? *(para 5.1 and 5.2)*

Responses:

- **AUSPI -** Service provision data is routinely capture and measure quality parameters. The data captured by the service providers is sufficient to report most of the information against TRAI's QoS parameters. We do not see any intervention needed to specify the record keeping for QoS parameters as these are routinely captured by the system. *Since the information is directly generated by the system, we do not support any separate mechanism for internal auditing.*
- **COAI -** Currently, the data is reported to the Authority on a quarterly basis for the performance monitoring reports, which is working well and the same should be continued as per the present format.
- **VOICE** - Uniform record keeping is a necessity. Absence of SELF REGULATORY mind, does not favour INTERNAL AUDITING by service providers. Reporting on POI congestion is essential for effective monitoring to avoid congestion.
- **Bharat Jyoti –** No Comments
- **Bharti -** It is proposed that current format and structure should continue. The proposed structure will increase the paper work without much value addition. Authority may recommend format for data record keeping and reporting as has been done in many areas. However there is no need to submit the documented process of record keeping to authority.
- **TTSL -** It is proposed that service providers will inform TRAI about their record keeping for different QoS parameters.
  TRAI will study the same and come out with a uniform record keeping procedure to be adopted by all service providers.Also a system of internal audit of QoS by the service providers through internal auditors is envisaged.It is proposed that quarterly performance monitoring report may continue as per the prescribed format.
  The reporting of POI congestion would continue on a Monthly basis.
  It is proposed that the QoS information to be published in three different formats, one for basic service, two for cellular mobile service, have been proposed.
  The method of record keeping in TTSL is appended in Annex-I for consideration by the Authority.
- **BSNL -** This may be agreed to
- **RCOM -** Service provision data is routinely captured and measured by all service

providers. The data captured by the service providers is sufficient to report most of the information against TRAI's QoS parameters. We do not see any intervention needed to specify the record keeping for QoS parameters as these are routinely captured by the system. Since the information is directly generated by the system, we do not support any separate mechanism for internal auditing.

- **CF –** Yes, we agree with the proposals for record keeping and reporting including internal audit system.
- **US&KS – I**nternal audit systems indicate true & fair system of records and officers/Authority responsibility. It must be organized through chartered accountants and also internal Departments. Both report should be reconciled and observation can be reform through proper monitoring and instructions.

Q.No. 8.2.8 What are your views on publication of performance of Quality of Service, including the formats for such publication, discussed in Chapter-5?

Responses :

- **AUSPI -** The publication of quality parameters by respective parameters would not serve any useful purpose as the subscriber would have to refer to site of individual operators to compare the quality performance. The TRAI routinely published the information and therefore it would be more appropriate and convenient for the consumer to encourage reference to common information platform by all service provider.

  We welcome any initiative that offers real quality of service benefits to consumers. We also agree that the informed consumer about the tariffs and quality of service will make more appropriate choice in selecting the service provider. However we do not believe that the detailed information proposed for publication would only help consumer. The Authority may assess the consumer requirements through a survey. The information provided should be easy to understand and relevant for customer to make an informed choice to decide a service provider.
- **COAI -** It is submitted that the service providers are reporting to the Authority as per the existing parameters on QoS and are providing data pertaining to the same.
  In our view, publishing the parameters on the respective operator's website is not a good option. This is because it would be difficult for a subscriber to open say 12 sites of different operators and compare the parameters. Therefore it is recommended that the data submitted by operators should only be published at one place, i.e. on TRAI website, allowing users to analyse & compare.

  The operators however can give the link of TRAI website on their respective websites.
- **VOICE-** This information will enable customer to make INFORMED decision and discontent will go down.
- **Bharat Jyoti –** *No Comments*
- **Bharti -** It is submitted that the service providers are reporting to the Authority as per the existing parameters on QoS and are providing data pertaining to the same.
  In our view, publishing the parameters on the respective operator's website is not a good option. This is because it would be difficult for a subscriber to open say 12 sites of different operators and compare the parameters. Therefore it is recommended that

the data submitted by operators should only be published at one place, i.e. on TRAI website, allowing users to analyze & compare. The operators however can give the link of TRAI website on their respective websites.

- **TTSL -** We agree with the format of this report, with the inclusion of the suggestions on aspects indicated in the paras mentioned above.
- **BSNL -** TRAI is already uploading QOS performance of operators on its website. Operators may give link to the same from their website so that customer can see the comparative performance from single chart.
- **RCOM –**
  - **Publishing of QoS Performance -** RCOM is fully committed to offer the highest level of quality of service across its services areas on any of the access technology. RCOM is running two parallel wireless access networks and wire line network and spend considerable amounts of time and resource to achieve the highest level of quality on these networks.

    We welcome any initiative that offers real quality of service benefits to consumers. We also agree that the informed consumer about the tariffs and quality of service will make more appropriate choice in selecting the service provider. However we do not believe and our experience does not support that consumers will be needing the detailed information specified in the formats in the consultation paper. The detailed information would only confuse the consumers especially when there are going to be over a dozen access providers in every area. The information to be provided would not be very commonly used and defeat the real purpose of publishing the information.

    We therefore suggest that the Authority should commission a survey to decide the quality parameters those can be actually used by the consumers. Further the QoS parameters are compared in the TRAI PMR reports which are available on the TRAI website. The QoS parameters on operator's website shall be available on standalone basis. In that context there seems to be little utility for the consumer.
- **CF –** We agree with the proposals for publication by service providers as per the formats as in Table 1,2,3 . But one more format giving the details about the performance of the consumer's grievance Redressal mechanism should be included.
- **US&KS –** QoS standard should be monitored through complaint attended by employees. Proper receipts should be provided to consumers and time of complaint attend, and person who should attend the complaints be mentioned thereof.
- **Joglekar -** We need to simplify our questionnaire and circulate it to a large number of subscribers through print media.

  Since the surveys are conducted by TRAI it is the responsibility of TRAI to publish it in the interest of the consumers.

  If the service providers are asked to conduct these surveys and publish the results there will be loss of credibility.

Q.No. 8.2.9 Do you agree with the proposal for benchmarking of Quality of Service of telecom services in India, discussed in Chapter-6, including the proposal for Customer Service Quality Index (CSQI) and Network Service Quality Index (NSQI)? If not, please give your views with reasons thereof?

Responses:

- **AUSPI -** Competition amongst the service providers in a mature market like India takes care of the Quality of Service. However, the loyalty, in terms of subscribers' relationship with the access providers and perceived tolerance to bear with the quality of service be left to the market forces & Customers.

  It is proposed to use the data provided by service providers through Performance Monitoring Reports for benchmarking purposes.

  The indexing process is nothing but the rating of service providers on the basis of quality of service parameters. We strongly believe that the regulator or the government should desist from rating any of the service provider as that would influence the buying behaviour of the customer. The regulator's role should be limited to providing information to the subscriber so that he or she takes the informed decision about the selection of service and service provider.

  The Authority has recently send recommendations to the government On "Policy and Operational issues for Television Audience Measurement (TAM)/ Television Rating Points (TRP)" and decided that the Government has no role in rating any programme and decided a co-regulatory approach for rating to be decided by the industrial body. The TRAI's remarks in the para 4.2.2.18 (iv) of the recommendations are relevant:

  "However, the results of ratings when published / publicity given through various media do affect the public perception to some extent. Therefore, Government's role should be limited to providing a guiding framework for organizational structure, function and methodology to be adopted by the industry led body.

  Further it is not possible to assign equal weights or quantify weights to different quality parameters for indexing as these depend on subscribers own quality needs. Few customers may prefer quality parameters like coverage, roaming arrangements to the parameters currently being monitored or specified.

  Since the indexing or rating by the regulator is going to influence the buying behaviour and may impact the fair play of the market forces, it is strongly suggested that the TRAI may desist from issuing any index or rating for network service quality or customer service quality.
- **COAI -** We would like to submit that the methodology followed by the operators to measure various parameters are different due to different types of vendor equipments deployed, having different methodology.
  It is therefore recommended that first TRAI should standardize the process of measurement & formulas, before proposing such benchmarking index parameters.
  Moreover, the **indexing or rating** as proposed by the regulator may influence the buying behaviour of the subscriber and **would impact the fair play of the market forces.** Also, to the best of our knowledge, no ratings are carried out by regulators in other sectors like SEBI.
- ***VOICE***- i) For BASIC SEVICES, stand alone benchmarking is may be pursued.
  ii) For mobile services, comparison of performance with other service providers is a must.
  iii) Benchmarking of Customer Service Quality Index [CSQI] and Network Service Quality Index[NSQI] , as propose will go far in better service.

- ***Bharat Jyoti –*** *No Comments*
- **Bharti -** We would like to submit that the methodology followed by the operators to measure various parameters is different. This is very subjective in view of different types of vendor equipments deployed, having different methodology.
  It is therefore recommended that first TRAI should standardized the process of measurement & formulas, before proposing such benchmarking index parameters.
- **TTSL -** We recommend that the benchmarking should be on a standalone basis vis a vis different service providers. Assessment be done for each Service providers own QoS parameters. The data used should be provided by Service providers through Performance Monitoring Reports for benchmarking purposes. The variation of 10 % in this figures and those obtained through audit / independent assessment should be acceptable.
  We agree with the proposal for reporting QoS performance indicators in the NQSI and the CQSI tables. It is recommended that the TRAI standardize the process of measurement and formulae in conjunction with the implementation of these indices.
  We also request an online submission of the large number of inputs to TRAI for facilitating the timely submission in a standardized method of calculation and set pattern format .
- **BSNL -** This may agreed to
- **RCOM -** The indexing process is nothing but the rating of service providers on the basis of quality of service parameters. We strongly believe that the regulator or the government should desist from rating any of the service provider as that would influence the buying behaviour of the customer. The regulator's role should be limited to providing information to the subscriber so that he or she takes the informed decision about the selection of service and service provider.
  We tried tracing the precedents for ratings by the regulator in the telecom and utility and financial sectors but could not found even single precedent where any indexing or rating has been carried out by the regulator. The rating systems are more common in the financial sector by agencies like CRISIL but no ratings is ever decided by the RBI, SEBI or IRDA. In goods and service sector, the agencies like JD Power are active but no government agency including Bureau of Indian Standards has ever issued any ratings.
  Similarly Ofcom, PTA, ACMA and most other regulators publishing QoS information have never used it for indexing or rating to identify the best service provider.
  The Authority has recently sent recommendations to the government On "Policy and Operational issues for Television Audience Measurement (TAM)/ Television Rating Points (TRP)" and decided that the Government has no role in rating any programme and decided a co-regulatory approach for rating to be decided by the industrial body. The TRAI's remarks in the para 4.2.2.18 (iv) of the recommendations are relevant:
  "However, the results of ratings when published / publicity given through various media do affect the public perception to some extent. Therefore, Government's role should be limited to providing a guiding framework for organizational structure, function and methodology to be adopted by the industry led body.
  Further it is not possible to assign equal weights or quantify weights to different quality parameters for indexing as these depend on subscribers own quality needs. Few customers may prefer quality parameters like coverage, roaming arrangements to the parameters currently being monitored or specified.
  Since the indexing or rating by the regulator is going to influence the buying behaviour and may impact the fair play of the market forces, it is strongly suggested that the TRAI may desist from issuing any index or rating for network service quality

or customer service quality.

- **Sasken & Nielsen –** To provide comprehensive benchmarking reports, it is suggested that NSQI shall contain all network (i.e. OMC) generated data submitted by the operators, such as "BTSs accumulated downtime", "Percentage of worst affected BTSs due to downtime", and "Call Set-up Success Rate".

  We propose another index referred to as "Customer Perceived Quality Index (CPQI)" in addition to NSQI. We define below the parameters that form CPQI.

  Each operator may use network equipment from different Original Equipment Manufacturers (OEMs) that use different counters to define the parameters such as "Blocked Call Rate", and "Call Drop Rate" (hereafter referred to as Key Performance Indicators (KPIs)). Due to this difference in counters for different OEMs and different technologies (CDMA/GSM), there is no standardization in defining these KPIs. In contrast, drive test data can use the same hardware and software configuration for both GSM and CDMA systems to derive these KPIs and hence these metrics can be very easily standardized and compared.

  In addition to the above two metrics (i.e. Blocked Call Rate and Call Drop Rate), "Connections with good voice quality and "Service Coverage", conducted through extensive drive test performed by a third party agency, as mentioned in our responses, shall be combined together as CPQI.

  The CSQI shall remain as specified.

  The service providers should not view the QoS reporting just as a compliant mechanism. Benchmarking provides useful insights to the operators regarding deployment and optimization of network resources as correctly pointed out in the consultation paper. For example, hand-off quality metrics provide insights to the operators thus enabling them to optimize the deployment of Base Transceiver Stations and thereby the handover process, thus conserving capacity of the signaling resources of the network. Such optimization exercises in turn reduce the network costs to the operators and optimize the use of scarce radio spectrum.

  Hence it is important for TRAI to release benchmarking reports indicating compliance against benchmarking quality threshold, but also a ranking of operators based on the benchmark analysis. The ranking will improve contestability in the market and hence provide incentives to operators to improve their service.

- **CF –** Yes, we agree with the proposals
- **US&KS –** We agree with the proposal
- **Joglekar -** Equal weightage to different parameters is not correct. The parameters of provision of service comes before a customer gets the connection. After that he is concerned mainly with the various parameters of network performance and billing complaints. In this also the network performance deserves more weightage than billing complaints.

Q.No. 8.2.10	What are your views on the proposal for financial disincentives for effective enforcement of the Quality of Service Regulations discussed in Chapter-7? Please suggest the scheme for imposing financial disincentives and also the quantum of financial sanction with reasons thereof.

Responses :

- **AUSPI -** The term "Financial Disincentive" is not clear as the Authority has not explained its meaning and the legal validity. The financial disincentive is relevant when the undesirable act or action has been committed and to discourage such action to take place. Governments take these routes and impose disincentives including financial disincentives to discourage undesirable actions.

Since the Authority has specified benchmarks for quality and all service providers are require to meet such parameters, we see no utility or basis for imposing financial disincentive. The financial disincentive cannot be imposed when an undesirable action has already taken place.

- **COAI –** It is first submitted that the telecom sector in India is a showcase of successful public policy decisions and industry responsiveness and implementation. The Indian mobile industry has played a large part in contributing in this unprecedented growth in the tele-density and spread of telecom service in the country with lowest tariffs in the world.

  It may also be noted that the mobile industry has even surpassed the target set by the Government. This has happened through huge investments (over Rs. 100,000 crores) and aggressive rollouts by the mobile service providers coupled with supportive policy and regulatory environment in the country.

  It is further submitted that the QOS provided by most of the operators is well within acceptable norms even though the operators are grappling with constraints with regard to availability of timely and adequate infrastructural facilities such as interconnection, spectrum etc. There might be some exceptional cases where there could be some difference between the performances of the operator for some of the parameters of QOS with regard to the Quality of service benchmark set up by the Authority.

  In this context we submit that the Authority should primarily be concerned with the overall QOS of a network instead of each and every individual parameter.

  In light of the above, we believe that in the present competitive scenario, **it is neither necessary nor desirable to provide for a financial disincentive.** In a competitive telecommunications environment, **it is in fact in the operator's interest to address the needs and concerns of its subscribers** and therefore, the extent of regulatory intervention should be a function of the competitive scenario/ market forces. Competition will increase further with introduction of MNP and the same will put more pressure on all service providers to retain their subscribers.
  We also believe that the statutory framework of TRAI Act does not probably provide for such penalties/ financial disincentives to be imposed.
  Thus in this intensely competitive Indian market, where the market forces are working well, we earnestly request the Authority that **penalty recourse should be used ONLY as an exceptional case** where there is a willful violation and the consumer interest has been significantly harmed.
- ***VOICE*-** System o DIRECT COMPENSATION to the customer will be more effective and SATISFYING. For continuous failure PENALITY is an essential DETERANT.Quantum can b deliberated.
- ***SURYA -*** The long term objective should be to penalize the service provider for failure to stick to QOS Regulations. Financial disincentives should be enforced, where QOS parameters cannot be met. In such cases, the cost of bringing up the

service to the desired level should be worked out and the service provider should be asked to pay an amount comparable to this cost.

- **Bharat Jyoti –** We agree that a combination of financial disincentive and penalty could act as a deterrent against poor quality of service.
- **Bharti –** The telecom sector in India is a showcase of successful public policy decisions and industry responsiveness and implementation. The Indian mobile industry has played a large part in contributing in this unprecedented growth in the tele-density and spread of telecom service in the country with lowest tariffs and highest level of quality in the world for the subscribers.
  The mobile industry has even surpassed the target set by the Government. This has happened through huge investments and aggressive roll-outs by the mobile service providers coupled with supportive policy and regulatory environment in the country.
  In light of the above, it may be appreciated that it is a bit out of place that an industry, which is a global benchmark in terms of Quality and affordability and which has shown unprecedented growth and unrivalled performance with regards to the Quality of service, is actually being proposed to be charged with financial disincentives for not fulfilling the norms of the Quality of Service Regulations and for violation of Authority's directions on value added services, termination of service etc.
  It is further submitted that though in most of the cases operators meet the Quality of service benchmarks there might be some exceptional cases where there could be major difference between the performances of the operator with regard to the Quality of service benchmark set up by the Authority, authority is requested to intervene in only such exceptional/isolated cases.
  Hence, in the intensely competitive Indian market, where the market forces are working well, we earnestly request the Authority to continue the policy of forbearance and only intervene in exceptional/isolated cases.
- **TTSL -** We believe that MNP will bring in inbuilt pressure on the operators to comply with the QoS standards. TRAI has to work out how best the effective enforcement can be ensured. Financial disincentives are considered as a last resort considering that evolving a good scheme may not be easy and market forces have to be given full opportunity before regulatory punishments are attempted. We do not recommend any financial disincentives at this stage given the competitiveness in the market and the onset of MNP.

  We believe financial disincentive would further burden an already burdened service operator from a cost stand point. We are targeting best of services to be delivered to the customer and therefore would recommend that TRAI encourage operators to come up with their own charter to customers within which they would pledge penalties to customer directly. A report of the same can be filed with TRAI.
- **BSNL -** Comparative report with data regarding not meeting the benchmark published on website of TRAI itself becomes a punishment to the operator as adverse publicity lead to churn and subsequent hit on revenue and hence additional financial penalty is not desirable, facility of MNP is also being introduced shortly in India and will facilitate subscribers to change operator if QOS is not up to the mark. This will again ensure QOS performance. Therefore, financial disincentives may not be imposed.
- **MTNL-** Financial disincentive should not be adopted while enforcing QoS regulation.Moreover similar provision from UCC regulation may also be deleted.
- **RCOM -** The QoS reports published by TRAI indicate that most of the operators are meeting the benchmarks in almost all the service areas. As such the proposal to

introduce financial disincentive to an operator on non meeting of certain QoS parameters will completely demotivate the operators. The TRAI should facilitate the operators to provide world class service by incentives and not by penal action. In the competitive world where there are10-12 operators in a service area and with MNP implementation round the corner, it will be in the interest of operators only that they provide the highest order quality of services to their subscribers.
In case there is a large deviation between the performance of the operator in comparison to the benchmark set by the Authority, there can be an intervention in terms of issuing a direction wherein the operator can be given fixed time to meet the benchmarks.

- **Sasken & Nielsen –**

  - **Service Coverage -** Primary data for TRAI's QoS reports are provided by the operators themselves and audited by an independent agency doing drive testing using a smaller sample (i.e. 3 sample cities with high, medium and low population).

    Ideally the data collection, analysis and benchmarking for service coverage, as well as voice quality measurement need to be done entirely by an independent agency so that any bias in reporting by the operators can be overcome. The drive tests needed for data collection needs to be performed extensively so that a good sample of the operators' license area is covered and reported.

    It is to be noted that the scarcity of spectrum and hence poor coverage and quality due to inadequate radio access network infrastructure deployed by the operators is acute in dense urban areas. Hence alternatively, comprehensive drive testing by a third party in dense urban areas specified by TRAI is a must to assess coverage and voice quality of mobile services provided by the operators.

  - **Data Quality -** Though the mobile operators are providing data services today over their 2.5/2.75G networks, there is no mention about assessing the quality of wireless mobile data communications in the consultation paper. With 3G licenses to be auctioned soon, there is a need to formulate metrics and processes for measuring QoS of data services.

    For example, measuring metrics such as web page access time, data throughput rate, file transfer time, email access delay, and mobile video quality are of much importance to benchmark QoS of data services offered by the service providers.

- **CF –** Financial disincentives for effective enforcement of QoS regulations is a must. A separate and specific regulation for mandatory payment of fine for non-adherence to the QoS parameters by service providers may be brought out by the Authority. Enforcement of this regulation needs a separate quasi-judicial mechanism. A fine example in this regards is the mechanism established by Karnataka Electricity Regulatory Commission, the details of which can be looked into at ww.kerc.org.
If such mechanism is not possible to establish at the earliest, then a provision can be made in the regulation enabling aggrieved consumers to seek fine at Consumer courts which are there in every district centres.
Regarding the quantum for financial sanction may be according to the quantum of

defaults committed by service providers and financial loss incurred by consumer thereto. KERC in its regulation has laid down separate penalty for various QoS parameters. That example may be looked into.

- **US&KS –** QoS to provide by service providers proper survey and monitoring made by authority and also reviewed periodically.
- **Joglekar -** As per your recent survey reports posted on and around 18th December 2008 in most of the parameters the performance levels achieved by the service operators are between 60 to 70% against the benchmarks of 90 or 90%. This situation has continued for last 8 years since the first benchmarks were introduced in July 2000. Therefore it is obvious that the service providers are able to get away with poor quality of service because there is no financial penalty. In view of this I suggest that there should be a penalty at the rate of Rs.X per percentage point below the benchmark. That is if the benchmark is 95% and performance is reported at 87% then at the rate of Rs.10,000/- the service provider should be liable to pay a penalty of Rs.80,000/-. This should be for each benchmark for each circle and should be mandatorily paid even if the service provider appeals against it.

Q.No.8.2.11 What are your views on the proposal for financial disincentives for violation of Authority's directions on value added services, termination of service etc.? Please suggest the scheme for imposing financial disincentives in these cases and also the quantum of financial sanction with reasons thereof

Responses :

- **AUSPI -** The telecom sector in India is a showcase of successful public policy decisions and industry responsiveness and implementation. The Indian mobile industry has played a large part in contributing in this unprecedented growth in the tele-density and spread of telecom service in the country with lowest tariffs in the world.

  The mobile industry has even surpassed the target set by the Government. This has happened through huge investments (over Rs. 100,000 crores) and aggressive rollouts by the mobile service providers coupled with supportive policy and regulatory environment in the country.

  It is further submitted that the QOS provided by most of the operators is well within acceptable norms even though the operators are grappling with constraints with regard to availability of timely and adequate infrastructural facilities etc.

  In this context, we submit that the Authority should primarily be concerned with the overall QOS of a network instead of each and every individual parameter.

  In light of the above, we believe that in the present competitive scenario, *it is neither necessary nor desirable to provide for a financial disincentive.* In a competitive telecommunications environment, *it is in fact in the operator's interest to address the needs and concerns of its subscribers* and therefore, the extent of regulatory intervention should be a function of the competitive scenario/ market forces. Competition will increase further with introduction of MNP and the same will put more pressure on all service providers to retain their subscribers. We also believe that the statutory framework of TRAI Act does not probably provide for such penalties/ financial disincentives to be imposed.Thus in this intensely competitive Indian market, where the market forces are working well, we earnestly request the Authority that *penalty recourse should be used ONLY as an exceptional case* where there is a willful violation and the consumer interest has been significantly harmed.

- **COAI –** Common reply (as replied in 8.2.10)
- **VOICE-** Presently, service providers treat TRAI as toothless tiger and VIOLATE directions at will. Need to INTRODUCE financial disincentives for effective enforcement of Quality of Service regulations.
- ***SURYA -*** The long term objective should be to penalize the service provider for failure to stick to QOS Regulations. Financial disincentives should be enforced, where QOS parameters cannot be met. In such cases, the cost of bringing up the service to the desired level should be worked out and the service provider should be asked to pay an amount comparable to this cost.
- **Bharti -** Common reply (as replied in 8.2.10)
- **TTSL -** We believe financial disincentive would further burden an already burdened service operator from a cost stand point. We are targeting best of services to be delivered to the customer and therefore would recommend that TRAI encourage operators to come up with their own charter to customers within which they would pledge penalties to customer directly. A report of the same can be filed with TRAI.
- **BSNL -** If any chargeable service is provided without the consent of the subscriber, then penalty may be imposed as deemed fit by TRAI.
- **MTNL-** MTNL doesnot agree for any financial disincentive.Enforcement of QoS regulation shall be made in a manner other than financial disincentive as deemed fit by TRAI
- **RCOM -** Common reply (as replied in 8.2.10)
- **CF –** We fully support the proposal for imposition of financial disincentives for violation of Authority's order and directions, a specific regulation for this purpose may be brought out. But we suggest that said financial disincentive should be levied on omissions and commissions of service providers that violate all orders & directives of the Authority.
  A quasi-judicial authority within the Authority like ombudsman may be established to follow the basic principles of judicial dispensation and to conduct the proceedings before ordering financial sanctions on service providers.
  Quantum of penalty should be in commensurate with the gravity of the violation by the service provider. For instance, if a service provider violates QoS parameter repeatedly within a year and number of such violations cross 100 under one heading, minimum financial sanction may be to the tune of Rs. 10,000.
  If the Authority were to bring out separate consultation paper having the details above two aspects, we will be in a better position vis a vis form, structure etc. to respond in a more minute manner.
- **US&KS –** In case of termination of service it must be ensured that action taken by the Authority is in the interest of consumer or not. Proper monitoring of billing record of customers should be read and try to understand the cause, that he is unable to pay their bill timely. Proper time should be given to the subscriber by the service provider before termination of service.
- **Joglekar -** Common reply (as replied in 8.2.10)

The method of record keeping provided by Tata Teleservices Ltd (TTSL)

Wireless:

1. Accumulated downtime of community isolation (<24 Hrs):

BTSs accumulated downtime (not available for service) = (Sum of downtime of BTSs in a Quarter in hours i.e. total outage time of all BTSs in hours during a quarter X 100)/(24 X No. of days in the Quarter X No. of BTSs in the network in the licensed service area)

Percentage of worst affected BTSs due to downtime =
(No. of BTSs having accumulated downtime of >72 hours in a quarter X 100)/(Total No. of BTSs in the licensed service area)
The above mentioned data can be obtained from the fault management team at NOC. In case Problem in NOC than can be obtained from circle records

2. Call Setup Success Rate (CSSR) (>95%)

This can be calculated from the Circlewise Summary RF performance report generated using Metrica from NOC. . In case Problem in NOC than can be obtained from circle records
Call setup success rate = 100 – Setup failure rate

3. Blocked Call Rate :

This can be obtained from the Circlewise Summary RF performance report generated using Metrica from NOC. . In case Problem in NOC than can be obtained from circle records

4. Call Drop Rate (Bench mark <2%)

This can be obtained from the Circlewise Summary RF performance report generated using Metrica from NOC. . In case Problem in NOC than can be obtained from circle records

5. Worst affected cells having more than 3% TCH drops (call drop rate):

This can be obtained from the Daily Summary RF performance report generated using Metrica from NOC. . In case Problem in NOC than can be obtained from circle records

6. Voice quality

There is presently no provision for measurement of voice quality from NOC.

Drive test data obtained from circles is being provided.

7. Service Coverage:

There is presently no provision for measurement of voice quality from NOC.

Drive test data obtained from circles is being provided.

8. POI Congestion:

This is obtained from the daily trunk route report generated using Metrica from NOC. In case Problem in NOC than can be obtained from circle records

Wireline

9. Call Completion Rate (>55%):

This data is not available in Metrica, and presently being obtained from circle. . In case Problem in NOC than can be obtained from circle records

10. Grade of Service:

This data is not available in Metrica, and presently being obtained from circle.

11. Point of Interconnection (POI) Congestion (<0.5%):

Report is available in NOC but due to hierarchy details not being updated, presently being obtained from circles.