



Report of the Public Inquiry on Quality of Service Regulations 2008

INTRODUCTION

The Nigerian Communications Commission (the Commission) pursuant to the powers conferred on it by Sections 70 and 104 of the Nigerian Communications Act, 2003 (the Act) developed and issued draft Quality of Service regulations. The draft regulations were published on the Commission's website for comments from the general public including telecommunications operators and other stakeholders.

A Notice of Public Inquiry was published on 18th December, 2008 and on the 20th January, 2009 in This day Newspaper. The publication requested members of the public to review the draft regulations and submit comments before the close of business on February 2, 2009.

By the close of business on the 2nd of February, 2009, the Commission received submissions and comments from:

- MTN Nigeria Communications Limited
- CELTEL Nigeria Limited Trading as Zain
- Globacom Nigeria Limited
- Emerging Markets Telecommunications Services (EMTS) Limited (Etisalat-Nigeria)
- Ericsson
- Association of the Licensed Telecommunications operators of Nigeria (ALTON)

A Committee was mandated by the Commission to review the various submissions from stakeholders whose submissions were received before the expiration period as indicated above.

Additional submissions from Emerging Markets Telecommunications Services (EMTS), Starcomms Limited and Reliance Telecoms (Trading as ZoomMobile) were also reviewed.

All comments made by the stakeholders at the Public Inquiry are also covered by this Report.

PARTICIPATION

The Public Inquiry was well attended by operators. In all there were 59 participants including representatives of various operators, equipment manufacturers, the Press and other corporate organizations.

OPENING

The Public Inquiry commenced at 10:45 p.m. was chaired declared open by Chief Olawale Ige, a member of the Board of the Commission, on behalf of the Executive Vice Chairman /CEO.

THE INQUIRY

The Public Inquiry took place on 11th February, 2009 at the Conference Hall of the Commission, Abuja and it started at 10.45am.

Chief Olawale Ige, a member of the Board of the Commission, on behalf of the Executive Vice Chairman (EVC) of the Commission welcomed all stakeholders present and thanked them for attending the Public Inquiry.

The EVC's welcome address described the Inquiry as one of the requirements of the rule-making process of the Commission, enabling stakeholders to meet and consult for the purpose of issuing Regulations and Guidelines in accordance with S. 71 of the Nigerian Communications Act.

The EVC's address further stated that part of the Commission's focus for 2009 is to administer and monitor closely the performance management measures, to ensure that operating companies maintain minimum performance levels jointly agreed upon between operators, consumer representatives and the Commission, and consistent with world class standards.

The Address further stated that this policy thrust will take the form of:

- Monthly self reporting on a limited set of principle performance matrix, and such matrix will be based on actual recorded measurement of performance network rather than perception
- Penalty scheme based on level of non- compliance and persistent month over month non-compliance and or non-compliance resulting from promotional activities or new products introduction
- Promotions for new service introductions must be discontinued within one month if they result in performance degradation below bench mark level, such promotion will subsequently be re-introduced but further degradation will be treated as persistent non-compliance for purposes of sanctions
- Reports by the operators will be due to the Commission within 15 days of month-end, while penalties will apply for delays or erroneous report.
- Reports will be maintained as public records and published on the Commission's website

- Exceptions to the determined criteria for performance compliance will be pre-defined with specific reporting guidelines e.g. cable cuts, generator theft, security situations, etc.
- Following this inquiry, the Commission will publish Performance Management Guidelines for the industry with notice to fully implement same within 90 days.

BROAD ISSUES

The Commission acknowledged that earlier in 2008, Nigeria was saddled with reports of poor quality of telecommunications services and sanctions were imposed on some Licensees by the Commission while the National Assembly also set up Hearings in this regard. In view of this, the need to further enlighten the populace on the dynamics of the industry became imperative with a view to addressing critical issues like tariffs and service delivery.

Specifically on congestion, it was pointed out that the market demands have created enormous challenges for the operators to grapple with. Congestion is further aggravated because Nigeria is an emerging market with huge pressures on the scarce infrastructure.

On this note the Public Inquiry was declared opened.

CONSIDERATION OF COMMENTS ON THE DRAFT QUALITY OF SERVICE (QoS) REGULATIONS 2008

The Director of Legal Services Directorate made a presentation on the draft Quality of Service Regulations. He indicated that the Regulations are in six (6) Parts, (namely: Objective of Regulations, Measurement, Reporting and Record keeping, Investigation, Contravention and Enforcement, Miscellaneous) and two (2) Schedules. He also expounded on the various provisions as well as the Schedules to the Regulations.

The Director of Technical Research and Standards (DTRS) made a presentation on the issues raised by the stakeholders in their submissions. He highlighted and reviewed all the comments received and the responses considered by the Commission before the Public Inquiry. He also stated that the Commission's reviews and responses were benchmarked vis-à-vis international best practices.

The summary of comments and the responses are as follows:

1. Comment

An operator made a suggestion for a light-handed regulatory approach in formulating acceptable Key Performance Indicators (KPI) by the Commission

Response

The Commission has always adopted a light-handed regulatory approach in formulating regulations.

2. Comment

There was a comment from an operator to the effect that most of the KPIs bother more on commercial considerations and should be left to competition. The operator further remarked that these matters relate to the design of the networks and definitely have some implications of capital expenditure. They should, therefore, not form a part of these KPIs.

Response

The Commission states that QoS provision is considered a basic pre-requisite to the design of the networks and their corresponding operation.

The Commission is mindful of the fact that attaining the specified KPIs may require some operators to inject investment into their operations. However, it is necessary for them to do this in order to ensure the provision of Quality Service.

3. Comment

An operator observed that the draft regulation is silent on the benchmarks, industry standards, or other scientific considerations that formed the basis for the QoS targets prescribed in the QoS regulations. The operator expressed the firm belief that the availability of such considerations to the industry shall ensure the fulfillment of the requirements of regulatory transparency.

Response

The Commission asserts that the benchmarks stated in the QoS regulations are within internationally accepted levels of best practices. Some of these include variously related recommendations of the International Telecommunications Union (ITU), European Telecommunications Standards Institute (ETSI), International Standards Organization (ISO), American National Standards Institute (ANSI), etc. However, The Commission – subsequent to extensive and wide-ranging consultations – modified some of these benchmarks appropriately to suit local conditions.

4. Comment

There was a remark portraying the draft regulation as being inadequate in its formulation of the problems to be addressed as it relates to issues affecting customer services, billing and network performance.

Response

The Commission reaffirms that the problems were very clearly and adequately articulated and addressed.

The objectives of the regulation were clearly stated vis-à-vis the provision of solutions to the QoS problems/issues as observed in the industry.

5. Comment

In view of the fact that subscribers – who constitute the users of the service(s) rendered by Operators – are the ones who usually have to bear the brunt of problems of poor QoS, any

subsequent QoS parameter(s) must be understandable to the subscriber. Consequently, the suggestion is for the Commission to limit its deliberations to:

1. Network performance parameters
2. Provision of information on network performance for subscribers;
3. Execution of existing laws and regulations to meet other industry 'failure'.

Response

These observation and suggestion are noted by the Commission. However, the mandate of the Commission as enshrined in the Nigerian Communications Act (NCA) of 2003 extends beyond the scope prescribed in this suggestion.

QoS Key Performance Indicators (KPI) vary across regions and it is necessary for a regulator to have the picture of each region and how the operators are performing on the QoS indicators. Equipment deployed by operators must be capable of polling regional KPI statistics from regional switches. These are some of the capabilities that are evaluated during equipment Type Approval

6. Comment

There was a suggestion for the attainment of market transparency with the aid of drive tests and the provision of adequate consumer information.

Response

The Commission states that drive tests, amongst other methods, has been adopted and utilized in measuring and assessing the network performance of operators.

7. Comment

There was a remark that past presentations of the Commission seem to suggest that drive-tests have not been a successful means to improve QoS.

Response

The Commission observes that this perception is not correct.

Rather, the Commission has always employed widespread publicity and information dissemination to ensure that QoS measurements are independent and devoid of bias, while reaching the maximum possible audience.

8. Comment

Inquiries were raised as to

1. Why seemingly identical activities are treated differently for different market segments? (Some concerns were expressed as regards what appears to be disproportionate regulatory objectives as observed in Regulation 2(c))
2. Whether there are existing laws to deal with erroneous billing and charging?

3. Why is the Commission regulating the sector by defining targets for Call Centers?
4. The KPI targets appear to be maximal rather than minimal;

The attention given to publication is perceived to be insufficient without any clear publishing of the KPIs on the part of the regulator.

Response

The Commission hereby clarifies that:

1. *Different services (or service segments) usually require different performance standards;*
2. *There is – incidentally – no such laws dealing with erroneous billing and charging;*
3. *The focus of the Commission is the effective performance of the Call Centers. Whereas operators are at liberty to outsource the Call center functions, the Commission views Call Center response time as an important aspect of quality provisioning of service to the subscribers.*
4. *The Commission intends to gradually reduce the number of KPIs subject to the maturation of the networks vis-à-vis their compliance with the KPIs.*

The Commission would like to kindly refer to Regulation 11, part 3 where adequate provision has been made with respect to the issue of publication.

9. Comment

An inquiry was raised as to how the consumer shall perceive or experience the Busy Hour Location Update (BHLU) success rate.

Response

The Commission clarifies that parameters in the Category of the BHLU is a network performance measurement parameter which the Commission has identified for reporting by the operators, and may not necessarily be published.

10. Comment

An inquiry was raised as to the reporting periods/schedule.

Response

The Reporting periods/schedule is addressed in Regulation 10.

11. Comment

An inquiry was raised as to the mode of investigation.

Response

The Commission submits that it reserves the right on how, or who is employed to carry out the investigation. However, the Commission would ensure that the investigation is carried out to the highest level of standard.

12. Comment

There was a recommendation that the Draft QoS Regulations be referred to a joint session of the Network and Regulatory Committees of the Industry Working Group on Quality of Service (IWGQoS) for due consideration.

Response

The Commission notes the recommendation, but considers that it may not be necessary to refer it to the Working Group again since the Working Group set up initially by the Commission had challenges and did not fulfill its expected outcome.

13. Comment

There was an observation as to the distinction between QoS variables and variables relating to Network Management (NM) and Traffic Engineering (TE) (Ref. ITU-T E.600/4.2). This observation, consequently, gave rise to an expression of possible concern as to the likelihood of the Commission micro-managing the operators. It was, subsequently, recommended that the Commission should focus its attention on only QoS variables.

Response

The Commission clarifies that QoS issues can be categorized into two main areas, namely:

- a. Customer perceived QoS measurements, and*
- b. Network perceived QoS measurements*

It is pertinent to note that the Commission employs both perspectives as a result of the holistic view that the Commission has adopted in respect of QoS performance.

This position adopted by the Commission is also in consonance with that recommended by the ITU, to which Nigeria is signatory.

The ITU in its book, "QoS Handbook 2004", categorically states that there are two perspectives to QoS measurement – Network Parameters and Customer Perception; and this position adopted by the ITU is the stand of the Commission.

14. Comment

An operator remarked that it would appear as if the proposed QoS targets do not take cognizance of the environmental and operating conditions in Nigeria in accordance with Regulation 2(b).

Response

Contrary to the perspective expressed in this comment, the Commission has endeavored to make provision for those exceptional circumstances such as those observed to be peculiar to the Nigerian environment

15. Comment

There was an observation that many of the counters specified under schedule 1, Part A, Table 3 appears to be only applicable to GSM Networks without any obvious consideration for CDMA networks. Consequently, a recommendation was proposed requesting that detailed parameters and counters for non-GSM Networks and the equivalent appropriate measurements methods should be constituted as a key issue for discussion under the auspices of the IWGQoS.

Response

The Commission notes this recommendation and will investigate it further for appropriate consideration.

16. Comment

There was an observation as to the target categorizations being in disproportionate arrangement when compared between mobile operators and Fixed wireless operators.

Response

The Commission clarifies that the various categorizations are appropriate and adequate. Furthermore, different categories of targets cater to different service segments as deemed suitable.

17. Comment

Some concerns were expressed with respect to the adequacy of the audit mechanism provided in the Draft Regulations for certifying measurements and reports provided by operators. Subsequently, a recommendation was proposed to present the matter to the IWG QoS for detailed deliberations.

Response

The Commission refers to Article 14, Part IV – Investigation – as it relates to matters on investigation for appropriate clarifications on the adequacy of the measures proposed in the QoS Regulations for data integrity and validation, amongst others.

18. Comment

An operator suggested that Tables 7 to 12 under Part A of schedule 1 be expunged from the Draft QoS Regulations in view of the possibility of conflict that may arise between the QoS Regulations and the Interconnect Regulations.

Response

The Commission states that it is pertinent to note that these sections are relevant to these Regulations. Furthermore, the QoS Regulations, the Interconnect Regulations, and other regulations and guidelines of the Commission are complementary in nature. These sections will be compared to the Interconnection Regulations and any duplication or conflict will be streamlined.

19. Comment

A three-month test-run period was proposed with the anticipation that this will highlight potential implementation challenges and other possibly unforeseen issues.

Response

This recommendation is noted by the Commission and will be duly considered. Headroom (e.g. three months) to allow the operators bring their implementations up to speed shall be considered, and the outcome of this consideration shall be communicated in due course.

20. Comment

A suggestion of fifty complaints per one million was proposed for the Account Complaint Rate. (Please refer to Table 3, Part 1a)

Response

The Commission submits that the target of ten complaints per every one million bills (or accounts) is considered reasonable.

21. Comment

A suggestion of 24-hour resolution/response time for cases of inaccurate Billing. (Please refer to Table 3, Part 1b)

Response

The target response time of one hour as stipulated by the Commission is considered adequate and appropriate, and shall therefore be sustained as is comparable and conformable with International Best Practices.

22. Comment

A suggestion for 12-hours as the fault resolution time for case of failed attempts to load recharge payments. (Please refer to Table 3, Part 1g)

Response

The Commission observes that the premise on which this suggestion is based is incorrect. In particular, the Commission is currently unaware of any properly configured Intelligent Network (IN) platform requiring as much as 8 hours for its rebooting and reconfiguration processes. Consequently, the stipulated target resolution time of three hours or less is sustained as is comparable and conformable with International Best Practices.

23. Comment

A suggestion of 8 hours as the target for the fault resolution time for items listed under issues relating to System failure at Contact Centers inhibiting bill payments and Failed attempts to check/determine the account balance, respectively. (Please refer to Table 3, Part 1h and 1i.)

Response

The stipulated target resolution time of thirty minutes or less is sustained as is comparable and conformable with International Best Practices.

24. Comment

A suggestion of 24-hours as the fault resolution time for issues relating to losing credited amounts from the account (Please refer to Table 3, Part 1j)

Response

The stipulated target resolution time of one hour or less is sustained as is comparable and conformable with International Best Practices.

25. Comment

A suggestion of 4-hours as the response time for the Time for recharge/bill payments to reflect on the account (in the post-paid case). (Please refer to Table 3, Part 1L)

Response

The Commission has observed that some operators are currently achieving target response time of 20 minutes, or less. It is pertinent to note that this considerably surpasses the proposed response time of 1 hour in the draft QoS regulation. Consequently, the target time proposed is sustained.

26. Comment

A suggestion of 50 complaints was proposed items listed in Table 3, Part 1m and 1n.

Response

The stipulated target of 10 complaints or less (as it relates to the respective case) is sustained as is comparable and conformable with International Best Practices.

27. Comment

A proposal revising the alarming thresholds as 80% for sending an SMS without the option of a second SMS was suggested in respect of the item listed under Table 3, Part B, 1.i, ii, and iii

Response

The Commission has noted this observation for further consideration. Furthermore, the Commission is of the opinion that 'Line Parking' is feasible for all categories of subscribers and our initial recommendation is sustained regarding 'Line Parking'.

28. Comment

A suggestion for a maximum of 5 call attempts before being connected to a Customer care line without the option of automatic call-back was proposed for item listed 'Call Center'. (Please refer to Table 3, Part C, 1)

Response

The Commission believes that the targets stipulated for the items listed under these sections are appropriate and adequate. The stipulated targets as detailed under this section for this item (Table 3, Part C, 1) by the Commission shall be sustained. In this respect, the Commission wishes to state that it is pertinent to appreciate that too many repeated Call Attempts could be frustrating to subscribers.

29. Comment

There was a suggestion of 15 minutes as the maximum waiting time to be physically attended to by relevant staff at customer care centers (Please refer to Table 3, Part D)

Response

The Commission affirms that a maximum waiting period of 10 minutes is more than adequate for a customer to wait before being served.

30. Comment

Suggestion to exclude target on the following:

- a. Compensation for hours of data services not rendered;
- b. Contention Ratio;
- c. End-to-End throughput;
- d. Data rate on each link (i.e. uplink and downlink) from end-to-end;
- e. Data rate of slowest link (bottleneck); and
- f. Permissible download data size per billing period;

In view of the perspective that these are not user-perceivable parameters.

Response

The Commission states that contrary to the above perspective, subscribers of data services readily become aware of changes in data rates. Consequently, the target set for these parameters are sustained in line with International best practice. In addition, where there is a need to amend or adjust SLA issues due to the passage of this Regulation, then that should be addressed appropriately and adequately.

31. Comment

A suggestion for the Busy Hour Call Setup Success Rate (BHCSSR) to be set at 95%;

Response

The BH Call setup success rate target is sustained at a minimum of 98% of Attempted Calls, where the Busy Hour is understood to mean the Network Busy Hour;

32. Comment

An observation that the threshold value for Busy Hour Call Completion Rate would be lower than the BHCSSR since it is made up of the sum of the CSSR and the Call Drops. A target value of 95% is proposed;

Response

In view of the perspective that a maximum value of 2% provision is made for Call Drops, then the BH Call Completion rate is recommended for a revision to 96% (=98% - 2%) accordingly.

33. Comment

Inquiry for clarification as to whether the parameter under question relates to Cell Busy Hour or Network Busy Hour;

Response

Please refer to 32

34. Comment

Inquiry for clarification as to whether the BH parameter is defined by denominating it on Maximum Traffic or Maximum Call Attempts;

Response

Please refer to 32

35. Comment

Suggestion for Busy Hour Call Setup Time to be set at 10seconds for National calls;

Response

The Commission notes this observation and would study it carefully. Consequently, the recommended BH Call setup times are as follows:

- a. BH Call Setup Time \leq 6 seconds (National)*
- b. BH Call Setup Time \leq 8 seconds (International).*

36. Comment

Suggestion to exclude the BH Traffic Channel (TCH) Congestion (to be measured at BSC level) in view of the perspective that it is not user perceivable

Response

The Commission states that 'Busy Hour Congestion' (or BH Traffic Channel (TCH) Congestion) is a Basic Parameter for assessing the quality of performance of a network. Consequently, the target is sustained in view of the fact that it is benchmarked against international standards for best practice and is in conformity with International Best Practices

37. Comment

Suggestion to exclude the BH Hand Over Success Rate at all levels in view of the perspective that it is not user-perceivable and it is usually already accounted for in the measurement of the CSSR and Call Drop Rate

Response

The Commission states that 'BH Hand Over Success Rate at all levels' is one of the parameters required for NCC to assess the performance of network. This is in view of the perspective that, in particular, regular monitoring of this parameter would enable early detection of the effect of "Island Cells"-Configuration on Cell sites. Consequently, the target is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices

38. Comment

Suggestion to exclude the BH HLR, VLR, BSC, MSC capacity utilization in view of the perspective that it is not user perceivable

Response

The Commission states that the BH HLR, VLR, BSC, MSC capacity utilization is one of the parameters required for NCC to assess the performance of network. However, the target

is being considered for a revision to 75% of the BH MSC Processor loading only. All others stand at 50% as stated in the Regulation.

39. Comment

Suggestion to exclude the BH Processor Loading utilization in view of the perspective that it is not user perceivable

Response

Please refer to 38

40. Comment

Suggestion to exclude the BH Erlang Utilization per cell capacity in view of the perspective that it is not user perceivable

Response

The Commission states that the BH Erlang Utilization per cell capacity levels' is one of the parameters required for NCC to assess the performance of network. Consequently, the target is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices. On a general note, for all targets that are considered not perceivable by the user/subscriber described as network performance targets, reporting of such target figures is primarily for the information and use of the Commission and the Commission will determine what targets are to be published.

41. Comment

Number of Interconnect points per Licensing Region (Standalone or Shared)

Response

Stipulated target for Number of Interconnect points per Licensing Region (Standalone or Shared) is accepted

42. Comment

Suggestion for the Interference protection ratio to be excluded from the report-able parameters in view of the perspective that these are design criteria for Radio Network Design. Furthermore, the required levels also depend on the speech codec used in the network, and this would necessarily be specified under the technical specifications rule

Response

The Commission notes this observation for further consideration.

43. Comment

Suggestion – on the one hand – to exclude reporting on the Resolution time of any CIC mismatch or life-time of any CIC mismatch, and on the other hand, an inquiry for clarification on the appropriate method of measurement as would be stated by the Commission

Response

The target set for the Resolution time of any CIC mismatch or life-time of any CIC mismatch is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable with International Best Practices

44. Comment

It was suggested that reporting on the following targets be excluded:

- a. Resolution time of BTS faults impacting on traffic
- b. Resolution time of BSC faults impacting on traffic
- c. MSC-in-pool redundancy Resolution time of MSC faults impacting on traffic
- d. Reporting on the Time to repair other failures that affects traffic

In view of the perspective that these parameters are not user-perceivable in a cellular network. Furthermore, there is a high likelihood that – by virtue of the redundancy built into the network – an outage on a BTS is not necessarily a problem as other cells would, most likely, automatically take up its functions.

Consequently, there is little or no impact on the subscriber. In addition, the related KPI of Call Completion Rate is already being reported.

Response

The target set for the Resolution time of BTS faults impacting on traffic is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices.

The target set for the Time to repair other failures that affects traffic is sustained – with a proviso for Exceptional circumstances.

MSC-in-pool redundancy in excess of 42% has been observed in the industry. Therefore, the target value of 30% for this parameter is considered adequate and reasonable.

The Commission hereby advise that operators should revise their various relevant SLAs with their vendors to reflect the stipulated targets of the QoS Regulations as their SLA objectives and benchmarks

45. Comment

Suggestion to exclude reporting on the Maximum time for transmission/physical link outage in view of the perspective that this parameter has been addressed in the related KPI of Call Completion Rate, and a notion that the provision of redundant routes will also address this parameter and issues emanating thereof. It was also observed that the target value for this parameter is set beyond the scope/achievable target stated in the SLA, which is about 12 hours for the restoration of a major fault.

Response

The target set for the Maximum time for transmission/physical link outage is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices.

46. Comment

Suggestion to exclude reporting on the Service coverage in cities/towns in view of the perspective that it is not a user-perceivable parameter and it is more of a planning guideline than a KPI

Response

The Commission notes this observation for further consideration.

47. Comment

Suggestion to exclude reporting on the Percentage of radio links with space as well as Frequency diversity in view of the perspective that it is not a user-perceivable parameter and a notion that this is a parameter that is usually a function of the network architecture and depend on the link design. A proposal was alternatively offered to assign the number of links planned within a fade margin as a KPI, and categorize it under Technical Specifications

Response

The Commission notes this observation for further consideration.

48. Comment

Transmission Parameters;

- a. Suggestion that the target value for BH Congestion on trunks should be aligned with the Dimensioning value of 0.5% for core network;
- b. Suggestion to exclude reporting on the Redundancy on transmission links in view of the perspective that it is not a user-perceivable parameter. Whereas there will be no provision of transmission link redundancy, there was an admission that site outages can impair KPIs related to Call Completion Rate measurements;

Suggestion to exclude reporting on the Compression ratio in view of the perspective that it is not a user-perceivable parameter, and the notion that Technical Specifications will define acceptable compression ratios based on CODECs. A proposal was alternatively offered to specify the Mean Opinion Score (MOS) for CODECs and the acceptable toll grade for voice.

Response

Transmission Parameters

- a. The target set for the BH Congestion on trunks in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices;
- b. The Commission notes this observation for further consideration with the objective of reviewing the MOS to a minimum of 3.5 at Full Rate for toll grade voice;

The Commission has noted this observation for further consideration with the objective of reviewing the Compression ratio to a ratio of 1 to 8 (1:8)

49. Comment

Suggestion to exclude reporting on the Conversational voice quality on ON-NET Calls ratio in view of the perspective that it is not a user-perceivable parameter. Inquiry for clarification on the type of encoding required to obtain a MOS of 3.8 since this may not be achievable with Full Rate (FR) encoding, this being one of the recommended encodings. Inquiry for clarification on the mode of measurement other than the vendor's specifications

Response

Please refer to 48

50. Comment

Suggestion to set target value for SMS end-to-end delivery time at a maximum of 10 seconds in view of the perspective that observations from the industry indicates that signaling procedures on air interface take about 3 seconds on each side, and consequently, a total time of about 6 seconds is required for the best case

Response

The Commission notes this observation for further examination. In particular, it is pertinent to note that SMS operates on a store-and-forward basis

51. Comment

Suggestion to set target value for Acknowledgement of delivery of all SMS/MMS/IMS messages sent to be similar to that applicable to the SMS delivery success rate

Response

The target set for the Acknowledgement of delivery of all SMS/MMS/IMS messages sent is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with international standards. It is pertinent to note that this information can be configured and extracted from the network.

52. Comment

Suggestion to exclude target on the Cost information for all completed calls or RGE via text to the consumer in view of the perspective that consumers are usually at liberty to check their account balance before and after every Call. Furthermore, provision of this feature will constitute an additional load on the signaling link, thereby affecting Call Setup

Response

The target set for the display of Cost information for all completed calls or RGE via text to the consumer traffic is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with practices in other jurisdictions.

53. Comment

Suggestion to exclude target on the Circuit Switched Data Services (CDS) in view of the perspective that Data Rates not only depends on Access, but also on destination (which is usually outside of Operator's control)

Response

The target set for the Circuit Switched Data Services (CDS) is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices. It is pertinent to note that the network can be optimized to deliver the stipulated KPIs with reasonable level and margin of tolerance

54. Comment

Suggestion to exclude target on the Packet Switched Data Services (PDS)) in view of the perspective that Data Rates not only depends on Access, but also on destination (which is usually outside of Operator's control)

Response

The target set for the Packet Switched Data Services (PDS)) is sustained in view of the fact that it is benchmarked against international standards for best practice and is comparable and conformable with International Best Practices

The Director, Technical Research & Standards declared that all the comments presented were subjected to extensive examination and consideration.

FURTHER COMMENTS AND CONSIDERATIONS AT THE INQUIRY

The Commission hereby summarizes all other comments made by stakeholders at the Public Inquiry.

Comment

L. M. ERICSSON

L. M. Ericsson highlighted major issues for discussion that the company considered relevant for further discussions.

It commented on the term 'International Best Practices' as used in determining parameters of QoS Regulations and noted that the issue remains how it is to be achieved in the Nigerian context. International best practices are based on maximal values rather than the minimal which are not ideal for setting up a regulation.

Secondly, Ericsson disclosed that in other jurisdiction, QoS is not achieved through regulations but by market forces and competition. The Company suggested that the drive-test result be adopted, and that liberalization in the industry will be a better approach where subscribers make informed discourses in respect of quality rather than network management rationalization approach. The time frame for the implementation of the Regulation was also remarked to be insufficient in view of the cost implication for the implementation of this Regulation by the operators.

NCC's Response

The peculiarities of the Nigerian environment require that the market cannot absolutely regulate itself nor have a light touch regulatory environment as the market is not yet mature enough. The Director, Legal Services further remarked that the situation on ground necessitates regulatory intervention and that the law mandates the Commission to set QoS threshold for the industry. Furthermore, the Commission owes a statutory duty to protect consumers and must do so through regulations based on international best practices, though taking into consideration our local environment.

L.M. Ericson was advised to send the Commission a written comment on all the issues raised.

CELTEL

The Operator sought to know how the parameters in the Regulations will be measured, for e.g. the CIC mismatch, and opined that there are a few parameters for evaluating QoS from the customer perspective and that the few parameters are necessary rather than having sixty seven (67) or more parameters which are mainly for network monitoring.

Celtel further suggested that some of the perceived KPIs in the draft Regulations needed to be readdressed and the operator also prayed that they hoped their observations would affect the final outcome of the Regulations.

Response

The EVC in his remark acknowledged the fact that all the parameters and information were necessary in the making of an effective regulation by the Commission. He noted that, as usual, all the parameters would be considered and will guide the Commission and the industry to achieve improved results. He further stated that the essence of this Public Inquiry was not to consider the need to have a regulation but to aggregate opinion of stakeholders, to review parameter by parameter or line by line each part of the draft regulations and that inputs from this Public Inquiry will determine the quality of the QoS regulations.

According to the EVC, if subscribers were satisfied with the quality of services being delivered by operators, then the KPIs will not be required. The best approach is therefore not to ask why a lot of KPIs exist but for all the operators to be involved in solving the QoS problems. In addition, he enjoined all stakeholders to review the KPIs and submit additional comments, if necessary. Operators were given a two weeks extension to do this.

MTN

The Operator suggested that a Working Committee on Quality of Service be set up comprising the industry and stakeholders to review the parameters and come up with agreeable KPIs.

Response

In response to the above comment, the EVC recalled that the last Technical Working Group achieved little result because the technical persons whose inputs were required in the making of the regulations were unavailable for the Working Group meetings. He further stated that the Commission may be ready to set up another Committee to the extent that the relevant inputs would be received.

The EVC advised on the need to have the Chief Technical Officers (CTOs) and the different Technical Unit Heads of all the networks in the country seated at a forum like today's, and making contributions to all parts/sections of an important Regulation as this, rather than having in attendance only Regulatory Officers as representatives of the network operators.

GLOBACOM

The operator requested to know the position of an operator who fails to meet the required international standard, and whether the operator will be shut down. It further asked whether, in event that the call parameters of one operator are high, would all other operators be required to comply.

It requested the Commission to publish its report in respect QoS data submitted by operators over a year ago to guide the operators on what they had achieved so far, and whether the standards on customer /operators QoS are being met.

Response

The EVC requested that the operators do their share of work and submit their comments on users perception of KPI's in writing.

VISAFONE

Visafone suggested that there were already in existence QoS parameters and requested the Commission to make reference to them in finalizing the Regulations.

In absence of further comments, the EVC declared the day's deliberations on the draft QoS regulations closed.

Closing Remarks:

The EVC thanked all stakeholders who participated at the Inquiry and remarked that all comments received from stakeholders will be taken into consideration in finalizing the document. He expressed the desire of the Commission to share information with stakeholders to enhance its regulatory performance.

Dated this 27th day of March, 2008

Engr. E. A. Ndukwe (OFR)

Executive Vice-Chairman/CEO