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13 August 2020

Mr Charles S Punaha
Chief Executive Officer
National Information & Communications Technology Authority
Punaha ICT Haus
Frangipani Street
Hohola
National Capital District

By Email & By Hand Delivery

Dear Mr Punaha,

Submission in Response to 2nd Telecommunications Quality of Service Public Consultation

Thank you for the opportunity to provide comments in relation to the public consultation described above. Digicel's submission is enclosed with this letter.

Digicel is very encouraged with the changes incorporated into this draft compared to the previous draft. The move to combine fixed and mobile telephony services is very welcome and should make things a lot easier for the people of PNG to understand.

We are however somewhat confused and surprised as the decision not to adopt and incorporate some of the globally recognised bench marks, such as CSSR and CCSR we raised and suggested in our last response. We cover these further in the attached response.

We trust that you find Digicel's comments helpful and would welcome any further opportunities to discuss our views.

Should there be any questions, please do not hesitate to contact us.

Yours faithfully
Digicel (PNG) Limited

Michael Henao
Head of Legal & Regulatory

cc

Mr Vlado Doncevski, Director - Technical, NICTA

DIGICEL (PNG) LIMITED

2nd Submission to NICTA

Consultation Paper on

"Draft Rule on Telecommunications Quality of Service Performance Monitoring"

Wednesday, 12th August 2020

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1 Executive Summary

Digicel welcomes this opportunity to respond to the 2nd NICTA public consultation on "Draft Rule on Telecommunications Quality of Service Performance Monitoring". As the leading provider of telecommunication services in Papua New Guinea, Digicel welcomes this opportunity to share its global experience of system performance with NICTA.

As requested, Digicel has provided in this document comprehensive comments and feedback on the NICTA proposals contained in the QOS consultation and can summarise these as follows:

QoS Committee formation

Digicel agrees with NICTA that this is a good approach and will allow the stakeholders to co-operate closely on QoS matters. This approach has worked well in other administrations. Digicel does recommend making available to the group, some formal external technical expertise.

Timing and Staged Approach

The proposed staged approach is a very sensible way forward to establish a robust QoS regime in PNG. Under the QoS committee, a robust QoS picture will be available, and this will allow the people of PNG to make informed decisions on their telephony and broadband providers. Digicel has suggested perhaps a NICTA prior approval system for operators wanting to make QoS publicity statements in PNG. This could help avoid issues with complaints to NICTA.

Comments and feedback on proposed Attachments.

Digicel provides comprehensive feedback and comments on all the attachments. While some comments are more observations, others are extremely important and Digicel feels very strongly abut these. These are:

Call set up times:

Unfortunately, there is no provision within the Digicel network to record all call set up times. There is however the ability to record call set up times on known mobiles being used for call trials using trace functionality.

Digicel believes that this reporting, on a Trace mobile basis should be on a type of traffic basis. This would see set up times data published separately for on net calls, off net national calls and international calls. This removes the possible effects of 3rd parties on a network's own national traffic.

Digicel also suggests that perhaps the title "Speed" when referring to call set up times could be confusing. Perhaps a more appropriate title could be call set up performance or similar.

Network Availability:

Digicel believes that network availability should be reported in terms of base stations, links, core network nodes, international links etc and broken down into Urban, semi Urban, and rural areas. This would map roughly to the main centres, the provincial centres, and the remainder of PNG. Perhaps even a colour coding could be used to highlight major outages or more important outages.

Absence of significant global QoS criteria:

Digicel is surprised that both CSSR (call set up success rate) and CCSR (call completion success rate) have been omitted as QoS reporting criteria. These are powerful internationally recognised QoS criteria and should be included. Using CSSR would also greatly simplify the proposed successful call ratio reporting.

Availability criteria applied to Fixed Telephony:

Currently availability reporting is omitted from fixed telephony reported QoS criteria. This should be rectified, and fixed networks required, in a similar way to the mobile networks, to report on network availability. Like mobile networks, this could also be on the basis of major towns, provincial towns etc.

Busy Hour (BH) reporting:

Digicel suggests that instead of the proposed reporting table, that graph-based reporting be used. Daily, weekly, monthly etc reporting on this basis is far easier to understand and analyse.

Access to complaints systems:

The prosed system relies on extensive call system collection of performance data and comprehensive reporting etc. At this time, this required data collection and analysis is not supported in the Digicel Network.

2 Introduction

Digicel welcomes this opportunity to participate in the 2nd public consultation on "Draft Rule on Telecommunications Quality of Service Performance Monitoring" and to provide feedback and comments as requested.

3 Comments

3.1 Proposed QoS Committee

Digicel believes that this is a very positive way forward and has been proven to work well in other administrations. All parties subject to the QoS process should be present and feel that they contribute to the regime in which they have to operate.

The proposed terms of reference appear to be very comprehensive and should allow the effective operation of the committee.

One suggestion Digicel would make is to ensure the committee have access to an industry expert. This should be someone, well versed in the global world of network QoS and associated network management. Perhaps NICTA should seek to identify an appropriate expert within Australia, and they could form the role of advisor to the committee. While some of the members on the committee such as Digicel are global operators with many years' experience working with regulators and similar QoS schemes, others are not and it is important that the correct advice and guidance is available to everyone on the committee.

3.2 Timing & Staged Approach

Digicel believes that the proposed staged approach is a sensible way forward to establish a QoS regime in PNG. It is important that the proposed QoS committee establishes a robust QoS reporting system where all the monitored operators are using the same basis for reporting. Once a level playing field is established, then public publication by NICTA is a natural step forward.

Based on experience in other markets, Digicel would advise NICTA to be very robust in any approach to managing QoS claims by the operators in PNG. It is vital that any operator being economic with the truth or making unsubstantiated claims is very quickly brought to account. Perhaps NICTA may have to consider some form of "NICTA approval" for any campaigns containing QoS claims.

Digicel notes NICTA's comments about not wanting, at this stage, to establish minimum performance criteria. This is a sensible approach until a set of robust QoS criteria are operational and reporting is established and effective. Once trends etc become visible and should NICTA note any persistent poor performance by an operator, then NICTA should take appropriate actions to sanction the operator which may involve the introduction of minimum QoS performance criteria. The ACT supports NICTA in taking such an approach.

3.3 Attachment 1 Comments

Digicel has reviewed the contents of attachment 1 and would like to make the following comments:

3.3.1 Paragraph 9:

Perhaps it might be prudent for NICTA to compile a summary of the QoS measurements for all operators and require each operator to post this NICTA provided summary on their websites.

3.3.2 Schedule 1:

Re availability, Criterion #1, Digicel would suggest that operators are encouraged to report under this heading in terms of Urban, semi Urban, and rural areas. In PNG this could be major towns, provincial capitals, and the rest.

At this time, The Digicel network cannot capture or analyse network wide call set up times. However, using special mobile Trace features, dedicated network monitoring phones can be monitored, and call set up times collected.

Digicel believes the Criterion "speed" for row two may be misleading. Perhaps a more appropriate title might be Call set up performance. Speed can mean other things and cause confusion. Digicel has other concerns re the use of this criterion and will expand on this further below.

Digicel is surprised that two of the most globally recognised QoS criteria for mobile networks are omitted from the table. These are CSSR and CCSR and are immensely powerful indicators of network performance and capability. Issues around network congestion affecting call set up is easily monitored as is the ability to successfully complete calls. These are standard indicators across all infrastructure suppliers to report these two parameters.

3.3.3 Schedule 3:

Digicel believes that there should be an availability criterion as the first line, as there is with mobile operators. The operators can then report on outages etc.

As with mobile telephony, Digicel believes the title speed is confusing or has the potential to cause confusion. Perhaps call set up performance?

Again, perhaps two of the main QoS criteria, CSSR and CCSR could be added to the list of criteria for fixed telephony services?

3.3.4 Schedule 4:

Under speed, should FTP performance not be determined and recorded? Instead of or in addition to web page performance?

3.4 Attachment B Comments

3.4.1 Telephony set up time:

The Digicel network cannot support the collection and analysis of network wide call set up times. However, dedicated network monitoring mobiles can be monitored using Network Trace functionality and call set up time performance collected for these mobiles.

There are several types of calls in a network, but they fall into 3 broad categories which are on net, off net national and international. In general, on net should be the calls with the fastest setup while international will have the longest and even with international calls, performance will be different for fixed and mobile B parties. Off net calls pass through a POI and at this stage the A party operator becomes no longer responsible for performance in relation to call set up etc. So, should any poor off net performance reflect on the originating operator? As per the Digicel submission in the 1st QoS response, Digicel believes that Trace mobile call set up performance should be reported separately for on net, off net national and international calls. This will really allow users and potential customers to determine true operator performance.

3.4.2 Reliability, Unsuccessful call ratio:

This proposed reporting mechanism is overly complicated and unnecessary. This requirement can easily be satisfied by capturing the CSSR counters within the network. Any attempt to capture outages via this mechanism are unnecessary and instead can be captured via availability reporting.

3.4.3 Dropped Call Ratio:

This appears twice as row 3 and 5.

3.4.4 Reliability, Accessibility of the complaint management desk

Currently, the Digicel network does not support this requirement.

3.4.5 Reporting Form: Telephony setup times:

As mentioned above, set up time performance cannot be reported for all mobiles on the Digicel network. Where specialist trace mobiles are used, a breakdown by on net, offnet national and international should be required for specialised network monitoring mobiles where performance is captured using network trace functionality.

3.4.6 Reporting Form: unsuccessful call ratio and outages:

This whole section is overly complicated and unnecessary. It will also be overly complicated to assemble this data without significant software creation within the network. Instead the simple CSSR and CCSR indicators can be reported. Availability capture can simply be captured by requesting each operator to list any network elements that were out of service by date, time, and outage duration. This can apply to base stations, links, core network elements, international gateways etc. The reported items could even be colour coded using red for main population centres, Orange for provincial centres etc. In this way, it will be fairly easy to spot significant outages etc.

3.4.7 Accessibility of the complaint management desk

Currently, the Digicel network does not support this requirement.

3.5 Attachment C Comments

Reporting form: Accessibility of the complaint management desk:

Currently, the Digicel network does not support this requirement.

3.6 Attachment D Comments

Busy Hour times:

Requesting this data in the form of graphs would be far more beneficial. Perhaps Daily, weekly, and monthly graphs could be requested which will reveal the BH etc. Digicel believes the note at the bottom is unnecessary as separate national and international reporting should be fairly easy. The international gateway reporting will definitely be possible on its own.