Independent Communications Authority of South Africa
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COUNCIL DECISIONS– 05 MAY 2021

ITEM NO.	AGENDA ITEM	DECISION
1.	**2020/21 Q4: North West Province Quality of Service Report for mobile data services** The purpose of the submission was for Council to approve the publication of the Quality of Service (QoS) monitoring report for mobile data services conducted during Q4 of the 2020/21 financial year in the North West Province. 1.1. South Africa has experienced significant growth in mobile data services. The introduction of mobile devices such as smartphones and tablets, as well as the range of Internet-based applications that they support, has created a significant demand for (and expectation of) high levels of quality of service by consumers of mobile data services. 1.2. End-users of electronic communications services are increasingly using services that rely on a mobile data network. This led to the Engineering and Technology Division expanding its monitoring plan for 2020/2021 to include data reports. 1.3. The aim for monitoring was to assess the QoS for mobile data services provided by the mobile	**The recommendation was approved by Council.**

operators. The objectives of the test campaign were as follows:

1.3.1 To assess the QoS for mobile data services as provided by the mobile network operators (MNOs) in the North West Province; and

1.3.2 To inform end-users on the state of QoS, and the remedies for improvement.

1.4. A total distance of over 800 kilometres was covered on 3G and 4G preferred test scenarios, respectively.

1.5. The following areas were assessed: Hartbeespoort, Letlhabile, Zeerust, Pilanesberg and Makapanstad.

1.6. The four (4) main Key Performance Indicators (KPIs) measured were as follows:

1.6.1 HTTP Download Throughput, the rate at which data is transferred from the server to the user over the Internet;

1.6.2 FTP Download Throughput, the rate at which data is transferred from the server to the user over the Internet using an FTP application;

1.6.3 FTP Upload Throughput, the rate at which data is transferred from the device to the server over the Internet using an FTP application; and

1.6.4 Latency, the responsiveness of the network, measured by

	recording the time it takes for a small piece of data to travel to one point and return a response to the user's device. 1.7. The report illustrated a snapshot of the mobile network performance and customer experience within the measured time and location context. 1.8. In summary of the area-based result: Vodacom was placed in the lead in most of the KPIs in the respective areas on 4G and 3G preferred scenarios, closely followed by MTN, Telkom and Cell C in that order. 1.9. In terms of overall results for 4G preferred mode, MTN was leading in 4G HTTP download throughput and FTP upload throughput in the Letlhabile, Zeerust, Pilanesberg and Makapanstad areas. 1.10. Vodacom was leading in 4G FTP download throughout the Hartbeespoort, Letlhabile and Zeerust area, and Telkom was leading in Pilanesberg and Makapanstad areas. 1.11. Vodacom was leading in overall average latency in three areas (Makapanstad, Letlhabile and Hartebeespoort), and Cell C was leading in Zeerust and, Telkom in Pilanesberg. 1.12. A detailed report was shared with the mobile operators in order for them to share their remedial actions to address issues of poor performance.	

	1.12.1 The improvement plans and remedial actions are summarised below: Vodacom provided feedback and network improvement plans that are in place for the areas that were identified to be negatively affecting customer experience by the Authority's QoS monitoring outcomes, and shared the following remedial and action plans: 1.12.2 Hartbeespoort – Vodacom plans to improve coverage gaps by deploying new sites. There are 27 (twenty-seven) planned sites, 9 (nine) ready to be built in the financial year 2021/2022. The rest of the sites are still at the acquisition phase. 1.12.3 Letlhabile – There is a plan to improve the coverage gaps by building 14 sites, with 2 (two) of them planned for the 2020/2021 financial year. Pilanesburg & Zeerust – Poor LTE coverage was observed in the area. 3G coverage is adequate, but there are some gaps that exist within both areas tested. 1.12.4 Vodacom also stated that there are microwave links upgrades that are awaiting ICASA's approval. There are a number of planned sites aimed at rectifying and improving customer experience. Thirty percent (30%) of the sites planned in these areas are ready to be	

	built in the 2021/2022 financial year. 1.13. MTN provided feedback and network improvement plans that are in place for the areas that were identified to be negatively affecting customer experience by the Authority's QoS monitoring report. MTN shared the following remedial and action plans: 1.13.1 Pilanesburg – Low upload throughput and high latency on both 3G and 4G networks are mainly due to coverage holes in the area. Antenna optimisation techniques have been implemented to improve coverage on some of the sites. MTN has identified key locations where new sites will be built in to ensure improved data QoS in the future. 1.13.2 Zeerust - Poor data throughput (uploads) was mainly due to coverage holes in the network. MTN has identified key locations where new 3G & 4G sites will be established to improve data QoS in the area. MTN highlighted that load shedding has put pressure on its QoS, especially network availability. 1.13.3 MTN has been deploying generators at key sites during load-shedding to try to minimise the impact on its subscribers. The problem was exacerbated by battery theft, generator theft and vandalism at sites. During the	

	months of January and February 2021, MTN experienced 94 incidents of battery theft and 4 instances of generator theft. 1.14. Telkom has noted the Authority's report and further indicated that it views these test results as significant and uses them as additional input to further improve the quality of its mobile network. 1.15. 3G preferred measurements - Telkom has indicated that almost 57% of the measurements in the tested areas were on its roaming partner's network. Roaming accounted for 80% and 94% in Makapanstad and Pilanesberg, respectively. The network was affected by poor coverage and signal quality, which caused the Channel Quality Indicator to deteriorate, thus leading to a lower modulation scheme to be used, that resulted in lower throughput. 1.16. 4G preferred measurements - To mitigate the limited coverage, Telkom indicated that it will fast track site roll-out in the areas with poor coverage. Poor coverage, load shedding and load reduction have affected the overall network performance in Zeerust, Letlhabile and Makapanstad. 1.17. Telkom has identified relevant sites where base station power upgrades will be done on the UMTS network. This will improve site capacity and the outdoor coverage footprint as well as indoor coverage penetration.	

	1.18. In order to expand network capacity in the area, temporary sub-1 GHz will be deployed at 14 sites. 1.19. Telkom has 33 sites at different stages of rollout in the tested areas. However, due to site acquisition challenges, 22 planned sites are still pending acquisition. Telkom expects more than (2) of these to be in service before the end of the 2020/2021 financial year. 1.20. Cell C has noted the Authority's findings, and indicated that it will continue to provide improved services to its subscribers by working with its national roaming service provider to address these challenges in the affected areas. 1.21. Hartbeespoort – There is an issue of poor Signal-to-Interference-Plus-Noise Ratio (SINR) due to interference. The interference is also causing low LTE throughput on the outskirts of the CBD, and slightly impacted 3G latency. There is low usage of LTE advanced. Cell C is currently busy with software parameters for LTE advanced, and will have completed this in April 2021. 1.22. Letlhabile – Cell C will address poor coverage with the roaming partner to improve coverage, reduce interference and to improve quality / throughput. Software parameters and physical optimisation will be done by April 2021. 1.23. Pilanesberg and Zeerust – Poor coverage is the major contributing factor to poor throughputs and high	

	latency. The usage of LTE (CA) is minimal due to low coverage in certain areas. Cell C will address poor coverage with the roaming partner 1.24. Makapanstad – Poor coverage is due overshooting sites and Cell C will address the issue with the roaming partner. **Council resolved to approve the submission**.	
2	**2020/21 Q4: Voice Quality of Service Report – North West Province** The purpose of the submission was for Council to approve the publication of the QoS Monitoring Report for measurements conducted during Q4 of 2020/21 in the North West Province. 2.1. The aim of the monitoring was to assess the QoS provided by the mobile operators as perceived by the users. Major towns, townships, farm areas, rural areas and major road arteries, tourism activities and previous complaints were part of the route selection criteria. 2.2. The route covered areas where most of the operators claim to have network coverage through their own network, and roaming arrangements with other network owners. The test phones were allowed to freely select the network operator's frequency bands and the radio access technology. 2.3. The three main KPIs used to measure the QoS were:	**The recommendation was approved by Council.**

	2.3.1 Dropped Call Ratio (DCR) for the Retainability of the voice call; 2.3.2 Call Setup Success Ratio (CSSR) for the Accessibility of the network resources; and 2.3.3 Call Setup Time (CST) for the time it takes to establish a voice call. 2.4. In terms of the Regulations on End-User and Subscriber Service Charter of 2016, the target for the DCR must be less than 3% and, the target for CSSR must be greater than 98% over six months. Call Setup Time must be less than 20 seconds and the score for Speech Quality must be greater than 3. 2.5. The results indicated that end-user QoS and the operators' network performance varies significantly per-location. 2.6. The results showed that, in terms of overall Call Setup Success Ratio; MTN was the only operator that met the target of 98%, thus meeting the Accessibility target. 2.7. All four operators did not meet the DCR target of less than 3%, and thus failed to meet the Authority's Retainability target. 2.8. All operators met the Call Setup Time target of less than 20 seconds as per the End-User and Subscriber Service Charter Regulation of 2016.	

	The submission was approved by Council.	
3	**Amendment of Ordering System Specification** The purpose of the submission was to request Council to approve the draft amendment of the Ordering System Specification (OSS) for publication in a Government Gazette. 3.1. The Authority published the final Number Portability Regulations (the Regulations) on 1 October 2018 in the Government Gazette No 41949. In support of the implementation of the Regulations, the Authority further published the OSS on 29 March 2019. 3.2. On 29 March 2019, following publication, Cell C filed an application at the Pretoria High Court challenging certain aspects of the Regulations. 3.3. The Special Committee on Numbering Resources (the Committee) met and decided to delay the implementation of the Regulations until the review application had been finalised. 3.4. On 3 November 2020, Cell C, through its attorneys, submitted a letter to the Authority's external attorneys, withdrawing its Review Application. 3.5. The Committee met with the Number Portability Company (NPC) on 11 December 2020, to discuss the contents of correspondence received from the NPC.	**The recommendation was approved by Council.**

	3.6. The NPC indicated that the Authority needed to make changes to the process flow and the sequence of the message numbers. This was done because, in the Central Reference Database (CRDB) Mobile Number Portability (MNP) process flow, the OSS had introduced two new message numbers to accommodate a One-time Pin (OTP). 3.7. It was agreed that the OSS needed to be amended to cater for the OTP step in the MNP process. It was also agreed that the port cancellation flow process in the OSS needed to be amended as the text refers to Port cancellation. 3.8. In light of the above, the Committee made the changes and submitted the amended draft OSS to the Legal, Risk and CCC division (LRCCC) for vetting on 24 February 2021. **Council resolved to approve Draft Regulations for publication.**	
4	**The Draft Electronic Communications Amendment Bill, 2021** The purpose of the submission was to present to Council the Electronic Communications Amendment Bill, 2021 (the Bill), together with the Memorandum on the Objects of the Electronic Communications Amendment Bill. 4.1. On 2 December 2019, the Competition Commission (the Commission) issued a Data Services Market Inquiry Report (DSMI report). The DSMI report made draft proposals to the ECA Bill, and submitted recommendations to the DCDT, including the amendment of the Electronic Communications	**The recommendation was noted by Council.**

	Act No 36 of 2005 (ECA), to address challenges relating to the costs of data. 4.2. The Task Team was established in 2020 between ICASA and the DCDT, to consider appropriate legislative and regulatory interventions, to give effect to recommendations contained in the DSMI report. 4.3. The Task Team prepared a submission on the Bill for Council's consideration. The Bill was to be read in conjunction with the Memorandum, on the objectives of the Bill. 4.4. The Bill aims to amend the ECA in order to provide for the following: 4.4.1 To provide for a new licence category for Electronic Communications Facilities Services; 4.4.2 To enable the Minister responsible for Local Government to make a national standard by-law on rapid deployment; 4.4.3 To enable spectrum sharing; To regulate roaming and mobile virtual network services; To improve the facilities leasing framework and its pricing principles; and 4.4.4 To provide for improved competition regulation. 4.5. It was recommended that Council consider and provide inputs on the	

	draft Bill, and the estimated financial implications of the Bill, with respect to ICASA's mandate. **<u>Comments made:</u>** 4.6. Council enquired if international roaming was included in the proposed amendments. 4.7. Council further submitted that sub-section 6 of the ECA which relates to individual ECNS Licences, requiring a Ministerial Invitation To Apply, should be removed through the proposed amendments. 4.8. The comments and inputs made by Council were noted and will be taken back to the Task Team for consideration. **The submission was noted with inputs made.**	

ISSUED BY: Secretariat Office
on behalf of Council