Independent Communications Authority of South Africa
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COUNCIL DECISIONS– 28 July 2020

ITEM NO.	AGENDA ITEM	DECISION
1.	**2020/21 Quarter 1: Voice Quality of Service Report: Gauteng Province** The purpose of the submission was for Council to approve for publication, Engineering and Technology Division's Quality of Service (QoS) report for measurements conducted during Q1 of 2020/21 in the Gauteng Province The Executive: Engineering and Technology presented the item: 1.1 The Annual Performance Plan of Engineering and Technology sets out a target to conduct QoS monitoring by quarterly drive tests in the following provinces, Eastern Cape, Limpopo, Mpumalanga, Northern Cape, Free State and KwaZulu Natal. 1.2 Engineering and Technology was considering a review of the Annual Monitoring Plan given the Covid-19 circumstances. 1.3 The Authority conducted measurements during level-3 lockdown in the Gauteng Province as additional measurements in the period 3 to 17 June 2020 covering a total distance of over 1800 Kilometers, targeting areas in Heidelberg, Tembisa, Midrand,	**the recommendation was approved.**

	Soshanguve, and Sebokeng.Parts of Tembisa were measured in the financial years 2014/15 and 2018/2019. 1.4 The aim of the monitoring was to assess the QoS provided by the operators as perceived by the user in major towns, townships, farming areas, rural areas and major road arteries and previous complaints were part of the route selection criteria. 1.5 The route covered areas where most of the operators claim to have network coverage their own network and roaming arrangements with other network owners. The test phones could freely select network operator's frequency bands and the radio access technology. 1.6 The Authority conducted the monitoring based on the SANS 1725-1:2016) End -User Related Quality of Service parameter definitions and Measurements-Part 1GSM Voice as the reference standard. 1.7 The Methodology included data collection through drive testing, through which objective measurements associated with identified QoS parameters for Voice Service were made. **Key Performance Indicators and definitions** 1.8 Three main Key Performance indicators(KPI) used to measure QoS were: 1.8.1 Drop Call Ratio (DCR) for the Retainability of the Voice	

Call.

1.8.2 Call Setup Success Ratio for the Accessibility of the Network Resources(CSSR).

1.8.3 Call Setup Time for the time it takes to establish a voice.

Results Summary

1.9 The results show that in terms of overall Call Setup Success Ratio, all operators achieved CSSR values for more than 98% and thus met Accessibility target.

1.10 All operators met the overall DCR target of less than 3% and thus met the Authority's Retainability target.

1.11 All operators achieved the Call Setup Time targets of less than 20 seconds.

1.12 In terms of Accessibility results for each specific route, Cell C, MTN, Telkom and Vodacom met the 98% CSSR target in all tested areas; Heidelberg, Tembisa, Midrand, Soshanguve and Sebokeng.

1.13 In terms of Retainability results for each specific router, Vodacom, MTN, Cell C met the DCR target in Heidelburg, Midrand, Soshanguve and Sebokeng but failed to meet the target in Tembisa.

1.14 All operators met the Call Setup Time of less than 20 seconds in all tested areas as part of the End-User and Subscriber Service Charter Regulations of 2016 as amended.

Results Limitations

1.15 In terms of sub-regulation 9 (13) of

	the End User Subscriber and Service Charter of 2016 as amended '*Measurements Parameters for Fixed Wireless and Mobile Services*", Licences were required to report the parameters stated in section 3.2 (DCR, CSSR and Call Setup Time) every six months. These parameters were averaged over six months nationally. 1.16 Sub-regulation 9(13) targets were averaged over 6 months' period, while the drive test methodology, provides a sample snap shot of the results at a time. 1.17 The only mechanism to measure compliance in terms of the End-User Subscriber and Service Charter will be to deploy an Operational Support System(OSS) solution. 1.18 That solution measures the network statistics at the operator's network infrastructure and provides counters regarding accessibility and retainability. 1.19 It can provide statistics regarding compliance 24 hours a day, 7 days a week. Using that mechanism will enable the Authority to enforce compliance to the End -User Subscriber and Services Charter. Engineering and Technology was in the process of acquiring the OSS solution, pending budget availability. **Conclusion** 1.20 The report gave a snapshot of the Mobile Network performance and customer experience within the measured time and local context.	

	The result indicate that the user's quality of service and operators network performance varied significantly on per location basis. 1.21 The results show that in terms of overall Call Setup Success Ratio, Cell C, MTN, Telkom and Vodacom achieved more than the required 98% CSSR value and thus met the Accessibility target. 1.22 All four mobile operators met the overall DCR targets of less than 3% and thus met the Authority's Retainability target. 1.23 All operators met the Call Setup Time target of less than 20 seconds according to the End-User and Subscriber Service Charter Regulation of 2016. 1.24 Operators were given an opportunity to comment on the final report and to provide feedback as well as remedial actions. Recommendation to Council It was recommended that Council approve the Gauteng Province Voice QoS report for publication.	

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ISSUED BY: Secretariat Office
on behalf of Council