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Shri Tejpal Singh,
Advisor (QoS-I)
Telecom Regulatory Authority of India
New Delhi

December 14, 2023

Dear Shri Singh,

Subject: GSMA Response to Consultation Paper 'Review of Quality-of-Service Standards for Access Services (Wireless and Wireline) and Broadband (Wireless and Wireline) Services.'

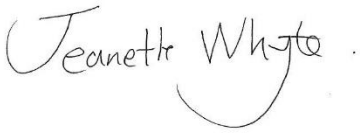
The GSMA wishes to submit its response to the Consultation Paper: 'Review of Quality-of-Service Standards for Access Services (Wireless and Wireline) and Broadband (Wireless and Wireline) Services.'

The GSMA appreciates this initiative of TRAI and agrees that QoS is important for consumers and is part of consumer protection. The GSMA would like to make a high- level submission making some broad policy recommendations and suggestions for considerations based on international practices.

The GSMA recommends policymakers to adopt the appropriate approach towards regulation of QoS that protects the interest of consumers, promotes fair competition and choice, and encourages investments in network infrastructure and services. Such an approach should ease the compliance burden of operators, be technology neutral, and be based on a comprehensive assessment of the present condition of networks, acknowledging both the limitations within and beyond the control of operators, informed by a robust Regulatory Impact Analysis (RIA) that aligns with the unique characteristics of the telecommunications sector.

We remain available for any further exchanges in future on such issues of interest for the telecom industry.

Yours sincerely,



Jeanette Whyte

Head, Public Policy, APAC

GSMA

High Level Response to TRAI Consultation on Review of Quality-of-Service Standards for Access Services (Wireless and Wireline) and Broadband Services (Wireless and Wireline)

We express our gratitude to TRAI for providing us with the opportunity to comment on this consultation paper. The GSMA appreciates this initiative of TRAI and agrees that QoS is important for consumers and is part of consumer protection, however, a range of policy, regulatory, legal, and other issues demand immediate attention from the Government and TRAI prior to contemplating any enhancements in the stringency of QoS benchmarks.

Addressing these issues is vital to ensuring that consumers receive the highest network quality feasibly possible. Various factors, including telecom infrastructure challenges, policies, and both external and internal elements, influence the QoS standards for telecommunications services.

Against the said background, the GSMA would like to make a high- level submission making some broad policy recommendations and suggestions for considerations based on international practices.

I. Growing trend towards deregulation in advanced markets

QoS regulations vary considerably across countries and regions. While there is no one size fits all, competitive advanced markets tend towards exercising an approach of light touch regulation.

Historically, in countries where voice telecommunications was a regulated monopoly or government monopoly, both quality and prices for voice services tended to be very high. In countries with greater competition, or at least with strong prospects of competitive entry, it is often preferable to leave QoS to market forces.

For example, the Canadian Radio-television and Telecommunications Commission (CRTC) acts as the main telecoms regulator in Canada, enforcing the Telecommunications Act, whose key features include the promotion of economic efficiency, market competitiveness and public accessibility to high-quality services. Meanwhile, in the US, the Federal Communications Commission (FCC) regulates interstate telecoms at the federal level based on the Communications Act and its subsequent amendments. Though both regulators play a prominent role in consumer protection – such as upholding privacy and preventing spam calls and telemarketing – neither has imposed QoS targets on all operators in their respective markets or obligations around the publication or audit of network performance. Instead, each body has employed a more laissez-faire approach, in which operators set their own targets and publicise their own results while abiding by industry codes of conduct.

In Europe, the Body of European Regulators for Electronic Communications (BEREC) and the European Commission have collaborated on one clear EECC objective: empowering and protecting end users. BEREC has been studying QoS (and network performance and QoE) for

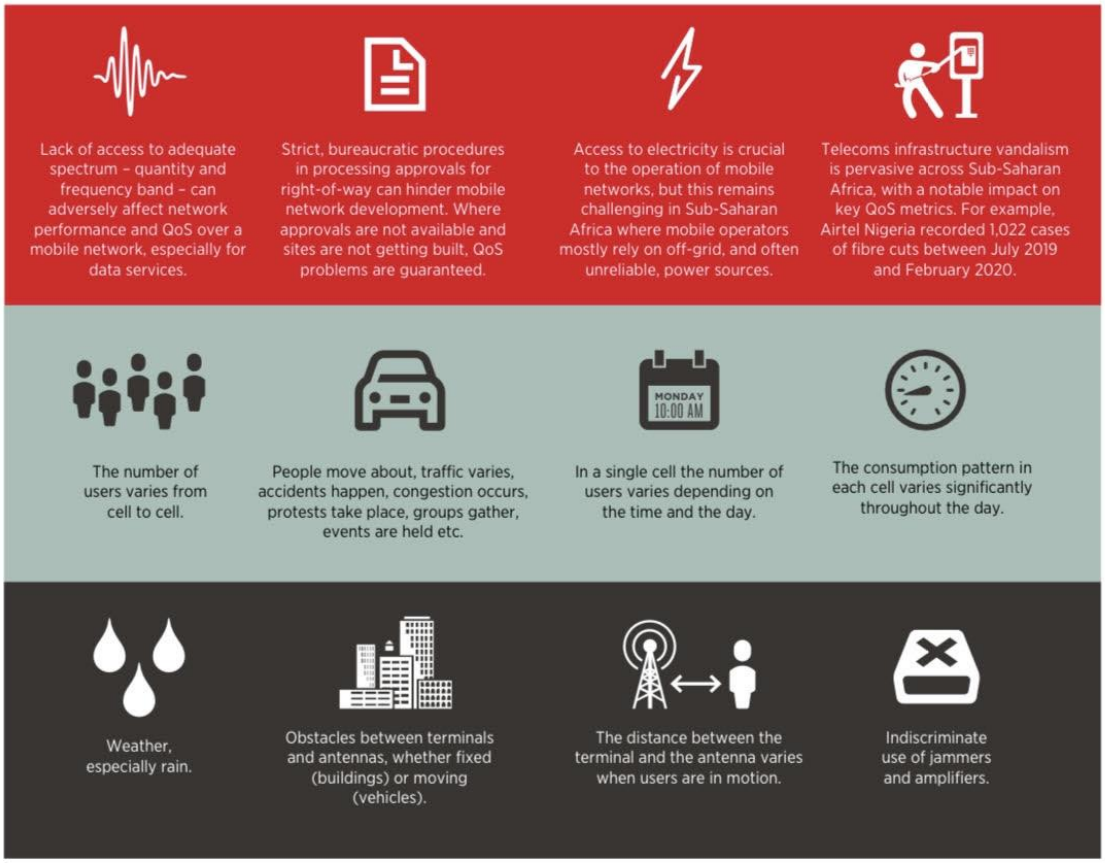
the past 10 years, but considers it an increasingly complex area to manage, measure and regulate. Its guidelines serve as a reminder to EU telecoms regulators that quality depends on devices, networks and applications, as well as on unpredictable situations, which occur on an irregular basis and create congestion. They note that minimum QoS obligations should only be used as a last resort, as transparency can be an effective remedy, and that KPIs should be proportionate and defined with respect to the actual customer experience.[1]

II. Many factors impact QoS

Regulators usually characterise – and in turn monitor – QoS by a collection of parameters, notably call success, downlink/uplink speed and packet loss. Poor QoS can constrain citizens' participation and contribution to the digital economy. However, failures do not always sit squarely with operators. Quality from the mobile tower to the terminal is also affected by other factors such as consumption patterns, network load, user device (especially counterfeit handsets), weather-related interference, vandalism, fibre transmission networks and the power supply. Furthermore, end to end QoS depends on additional factors such as quality of handsets etc. In most cases, existing QoS regulations do not take these extraneous factors into account, meaning that mobile operators risk sanctions for QoS failures that are caused by factors beyond their control. In a West African market, for example, a leading operator considers that external factors account for up to 70% of the QoS issues it faces. Furthermore, the prescribed timeline to implement corrective action is very short in many cases (sometimes less than a week), and not long enough to remedy problems caused by the most serious external factors.[2]

[1] BEREC - OECD Webinar on Quality of Services and Quality of Experience | BEREC (europa.eu)
[2] gsma.com/subsaharanafrica/wp-content/uploads/2020/10/Modernising-QoS-Regulations-in-Sub-Sahran-Africa.pdf

Many external factors affect mobile QoS



Source: GSMA

III. Putting other enabling policies in place that will have an impact

Beyond regulation, policymakers and regulators have an opportunity to support QoS improvements with policy levers that complement mobile operators' investments in network infrastructure and services while keeping the consumer at the centre of QoS developments. Fundamentally, policymakers should ensure that operators have access to spectrum at the right conditions – quantity, frequency band and pricing – to enhance network performance, mobile broadband capacity and coverage expansion. Governments should also avoid inconsistent or unpredictable fiscal policies, which can lead to delayed or cancelled investments, and identify mechanisms to expedite network deployments, such as easing right-of-way approvals and granting fair access to public infrastructure.

IV. Easing the compliance burden

QoS currently is assessed on network scale per quarter. Shortening the timescale and reducing the reporting area size (while increasing the number of reported areas) will statistically greatly increase the variance of the now many new separate reporting areas on a shorter timeframe.

This introduces random variance that will dominate the 'bad site/areas' lists needlessly and change randomly. Furthermore, monthly reporting requirements will disproportionately add to the compliance burden of Indian operators while impacting ease of doing business in India. Also, currently this is reported aggregated for 2/3/4/5G. The consultation proposes to separate 2/3G from 4/5G. The problems this introduces is that the older technology will 'display' a higher drop rate than when aggregated, even though nothing has changed but the reporting. The addition of more reported QoS metrics, on shorter timescales, over much more geographical areas sometimes combined will increase the reporting burden on MNOs dramatically and unnecessarily.

Additionally, the different metrics used by different vendor's equipment for logging the various performance metrics means that direct comparison may not be possible.

Many countries follow a quarterly reporting requirement. For example, the National Broadcasting and Telecommunications Commission (NBTC) requires quarterly reports by operators. In Australia the Australian Competition and Consumer Commission run regular measurements using their own equipment and publish the results.[3] UK Ofcom publishes its Mobile Matters uses crowdsourced data to assess peoples experience of mobile networks, this is done annually with typically 6 month updates. Ofcom also publishes consumer mobile experience. These are both independent of operators measurements. [4]

The proposed Quality of Service (QoS) regulation should also align with India's licensing regime based on Licensed Service Areas (LSAs) and should not require reporting at the state, Union Territory (UT), city, or district level.

V. Technology neutrality

The GSMA upholds the principle of technology neutrality and recommends that there be no application or use case-based measurement and reporting of QoS and Quality of Experience (QoE), particularly in 4G and 5G networks. The QoS framework should remain technology-neutral.

[3] https://www.accc.gov.au/by-industry/telecommunications-and-internet/telecommunications-monitoring/measuring-broadband-australia-program/monthly-key-indicators-report

[4] https://www.ofcom.org.uk/research-and-data/telecoms-research/mobile-smartphones/consumer-mobile-experience

https://ofcom.org.uk/__data/assets/pdf_file/0018/264600/mobile-matters-2023-report.pdf.

VI. Limited parameters to be put in place after discussion and consultation with operators in the short run.

Regulators need to approach quality of experience (QoE) with caution given the subjective nature of measurements and the consumer-related factors that could be out of the control of operators, including device specification, power supply and digital skills level. QoE frameworks, therefore, need to be objective, developed in collaboration with operators and not subject to sanctions.

In the short term, TRAI might consider adopting a light-touch regulatory approach to QoS, involving the measurement and reporting of only a limited set of parameters on a quarterly basis. In the long term, the Authority should consider deregulating QoS parameters while continuing to monitor performance through drive tests or a combination of drive tests and third-party surveys.

In conclusion, the GSMA recommends policymakers to adopt the appropriate approach towards regulation of QoS that protects the **interest of consumers, promotes fair competition and choice, and encourages investments in network infrastructure and services.**

We kindly urge TRAI to conduct a comprehensive assessment of the present condition of networks, acknowledging both the limitations within and beyond the control of operators, before setting any new standards or benchmarks. Proactively identifying and tackling these challenges is essential. TRAI is encouraged to propose and implement strategies for the elimination of these barriers before determining or finalizing new standards or benchmarks for the industry. Decisions should be based on the practical realities of the situation and informed by a robust Regulatory Impact Analysis (RIA) that aligns with the unique characteristics of the telecommunications sector.