



**ANALYSIS MATRIX ON COMMENTS RECEIVED DURING PUBLIC
CONSULTATION PROCESS ON REVIEW OF QUALITY-OF-SERVICE (QOS)
MONITORING FRAMEWORK**

June 2026

Acronyms:

CA – Communications Authority of Kenya

E2E – End to End

ETSI - European Telecommunications Standards Institute

EU – European Union

ITU – International Telecommunication Union

MNO – Mobile Network Operator

NP – Network Performance

QoE – Quality of Experience

QoS – Quality of Service

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General Observations	Airtel	- We do not advocate for setting a dichotomous grading system based on a two-point evaluation method—such as “Pass” or “Fail” with a proposed 90% target which classifies any network with a score of less than 90% as not performing. Network QoS is not something that can be given an absolute, mutually exclusive score as either pass or fail. The dichotomous grading score has a key limitation since it does not capture partial achievement, or gradations of performance quality. Network QoS framework based on targets with one based on a “pass” or “fail” criteria and in fact most jurisdictions have moved away from this QoS enforcement strategy as it has been identified to be counterproductive. It does not encourage further investment and licensees have no motivation to improve QoS score for example from a 70% score to over 75% score since the pass or fail approach considers this as a fail and does not reward any such improvements. We note that the CA proposed to increase the QoS pass threshold from 80% to 90% and we have no visibility of how this target of 90% was derived. A gap analysis by the CA would have enabled us to understand the rationale	The existing compliance threshold cannot be lowered from 80% to 75% as this will lower the current (QoS) standards. The overall compliance threshold will be set at 80% and will be progressively increased to 85% at the end of 5 years (1% every Year).

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		and the methodology of arriving at the new proposed target. In any case even if the CA wanted to impose a scoring system for QoS to assess compliance, and assuming CA wants all MNOs to score an A or be excellent, the targets score would be 75% and therefore the increase from 80% to 90% is not justifiable and not based on any reference. We propose an overall target score of 75% (for the combined three core components – NP, E2E and QoE) based on the standard grading and scoring system in Kenya if the target is for all MNOs to get an A score or Excellent score	
		-The existing and proposed methodology of assessment and enforcement of Network Quality of Service (QoS) requires a complete relook and overhaul. Unfortunately, the Communications Authority of Kenya (CA) did not have any preliminary discussions with the MNOs to gather information and feedback on the current framework structure, challenges and possible areas of improvement. Development of a Quality-of-Service framework for Mobile Services is a highly technical process which should not be subjected to a command-and-control regulatory strategy, and our expectations were that preliminary discussions should have been held with MNOs before the drafting of the amended framework for public consultation. The CA assumes that they understand all the	Evolving technologies, along with insights drawn from past results, highlight that the framework, which has been in place for a decade, contains identified gaps that need to be addressed.

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		issues of the current framework including challenges being faced by MNOs and we will take it to be an oversight on CA's part.	
		- Though the CA has referenced the European Telecommunications Standards Institute "ETSI" Standards, specifically ETSI TR 103 559 ETSI, which in our view may not be applicable to Kenya for various reasons the thresholds and some of the targets proposed by CA do not even compare closely with majority of the EU Countries. Coverage Threshold Benchmarking Coverage Threshold EU We have obtained some benchmark data from the EU countries and hereby demonstrate that the proposed CA target is not fairly comparable with some of those in the EU countries even though it is in this territory that the ETSI standard mainly apply Considering the benchmark data for European Countries it is uncontestable that the propose CAs current and proposed network coverage thresholds are well above those administered in more developed countries in the EU. If we account for demographics such as population densities in which Kenya has higher population densities compared to the EU	Comparison of European standards with the proposed framework and the recommendations of the East African Communications Organization (Ref: EACO Guidelines 7.1.5 on Service Coverage Area and Network Availability, Note 8) indicates that "mobile services should be considered available when the signal level is greater than or equal to -95 dBm." It is proposed to adopt -100 dBm as the acceptable signal strength threshold.

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		countries benchmarked, achieving the proposed coverage threshold in Kenya will not attract private investment, is unsustainable leading and would therefore compromise quality. We therefore propose to amend the Coverage threshold from the proposed – 95 dBm to – 105 dBm for all technologies based on the benchmark data provided. We further note that in a study done for ComReg – Regulatory Authority of Ireland for 5G, coverage thresholds of even >-115 dBm would be acceptable depending on the Spectrum band	
		We had noted that there were some errors in the overall weights for some of the matrix tables so we request CA to correct those arithmetic errors. We also request that the CA amends the tables based on our new proposed thresholds and consequently adjust the overall weights based on the new proposed thresholds.	The Authority has reviewed all the matrix tables and verified the accuracy of the calculations.
	GSMA	- The GSMA believes that investment in the telecommunication industry is critical for the customer to keep enjoying seamless service delivery. However, investment is influenced by the operating environment that entities exist in. With welcome operating environment, stakeholders are encouraged to not only plan for the long term but also increase their stake without necessarily affecting service affordability. The proposal to increase QoS	The compliance threshold is currently set at 80%, with a planned upward revision to 85% within the next five years

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		thresholds from the 80% to 90% is likely to negatively impact the efforts already undertaken by the government and the telecommunication sector to promote sustainable investment and reduce the usage gap which is currently 64% thus accelerating digitalization efforts.	
		The GSMA recommends that a more consultative approach is used in determining sanctions and that the set of sanctions should be used reservedly with an aim of balancing policy objectives with the need to foster investment and innovation. The regulator should endeavor to utilize the funds to instantly rectify the noncompliance.	The process is already consultative. The penalties levied at the moment is not sufficient to address the non-compliance.
		There is also need to modernize and simplify the monitoring and enforcement regime, to prevent potentials of overreach and conflict of QoS regulations with existing regulations.	The Authority has taken your comment into consideration and concurred.
		- The GSMA recommends that an impact assessment should be undertaken across the industry to establish the actual achievement of the prevailing QoS levels prior to raising the thresholds.	Evolving technologies, along with insights drawn from past results, highlight that the Framework, which has been in place for a decade, contains identified gaps that need to be addressed.
		Additionally, ITU-T backhaul diversity framework that recognizes the impact of transmission medium on service grade should be adopted in place of blanket latency KPIs.	The Mobile Network Operators (MNOs) are responsible for overseeing the backhaul infrastructure, while the Authority supports their request for resources on the same. The MNOs are obligated to comply with the

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		- GSMA argues that Blanket latency KPI do not improve the network quality and focus resources on network monitoring rather than on quality and coverage. It will also lead to inefficient resource utilization if location parameters are not harmonized.	Quality of Service (QoS) Key Performance Indicators (KPI) requirements. The Authority retains the initially proposed latency targets, as these benchmarks are already established as an aggregate that considers the diversity of terrestrial and satellite backhauling mechanisms
		- The GSMA recommends that the framework recognizes other nuances that may influence QoS such as availability of affordable and reliable power, access to land and wayleaves for installation of telecommunication infrastructure and make special provisions for such instances.	Mobile Network Operators (MNOs) should take additional measures to ensure uninterrupted service to consumers, such as using alternative power sources and implementing redundancy plans, unless it is determined to be a force majeure situation.
		- The GSMA recommends that the framework recognizes other nuances that may influence QoS such as availability of affordable and reliable power, access to land and wayleaves for installation of telecommunication infrastructure and make special provisions for such instances.	Factors beyond Mobile Network Operators (MNOs) control to be considered on a case-by-case basis while computing FY compliance. To be corroborated with Network Performance (NP) tools (statistics).
		The Regulator should also influence streamlining of wayleave charges to bring order to the industry.	The Authority has been involved in wayleave issues in consultation with the relevant stakeholders. However, this matter is not part of the Quality of Service (QoS) framework.

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		- The GSMA recommends that a more consultative approach is used in determining sanctions and that the set sanctions should be used reservedly with an aim of balancing policy objectives with the need to foster investment and innovation. The regulator should endeavor to utilize the funds to instantly rectify the noncompliance	Sanctions/Penalty will be as per the existing Legal and Regulatory framework
		The GSMA recommends that a consultative approach should be adopted when review of QoS thresholds is being proposed to ensure that only necessary changes with minimal disruptions are introduced.	The process of review of the Quality of Service (QoS) framework is consultative
	Safaricom	- Embracing the Global De-regulation Trend: We urge the Authority to learn from the recent and profound policy pivot in the European Union. On 21st January 2026, the EU officially adopted the Digital Networks Act DNA, which repeals much of the rigid 2018 regulatory framework	Deregulation in the Kenya MNO space is not an option where rural coverage gaps still exist, and smaller operators are expanding footprint.
		Advocate the ITU-T QoS Framework Instead of the Eurocentric ETSI model, we advocate for the consideration of the ITUT G.1010. This model is specifically designed for the geographical diversity of developing nations	The Framework is not a transplant of ETSI but rather ETSI was used as a benchmark. The Authority's QoS Methodology is grounded on the ITU-T E.804 and G1028 frameworks and recommendations, and monitoring tools are configured to operate on the standards.

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		Scoring Based on Backhaul Diversity The ITU-T framework recognizes that Service Grade is inherently linked to the transmission medium. We propose that scoring should be tiered as follows: • Fiber Backhaul (Class 0/1): High performance targets (e.g., Latency $\leq$ 100ms) for urban centers where fiber is available. • Microwave Backhaul (Class 2/3): Adjusted targets (e.g., Latency $\leq$ 400ms) to account for atmospheric interference and Rain Fade. • Satellite Backhaul (Class 4/5): Unconstrained targets for deep rural and marginalized areas. By adopting this Backhaul Neutral scoring, the Authority ensures that an MNO is not penalized for the laws of physics when serving remote citizens in Mandera or Marsabit via satellite.	The Authority will drop the tiers. The Authority retains the initially proposed latency targets, as these benchmarks are already established as an aggregate that considers the diversity of terrestrial and satellite backhauling mechanisms.
		-The Increase in Power/ Electricity Demand The proposal to mandate a signal strength of $\geq$ -93 dBm in Urban areas and $\geq$ -98 dBm in Rural areas creates a systemic Green Tax that threatens our operational viability. While these figures appear as minor technical adjustments, they trigger a non-linear surge in energy consumption that conflicts with Kenya's national climate and economic goals as expounded below; The Logarithmic Power equation and impact on national energy:	The Authority has reviewed the signal threshold to -100dbm. The Authority also encourages the MNOs to invest in advanced power saving radios to save expenditure on power.

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		The decibel-milliwatt dBm scale is logarithmic, not linear. A 3dB improvement in signal strength requires a doubling 100% increase of the effective transmit power. Moving from a threshold of -95 dBm to a -93 dBm represents a ~2.1dB increase. This requires the Power Amplifiers at the base station to output approximately 60% more radio frequency power. RAN Energy Dominance and Grid Stability Noting that the Radio Access Network RAN accounts for 75–80% of our total energy consumption, forcing higher power output across thousands of urban sites will skyrocket our electricity and diesel bills. Currently, energy costs already constitute over 50% of total sites OPEX. High power will place an unsustainable burden on Kenya’s national power grid. The Overstretched National Grid Reality with 2025-2026 Statistics Kenya's national grid is currently operating at historic peak levels. Forcing a nationwide increase in RAN loudness is statistically dangerous for grid stability. As of December 2025, Kenya recorded a record system peak demand of 2,439.06 MW, a steady climb from 2,363 MW in July 2025. Despite growth in generation, EPRA reports show that reliability indices remain a concern. In late 2024/2025, the	

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		System Average Interruption Duration Index (SAIDI) recorded outages lasting an average of 9.15 hours per month, nearly triple the regulatory target of 3.25 hours. Electricity consumption is projected to grow at an accelerated pace of 4.2% annually through 2030. The Risk of Induced Load Shedding By mandating a power increase to satisfy a 2dB signal gain, the Authority is effectively creating a massive, artificial industrial load. If thousands of base stations simultaneously pull 60% more power from an already overstretched grid, then this step-up in demand can lead to frequency drops, triggering automated protection trips and regional blackouts. To maintain the record peak demand of ~2,440 MW, Kenya Power must manage reserve margins tightly. An artificial surge from the telecommunications sector could force the utility to implement load shedding for other critical sectors. An artificial mandate to increase signal 'loudness' is not just a technical challenge; it is an Energy Security Risk. It pulls vital power from a grid already struggling to meet a 4.2% annual growth in demand, potentially trading mobile signal bars for regional blackouts	
		-Universal Application of the QoS Framework across all Licensees like NTNs and ISPs	The Authority is in the process of developing a draft framework for

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		We strongly recommend that the Authority expands the scope of the QoS Framework to include all categories of licensees under the Unified Licensing Framework ULF. The current focus on MNOs alone ignores the reality of the digital value chain. To achieve a truly resilient National Digital Superhighway, every entity that contributes to the 'packet journey', from the fiber backbone to the application server, must be held to standardized, auditable, and enforceable Quality of Service benchmarks. This ensures Equitable Accountability and protects the Kenyan consumer from systemic failures that occur outside the MNO's direct control	fixed broadband services, aligned with the QoS framework for MNOs.
		- Contradiction of National Sustainability Goals While Kenya has positioned itself as a global leader in green energy and carbon markets through the Climate Change (Carbon Markets) Regulations, 2024, the draft QoS proposal directly undermines these environmental commitments as highlighted below. • Many rural and semi-urban sites in Kenya rely on diesel generators or hybrid power due to grid instability. Mandating higher signal power forces these generators to run at higher loads, increasing diesel consumption and CO2 emissions. • While the Ministry of Environment encourages carbon reduction, the Authority is effectively mandating Energy Inefficiency.	The Authority takes note of the comment.

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		MNOs are being forced to burn more power to hit a marginal KPI that provides negligible improvement in user experience compared to the environmental cost. • High-power transmission increases Interference (Noise) in neighboring cells, which can ironically lower data speeds (SINR), forcing even more power usage to overcome the noise—a vicious cycle of energy waste	
		- Investment over Punishment We advocate for a shift in regulatory philosophy: Penalties should be the absolute last option. Traditional penalties take away the very funds required to fix the problem. We propose that instead of traditional fines, the Authority should adopt a Correction-First approach. If an area falls below target, the MNO should be mandated to reinvest the potential fine directly into network upgrades in that specific region. Proposed Escalation Matrix • Stage 1: Notification of underperformance. • Stage 2: Jointly agreed QoS Improvement Plan(QIP). • Stage 3 -The Reinvestment Clause: Directing fine amounts toward local infrastructure remediation. • Stage 4: Administrative penalties (only if the QIP is willfully ignored)	Section 83A of KICA provides a procedural remedy. Penalties will not be reinvested as suggested.
		- Maintaining Regional Synchronization with EACO	The overall compliance threshold will be set at 80% and will be

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		We strongly recommend that the Authority does not divert from the EACO QoS Framework on the 80% threshold. We submit that Kenyan MNOs would be subjected to a 10% higher regulatory burden than regional peers. Maintaining the 80% threshold ensures that Kenya remains an attractive entry point for regional tech capital.	progressively increased to 85% at the end of 5 years (1% every Year).
		-Cross-Border Signal Spillover and Diplomatic Friction The push for higher signal strength to meet the 90% threshold carries severe technical and diplomatic risks at along the border. In towns like Busia, Malaba, Isibania, Taveta, Vanga, Marsabit, and Mandera, the mandate for higher power to ensure domestic compliance will inevitably lead to significant signal spillover into neighboring jurisdictions. High-power transmit levels from Kenyan base stations near the border can drown out the signals of incumbent operators in Uganda, Tanzania, Ethiopia, or Somalia. This spectral bullying leads to harmful interference, violating the Harmonised Calculation Method for Africa HCM4A and other bilateral frequency coordination agreements. When a Kenyan signal is too loud across the border, foreign subscribers e.g., in Busia, Uganda may have their devices hijack onto the Kenyan network. This results in: -Innocent users are forcefully billed for international roaming charges while still in	MNOs need to re-plan cells to avoid interference. MNOs to align their antennas along the Country's border, away from the neighboring countries. Further, the signal strength threshold has been set at -100 dBm

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		their home country. Critical communications and law enforcement data may inadvertently traverse a foreign network. -Signal spillover is not just a technical error; it is a violation of ITU Radio Regulations (Article 1.166). Frequent spillover can lead to official diplomatic protests from neighbouring National Regulatory Authorities NRAs, potentially necessitating the forced powering down of Kenyan sites, which would then trigger immediate non-compliance with the CA's 90% threshold, a Catch-22 for the us.	
		-Compliance Declaration and Application of Penalties Section 4.5 of the Draft Framework introduces two pertinent issues that are not consistent with NFP-Tier 1 license. That noncompliance penalties will be per County, and the Draft Framework introduces new quarterly coverage obligations. The NFP-T1 license is licensed on a national basis and not on a County basis and such County-based penalties should only apply to an entity licensed at County level. Lastly, the coverage obligations attendant to the NFP-T1 license should not be varied for the term of the license since there will be no business justification especially in terms of rollout budget to support such changes.	The penalties apply to the Authority's licensees according to the law.
		- The increase in rural digital divide; The proposed 90% compliance threshold creates a dangerous incentive structure that harms unserved and undeserved areas in the country.	The proposed framework has taken into consideration the MNO submission and has adopted a

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		MNOs will be forced to prioritise CAPEX in Urban Good Tiers , where hitting -93 dBm is easier but expensive over Greenfield rural sites to protect their aggregate 90% score. In rural areas of Northern parts of the country where environmental factors such as extreme heat affecting equipment efficiency and topography make a consistent -98 dBm target statistically risky, MNOs may avoid deploying new towers such places altogether to avoid the risk of Non-Compliance fines. Every shilling spent on over-tuning an existing site in Nairobi to move from -95 to -93 dBm is a shilling divested from connecting an unserved village.	common standard across all areas of the Country.
Appendix	Safaricom	We recommend. i) Inclusion of a question about the respondent's county, region, or a simple Location: Urban ☐ Rural ☐ would allow to identify disparities in QoE between different areas. ii) Provide a questionnaire in Swahili or local languages Add a question on number of SIM Cards a respondent has. The questions should be asked based on the most used MNO for each service. At minimum, instruct respondents to focus on the provider they use most when rating experiences, ensuring more consistent reference	This is noted. The Authority will endeavor to simplify QoE questions. The type of device will be considered, and Likert Scale will be adopted.

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		Add a question on the device type by customer. Is it a feature or smartphone e.g., Do you use a smartphone? Yes/No or Primary use of phone: Voice/SMS only vs. Internet apps) to indirectly gauge digital literacy. Another approach is asking If you do not use certain services (e.g., mobile internet), is it because (a) device does not support it, (b) too expensive, (c) lack of skills, (d) not needed, etc. Use a balanced Likert scale or uniformly understood terms. For example: Very Poor, Poor, Fair, Good, Very Good – or simply ask for a 1–5 rating like other questions, with 1=Very Poor and 5=Very Good, to maintain consistency. This avoids any subtle weighting of one end of the scale and is easier to interpret.	
3.1.1. RF Coverage KPIs The RF Coverage KPIs evaluate the extent of signal availability (Signal Strength) and signal integrity (Signal Quality) across different areas and technologies. They serve as foundational indicators of network reach, reflecting how effectively an operator’s radio infrastructure delivers signal coverage to	Airtel	We propose to retain a signal strength of >-105 dBm for all Tiers.	The Authority has adopted –100 dBm. The proposed –105 dBm threshold would downgrade existing standards and result in poorer quality of service for citizens.
		Clarify more on the tiers; they might turn out to be complex and costly for MNOs.	The Authority has resolved to do away with Tiers.
		We propose Signal Quality KPI metric to be removed from the framework.	The Signal Quality KPI will not be removed. Signal quality KPIs relate to RF coverage and, while connected to QoS KPIs, they are

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end users. The assigned weights reflect the relative importance of each metric: a) Signal Strength (Weight: 45%) – Measures the received signal power (e.g., RSRP for 4G/5G, RSCP for 3G, RXLev for 2G) and reflects the network’s basic availability. Higher weight is assigned because maintaining minimum signal levels is critical for service accessibility, particularly in areas with high population density. b) Signal Quality (Weight: 55%) – Assesses the quality of the received signal (e.g., RSRQ for 4G/5G, Ec/Io for 3G, RxQual for 2G) and indicates the level of interference and overall radio link integrity. Signal Quality carries slightly higher weight than strength to emphasize service performance and user experience, which can be affected even when coverage exists.			not duplicative. Greater weight is assigned to signal quality than to signal strength to better reflect service performance and overall user experience.
		Airtel argues that a framework should be simple, easy to assess, and enforce.	The Authority has taken note and has simplified the framework.
		We recommend an Excellent Target of 85% across all quality tiers. We will need more clarity on the Good Tier, Average Tier and Bad Tier. Also, CA to share the polygons for the Towns classification – i.e. Urban, Semi Urban, Rural & Marginalized boundaries	The Authority has dropped the tiering system.
		Airtel Letter: Signal Strength Thresholds Proposal to set –103 dBm for 2G/3G and –108 dBm for 4G/5G.	Segregated per technology targets: • 2G (RxLev): ≥ -100 dBm • 3G (RSCP): ≥ -100 dBm • 4G/5G (RSRP): ≥ -100 dBm Justification: We acknowledge the technical rationale on modulation and frequency differences, and the Authority has therefore agreed to segregate targets per technology. However, the specific thresholds proposed cannot be adopted because they would compromise both network stability and

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			consumer protection. While calls may still connect at lower signal levels, the quality of those sessions deteriorates significantly, leading to dropped calls, poor audio, and failed mobile transactions. Further to this, kindly note that: • A –108 dBm floor for 4G LTE is not viable, as it forces networks into unstable operating zones. Vendor safeguards (Nokia, Huawei, Ericsson etc.) automatically trigger emergency handovers between –96 dBm and –104 dBm; therefore setting the proposed –108 dBm would lock operators into permanently degraded states. In addition, ITU latency frameworks (<150 ms) would be breached due to increased retransmissions and block error rates. • The proposal to drop 3G to –103 dBm ignores the risk of “cell breathing,” where high user loads physically shrink 3G coverage and drop edge users. The Authority’s –100 dBm target ensures code domain stability under load. Likewise, lowering 2G below –100 dBm would expose rural voice lifelines to severe co channel

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			interference, triggering immediate radio link timeouts and audio clipping. These risks make the proposed thresholds untenable. The Authority does not expect an ideal case where 100% of samples meet the defined thresholds. Instead, operators achieve full weight as long as at least 85% of samples meet the per technology targets. This 60% to 85% performance band deliberately accommodates stray samples that may fall below thresholds due to terrain, seasonal weather, or cell edge effects, ensuring fairness without compromising consumer protection.
	Safaricom	We advocate for a shift in weighting to 30% for signal Strength and 70% for Signal Quality. Signal strength should be treated as a binary Accessibility threshold i.e. is the signal present? while quality should determine the performance score.	The Authority maintains the weighting of 45% for Signal Strength and 55% for Signal Quality.
		Review the signal strength from the -93 dBm for Urban areas. Actually Scan measurement for coverage levels in idle mode	The Signal level has been reviewed to -100dBm.
		The draft currently lacks objective definitions for its tiers.	The Authority has dropped the tiering system.
		On signal strength; We recommend an Interference Exclusion Clause. Where drive	The Authority takes note of the comment.

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		tests detect high-power noise floors indicative of illegal repeaters, those samples should be excluded from the MNO's quality score. Operators should not be penalized for quality degradation caused by unauthorized consumer hardware	
		(Additional Submission: letter) Signal Strength Distribution Proposal to differentiate thresholds: 2G ≥ -95 dBm 3G ≥ -100 dBm 4G ≥ -105 dBm	Segregated per technology targets: • 2G (RxLev): ≥ -100 dBm • 3G (RSCP): ≥ -100 dBm • 4G/5G (RSRP): ≥ -100 dBm Justification: We acknowledge the technical rationale on modulation and frequency differences, and the Authority has therefore agreed to segregate targets per technology. However, the specific thresholds proposed cannot be adopted because they would compromise both network stability and consumer protection. While calls may still connect at lower signal levels, the quality of those sessions deteriorates significantly, leading to dropped calls, poor audio, and failed mobile transactions. Further to this, kindly note that: • A -108 dBm floor for 4G LTE is not viable, as it forces networks into unstable operating

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			zones. Vendor safeguards (Nokia, Huawei, Ericsson etc.) automatically trigger emergency handovers between –96 dBm and –104 dBm; therefore setting the proposed –108 dBm would lock operators into permanently degraded states. In addition, ITU latency frameworks (<150 ms) would be breached due to increased retransmissions and block error rates. • The proposal to drop 3G to –103 dBm ignores the risk of “cell breathing,” where high user loads physically shrink 3G coverage and drop edge users. The Authority’s –100 dBm target ensures code domain stability under load. Likewise, lowering 2G below –100 dBm would expose rural voice lifelines to severe co channel interference, triggering immediate radio link timeouts and audio clipping. These risks make the proposed thresholds untenable. • The Authority does not expect an ideal case where 100% of samples meet the defined thresholds. Instead, operators achieve full weight as long as at least 85% of samples meet the per

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			technology targets. This 60% to 85% performance band deliberately accommodates stray samples that may fall below thresholds due to terrain, seasonal weather, or cell edge effects, ensuring fairness without compromising consumer protection.
	Telkom	Maintain the current target (Raising the signal strength requirement from -103 dBm to -93 dBm will significantly increase power consumption and operating expenditure, particularly given limited grid access. The resulting cost burden may divert capital from network expansion into underserved areas. International benchmarks indicate that the proposed threshold is materially higher than jurisdictions with higher internet penetration. Investment should priorities closing coverage gaps rather than increasing energy-intensive urban optimization. The signal strength of -93dBm in urban seem to be on the higher side compared to China (≥ -95 dBm), India (≥ -97 dBm), Russia (≥ -100 dBm) and Europe (≥ -110 dBm (4G); coverage probabilistic $\geq 95\%$ of populated areas)	The Signal level has been reviewed to -100dBm.
3.1.2. E2E Service KPIs The E2E Service KPIs assesses the actual user experience by measuring service performance service dimensions across the entire network path, from the radio	Airtel	We propose the Service Target for packet loss for 4G and 5G SA (VoNR) be changed to $\leq 0.5\%$	The proposal seeks to retain latency while replacing the jitter and packet loss ratio with video-based KPIs—namely Video Success Ratio, Video MOS, and Video Setup Time. However, although packet loss

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access to the core and external interconnections. Unlike RF Coverage KPIs, which focus on signal availability and quality, E2E KPIs evaluate the actual service outcomes experienced by end users. These indicators cover Voice, Data, and SMS services, providing insight into network accessibility, retainability, reliability, and overall performance. They form the basis for benchmarking operator compliance with Quality of Service (QoS) standards and for driving continuous service improvement. These E2E KPIs are hierarchically organized into Accessibility (Unsuccessful Call Ratio, Call Setup Time), Retainability (Drop Call Rate, Handover Success Rate), and Integrity (Voice Mean Opinion Score - MOS, Latency, Jitter, Packet Loss) parameters. Accessibility KPIs measure the network's capability to successfully establish service requests for voice and data traffic, while Retainability KPIs gauge the network's ability to maintain those active connections without premature termination, and Integrity KPIs quantify the qualitative fidelity of the service experience once a connection is successfully established. 16 Each KPI is bound by technology-specific			ratio, jitter, and latency are correlated, they measure distinct aspects of network integrity, i.e. packet loss reflects data completeness; latency indicates delivery speed, and jitter captures consistency. As such, these metrics are complementary, each providing a critical perspective on overall network performance.
		We propose to drop one of the “Packet Loss Ratio” and retain Latency and Jitter KPIs	The proposal seeks to retain latency while replacing the jitter and packet loss ratio with video-based KPIs—namely Video Success Ratio, Video MOS, and Video Setup Time. However, although packet loss ratio, jitter, and latency are correlated, they measure distinct aspects of network integrity, i.e. packet loss reflects data completeness; latency indicates delivery speed, and jitter captures consistency. As such, these metrics are complementary, each providing a critical perspective on overall network performance.
		We request to have a graduated implementation of the Service Target KPI for 5G SA(VoNR)	A 12-month transition period will apply.

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thresholds that reflect the performance capabilities of different network generations. These thresholds define the minimum acceptable and target performance levels for each parameter. The collective performance against these thresholds provides a definitive and standardized measure of compliance and service excellence.		We propose the Service Target for Voice Quality (MOS, POLQA) be changed to ≥ 3.4 for 2G, 3G and 4G	The table has been simplified by removing the service target column, and the MOS target has been normalized to range from a worst-case value of 3 to a best-case scenario of 4.
		We propose the Service Target for Jitter for 4G be changed to $\leq 100\text{ms}$	The proposal seeks to retain latency while replacing the jitter and packet loss ratio with video-based KPIs—namely Video Success Ratio, Video MOS, and Video Setup Time. However, although packet loss ratio, jitter, and latency are correlated, they measure distinct aspects of network integrity, i.e. packet loss reflects data completeness; latency indicates delivery speed, and jitter captures consistency. As such, these metrics are complementary, each providing a critical perspective on overall network performance.
		We propose the Service Target for End-to-End Delivery time for SMS for All to be increased to 7seconds	The scoring system utilizes normalization, with the limits for E2E SMS Delivery defined between 3 and 15 seconds, and the proposed 7 seconds falls within this range.
		We request to have a graduated implementation of the Service Target KPI for EN-DC setup Success Rate. The Service target should be changed at	5G Setup success rate to be set with a lower limit of 94 and an upper limit of 98.

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		>=95%	
		We propose CA to only do the tests to websites hosted in Kenya only, those hosted outside should be excluded in Evaluation We propose that the size of the file to be specified -	The Authority is in agreement on the proposed approach. Separately, the test servers used for measurement are hosted within the country. The file sizes will be specified according to industry standards.
		Proposed: Completion Rate for SMS – retain existing targets >=95% We request the CA to add the below in an Annex. 1. Initiate Message -> wait for maximum of 120 seconds for error messages or delivery messages to be received before making another attempt. If undelivered, wait for 15 seconds and then retry 2. Send timeout duration of 10 seconds 3. SMS length has 160 characters (We request the CA to share the SMS test plan and to be added in an Annex for reference and standardization.)	The Authority uses a range; 95% for the worst-case scenario and 99% for the best scenario for the completion rate. The concerns on SMS measurement has been noted and the methodology will be explained to the MNOs.
		We propose 2G to be excluded from all Data KPIs	2G excluded from data KPIs Justification: The Authority acknowledges the proposal and has agreed to exclude 2G from data KPIs

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		2G RX Quality Proposal to adopt RxQual (0–4) for evaluation.	Grade 4 RxQual adopted for 2G evaluation Justification: The Authority acknowledges the proposal and has agreed to adopt Grade 4 RxQual as the benchmark
		Data KPIs on 2G Proposal to exclude all data KPIs from 2G technology.	2G excluded from data KPIs Justification: The Authority acknowledges the proposal and has agreed to exclude 2G from data KPIs
	Jamii	VOICE Mixed backhaul (microwave, fiber) shows varied call setup times.	The Authority takes note of the differing deployment approaches adopted by MNOs and has developed the framework to ensure minimum performance standards across operators, with the objective of guaranteeing that citizens receive reliable communication services. In this regard, while MNOs are responsible for the design and management of backhaul infrastructure—and the Authority supports their requests for the necessary resources—the obligation remains with the MNOs to ensure compliance with the defined QoS KPI requirements.

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		Quality (MOS): MOS is statistical and model-based, and POLQA scores vary by device, content type and background noise. This KPI is not consistently reproducible.	Voice Quality is measured using standardized high-end devices using the POLQA ITU-T P.863 standard, and variations due to device limitations will not be present.
		CSSR: Proposed reduction of excellent KPI from 98.5% to 97% Packet Loss Ratio: KPI penalizes healthy congestion management, as it is solely dependent on the probe location,	The proposed equivalent KPI is the unsuccessful call ratio, with an acceptable range of 0.5% to 5%. It is noted that reducing this ratio may have a negative implication on user experience. In addition, the Packet Loss Ratio KPI has been removed from the framework.
		- SMS KPIs: - SMS success does not equate to immediate delivery. - Delivery depends on UE availability. - The network cannot control UE state	SMS is the backbone of critical communication platforms such as OTPs for mobile banking and E-government services. In the Authorities testing environment, there is a delivery terminal and a receiving terminal.
		overall KPI worst targets to be reduced or re-evaluated per region (Urban and densely populated areas / semiurban/ rural), as those who stay in cell-edge areas also negatively impact the KPI, as JTL is still a growing network	The regions will be tested with the same standard.
		JTL also notes that KPI attainment does not necessarily translate to perceived QoS.	We agree that perceived QoS is subjective; however, KPI indicators

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			closely reflect perceived QoS. While KPI values may vary within margins, they remain strong objective indicators of user experience and should not be dismissed solely based on perception.
	Safaricom	We support the hierarchical organization into Accessibility, Retainability, and Integrity, the proposed thresholds must be grounded in ITU-T E.804 and G.1028 to ensure they reflect technical reality rather than laboratory ideals	The Authority's QoS Methodology is grounded on the ITU-T E.804 and G1028 frameworks, and monitoring tools are configured to operate on the standards.
		For telephony, we recommend the Authority exclude the following. • Handset Malfunction. Drops caused by known firmware bugs in specific handset models should be filtered out using IMEI-based analytics. • Illegal Repeaters. As mentioned in our quality rebuttals, samples taken in zones with high Noise Floors from illegal signal boosters should be excluded, as these devices kill the radio link despite high signal strength. Cross-Border Interference. In border towns (e.g., Namanga, Busia), signals from neighboring countries can trigger handovers that lead to drops. These should be excluded from the QoS score	The Authority during its data analysis excludes or invalidates sessions where device malfunctions and roaming occurs.
		Handover success rate: To ensure fairness, the following samples should be excluded from the HSR calculation:	The Failed Handovers are analyzed and invalidated based on the causes such as roaming

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		• Zones with high noise floors from unauthorized repeaters destroy the handover handshake signaling. • Overlapping signals from neighboring countries in border towns often trigger False Handovers that fail. Signal loss due to sharp topography (e.g., Rift Valley escarpment) should be flagged as Environmental Force Majeure	
		Download Transfer Failure Ratio: To ensure audit accuracy, we recommend the Authority to do a Validity Check for every failed sample: If the failure is caused by the test server (e.g., HTTP 500 error), the sample must be excluded. Any failure caused by the drive-test probe software crashing or the UE overheating should be excluded. Failures occurring when the RSRP is below – 115 dBm (the physical edge of 4G coverage) should be categorized as Out of Coverage rather than Transfer Failure.	Download failures will be analyzed, and results from areas with no service will be excluded. Validity checks are carried out on the collected logs to confirm failure causes. This will be factored into the Download Tests as well. The Authority takes note of the proposal and will isolate logs from device and system failures.
		Voice quality: To ensure fairness, we recommend that the Authority's audit methodology includes an IMEI-based filter. • Samples from Low-End devices that do not support EVS or AMR-WB should be excluded from the 4.0/3.5 targets.	Voice Quality is measured using standardized high-end devices using the POLQA ITU-T P.863 standard, and variations due to device limitations will not be present.
		Drive Tests conducted in areas with high ambient traffic noise should be normalized to avoid penalizing the MNOs for the acoustic	The Measurement tool isolates the speech content from the background noise and only

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		environment of the test view of the vehicle.	analyzes the speech signal. The collected logs will be analyzed from both call directions and causes for the Low MOS will be verified.
		We propose messages blocked by the SMSC Spam Filter must be excluded from the completion rate calculation	The SMS tests carried out by the measurement tool should not be blocked by the SMSC spam filter. Analysis of the failed tests will be carried out to determine the cause of the failure.
3.1.3. Scoring Methodology A weighted scoring framework is adopted to ensure a fair and balanced evaluation of mobile network performance. The approach recognizes that KPI categories and parameters contribute differently to overall service quality and user experience. Each KPI is assigned a weight based on its importance within its service domain (Voice, Data, SMS) and technology layer (2G–5G). To enable aggregation across KPIs with different scales, raw KPI results are normalized to a standardized 0–100 scale using: Normalized Value = (Measured Value – Worst Acceptable Limit) / (Excellent Target – Worst Acceptable Limit) × 100	Jamii	Not clear on KPIs that are time-based, like latency, jitters, where less time means better experience.	The Authority adopts a dual-model scoring framework to ensure mathematical fairness and technical relevance. A Sigmoid (S-curve) model is applied to time-based KPI metrics (such as Latency and Call Setup Time) to account for the threshold of perception; this prevents rewarding improvements that are imperceptible to the user while sharply penalizing performance that falls below critical usability benchmarks. Conversely, a Linear model is utilized for rate and percentage-based metrics (such as Success Ratios) to provide a transparent, proportional reflection of network reliability across the entire measurement scale.
	Safaricom	We propose that the Authority adopts the Sigmoid (S-Curve) Normalization Model, as	The Authority adopts a dual-model scoring framework to ensure

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Weighted normalized scores are then aggregated to generate overall performance indicators at both KPI and technology levels		to ensure the scoring methodology reflects Quality of Experience (QoE) rather than raw, abstract engineering values	mathematical fairness and technical relevance. A Sigmoid (S-curve) model is applied to time-based KPI metrics (such as Latency and Call Setup Time) to account for the threshold of perception; this prevents rewarding improvements that are imperceptible to the user while sharply penalizing performance that falls below critical usability benchmarks. Conversely, a Linear model is utilized for rate and percentage-based metrics (such as Success Ratios) to provide a transparent, proportional reflection of network reliability across the entire measurement scale.
	TKL	Reconsider thresholds. (Certain KPIs, such as Call Setup Time, are influenced by device type, processor capacity, RAM, and legacy handset limitations, not solely network performance. Low-budget and refurbished devices may underperform irrespective of network quality. The proposed thresholds exceed those in comparable markets and may not reflect realistic operational conditions. Consideration should be given to device ecosystem constraints. The proposed Call Setup Success Rate of $\geq 98\%$ is higher than that implemented	KPIs are measured using standardized high-end devices using the ITU standards, and variations due to device limitations will not be present. The proposed ranges are within the industry standards

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		in European countries (95% to 98%), India 98% China or Russia (95% to 98%)The Call Setup Time <2 sec (4G/5G) is higher than that of Europe (3sec to 6sec), India ≤ 10 sec, China or Russia (5–9 sec)). [Table 2: Telephony, Accessibility, Unsuccessful Call Ratio]	
		Consider user behavior and device factors. [Table 2: SMS, Retainability and Availability/Integrity]	The Authority measurement tools are configured to run the SMS test within the ITU Standards.
		Adopt phased implementation and treat MOS as a reporting KPI. [Table 2: Telephony, Integrity, Voice Quality (MOS, POLQA)]	A 12-month transition period will apply. MOS will be evaluated given its importance as an indicator of speech quality
		CA should clearly outline how MNOs lacking certain Technologies such as VoLTE and 5G will be weighed	The Framework does not penalize any technology, but it assesses based on the technology deployed by the MNO.
		Differentiate upload and download targets and consider infrastructure variability among operators. [Table 2: Data - Integrity]	The framework evaluates all MNOs against one standard.
3.1.4. KPI Weighting Rationale	Airtel	Proposed weighting across service domains – can be adopted	The Authority notes the concurrence.

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End-to-End (E2E) Mobile KPIs measure overall service performance across the network, from radio access to core and external interconnections. To ensure the scoring framework reflects user experience, it is proposed that weights are allocated across service domains as presented in Table 5.	Jamii	Weighting of services to be re-evaluated per operator, as technologies are different. Calls/sms/usd functions all ride on IP/data. Proposals below: - Voice : 40% - Data : 55% - SMS : 5%	For benchmarking, weighting should be applied equally across all operators. However, evaluation of MNO performance will also consider the specific technology deployed by each operator, ensuring that comparisons remain fair and contextually aligned with the underlying network technologies.
	Safaricom	Propose: Voice- 50% Data- 30% SMS- 15%	Increasing SMS weighting to 15%, while reducing data overstates the impact of SMS vis a vis Data. Data traffic is high, and this may be seen as an underrepresentation of Data service.
		We propose: i) A 90% / 10% split. This 10% weight for RF Coverage ensures that Availability, the most basic user need, is adequately valued in the final composite score.	The proposal is adopted
		Technology weights should be Tier Aware. In Urban areas, 5G/4G should carry 80% weight. In Rural/Marginalized areas, 2G/3G should retain a 50% weight until the 4G smartphone penetration in that specific county exceeds a 70% threshold.	The Tier system has been dropped.

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	TKL	Consider exogenous factors.	Force majeure factors will be considered by the Authority. The Authority encourages MNOs to ensure redundancy measures are put in place.
3.2.1. Network Performance (NP) QoS KPIs Following a similar approach to E2E QoS, the Authority proposes the KPIs to be considered as presented in Table 8. For each KPI, the definition and the corresponding regulatory justification for its inclusion is summarized	Jamii	Propose to scrap spectrum utilization as a measured KPI	The Authority has dropped the Spectrum Utilization KPIs.
3.2.2	Airtel	Reduce the Worst limit cell availability for Cell Availability as follows. Excellent Limit: Reduce from $\geq 99.95\%$ to $\geq 99.5\%$ Worst limit: Reduce from > 99.5 to $\leq 95\%$ We propose the reduction of the below KPIs; • Excellent Limit: Reduce from $\geq 98.5\%$ to $\geq 97\%$ • Worst limit: Reduce from $\geq 95\%$ to $\geq 93\%$ We propose the reduction of the below KPIs; • Excellent Limit: Reduce from $\geq 98.5\%$ to $\geq 97\%$ • Worst limit: Reduce from $\geq 95\%$ to $\geq 93\%$	Worst-limit variation is factored into the different KPIs; for example, applying a blanket at a worst limit of 95% could result in disproportionately high scores even in cases of poor coverage performance under the cell availability of KPI.

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		Reduce excellent KPI weights to 97 and worst to 93.	It is proposed to adopt a Handover Success Rate target of $\geq 98\%$ as the excellent threshold, replacing the current target of $>96\%$, and to set $\geq 94\%$ as the worst acceptable limit. This proposal aligns with the guidance provided in ITU-T Technical Report ESTR-KPI-RAN (2022), ensuring consistency with recognized international benchmarking practices for access network performance.
		We propose that all Spectrum Utilization KPIS need to be removed from framework	The Authority has dropped the Spectrum Utilization KPIS.
	Safaricom	Technology Weight Factor (Tiered Implementation): Instead of a national bias toward 4G/5G, we propose Regionally Dynamic Technology Weights: Urban Areas: 4G (50%) / 5G (40%) / Legacy (10%) Rural Areas: Legacy (50%) / 4G (40%) / 5G (10%) This ensures MNOs are rewarded for maintaining the networks that their specific customers actually use in those regions	The Authority has dropped the tiering system. Instead, the Authority has adopted a uniform scoring system for each county.
		Adoption of the Sigmoid Model- As with the E2E methodology, we strongly propose replacing the linear Proportional Reward system with the ITU-T E.800 Supplement 9 Sigmoid Model.	The Authority adopts a dual-model scoring framework to ensure mathematical fairness and technical relevance. A Sigmoid (S-curve) model is applied to time-based KPI metrics (such as Latency and Call

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			Setup Time) to account for the threshold of perception; this prevents rewarding improvements that are imperceptible to the user while sharply penalizing performance that falls below critical usability benchmarks. Conversely, a Linear model is utilized for rate and percentage-based metrics (such as Success Ratios) to provide a transparent, proportional reflection of network reliability across the entire measurement scale.
		We propose a Force Majeure Buffer. If an MNO can prove that a breach of the Mandatory Floor was caused by external factors (KPLC outages, vandalism, or road construction cuts), the score should be adjusted or the period excluded from the final calculation.	External factors affecting compliance levels to be considered on a case-by-case basis. MNOs are encouraged to put redundancy mechanisms in place.
		Technology weights should be Service-Agnostic. A voice call drop on 2G is just as detrimental to a rural user as a VoLTE drop is to an urban User. We propose that for Voice and SMS, the technology weights should be Equal (1:1:1) across 2G, 3G, and 4G to ensure universal service quality.	The drop call limit has been set with a lower limit of 3.5% and an excellent target of 1% for 2G,3G and 4G while 5G has been given a different target because it is a superior technology.
		KPI Area Weight (Strategic Realignment): We propose redistributing the top-level weights to remove the Spectrum Utilization	Proposal to remove spectrum utilization, KPI has been agreed.

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		penalty and focus on reliability:	The Authority takes note of the recommendations. Additionally, the Authority has removed Spectrum Utilization.
		Availability: 40% (The foundation) Accessibility & Retainability: 40% (The ability to connect and stay connected) Integrity & Mobility: 20% (The quality and seamlessness of the session) Spectrum Utilization: 0% (Reclassified as Informational Only)	
	TKL	Clarify treatment of repeaters and Interference.	The Authority notes the recommendation and will take the necessary enforcement action against illegal repeaters
		Adjust Excellent and Worst limits to more attainable levels. Propose adjustment of the Worst Limit from 99.5% to 95% Propose adjustment of Excellent Limit to 97% from 98.5% Propose adjustment of Excellent Limit to 97% from 98.5%	The limits are normalized with a best- and worst-case limit, in alignment with ITU Standards.
3.3. Quality of Experience (QoE) The Authority also assesses the non-technical aspects of QoS, i.e the Quality of Experience (QoE), through the use of questionnaires that are administered annually as part of the process of also assessing the Authority's customer satisfaction survey. The objective is obtain the consumer perception about the	Airtel	We propose that the CA should be sharing with MNOs the customer locations especially where several customers have raised concerns requiring operators' attention.	The Authority will share the locations of where the consumer data was obtained
	Safaricom	We propose that the Authority places primary emphasis on crowdsourcing data over annual questionnaires. Revised QoE Weighting Proposal 1. Crowdsourced Integrity (Speed/Latency) 60%-	The Authority notes the proposal and will take it into consideration.

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services of the Mobile Network Operators with respect to consumer expectations and service management. The core indicators evaluated include service provisioning, billing, complaints handling and the ease of accessing customer-support services. In keeping pace with the vast nature of the network and growing connected population, the Authority will explore crowdsourcing as a more immediate and continuous way to measure quality of experience distinct from the questionnaire which incorporates human factors like expectations and context. Crowdsourcing may involve passive data collection where information is retrieved in the background of an application (without user initiation) or active measurements where an application performs tests to gather information upon initiation by a user. The information gathered includes measured and user experience on parameters such as throughput (data speed), latency, stability, as well as geographical location (coverage) where the test was conducted. The Authority has also reviewed the questionnaire that is currently in use and the content has been reviewed to obtain the most critical		Provides objective, high-volume data on how the network actually performs for the masses. 2. Crowdsourced Stability (Drops/Timeouts)-25%-Captures Invisible failures in indoor and non-navigable areas 3. Annual Customer Surveys 15%-Maintains a Human Pulse on nontechnical issues like billing and support, but reduces its impact on technical scores.	
		Include device tier weighting as it eliminates the subjectivity of the hardware type.	This will be put into consideration when reviewing the questionnaires

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elements of QoE, A draft is presented in Annex 4.			
3.4. Overall QOS Score and Threshold To determine the overall QoS Score, the Authority will retain the existing QoS Components weighting as presented in Table 10.	Airtel	We propose the overall threshold at 75%	The existing compliance threshold cannot be lowered from 80% to 75% as this will lower the current QoS standards. The overall compliance threshold will be set at 80% and will be progressively increased to 85% at the end of 5 years (1% every Year).
		We propose the CA to revise the Components weighting as follows: NP-65, Drive test-25, QOS- 10	The Authority has adopted the redistributed weighting assigned to Drive Test (60%), NP(20%) and QoE (20%).
		Weighting of QoS Components Proposal to retain NP weight at 25% and leave the current framework unchanged.	Revised weighting matrix: • Drive Test: 60% • Network Performance (OSS): 20% • Quality of Experience (QoE): 20% We acknowledge the concern that QoE can be influenced by

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			uncontrollable factors. However, reducing QoE to 10% and raising OSS to 40% cannot be adopted because it would undercut consumer accountability and distort the balance of the Framework. While OSS data is valuable, it does not fully capture the live user experience. The Authority believes that: • Doubling the OSS weight to 20% directly validates the importance of internal operator system data while maintaining regulatory balance. • Switch level stats can show 99% availability even when users face local sector congestion or muted audio; drive tests bridge this gap by reflecting actual service conditions, which is why the Drive Test component retains the primary weight within the framework. Retaining 20% for QoE ensures operators remain accountable for service delivery, preventing a situation where strong network statistics mask poor consumer outcomes.

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	Jamii	Consider QOE-10% from proposed 15 Drive test- 25 from proposed 60 NP-65 from proposed 25 And maintain the threshold at 80% Keeping drive test at 60 is subjective and does not factor peak and non-peak hours.	The Authority proposes the redistributed weighting assigned to Drive Test (60%), NP(20%) and QoE (20%).
	Safaricom	QOE-15% Drive test- 40 NP-45 We strongly recommend that the Authority retains the 80% compliance threshold as the maximum national ceiling. By anchoring the framework to an 80% cap and applying downward tiering for marginalized regions (70%–75%), the Authority will create a technically realistic and socio economically fair regime. This approach protects MNOs from being penalized for systemic infrastructure gaps while ensuring that every Kenyan, regardless of their location, receives a reliable and 'usable' mobile service	The Authority proposes the redistributed weighting assigned to Drive Test (60%), NP(20%) and QoE (20%). It is further agreed that the scoring methodology shall be applied uniformly across all counties to ensure consistency and the Authority adopts a data stream-based approach.
		NP monitors 24 hours and it is where MNOs have invested heavily. Avoids audit gaming; MNOs might only optimise the network where drive test routes are.	The Authority proposes the redistributed weighting assigned to Drive Test (60%), NP(20%) and QoE (20%).
		Keep customer input as is but suggests use of crowdsourced data that is then normalised to avoid bias.	The Authority will take note of the proposals and will put them into consideration.

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	TKL	Retain 80% compliance threshold.	The overall compliance threshold will be set at 80% and will be progressively increased to 85% at the end of 5 years (1% every Year).
4.1 Overall Network Performance i. Respective network operators and services providers will provide the network coverage and the overall network performance data and analysis on Quarterly basis to the Authority based on data out of their network operations & maintenance facilities. ii. The tools they will need may differ from one network/service operator/provider to the other. They include the network Operations & Maintenance Centre (OMC) resources, Protocol Analyzers, Automatic Applications Testers among other tools. Raw data shall be transmitted automatically by the operators' systems to a CA's server on an hourly basis. iii. At the same time the Licensees will analyse the same data and send the subsequent reports in an agreed format to CA, specifying the manner in which the sampling has been done with sufficient detail to enable the Authority to verify the accuracy of the any given report.	Jamii	Proposal for the report to be sent daily vis avis hourly basis.	The proposal for daily reports is acceptable. However, the Authority may request data as and when it is needed for any regulatory purpose through data streaming.
	Safaricom	We propose a Staggered Push or Summarized API approach. Instead of raw dumps, MNOs should provide access to an Aggregated Data Layer ADL. This reduces the data payload by 90% while still providing the Authority with the necessary hourly granularity without choking the MNO's management plane.	The Authority will take note of the proposals on data dump durations and consider them as part of the review process. In this regard, the Authority adopts a data stream-based approach.
		The Authority's analysis tool must include an Event Correlation feature. If the CA's independent analysis differs from the MNO's report, there must be a mandatory Reconciliation Phase where the MNO can provide the technical context (e.g., site maintenance or third-party interference) before the score is finalized.	The Authority takes note of the proposal and will put the reconciliation period under consideration.
		We recommend that the CA and MNOs agree on a Technical Handbook of Trigger Points for all OMC-based KPIs to ensure that both the MNO's internal tools and the CA's near real-time system are calculating metrics identically. Without this, the same raw data will produce	The trigger points and test methodologies are anchored on the ITU-T E.804 framework, and the equipment is designed to operate on the same

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iv. CA on the other hand will randomly sample raw data of particular months, analyse and compare with the relevant reports provided by the Licensees. v. This will enable CA to independently verify the reports submitted by the Licensees. Recommendation ITU-T E.804 will be the general guiding document in this respect.		two different scores We recommend inclusion of 4.2. Data Security Protocols that shall contain. - Encryption: All data must be transmitted via AES-256 encrypted VPN tunnels. - Anonymization: Any data containing IMSI/MSISDN (user-identifiable) information must be anonymized/hashed at the source before transmission. Access Control: The CA's data server must meet ISO 27001 standards, with strict access logs provided to MNOs to ensure raw network data is not leaked	Data Protection and Cybersecurity considerations will be taken into account. The Authority is ISO 27001:2022 certified.
	TKL	Replace hourly raw data transfer with periodic aggregated reporting. Conduct a Regulatory Impact Assessment (RIA)	The proposal for periodic is acceptable, with a 1-day report window. However, the Authority may request data as and when it is needed for any regulatory purpose through data streaming. The Authority proposes the redistributed weighting assigned to Drive Test (60%), NP(20%) and QoE (20%).
4.2 E2E Quality of Service (QoS): End-to-end QoS assessment is normally based on simulation of end user experience. Several methodologies exist	Safaricom	We propose, a Hybrid Weighting Model (60% Population / 40% Geographic Area). This ensures that MNOs are held accountable for service quality in rural and semi-urban areas, preventing the urban-only optimization trap	Tiering removed. The Authority will utilize a single weighting model applied to all Counties.

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in the determination of this QoS assessment. They include the following: Conducting service usage tests through drive/walk test as presently undertaken by CA; Based on benchmarks conducted by CA, there are other solutions in place, which employ the use of: Specialized stationery or mobile units installed on vehicles. In order to manage the cost of doing this, the sample size will be restricted to the minimal level that is scientifically sufficient to provide an accurate reflection of the end-to-end QoS status of a particular network and service across the coverage area. The weighting will be on population sampling levels only; Recommendation ITU-T E.804 will be the general guiding document in this respect.			The Authority adopts a dual-model scoring framework to ensure mathematical fairness and technical relevance. A Sigmoid (S-curve) model is applied to time-based KPI metrics (such as Latency and Call Setup Time) to account for the threshold of perception; this prevents rewarding improvements that are imperceptible to the user while sharply penalizing performance that falls below critical usability benchmarks. Conversely, a Linear model is utilized for rate and percentage-based metrics (such as Success Ratios) to provide a transparent, proportional reflection of network reliability across the entire measurement scale.
		Since tests are conducted in vehicles, a Penetration Loss Factor (typically 7-10 dB) must be accounted for. MNOs should not be penalized for poor indoor-like signals if the test is conducted inside a moving vehicle with shielded glass.	The proposal is noted and will be taken into consideration.
		That the Authority defines the Minimum Number of Samples per Clutter Type (Urban, Suburban, Rural). For example, a minimum of 500 test calls/sessions per county is often required to achieve a statistically valid result	The Authority will target to carry out QoS Measurements in all sublocations in the country, and the sample size will be determined by the area under measurement.

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		that can withstand a legal challenge or regulatory fine.	
		To ensure the drive test methodology is fair and reproducible as per ITU-T E.804, we propose the following specific standards: Standardized Terminal Equipment- The Authority must use identical Category matching devices (e.g., all tests on Cat-24 5G devices) for all operators	The Authority utilizes standardized equipment for all MNOs.
		In accordance with ITU-T E.804 (Clause 7.3.6.1), the Start and Stop triggers for Call Setup Time and Data Throughput must be synchronized between the Authority's tools and the MNO's network logs.	The monitoring equipment is configured to operate under the ITU-T E.804 standard.
4.3 Quality of Experience (QoE) QoE will be determined based an annual Customer Satisfaction Surveys undertaken with a view to eliciting customers' views relating to Network Availability, Service Quality, Service Tariffs, and Customer Care aspects among others. When evaluating consumer quality of experience, the Authority will evaluate core parameters that tend to mirror what consumers feel directly when accessing and using a service. Core indicators to be evaluated will include network availability, reliability, voice clarity, data speeds, call setup time, call completion rates, and the	Safaricom	We recommend that the Authority adopts Crowdsourcing as the definitive anchor for technical QoE, while retaining Surveys for non-technical service management. This separation ensures that technical network audits are not compromised by the inherent subjectivity of human expectation, while still holding MNOs accountable for the 'Ease of Access' to customer-support services.	The Authority notes the proposal and will take it into consideration.
		The Authority should weigh Passive Data at 70% and Active Data at 30% of the total crowdsourced score to eliminate the bias of one-off negative tests.	The Authority takes note of this proposal and will consider it.
		The Authority's crowdsourcing tool must capture the IMEI/TAC (Type Allocation Code). The data must then be normalized so	This is noted and will be taken into consideration. It will be included in the Questionnaire.

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ease of accessing customer-support services. In keeping pace with the vast nature of the network and growing connected population, the Authority will explore crowdsourcing as a more immediate and continuous way to measure quality of experience distinct from subjective questionnaire which incorporates human factors like expectations and context. Crowdsourcing may involve passive data collection where information is retrieved in the background of an application (without user initiation) or active measurements where an application performs tests to gather information upon initiation by a user. The information gathered includes the network parameters such as throughput and well as geographical location where the test was conducted.		that an MNO is not penalized for a low-quality experience that is fundamentally caused by the user's legacy or low-tier hardware.	
		Crowdsourcing should include Video Start Time and Web Page Load Time (HTTP Completion). This reflects the Real Feel of the Digital Superhighway more accurately than raw bitrates	The Authority takes note of this proposal and will consider it.
		Annual surveys should be restricted to Non-Technical Experience (Billing transparency, Complaint handling, and Ease of accessing customer support). Technical parameters (Speed, Clarity, Setup Time) must be moved exclusively to Crowdsourcing and NP-QoS to ensure accuracy.	The Authority takes note of this proposal and will consider it.
	TKL	Optimize questionnaire to mitigate bias Persons filling the Questionnaire should be held scrutinized to eliminate people with entrenched bias. QoE is influenced by handset type, SIM placement, device quality, and consumer behaviour. Crowdsourcing involving telemetry and location data raises privacy risks. The framework should account for device ecosystem bias and protect personal data.	Data protection considerations will be incorporated into the QoE Assessment. QoE will be anchored on the ITU-T standards.
4.4 Data Sampling/Processing Guidelines The data sampling in general shall be guided by international best practices	Safaricom	We Propose a 1.0% accuracy threshold for Coverage, This provides a robust confidence level without the prohibitive cost of the extreme sampling required for 0.5%.	The Authority will take it into consideration.

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and the guidelines contained herein. This QoS framework has been developed with due regard to international standards, most of which are from ITU-T and ETSI. Measurements shall be made, where relevant, under similar conditions such as tests carried out in an automatic way in order to eliminate the possible subjectivity inherent in human intervention situations. Time factors with regard to distribution of the tests shall be such that it reflects traffic variations over the period of day and days of the week, and type of calls for example originating vs. terminating, etc. Measurements will be performed wherever there is network availability. The number of observations (sample size) shall aim at obtaining a minimum absolute statistical accuracy of less or equal to 2 % with a confidence level of 95%. Coverage assessment statistical accuracy shall be, as a minimum, less or equal to 0.5%. There shall be a pilot period whose results shall form the basis for making any necessary adjustments to the framework. Where contracted entities are using different test platforms/tools, at the beginning of the Pilot Phase, the said platforms/tools shall be appropriately configured, calibration undertaken and confirmed, and necessary adjustments		That terminating call tests only be conducted between the same MNO's SIM cards (On net) during audits.	This will be implemented in the proposed framework.
		We strongly support the pilot phase. However, the pilot must be more than a test run. We recommend a 6-month Pilot Phase where - Results are shared with MNOs but carry no financial penalties. Cross-Tool Benchmarking: If the Authority's tool (e.g., Rohde & Schwarz) shows a > 5% variance from the MNO's internal tool (e.g., Infovista/TEMS), a mandatory Calibration Audit must be performed to align the L3 signaling triggers	The proposal is noted and will be taken into consideration. In the event of variances in results reported by different tools, the MNOs shall rely on the Authority's regulatory tools as the reference for determination.
		This is comment Exceptional Condition is too vague and leaves the MNO at the mercy of discretionary decisions. We propose a formalized Exclusion List to be coded into the data processing guidelines as below. • Commercial Power Failure: Outages exceeding the 8-hour battery backup standard. • Vandalism: Documented police reports of fiber cuts or equipment theft. • Spectrum Interference: External jamming or unauthorized use of licensed frequencies by third parties. • Severe Weather: Floods or lightning strikes that prevent safe site access for repairs.	The MNOs should ensure redundancy, and the cases will be handled on case-by-case basis.
	TKL	Conduct holistic pilots while maintaining the	This is agreed.

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undertaken in order to avoid significant variance of the results. The test platforms/tools shall be periodically verified by the Authority during field-tests as appropriate. Contracted firms shall use qualified and experienced personnel. Where exceptional conditions arise that may distort assessment measurements, CA may exclude the results of such measurements and may order a retake of the measurements. The QoS Regulatory Framework shall be reviewed and updated periodically.		current framework. Avoid piecemeal modifications	
4.5 Compliance Declaration & Application of Penalties A licensee will be deemed compliant if they attain an aggregate of 90% or above. In the event of failure by a Licensee, penalties and/or other sanctions will be applied per county and rollout obligations on a quarterly, or as may be varied from time to time in accordance with the Act.	Airtel	Airtel Letter: Overall QoS Target Proposal to retain the compliance floor at 80% without annual increments.	Progressive targets retained: • Initial 80% aggregate compliance • Scaling upwards by 1% annually to a ceiling of 85% in five years Justification We acknowledge the concern about CAPEX pressures, and the Authority has carefully considered these investment realities. However, freezing the compliance floor at 80% indefinitely cannot be adopted because it risks infrastructure stagnation and undermines consumer expectations. The Authority believes that:

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			• A permanent 80% floor would leave peri urban populations and transit corridors underserved as demand grows. • The 1% annual graduation to a ceiling of 85% spreads CAPEX impact gradually, prioritizing low cost optimizations such as software tuning, antenna down tilts, frequency planning etc. • This progressive scale ensures infrastructure quality matures alongside rising citizen data reliance and economic activity.
	Jamii	-Raising compliance thresholds to be kept at 80% and perhaps incrementally increased over the years.	The overall compliance threshold will be set at 80% and will be progressively increased to 85% at the end of 5 years (1% every Year).
		-An option to explain why the threshold was not met should be provided, especially for justifiable reasons	
		- Proposal to include a grace period for the operators to rectify the problem before enforcing the penalty.	The existing terms and conditions apply and therefore the penalty will be applicable as per the license terms of each MNO.
		- Penalties and sanctions to be reconsidered. Other modes of incentives to be used instead.	There is a regulatory framework on penalties.
		Increasing the compliance threshold increases costs for MNOs and the penalties might not help in achieving the targeted objectives.	Thresholds are set to ensure quality to the end user.

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	Safaricom	The aggregate compliance threshold remains at 80%. This remains the international benchmark for Good service quality and provides a realistic target for all operators to strive toward.	The Authority agrees.
		Penalties should be based on the National Weighted Average, with counties carrying weights proportional to their population and traffic. This ensures that a localized failure in a remote sub-location does not trigger a massive revenue-based fine for the entire operator	The Authority agrees with the MNO that penalties will be applied on a per-county basis, considering the population index for each county.
		Instead of a Binary (Pass/Fail) penalty, we propose a graduated scale: 80% - 100%: Compliant (No Fine). 70% - 79%: Warning / Corrective Action Plan. Below 70%: Financial Penalty per the Act.	The Penalty will be applicable per county with a threshold of 80%.
		The framework should explicitly list Commercial Power Outage, Vandalism, and Security Related Access Restrictions as Reasonable Cause for falling below the threshold in specific counties. This is pursuant to KICA Section 26(1), penalties only apply if a licensee fails to remedy a contravention without reasonable cause.	Mobile Network Operators (MNOs) are required to take additional measures to ensure uninterrupted service to consumers, including the use of alternative power sources and the implementation of redundancy plans. Exceptions may only apply where the interruption is determined to be due to force majeure circumstances.
		(Letter) Minimum QoS Threshold Proposal to freeze the compliance floor at 80% indefinitely to avoid CAPEX outlays.	Retain progressive targets: - Initial 80% aggregate compliance - Scaling upwards by 1% annually to a defined ceiling of

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			85% in five years Justification: We acknowledge your concern about CAPEX pressures, and the Authority has carefully considered these investment realities. However, freezing the compliance floor at 80% indefinitely cannot be adopted because it risks infrastructure stagnation and undermines consumer expectations. The Authority believes that: • A permanent 80% floor would leave peri urban populations and transit corridors underserved as demand grows, resulting in widening service gaps over time. The 1% annual graduation to a ceiling of 85% over five years is designed to spread CAPEX impact gradually. It prioritizes low cost optimizations such as software tuning, antenna down tilts, frequency planning etc., rather than forcing immediate greenfield tower expansion. • This progressive scale ensures national infrastructure quality matures in lockstep with rising citizen data reliance and economic transaction volumes,

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			protecting long term service quality while giving operators sufficient time to plan strategically.
	TKL	Consider QOS Policy Objective against other national policies such as USF and Market Correction Prioritize corrective action over punitive enforcement. QoS should incentivize improvement rather than penalization. Strict county-level thresholds may discourage rural investment and conflict with universal access objectives. Population-weighted sampling is preferable. Stabilization of the current framework should precede escalation. Extremely high QoS metrics risk creating a Nairobi bias, shifting capital toward dense urban optimization at the expense of rural expansion. Smaller operators may face disproportionate burdens, risking market distortion	The Authority takes note of the proposal.
		CA should reexamine the QOS policy objectives vs the national policy ie USF. They argue that the proposed framework leads to marginalization. Additionally, they suggest that a framework should improve the network not penalize.	The Authority will evaluate all the counties using a similar matrix
4.6 Publication of QOS Reports The network coverage/points of presence and the results of the overall QoS assessments as well as the various components assessed shall be analyzed	Safaricom	We propose that: i) published reports must include a Contextual Metadata column. This should highlight counties where performance was impacted by documented Force Majeure (e.g., Performance impacted by 48-hour regional power outage	This is noted and the Authority will put the proposal under consideration.

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per county or areas with rollout obligations. The results shall be published on CA's website and/or in local dailies.		The CA Website serves as the Primary Interactive Portal, where users can see a map-based view of coverage and quality. Publication in Local Dailies should be restricted to a National Aggregate Summary rather than exhaustive per-county tables, which are difficult for the average consumer to interpret.	The Authority will publish both national and county reports in appropriate media/ platforms for the benefit of the consumers.
		Before any report is published in local dailies, there must be a mandatory 28-day Review & Dispute window.	The log files are always shared with the MNOs for concurrence before the results are published.
		In line with our earlier emphasis on Crowdsourcing, we recommend the Authority publishes a Live Heatmap of user-perceived quality.	The Authority will consider the proposal.
4.7. Launch of the Framework and Methodology. This framework has been developed by CA with the input from earlier work done for the Authority by a consultant and was subsequently subjected to a Stakeholders consultation. The comments and suggestions received from respondents have been considered and incorporated to the best extent possible, taking due regard to the rights of every stakeholder. It is scheduled to take effect immediately and to	Airtel	Letter: Trial Period Proposal to adopt a two-year transition before full implementation	One year transition with six-month trial period adopted The Authority acknowledges the need for a smooth transition. However: • A two year trial would delay consumer protection. • A one year transition with a six month trial period provides sufficient time for adjustment. This approach ensures anomalies are identified and corrected early, balancing operator readiness with timely consumer protection.
	Safaricom	We recommend that;	

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replace the framework and methodology that has been in force since the year 2017		1. Before the framework takes effect, a Matrix of Responses must be published by the Authority, explicitly showing how each MNO's technical concern was mitigated clearly and reasonably. This ensures transparency and prevents future legal challenges regarding the Reasonableness of the new regulations under KICA Section 26. A minimum 36-Month Transition Period. During this time, the new metrics should be measured and reported, but penalties should not be imposed on MNOs rather be required to undertake corrective measures	A 12-month transition period will be implemented. During the first six months, measurements will be conducted using the existing KPI framework. The second half of the financial year will serve as an active piloting phase to address any issues arising from the new framework, which will be fully enforced from 1st July 2027.
	Telkom	We propose phased implementation to allow for internal alignment and to cushion MNOs against regulatory shock.	
4.8 Transition from Current Framework to New Framework It is our desire that a phased approach be taken with regard to the introduction of the revised KPIs of E2E QoS and the Network Performance components of the new framework.	Safaricom	We welcome this proposal	The Authority notes concurrence
4.9. Implementation of the Framework The Authority will commence the implementation of this framework by implementing the End-to-End QoS, QoE and the Network Performance components for all the identified Technologies starting upon launch of the	Safaricom	We propose i) A Weighting Floor clause. No single component should ever exceed 50% of the total compliance score, even during pilot phases. If a component is missing, the total Pass Mark should be scaled down rather than concentrating the weight on a single, potentially volatile metric	The Authority will adopt weighting of components, i.e. QoS - Drive Test (60%), and QoE (20%), including the redistribution of marks as applicable. This weighting was largely derived from outcomes of the previous framework.

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framework. The pilot phases will enable the Authority, together with the MNOs, to finetune the processes and the tools to be used for the determination of the QoE. After the respective pilot phases have ended, the various QoS components will be included in the assessment. It should be noted that where any component of the new framework is not operational on account of piloting or other factors, the percentage to be contributed by each component not affected by those factors shall be determined by the Authority and communicated to the Licensees and such weighting shall continue to be applicable until such a time as the relevant component(s) will have come into full operation. In this regard, the weighting that will be adopted will be based on a proportionate redistribution of the percentage contributed by the component of the framework that cannot be implemented because of the challenge faced. The appropriate weighting set out in the table above will be reinstated thereafter.		The end of a Pilot Phase be marked by a Joint Sign-off Report between the CA and MNOs. This report should confirm that the data from the new tools (Crowdsourcing/Automated OMC) matches the ground reality of the network within an agreed 5% margin of error.	The pilot phase will conclude in June 2027. During the piloting period, results will be shared with MNOs for their analysis and feedback. The Framework will thereafter be automatically implemented through a Gazette Notice.
		Letter: Weighting of Evaluation Components Proposal to reduce Quality of Experience (QoE) to 10% and raising Network Performance (OSS) to 40%.	Revised weighting matrix: • Drive Test: 60% • Network Performance (OSS): 20% • Quality of Experience (QoE): 20% Justification: We acknowledge your concern that QoE can be influenced by uncontrollable factors. However, reducing QoE to 10% and raising OSS to 40% cannot be adopted because it would undercut consumer accountability and distort the balance of the Framework. While OSS data is valuable, it does not fully capture the live user experience. The Authority believes that: • Doubling the OSS weight to 20% directly validates the importance of internal operator

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			system data while maintaining regulatory balance. • Switch level stats can show 99% availability even when users face local sector congestion or muted audio; drive tests bridge this gap by reflecting actual service conditions, which is why the Drive Test component retains the primary weight within the framework. • Retaining 20% for QoE ensures operators remain accountable for service delivery, preventing a situation where strong network statistics mask poor consumer outcomes.
	Telkom	Test the new framework but keep the current framework in place. We propose guardrails for smaller operators to cushion MNOs against regulatory shock.	Agreed. A 12-month transition period will apply. It is further noted that all operators hold the same license and are therefore required to comply with the licence conditions.
4.10 Measurement and Auditing Tools. The Authority reserves the right to apply a combination of the following measurement and auditing tools among other methods that may be used in	Safaricom	We propose: i) An Asynchronous Data Transfer model. Instead of Real-Time which implies sub-second polling, the system should ingest data in hourly or 4-hourly batches via a secure, encrypted Northbound Interface (NBI).	The hourly batches via secure encrypted interface is agreeable with the Authority.

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accordance with this framework and the Act: i) Surveys: One of the ways to evaluate quality and experience perceived by end-user. Concerned service provider will be notified two weeks prior to a consumer quality satisfaction survey. ii. Network Performance Measuring System (NP): Service providers are obliged to avail their network data for analysis by a network performance (NP) system that shall be resident at the Regulator's server. The NP system shall analyze real-time data from the operators' networks to determine network performance. iii. Drive Test for Mobile Measurements (Drive Test): Carried out with a calibrated test tool, recording of readings of discrete measurements in frequent, and short intervals (usually every few seconds). The measurement readings can be a multitude of values measured at every time interval in parallel, and therefore comparable. In this setting, multiple probes within one test system can perform multiple test calls in the same time in parallel, for comparative		Access to the Authority's NP server must be strictly audited. We recommend a Secure Data Vault protocol where raw data is anonymized (PII/IMSI masking) before it leaves the MNO's premises.	The Authority's NP Server has access controls. The Authority is ISO/IEC 27001:2022 certified. It should be noted that the Authority is registered as a data controller and data processor.

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tests of multiple service providers for the same service.			
4.11. Reporting and Publishing of measurement Results. i. Templates for service providers reporting will be provided by the Authority, and it may modify templates as it deems appropriate to ensure compatibility with post-processing and publishing tools. ii. Service Providers must publish the indicator reports on their website. CA may decide to publish the results on its website or identify other channels for publishing QoS reports or parts of the reports in such a way that allows the public to evaluate and compare the performance of service providers.	Safaricom	We propose a Template Freeze clause. Any modification to a reporting template must be subject to a 30-day technical consultation with MNOs to ensure that the changes are compatible with the back-end OMC (Operations & Maintenance Centre) export scripts.	The Authority upholds its position on the matter to preserve its autonomy and maintain a fair regulatory environment.
		We recommend the Unified Dashboard approach. Instead of static reports, the Authority should provide a Common Publication Template for MNO websites that includes: Performance by Service: (e.g., Best for Video Streaming vs. Best for Rural Voice).	This will be put into consideration.
		The Reasonable Cause Footnote: Any county-level score impacted by documented power outages or vandalism (as per our proposed Section 4.4 Exclusions) must be flagged so the public understands the root cause of the service dip	Mobile Network Operators (MNOs) are required to take additional measures to ensure uninterrupted service to consumers, including the use of alternative power sources and the implementation of redundancy plans. Exceptions may only apply where the interruption is determined to be due to force majeure circumstances.
4.12. Network Coverage Reporting Requirements. Other than the publication MNOs are required	Safaricom	While we fully support the move toward geospatial transparency, the requirement to submit all granular technical parameters for	The Authority maintains its position; regarding the disclaimer, the MNO has discretion over how public maps are presented and the

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to publish coverage detailing the areas covered and the services available on their websites for Public consumption. To ensure auditable network integrity and clarify coverage obligations, MNOs are required to submit the following: •Geospatial and Technical Submission. MNOs shall provide KML/KMZ files detailing the national site distribution, accompanied by all relevant technical parameters. This is necessary to facilitate transparent validation and accurate simulation of coverage claims.		every site in the country poses a significant security and intellectual property risk. We recommend that. 1. Technical parameters be limited to Site Name, GPS Coordinates, and Technology Deployed (2G/3G/4G/5G). Highly sensitive engineering data like electrical tilts and power configurations should remain with the MNO, available for inspection on-site during audits rather than transmitted in bulk. To protect MNOs from legal disputes regarding perceived coverage, we recommend the inclusion of a Standard Disclaimer Clause on all public maps. This disclaimer should state that maps are based on simulations and that actual signal strength may vary due to terrain, building materials, and handset quality. Remove the requirement for MNOs to 'justify' their spectrum deployment strategy. We urge the Authority to focus on the Output (the achieved coverage and quality) rather than the Input (which specific band was used to achieve it)	factors affecting signal strength in its publications. This data is only meant for the Authority's consumption and not publication.
4.13 General Provisions The Authority shall periodically review this	Safaricom	We recommend that the Authority defines a fixed Review Cycle, for example after 5 years cycle. This aligns with typical network investment cycles and ensures that MNOs can	The Framework will be reviewed every three years, unless an earlier review is considered necessary.

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framework from time to time and update it to meet the Technological changes in industry The Authority has the right to add, remove or modify KPIs and QOS Components and their target values in Annex whenever need arises. Such modification may include specifying target values without the need to update this regulation, provided that relevant service providers will be notified of such changes. Service providers shall bear all costs related to fulfilling their obligations under these regulations, including, but not limited to costs resulting from measurement procedures related to QoS and experience, or any additional Procedures requested by the Authority. Service providers shall submit Quality of service reports in their networks whenever called upon by the Authority.		plan infrastructure upgrades with a stable set of targets in mind. We formally propose that any modification to KPIs, Weights, or Target Values must be subject to: • Mandatory Public Consultation: As required by the Constitution of Kenya and the Statutory Instruments Act, any change affecting the rights of licensees must involve stakeholder participation. • Impact Assessment: The Authority should conduct a Regulatory Impact Assessment to determine if the new targets are technically and economically achievable before they are enforced.	The Authority will always be guided by the prevailing laws and regulations on this matter.
Service providers shall bear all costs related to fulfilling their obligations under these regulations, including, but not limited to costs resulting from measurement procedures related to QoS and experience, or any additional Procedures requested by the Authority.		We recommend that the clause be amended to state that service providers shall bear the costs of standard reporting and internal monitoring. However, any additional procedures or specialized third-party audits requested by the Authority should be subject to a Cost Sharing Mechanism or at least a Prior Consultation to determine the economic feasibility	Proposal is not agreed. Any additional procedure requested by the Authority will be in accordance with KICA.

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Service providers shall submit Quality of service reports in their networks whenever called upon by the Authority.		We recommend that ad-hoc reporting be limited to Specific Investigations (e.g., following a major network outage or a spike in consumer complaints). The Authority should provide a Reasonable Notice Period (at least 7 working days) for any report that falls outside the standard quarterly and hourly automated reporting cycles	This requirement is already under the license conditions for NFP T1(Condition 23)
	Jamii	Consider operators' views and communicate promptly so that the regulation does not become absurd or the environment overregulated.	This is noted.
	TKL	-Conduct a regulation impact assessment. This will help CA to have evidence and defense in case the framework is challenged legally. It will also allow alignment with the sector objectives.	Evolving technologies, along with insights drawn from past results, highlight that the Framework, which has been in place for a decade, contains identified gaps that need to be addressed.
SIGNAL STRENGTH			

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	Safaricom	We recommend.	The Authority adopts the proposal.
		i) Inclusion of a question about the respondent's county, region, or a simple Location: Urban ☐ Rural ☐ would allow to identify disparities in QoE between different areas.	
		Provide a questionnaire in Swahili or local languages.	Two Official Languages: English and Swahili.
		Add a question on number of SIM Cards a respondent has. The questions should be asked based on the most used MNO for each service. At minimum, instruct respondents to focus on the provider they use most when rating experiences, ensuring more consistent reference.	This will be considered
		Add a question on the device type by the customer. Is it a feature or smartphone e.g., Do you use a smartphone? Yes/No or Primary use of phone: Voice/SMS only vs. Internet apps) to indirectly gauge digital literacy. Another approach is asking If you do not use certain services (e.g., mobile internet), is it because (a) device does not support it, (b) too expensive, (c) lack of skills, (d) not needed, etc.	
	Safaricom	Good - Urban and densely populated cities. Forcing a -93 dBm urban target acts as a "Green Tax." As the RAN accounts for ~80% of an MNO's energy bill, this requirement	The tier system has been dropped.

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		forces inefficient power usage, contradicting Kenya's Climate Change Regulations (2024). A 95% target in urban centers fails to account for "Indoor Shadows" and "High-Rise Fading." Even in advanced markets, ITU-T E.813 (2024) suggests an Excellent Target of 90% for mobile environments to accommodate urban clutter.	The Excellent Target will be set to 85%. And Worst Acceptable Limit set at 60%.
		Average - Semi-urban, rural, marginalized regions. Proposal: Scan measurement for coverage levels in idle mode. In rural Kenya, where tower spacing can exceed 20km, a significant portion of the coverage footprint naturally falls between -98 dBm and -110 dBm. Mandating that no more than 2% of samples fall below -98 dBm (the 2% "Worst Acceptable Limit") effectively forces MNOs to reduce their cell radius, which would leave thousands of Kenyans in deeper "digital shadows." In marginalized areas in the Northern Parts of the Country, environmental factors like thermal ducting and dust attenuation can cause signal fluctuations. A 65% floor is too punitive for "Greenfield" rural deployments.	The CA monitoring equipment primarily operates in active mode to take field measurements, while a dedicated scanner is used to assess available coverage levels in idle mode. The Authority has dropped the tiering system, and a uniform signal threshold of -100 dBm will apply across all counties.

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		Bad - All areas A "one-size-fits-all" 2% limit for "All Areas" is technically flawed. We propose tiered limits based on the ITU-T Y.1541 Class of the site. In marginalized areas of Northern parts of the country, the network is designed for "Breadth of Coverage" rather than "Density of Signal." A site in Marsabit using Satellite backhaul (ITU Class 5) inherently serves a wider, more sparsely populated radius where signal strength at the edge will naturally fluctuate. A 7% margin allows MNOs to maintain these wide-reaching sites without constant fear of regulatory fines. In rural Kenya, where tower spacing can exceed 20km, a significant portion of the coverage footprint naturally falls between –98 dBm and –110 dBm. Mandating that no more than 2% of samples fall below – 98 dBm (the 2% "Worst Acceptable Limit") effectively forces MNOs to reduce their cell radius, which would leave thousands of Kenyans in deeper "digital shadows".	The Authority has dropped the tiering system. The signal threshold is -100dBm for all the counties
Signal Quality (Table 3)	Safaricom	Good – Urban and Densely Populated Cities Forcing 90% of samples to be "Excellent" leaves zero room for geographical anomalies like "shadow zones" behind skyscrapers. Repeaters are affecting signal quality.	We are rationalizing the Excellent target for all counties to 85%.

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		Forcing 95% of samples to be "Excellent" leaves zero room for geographical anomalies like "shadow zones" behind skyscrapers. Use Scanner measurement for coverage levels in idle mode. These are more accurate than phone measurements which vary by chipset. ITU-T ESTR-NUI (2023) notes that voice remains perfectly intelligible up to RxQual 3. We propose aligning the "Good" tier with $RxQual \leq 3$. This prevents unnecessary "Power Boosting" that creates interference for neighboring sites.	
		Average - Semi-urban, rural, marginalized regions. Forcing 95% of samples to be "Excellent" leaves zero room for geographical anomalies like "shadow zones" behind skyscrapers. Forcing 95% of samples to be "Excellent" leaves zero room for geographical anomalies like "shadow zones" behind skyscrapers.	The Authority has dropped the tiering system, and all counties will be evaluated on a uniform basis. Accordingly, the Excellent target has been rationalized to 85% across all areas. It is further noted that the scanner operates in idle mode and is used as the basis for measuring signal strength.
	Safaricom	Bad – All Areas Proposal: We recommend a Bad Tier to 2% Given the unpredictable nature of mobile interference, a 2% allowance is more realistic for a moving vehicle measurement, as per ITU-T E.806. Given the unpredictable nature of mobile interference, a 2% allowance is	The tiering system has been removed.

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		more realistic for a moving vehicle measurement, as per ITU-T E.806. Given the unpredictable nature of mobile interference, a 2% allowance is more realistic for a moving vehicle measurement, as per ITU-T E.806.	
Telephony (Voice)	Safaricom	Accessibility -> Unsuccessful Call Ratio (All) - We Recommend ITU-T E.804 Targets for Unsuccessful Call Ratio. 2G -5% 3G- 4% 4G- 4% 5G- ITU-T ESTRKPI-RAN (2022) suggests that regulators should initially focus on "Monitoring Only" rather than punitive thresholds. Accessibility -> Call Setup Time (2G,3G,4G (CSFB) - We propose a 3 - second "Interconnect Grace" for all OffNet calls. We propose CST to a target of $\leq 10s$ For sites designated as "Satellite/Remote" (Bad Tier), the setup time target should be increased by 4 seconds to account for physical backhaul latency. Accessibility -> Call Setup Time (VoLTE) - We propose a 3 - second "Interconnect Grace" for all OffNet calls. We propose CST to a target of $\leq 8 s$ For sites designated as "Satellite/Remote" (Bad Tier), the setup time target should be increased by 4 seconds to	The Authority will use the proposed range which is 5% for worst acceptable limit and 0.5% for the excellent target. 5G- ITU-T ESTRKPI-RAN (2022) . The dynamic weight redistribution formula assesses the MNOs based on the technologies deployed in their network. The Authority's proposed range already accommodates the suggested targets while taking into account the different backhauling mechanisms The Tiers have been dropped. The Proposed scoring ranges already takes into account the different backhauling mechanisms.

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		account for physical backhaul latency. We recommend the "Excellent Target" to 2.5 seconds All audits must use Category 18+ Reference Handsets to ensure results reflect network speed, not slow internal device processors. Accessibility -> Call Setup Time (5G SA (VoNR)3) - We propose a 3 - second "Interconnect Grace" for all OffNet calls. We propose CST to a target of ≤ 10s For sites designated as "Satellite/Remote" (Bad Tier), the setup time target should be increased by 4 seconds to account for physical backhaul latency We recommend the "Excellent Target" to 2 seconds for VoNR. In addition, we recommend as recommended by ITU -T Q.3956 (2025) the Authority to adopt a "Monitoring Only" periods before enforcing punitive sub - 2 - second targets. All audits must use Category 18+ Reference Handsets to ensure results reflect network speed, not slow internal device processors Retainability -> Drop Call Rate(2G,3G,4G) - Blank Retainability -> Drop Call Rate(5G SA (VoNR)) - We propose a Worst Acceptable Limit of 4.0% and Excellent Target to 1.0% for 5G SA during the initial 24 -month rollout	The Authority confirms that the tiering system has been dropped. The proposed scoring ranges already take into account the different backhauling mechanisms. Furthermore, KPIs are measured using standardized high-end devices in accordance with ITU standards; therefore, variations arising from device limitations are not expected. The Authority will implement the worst limit of 4%. The Authority confirms that the tiering system has been dropped. The proposed scoring ranges already take into

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		phase to allow for parameter optimization Retainability -> Handover Success Rate (All) - Proposal a target of $\geq 96\%$. For inter -RAT, we propose a 3 –5% wider margin than Intra -RAT based on the ITU -T E.804 that allows for a lower success threshold. Integrity -> Voice Quality(MOS,POLQA) - (2G,3G,4G) - We recommend the Authority adopt Codec - Specific Targets as per ITU -T P.863.1: Narrowband (2G/3G): Target ≥ 2.8. Integrity -> Voice Quality(MOS,POLQA) - (5G SA (VoNR)) - We recommend the Authority adopt Codec - Specific Targets as per ITU -T P.863.1: Wideband (4G/5G): Target ≥ 3.5.	account the different backhauling mechanisms. The Authority's range accommodates the proposed range The Authority is measuring Voice Quality using Wideband Codec. Within the range of 3 as the Worst Target and 4 as the Excellent Target. This is noted. The Suggested Target of 3.5 is within the Authority's proposed range of 3 to 4.
SMS	Safaricom	Retainability -> Retainability - Completion Rate for SMS (All) - 98% "Excellent Target" should only apply to Short Code (A2P) traffic. For P2P SMS, 95% target is more aligned. Align with ITU-T E.804.1. Success only measured for "Accessible Recipients".	While we acknowledge the MNOs' reference to ITU-T E.804.1, the normalization scoring model already establishes 95% as the "Mandatory Worst" limit (the floor); therefore, your suggestion is already accounted for as the minimum acceptable threshold. In alignment with ITU-T E.800, the 98% "Excellent Target" must be

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			maintained as the upper benchmark to ensure a clear performance gradient for scoring. To address operational concerns, the Authority confirms that success shall be measured against "Accessible Recipients" only, thereby excluding subscriber-side failures from the KPI calculation.
		Integrity -> End-to-End Delivery Time for SMS (All) - Propose Tiered Delivery Target: On-Net (Intra-network): ≤ 15 seconds.	The 15-second target proposal is already catered for in our proposed range. The Authority maintains a unified End-to-End Delivery Time target to ensure consistent Quality of Experience (QoE) across the industry. In alignment with ITU-T E.804, which defines SMS integrity based on total transmission time, our internal Drive Test (DT) configurations are always P2P and already demonstrates that a 15-second delivery is an achievable benchmark.
		Service Weight -> Overall Weight (All) - Increase SMS weight from 5% to 15% due to critical role in digital economy (M-PESA, OTPs, E-Government)	The Authority maintains the 5% weighting for SMS as it is mathematically consistent with the KPI density of the framework.

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			Since SMS only utilizes two performance metrics compared to over seven KPIs each for Voice and Data, a 15% weight would create a disproportionate statistical bias. Furthermore, in alignment with ITU-T Supplement 40 to the E.800 series, which monitors the evolution of traditional services, the Authority notes the significant migration of traffic to Over-the-Top (OTT) platforms. As SMS traffic continues to plateau or decay in favor of data-centric communication, increasing its weight would deviate from the objective of measuring modern network utility. Therefore, the current weighting remains technically justifiable to ensure the Quality of Service (QoS) score accurately reflects the resource-intensive services most utilized by consumers.
Data	Safaricom	Accessibility -> EN-DC Setup Success Rate (5G (NSA)) -> Propose target of $\geq 95\%$ with Worst Acceptable Limit of 92% to account for inter-vendor signaling overhead	5G Setup success rate to be set with a lower limit of 94 and an upper limit of 98. While the Authority acknowledges the complexities of the X2/Xn interface in multi-vendor environments, these remain internal engineering challenges that MNOs must resolve through network

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			optimization and robust Service Level Agreements (SLAs) with their vendors. Lowering the target would effectively remove the incentive for operators to address these interoperability issues, leading to sub-optimal 5G accessibility. In alignment with ITU-R M.2410, the proposed 98% to 99.5% range reflects the high-reliability requirement inherent to 5G technology. Maintaining this threshold ensures that Accessibility—a critical pillar for the digital economy—is prioritized, while the 98% floor provides a sufficient technical margin for localized variables encountered during field inspections.
		Retainability -> Download Transfer Failure Ratio (All) - Propose target of $\leq 10\%$	The Proposed 10% falls within the range of 3 to 13.5.
		Retainability -> Upload Transfer Failure Ratio(All) - Propose target of $\leq 10\%$	
		Retainability -> HTTP Completion Failure Ratio(All) - Propose "Reference URL" Requirement. Audits must use standardized, locally-hosted reference page to isolate network performance from external server failures.	The Authority acknowledges the need to isolate network-induced failures from external server issues. For the purpose of these audits, the HTTP Completion Failure Ratio shall be measured using a combination of locally hosted test servers (to establish a performance

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			baseline) and widely utilized public platforms (e.g., Google, Facebook) to reflect the actual end-user experience.
		Integrity -> Latency(Ping) - 4G - Propose Satellite-Tiered Limit of < 650ms for all technologies	The Authority retains the initially proposed latency targets, as these benchmarks are already established as an aggregate that considers the diversity of terrestrial and satellite backhauling mechanisms. Adopting a blanket 650 ms limit would significantly dilute the performance standards of 4G and 5G technologies, which are designed for low-latency utility in accordance with ITU-T G.1010. Furthermore, the suggestion to segregate targets based on deployment regions is noted; however, such a move would require MNOs to provide the Authority with precise geographic polygons demarking the respective backhaul types in every region for a data-driven assessment. Until such granular network topology is harmonized, the current technology-specific targets shall remain the standard for national Quality of Service (QoS) monitoring.

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		Integrity -> Latency(Ping) - 5G SA (VoNR) - Propose target of 100ms for standard backhaul and Satellite-Tiered Limit of < 650ms.	While 5G technology continues to gain traction across the country, primarily through Non-Standalone (NSA) deployments, the Authority acknowledges that the move toward Standalone (SA) architecture is the eventual industry evolution. Proposing a 100 ms latency target for 5G is technically regressive and neutralizes the inherent low-latency value of such an advanced architecture. To preserve the performance standards defined in ITU-R M.2410, the Authority retains the 50 ms Mandatory Worst Limit for VoNR/5G SA. Regarding the scoring framework, the Authority agrees that the weight for 5G metrics shall be proportionally redistributed among the existing technologies (2G/3G/4G) in areas where 5G has not yet been deployed. This ensures that the Quality of Service (QoS) score remains an accurate reflection of the available network layers

Section	MNOs	MNOs Comments	CA COMMENTS
			without penalizing MNOs for the current stage of their 5G rollout.
		Integrity -> Jitter (4G) - Propose it to be removed. If measured, audits should use UDP-based jitter tests (RFC 3550) Integrity -> Jitter (5G SA (VoNR)) - Propose it to be removed. If measured, audits should use UDP-based jitter tests (RFC 3550) Integrity -> Packet Loss Ratio (4G) - Propose it to be removed. Will be captured under latency. Recommend Monitoring Only. Integrity -> Packet Loss Ratio (5G SA (VoNR) - Propose it to be removed. Will be captured under latency. Recommend Monitoring Only.	The Authority concurs with the removal of Jitter and Packet Loss Ratio as standalone technical KPIs, acknowledging that their impact on network integrity is intrinsically captured within Latency and the application layer. In their place, and in alignment with ITU-T P.1203 standards, the Authority adopts the following Video Streaming KPIs to better reflect the end-user's Quality of Experience (QoE): Video Success Ratio (80-95%) - 4G, (90-98%) - 5G, and Video MOS Average (3-4) - 4G, (3.5 - 4.3) - 5G. This transition ensures that the technical consequences of packet-level instability—such as failure to initialize or degraded visual quality—are accurately monitored through the lens of actual service utility.
		Service weight -> Overall Weight (All) - Reduce Data weight from 45% to 35% to prevent chasing peak speeds at expense of voice/SMS stability.	The Authority is not able to accommodate the proposal to reduce the Data weight from 45% to 35%. Data traffic in the country is growing exponentially, and as consumers shift toward data-driven

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			applications and high-definition services, reducing the weight of this category would be inconsistent with current market behavior. Furthermore, with the industry-wide transition toward sunseting legacy technologies (2G/3G) in favor of modern, data-optimized architectures like 4G and 5G, the importance of Data as a primary bearer has only intensified. In the current ecosystem, services like VoLTE and VoNR have inextricably linked voice stability to the performance of the data layer. Therefore, maintaining a 45% weight is necessary to incentivize operators to continue deploying edge technologies and to ensure the network remains robust enough to support the country's fast-growing digital operations.
RF Coverage	Safaricom	Coverage -> Signal Strength (Good Tier (Urban)) - Scan measurement for coverage levels in idle mode. Review the -93 dBm target as it acts as a "Green Tax"	While the Authority had previously considered a tiered approach to RF Coverage, we now move to eliminate geographical tiers in

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		Coverage -> Signal Strength (Average Tier) - (No explicit proposal in 10th column; comments suggest adjusted thresholds for environmental factors) Coverage -> Signal Strength (Bad Tier(Marginalized)) - (No explicit proposal in 10th column; comments state 65% floor is too punitive for "Greenfield" rural deployments) Quality-> 4G/5G Signal Quality(RSRQ) (Good Tier) - Recommend Excellent Target of 85% across all quality tiers. Measure end to end service Quality-> 3G Signal Quality (Ec/Io) (Good Tier) - Recommend Excellent Target of 85% across all quality tiers. Measure end to end service Quality-> 2G Signal Quality (RxQual) (Good Tier) - Propose $RxQual \leq 3$	favor of Universal National Targets. This shift is necessitated by the practical difficulties in establishing and maintaining accurate, mutually agreed-upon definitions of Urban vs. Rural boundaries. A tiered framework creates significant administrative overhead and provides opportunities for "standard dilution" in developing regions. By adopting a single, universal benchmark, the Authority ensures that all citizens are entitled to the same minimum Quality of Service (QoS) regardless of their location. This simplified approach provides a clear, transparent, and enforceable standard that incentivizes operators to provide uniform network quality and supports the national objective of bridging the digital divide through equitable infrastructure performance.

Section	MNOs	MNOs Comments	CA COMMENTS
			In line with this approach, the Authority has done away with the tiering system and relaxed the signal threshold to -100 dBm.
Network Performance (NP)	Safaricom	Availability -> Cell Availability(All) - Propose inclusion of "Exclusion of External Force Majeure" and scheduled maintenance. Exclude downtime due to commercial power outages exceeding 8 hours, vandalism with police reports, and scheduled maintenance. Mobility -> Inter-/Intra-RAT Handover Success Rate (All) -Separate inter-RAT: 92%, intra-RAT: 95%. Inter-RAT handovers are usually <u>asusually</u> a last resort at cell edge. Spectrum Utilization -> TCH Congestion Rate (2G) - Propose these metrics be excluded from mandatory scoring framework. Contravenes Technology Neutrality principle (KICA Cap 411A) Spectrum Utilization -> RAB Congestion Ratio (3G) - Propose these metrics be excluded from mandatory scoring framework Spectrum Utilization -> PRB Utilization(4G/5G) - Propose these metrics be excluded from mandatory scoring framework. Retainability -> Data Service Drop Rate	The Authority proposes the reduction of NP-based KPIs from the current assessment framework. This is informed by ongoing considerations regarding the robustness and consistency of NP data for regulatory use, particularly in scenarios such as signal null zones or edge-of-cell conditions where network management systems may not fully capture the extent of service degradation and may therefore not fully reflect end-user experience. Furthermore, in line with ITU-T Recommendations (notably the E.800 series), there is increasing emphasis on Quality of Experience (QoE) through direct, user-centric measurement methodologies for

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		(5G(NSA)) - Moderate weight; okay with proposal.	consumer-facing assessments, as opposed to reliance solely on network-side counters. In the interest of maintaining an “engineering-grade” audit that is transparent, consistent, and verifiable, the Authority therefore proposes NP(20%), QoS drive test (60%) and QoE(20%)weighting.
Scoring Methodology & Weighting		Scoring -> Signal Strength Weighting - Advocate for shift to 30% for Signal Strength and 70% for Signal Quality. Signal strength should be treated as binary accessibility threshold.	While we concur that Signal Quality is the primary driver of user experience, Signal Strength (Quantity) remains the fundamental prerequisite for network accessibility and indoor penetration. Treating strength as a binary threshold (Pass/Fail) overlooks the critical "Link Budget" margins required to sustain a connection as a user moves from outdoor to indoor environments. Therefore, the Authority retains the 45/55 weight distribution between Signal Strength and Signal Quality.

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		Scoring -> RF Coverage Weighting - Propose 90%/10% split (E2E: 90%, RF Coverage: 10%) instead of 95%/5% to ensure availability is adequately valued	The Authority agrees to adopt the proposed 90%/10% for E2E KPIs/Coverage proposal respectively.
		Scoring -> Normalization Model - Adopt Sigmoid (S-Curve) Normalization Model (ITU-T E.800 Supplement 9) instead of Linear Model to reflect Quality of Experience	The Authority adopts a dual-model scoring framework to ensure mathematical fairness and technical relevance. A Sigmoid (S-curve) model is applied to time-based KPI metrics (such as Latency and Call Setup Time) to account for the threshold of perception; this prevents rewarding improvements that are imperceptible to the user while sharply penalizing performance that falls below critical usability benchmarks. Conversely, a Linear model is utilized for rate and percentage-based metrics (such as Success Ratios) to provide a transparent, proportional reflection of network reliability across the entire measurement scale.
		Scoring -> E2E vs NP Weighting - Propose E2E Drive Test: 40%, Network Performance: 45%, QoE: 15% (vs draft 60%/25%/15%)	The Authority adopts E2E Drive Test: 60%, Network Performance: 20%, QoE: 20% as explained above

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		Scoring -> Technology Weights - Technology weights should be Tier-Aware. Urban: 4G (50%) / 5G (40%) / Legacy (10%). Rural: Legacy (50%) / 4G (40%) / 5G (10%)	Tiers have been dropped to encourage uniformity in assessment of quality of services.
		Scoring -> Mandatory Floor - Propose Force Majeure Buffer. If breach caused by external factors (KPLC outages, vandalism, road construction cuts), period should be excluded from calculation.	The Authority to analyze force majeure issues on a case-by-case basis.

COMMENTS FROM THE PUBLIC			
Item	Name	Public Comments	CA Comments/Disputes
General	Richard Onyango	The draft Quality of Service Framework is a timely and important step towards improving mobile communication services in Kenya. From a communication student perspective, the framework would benefit from greater emphasis on user experience, clarity of service information, and reliability of data services. Consistent network quality is essential for learning, digital storytelling, media production, and online engagement. The framework should also encourage service providers to communicate service performance in simple language that is accessible to ordinary users, including students and young professionals.	A framework on fixed services is currently being developed to take into account the raised concerns.

COMMENTS FROM THE PUBLIC			
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		The framework should place more emphasis on consistency of data speeds rather than peak speeds. For students, stable connections are more valuable than high but unreliable speeds. Service providers should be required to communicate network outages and service disruptions clearly and promptly using accessible language and multiple communication channels. The framework should consider affordability and accessibility as part of quality, especially for students and young users who rely heavily on mobile data services	
	Brian Karanja	We welcome the opportunity to submit comments on the proposed Framework for Quality of Service (QoS) Measurement for Mobile Telecommunication Services. We wish to highlight a growing concern that directly affects mobile network quality and consumer experience in Kenya: the widespread sale and use of non-type-approved mobile signal boosters in the local market.	The Concern is noted, and the Authority is undertaking enforcement of illegal repeaters in collaboration with the MNOs.

COMMENTS FROM THE PUBLIC			
Item	Name	Public Comments	CA Comments/Disputes
		Currently, a large number of mobile signal boosters that do not meet Communications Authority of Kenya (CA) type-approval requirements are being sold openly through online platforms, electronics shops, and informal markets. These devices are often marketed as “plug-and-play” solutions without adequate disclosure of regulatory or technical compliance. The use of such non-compliant boosters poses several risks, including: • Radio frequency interference to licensed mobile networks • Degradation of overall network Quality of Service (QoS), including dropped calls and reduced data performance • Difficulty in accurately attributing QoS failures to either network operators or end-user environments • Exposure of consumers and businesses to enforcement actions despite lack of awareness We recommend that the proposed QoS Framework explicitly recognize the impact of unauthorized signal amplification devices on mobile network performance and consider:	

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		1. Strengthening public awareness on approved versus non-approved mobile signal boosters 2. Enhanced market surveillance and enforcement against the sale of non-type-approved boosters 3. Clear guidance on acceptable indoor coverage solutions, including compliant boosters and distributed antenna systems (DAS) 4. Collaboration with licensed operators and professional installers to promote compliant indoor coverage solutions Addressing this issue will support fair QoS assessment, protect consumers, and encourage the use of technically sound and compliant solutions as mobile networks evolve to 4G and 5G technologies. We appreciate the Authority's continued efforts to improve mobile service quality and safeguard the interests of ICT service users.	
3.1.1	E.K	Explicitly define the 3 tiers using administrative and population density. Require MNOs to submit polygon/KMI files so that the results are auditable, maintain consistency, and avoid any disputes 6-month piloting window where 2 independent apps are used. Quarterly publication and annual survey to validate the feasibility and measure	The Authority proposes elimination of the tiers for universal access to all. The submission of the KMZ files is already part of the proposed framework.

COMMENTS FROM THE PUBLIC			
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		the data quality.	Crowdsourcing – Submission Noted.
3.4	E.K	Retain the three-component structure but integrate the new detailed Network QoS Benchmark Scoring (3.1) as the primary driver of the E2E component (60 %). Raise the compliance threshold to 90 % only after a 12-month transition period.	The Authority will adopt QoE and Drive test for assessment in the framework. A 12-month transition period will apply. The Authority has sufficient monitoring tools to achieve this.
4.5	E.K	Publish a transparent penalty matrix (e.g., KSh X per percentage point below 90 % per county, capped, with escalation for repeated failures). Link penalties directly to Universal Service Fund (USF) contributions for under-served counties.	The Penalties are as per the existing legal and regulatory framework.
4.8	E.K	Publish the transition roadmap within 60 days of gazettelement. Include exact dates when each KPI takes effect. This ensures certainty and allows MNOs to align internally.	The Framework will take effect thirty (30) days after the date of the Kenya Gazette notice. The 12-month transition period will then apply after the Framework becomes effective.