



**L E S O T H O  
C O M M U N I C A T I O N S  
A U T H O R I T Y**

**QUALITY OF SERVICE FINDINGS FOR MOBILE  
VOICE AND DATA SERVICES IN LESOTHO  
Q3 – 2025/26**



## 1. Background

The Lesotho Communications Act of 2012, mandates Lesotho Communications Authority (LCA) to establish and enforce quality of service (QoS) standards for communication services, while also safeguarding the interest of the consumers of communication services.

Lesotho Communications Authority (Quality of Service Rules), 2023 prescribes the minimum standards for QoS applicable to licensees providing voice, data, postal and courier services. Further, the Rules also mandates LCA to make QoS information available to help consumers to make informed choice of a service and service provider they may wish to utilize they services.

## 2. Introduction

The term quality of service is defined in Recommendation ITU-T E.800 as the totality of the characteristics (observable or measurable) of a telecommunications service that bear on its ability to satisfy stated and implied needs of the user of the service. Parameter is also defined as a quantifiable characteristic of a service with specified scope and boundaries. LCA monitors the technical and general parameters for the services provided by the MNOs.

The technical service parameters monitor the network performance for mobile voice and data services offered by the MNOs. QoS Rules of 2023 classify end-to-end (users' perspective) technical QoS parameters on the MNOs network in the following three main categories:

- Service accessibility - network ability to grant consumers access to the service requested.
- Service integrity - the quality of the transmitted content once the service has been successfully accessed by the consumer (end user).
- Service retainability - network ability to maintain or retain service upon being successfully accessed, until the consumer voluntarily terminates the service.

## 3. Methodology

The QoS measurements were collected using automated drive testing equipment within three areas in Maseru in November 2025.

Cluster 1: Khubetsoana, Boinyatso, Bochabela, Naleli, Mabote, Tsosane, Koalabata, Sekamaneng.

Cluster 2: Lower Thetsane, Ratjomose, Matamong, Tsolo, Thetsane West, Thetsane East, Lesia.

Cluster 3: Lepereng, Thamae, Mohalalitoe, Maseru East, Moshoeshoe 2, Maseru West,

Old Europa, Katlehong, Hoohlo, Florida, Hills View, Maseru central (CBD), Stadium area, Sea Point.

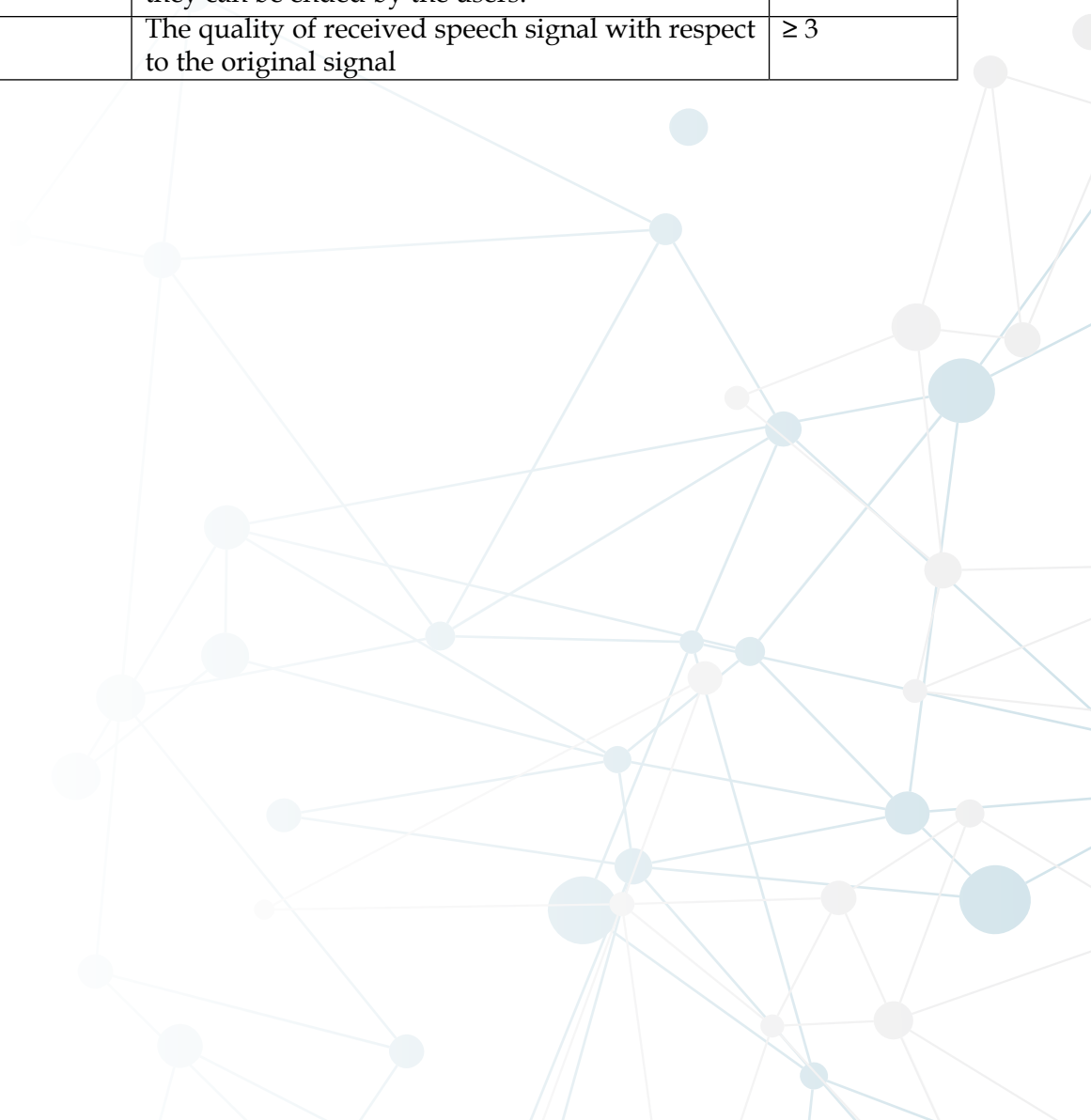
The operators that were assessed are Econet Telecom Lesotho and Vodacom Lesotho. Measurements on the two networks were carried out simultaneously to ensure equality of test conditions.

#### 4. Parameter Definition

##### a) Mobile Voice Services

KPI Definition Target

KPI	Definition	Target
Call Setup Time	The time period starting from when a call is made to a complete destination (target telephone number) to the time of receiving a ring back or busy tone.	$\leq 8$ seconds
Unsuccessful Call Ratio	The ratio of unsuccessful calls to the number of calls attempted in a measurement period.	$\leq 2\%$
Call Drop Ratio	The proportion of successfully established calls that were dropped or ended by the network before they can be ended by the users.	$\leq 2\%$
Voice Quality	The quality of received speech signal with respect to the original signal	$\geq 3$



## b) Data Services

<b>KPI</b>	<b>Definition</b>	<b>Target</b>
Data Setup Time	The time needed to establish an IP connection to the server of a service, from sending the initial query to a server to the point of time when the content is sent or received.	$\leq 8$ seconds
Data Drop Rate	The proportion of incomplete data transfers (web page) and transfers that were started successfully.	$\leq 2\%$
Data Mean Data Rate (download) - LTE	The average data transfer rate measured throughout the entire session of the service. This is the amount of data transferred from one point to another within a given amount time in the download direction.	$\geq 25$ Mb/s
Data Access Failure Ratio	The probability that a subscriber would not be able to establish an IP connection to the server of a service successfully	$\leq 2\%$
Data Latency	The amount of time it takes in milliseconds for a data packet to reach the receiving endpoint after being transmitted from the end point	$\leq 100$ ms
Data Packet Loss (Data Loss)	The ratio of dropped packets to all packets sent from the source to destination over a given period.	$\leq 1\%$
Video Streaming Access Time	The time duration of a service access from requesting the stream until the reception of the first stream data packet at the UE.	$\leq 8$ seconds
Video Streaming Start Failure Ratio	The probability that the first packet of stream cannot be received by the user equipment when requested by the user.	$\leq 2\%$
Video Streaming Rebuffering Time	Time duration between a stream going into rebuffering mode and continuation of the stream afterwards.	$\leq 1$ second

Table 1 provides a summary of the findings.

*Table 1. Mobile and Data Services Performance*

**\*\* Text in red shows performance that did not meet the target.**

Q1 - 2024/25 Parameter	Cluster 1: Khubetsoana Area		Cluster 2: Thetsane Area		Cluster 3: Maseru Central	
	Econet		Econet		Econet	
Call Setup Time (s)	3.1	6.2	2.6	5.2	2.6	5
Unsuccessful Call Ratio (%)	0	4.3	0	0	0	0
Call Drop Ratio (%)	0	0	0	0	2	0
Voice Quality	2.94	2.95	2.93	2.94	2.91	2.88
Data Setup Time (s)	3.4	3.3	3.3	4.9	3.3	4.1
Data Drop Rate (%)	0	0	0	0	0	0
Data Mean Data Rate (download) - LTE(mbps)	123.1	42.5	137.0	74.2	110.3	32.1
Data Latency (ms)	202.3	100.3	595.4	108.1	82.3	105.5
Data Packet Loss (%)	0.2	0	0.4	0.1	0	0
Video Streaming Access Failure Ratio (%)	0	0	0	0	0	0

## 5. Conclusion

The quality of service (QoS) experienced by mobile network users can vary significantly across locations and over time due to inherent challenges in wireless technology.

For QoS-related complaints, please contact your network service provider. If the complaint remains unresolved, you can reach the Authority through the following contacts:

Tel: +266 2222 4300 or +266 5222 1300

Email: [licensing@lca.org.ls](mailto:licensing@lca.org.ls)

Website: [www.lca.org.ls](http://www.lca.org.ls)