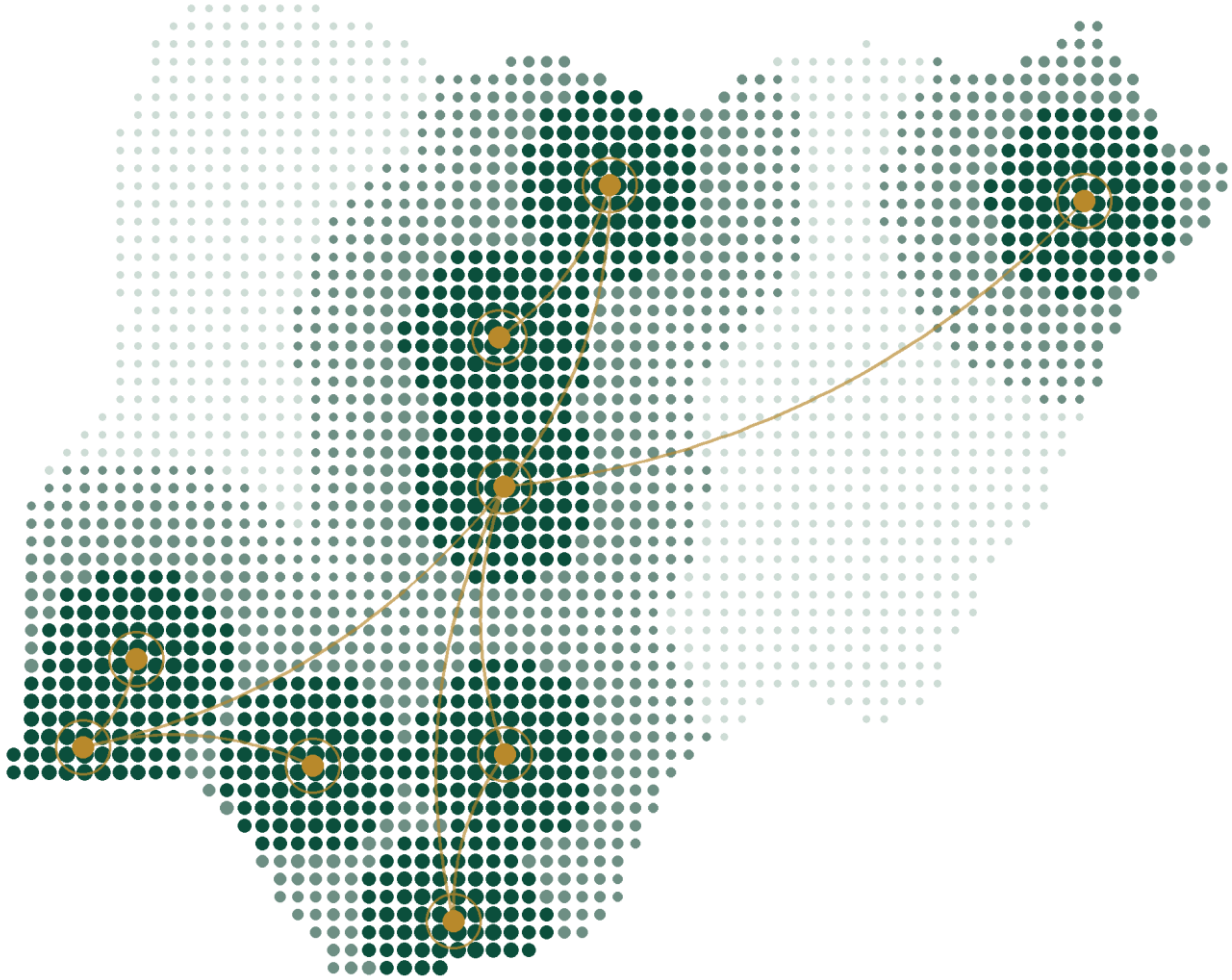
Nigerian Communications Commission
Network Improvement Programme



Capacity Limitation Detection and its Impact on QoS

Q3 2026 Public Report | Data: up to August 2026

02

CONTENTS

This report asks whether mobile networks have enough room to handle everyone using data at the same time, especially at peak hours.

What this report covers

03 Key findings at a glance

04 Urban congestion by operator

05 Urban footprint growth

06 Downloads vs. uploads

07 Where congestion appears

08 How we detect congestion

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

03

AT A GLANCE

Mobile data capacity is healthy overall. Where congestion exists it is local and urban, which calls for targeted rather than nationwide investment.

Capacity is good nationally. Congestion is concentrated in busy urban areas.

7.5%

of MTN's urban area shows download congestion, the highest of the four operators

+1.8 pts

rise in Airtel's urban congestion since February 2026, the largest increase

≤0.2%

of rural area is affected, for every operator

0 km²

of T2's urban footprint shows download congestion

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

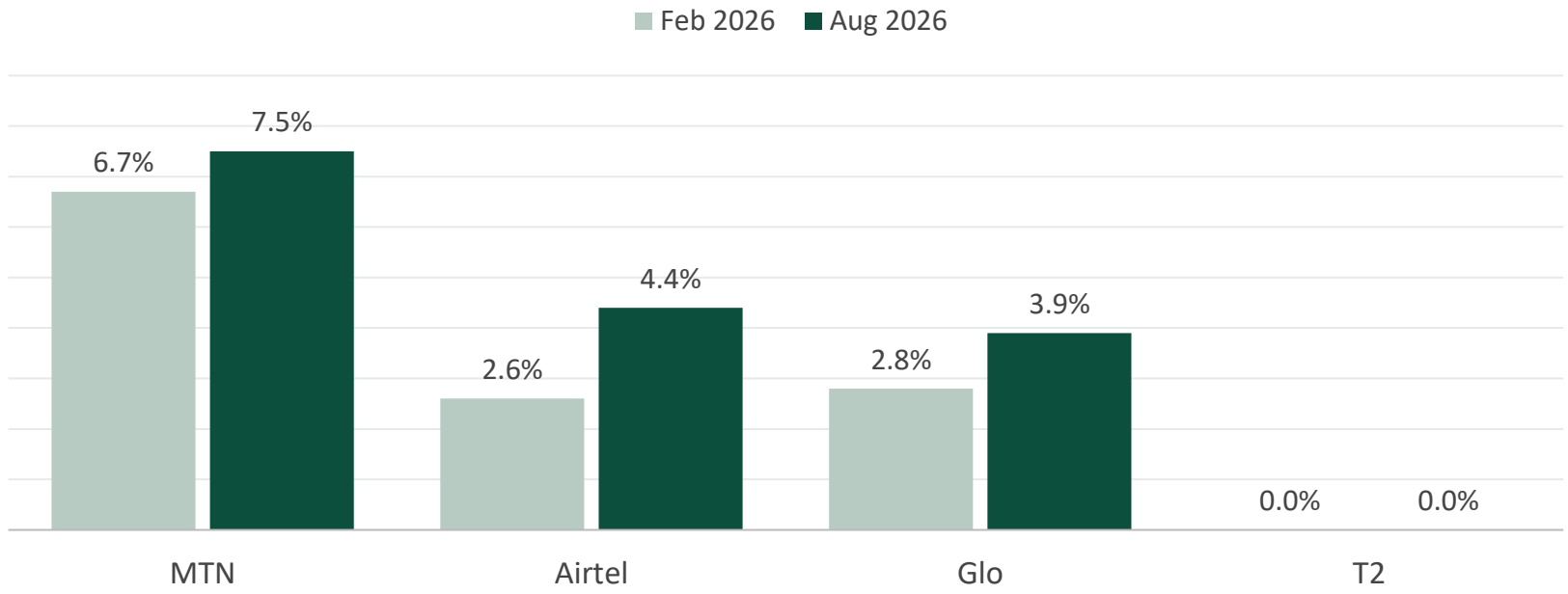
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TREND

Urban footprints grew 17–32%, yet the congested share still rose for MTN, Airtel and Glo. Demand in busy areas is growing faster than capacity.

Urban download congestion rose for three of the four operators

Share of urban area with download congestion (%)



- **Airtel saw the largest rise** from 2.6% to 4.4%, after being the least-affected major operator in February.
- **T2 stays clear** its smaller, localised user base keeps it free of download congestion.

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

05

FOOTPRINT

T2 grew fastest in relative terms (+32.2%), while MTN still has the largest urban footprint at 27,417 km².

Every operator expanded its urban footprint again

Operator	Urban area Feb 2026 (km²)	Urban area Aug 2026 (km²)	Growth	Congested area (km²)
MTN	23,376	27,417	**+17.3%**	2,068
Airtel	19,899	24,451	**+22.9%**	1,080
Glo	15,496	18,972	**+22.4%**	746
T2	1,951	2,579	**+32.2%**	0

Rural footprints: Airtel 129,241 km² and MTN 118,118 km² remain the largest.

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

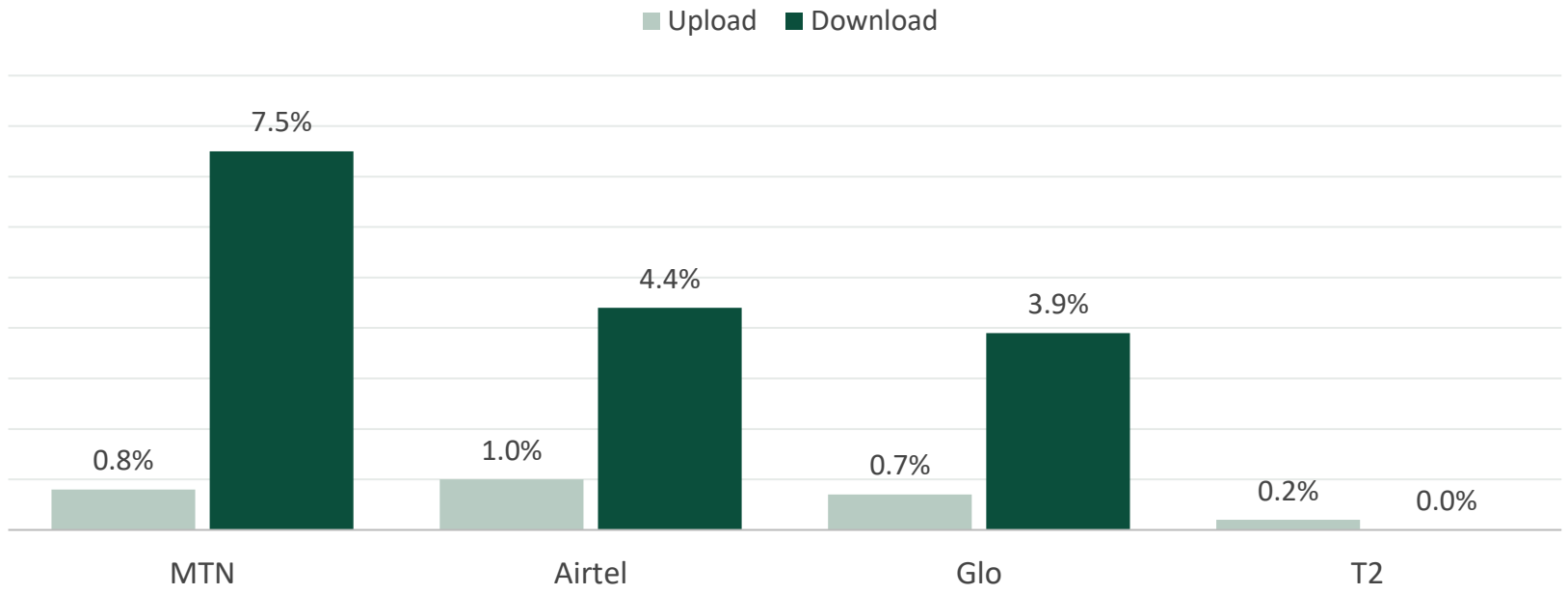
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DOWNLOADS VS. UPLOADS

Congestion is driven mainly by consumption-heavy use such as video streaming and large downloads, not by uploads.

Downloads are far more affected than uploads

Share of urban area with congestion, August 2026 (%)



- **Upload congestion** affects 1% or less of urban area for every operator.

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

07

WHERE CONGESTION APPEARS

Most rural areas show no capacity problems, but many have too few tests for a firm assessment.

Congestion is local and mostly urban

- **Cities.** Maps of Abuja, Kano, Ibadan, Lagos and Benin show congestion concentrated in the densest, highest-activity zones of each city.
- **Rural areas.** 0.2% or less of rural area shows download congestion for any operator.
- **Network reach.** MTN and Airtel have the widest coverage; T2's presence remains limited to specific markets.
- **What it means.** Because congestion sits where transport infrastructure already exists, expanding 5G in busy urban areas is the most effective response.

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

08

METHODOLOGY

Each area's daytime speed is compared with its own quiet-hours speed.

How we detect congestion: the night vs. day test

1 Night baseline

Speeds measured 00:00–06:00, when networks are quiet.

2 Daytime check

Speeds measured 06:00–23:59, during normal and peak use.

3 Flag congestion

An area is congested if daytime speed falls below 50% of its night speed.

Nigeria is divided into grid squares from ~5,660 km² down to 5 km². An area needs more than 10 tests by day and by night to be assessed.

Source: Speedtest® by Ookla® crowdsourced data, analysed by Ookla Advanced Analytics Services for the NCC.

About this report

This summary is based on the NCC Advanced Analytics report “Capacity limitation detection and its impact on QoS” (Q3 2026), prepared by Ookla Advanced Analytics Services under the Network Improvement Programme.

Results come from crowdsourced, user-initiated Speedtest® measurements (up to August 2026). They indicate typical user experience and are not a measure of total network capacity or coverage.

Areas, operators or devices with too few valid tests are excluded or flagged. Comparisons refer to the previous public report (Q1 2026).

Thank you