Unpacking Network Capacity

Insights on Download Speeds and Network Reliability for the Nigerian Consumer

Agenda

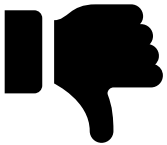
1. Network Capacity: The Hidden Factor Affecting Your Daily Life
2. Nigeria's Network Health: Capacity is Generally Good, But Local Issues Persist
3. Peak-Hour Download Congestion: Impact
4. Capacity Crunch: Why Your Connection Slows Down During the Day
5. Upload Speed: Capacity Issues Overview
6. Key Takeaways

Network Capacity: The Hidden Factor Affecting Your Daily Life

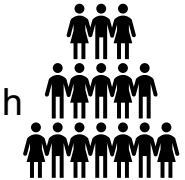
Capacity Limitation Defined: When the **Day Speed** (06:00 to 23:59) drops below **50%** of the **Night Speed** (00:00 to 06:00) in a specific area.

The Problem: Congestion during peak hours makes things *feel slow* and unreliable, even if coverage is good.

What this means for you?
Dropped video calls, buffering on streams, failed mobile payments, and slow downloads



Focus: Urban Areas are most affected, particularly where active user density is high



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Nigeria's Network Health: Capacity is Generally Good, But Local Issues Persist

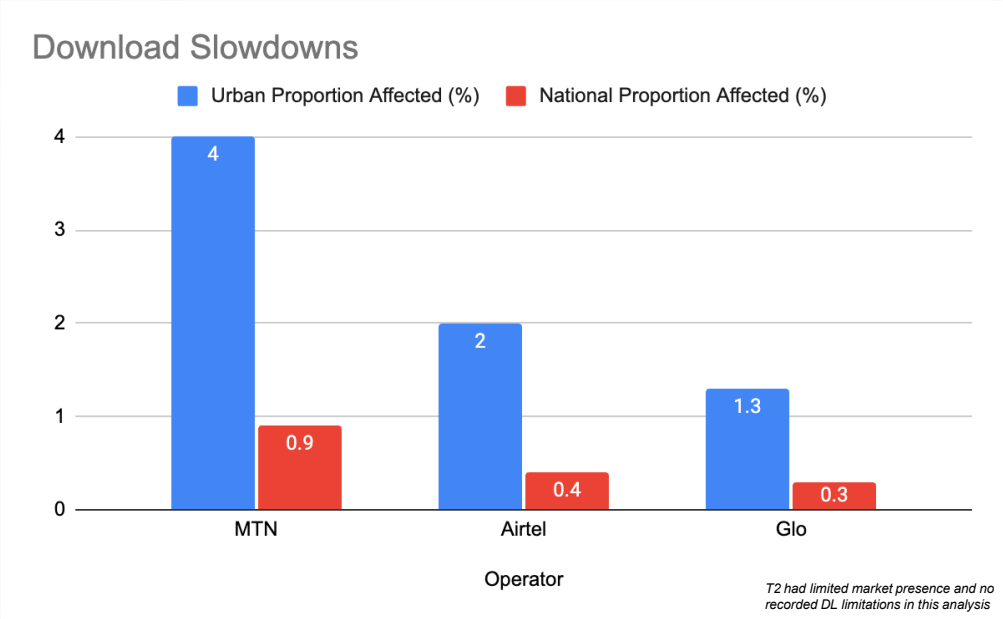
Overall, network capacity for data services across the country appears **good.** However, capacity issues have been observed in **urban areas** across all major operators. This isn't a widespread fault, but a need for targeted investment

Most capacity restrictions are concentrated in major cities

Most rural areas either don't have enough data to confirm issues or don't exhibit the same problems.

The Path Forward: The most effective strategy to relieve capacity strain in cities is a multi-faceted approach focusing on two goals: aggressively deploying 5G technology *and* optimizing the capacity of the existing 4G (LTE) network to improve performance for all users.

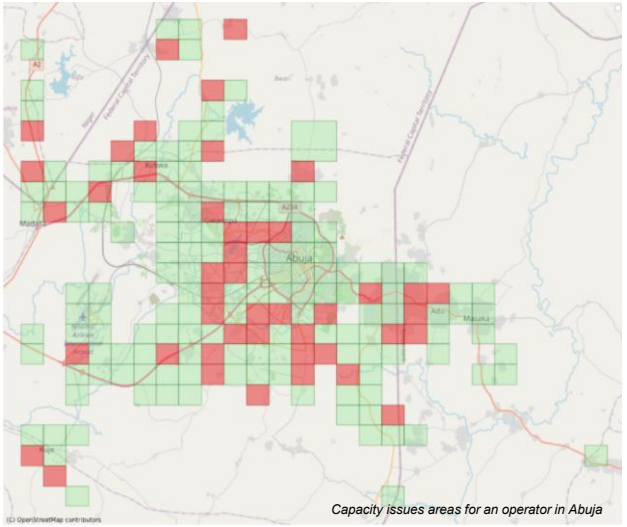
Peak-Hour Download Congestion: Impact



Download Capacity constraints are primarily a **localized problem**. While the National Proportion shows a minimal overall impact across the country, the issue is intensified in high-density urban areas. This localized congestion leads directly to peak-hour performance degradation, confirming that targeted infrastructure investment in these urban zones is most critical to ensure consistent service quality

Capacity Crunch: Why Your Connection Slows Down During the Day

Most capacity restrictions are focused in urban areas, impacting operators with dominant presence in those areas.



Capacity issues areas for an operator in Abuja

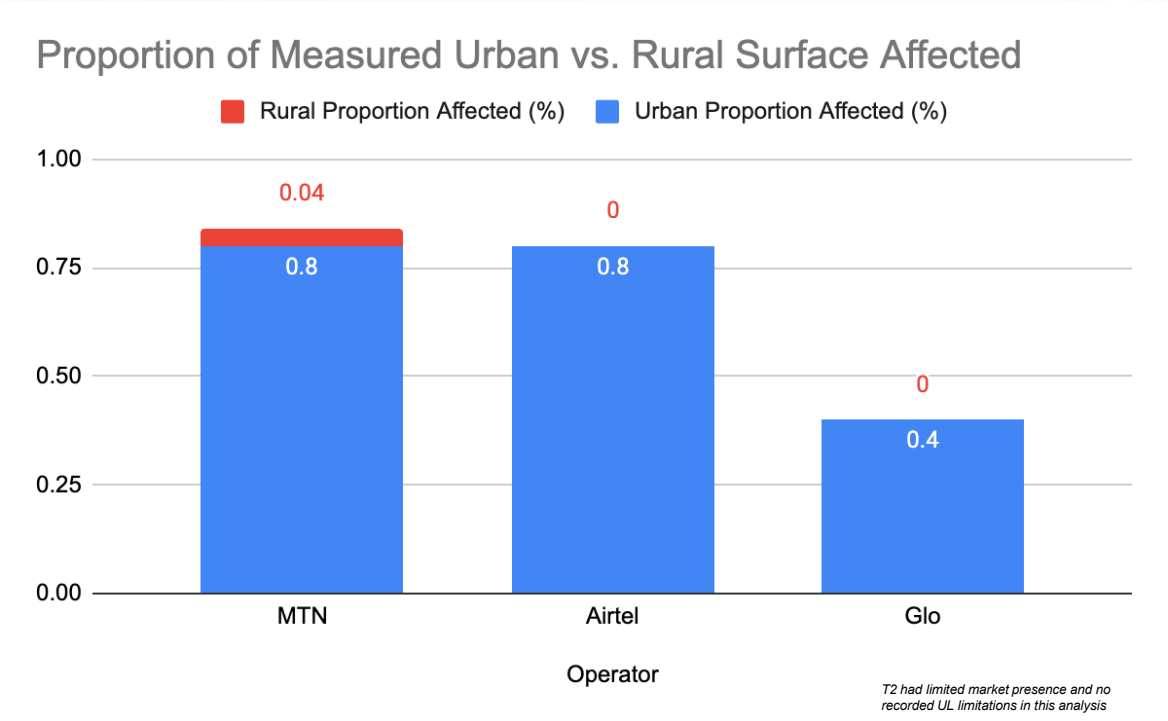
Human Impact Examples

Education: Students in high-density areas may struggle with e-learning applications due to poor Quality of Experience (QoE).

Payments: Mobile payment processing can be delayed or fail during peak business hours.

Calls: Video call quality and reliability suffer significantly when network capacity is strained.

Upload Speed: Capacity Issues Overview



Capacity restrictions are **concentrated in urban zones**, the impact on rural service is extremely low, reinforcing that this constraint is a localized issue tied to high-density areas

Key Takeaways

Urban Pressure: Capacity congestion is overwhelmingly an **urban problem**, concentrated in high-traffic zones.

Download Impact: Download speeds are the most significantly impacted aspect of service during peak hours.

Strategic Solution: Targeted investment, especially in **5G infrastructure** in dense urban areas, is the best strategy to relieve congestion and secure reliable data services.

> ***NCC Commitment***
> *The NCC is dedicated to ensuring transparency and fostering a competitive environment that drives operators to eliminate these local bottlenecks, securing reliable connectivity for every Nigerian consumer*

Thank You