Geospatial Precision to Distinguish Urban and Rural Network Performance

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1. Executive Overview

Mapping the Reality of Nigerian Connectivity.

Methodology
We analyzed 377,135 tests using geospatial "tiles" rather than just administrative boundaries.

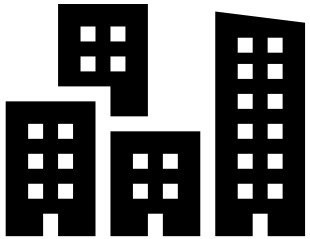
Urban Behavior
Identified by high activity (>200 tests/tile), covering 5.2% of the land but 96.7% of activity.

Rural Behavior
Sparse activity covering 93.4% of the land area.

Key Insight
Carrier choice often matters more than location—MTN's rural performance (15.8 Mbps) actually outperforms Glo's urban performance (9.5 Mbps).

2. Speed and Stability

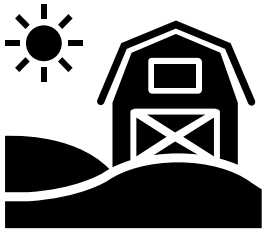
The Performance Gap by the Numbers.



Metric: Median values (Robust to outliers).

Download Speed:

Urban: 20.5 Mbps
Rural: 11.0 Mbps



The Gap: Urban areas are ~40% faster than rural areas.

Upload Speed:

Urban (10.5 Mbps) vs. Rural (6.1 Mbps) — a 65% advantage for urban users.

Latency (Responsiveness):

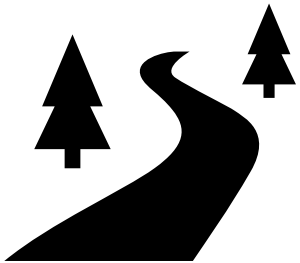
Rural latency is 8.0 ms higher (slower) than urban, impacting real-time calls.

3. Connectivity on the Move: The Highway Spotlight

Tracing Digital Corridors Along National Arteries

The Highway Effect: Network activity "strings along" the primary highways linking major cities, creating reliable digital corridors for travelers.

The Lagos–Abuja Link:



- Lagos Region: Represents the broadest expanse of consistent high-density coverage, serving as the southern anchor.
- Abuja (FCT): Functions as a concentrated digital hub with high responsiveness, anchoring northern-bound transit.

Town vs. Village: Rural towns along these routes often see higher speeds than deep interior villages, as road and network infrastructure grow in tandem.

4. Bridging the Divide: Urban vs. Rural Trends

Progress and Regional Patterns

The Performance Gap: Urban users typically experience speeds roughly 40% faster than those in rural areas.

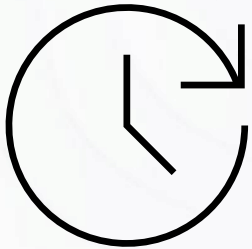
Urban: 20.5 Mbps download.
Rural: 11.0 Mbps download (up from 8.5 Mbps in January).

Digital Symmetry: Urban networks show stronger balance between download and upload speeds, while rural areas encounter more variability in upload performance.

Key Regional Anchors: Cities like Ibadan, Benin City, Enugu, and Jos extend urban-standard connectivity into surrounding rural landscapes.

5. Technology Shifts: The Backbone of Broadband

4G is the Anchor; 5G is the Urban Premium



LTE (4G) - The National Anchor: Serves as the primary broadband option for travelers and rural residents, with rural speeds climbing from 10 to 20 Mbps in several regions. Reliable backbone for the next 3–5 years.

5G - Urban Innovation: Offers speeds of 180–220 Mbps in cities. It provides a 7ms latency advantage over 4G, though its footprint currently remains focused on dense urban centers.

3G - Legacy Support: Networks are in a steady retreat, holding at 5–8 Mbps urban speeds as the industry prioritizes upgrades to more modern technologies.

6. Operator Profiles: Geographic Performance

MTN: Maintains a consistent experience across different settings. Notably, its rural performance levels often align with or exceed urban performance seen elsewhere in the market, with rural download speeds averaging **15.8 Mbps.**

Airtel: Demonstrates a balanced approach between urban centers and rural areas. It maintains a reliable middle position with urban download speeds clustering around **15.9 Mbps** and rural speeds at **10.6 Mbps**, showing predictable service delivery

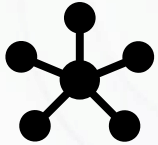
T2: Shows high localized capacity, particularly in rural environments where it records a median download speed of **24.9 Mbps**. While urban performance averages **18.5 Mbps**, the higher rural figures suggest a targeted infrastructure presence in specific regional markets

Glo: Serves as a vital link for baseline connectivity nationwide. In urban settings, it averages **9.5 Mbps** download, while its rural performance remains similar at **9.5 Mbps**, indicating a focus on consistent baseline availability across both environments.

7. The Path Forward: Closing the Digital Gap

National Goals for an Inclusive Future

Prioritize Rural Upgrades. Rural areas have improved (8.5 → 11 Mbps), but the 40% gap persists. The disparity is more evident in parts of the country with historically lower network density and higher infrastructure deployment challenges, underscoring the need for continued targeted upgrades to ensure more balanced national connectivity.



Address Upload Bottlenecks. With rural upload speeds at just **6.1 Mbps**, the digital economy (sending files, video calls) is stifled outside cities.

Quality Standards: Moving beyond "speed" to ensure high stability standards for remote work, e-government, and digital education.

Thank You