**Competitive Benchmarking Report – Peers & Trends**

**Title:** *Competitive & Trend-Based Benchmarking for 5G Optimization*

**Objective:**  
To benchmark Safaricom (or local telco) against **regional peers** (e.g., MTN, Airtel Africa, Telkom Kenya) and **global leaders** (e.g., SK Telecom, Verizon, Rakuten Mobile) across strategic and technical performance indicators.

**Key Benchmark Areas:**

| **KPI/Area** | **Safaricom** | **MTN South Africa** | **Airtel Nigeria** | **Global Leader (SK Telecom)** | **Gap Insight** |
| --- | --- | --- | --- | --- | --- |
| 5G Penetration (% urban zones) | ~40% | ~60% | ~25% | >90% | Needs acceleration in metro, university, and stadium zones |
| Average Latency (ms) | ~20–30ms | ~15–25ms | ~35ms | <10ms | MEC integration and fiber rollout required |
| Download Speed (5G) | 350 Mbps | 500 Mbps | 220 Mbps | >1 Gbps | Spectrum refarming and CA optimization needed |
| 5G Core Architecture | Hybrid (NSA) | NSA/Partial SA | NSA | Full SA | Prioritize 5GC migration in enterprise zones |
| Smart Slicing Adoption | Manual / pilot | Moderate | Minimal | Full AI-driven | Invest in AI slicing orchestration tools |
| Energy Efficiency Strategy | Reactive | Partial optimization | None | Fully automated | Deploy power-saving algorithms + solar sites |

**Trend Integration:**

| **Emerging Trend** | **Adoption Status (Safaricom)** | **Global Best Practice Example** |
| --- | --- | --- |
| **Private 5G Networks** | Limited pilots (industrial parks) | Rakuten Mobile (Japan), Verizon (USA) |
| **Network Slicing for SMEs** | Not yet commercialized | SK Telecom slicing-as-a-service model |
| **AI/ML for Self-Optimizing Networks** | Experimental phase | NTT DOCOMO's SON & AIOps for load balancing |
| **Open RAN Deployment** | None | DISH Network (USA), Telefónica (Spain) |
| **Green 5G with Solar + AI** | 10% pilot sites | MTN Rwanda (green RAN sites), Vodafone Egypt |

**Tools & Sources:**

* GSMA Intelligence Reports
* Ookla Speedtest Intelligence
* OpenSignal Network Experience Reports
* 5G World Summit 2024 proceedings
* Internal NOC data & site audit reports