

**Elon Musk's Broadband**

**Foray and The**

**Implications of Bridging**

**Access and Affordability Gaps**

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**N**o one invests without an objective, without a strategy or a goal. No one. And with this in perspective, the world watches in awe as the daring Elon Musk leads his aerospace company, SpaceX, into a venture beyond earth, into a business place where eagles dare. It's an outer space venture attracting huge investments. Space X spends hundreds of millions of dollars on this revolutionary venture, creating and managing rocket engines, launch vehicles, dragon capsules, ASDS landing platforms, and Starlink products from its two primary orbit rocket launch and satellite services. Our focus in this piece is on "Starlink," one product, that like Bitcoin, may win the allure of the masses and war against the norms of traditional and institutional legacy systems.

Since the advancement of Web 2.0 technologies in the '90s, which allowed businesses to leverage the Internet to reach audiences beyond national borders, Internet access has boomed. According to the ITU, an estimated 4.1 billion people were using the Internet in 2019. It states that the global penetration rate increased from 17% in 2005 to over 53% in 2019. And as more people access the Internet for use, it becomes more of a critical utility service like water, electricity, and gas. Despite growing Internet usage and penetration levels that have seen some countries reach saturation levels, disparities remain across countries. These disparities hinge on access and

affordability, stemming from various reasons, such as a lack of terrestrial distribution and last-mile infrastructure to high rights-of-way (RoW) costs, inefficient spectrum management, etc.

Elon Musk's Starlink product launched from the SpaceX foray into satellite services aims to bridge access and affordability gaps by offering low latency and high bandwidth Internet to all corners of the earth. The need to have rural areas enjoy high-speed broadband connectivity has been topical. President Biden's recently announced \$2 trillion infrastructure plan dedicates \$100 billion to ensure that rural America, which Forbes states accounts for 35% of America's population, gets high-speed Internet access at affordable rates.

In other countries like Nigeria, rural area subscribers do not enjoy the same quality of service as those who reside in major urban cities. Musk's Starlink may receive mass appeal if priced right because the bulk of the population is rural and underserved. In developing user pricing methodologies, we must note why significant advanced technology investments such as 4G are yet pervasive in the developing world. Most rural unserved and underserved area inhabitants have low-income levels and lower purchasing power which may cause the traditional Telcos to claim that they do not form a compelling business case.



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**- Otuya Okecha**

According to Ajijola, a Director at Backbone Connectivity Networks, Nigeria, commoditization of broadband connectivity globally would gain ground due to Starlink's pricing strategy of providing 100 Mbps at \$99 per month. This implication may be great news for some while ushering in issues to ponder for both the end-user who consumes the service and the regulator, who creates an enabling environment and a level playing ground for operators.

It is no secret that most end-users often demand uninterrupted Internet services from their providers at affordable rates. And in most developing countries where there remains a dearth of fixed broadband infrastructure, mobile broadband advancement has held sway, leading the Global Systems Mobile licensed operators to power and control the largest Internet subscriber bases. These subscribers access the Internet from their Android or iOS powered devices. It, therefore, follows that huge investments supported by regulatory policies have been made over time by these operators, who enable data consumption and Internet use that has allowed stifled mono-product economies to breathe from their contribution to GDP.

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The Starlink model of leveraging satellite services would require more than affordable price rates to win over converts.

Despite Starlink's assurance on low latency, the technical question begs, 'Is Starlink able to offer weatherproof uninterrupted Internet services?' It is important to caution that new entrant providers' complete win over users would require an uninterrupted supply of service and affordability to bridge access gaps in unsaturated Internet penetration level countries.

Beyond the allure of low latency levels and a price rate of \$0.99/Mbps, there is the need to look at the regulatory structures in countries where licensed Telcos and other service providers contribute significantly to the GDP. According to Survivability News, some African providers offer \$263.85/Mbps monthly. This pricing disparity, when compared to that of Starlink rates, is a huge one. Your guess is as good as mine on who would win the price war. However, other considerations remain. How would Starlink be licensed to participate in a way that contributes further to the Digital economic growth of countries? How would Starlink be regulated alongside the existing players to ensure healthy and fair competition for all? Regulatory bodies must seek to answer these million-dollar questions. Many national regulatory bodies are currently battling to develop the right frameworks for managing innovation, competition, and dominant play, evidenced in policy engagements with Over-The-Top (OTT) big media technology players today. Regulators would also have to enforce policies around data sovereignty to balance the need to secure and protect people's and government data as enhanced access to the Internet is made possible in various novel ways regardless of the parameters of affordability and quality of service.



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