



REGIONAL COST OF INTERNET COMPETITIVENESS AND RETAIL PRICE DRIVERS

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Agenda

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4.0. INTERNET COST DRIVERS

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EAST AFRICAN COMMUNICATION ORGANISATION (EACO)

EACO is a regional organization that brings together:-

- National ICT regulator
- Service providers (in telecommunication/ICT, broadcasting and postal sub-sectors)
- ICT training institutions and academia
- Other stakeholders in the ICT sector

EACO (Ctd)

Partners:



Objectives



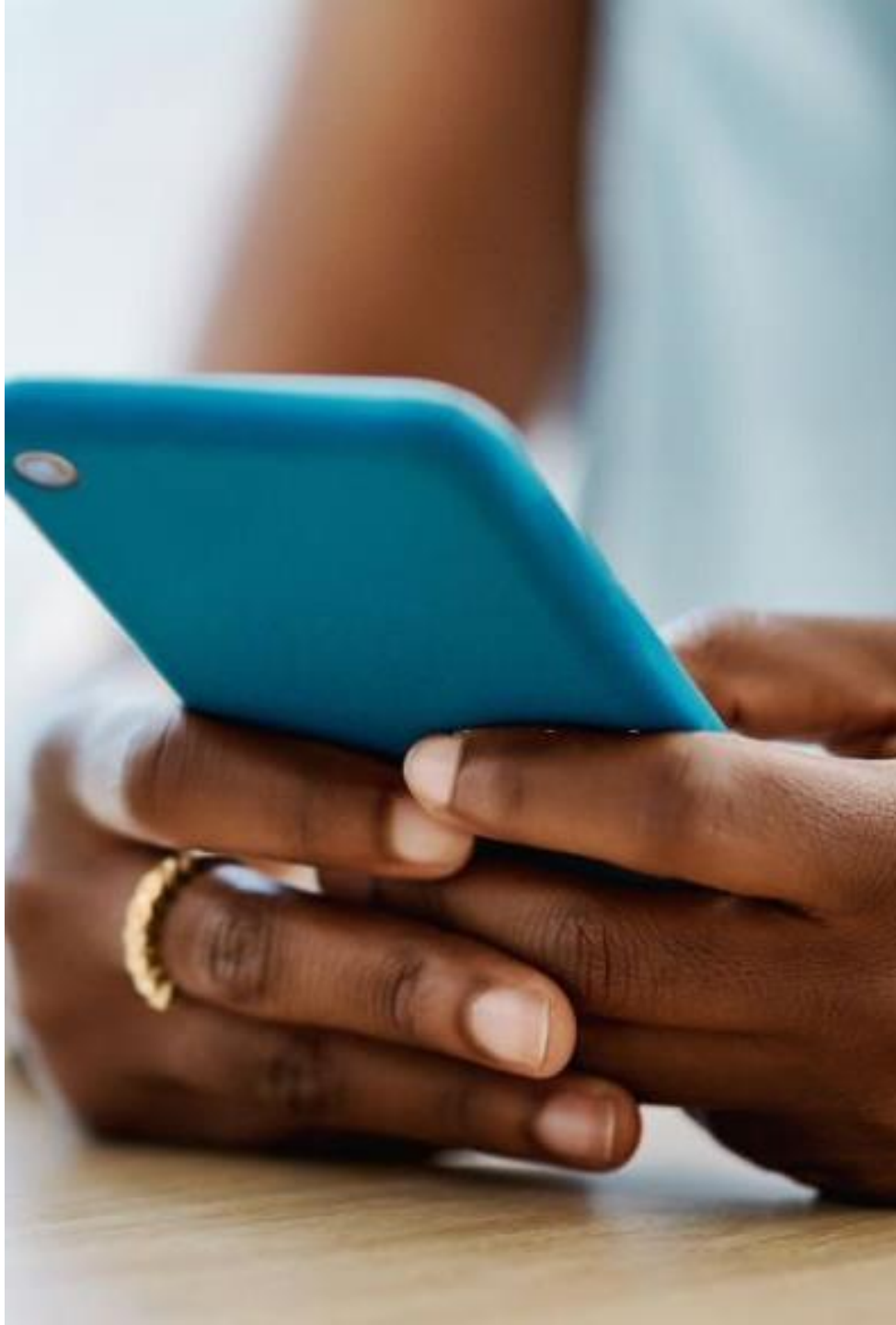
To strengthen and promote cooperation among the six EAC countries



Fast, reliable, secure, affordable and efficient communication services.



To harmonize ICT policies and regulatory frameworks in the region



RECENT PRODUCT AND PRICING TRENDS IN DATA MARKETS

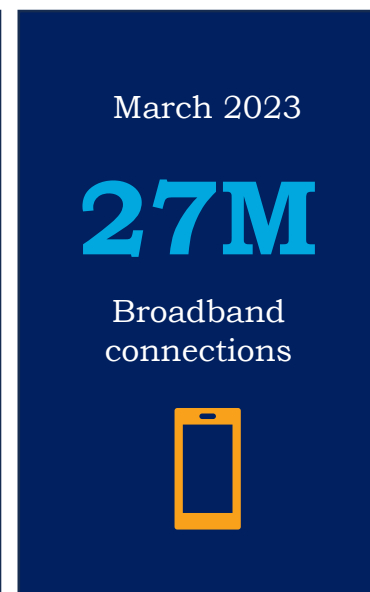
In order to offer context for discussions regarding data pricing, it is important to present an overview of product offerings, pricing structures, subscription trends, as well as engage in conversations about affordability, sector competitiveness, and potential regulatory interventions.

2.2. Data Product Evolution

- The last 2 years have seen introduction of special packages to target special niche segments. Packages include;
 - High-capacity unlimited fixed broadband users
 - Restricted online study bundles (study from home packages)
 - Non-Expiring bundles
 - Expiring bundles (daily, weekly, monthly)
 - User-specific offers (dynamic customer specific and data discount bundles)
 - Youth focus value propositions
 - Combo bundles (voice, sms data)
 - PayTV streaming bundles
 - Micro bundles (happy hour, night shift etc)

2.1. Data Subscription Trends

- In the last 5 years, the data and broadband service segment has grown in bits and bounds with some segments averaging more **than 1 million new customers/connections** every quarter in the last 2 years.

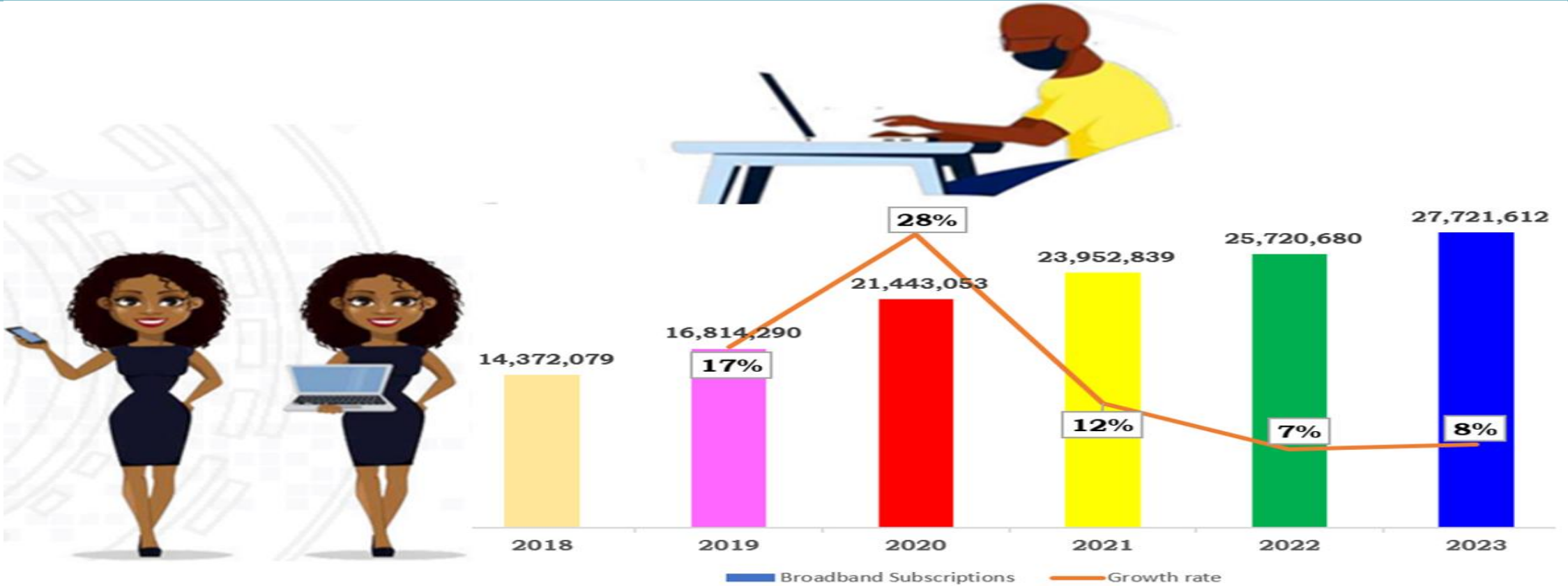


Growth Triggers:

- falling connectivity fees,
- increased broadband network coverage
- Recent COVID-driven Work from Home (WFH) packages, online school protocols, new social media

X2
Than 5 years ago

Broadband subscription trends, 2018- June 23

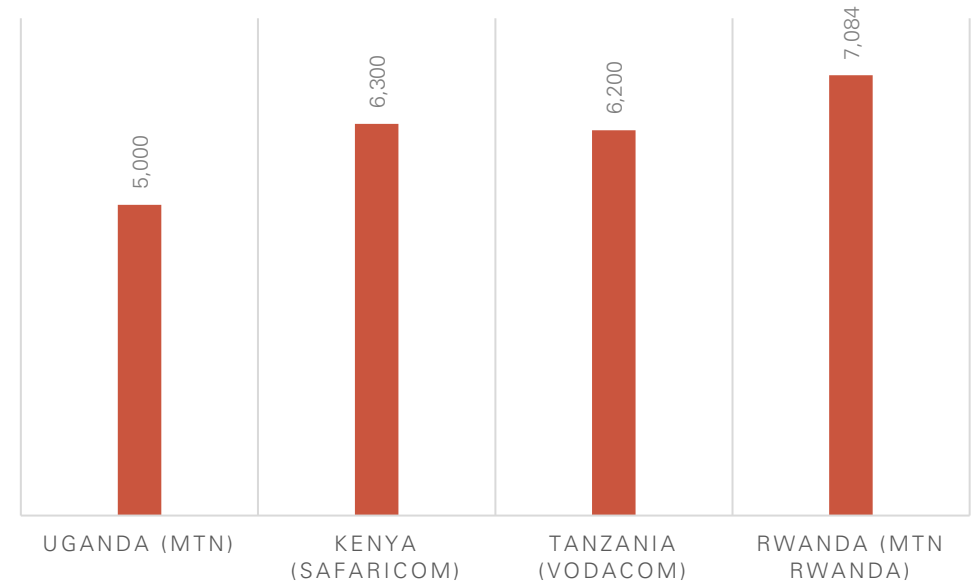




INTERNET PRICING AND REGIONAL COMPARISON

3.1 Retail Mobile Broadband Price Comparison

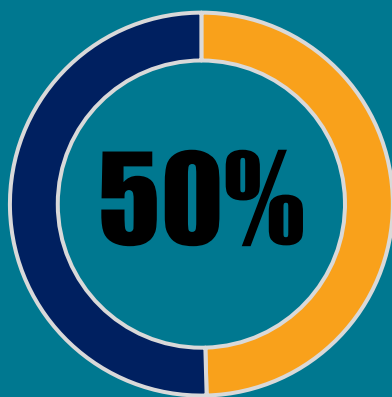
MARKET LEADER PRICE PER
1GB, UGX



3.2 Fixed Broadband Price Comparisons

Kenya outcompetes Uganda and Rwanda in Fibre to the Home (FTTH) and Fixed Enterprise Broadband. Differences can be observed in connection costs and monthly subscription charges.

Fibre To The Home (FTTH)



difference in pricing between countries that are landlocked and those that are not landlocked.

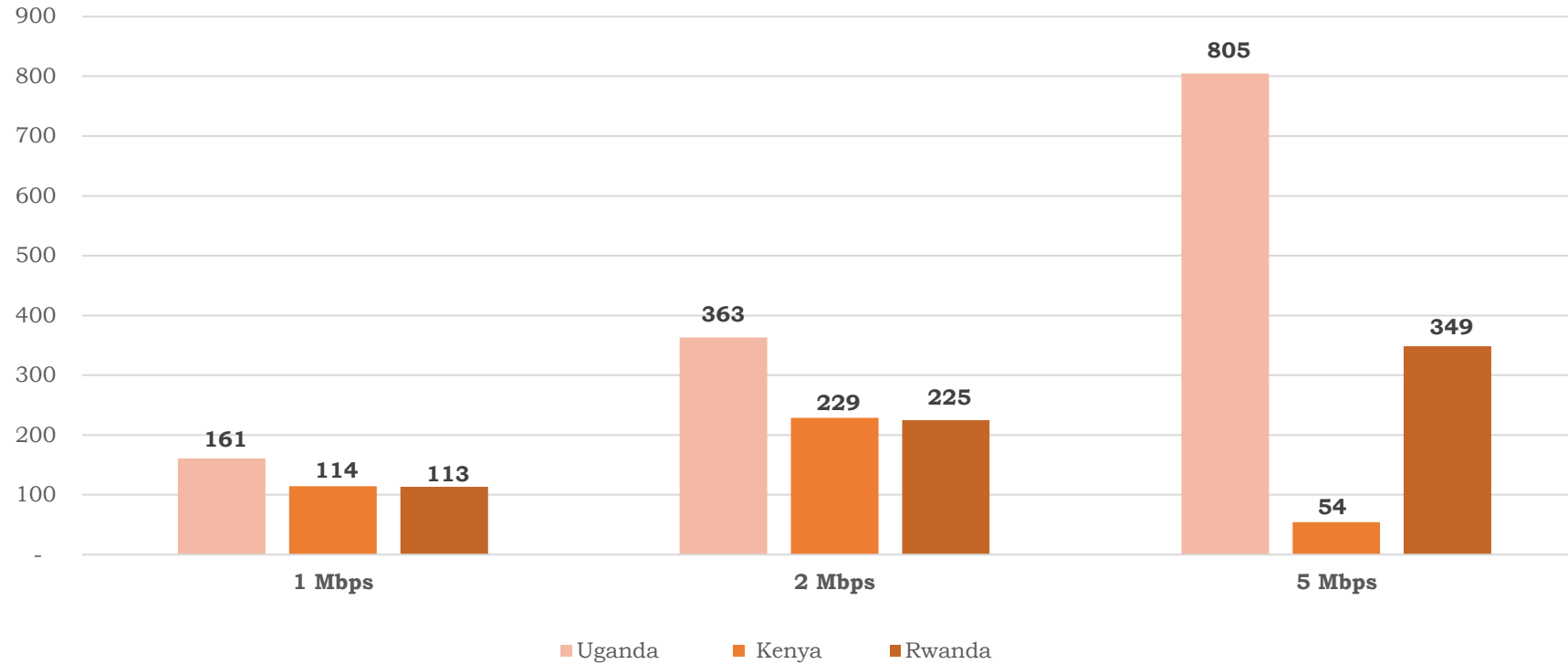
3.2.2 Fixed Enterprise Broadband

At the enterprise layer, the monthly price of a 1 Mbps connection varies greatly from one operator to another. For instance, MTN Uganda charges **USD 218** per Mbps while Airtel Uganda charge **USD 100**.

In comparison with Rwanda and Kenya, Uganda still has the highest price for Fixed Enterprise Broadband. Whereas Uganda charges an average of USD 184 for 1 Mbps, Kenya and Rwanda charge a cost of USD 114 and USD 113 respectively. The same is observed in higher capacity segments.

Figure 4 below shows a regional comparison of selected Fixed Enterprise Capacity prices.

Comparative Fixed Enterprise Broadband Pricing (USD)



3.2.3 IP Transit

- The International IP transit segment has seen prices drop from USD 35 per Mbps to as low as USD 2 per Mbps at the various PoPs of the different IP transit providers in the last 10 years.
- Further in a diversion from the big capacity commitments that were common in the market 5 years ago, different suppliers can now provide this whole service in smaller capacity increments like 100 mbps as a managed bandwidth service.

USD 35 per Mbps



**USD 2 per
Mbps**



INTERNET COST DRIVERS

Beyond the differences in broadband product pricing across select regional markets, Section 4 discusses the retail and enterprise broadband cost drivers in Uganda.

4.1 Undersea Cable Capacity & Landing Stations

- Presently various cables at the EA coast have peering arrangements with exchanges in Europe, Southern Africa and Middle East. These include;
- Deutscher Commercial Internet Exchange (DE-CIX) in Marseille, the France Internet Exchange (FranceIX) in Paris and the Durban IXP (NAPAfrica).

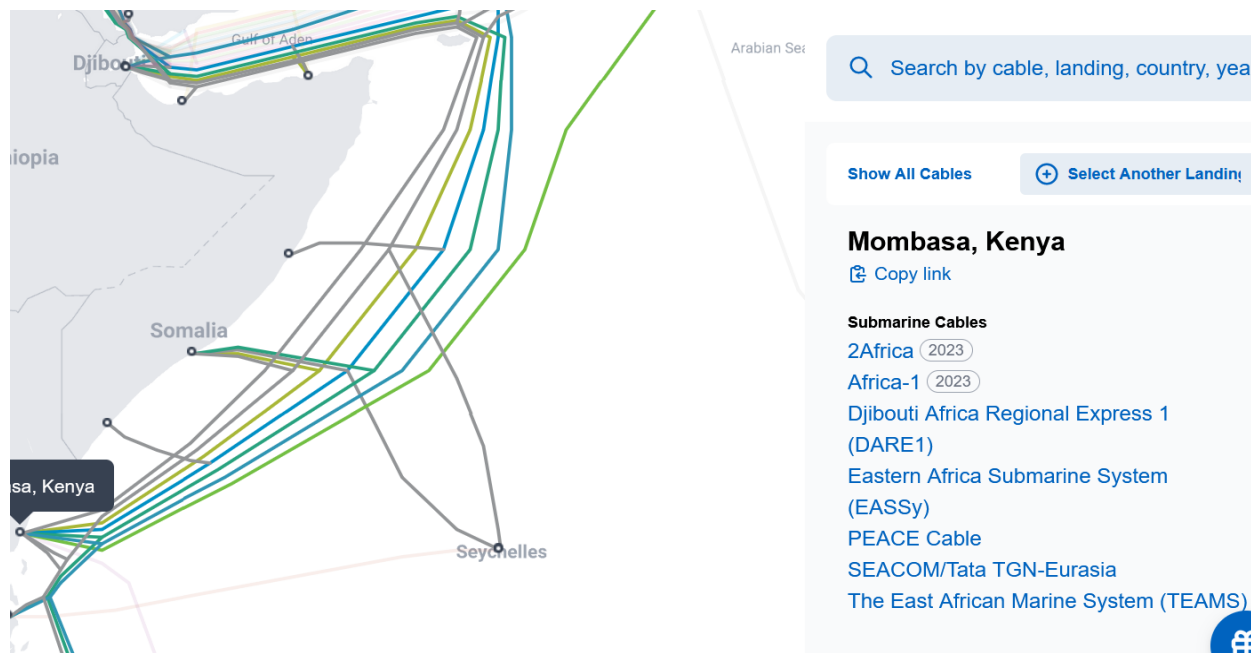


Figure 5 shows Submarine Cable Systems at the East African coast – March 2022

Source: (<https://www.submarinecablemap.com/landing-point/mombasa-kenya>)

4.2 FTTX Price Drivers

For FTTx customers, the biggest price driver is the cost **in-country fiber installation and maintenance.**

Cost of 1 mbps FTTx connection in Central region	
Metro fiber partner	MTN
	\$
One off Last Mile Fiber Extension (less than 200m)	1,250
One Off Last Mile Fiber Extention (less than 50m)	
Monthly Cost per 1 mbps	2
Monthly Recovery Extension CAPEX Recovery	104
Monthly Administrative Charge per Drop off	
Monthly Administrative Charge per mbps	28
Total Delivery Cost	134

From the above cost set up the cost of 1mbps per month is seen to shift from USD 2 to more than USD 130.

Delivery
capacity to
upcountry
drop off
point

Cost of 1mbps Delivery to an Upcountry drop off point		
	BCS	Soliton/NITA
	\$	\$
One off Cost for a Gulu, drop off	1500	1000
Monthly cost of 1mbps	2	2
Monthly National Carriage Charge, per mbps	22.5	28
Monthly Drop off Cost Recovery	125	83.3
<i>Baseline Cost, net of premises wiring</i>	<i>149.5</i>	<i>113.3</i>

4.3 Radio Network Service Overheads

- When ISPs are to deliver capacity wirelessly, they have standing overheads like radio spectrum and backhaul charges that have to be catered for over and above the wholesale price of bandwidth.
- A typical ISP delivering capacity through wireless service over the unlicensed frequency bands for instance would have an annual spectrum usage overhead of USD 30,000 per year on top of antennae CAPEX that may be as high as USD 50 per connection.



4.4 Passive Network Costs

- The price of retail broadband is driven by the cost of maintaining passive network elements like towers for the delivery of wireless last-mile connectivity.
- Traditionally, ISPs would maintain their own towers for the installation of radios for wireless connections. However, the entry of build-to-lease tower services has seen ISPs move to leased tower models.
- While this has reduced the cost of RAN deployments, we still maintain a low tower tenancy ratio and high OPEX hence keeping the lease costs high. The high tower OPEX is on account of limited grid penetration, vandalism, and local taxes.
- Currently, the market averages monthly tower lease fees of USD 1200 – USD 1500 while markets like India have average rental fees of USD 600 – USD 800 on account of higher tenancy ratios and scale.

Tax Policy and government levies

- There are taxes and government levies which include VAT, excise on airtime, corporation tax, regulatory and municipal council fees among others.



Conclusion

- It is important to address the cost drivers to ensure affordable and accessible internet services for the population, thus supporting the digital transformation and economic growth agenda.
- Additionally, policy and regulatory interventions may be needed to enhance competition and affordability in the internet sector.





THANK YOU!

Feedback / Questions

