



Implications of the interaction between telecommunications operators and OTT providers

September 3, 2024

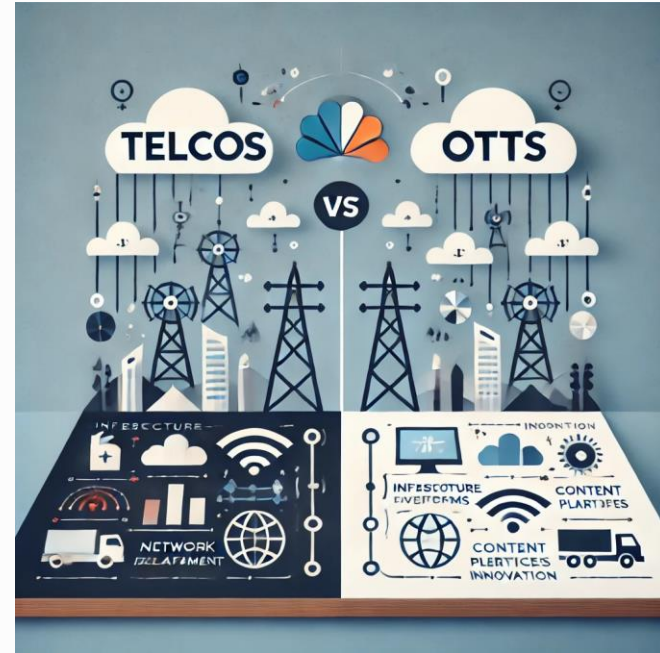


Debate on network usage fees in LATAM

Network usage fee debate percolates into LATAM

LATAM telcos seek OTTs to pay network fees, citing an imbalance in responsibilities

- **Arguments in favor of fees:**
 - Telcos argue there is an imbalance between ISPs and OTTs, with ISPs shouldering infrastructure costs.
 - Large tech companies drive increased network traffic, but telcos bear the investment burden.
 - Fees are seen as a remedy for the investment gap faced by telcos.
- **Arguments against fees:**
 - Critics argue there is no imbalance; OTTs contribute to the ecosystem in different ways.
 - Concerns over stifling innovation, increasing user costs, and exacerbating the digital divide in LATAM.
- **Regulatory impact:**
 - LATAM regulators are monitoring the debate, with potential implications for connectivity and digital equity.



Telco advocacy for network usage fees in LATAM triggers some regulatory discussions and public inquiries

Ongoing public input process:

- Anatel Subsidy Taking 26/2023 (January 15, 2024)
- Ministry of Finance, Notice of Public Consultation, No. 1 (Jan. 18, 2024)

Legislative bills introduced:

- PL 2804/2024 – would require large digital platforms to contribute to USF (FUST)
- PL 469/2024 – tabled bill banning ISPs from charging CAPs for data traffic generation

Internal discussions:

Argentina

- In June 2024 ENACOM's interventor stated that he is open to payment mechanisms to support the telco sector's network investments

Colombia

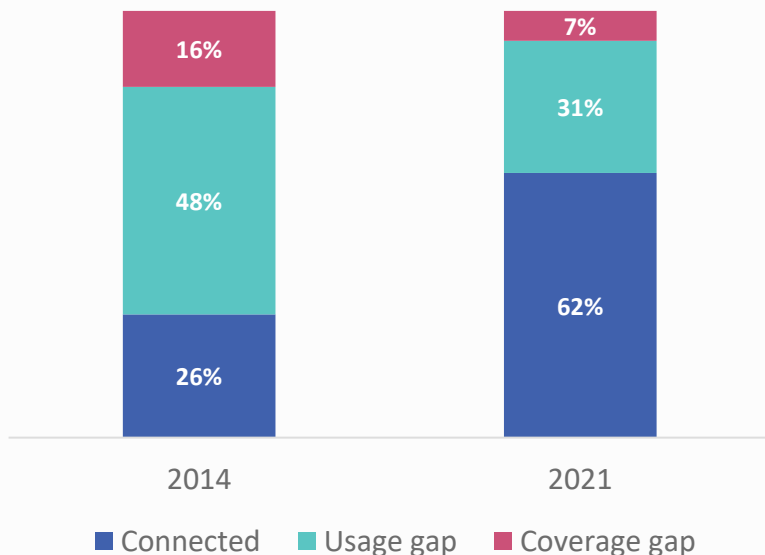
- MinTIC has called for an "open debate" on "fair share"

Are we asking ourselves the
right question?

There is progress but we are not there yet....

Progress.....

Mobile internet connectivity in LATAM, 2014 - 2021



Source: GSMA, Connectivity Gaps in Latin America 2023

But not there yet....

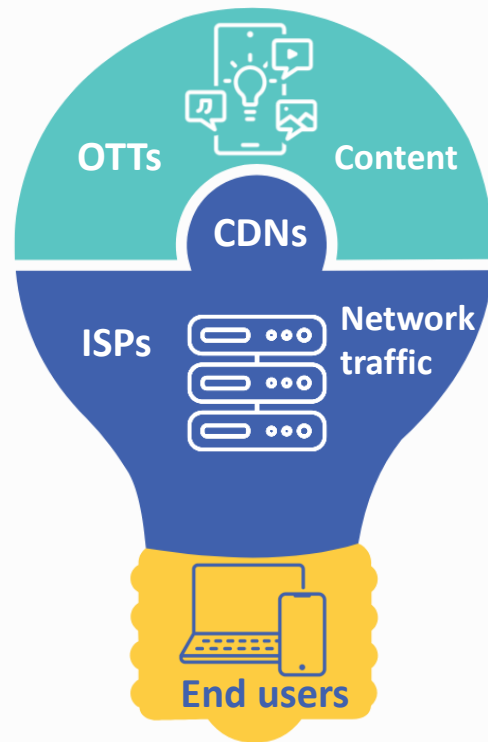
- Despite significant network deployment in the region during the past decade, 230 million remain unconnected.
- Moreover, coverage does not necessarily equate with adoption.
- Factors such as the affordability of service and devices, as well as digital literacy, continue to pose significant obstacles to service adoption.
- Solutions are needed that advance the connectivity and digital inclusion goals while not negatively impacting the internet ecosystem.

Contributions to the digital economy

A mutually beneficial relationship exists between OTTs and ISPs

OTTs and ISPs rely on each other to deliver content to end-users

- **Content delivery path:**
 - OTTs create and distribute content (e.g., streaming services, apps).
 - ISPs provide the network infrastructure that transports this content from servers to the end user's device.
- **User interaction:**
 - End users access the network provided by ISPs to find and consume the content they desire from OTTs.
 - The quality of the ISP's network directly impacts the user's experience with OTT content.
- **Mutual benefit:**
 - OTTs benefit from widespread network access, while ISPs benefit from the demand for high-quality content, driving the need for robust networks.
 - This relationship drives innovation and investment in both content creation and network infrastructure.



Telcos play key role in broadband expansion

Relevance of investments and network access

Significant capital investment

- Over the past two decades, Latin American telcos have made substantial investments in both fixed and mobile broadband infrastructure.
- These investments have expanded network coverage and improved service quality across the region.

Anticipated Capex

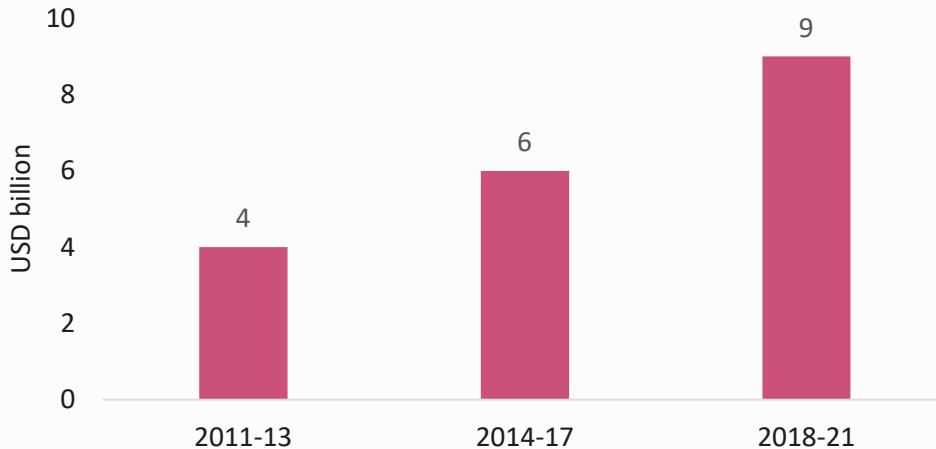
- The GSMA's The Mobile Economy Latin America 2024 report projects that telecom operators in the region will invest \$109 billion in capital expenditures (Capex) from 2023 to 2030.
- This funding will provide for maintaining and upgrading existing networks, as well as rolling out new infrastructure.

Impact on broadband penetration

- These investments have resulted in nearly doubling mobile broadband coverage from 220 million people in 2014 to almost 400 million in 2021, significantly enhancing digital connectivity in the region.

But OTTs also invest in digital infrastructure, both globally and in LATAM

Average annual investment of OTTs in LATAM 2011-21

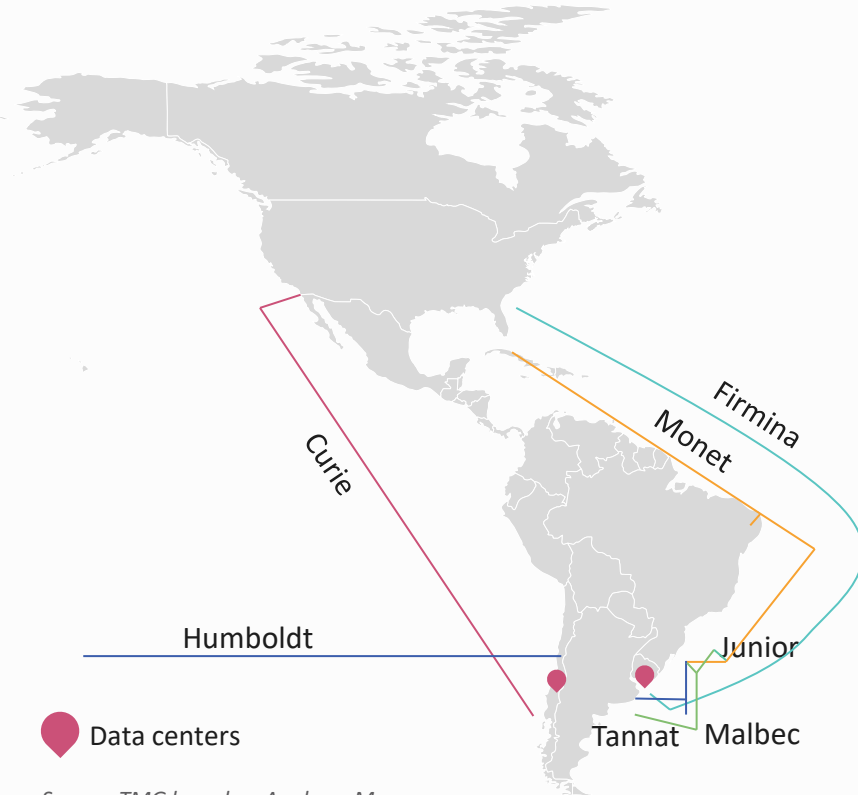



Source: TMG based on Analysys Mason, 2022

Globally, OTTs invested **USD 883 billion in digital infrastructure** over the last decade, including hosting, transport, and delivery networks.

In **Latin America alone**, approximately **USD 72 billion** was invested during this period.

OTTs make significant investments in digital infrastructure in LATAM



 Data centers

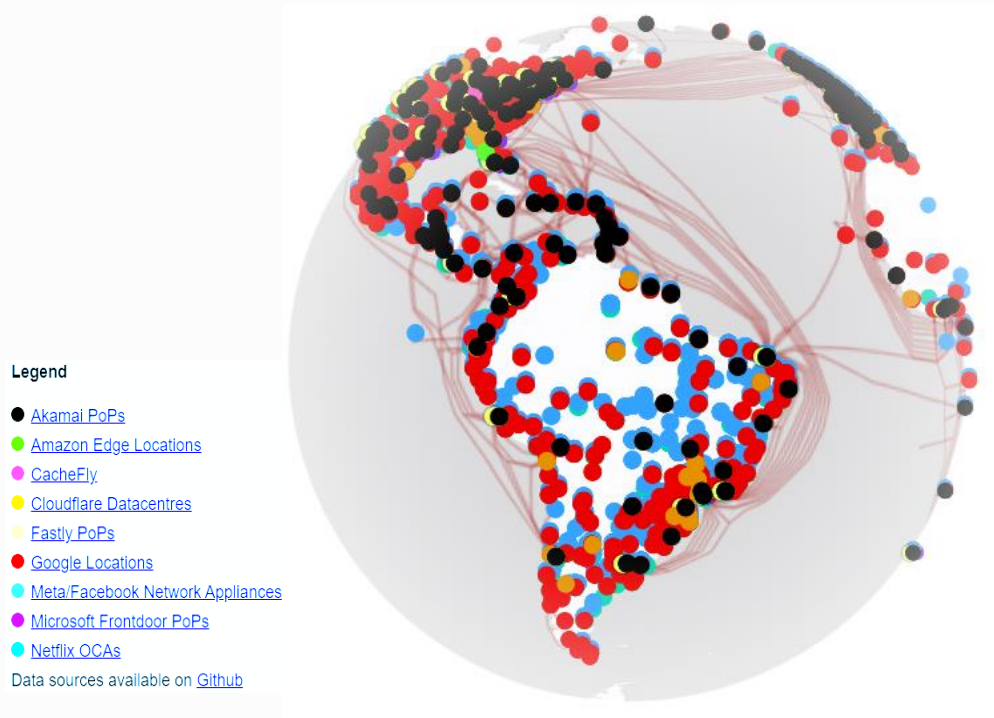
Source: TMG based on Analysys Mason

OTTs have invested in submarine cables and data centers in Latin America.

Google noted in its comments to Anatel consultation earlier this year that it alone **invested 200 billion US dollars in the digital ecosystem** in the 3 years up to 2022.

Recently, Google and the Government of Chile announced the first submarine cable between South America and Asia-Pacific.

Significant CDN deployments in LATAM enhance traffic and network efficiency



- Extensive networks of CDNs -- either through 3rd party CDNs and OTT CDNs- - exist in Latin America.
- These providers have partnerships with both large, mid-to-small ISPs, and IXPs.
- These deployments enhance the user experience by localizing traffic and generating savings for ISPs.

OTT investments in content generate demand and increase broadband adoption

2024 Global Content Spend Estimates (USD)*



21.3 billion



5 billion



19 billion



19.6 billion

*excludes sports

Source: Morgan Stanley (cited in a Variety article [here](#))

Digital Market



Broadband Adoption



Entry of a single video-on-demand (VOD) service in a market without existing VOD service has been shown to increase broadband adoption by nearly 14% and by 7% when a second VOD enters the market.

Source: Katz, Jung, and Callorda, *The role of Video on Demand in stimulating broadband adoption*

OTT content drives value and generates demand

Lleva Internet ultraveloz en fibra óptica

Pídelo en Tripleplay
50% dto. x 2 meses

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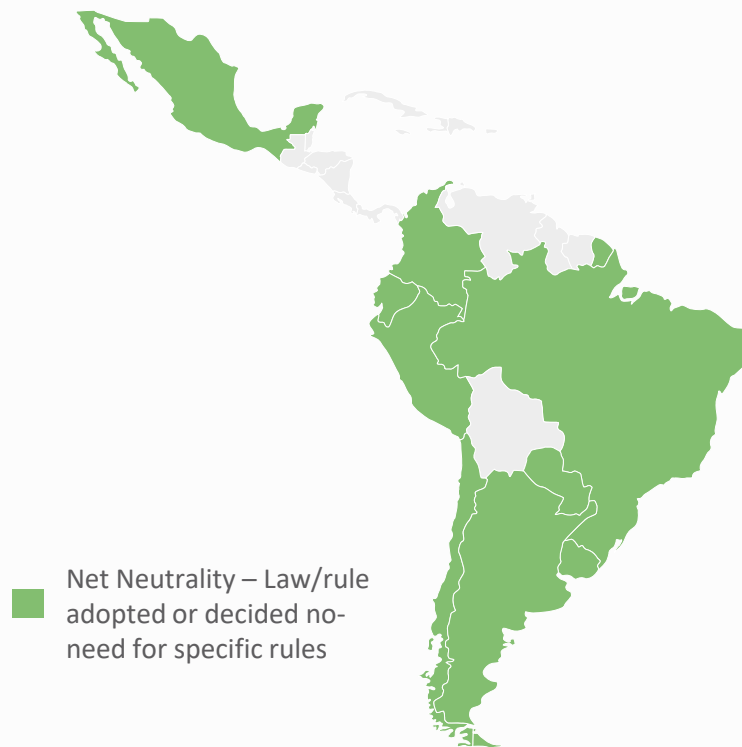
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Risk in network usage fees







Net neutrality is an adopted policy in most LATAM countries

Net neutrality requires ISPs to **allow internet users to access the lawful online content**, applications, and services of their choice **without blocking, throttling, or prioritization**.

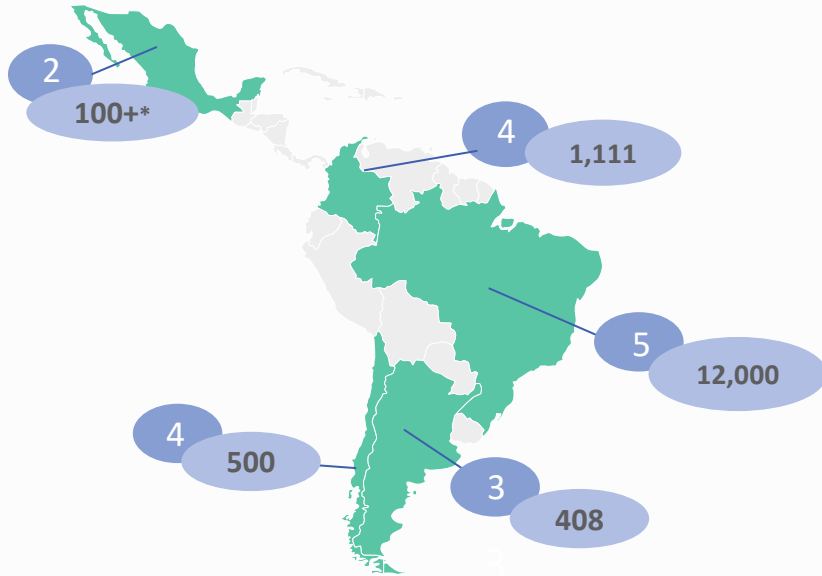


Source: TMG based on country legislation

Network usage fees pose a risk to consumers and competition

Consumer harms		Competition harms	
	Potential violation of net neutrality and open internet principles		Distorting competition
	Increased costs		Potentially entrenching large OTTs
	Reduced choice of online content and apps		Entrenching large incumbent operators

Small ISP players play key role in Internet ecosystem



- Small ISPs play a key connectivity role, often serving remote and rural areas that may not be commercially attractive.
- In Brazil, small ISPS, through trade association ABRINT, have voiced concerns about network usage fees, saying it will introduce discrimination, increase transit prices and dependency on international routes.
- Similarly, CABASE in Argentina, which represents small and medium ISPs, opposes network usage fees.

Number of large MNOs
 Number of small ISPs

*Source: Argentina: Investment and International Trade Agency 2023 and Chamber of Internet; Brazil: OECD Brazil Report June 2024; Chile ICT statistics Subtel (Q1 2024); U de Chile 2021; Colombia ICT Statistics (as of 1Q2024); Mexico IFT, Anuario Estadístico 2023; *ISP registered with WISPMx.*

USFs in LATAM and globally face challenges, limiting progress in advancing connectivity and digital inclusion

A 2021 study highlighted numerous challenges with USFs in the region:



Limited or no disbursement



Funds not used or used for other purposes



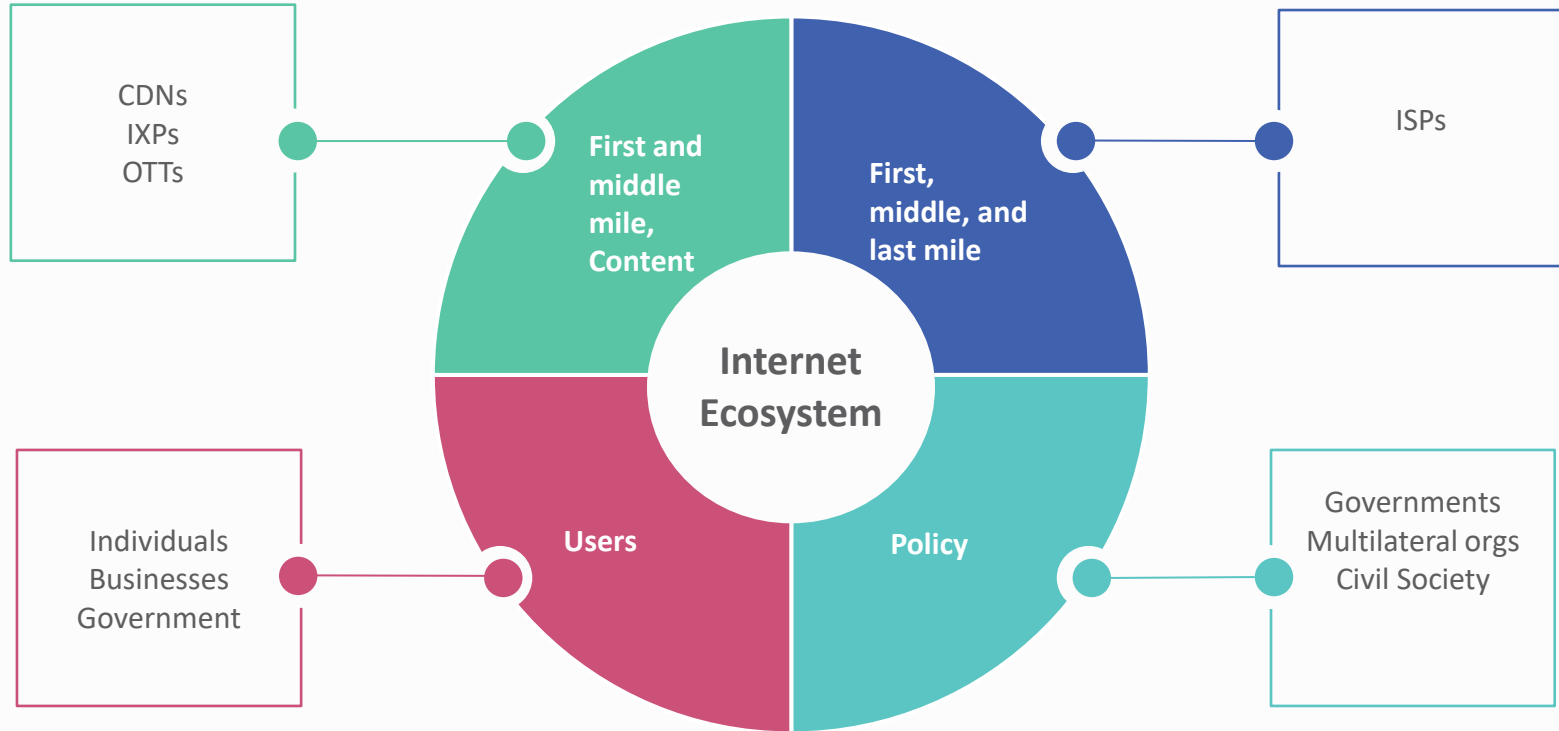
Lack of transparency regarding financial status of fund and on status or results of project

Source: *The Alliance for Affordable Internet (A4AI) study on USF in Latin America & the Caribbean (Dec. 2021)*

Let's redirect the conversation

Some potentially better tools to advance digital connectivity and inclusion

Every player is crucial to improve digital access and inclusion



Collaborative technical solutions are boosting network efficiency



Meta and Vodafone

After a successful 3-week UK trial in April 2024 showing a "meaningful reduction in network traffic," Vodafone and Meta rolled out a new mobile broadband optimization for 4G/5G across 11 European markets in July 2024. This enhancement frees up network capacity, enabling customers to enjoy more high-quality short videos on Facebook, WhatsApp, and Instagram.

Alberto Ripepi, Chief Network Officer at Vodafone, said:

"Meta's willingness to optimise the delivery of video for its applications leads the way for a more efficient use of existing network resources. Vodafone and Meta have implemented these optimisations across Vodafone's European markets and intend to continue collaborating to foster additional efficiencies."


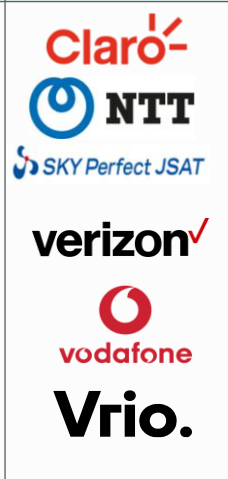



Source: <https://www.vodafone.com/news/technology/vodafone-and-meta-optimise-short-form-videos-to-improve-network-efficiency>



Video optimization

OTT platforms use advanced compression to efficiently deliver high-quality video, reducing file sizes and minimizing bandwidth use, ensuring smooth streaming on devices with limited capabilities. Netflix's AV1, developed with partners like Google, Amazon, and Microsoft, compresses videos 20% more efficiently than the widely used VP9 codec.

New satellite technologies with MNO partnerships present a more effective solution to bridge the connectivity gap

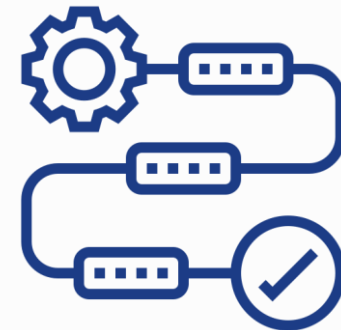
AST SpaceMobile, Inc.	Amazon Kuiper	Lynk Global	OneWeb	Starlink
D2D	Broadband	D2D	Broadband	D2D, Broadband
				

As noted by the GSMA, “advances in various satellite and NTN solutions have resulted in performance improvements, lower deployment costs and more commercially viable business models. This is driving new partnerships with telecoms operators in ways that could reshape the connectivity landscape.”

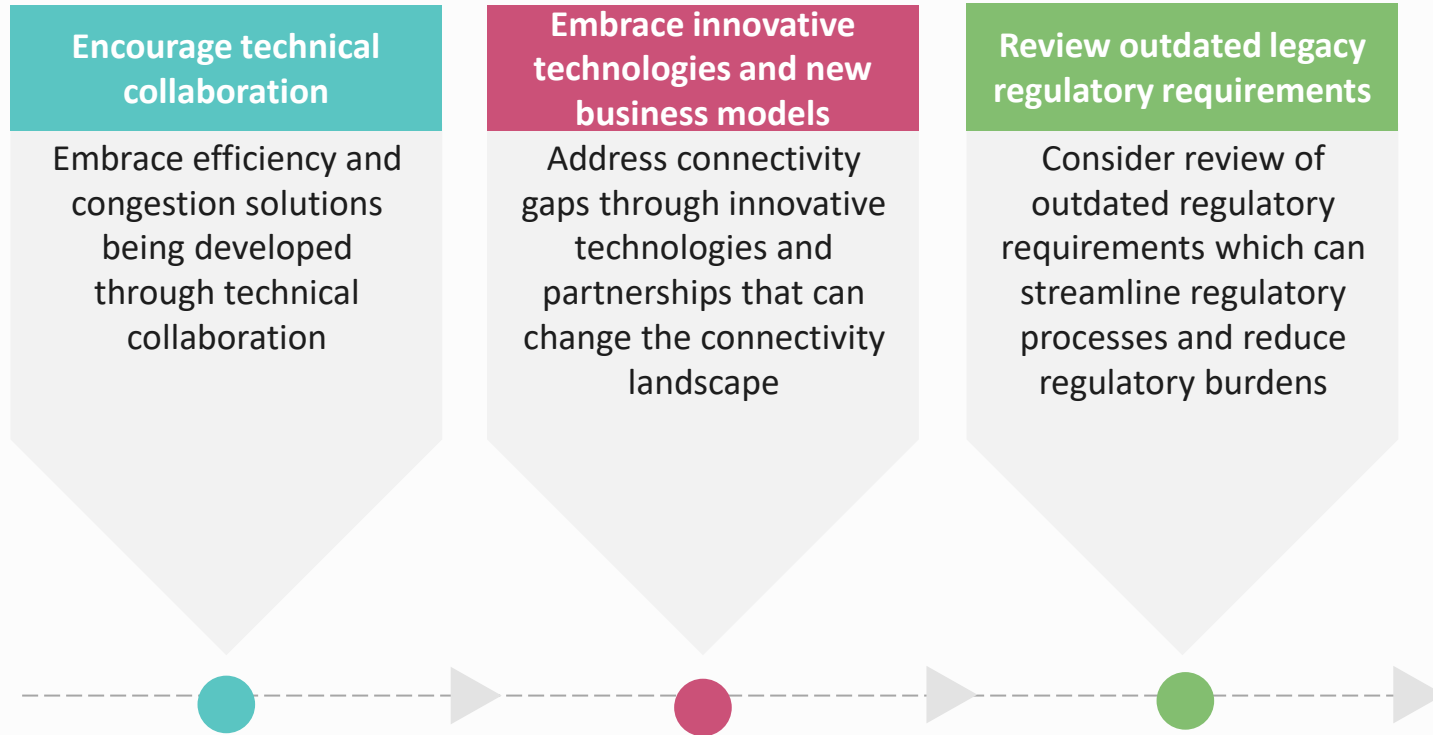
Source: GSMA, *The Mobile Economy 2024* (April 2024)

Governments can advance connectivity by streamlining regulations and supporting innovative technologies

- **Modernize regulatory frameworks:** Replace outdated legacy regulations with market-driven, agile measures that better support innovation and growth.
- **Simplify regulatory processes:** Streamline processes to reduce administrative burdens on telecom operators, facilitating quicker deployment of new technologies.
- **Optimize spectrum management:** Lower spectrum costs and introduce more flexible assignment methods to ensure efficient use and broader access to connectivity solutions.
- **Reduce taxes and costs:** Cut excessive taxes and administrative fees that hinder investment and slow down innovation in the telecom sector.
- **Eliminate unnecessary requirements:** Remove outdated reporting and data collection mandates that are resource-intensive and may no longer be relevant.
- **Facilitate market entry:** Create a conducive environment for innovative connectivity solutions by easing entry barriers and fostering public-private partnerships.



Let's focus on a path forward that will effectively and collaboratively advance connectivity and digital inclusion





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