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## The Mobile Economy Latin America 2024

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# Executive summary

### Unlocking the full potential of mobile

By the end of 2023, 418 million people in Latin America (65% of the population) used mobile internet – an increase of 75 million over the last five years. While the pace of change has been fast in recent years, progress going forward will be increasingly complex. Some countries are close to reaching their connectivity frontier under current market conditions, driving the need for reform to unlock the full potential of mobile technology. The economic contribution of mobile underlines the need for stakeholders to take the right steps to sustain the impact of mobile services on the digital economy. In 2023, mobile technologies and services generated 8% of GDP in Latin America – a contribution that amounted to \$520 billion of economic value added. The mobile ecosystem in the region also supports around 2 million jobs (directly and indirectly) and makes a substantial contribution to the funding of the public sector, with \$50 billion raised through taxation in 2023.



## Key trends shaping the mobile ecosystem

#### **5G gains traction**

In Latin America, 29 operators across 10 countries had launched commercial 5G services as of April 2024. Several others plan to roll out services over the coming years. For the pioneer operators, 5G adoption is approaching mass-market levels. For example, Movistar Chile disclosed at MWC Barcelona 2024 that it had surpassed 1.5 million 5G customers, equivalent to around a fifth of its total mobile connections.

As in most regions, early 5G use cases in Latin America revolve around enhanced mobile broadband (eMBB) and fixed wireless access (FWA) services to meet growing demand for connectivity. Latin America is also home to an expanding number of private 5G networks, capable of addressing enterprise issues around latency, reliability and density.

#### **Operators unite to drive progress** with APIs

By March 2024, 49 mobile operators had joined the GSMA Open Gateway Initiative. These represent approximately 65% of global mobile market share (by connections). Operator commitments are beginning to translate into commercially available network APIs.

In December 2023, Brazilian operators Claro, TIM Brasil and Telefónica's Vivo launched three network API services (Number Verify, SIM Swap and Device Location) focused on improving digital security as part of the Open Gateway initiative. There have been positive early signs. Claro recently announced that the SIM Swap API processes around 3 million requests per month on the Claro network. Meanwhile, Telefónica has announced a partnership with TikTok to improve user security via GSMA Open Gateway.





#### Partnerships between telcos and satellite providers aim to bridge the connectivity gap

Telecoms networks remain the primary form of connectivity, supported by the wide area coverage of wireless networks and the mass production and adoption of mobile devices. However, in recent years, advances in satellite and other non-terrestrial networks (NTNs) have helped overcome several of the limitations associated with aerial connectivity. A key selling point for aerial connectivity is the potential to provide ubiquitous coverage around the world. Telecoms networks now cover more than 95% of the world's population but less than 45% of the world's landmass.

A number of collaborations between telcos and satellite providers have been announced to improve connectivity in hard to reach areas. Further partnerships are expected in 2024 as the value becomes clearer and further satellite capacity becomes available.



#### eSIM adoption to gather pace

Around a third of mobile network operators in Latin America had launched eSIM service for smartphones as of June 2023. The rollout includes 30 operators across 14 countries. However, while progress on eSIM launches is accelerating, consumer awareness and adoption of eSIM remains low.

At the end of 2023, 5% of smartphone connections in Latin America used eSIM. This will grow to 16% by the end of 2025, and 75% by the end of the decade. The sharp increase in eSIM adoption will be driven by device vendors introducing eSIMonly smartphones. Operators need to develop medium- and long-term eSIM strategies given the technology's potential to disrupt the competitive dynamics of the mobile sector.

### Operators explore the potential of generative AI

Mobile operators have used AI for some time across different parts of their operations. Much of the early work has focused on improving customer service and delivering personalised product suggestions. Meanwhile, network use cases such as fault detection and resolution, network optimisation and network planning are a growing area of focus for operators, with their suppliers delivering diverse AI operations and support tools.

Operators are also exploring opportunities to generate additional revenue streams by leveraging AI technology in their IoT solutions for sectors such as agriculture and utilities. As new generative AI (genAI) solutions come to the fore, operators will have further potential to transform their operations and capture new revenues.

A number of collaborations between telcos and satellite providers have been announced to improve connectivity in hard to reach areas.

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### **Policies for growth and innovation**

Digital development requires joined up efforts between the private sector and governments. While operators invest in the deployment of digital infrastructure, public policy establishes the regulatory framework and commercial environment that can enable, promote or discourage that investment. Over the last year, some Latin American governments have taken positive measures in this regard, though lack of spectrum resources continues to be a barrier to greater connectivity across a large part of the region.

The usage gap represents a persistent challenge across the region. The usage gap represents a persistent challenge across the region. Despite living in areas with mobile internet coverage, many people in Latin America do not use mobile services. This is largely because they cannot afford them or do not know how to use mobile devices. Meanwhile, recent months have seen discussions evolve on introducing flexible schemes in which all participants in the digital ecosystem can contribute equitably ('fair share') to the deployment of digital infrastructure. This debate is crucial to internet growth and the digital future of the region. It has the potential to position Latin America at the forefront of global digital public policy.



### The Mobile Economy Latin America





Mobile ecosystem contribution to public funding (before regulatory and spectrum fees) Plus **1m** indirect jobs

### **Subscriber and** technology trends for key markets









Brazil

Technology mix

83%

9% 4% 3%

2023

2023

2030



Note: Totals may not add up due to rounding





# The mobile industry in numbers



### In 2023, 65% of the population in Latin America used mobile internet

Recent years have seen significant growth in internet connectivity levels across Latin America. Between 2014 and 2021, for instance, the number of people in the region with mobile internet access nearly doubled, from 230 million to almost 400 million.

Despite this growth, 225 million people in Latin America were without access to mobile internet at the end of 2023. While the pace of change has been fast in recent years, further progress will be increasingly complex. Some countries are close to reaching their connectivity frontier under current market conditions, driving the need for reform to expand connectivity levels.<sup>1</sup>

#### Figure 1

### Latin America: mobile internet connectivity in key markets, 2023

Coverage gap -Usage gap -Connected -



Percentage of population

Source: GSMA Intelligence

1. For more information, see <u>Connectivity Gaps in Latin America</u>, GSMA Intelligence, 2023



### More than half of mobile connections in Latin America will be on 5G by the end of 2030

With 455 million 4G connections, 4G adoption in Latin America accounted for 66% of total connections at the end of 2023. 4G take-up will be flat over the next couple of years as migration from 4G to 5G is offset by continued 4G growth in Colombia, Peru and Venezuela, as well as Central American countries (notably, Dominican Republic and Guatemala).

With high 4G adoption and the rollout of 5G, operators in Latin America are progressing with their plans to retire legacy networks. To date, 11 operators in the region have completed 2G network sunsets, with an additional 10 announcing plans to retire 2G by 2030.<sup>2</sup> This allows them to repurpose spectrum for more spectrally efficient 4G and 5G networks, while also improving energy efficiency.

#### Figure 2 Latin America: mobile adoption by technology

Percentage of total connections



Source: GSMA Intelligence

2. Network sunsets, Q4 2023, GSMA Intelligence, 2024



### Latin America is forecast to record 425 million 5G connections by the end of decade

The GCC states, developed Asia Pacific, North America and Greater China continue to lead on 5G adoption around the world. While some European markets are seeing increased traction, the majority across the region have been slow to ramp up 5G.

5G is at a nascent stage in Latin America. The current adoption rate is around 5% of total connections. This is expected to grow to 14% by 2025. By that point, 5G will account for a doubledigit share of total connections in Argentina, Brazil, Chile, Mexico, Guatemala and Uruguay. In the second half of the decade, 5G adoption will ramp up quickly as new 5G markets go live and existing 5G networks expand into new areas.



#### **Emerging 5G markets**



\* Australia, Japan, New Zealand, Singapore and South Korea \*\* Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Russia, Tajikistan, Turkmenistan, Uzbekistan

Source: GSMA Intelligence

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### Mobile data traffic in Latin America will quadruple between 2023 and 2030

Mobile data traffic in Latin America is forecast to grow at a CAGR of 25.5% between 2023 and 2030, reaching more than 24 EB per month by the end of the decade. At a per-connection level, monthly mobile data traffic in Latin America will rise from 7 GB to 32 GB over the period.

New services could unlock faster growth in mobile data traffic. Extended reality (XR) services are one example. XR headset ownership still languishes in the mid-single-digit percentages, but Apple's entry into the market with its Vision Pro could help break the stasis. Its efforts across hardware, content and user experience should help boost the overall XR ecosystem, including through heightened competition, in turn supporting the wider metaverse and bolstering XR's chances of becoming a popular technology.

#### Figure 4 Global mobile data traffic

EB per month



#### Mobile data traffic per connection (GB per month)

Region	2023	2030	CAGR 2023-2030
Asia Pacific*	14	53	21%
Eurasia	13	40	18%
Europe	17	71	22%
Greater China	13	54	23%
Latin America	7	32	23%
MENA	10	31	18%
North America	29	90	17%
Sub-Saharan Africa	2	9	23%

\* Asia Pacific excludes Greater China Source: GSMA Intelligence



### Licensed cellular IoT connections in Latin America will reach 125 million by 2030

The cellular IoT market will experience steady growth in Latin America, expanding by a CAGR of 8% between 2023 and 2030. Brazil and Mexico will account for almost 80% of the growth, with IoT also gaining traction in Argentina, Colombia, Chile and Venezuela. The increasing availability of Iow-power, wide area (LPWA) networks is crucial to the widespread adoption of IoT, as reflected in Movistar Colombia's launch of LTE-M in February 2024 and Entel Chile's introduction of NB-IoT in October 2023.

Operators see the potential in partnerships for jointly selling IoT solutions with IoT platform companies, telecoms vendors, systems integrators and business software platforms. For instance, Telefónica and Nokia announced an alliance in June 2023 to accelerate digital transformation for enterprises in Latin America. The alliance is focused on the most promising industries, including ports, mining, energy and manufacturing.



Source: GSMA Intelligence

### By 2030, mobile revenues will total \$84 billion in Latin America

Mobile revenues are expected to grow at a CAGR of 2.5% between 2023 and 2030, as mobile internet subscriber growth slows and data monetisation challenges remain. This will drive operators to expand efforts in generating new revenue streams beyond connectivity. GSMA Intelligence research shows such strategies are having a material impact on the top line, with services beyond traditional core telecoms now a key component of operators' revenue growth stories.<sup>3</sup>

Operators in Latin America have invested \$57 billion in mobile capex over the last five years. The rollout of 5G networks across the region is expected to drive a slight increase in annual capex, which will peak in the forecast period at \$15 billion in 2027. The steady growth expected in mobile revenues means operators should be able to maintain their mobile capex-to-revenue ratios at between 14% and 19% over the forecast period.



Source: GSMA Intelligence

3. From telco to digital telco: navigating trends and drivers shaping revenue growth beyond connectivity. GSMA Intelligence, 2023



### The mobile sector added \$520 billion of economic value to the Latin American economy in 2023

In 2023, mobile technologies and services generated 8% of GDP across Latin America - a contribution that amounted to \$520 billion of economic value added. The greatest benefits came from the productivity effects generated by the use of mobile services across the economy, reaching \$420 billion. The direct contribution by the mobile ecosystem was also significant.

The mobile ecosystem comprises three categories: mobile operators: infrastructure and equipment providers; and content and services. The infrastructure and equipment providers category includes network equipment providers, device manufacturers, and IoT companies. Meanwhile, content and services encompasses content, mobile application and service providers, distributors and retailers, and mobile cloud services.

#### Figure 7 Latin America: total economic contribution of the mobile industry, 2023

\$420 \$520 Mobile ecosystem 6.3% 8.0% \$20 \$10 \$30 \$50 0.4% 0.3% 0.2% 0.7% Content and Indirect Total Mobile Infrastructure Productivity and services operators equipment providers

Billion. % of GDP

Note: totals may not add up due to rounding. Source: GSMA Intelligence



### By 2030, mobile's economic contribution will reach \$600 billion

By the end of 2030, mobile's contribution will reach more than \$600 billion in Latin America, driven mostly by the continued expansion of the mobile ecosystem and verticals increasingly benefitting from the improvements in productivity and efficiency brought about by the take-up of mobile services.

#### Figure 8 Latin America: economic impact of mobile Billion



Source: GSMA Intelligence

### The mobile ecosystem in Latin America supported 2 million jobs in 2023

Mobile operators and the wider mobile ecosystem provided direct employment to approximately 1 million people in Latin America in 2023. In addition, economic activity in the ecosystem generated around 1 million jobs in other sectors.

#### Figure 9 Latin America: employment impact of the mobile ecosystem, 2023

Jobs (million)





\$600

2030

Note: totals may not add up due to rounding Source: GSMA Intelligence



### The fiscal contribution of the mobile ecosystem in Latin America reached \$50 billion in 2023

In 2023, the mobile sector in Latin America made a substantial contribution to the funding of the public sector, with around \$50 billion raised through taxes. A large contribution was driven by services, VAT, sales taxes and excise duties (\$20 billion).



Source: GSMA Intelligence



### 5G will add almost \$70 billion to the economy in Latin America in 2030

5G is expected to benefit the Latin American economy by \$70 billion in 2030, accounting for almost 11% of the overall economic impact of mobile. Much of the 5G benefit will materialise over the second half of the decade to 2030. Some countries are in the early stages of deployment; the 5G economic benefits will increase as the technology starts to achieve scale and widespread adoption.

While 5G is expected to benefit most sectors of the Latin American economy, some industries will benefit more than others due to their ability to incorporate 5G use cases into their business. Over the next seven years, 31% of the benefits are expected to originate from the manufacturing sector, driven by applications including smart factories, smart grids and IoT-enabled products. Other areas that will experience significant benefits are the public administration and services sectors, at 12% and 9% respectively.



Source: GSMA Intelligence



### Mobile industry trends



### 2.1 5G: momentum builds in Latin America

5G technology is now available in more than 100 countries around the world. As of April 2024, 295 operators in 114 countries had launched commercial 5G services. The number of 5G connections is forecast to reach 2 billion globally by the end of 2024, accounting for nearly a quarter of total mobile connections. In several pioneer countries, notably China, South Korea and the US, 5G adoption has reached mass-market levels, accounting for more than half of total connections.

The majority of 5G networks have been constructed using non-standalone (NSA) architecture, prioritising wide-area coverage, capacity and reliability. However, there is a growing shift towards standalone (SA) architecture and new standards. These will help unlock innovative 5G applications and generate new revenue streams. As of April 2024, 51 operators around the world offered commercial 5G services on SA networks, while more than half of operators surveyed in the GSMA Intelligence Network Transformation Survey 2023 expect to deploy 5G-Advanced within a year of commercial product becoming available.

### **Countries in Latin America make rapid 5G progress**

In Latin America, 29 operators across 10 countries had launched commercial 5G services as of April 2024. Several others plan to roll out services in the coming years. For the pioneer operators, 5G adoption is rapidly approaching mass-market levels; for example, Movistar Chile disclosed at MWC Barcelona 2024 that it had surpassed 1.5 million 5G customers, equivalent to around a fifth of its total mobile connections.

5G growth in the region is mainly being driven by investments in 5G infrastructure and an expanding device ecosystem. Enabling regulations, including access to spectrum, also play an important role in rollout and adoption. Examples include the following:

- Brazil's National Telecommunications Agency (Anatel) approved the activation of 5G services in an additional 395 municipalities in March 2024, bringing the total number of municipalities with 5G coverage to 3,678 (around 85% of the population).
- In Colombia, the award of 5G spectrum in several bands, including 700, 1900 and 3500 MHz, to four operators in December 2023 is set to unlock significant investments in 5G technology over the next decade.

 In Guatemala, the auction for spectrum in the 700 MHz band for 5G services was concluded in September 2023, with Tigo and Claro winning 20 MHz and 40 MHz of spectrum, respectively.

As in most markets, early 5G use cases revolve around enhanced mobile broadband (eMBB) and fixed wireless access (FWA) services to meet growing demand for connectivity. According to a GSMA Intelligence survey, 5G home broadband is an extremely or very appealing proposition for more than half of consumers who have already upgraded or intend to upgrade to 5G. Operators in Argentina, Brazil and Colombia are among those that have launched 5G FWA services, mainly to facilitate first-time home broadband adoption in the region as well as improve speeds for households reliant on cable/DSL connections with lower performance levels.

5G SA is taking root in the region, with commercial launches in several markets. In Brazil, Claro, TIM and Vivo launched 5G SA networks in 2022. Telecom Argentina plans to deploy a 5G SA network in the Buenos Aires metropolitan area and other main cities. 5G SA and 5G-Advanced (when it becomes available) will play critical roles in helping operators take advantage of new opportunities in the enterprise segment.





Live commercial 5G network -Planned commercial 5G network -



Source: GSMA Intelligence





#### Private networks shift to 5G

Latin America is home to numerous private wireless networks, serving enterprises across verticals including mining, manufacturing, agriculture and utilities. The networks allow enterprises to have more control over their connectivity and can help fulfil their evolving requirements in terms of latency, coverage, edge or security. While most commercial deployments have been on LTE technology, there is a growing shift to private 5G networks capable of addressing enterprise issues around latency, reliability and density. This is reflected in the following recent developments:

- AT&T Mexico has unveiled a private 5G network in collaboration with Ericsson at the Tecnológico de Monterrey university. This will support new use cases, including AI applications, blockchain technology, improved IoT devices and industrial solutions.
- Brazilian operators Claro and Embratel have deployed a private 5G network for Nestlé, using equipment from Ericsson. This will support the adoption of robotics, automation and AI, and the operation of self-driving vehicles.

- TIM Brasil and Nokia have deployed a private 5G network for port operator Brasil Terminal Portuário. This will enable remote and realtime monitoring of cranes and equipment, and support operational activities from a monitoring centre.
- Agricultural and heavy equipment maker John Deere deployed its first private 5G network in a new factory in Brazil as part of a plan to deploy more mobile connectivity across its global manufacturing facilities. The private 5G network will reduce reliance on Ethernet cables.

For mobile operators, private network provision is an important business case in the 5G era, with opportunities to create new revenue streams and serve additional enterprise customers. Operators can already capitalise on a host of assets and capabilities, including access to spectrum, extensive local footprints and experience with network deployment and operation. These factors can reduce the cost of private network deployments for verticals, underlining the central role operators are likely to play in the region's budding private 5G market.



Although it has been possible to expose network APIs for some time, operators have struggled to adopt a standardised approach that achieves scale. However, recent initiatives by the mobile industry have sought to provide fresh momentum behind developing a common set of network APIs. This began when Telefónica officially launched CAMARA (Telco Global API Alliance) at MWC Barcelona 2022 in collaboration with the Linux Foundation, other operators and hyperscalers. It was then extended with the launch of the GSMA's Open Gateway initiative at MWC Barcelona 2023. By March 2024, 49 mobile operators had joined the GSMA Open Gateway Initiative. These represent approximately 65% of global mobile market share (by connections). Operator commitments are beginning to translate into commercially available network APIs. In December 2023, Brazilian operators Claro, TIM Brasil and Telefónica's Vivo launched three network API services (Number Verify, SIM Swap and Device Location) focused on improving digital security as part of the GSMA's Open Gateway initiative – a move the trio claimed would be the first stage on an evolutionary roadmap. Meanwhile, Personal Argentina has launched the SIM Swap API, bringing the first Open Gateway commercial service to the country.

#### Claro and Telefónica highlight early API successes in Brazil

Claro recently announced that the SIM Swap API currently processes around 3 million requests per month on the Claro network alone. The price per valid request on the SIM Swap API varies according to the volume, ranging from BRL0.10 to BRL0.40, indicating monthly revenues of up to BRL1.2 million.4 Similar pricing applies to the Number Verification API, which is also available in Brazil. Claro is finalising testing for the Device Location API. Its primary use case is anti-fraud, but there are also applications in asset management and traffic management for drones. Claro is evaluating other Open Gateway APIs, including Quality on Demand and Device Status.

Claro has joined forces with Embratel to launch a programme that makes it easier for start-ups and smaller companies to use the network API system, as part of the Open Gateway initiative, and develop new digital services and solutions. The programme, called the Claro Open Gateway Connection, was launched in April 2024 and will provide 1,000 monthly accesses for each API for a period of six months, with simplified membership. This should help budding start-ups innovate within the same parameters as larger companies to enhance their competitiveness in the global marketplace.

Meanwhile, Telefónica recently announced a partnership with TikTok to improve user security via GSMA Open Gateway. The collaboration between the two companies will initially use Telefónica's network capabilities in Brazil but can be extended to other countries and operators that expose Open Gateway APIs. Both companies are working to improve the security and simplicity of TikTok onboarding processes, such as user registration and password recovery. By using the mobile phone number for authentication purposes, SMS passwords and third-party verifications are no longer required, thanks to Open Gateway's Number Verification API.

<sup>4. &</sup>quot;Claro receives 3 million requests per month for SIM swap API", TeleTime, March 2024



### **Operators weigh up routes to market**

The next 12 months will likely bring more operator commitments and further market launches in Latin America. However, with 90% of operators in the region claiming to have already exposed network APIs on a commercial basis, concrete examples of how federation and agreement on common APIs can drive success will be key to drive usage. This will require operators to focus on the developer experience, dedicating internal resources to work directly with developers, while building partnerships with API aggregators and hyperscalers that can help operators reach a broader set of developers.

For their first set of APIs, Brazilian operators have collaborated with Infobip as technical integrator and Microsoft Azure as services platform provider. Both companies have announced partnerships with operators as part of the Open Gateway initiative. Infobip is working with Personal Argentina, in addition to three Spanish operators (Orange, Telefónica and Vodafone), while Microsoft has announced agreements with 13 operators for its Azure Programmable Connectivity platform.

Network equipment vendors also represent potential API partners for operators. For example, Nokia has teamed up with Personal Argentina to drive new developer-created use cases for consumer, enterprise and industrial customers in the operator's Latin American markets (Argentina, Paraguay and Uruguay), aligning with the GSMA's Open Gateway API programme. With Infobip already announced as a Personal Argentina partner, the agreement highlights that operators will likely take multiple routes to market for API propositions.

### Figure 13 **Priority technologies: state of adoption**

Where are you in the process of adopting the following technologies? Percentage of operators in Latin America (n=10)



Commercial deployment: initial -

Testing phase — Planning phase —





Source: GSMA Intelligence Operators in Focus: Network Transformation Survey 2023





### 2.3 Satellites: aerial solutions offer promise of improved connectivity

Telecoms networks remain the primary form of connectivity, supported by the wide area coverage of wireless networks and the mass production and adoption of mobile devices. However, in recent years, technological advances in satellite and other non-terrestrial networks (NTNs), such as unmanned aerial vehicles (UAVs), have helped overcome several limitations associated with aerial connectivity. This has resulted in significant performance improvements, lower deployment costs and more commercially viable business models for satellite and NTN-based connectivity solutions.

Low Earth orbit (LEO) satellite and high-altitude platform station (HAPS) providers have attracted much attention on the back of significant investments and technical breakthroughs that improve the business case for delivering connectivity at scale. A key selling point for aerial connectivity solutions is the potential to provide ubiquitous coverage around the world. Telecoms networks now cover more than 95% of the world's population but less than 45% of the world's landmass. Satellites and NTNs are well-suited to deliver connectivity in maritime, remote and polar areas where deploying conventional terrestrial networks could be costly and/or challenging.

Through standardisation, 3GPP has laid the foundation for satellite-based connectivity to extend the reach of 5G to regions lacking terrestrial infrastructure. Four broad use cases have been identified:

- **service continuity** coverage where it is not feasible with terrestrial networks, such as in maritime or remote areas
- **service ubiquity** mission-critical communications, such as for disaster relief during terrestrial network outages
- **service scalability** offloading traffic from terrestrial networks to NTNs for better system efficiency
- **backhaul services** transport for sites with weak or no backhaul capacity.



### D2D and satellite backhaul markets poised for growth

Direct-to-device (D2D) satellite services continue to be a model pursued by major companies. AST SpaceMobile has partnerships with several Latin American operators, including Liberty Latin America, Millicom, Telefónica, Telecom Argentina and TIM. Meanwhile, Entel and SpaceX's Starlink announced an agreement in December 2023 to roll out D2D services in Chile.

Testing is underway between operators and satellite providers. For example, in February 2024, Lynk Global demonstrated its D2D technology in Patagonia, a remote area of Argentina. The trial was conducted in partnership with Telefónica through its Telefónica Argentina and Telefónica Global Solutions business units. Most operators and satellite providers are aiming to launch initial D2D services over the next couple of years. SMS for emergency response will be the early proposition, with voice and data services to arrive after.

Momentum behind the D2D movement should accelerate now that NTNs are enshrined in common 3GPP standards. Over the next five years, this will trickle through to service availability for most people once they have upgraded their handset. While the D2D concept may be dominating the headlines, the use of satellite connectivity to deliver mobile backhaul remains central to many partnerships between telcos and satellite providers. Peruvian operator Internet Para Todos leveraged Starlink's LEO satellite service for 4G backhaul at 50 sites in 2023, highlighting the technology's value for improving connectivity in remote areas. Similarly, Telefónica and OneWeb have signed a memorandum of understanding that aims to boost connectivity in hard-to-reach areas across Latin America, while SES and Gilat have recently announced new satellite backhaul deals in Mexico and Brazil, respectively.

Operators are also exploring the potential for satellite backhaul to support 5G deployments. In 2023, TIM Brazil conducted trials on LightSpeed to assess its compatibility for 5G backhaul. The operator claimed the findings indicated that LightSpeed's service levels would be acceptable in terms of latency and reliability for 5G service. Telefónica Global Solutions and Telesat have also completed 5G satellite backhaul demonstrations, highlighting growing interest in the technology as an alternative to wireless and fibre backhaul solutions for 5G sites in harder to reach areas.

#### Telecoms and satellites: a new era of partnerships

Beyond D2D and backhaul, telecoms operators are also using satellite to expand connectivity for businesses. GTD and Telefónica have become authorised worldwide partners of SpaceX's Starlink, enabling them to sell Starlink's satellite broadband solutions to enterprises. The agreement pertains to selling Starlink's fixed broadband solution as well as a special terminal that can be fitted in vehicles. The latter highlights satellite's potential to drive global IoT coverage. Most of the applications are lower power in nature (e.g. weather sensors, telematics for logistics, and agricultural operations). Advances in satellite technologies have heralded new partnerships between telecoms operators and satellite providers in ways that could reshape the connectivity landscape. For satellite providers, partnerships with telecoms operators are key to scaling their services, leveraging operators' existing relationships with end users and, in some cases, existing spectrum holdings. For telecoms operators, satellite connectivity offers access to new customers in underserved areas and the ability to provide connectivity for emergency services and existing customers where a terrestrial signal is not available. More partnerships are expected in 2024 and beyond as the value of collaboration becomes clearer and more satellite capacity becomes available.



### 2.4 The digital consumer: eSIM adoption set to gain momentum

An eSIM, or embedded SIM, is a built-in electronic SIM card inside a mobile device, enabling flexible and remote management of mobile subscriptions without the need for a physical SIM card. eSIMs have been around for more than a decade but have recently risen to prominence due to the significant growth in the number of eSIM-enabled consumer devices.

As of June 2023, 292 mobile network operators (MNOs) across 116 countries had launched commercial eSIM service for smartphones. Europe leads in terms of share of MNOs that have launched eSIM service for smartphones (59%), followed by Asia Pacific (41%). In North America, the share is only 16%, which may seem surprising given the high share of eSIM launches by MNOs in both the US and Canada. However, a range of smaller countries within North America have yet to launch eSIM service.

In Latin America, 34% of MNOs have launched eSIM service for smartphones, in line with the global average. The rollout in Latin America encompasses 30 operators across 14 countries. Argentina, Brazil, Chile, Colombia and Mexico lead the way. In each of these markets, three operators have launched eSIM service for smartphones. Meanwhile, two operators in each of Costa Rica, Dominican Republic, Guatemala, Paraguay, Peru and Uruguay have launched eSIM service for smartphones. Ecuador, Honduras and Panama each have one operator with an eSIM service for smartphones.

#### Figure 14

#### A third of MNOs worldwide have launched eSIM service

Number of MNOs that have launched eSIM service for smartphones

Share of MNOs that have launched (%)

#### Number of MNOs that have launched

Number of MNOs that



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#### Limited consumer awareness remains a barrier to eSIM adoption

While progress with eSIM launches (devices and services) has accelerated, consumer awareness of eSIM remains low outside the US. Of those consumers who are aware of eSIM, the most popular way of discovering the technology is by reading an article. According to a GSMA Intelligence survey, only 14% of eSIM-aware consumers discovered the technology via OEM channels, while the counterpart figure for operator channels was 10%.<sup>5</sup>

TIM Brazil has been among the most active operators in Latin America in promoting its eSIM service for smartphones. In October 2023, it launched a promotion offering a 30-day free trial to new customers with an eSIM. Once customers signed up, they received a QR code to activate their eSIM. During the 30-day trial period, customers have access to 30 GB of data and unlimited calls and texts. Once the trial period is over, customers can then choose to become TIM customers or keep their current provider. Such trial promotions, also known as network test drives, are made increasingly feasible by eSIM technology, as operators do not incur the cost of sending physical SIMs to customers who may not stay with the operator beyond the trial period. Network test drives are most effective when one operator has a clear advantage over its competitors in terms of network performance.

Digital-first or digital-only brands are also likely to play an important role in driving eSIM awareness. These consumer propositions mostly target digitalnative and tech-savvy customers while leveraging eSIM as a main connectivity form factor. MVNOs have been early proponents of this model. eSIM aggregators in markets such as Brazil and Peru have recently finalised eSIM testing with a view to offering eSIM capabilities to their MVNO clients.<sup>6,7</sup>

#### eSIM adoption will gain momentum in the second half of this decade

North America has the fastest regional rate of eSIM adoption due to Apple's launch of eSIM-only smartphones in the US in September 2022. Europe will have the second-fastest rate of eSIM adoption over the forecast period, with eSIM-only iPhones expected to launch in the next year in selected European countries. China will begin its transition to eSIM in smartphones later than other countries, as the technology has yet to be launched for use in smartphones. However, it will catch up over the medium term.<sup>8</sup> In Latin America, 5% of smartphone connections used eSIM at the end of 2023. This will grow to 16% by the end of 2025, reaching 75% by the end of the decade. The sharp increase in eSIM adoption will be driven by device vendors introducing eSIM-only smartphones. The general expectation is that eSIM-only smartphones will launch in Latin America in 2026 or shortly thereafter. Operators need to develop medium- and long-term eSIM strategies given the technology's potential to disrupt the competitive dynamics of the mobile sector.

<sup>5.</sup> Accelerating eSIM globally: state of the consumer market, user behaviour and adoption growth scenarios, GSMA Intelligence, 2023

<sup>6. &</sup>quot;In Brazil, Datora will offer eSIM to virtual mobile operators to provide valuable services", Telesamana, March 2023

<sup>7. &</sup>quot;The Peruvian operator Suma Móvil incorporated eSIM", Telesamana, May 2022

<sup>8.</sup> Accelerating eSIM globally: state of the consumer market, user behaviour and adoption growth scenarios, GSMA Intelligence, 2023



### 2.5 Al: new use cases come to the fore

Mobile operators have used AI for some time now, across different parts of their operations. By leveraging AI's capabilities to recognise patterns and make decisions based on data, operators have been able to deliver personalised product suggestions to customers, for example. Operators have also leveraged AI to introduce chatbots and intelligent routing as part of efforts to improve customer service. Meanwhile, network use cases such as fault detection and resolution, network optimisation and network planning are a growing area of focus for operators, with suppliers delivering diverse AI operations and support tools. Recent examples include the following:

- In March 2024, TIM Brazil, Cisco and NEC announced a partnership to bolster network performance and enhance customer experience. The collaboration involves implementing the Accedian Skylight platform, integrated by Cisco, which utilises smart sensors and Al/ML algorithms. The solution offers a centralised network view, enabling efficient monitoring and scalability across various transport domains, ranging from cell sites to national backbones, and third-party networks.
- In February 2024, Entel unveiled plans to use Huawei technologies, including Super C+L, Super 800G and OXC, to establish the world's first 800G mesh backbone network. The solution incorporates fast-rerouting algorithms and millisecond-level SRS automatic compensation technology. It can restore C+L full-band wavelength services within seconds of fibre breakage, ensuring network availability of 99.999%.

Operators are leveraging AI and data analytics in their IoT solutions to drive enterprise opportunities. In 2023, Claro partnered with Brazil's federal district water utility Caesb for a pilot project to automate the identification of leaks in the treated water distribution network in Brazil. The project installed sensors attached to pipes to pinpoint the exact location of leaks through pipe vibrations and noise. The information collected was processed in the cloud, through an AI solution, and presented in a dashboard for sending alerts and recommendations on repair actions. The operator has also developed its Smart Silo and Smart Monitoring solutions, which support digital transformation in the agricultural sector. The solutions enable real-time monitoring of the temperature, humidity and location of produce being stored and transported.



### Adoption of generative AI to grow gradually in Latin America

Over the past two years, generative AI (genAI) has come to the fore, driven by the launch of ChatGPT. GenAI differs from other types of AI primarily in its ability to create new content. For mobile operators, genAI offers various use cases. User-facing applications include improved customer care and customised proposition development. Operator-facing applications include marketing collateral development, knowledge base management, network management and code development support.

Much of the early work has focused on using genAl to improve customer services. For example, Liberty Latin America has partnered with AWS to use the cloud provider's genAl technology to analyse call transcripts and produce summaries and follow-up emails. This can help identify the root cause of customer issues and save time for agents. Liberty Latin America plans to use genAl to improve its call routing and customer-facing chatbots.



New tools developed by webscalers can also support operators in their efforts to accelerate revenue growth. At MWC Barcelona 2024, Telefónica announced a partnership with Microsoft to integrate Azure AI Studio and genAI technology into Kernel (the platform on which the operator develops new products and services). The partnership can help the operator improve its understanding of customer data, enabling revenue opportunities.

To fully leverage AI's potential, operators will need to invest significantly in upskilling their workforce. In support of this, the GSMA and IBM announced a collaboration in January 2024 to facilitate and accelerate the adoption of genAl and development of AI skills in the telecoms industry. Two initiatives are being launched: GSMA Advance's AI Training programme and the GSMA Foundry Generative AI challenge and programme. The initiatives should help provide scale, allowing operators and industry players of all sizes and in all regions to navigate the fast-evolving landscape of AI technologies and associated opportunities. This includes investigating the use of genAl in the various functional areas of a telecoms provider and exploring innovative use cases across vertical sectors.

To fully leverage AI's potential, operators will need to invest significantly in upskilling their workforce.



### Mobile industry impact



### 3.1 Operators make progress on climate goals

In 2019, the mobile industry announced its ambition to achieve net-zero greenhouse gas (GHG) emissions by 2050. To realise this objective, the GSMA and mobile operators have joined forces to develop an industry-wide roadmap for climate action. Several Latin American operators are engaged in the GSMA's Climate Action Taskforce, collectively progressing towards net-zero GHG emissions by 2050.

In Latin America, more than 80% of operators (by connections) have committed to near-term science-based targets. Moreover, operators in the region achieved a 22% reduction in emissions between 2019 and 2022, led by TIM's Brazil operations and Telefónica.<sup>9</sup> The adoption of renewable energy has been instrumental in reducing operator emissions. The shift to increased reliance on renewable energy has spurred investments in the self-generation of energy and other green solutions. Examples include the following:

• TIM opens more than 100 renewable energy plants. In December 2023, TIM opened its 101<sup>st</sup> renewable energy plant, in Brasilia. These developments position TIM's renewable energy production at 54% of its total consumption. TIM operates plants across 22 states and Federal Districts, generating enough energy for 17,500 antennas monthly. TIM's plant portfolio is predominantly powered by solar energy, accounting for 80% of the total energy produced.

- Vivo produces its own solar energy. In October 2023, Vivo Brazil partnered with energy company Elera Renovaveis to become an energy producer at four solar parks, totalling 237 MWp. The energy will meet 76% of Vivo Brazil's consumption that was supplied by the market. The operator is carbon neutral in direct emissions and aims to reach net-zero emissions by 2040.
- Personal Argentina launches sustainable SIM cards. In June 2023, Personal Argentina launched its first batch of carbon-neutral SIM cards, produced with 100% recycled material, procuring 6.5 million units to be delivered to customers. The operator hopes to expand its use of carbon-neutral SIM cards over time; it aims to replace 14 million SIM cards per year with its sustainable alternative. It also sees potential to use eSIM technology to further reduce its carbon footprint.

In Latin America, more than 80% of operators (by connections) have committed to near-term science-based targets.

9. Mobile Net Zero 2024 State of the Industry on Climate Action, GSMA, 2024



### Telefónica engages with supply chain to reduce emissions

Telefónica employs a targeted approach to engage its large base of suppliers, categorising them into three groups to tailor initiatives to a supplier's carbon intensity and maturity:

- **Priority 1:** Telefónica invites its most carbonintensive suppliers to join the Carbon Reduction Programme. This collaborative initiative, involving other telecoms operators, focuses on reducing emissions at the product level. In partnership with its peers and suppliers, Based on lifecycle assessments, Telefónica seeks to reduce emissions related to the products sourced. In addition, Telefónica requests top suppliers to establish science-based targets, validated by the Science Based Targets initiative (SBTi).
- **Priority 2:** Approximately 200 suppliers representing almost 90% of Telefónica's

supply chain emissions have been selected to participate in its Supplier Engagement Programme. This initiative establishes a carbon maturity curve, categorising suppliers into five maturity levels based on data provided by them. For each level, Telefónica identifies improvement areas, requesting supplier commitments to implement changes and supporting them with tailored training webinars.

• **Priority 3:** Telefónica mandates acceptance of its Supply Chain Sustainability Policy by all its suppliers. This encompasses requirements on carbon emissions and broader sustainability topics such as human rights. The contractual commitment is complemented by supplier assessments on sustainability and climate via an external platform, to identify carbon hotspots in the supply chain.





### **3.2** The mobile industry's impact on the SDGs

Driven by the increased reach of mobile networks and growing adoption of mobile internet services, the mobile industry in Latin America continues to grow its impact on the Sustainable Development Goals (SDGs). In 2023, SDG 4 (Quality Education) had the highest mobile industry impact score. It was also among the SDGs with the greatest improvement in score, along with SDG 3 (Good Health and Well-being) and SDG 5 (Gender Equality).<sup>10</sup>

#### Figure 15 Mobile's impact on the SDGs in Latin America



Source: GSMA Intelligence

10. 2023 Mobile Industry Impact Report Summary, GSMA, 2023



### Using mobile to transform education

SDG 4 seeks to ensure inclusive and equitable quality education and to promote lifelong learning opportunities for all. Digitalisation brings many opportunities for learning and developing skills, in initial education and throughout life. Recognising the transformative potential of these technologies in education, operators have been building digital infrastructure and have launched various programmes. Examples include the following:

- WOM and District University to bring 5G digital education pilot. In 2023, WOM and the Francisco Jose de Caldas District University announced the first 5G digital education pilot in Colombia. The test pilot consisted of a real-time lecture conducted in two separate classrooms - one where the teacher taught in the class while being recorded by a 360-degree camera, and the other where students were able to attend the class live through VR glasses. For the pilot, the ICT Ministry assigned WOM two blocks of spectrum for 5G in 3500 MHz and the 26 GHz band, over a period of eight months. In the 3500 MHz band, download speeds of up to 1.9 Gbps were achieved, with upload speeds of up to 250 Mbps. The pilot demonstrated the potential of 5G technology and explored new ways to improve connectivity in the country.
- Millicom's platform provides training for teachers. Millicom, in alliance with the non-profit organisation AHYU, has been offering online workshops helping teachers adopt the soft and technical skills required for online teaching. By fostering engagement and continuous learning with this programme, teachers can expand their professional growth and deliver lessons to a potentially unlimited student community. With this programme, Millicom committed to train and certify 80,000 teachers in 2021, 82,000 in 2022 and 84,000 in 2023. The operator surpassed expectations, training 421,201 teachers by March 2023. Millicom's efforts have extended across nine countries where it operates: Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Bolivia and Paraguay.

In alignment with SDG 5, which emphasises gender equality and the empowerment of all women and girls, Millicom is also taking steps to bridge the digital gender gap. Millicom's Conectad@s initiative has been promoting digital opportunities for women. As of 2023, the programme had provided internet access training to more than 575,000 women and girls across Latin America,<sup>11</sup> empowering them to use the internet for personal development, education, essential services and business resources.



11. World Benchmarking Alliance





### **Supporting digital health services**

Mobile health solutions are playing a growing role in achieving SDG 3, which focuses on ensuring healthy lives and promoting wellbeing for all. The mobile industry has been supporting apps, websites and remote diagnostic solutions to improve access to and the quality of health services. Meanwhile, operators have made investments in digital healthcare services. For example, in 2023, Telefónica Brazil's Vivo Ventures fund invested BRL25 million (\$5.1 million) in telemedicine platform Conexa Health. The investment forms part of Telefónica's plan to strengthen its presence in the digital services segment.

Digital solutions can be used to connect healthcare providers and patients, enabling them to communicate directly through text, online chat platforms, phone calls or video chat. Telehealth services can help make affordable and quality healthcare more readily available, while supporting new features including remote diagnostics and monitoring. Such solutions are helping governments improve health outcomes, particularly in remote areas, while also increasing the speed of medical response. Recent examples include the following:

- TIM partners with hospital for a 5G ambulance. In 2023, TIM partnered with the Hospital Sirio-Libanes in Sao Paulo and Deloitte to launch its first 5G ambulance. The ambulance is equipped to treat cardiovascular emergencies, and allows the flow of care to be anticipated in case of a suspected heart attack by transmitting the data via TIM's 5G network to a specialist in emergency care.
- Claro partners with Samsung for health monitoring for the elderly. Claro has partnered with Samsung and Ellie Care to develop an IoT solution to monitor the overall well-being of users over 65 years old. The solution consists of a help button, a fall detector and a system that collects data on people's health, allowing realtime reaction to events that require assistance. The solution is integrated into the Samsung Galaxy Watch as it is equipped with three sensors allowing different health values to be taken constantly.





### Mobile industry enablers





Mobile connectivity is essential for Latin America to become a developed region. Whether it's through providing internet for schools, enabling agritech solutions or developing 5G applications for mines, robust and reliable mobile networks are the backbone of economic growth and social inclusion. Their importance is reflected in the discourse of government officials, but this does not always result in an enabling policy environment.

Digital development requires joined up efforts between the private sector and governments. While operators invest in the deployment of digital infrastructure, public policy establishes the regulatory framework and commercial environment that can enable, promote or discourage that investment. Over the last year, some Latin American governments have taken positive measures in this regard, though lack of spectrum resources continues to be a barrier to greater connectivity across a large part of the region.

The usage gap represents a persistent challenge in the region. Despite living in areas with mobile internet coverage, many people in Latin America do not use mobile services. This is largely because they cannot afford them or do not know how to use mobile devices. Meanwhile, recent months have seen discussions evolve on introducing flexible schemes in which all participants in the digital ecosystem can contribute equitably ('fair share') to the deployment of digital infrastructure. This debate is crucial to internet growth and the digital future of the region. It has the potential to position Latin America at the forefront of global digital public policy.

Robust and reliable mobile networks are the backbone of economic growth and social inclusion.

#### Spectrum: approach to pricing reveals policymaker priorities

According to a 2023 GSMA report, the total cost of spectrum (the cost of assignment plus annual fees) has grown by 40% in Latin America over the last 12 years.<sup>12</sup> This has tripled its impact on the industry's recurring revenues, which fell by approximately 50% in current terms over the same period.

This imbalance is a result of public policy design rather than market factors. Despite the negative impact on coverage and service quality, many regional governments have chosen to maximise tax revenues instead of prioritising digital inclusion and development. High set-aside prices and annual fees, as well as the artificial scarcity of available spectrum, have resulted in the price of spectrum being set above the true market value. This, in turn, reduces capital investment by operators in the deployment of new networks and improvement of services.

In Mexico, for instance, annual rights account for 85% of the total cost of spectrum - well above the regional average of 20%. This has resulted in operators returning spectrum and deserting auctions. Mexico is the only country in the region where the amount of spectrum assigned to mobile services has fallen rather than grown. In contrast, in Panama, the Cabinet Council allowed the National Public Services Authority (ASEP) to set prices for low (700 MHz) and mid- (1427-1518 MHz) bands 60% below previous prices.<sup>13</sup> Meanwhile, the 5G auction in Colombia saw lower reserve prices set than in previous auctions. The decision to reduce spectrum costs shows a true understanding of the role of spectrum as a tool for innovation and inclusion.

The amount of spectrum available to the mobile market has an impact on coverage expansion and the quality of experience for end users. The amount of spectrum available to the mobile market has an impact on coverage expansion and the quality of experience for end users. Latin America's level of assignment is 30% lower than EU levels for low bands and 50% lower for midbands.<sup>14</sup> Network deployment in the region is consequently more complex and expensive, as there is less spectrum available, which increases the need to install more base stations.

5G networks will require 2 GHz of spectrum in midbands per market over the next decade to unlock all their potential. The 6 GHz band is essential to meeting this need. By the end of 2022, the Chilean government had reversed its previous decision to allocate the entire band to Wi-Fi services, by enabling spectrum use for 5G. In February 2023, Mexico chose to keep its regulatory options open for the band by limiting the unlicensed use of the 5925-6425 MHz segment. And at the World Radiocommunication Conference 2023 (WRC-23),<sup>15</sup> Brazil chose to allocate the upper segment of the band to licensed mobile use by identifying it as an IMT band in the country in the Radio Regulations.



<sup>12.</sup> Spectrum Management in Latin America, GSMA, 2023

<sup>13. &</sup>quot;Gabinete autoriza a la ASEP a establecer el precio que deben pagar concesionarias de telefonía celular", presidencia.gob.pa, April 2024

<sup>14.</sup> Spectrum Management in Latin America, GSMA, 2023

<sup>15. &</sup>quot;GSMA hails groundbreaking spectrum decisions at WRC-23", GSMA, December 2023

#### The usage gap: new challenges demand a rethink of old tools

More than 418 million Latin Americans (65% of the population) are already connected to mobile internet. Among those not yet online, nearly 45 million (7% of the population) live in areas without coverage, while 181 million (28%) have coverage but do not access services. This group represents the usage gap – the biggest challenge for digital inclusion in Latin America. This is a common problem across the region, though figures vary from one country to another. In Peru, Ecuador and Guatemala, the usage gap exceeds 40% (at 40%, 41% and 49%, respectively).

The barriers preventing people from connecting to mobile internet are linked to consumer demand for such services, rather than supply (see Figure 16).

#### Figure 16

#### Barriers to mobile internet usage



#### Affordability

This includes the cost of a smartphone and a mobile data package.



Digital literacy and skills

This includes the lack of basic reading and writing skills, as well as not knowing how to go online or browse the internet.



Relevant local content

This includes the perception that the internet is not relevant for the potential user, as well as lack of content in the local language.



### Safety and security

This includes concerns about physical safety, information security, contact with strangers and expose to harmful content.

Source: GSMA

Despite the price of mobile services falling, lack of affordability (of a device and/or a data plan) is a main cause of the usage gap. The International Telecommunication Union (ITU) states that the total cost of mobile ownership (TCMO) should not exceed 2% of a user's monthly income level. This goal currently cannot be achieved across a large portion of Latin America's population as there are structural problems beyond the powers of operators, such as poverty and inequality. In all departments of Colombia, for example, for people with a monthly income of USD330 or less, the TCMO is above the ITU figure – particularly when considering the cost of purchasing a first device.<sup>16</sup> Tax reform offers a way to reduce the affordability gap without direct public funding. Taxes such as ImpoConsumo in Colombia and IEPS in Mexico are a levy on the use of mobile services, making them more expensive. Furthermore, all countries impose sector-specific regulatory fees and taxes that ultimately harm users, as they increase costs for operators. Reducing or eliminating these taxes, as well as potentially reducing the VAT imposed on mobile services for vulnerable users, is essential if more Latin Americans are to enjoy the benefits of mobile internet.

16. Brechas de conectividad en Colombia. Un estudio cuantitativo, GSMA, 2023



One of the burdens imposed only on telecoms operators is the contribution they must make to a universal service fund (USF) – a public policy tool for inclusion that has been widely adopted but rarely successful. As well as reducing operator resources, it is estimated that more than 40% of the USFs have not yet been executed.<sup>17</sup> Moreover, across most of the countries where they have been implemented, there are no sound assessments of how many additional people have been connected to the internet as a result of USF programmes. The contributor base for USFs continues to exclusively comprise telcos, even though – since the expansion of the internet – many other players are generating revenues and benefiting from connectivity.

The development of digital skills among the population is another key area to help spur demand for mobile services. Several initiatives are being rolled out by government entities, operators and other private-sector organisations. Collaboration between the private and public sectors to develop and promote projects is key to achieving a significant impact.

#### Equitable network use: debate reaches maturity in Latin America

Mobile data traffic in Latin America will increase fourfold between 2023 and 2030, reaching 32 GB per connection, per month. The increase in demand from end users, together with extensive use of connectivity for Industry 4.0 use cases and efforts to bridge the digital gap, will require significant investments in digital infrastructure. The resources required to make such investments are unlikely to be generated by the telecoms industry alone; the sector's revenues have been stagnant or falling for several years.

To ensure the digital future of Latin America, it is crucial to create the right conditions for private investment in infrastructure and its responsible use. This frames the discussion on equitable network use ('fair share'). The notion states that all participants in the digital ecosystem can contribute to the costs of digital infrastructure deployment in an equitable and proportional way in relation to the benefits they obtain from using the networks. Big tech - companies that generate large amounts of traffic - can play an essential role in bridging the funding gap for future networks. Fair share does not seek to impose new taxes or fees but, rather, flexible schemes where big tech can make its contribution through commercial agreements with operators.

Legislation on fair share was initially proposed in the European Union. The proposal was later expanded to other regions, including Latin America. In February 2024, through the GSMA, operators across the region and the Caribbean issued an industry position,<sup>18</sup> requesting governments consider these schemes to ensure the development of the internet and the digital future of the region.

Brazil was the first country in the region to become involved in this discussion. The regulator, Anatel, held an open consultation on the issue in mid-2023 and a second in January 2024. Brazil will therefore be at the centre of the regional dialogue in 2024. In Colombia, the Communications Regulation Commission (CRC) added to its 2024/2025 regulatory agenda a study on the impact of digital services and markets on user rights and competition in the telecoms, postal and audiovisual sectors.

The funding gap between the networks of today and those of tomorrow requires attention and firm decisions on policy. 2024 could be a pivotal year for the future of connectivity in Latin America.

17. Brechas de conectividad en América Latina. Una hoja de ruta para Argentina, Brasil, Colombia, Costa Rica y Ecuador, GSMA, 2023

18. "A call to action to ensure the development of the internet and the digital future of Latin America and the Caribbean", GSMA, February 2024



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