Paraguay

Being a landlocked country, Paraguay depends on its neighbours for access to submarine cables, an important factor that has slowed development and uptake of broadband services in the country. [355] ***On the other hand, mobile services have enjoyed relative success, especially because of the competitive market, as well as mobile money's popularity and more affordable pricing.***

Mobile services: The mobile market has been under competition since 1998 and currently hosts four operators – Tigo, Personal, Claro and Vox.[356] Mobile-cellular penetration rates are high, following the regional trend, partially because mobile has been a substitute for the less-available fixed counterpart. Mobile-broadband penetration rates remain relatively low but the competitive market and ongoing service coverage expansion are expected to positively impact the segment. Another important aspect is the common use of mobile money by nationals, with Paraguay being the regional leader in the development of this practice.

Fixed services: Fixed-telephony and VoIP are provided by the State-owned *Compañía Paraguaya de Comunicaciones* (Copaco),[357] which has resulted so far in low levels of infrastructure. Despite the fact that the fixed-broadband market is under competition, development continues to be jeopardized by the lack of agreement on commercial alliances to unbundle the local loop. ADSL remains in the hands of Copaco, whereas cable modem technology is also provided by Tigo Hogar. Service provision is mostly limited to the more developed urban areas, with the remote areas being underserved.[358] Both cable modem and fibre-optic technologies have witnessed growing demand as well as improvement in speed, and the Government has declared that fibre-optic deployment is one of its main focuses for the coming years, along with an increase in affordability.

Government policy: The national telecommunication regulator, *Comisión Nacional de Telecomunicaciones*, was created in 1995. The current development programme, the *Plan Nacional de Telecomunicaciones 2016–2020*, emphasizes several aspects – for instance, the pressing need to render the services more affordable (targeting a reduction of up to 80 per cent on data services pricing), adjust interconnection rates to foster competitiveness and increase the number of connected households to 60 per cent, among others. As to making broadband more affordable, the Government will concentrate both on reducing the use of international broadband and negotiating new tariffs.

Conclusion: The public and private efforts in developing the telecommunication sector in Paraguay have been effective to date, with steadily growing adoption rates, decrease in prices and infrastructure development.

Key indicators for Paraguay (2017)		The Americas	World
Fixed-telephone sub. per 100 inhab.	4.3	23.9	13.0
Mobile-cellular sub. per 100 inhab.	109.6	111.8	103.6
Active mobile-broadband sub. per 100 inhab.	47.9	89.5	61.9
3G coverage (% of population)	96.0	93.9	87.9
LTE/WiMAX coverage (% of population)	58.1	84.3	76.3
Individuals using the Internet (%)	61.1	67.5	48.6
Households with a computer (%)	25.9	64.8	47.1
Households with Internet access (%)	20.4	68.3	54.7
International bandwidth per Internet user (kbit/s)	*19.2*	77.1	76.6
Fixed-broadband sub. per 100 inhab.	4.1	19.9	13.6
Fixed-broadband sub. by speed tiers, % distribution			
-256 kbit/s to 2 Mbit/s	42.5	6.6	4.2
-2 to 10 Mbit/s	56.9	23.1	13.2
-equal to or above 10 Mbit/s	0.6	70.3	82.6

Note: Data in italics are ITU estimates. Source: ITU (as of June 2018).