

Nepal

Despite the challenges of its mountainous terrain, the landlocked nation has achieved a relatively high level of mobile access driven by the Government's efforts to improve connectivity and strengthen the ICT sector.

Mobile services: There are three mobile operators. They include the incumbent, state-owned Nepal Doorsanchar Company Limited (NDCL); NCELL, a subsidiary of the Malaysian AXIATA mobile group; and Smart Telecom Private Limited (STPL), a local company. In addition, United Telecom has recently got an approval to run mobile service. Despite the difficulty of expanding coverage in the mountainous country, 91 per cent of all households had a mobile phone (CBS Nepal, 2015). Mobile Internet is increasingly popular since the deployment of 3G in 2010. NDCL launched LTE in early 2017 and the other two operators are waiting for regulatory approval to launch LTE.

Fixed services: NDCL dominates the fixed telephone market. Four other companies also provide fixed telephone services using VSAT or Wireless Local Loop (WLL) technologies. Fixed telephone penetration is low owing to its limited coverage and the popularity of mobile. There are a number of ISPs. Fixed broadband (ADSL, cable modem, fibre/LAN) accounted for 64 per cent of subscriptions in 2016, with fixed wireless (CDMA EVDO, WiMAX and VSAT) making up the remainder. Construction of Nepal's national fibre-optic backbone commenced in 2002. The network is largely constructed alongside highways and also uses optical fibre from the Nepal Electric Authority. Links to more remote areas are achieved using microwave and satellite systems. As a landlocked nation, Nepal is reliant on neighbouring India for access to submarine cables. There are several cross-border fibre-optic links. The Nepal Internet Exchange was established in 2002 and has over thirty participants.

Government policy: The Ministry of Information and Communications (MIC) is responsible for sector policy. The Nepal Telecommunications Authority (NTA), established in 1998, is responsible for sector regulation. The relevant legislation is the *Telecommunications Act, 1997*. The *Ten-Year Master Development Plan (2011 – 2020 A.D.)* for telecommunications outlines programmes for achieving key objectives including making

Key indicators for Nepal (2017)		Asia & Pacific	World
Fixed-telephone sub. per 100 inhab.	2.9	9.5	13.0
Mobile-cellular sub. per 100 inhab.	123.2	104.0	103.6
Active mobile-broadband sub. per 100 inhab.	52.4	60.3	61.9
3G coverage (% of population)	54.1	91.3	87.9
LTE/WiMAX coverage (% of population)	15.5	86.9	76.3
Individuals using the Internet (%)	21.4	44.3	48.6
Households with a computer (%)	14.0	38.9	47.1
Households with Internet access (%)	17.9	49.0	54.7
International bandwidth per Internet user (kbit/s)	19.8	61.7	76.6
Fixed-broadband sub. per 100 inhab.	1.7	13.0	13.6
Fixed-broadband sub. by speed tiers, % distribution			
<i>-256 kbit/s to 2 Mbit/s</i>	62.4	2.4	4.2
<i>-2 to 10 Mbit/s</i>	6.6	7.6	13.2
<i>-equal to or above 10 Mbit/s</i>	31.0	90.0	82.6

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

basic telecommunication services available within "shouting distance"; providing on-demand telecommunications services in urban areas and for manufacturing and commercial enterprises; ensuring that urban consumers have the opportunity to use services from different service providers, which shall be gradually extended to rural subscribers; and enhancing network capability to support efficient utilization of ICT for improving the quality of life of the Nepalese. The *National Broadband Policy* of 2015 outlines the government's vision for affordable, secure, reliable and ubiquitous high-speed Internet. It sets several targets for 2018, including a broadband penetration rate of 30 per cent at a minimum of 512 kbps and a download speed of at least 10 Mbps on demand in urban areas.

Conclusion: Despite being a landlocked country with a challenging geography, Nepal has achieved a respectable level of access to mobile technologies, which has been driven by a competitive market.