

## Uzbekistan

**The country has one of the most prospective mobile-broadband markets in the CIS region. LTE networks deployment and Internet access tariff changes are among the main telecommunication market growth factors.**<sup>490</sup>

**Mobile services:** In 1991, the first mobile-cellular telecommunication operator Uzdurobita was established. It provided mobile telephone services in 1992 over an NMT-450 network. In 1995, services in AMPS/DAMP were introduced. In 1996, regulatory measures were taken to attract foreign investment into the mobile cellular telecommunication sector. In 1997, five new operators entered the market. In 2005, a CDMA-450 network started providing services.<sup>491</sup> Today, there are five mobile cellular operators in the market: Unitel (GSM; more than 10 million subscriptions), UMS (GSM; more than 2 million), Uzmobil (GSM; over 1 million), Ucell (GSM; around 9 million), and Perfectum, a CDMA operator with around 1 million subscriptions.<sup>492</sup> All GSM operators deploy LTE networks.<sup>493</sup> Less than 1 per cent of localities were covered by LTE at the beginning of 2017. In the first half of 2017, the Uzbekistan Government reallocated 900/1800 MHz radio frequency bands among mobile telecommunication operators to facilitate market competition. It was considered that previous radio frequency band allocation hindered LTE deployment. It is expected that it will lead to faster LTE deployment and quality of service (QoS) enhancement.<sup>494</sup>

**Fixed services:** In 2006, less than 50 per cent of private branch exchanges (PBX) were digital. By 2014, the process of fixed telephone network digitalization was completed. At the beginning of 2017, there were 654 Internet providers and operators in Uzbekistan. The international Internet gateway capacity reached 54.9 Gbit/s.<sup>495</sup> In 2014-2015, Uzbekistan successfully implemented Wi-Fi networks development programme by installing Wi-Fi access points in many public places, such as airports, railway stations, tourist zones, etc.<sup>496</sup> In order to develop Internet broadband access, more than 1 800 km of optical fibre cable lines were constructed in 2015. Backhaul networks capacities were increased by up to 10 times.<sup>497</sup>

**Government policy:** From 1995 to 2010, a set of ICT development programmes was implemented. The activities within these programmes mostly aimed at national telecommunication network construction and renovation. Backbone network connecting all regional centres was built during this period. ICT

Key indicators for Uzbekistan (2017)	CIS	World	
Fixed-telephone sub. per 100 inhab.	10.8	19.8	13.0
Mobile-cellular sub. per 100 inhab.	76.0	138.3	103.6
Active mobile-broadband sub. per 100 inhab.	59.4	72.0	61.9
3G coverage (% of population)	75.0	80.3	87.9
LTE/WiMAX coverage (% of population)	43.0	61.1	76.3
Individuals using the Internet (%)	52.3	68.6	48.6
Households with a computer (%)	38.5	68.1	47.1
Households with Internet access (%)	79.9	73.6	54.7
International bandwidth per Internet user (kbit/s)	9.6	66.8	76.6
Fixed-broadband sub. per 100 inhab.	10.4	17.8	13.6
<b>Fixed-broadband sub. by speed tiers, % distribution</b>			
<i>-256 kbit/s to 2 Mbit/s</i>	56.0	12.2	4.2
<i>-2 to 10 Mbit/s</i>	35.1	25.1	13.2
<i>-equal to or above 10 Mbit/s</i>	8.9	62.7	82.6

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

technologies started to being implemented in public sectors. Attention was also given to education in ICT. From 2005 to 2010, Uzbekistan was involved in UNDP projects, facilitating ICT policy implementation in the country. The 2012 to 2014 government programme focused on integration of government systems, regulation enhancement and information security. The current ICT programme has two main pillars: infrastructure and technological development, and e-government systems and databases development. The first pillar consists of 17 projects aimed at enhancing infrastructure capabilities by increasing broadband access and core network capacity, and creating favourable conditions for quality government services development. By the end of 2017, Uzbekistan is planning to start optical fibre cable production to facilitate optical fibre lines construction and provide all regional centres with LTE signal coverage.<sup>498,499</sup> Close attention is being given to ICT in healthcare system. Uzbekistan is going to create a fully functioning and effective e-health system by 2020. The Uzbekistan Government also established two organizations UZINFOCOM and UNICON.UZ to facilitate ICT regulation development and consulting services.

**Conclusion:** The Government of Uzbekistan is engaged in ICT development. By implementing regulation initiatives it facilitates a competitive environment. The goal of these activities is to provide the population with high quality e-services over a high-speed and resilient infrastructure. E-government services are particularly focused on an ICT development policy. Many user terminals (250) for e-government online-services access are going to be installed across the country in 2017.<sup>500</sup>