

## Yemen

*Yemen has gone through political instabilities and turbulences over the past few years, which has affected the overall economy, affordability, infrastructure, and ICT development. The prices for telecommunication services are above the average prices in the region.*

**Mobile services:** Mobile cellular penetration is below the regional average and mobile broadband uptake is low as the country lacks the availability of 3G and LTE services. The mobile cellular prices level is one of the highest in the region. However, the level of competition in the mobile cellular market is very high with four cellular market players; Sabafon, MTN Yemen, Yemen Mobile, and Yemen telecom. The Yemen cellular market has been competitive since 2001 when Sabafon and MTN Yemen (previously known as Spacetel Yemen) launched cellular services. Prior to 2001, TeleYemen was the sole operator in the cellular market, and provided cellular services through its analogue network. In 2004, Yemen Mobile took over TeleYemen cellular network and replaced its analogue services with CDMA services. The country's rural nature and mountainous geography has also been a factor in the low mobile and fixed penetration rates. The introduction of 3G and LTE services is essential for the development of ICT sector, subject to the return of political stability and subsequent international financial support.

**Fixed services:** Fixed broadband is limited in Yemen. In 2012, the Public Telecommunication Company (PTC) began to install a national WiMAX network to improve the availability of Internet access. While competition has been introduced into the mobile sector, there is no competition in fixed lines and very little in Internet provision. The fixed voice market is monopolized by the government owned PTC. For its part, the Internet market is served by two government players: Yemen Net and Y-Net.

**Government policy:** The Yemen Ministry of Telecommunications and Information Technology (MTIT) regulates the telecommunication market. The MTIT is responsible for the following tasks: formulating policies and plans to encourage investment in the sector, managing the frequency spectrum, licensing, and maintaining the national numbering plan. With the formal acceptance into the World Trade Organization in mid-2014, further

Key indicators for Yemen (2017)		Arab States	World
Fixed-telephone sub. per 100 inhab.	4.2	7.9	13.0
Mobile-cellular sub. per 100 inhab.	63.6	102.6	103.6
Active mobile-broadband sub. per 100 inhab.	5.9	53.9	61.9
3G coverage (% of population)	95.0	88.0	87.9
LTE/WiMAX coverage (% of population)	0.0	50.9	76.3
Individuals using the Internet (%)	26.7	48.7	48.6
Households with a computer (%)	7.5	47.1	47.1
Households with Internet access (%)	6.3	50.1	54.7
International bandwidth per Internet user (kbit/s)	5.0	65.3	76.6
Fixed-broadband sub. per 100 inhab.	1.7	5.6	13.6
<b>Fixed-broadband sub. by speed tiers, % distribution</b>			
<i>-256 kbit/s to 2 Mbit/s</i>	61.4	30.7	4.2
<i>-2 to 10 Mbit/s</i>	26.2	33.8	13.2
<i>-equal to or above 10 Mbit/s</i>	12.4	35.4	82.6

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

progress is expected towards liberalization in the telecommunication sector in the future. However, the current conflict will hamper progress. There is also need to establish an independent regulator to develop regulatory framework in the country. The humanitarian situation in Yemen has resulted in the creation of a global organization called the Emergency Telecommunications Cluster (ETC) that helps to improve telecommunication services. ETC has been operating in Yemen since April 2015 and has provided basic security telecommunication services, Internet hubs, and power charging stations.

**Conclusion:** The ICT market in Yemen is currently an unpredictable market. Significant parts of its telecommunication infrastructure are no longer operational. The recent conflict has put a halt to much of the progress in the telecommunication sector, resulting in satellite and radio communication becoming important technologies for service delivery.