# Rwanda

*The Government of this landlocked East African nation has been proactive with its strategic vision for the sector, and the country has achieved one of the highest levels of mobile-broadband coverage in sub-Saharan Africa.*

**Mobile services**: There are three mobile operators: MTN, a subsidiary of the South African mobile group, launched the country's first mobile network in 1998; the Luxembourg-based mobile group MILLICOM entered the market in 2009, operating under the TIGO brand; and AIRTEL, owned by the Indian mobile group, launched in 2012, absorbing the mobile assets of the defunct incumbent RWANDATEL. Although 2G coverage is widespread and absolute prices among the cheapest in sub-Saharan Africa, household penetration is relatively low, due to Rwanda's small per capita income. In 2015, 60 per cent of households had mobile phones, with a notable difference between urban (86 per cent) and rural areas (54 per cent).[382] A 3G network was launched in 2009, and its coverage reaches over 90 per cent of the population. In 2014, the Government launched a wholesale LTE network. It is operated as a public–private partnership with Korea Telecom, with capacity sold to existing mobile operators and fixed wireless ISPs. The Government is targeting 95 per cent LTE population coverage by 2018.

**Fixed services**: The incumbent operator RWANDATEL was privatized in 2005. RWANDATEL was declared insolvent in 2011. Liquid Telecom, a Mauritius-based group that launched in 2013, purchased RWANDATEL'S fixed network. The majority of fixed-broadband subscriptions are fixed wireless through WiMAX or fixed LTE. Three ISPs provide fixed broadband using ADSL or optical fibre. Liquid Telecom began offering fibre to small businesses and homes with the launch of a 100 Mbit/s service in 2015. In 2010, the Government completed the rolling out a national fibre-optic backbone with more than 3 000 km of fibre installed and distributed to all 30 districts and 11 border points. This wholesale network is run as a public–private partnership owned by the Government and Korea Telecom. Access is open to all operators at cost-based prices. In addition, there are several thousand kilometres of fibre deployed by other operators (i.e. MTN, Liquid Telecom, AIRTEL and TIGO), as well as optical fibre deployed in the transmission lines of the State-owned electricity company Rwanda Energy Group leased to telecommunication operators. Landlocked Rwanda accesses cross-border undersea fibre-optic cables in Kenya and Tanzania for international bandwidth. The Rwanda Internet Exchange launched in 2004.

| Key indicators for Rwanda (2017) | | Africa | World |
|---|---|---|---|
| Fixed-telephone sub. per 100 inhab. | 0.1 | 0.9 | 13.0 |
| Mobile-cellular sub. per 100 inhab. | 72.2 | 74.4 | 103.6 |
| Active mobile-broadband sub. per 100 inhab. | 35.0 | 24.8 | 61.9 |
| 3G coverage (% of population) | 93.4 | 62.7 | 87.9 |
| LTE/WiMAX coverage (% of population) | 89.0 | 28.4 | 76.3 |
| Individuals using the Internet (%) | *21.8* | 22.1 | 48.6 |
| Households with a computer (%) | 2.5 | 8.9 | 47.1 |
| Households with Internet access (%) | 9.3 | 19.4 | 54.7 |
| International bandwidth per Internet user (kbit/s) | 8.7 | 11.2 | 76.6 |
| Fixed-broadband sub. per 100 inhab. | 0.2 | 0.6 | 13.6 |
| Fixed-broadband sub. by speed tiers, % distribution | | | |
| *-256 kbit/s to 2 Mbit/s* | 29.3 | 38.7 | 4.2 |
| *-2 to 10 Mbit/s* | 23.7 | 37.2 | 13.2 |
| *-equal to or above 10 Mbit/s* | 47.0 | 24.1 | 82.6 |

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

**Government policy**: The Ministry of Youth and ICT is responsible for sector policy and strategy. It develops five-year sector plans in alignment with overall national development goals. The SMART Rwanda Master Plan, covering the period 2015–2020, builds on the previous plans, with a focus on innovation in order to use ICTs as a transformational enabler to digitize the economy generating growth and job creation. The key strategy document driving high-speed communications in the country is the 2013 National Broadband Policy. The policy's goal is to transform Rwanda into an Information society driven by "universal access to high speed, reliable, affordable and secure broadband infrastructure and services by 2020". Kigali Innovation City is being developed on the outskirts of the city. It aims to attract multinational information technology firms and domestic start-ups alongside higher education institutions to create a tech ecosystem. The hopes are that the synergies from anchoring educational institutions alongside tech companies in a cluster will generate innovative applications and services, and help grow the domestic ICT industry, as well as generate exports. The Rwanda Utilities Regulatory Authority was created in 2001 as a multi-sector regulator. In addition to telecommunications, it is also responsible for media, posts, water, energy, sanitation and transport. The Authority is also responsible for the Rwanda Internet Exchange, the Internet country domain name (.rw) and the Universal Access Fund. Law No. 24/2016 of 18 June 2016 Governing Information and Communication Technologies is the relevant legislation for the sector.

**Conclusion**: Government steps of creating a regulator, privatizing the incumbent, introducing

competition and developing a broadband strategy have resulted in a high level of broadband infrastructure in the country. The SMART Rwanda Master Plan envisions taking ICTs to the next level by using their transformational capabilities and developing a vibrant ICT-enabled sector.