



Swiss Entertainment & Media Outlook 2020-2024

# Internet access

Pulling the future forward: The entertainment and media industry reconfigures amid recovery

# Internet access

## Segment definition

This segment considers spend on accessing the Internet and is split into two categories: mobile Internet and fixed broadband. Fixed broadband includes both wired and wireless connections and is a subscription to residential or business Internet access services delivered to a home, office or other fixed location via cable, MMDS modem, xDSL, FTTx, WiMAX, proprietary wireless broadband, Ethernet, power line communications or satellite broadband technologies. Satellite services that rely on a fixed dish mounted to a house fulfil the same purpose and serve the same market need as, xDSL, FTTx, cable modem and other means of broadband access, and therefore are considered a form of fixed broadband. Fixed broadband households are further broken down into high-, medium- and low-speed connections. Mobile Internet considers Internet access via cellular air interfaces, generally a 2.5G network or higher. It covers Internet access by means of mobile devices and devices that use embedded modems, dongles and data cards. Smartphones are defined as mobile handsets that offer advanced computing capabilities based on modern operating systems that enable multitasking. A “smartphone connection” is understood to be an active SIM card, with or without a preinstalled data plan, that is used in a smartphone device, as opposed to a smartphone service subscribed to by the user. Smartphone penetration reflects the percentage of smartphones out of all mobile phone connections in a given territory. The remaining mobile phone connections therefore count as non-smartphones.

Tablets are defined as mobile computing devices with a screen size of between five and 12 inches (17.8cm and 30.5cm) that use touchscreen as their primary input method. The tablet forecast includes all active devices in this category, and penetration in this instance reflects the number of tablets as a percentage of the population. “Smart speakers” refers specifically to devices, such as Amazon’s Echo, Google Home, or Apple HomePod, that are voice-activated, constitute a digital assistant, and can operate without a smartphone. They also have the ability to control “smart” home fixtures such as lighting or thermostats.

## Global market drivers

The global Internet access market is driven by several key factors, obviously the first of which is consumer demand. Access to the Internet is no longer considered a luxury; it is a basic standard of living. Although the use of and revenue from legacy telco services such as voice and SMS are on the decline, data volumes are increasing rapidly, especially in terms of mobile devices. Smartphone ownership will increase at a 3.5% CAGR through 2024. This creates opportunities for populations once isolated geographically, as is the case in many remote or less-developed regions of the world. In mature countries with good digital infrastructures, speed and capacity requirements are increasing as users consume higher-resolution content online and integrate devices such as smart speakers into their homes. Global smart speaker ownership will increase at a 26.7% CAGR over the forecast period.

## Improved speeds and availability

Given the appropriate market conditions, demand for Internet access is being driven in a virtuous circle by improved speeds and availability. Fixed broadband penetration reached 61.5% in 2019 and is expected to reach 64.6% – nearly two-thirds of all households – by the end of the forecast period. Over the next five years, connection quality will also improve steadily. The proportion of high-speed connections, defined as speeds of more than 30Mbps, will rise from 69.3% in 2019 to 88.4% in 2024. Fibre continues its upwards trend while DSL declines, although some affluent markets, such as the UK and Germany, are still at an early stage of fibre development. In some of these markets, broadband average revenue per user (ARPU) is declining due to intense competition and the effects of bundling, which weakens the business case for capital spending on an upgrade to fibre.

Mobile Internet access revenue will grow faster, at a CAGR of 5.7% compared to 2.3% for fixed broadband. Mobile will be especially important in developing markets with challenging geographics, where it often leapfrogs fixed broadband infrastructure. Where available, 5G will increase demand from both consumers and businesses, but its rollout will proceed unevenly. For example, China already has an advanced 5G network, while Brazil's implementation is lagging.

## Over-the-top (OTT) services

The importance of OTT media services, including video on demand (VOD), music and games, to the Internet access market is underscored by the increased number of vertical mergers. Premium entertainment services not only drive demand for data, they also serve as desirable differentiators for competing providers that can bundle content with services.

## The impact of COVID-19

The outbreak of COVID-19 in 2020 will have a retarding effect on the global Internet access market, with total revenue set to slow.

The rollout of 5G in 2020 will be significantly slower than anticipated, with China a possible exception in this regard. Huawei confirmed in late March that COVID-19 has "definitely" pushed back timelines in Europe, with France delaying its 5G spectrum auction scheduled for that month. The slower rollout of 5G will hamper mobile Internet subscriptions and mobile Internet access revenue, which were both poised to get a boost from the new technology.

Sales of mobile handsets, smart speakers and tablets will decrease due to the disruption in upstream manufacturing, shipping delays, and retailer closings during lockdown periods. Lenovo, which is the most popular tablet brand in India, was forced to shut one of its largest factories due to the facility's proximity to the epicentre of the virus in Wuhan, China.

Fixed broadband usage will experience a spike as consumers spend more time indoors during lockdown periods. Videoconferencing tools for work and education, coupled with higher rates of video streaming for entertainment, will increase the pressure on telecom infrastructure. Services like YouTube, Netflix, Amazon Prime Video and Facebook worked with regulators during the height of the outbreak and agreed to temporarily reduce bit rates for videos on their platforms as a way of easing network congestion.

## Switzerland

### Internet access in Switzerland

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2019 - 2024 CAG
<b>ssInternet access in Switzerland (CHFmn)</b>	3'782	4'016	4'398	4'717	4'817	4'837	4'856	4'859	4'853	4'836	0.08%
Fixed broadband access (CHFmn)	2'431	2'551	2'811	2'992	3'043	3'060	3'078	3'094	3'104	3'108	0.42%
Mobile Internet access (CHFmn)	1'351	1'466	1'585	1'725	1'774	1'777	1'777	1'765	1'749	1'728	-0.52%

Notes: Numbers shown are rounded. Totals may not equal the sum of their parts due to rounding.

Sources: PwC, Omdia, Norwegian Telecoms Authority, ANACOM (Portugal)

The Swiss government's Digital Switzerland strategy, which is designed to encourage innovation and create opportunities to stay ahead in digital transformation, has been supported by investments in fibre and 5G from its leading MNOs Swisscom, Salt and Sunrise. Switzerland already has high-performance, high-speed telecommunications infrastructure in place. Nonetheless, total Internet access revenue is expected to rise at a mere 0.1% CAGR through 2024 after having hit US\$5.3bn in 2019.

Swisscom has benefitted from previous interventions by the Swiss telecommunications regulator, capturing market share in both fixed and mobile services. In early 2019, parliament rejected a proposed amendment to the Telecommunications Act aimed at properly regulating access to next-generation networks (NGNs). Swisscom dominates the fibre-based networks market, and smaller operators can only hope that future changes to the law will enable fairer competition on the next-generation playing field.

An auction in early 2019 for frequency bands including the 3.4-3.8GHz spectrum enabled the initiation of commercial 5G services in Switzerland. Swisscom partnered with Swedish telecom giant Ericsson to launch a 5G network in 54 cities across the country in April, and by the end of 2019 Sunrise's 5G coverage had already reached 150 towns, cities and villages, thanks to the company's collaboration with service provider Huawei.

