

Tuvalu

Deployment of telecommunication networks is difficult in this small and remote Pacific nation. It has a tiny market and is subject to recurring natural disasters. The country's .TV domain name is a major source of government revenue.

Mobile services: The state-owned enterprise Tuvalu Telecommunication Corporation (TTC) is the sole provider. The mobile network was destroyed by a storm in 2007 and a new network was deployed in 2009. Mobile phone service is available on five of the nine inhabited islands and atolls. In 2012, 43 per cent of homes had a mobile phone.⁴⁶⁷ TTC launched 3G in the capital in 2015, with plans to extend coverage to other islands. It is also planning to launch LTE in the near future.

Fixed services: TTC was created as a state-owned enterprise in 1994 under the *Tuvalu Telecommunication Corporation Act*. It is the sole provider of fixed telephone services. Practically all households on the island of Funafuti have a copper fixed telephone line. The 2015 cyclone Pam severely damaged around 80 per cent of the copper fixed telephone network in the outer islands. TTC also provides fixed broadband through ADSL and over VSAT to Internet cafes in the outer islands. Services are limited by the fact that mains electricity is normally available for only 12-18 hours a day. Tuvalu relies on satellites for both domestic and international connectivity. TTC is trying to improve the operational ability of its outer island services through the provision of solar power systems for all VSATs.

Government policy: The Ministry of Works, Communications and Transport (MWCT) is responsible for sector policy and regulation as well as government IT. The Government strongly supports the ICT sector in its national strategy with the objective of improving and extending services nationwide, especially to schools, clinics and island administrations ("Kaupule"). The nation's 2012 *Infrastructure Strategy and Investment Plan* identifies three key objectives for the ICT sector: i) ensuring that all telecommunication facilities are solar-powered; ii) expanding Internet services to the outer islands; and iii) establishing a submarine cable link. The country's catchy ".TV" Internet domain name is much sought after and has been a major source of revenue for the Government; the payments enabled it to join the United Nations in 2000. The

Key indicators for Tuvalu (2017)		Asia & Pacific	World
Fixed-telephone sub. per 100 inhab.	17.9	9.5	13.0
Mobile-cellular sub. per 100 inhab.	71.5	104.0	103.6
Active mobile-broadband sub. per 100 inhab.	...	60.3	61.9
3G coverage (% of population)	48.0	91.3	87.9
LTE/WiMAX coverage (% of population)	0.0	86.9	76.3
Individuals using the Internet (%)	49.3	44.3	48.6
Households with a computer (%)	25.0	38.9	47.1
Households with Internet access (%)	20.0	49.0	54.7
International bandwidth per Internet user (kbit/s)	7.0	61.7	76.6
Fixed-broadband sub. per 100 inhab.	4.0	13.0	13.6
Fixed-broadband sub. by speed tiers, % distribution			
<i>-256 kbit/s to 2 Mbit/s</i>	70.2	2.4	4.2
<i>-2 to 10 Mbit/s</i>	1.1	7.6	13.2
<i>-equal to or above 10 Mbit/s</i>	28.8	90.0	82.6

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

domain name is managed by Verisign, which under the .tv Agreement with the Government of Tuvalu is committed to paying the Government at least US\$5 million a year until the end of 2021.

Conclusion: Tuvalu faces formidable challenges in expanding its ICT infrastructure. It is a remote Pacific archipelago located in a disaster-prone area, with a small population spread over a number of islands. The main island has a relatively high level of ICT access. The country is progressing towards more reliable connectivity in the outer islands through the installation of solar-powered facilities. It is fortunate to have a popular domain name which generates revenues equivalent to around one-third of the country's exports.