

Internet Access for All

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Overview

The world is veering towards major developments in the digital arena with most of the services provided online. Access to a stable and consistent internet connection is becoming a necessity. Goal 9 of the UN aims at [Industrial Innovation and Infrastructure](#). The goal endeavors to significantly increase access to information and communications technology and strives to provide universal and affordable access to the Internet even in least developed countries.

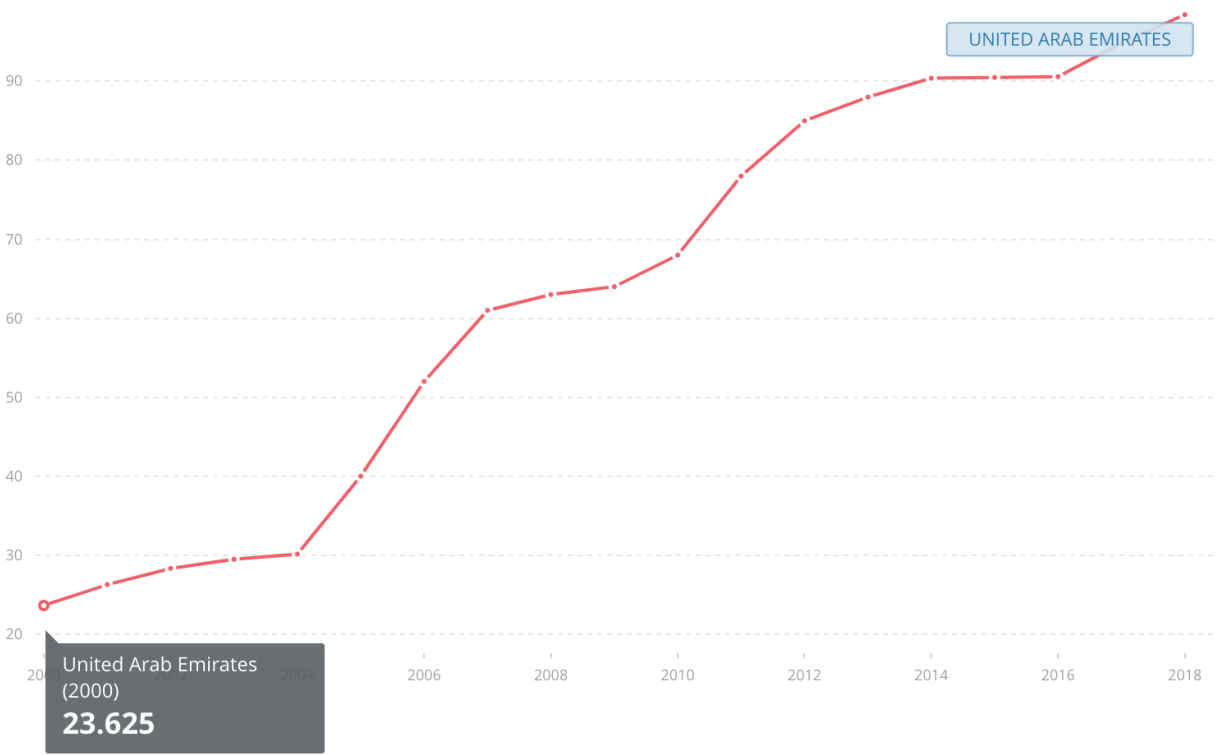
[3.8 billion people in the world](#), of which 80% are from least developed countries, still do not have access to the internet. [90% of people](#) live within range of higher quality mobile network but not all can afford to use it.

This acts as a major hindrance and limits development of the fastest-growing industry of the world, the digital. Technological progress is of great significance to the development of any economy. According to [World Bank's 'Broadband Networks in the Middle East and North Africa'](#) report, there is a growing consensus worldwide that broadband internet is critical in fostering sustainable economic development and job creation, and is strategic to the goals of reducing poverty and fostering trade integration.

The telecommunications sector in UAE is regulated and monitored by the [Telecommunications Regulatory Authority](#) (TRA). TRA strives to make UAE a pioneer in bringing the latest technology to its citizens by bringing the latest technology to all its citizens. It protects the interests of the consumers and promotes digital transformation enabling UAE to be among the countries leading the way for high-level digital goals.

Internet in the UAE

According to [International Telecommunication Union](#) (ITU), from only 23.63% of individuals using the internet in 2000, [UAE has reached 98.45% of its population in 2018](#).



Source: [World Bank](#)

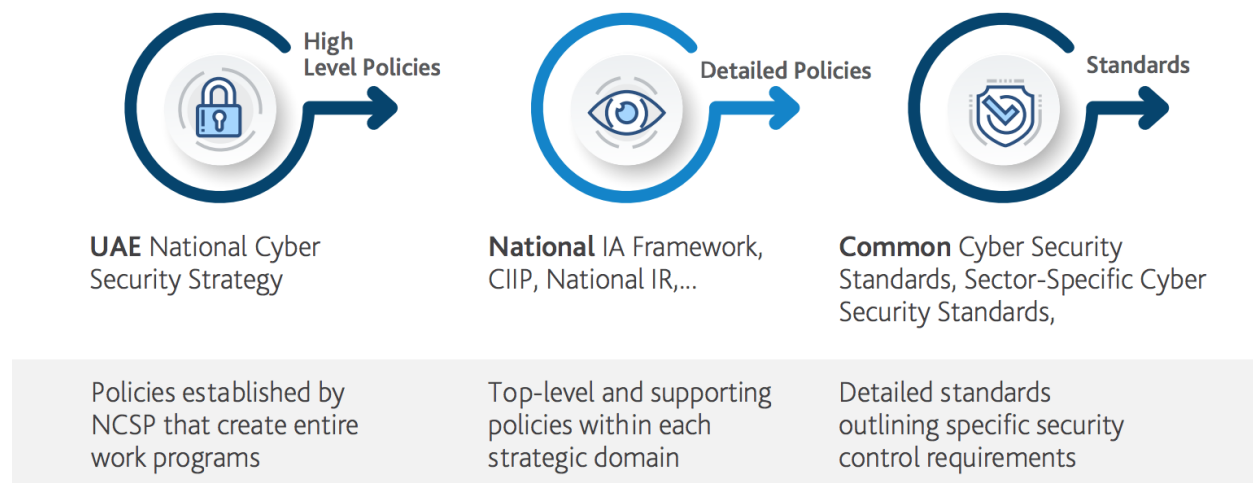
WiFi UAE

[WiFi UAE](#) is a nationwide initiative that provides high-speed access to the public. WiFi UAE has created over [400 hotspots](#) all over UAE to provide high-speed internet access. All government services are available online to all users holding a WiFi-enabled device, including smartphones, laptops and tablets.

Cyber Safety

With almost 98.45% of internet penetration and users, it is also equally important to provide the necessary measures for ensuring cyber safety of the users. TRA has a [National Cyber Security Plan](#) (NCSP) that has a structure as shown in the infograph:

Structure of National Cyber Security Plan (NCSP)



Source: [UAE National Security Strategy](#)

In 2016, the [Dubai Electronic Security Center](#) (DESC) launched the [Dubai Cyber Security Strategy](#). This strategy aims to:

- Create a cyber smart society
- Promote research and development in the cyber security arena
- Establish baseline controls for cybersecurity and monitor adherence
- Ensure cyber resilience by averting threats
- Collaborate internationally to keep up pace with latest developments
- Ensure adoption of cyber security in new and emerging technologies.

Various studies around the world point to an increase in cyber-attacks in countries with weak or non-existent cyber-crime laws. UAE tackles this hurdle with a strong regulatory framework. Under the [Federal Law no 5 of 2021 on Combatting Cybercrimes](#) and its amendment Federal Law No. 12 of 2016, UAE criminalizes the use of the internet to invade privacy of another person, the recording of audio or video conversation or communication, photographing others or copying the same and publishing news, statements or information. Violation of this law will be punishable with imprisonment and/or a fine between AED 500,000 and AED 2,000,000.

A Computer Emergency Response Team called [aeCERT](#) was established to monitor and protect the IT infrastructure existing in UAE from risks and violations. Its primary goal is to ensure a safe and secure cyber space for UAE residents. Various initiatives

have been taken to build awareness among cybersecurity in the country. Some of them are:

- [UAE Ambassadors for electronic security](#) - this aims to empower Emirati students to create awareness among the public about the best cyber security practices. This initiative by aeCERT will enable youth to establish a safe electronic culture in the UAE.
- [The National Bullying Prevention Week campaign](#) - bullying is a threat to the society and cyber bullying creates a serious strain on the minds of youngsters. This campaign ensures to raise awareness about online bullying and ensure children are aware about their rights and protection from the online bullies.

Read more about cyber safety and digital security [here](#).

The Coverage Initiative

The TRA launched the coverage initiative to enhance the experience of telecommunication services provided in the country by testing and analyzing the operators' network quality. This initiative focuses on the improvements needed in the telecom sector in the areas of:

- Quality of Coverage
- Quality of Applications
- Quality of Voice Services
- Quality of Data Services.

This initiative led to the publishing of [service coverage interactive maps](#) by network operators enabling users to choose their preferred network based on the range of service coverage provided. It also displays location of business and service centers provided by the networks in the country.

Achievements

UAE has shown major improvements in indicators relating to telecommunication globally. These are the figures from [UN eGovernment Survey reports](#) 2016 and 2018.

Index	Rank in 2016	Rank in 2018
E-Government Development Index (EGDI)	29	21
Online services index (OSI)	8	6
E-Participation Index	32	17
Telecommunication Infrastructure Index (TII)	25	2

The UAE is ranked as follows in the [Global Competitiveness Report 2019](#):

Worldwide Ranking	Index
1 st	Mobile-broadband subscriptions/100 population
2 nd	Mobile telephone subscriptions/100 population
5 th	Internet users % of adult population
4 th	Fibre internet subscriptions per 100 population
2 nd	Overall ICT Adoption

Affordability of Internet in UAE

The UAE is one of the world's most connected countries. According to the ITU's latest '[Measuring the Information Society Report](#)', internet penetration in the UAE was at 95 percent in 2017, up from 91 percent in 2016. As of November 2018, there were over 1,300,000 internet subscribers in the country, more than 99 per cent of whom had broadband connections. The UAE has one of the highest mobile phone penetration rates in the region. According to [the UAE's Telecommunications Regulatory Authority \(TRA\)](#), mobile penetration in 2018 reached 19.4 million subscriptions.

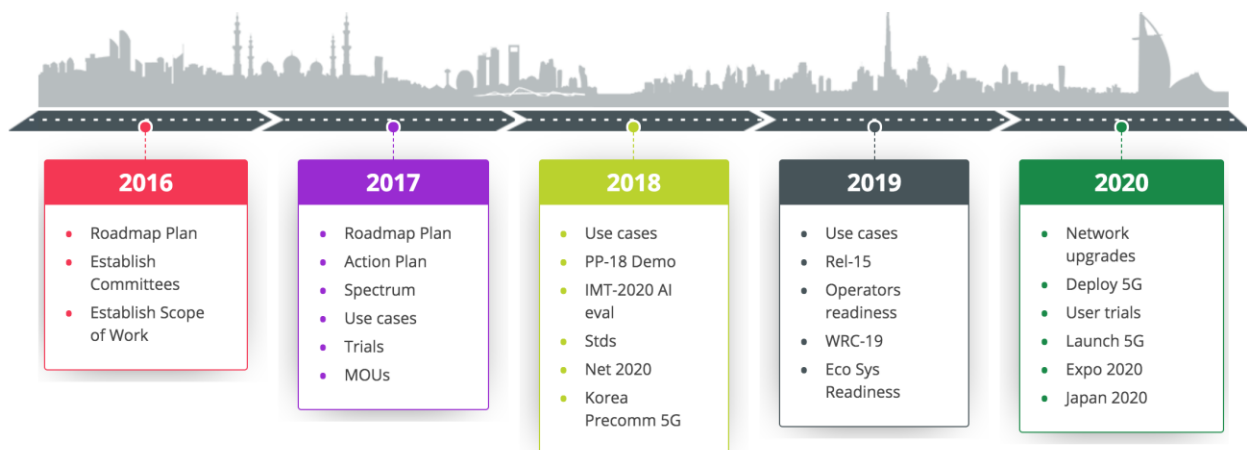
Prices for [high-speed broadband in the UAE are the second cheapest in the GCC](#) after Bahrain. Broadband is affordable for most users, given the UAE's high per capita income. In April 2017, the UAE's TRA directed mobile operators to [reduce the roaming rates within the Gulf region](#), resulting in an average 18 percent drop in prices for consumers.

The Advent of 5G

The world is on the verge of a high-speed and high-capacity network that will support massive machine-to-machine communications and provide low-latency (delay), high-reliability service for time-critical applications through a 5G network. [IMT-2020](#) will be the standards set for 5G by the ITU. This is being developed with 5G trials and pre-commercial activities that will be in full swing 2020 onwards.

UAE has successfully completed the first [end-to-end 5G standalone call](#) to become the first country in the MENA region to achieve this milestone.

TRA aims to be the primary driver in launching the fifth generation of commercial mobile service in the country. TRA has established a Steering Committee chaired by its Director General for oversight and leadership role. The initiative also has established three committees, including all stakeholders (operators, manufacturers, academia and users), to synergize the process. TRA will work with strategic partners to lead UAE globally in deploying 5G technologies. A roadmap for the same is given below:



Source: [TRA UAE](#)

5G technology will herald a new era in digital technology by enabling higher speeds, increasing efficiency and driving innovation in all industries.

IPv6

UAE is the [first country in the Middle East](#) region to transition to the Internet Protocol Version 6. This transition to IPv6 is expected to have a significant positive impact on the implementation of 5G mobile technologies and digital transformation in the UAE which

has not entirely possible due to the inability of the existing IPv4 to meet the growing demand in internet in UAE.

Conclusion

UAE is on the path to ensure high-speed internet access is for all and the forward thinking and long-term vision of the government supports this by providing a strong regulatory framework and an environment that encourages innovation in application of latest technology available.