

On the 5G fast track

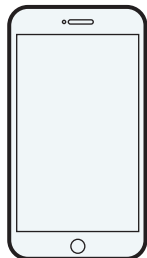
A 5G network promises a surfing speed that is 20 times faster than that of a 4G network and the capacity for 1,000 times more devices.

HOW FAST IS 5G?

Just how fast does it take to download the movie *Star Wars: The Force Awakens* in high definition, which has a file size of nearly 4GB?

2010 to present

4G



Theoretical maximum speed:

1Gbps

Estimated download time:

30sec

2020 onwards

5G



Theoretical maximum speed:

20Gbps

Estimated download time:

1.5sec

WHAT POSSIBILITIES WILL 5G OPEN UP?

A full-fledged 5G network's ability to deliver a constant connection without lag will support mission-critical applications.



Telemedicine

Greater access to healthcare and surgery performed remotely



Autonomous vehicles

Safer cars due to better collision avoidance systems



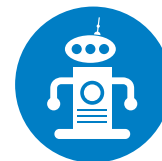
Internet of Things

Real-time monitoring of places and processes



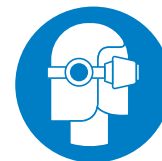
Autonomous drones

For building inspection and delivery of medical supplies



Industry automation

Robots that communicate with one another



Virtual/augmented reality

New modes of personal entertainment and professional training

5G DEVELOPMENT TIMELINE

2017

The Infocomm Media Development Authority (IMDA) conducts first public consultation on the airwaves to be allocated to 5G.

May-July 2019

The IMDA conducts second public consultation on the airwaves allocation mechanism.

By end 2019

The first 5G handsets will go on sale in Singapore.

By end 2022

The two full-fledged 5G networks must provide at least 50 per cent islandwide coverage.

From 2025

More airwaves may be freed up for 5G use. More networks can be built. Existing networks can be enhanced.

2018-2019

Three telcos (Singtel, StarHub and M1) conduct 5G trials. Singtel partners Ericsson. StarHub and M1 work with Nokia and Huawei.

Oct 2019

The IMDA decides to issue licences to operate two full-fledged 5G networks with islandwide coverage, and two smaller 5G networks with limited coverage.

From June 2020

Limited 5G airwaves needed for providing islandwide coverage to be awarded to up to two winning submissions through a regulatory process known as a Call For Proposal. The operators of the two smaller 5G networks can also begin network roll-out.