



LTE & 5G Market Statistics: Global Snapshot

73 operators in 41 countries have launched one or more 3GPP-compliant 5G services (including 66 mobile and 35 FWA services) up from 63 operators in 35 countries as reported in March 2020.

As of mid-April 2020 GSA's NTS database showed:

- There are 780¹ operators with commercially launched LTE networks (offering broadband fixed wireless access and or mobile services).
- 235¹ operators hold licences to use spectrum for TD-LTE services, 163¹ of which are known to be actively using the spectrum (either deploying networks or have launched services).
- 325 operators have deployed/launched LTE-Advanced or LTE-Advanced Pro technologies in their commercial networks. 201¹ operators are investing in one or more LTE-Advanced Pro technologies.

- 380 operators are investing in 5G networks in the form of tests, trials, pilots, planned and actual deployments.
- 88 operators have announced that they have deployed 3GPP-compliant 5G technology in their networks.
- With multiple announcements of 5G launches in recent weeks, GSA now counts 73 operators in 41 countries that have launched one or more 3GPP-compliant commercial 5G services (some with smart phones; some with 5G routers; some offering services widely; some with limited geographic, device or and customer availability).
 - Including 66 5G mobile services (including 6 limited availability launches) and 35 5G FWA or home broadband services (7 limited availability).

Network Features

The NTS database tracks various LTE network technologies:

4x4 MIMO – 145¹ operators identified as investing, of which 87¹ have deployed/launched the technology within their commercial networks.

8T8R MIMO and Massive MIMO – 78¹ operators identified as investing in these technologies; at least 32 deployed/launched.

256 QAM in the DL – 120¹ operators identified as investing, of which 73¹ have deployed/launched the technology within their commercial networks.

And numerous key LTE service features:

36¹ operators investing in LAA (9 with deployed/launched networks); 12 operators investing in LTE-U (3 with deployed/launched networks); 3 operators investing in LWA (one launch so far). 17 public network operators (all in the US) are investing in CBRS.

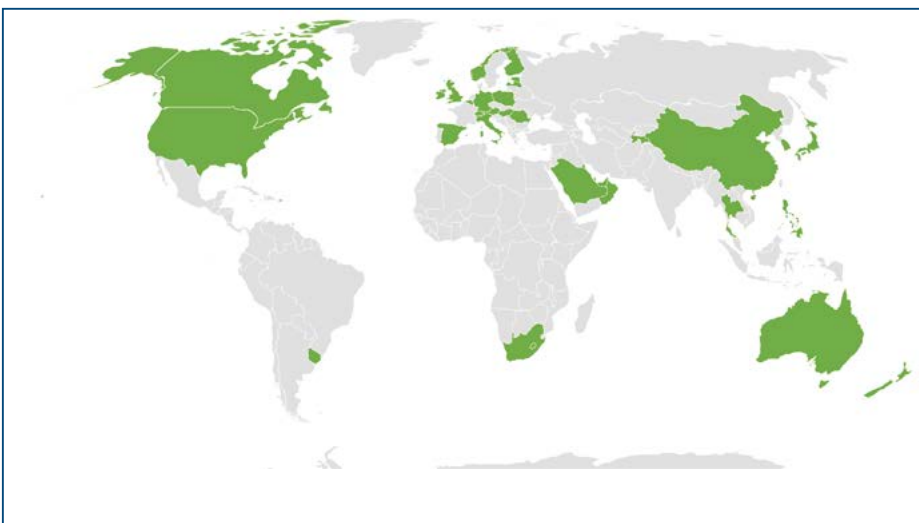
270¹ operators investing in VoLTE, with 209 launched networks.

157¹ operators investing in NB-IoT with 106¹ deployed/launched networks.

68¹ operators investing in LTE-M with 45 deployed/launched networks.

¹ This number has been restated since the last report reflecting the removal of companies from the database that have been acquired, that have closed, that have lost licences, or that have relinquished spectrum

Figure 1: Countries with launched 5G Networks



270 operators investing in VoLTE; 209 of them have launched the technology in their network

This reports is compiled from data stored in the GSA Analyser for Mobile Broadband Devices/Data (GAMBoD) database.

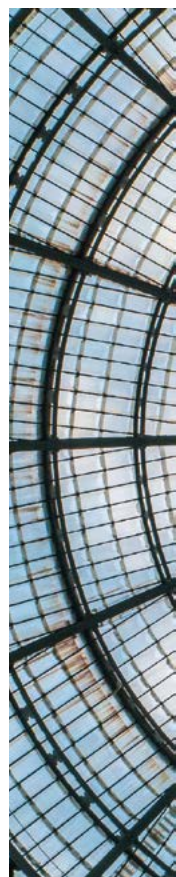
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Definitions

GSA uses the following definitions for technologies and services:

- Licensed to test/trial: in live public networks, or using specific spectrum bands, but tests have not started yet.
- Evaluation/testing/trialling: Work to evaluate possible investments, early tests and trials including demonstrations, lab tests, and field trials where the technology might be subsequently removed. Also includes testing/trialling of an unspecified type.
- Planned: the operator has announced an intention to launch but has not yet started deploying the network/service and does not have a licence (if one is needed).
- Licensed: means the operator has a licence to use the spectrum band for commercial services. Variations include licensed for mobile broadband, licensed – technology neutral, licensed for LTE, licensed for 5G, or licensed for 2G or 3G.
- Deploying: the operator has started actual construction/installation/ deployment; and may be piloting the network in selected locations.
- Running field trials/pilot projects: Later stage testing, typically using the equipment intended to be deployed or in process of wider deployment within the network.
- Deployed in network: installed in the network, even if not used for commercial service yet, but is intended to stay in the network and is ultimately expected to be used for commercial services.
- Launched (limited availability): commercial services are available for customers to use, and some devices are available for them to use, but availability is restricted to selected geographical areas, or to selected groups of customers, or by/to small numbers of devices.
- Launched: services are widely available geographically, and widely available to customers.
- Testbed/incubator services: services accessible by third-party partners (such as enterprises and public sector or government organisations) for developing 5G applications and solutions, including those funded by the government/public sector. Excludes testbeds to test the 5G network technology itself.
- 5G FWA/home broadband: services designed to provide home or enterprise broadband using fixed wireless access terminals or 5G-enabled home routers; nomadic mobility only.
- 5G mobile: full mobility 5G data services within the network coverage area.



ABOUT GSA

GSA is the voice of the global mobile ecosystem and has been representing mobile suppliers since 1998.

GSA GAMBoD Database

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