

The Future is Here and It's Looking 5G

The 5G cellular network ecosystem is connecting devices at a better, faster, and stronger rate than its previous generations. Widely hailed as the catalyst for the digital revolution, 5G is the key for businesses to achieve their maximum potential.

What is the 5G ecosystem exactly?

5G itself is the 5th generation of mobile broadband system that will eventually replace the currently widely used 4G LTE connection¹. As of August 2020, 38 countries had begun development on 5G networks, with South Korea being in the lead².

Meanwhile, the 5G ecosystem refers to an industry of suppliers from device manufacturing, network supply and maintenance, system integration, test & validation and consulting³. All of which are involved in constructing, improving, promoting and monitoring the usage of 5G technology across devices and the Internet of Things (IoT).

How is it different from the current 4G ecosystem?

Simply put, the 5G ecosystem is significantly more rapid, reliable, and efficient than its predecessor. According to a Boston Consulting Group⁴ report, download speeds will be 40 times faster, up to 20 Gigabits per second.

Meanwhile, connection density (the maximum number of devices that can function in a specific area) will increase tenfold. Latency (the length of pause before data transfer begins) will also be 10 times lower—allowing instant responses.

Is there a catch for this technology?

The perks of 5G do not come without a price to pay. The technology is dependent on a robust millimetre wave network⁵. Unfortunately, these ultra-high frequency radio wave connections are currently limited to a few downtown areas in major cities globally. Governments and the private sector will need to invest in the infrastructure needed to utilize this technology.

What will this mean for companies?

¹ <https://www.digitaltrends.com/mobile/what-is-5g/>

² <https://www.statista.com/chart/23194/5g-networks-deployment-world-map/>

³ <https://gsacom.com/5g-ecosystem/>

⁴ <https://www.bcg.com/publications/2020/building-the-us-5g-economy>

⁵ <https://www.digitaltrends.com/mobile/what-is-5g/>

PwC's study finds that the key functional drivers of 5G will unlock a broad range of opportunities for companies worldwide⁶. Examples of the benefits include the optimization of service delivery, decision-making, and end-user experience.

Overall, 5G ecosystem integration into the economy is expected to generate 22.3 million jobs and \$13.2 trillion in global economic value by 2035.

Innovations possible with the 5G ecosystem

With over 3.5 million subscribers by November 2019, the South Korean economy has begun deriving benefits from the 5G ecosystem⁷. A few of its most impacted industries include Augmented Reality (AR), sports & entertainment, and transport systems. Innovations such as self-driving cars are one step closer to being enjoyed to the masses, thanks to the speed of data relay in 5G networks.

What is the key to success in navigating the anticipated upheaval?

The first-mover advantage is especially true in anticipation for the wide adoption of 5G⁸. The next generations of consumers are digital natives, who are attracted by innovative services and seamless connectivity. Operators need to be agile to meet consumer needs, while industry collaboration is vital to enable 5G create a revolutionary change in the economy.

The 5G ecosystem is here to stay. With countless massive improvements, the exciting changes brought by 5G will accelerate digital transformations going forward, and the way we conduct business will never be the same again.

⁶ <https://www.pwc.com/gx/en/about/contribution-to-debate/world-economic-forum/the-impact-of-5g.html>

⁷ <https://www.channelnewsasia.com/news/cnainsider/what-south-korea-first-country-launch-5g-network-can-teach-us-12056726>

⁸ https://www2.deloitte.com/content/dam/Deloitte/in/Documents/technology-media-telecommunications/in-tmt-CII-TelecomConvergence5G-Ecosystem_new-noexp.pdf