

Reality, costing, infrastructure of 5G in India

From 1G(1980) to 2G(1991) it takes 11 years, from 2G(1991) to 3G(1998) it takes 7 years, from 3G(1997) to 4G(2009), from 4G(2009) to 5G(2017) took around 7 years. In between this year's behaviours of human towards communication switch to data (multimedia) more than voice calling. Data aggregation is increasing hastily due to devices are becoming smarter and smarter. Due to pandemic this effect is not only seen in India but all over world. Now work from home is need of the hour, even employers also saving cost on infrastructure and it is possible to do it work from home there is more demand and stressed on telecommunication companies. That's why 5G is also becoming need of the hour in India. By the beginning of 2021, 61 countries across the globe already had up and running commercial 5G networks. In India also some operators are set up and started trials in last quarter of 2021. Even this delay is due to TRAI is going to submit report on available spectrum. This report is submitted and now some bands are available for sale. In its report, TRAI recommended that the reserve price for all 5G spectrum be set at 70% of the valuation previously arrived at. It recommended that spectrum for 5G be auctioned in the bands already used for mobile communications in India, and also in the new spectrum bands of 600 MHz, 3300-3670 MHz, and 24.25-28.5 GHz. However, the telecom body Cellular Operators Association of India (COAI)—whose members include Airtel, Jio, and Idea—wasn't happy with TRAI's recommendation and said the spectrum pricing was still too high. COAI had presented arguments and concerns about the high reserve price based on global benchmarks and recommended lowering the price by 90%.

What is 5G?

It is the next generation cellular technology that will provide faster and more reliable communication with ultra-low latency. A government panel report points out that with 5G, the peak network data speeds are expected to be in the range of 2-20 Gigabit per second (Gbps). This is in contrast to 4G link speeds in averaging 6-7 Megabit per second (Mbps) in India as compared to 25 Mbps in advanced countries, it added.

5G network in India first came into the conversation in 2017 when a high-level forum was set up by the government to chalk out a roadmap towards a 5G India by 2020. Subsequently, in 2018, the 5G in India forum invited communication technology companies such to conduct major trials and devise a framework related to 5G Applications and Use Case Labs for 5G in India. India is expected to be an early adopter of 5G.

Why is 5G not available in India?

5G in India is unavailable because the country is still in the testing phase for 5G network in India. As per the Parliamentary Panel report on 5G in India, the country is not ready infrastructure-wise to support a full-fledged 5G roll-out. From high spectrum pricing of 5G network in India being opposed by operators to lack of optical fibre connectivity to regulatory delays, there are multiple challenges that need to be resolved before realizing the dream of a 5G India. Once the current 6-month testing phase is over, the 5G spectrum auction will take place in early 2022. Only then will the *5G release date in India* be confirmed and, subsequently, the launch of 5G in India will occur.

Where 5G is in trial and testing phase?

The launch date for rollout is a hot topic in the market. Although there is no confirmation on the rollout of the 5G network from the telecom operator, it is expected to be launched in India by this year. Following cities started trials on 5G, These cities include Delhi, Gurugram, Bengaluru, Kolkata, Chandigarh, Jamnagar, Ahmedabad, Chennai, Hyderabad, Lucknow, Pune, and Gandhi Nagar.

-Prof. Pratik Parsewar