

# How will the 5G auction impact the sector?

When will the mass roll-out happen? Will better services help improve the debt situation of telecom providers?

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**The story so far:** The auction of telecom spectrum, including bands for offering fifth generation (5G) technology services, concluded on Monday drawing record bids exceeding ₹1.50 lakh crore. Telecom Minister Ashwini Vaishnaw said 71% of the 72,098 MHz of spectrum on offer was sold. Reliance Jio emerged as the top bidder, staking claim for a period of 20 years to 24,740 MHz of spectrum. Bharti Airtel stood second with 19,867.8 MHz worth spectrum and Vodafone-Idea third with 6,228.4 MHz worth spectrum. The mop-up from the bids with respect to 5G airwaves was almost double in comparison to that of 4G last year. According to the telecom Minister, "Spectrum purchased is good enough to cover all circles in the country. [In the] coming two-three years, we will have good 5G coverage." As per the Ministry, the roll-out of 5G services is likely to start by September/October.

**What did telecom service providers shop for?**

■ Spectrum in three bands, namely, low (constituting of 600, 700, 800, 900, 1800, 2,100 and 2,500 MHz bands), mid (3,300 MHz) and high (26 GHz – 1 GHz equals 1000 Mhz) frequency bands were put up for auction.

Low-band spectrum is popular for providing wider coverage, however, the speed and latency might just be an incremental upgrade over 4G. Speed is subject to the proximity to the source. On the other hand, the high band spectrum can provide speeds of up to two Gbps but is unable to travel longer distances, at times, less than a mile. Additionally, signals from the low-band spectrum can travel through windows and walls which is not the case with the high-band.

The mid-band spectrum falls somewhere between the two. It can carry sizeable data over longer distances and maintain increased speeds.

The mid and the high-band garnered maximum attention at the auction with 76% and 72% of the available spectrum respectively sold. Bharti Airtel and Reliance Jio combined, staked claim to 87% of the total purchased spectrum in these two bands, strengthening their operational capability in the 5G market.

While making bids for spectrum, telcos take note of their existing financial position and priorities. Thus, not all spectrum on offer is acquired. For example, the 700 Mhz spectrum went unsold in 2016 and 2021. This time, Jio emerged as the sole entity to spend ₹39,270 crore on the 'premium band' known to improve indoor and rural coverage as well as possessing the ability to penetrate through walls and properties more effectively. Operators did not opt for this band previously because of their



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financial positions and high prices, focussing instead on alternate strategies. Thus, reflecting its financial health, Vodafone-Idea spent slightly above a quarter of the combined average spend of their compatriots. It also focussed on the mid and high-band spectrum.

The latest entrant to the sector, Adani Data Networks, paid ₹212 crore to acquire 400 MHz in the high band. The company had earlier made it clear that it was "not to be in the consumer mobility space." Instead, it would provide private network solutions with enhanced cyber security in its airport, ports and logistics, power generations, transmission, distribution and various manufacturing operations.

The 600 Mhz category did not find any takers, which as per the Ministry, was because the device ecosystem for the band was not yet developed for mobile telephony. However, the band may become important in a few years, it stated.

**What will it be used for?**

■ "While the 3,300 MHz band will be crucial for 5G technology deployment going forward, the appetite for the 1,800 MHz band stems from the rising mobile broadband usage and thus the need for improving network capacity." ICRA's Vice President and sector head Ankit Jain told *The Hindu*. He added that the amount of spectrum put to auction was optimal as witnessed by the fact that apart from one circle in the 1,800 MHz band, spectrum was sold at the reserve price only. The high reserve prices caused some disquiet in the industry when the auction was cleared.

The fact that a significant share of the bids was at the reserve prices indicates the sense of competitiveness in the industry.

**What is the post-auction outlook for the industry?**

■ Telecommunications in India is a price-sensitive and competitive market. The sector is capital-intensive, and has to consistently invest in upgrading technologies and improving services. A tariff war initiated by the entry of new players in the previous decade, resulted in severe financial distress for companies. Therefore, the investment made towards 5G could potentially further stress the sector's debt position.

Manish Gupta, senior director at CRISIL Ratings, contended that with the latest spectrum purchase, the debt could rise to about ₹6.1 lakh crore. He said that the adoption of 5G services would hinge directly on the premium levied from 4G services. So, despite the two rounds of major tariff increases in December 2019 and November 2021, there could be another increase in rates (for 4G services) in the current fiscal. The ability of the sector to meet its financial obligations ought to improve in the next fiscal once the complete benefits of expected tariff increases and the 5G launch are realised.

**What upgrades are necessary for 5G implementation?**

■ The mass roll-out of 5G is likely to take some time. Mr. Gupta said the mass roll-out may happen only next fiscal as telcos need to first upgrade fiberisation. "The telcos are also required to launch commercial services in at least one city of each circle by the end of the first year of acquiring the licence, as per roll-out obligations," he observed.

**What about the debt situation?**

■ Notwithstanding the debt levels, ICRA pointed to the fact that the cash flow being generated from business was improving. The latest spectrum auction too would improve the sector's operational viability by lowering the repayment burden.

For the first time ever, there was no mandatory requirement to make any upfront payment. The payment for the spectrum could be made in 20 equal annual instalments in advance at the beginning of each year. This could potentially lower the operating costs for telcos, in turn, providing an opportunity to spur their respective ARPU (average revenue per user). "Thus, while the debt metrics for the industry might look stretched, the improving cash-flow position with improvement in ARPU levels translates into a 'stable' outlook for the industry," Mr. Jain said.

5G, however, may not mean much for rural India, according to Mr. Jain, as operators would only opt for areas where they can generate adequate returns.