

# ‘More Innovative 5G Use Cases to Emerge in Various Industries’

Trai chief AK Lahoti says Terahertz spectrum, RedCap technology to help drive innovation

## Our Bureau

**New Delhi:** Enhanced mobile broadband (eMBB) and 5G fixed wireless access (FWA) are the initial emerging use cases of 5G technology, while killer applications have also gradually started coming up in various industries, said regulators and industry executives.

AK Lahoti, chairman of the Telecom Regulatory Authority of India (Trai), said more innovative 5G-driven use cases are expected to emerge in smart cities, smart industries, connected vehicles, and advanced and connected healthcare, among others, with the involvement of startups, entrepreneurs, and application providers.

He and other industry executives including Sharat Sinha, chief executive at Airtel Business, and Shyam P Mardikar, president and group chief technology officer (CTO)-mobility at Reliance Jio, were speaking at the first edition of the ETT Telecom 5G Industries Innovation Summit 2024.

Lahoti said Trai's recommendations on the terahertz (THz) spectrum would enable innovators to evaluate the performance of products in this band at the conception, development and design stages, which would pave a path to assess the technical viability of technologies and services built on these high bands. He said the reduced capability (Red-



Cap) technology is another opportunity which can address a broad range of mid-tier applications more effectively. "It will enable the adoption of devices in a cost and energy-efficient way, which will facilitate operational efficiencies with optimised cost structures, accelerating Industry 4.0 transformation and industrial applications such as video monitoring, inventory management, etc."

Sinha from Airtel Business added that killer applications have already slowly started showing up. "I expect, over a period of time, combined with artificial intelligence, the developments in the internet of things (IoT) space, semiconductor industry and broader software-defined space will lead to more innovations."

Airtel and its rival Reliance Jio concluded nationwide 5G deployments earlier this year,

and are betting on their successful 5G-driven fixed broadband (FWA) service being offered to consumers and enterprises commercially.

Mardikar said that Reliance Jio's home-grown 5G stack demonstrates the strengths of design-in-India and make-in-India. "Like Bell Labs, we are trying to inculcate capabilities at Jio labs." Its in-house subscription engine and marketplace products are expected to enable a software-as-a-service (SaaS) consumption model, as per the presentation made at the event.

Airtel's Sinha said the telco has deployed a private 5G at a manufacturer's facility, which has led to autonomous mobile robots, smart surveillance, IoT and several Industry 4.0 applications. In the healthcare sector, he said, Airtel is piloting a 5G-enabled ambulance, which would save lives, adding that the commercial deployment, if it happens, can "scale well". Sinha said Airtel has also piloted 5G-driven and AI-powered colonoscopy.

Additionally, Airtel has deployed 5G fixed wireless access (FWA) and fibre connectivity at 6,000 retail locations for a large retail organisation. "Cyber security is a very critical element that needs to be thought of. In each of these (trial) deployments, we have very carefully looked at the cyber security aspect... one has to also look at how you are going to protect the environment, because as the world gets more and more connected, it also becomes more and more vulnerable," Sinha said.