

Satellites to Take Reliance Jio's 4G to Remote Corners with Backhaul Network

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New Delhi: Reliance Jio is planning to use satellites to connect to the rural and remote parts of India through its 4G LTE-based voice and data service. It is deploying a first-of-its kind satellite backhaul-based network, using capacity from Indian Space Research Organisation (Isro), and technology from Hughes Communications (HCIL).

The Mukesh Ambani-led 4G telco is connecting more than 400 LTE sites, which are beyond the reach of terrestrial backhaul services, through this satellite backhaul-based network. The network is under different phases of deployment. Jio has awarded a contract worth over \$10 million to Hughes Communications (HCIL) to set up the satellite backhaul for the 4G network in these areas.

In India, most telcos, including Jio, use microwave largely to connect towers since laying fibre is tough due to high deployment costs and right of way (RoW) issues. In rural and remote parts, especially hilly areas and islands, using the microwave is even more challenging due to height, a difficult terrain and the huge investments involved, which is where the sa-

tellite-based network can fit in.

Jio group president Jyotindra Thacker said the telco is using Hughes' Jupiter system to support its 4G sites. "The satellite system is key to enabling our vision of providing ubiquitous and seamless connectivity to each and every part of the country."

Partho Banerjee, president, Hughes Communications India, said that satellite is the ideal technology for extending 4G/LTE service to remote and rural communities.

Telcos such as Bharat Sanchar Nigam (BSNL), Vodafone Idea and Bharti Airtel have been doing satellite backhauling to a small ex-

tent, albeit for 2G and 3G services, industry watchers said, adding that BSNL has the most satellite backhauling today for 2G and 3G. "On 4G though, Jio is the innovator by far on satellite backhauling... they have taken a bulk capacity of two satellites of Isro, and have taken our satellite technology which is meant for 4G services. Jio wanted a captive network of their own, and is the first in the industry to do this," Shivaji Chatterjee, SVP &

Head - Enterprise Business, Hughes Communications India, told ET.

Jio, in partnership with Hughes, is setting up two earth stations in Mumbai and Nagpur, and will set up two mini hubs in Leh and Port Blair for the latest satellite backhaul-based services that will provide connectivity in areas, especially in the North East, Jammu and Kashmir, Uttaranchal, Andaman and Nicobar, and Lakshadweep.

"The focus may be on remote and hilly and island areas, but also on remote areas in the mainland in Maharashtra, Orissa, Chhattisgarh, Karnataka, Himachal Pradesh," Chatterjee explained.

Analysts said that satellite can't match microwave or fibre, but still provides more than enough capacity to offer bandwidth wherein each site can provide speeds between 10 Mbps and 30 Mbps.

Chatterjee said that the satellite platform being used by Jio offers certain kind of compression and

acceleration natively for LTE traffic, providing

50% advantage in terms of bandwidth.

SETTING UP BASE

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