IN-SPACe Clearance for Starlink Satellites

Starlink, owned by Elon Musk, has secured the final regulatory clearance to offer satellite communication services in India. The Indian National Space Promotion and Authorisation Centre (IN-SPACe) authorised Starlink's Low Earth Orbit (LEO) satellite constellation, enabling the company to begin operations after receiving an operator licence from the Department of Telecommunications (DoT). This move marks step in expanding satellite-based internet access across the country.

Regulatory Approvals and Authorisation

Starlink obtained its operator licence from the DoT in May 2025 after a three-year application process. IN-SPACe granted authorisation for the Starlink Gen1 satellite constellation, which includes 4,408 satellites orbiting at 540-570 km altitude. The authorisation is valid for five years or until the constellation's operational life ends. Starlink must comply with all regulatory provisions and secure additional clearances as required.

Starlink's Satellite Network and Capabilities

The Starlink Gen1 constellation is part of the world's largest satellite network, with around 7,000 satellites globally. It offers internet throughput of approximately 600 Gbps over India. Satellite communication provides wide coverage and network resilience, especially in areas where terrestrial networks like fibre and cable are limited. Although latency can be higher than ground-based broadband, satcom services require minimal physical infrastructure.

Market Dynamics and Partnerships

Starlink's entry into India follows competition with major telecom companies Reliance Jio and Bharti Airtel. The government chose administrative allocation of spectrum over the auction route, as satcom spectrum is shared and complex to auction. Starlink has formed retail partnerships with Jio Platforms and Airtel to distribute its services. The target market is mainly urban and affluent customers due to the higher cost of satellite internet.

Government Guidelines for Satellite Communication

The DoT released guidelines for satcom companies emphasizing local manufacturing, data localisation, and security. Companies must indigenise at least 20% of their ground segment equipment within five years. They are required to integrate India's NavIC satellite navigation system in user terminals by 2029. Real-time monitoring must ensure no Indian data is routed through foreign gateways. Operators must also implement service restrictions during hostilities and maintain data centres within India.

Security and Data Compliance Measures

Satcom operators must not copy or decrypt Indian telecom data outside the country. Voice and data services require separate security clearances. The guidelines mandate cooperation with law enforcement and use of domestic DNS resolution. These measures aim to protect national security and ensure data sovereignty in satellite communication services.