

IAF SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Fixed and Broadcast Communications (2)

Author: Mr. Sumit Kumar
Indian Space Research Organization (ISRO), India, sumit_kumar@antrix.co.in

Mr. Rakesh Sasibhushan
Antrix Corporation Limited, India, cmd@antrix.co.in

SATELLITE COMMUNICATION MARKET IN INDIA : ASSESSING KEY TRENDS, MARKET
DRIVERS, CHALLENGES AND GROWTH PROSPECTS

Abstract

Satellite communication came to India for the first time, when Satellite Instructional Television Experiment (SITE) was carried out by Indian Space Research Organization (ISRO) in 1975, using American ATS-6 Satellite, under the leadership of the then Chairman ISRO, Dr. Satish Dhawan. India has come a long way since that experimental phase to indigenously design INSAT / GSAT satellite systems, one of the largest domestic communication satellite systems in the Asia-Pacific region. These communication satellites have been playing a vital role in rapid expansion of Television, Satellite News Gathering, VSATs, and bridging the digital divide between well-connected urban centres and off-the-grid rural and remote areas.

The satellite communication value chain in India is strongly influenced by the programs of ISRO as planning of space assets, satellite manufacturing, launching, satellite operations etc. are carried out by ISRO. ISRO, through its Commercial entity, Antrix Corporation Limited, provides with space segment capacity to downstream service providers for providing a multitude of broadcasting and communication based services to the end users.

This paper presents value chain analysis of satellite communication in India, role and positioning of stakeholders in the value chain and the current state of market with respect to various applications such as Direct-to-home, TV, Digital satellite news gathering, VSAT services etc. The research work focuses on the key technology developments in satellite and ground segment including High Throughput Satellites (HTS), LEO/ MEO satellite constellations, Antenna technology, Digital compression technology etc. and their effect on telecommunication and broadcasting industry in India.

Subsequently, the paper dwells upon the growth prospects of satellite communication and broadcasting services considering market drivers like, Government's Digital India initiatives, macroeconomic factors, emerging new applications and challenges from terrestrial and other competing technology. Further, it presents a detailed analysis of supply and demand trends for satellite capacity by application segment, profile of the main frequency bands in use and forecast model for supply and demand incorporating different scenarios over the next ten years, categorized by application segments.