SPACE COMMUNICATIONS AND NAVIGATION SYMPOSIUM (B2)
Fixed and Broadcast Communications (3)

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CHANGING THE ECONOMICS OF UNIVERSAL SATELLITE TV AND INTERNET IN AFRICA

Abstract

Having revolutionised the EO market with its coordinated constellations, SSTL considers the question: could the DMC concept be extended to the GEO telecommunications market by facilitating partnerships where the purchase of a single satellite will provide access to all the combined assets? By this means all countries in Africa could reap the social and economic benefits of universal TV and internet services. In modern society TV is recognised as fundamental to social cohesion, providing information, education and shared entertainment. Provision of TV to the whole population with locally produced content and news in all national languages is an essential national goal. Increasingly universal internet access is seen as a second essential for economic growth, social interaction and delivery of government services. Delivery of these goals by terrestrial TV transmission and by fixed lines is unaffordable for many wealthy nations. For developing economies only infrastructure for the largest cities and towns may be affordable. Satellite delivery of TV is a profitable and rapidly expanding business but benefits primarily the wealthy in a developing economy despite its national coverage. Mostly transponders are leased at high cost. Efficient high throughput satellites (HTS) now offer tenfold lower cost transponders than standard TV satellites but cost over $300 Me a chin orbit and must be spared for reliability. In this paper it is shown how to provide TV and internet on the same HTS by op$
$linear delivery of pre-recorded content. Once free of the standard linear TV model, satellite capacity can be shared over time be$
$arranged schedule. A novel system is detailed covering both space and ground segments. A single modified HTS satellite allows s$
$TGEO platform. In this paper the continued development of the GMP-T platform to offer improved capability at low cost will$