ST Engineering

FLEXACM®

END-TO-END SOLUTION OPTIMIZING SATELLITE CHANNELS SUFFERING FROM VARIABLE LINK CONDITIONS

FlexACM® is the innovative and award-winning solution by ST Engineering iDirect allowing double throughput in satellite networks that suffer from variable link conditions both in the forward and return satellite channel. At the same time maximum service availability can be achieved in any fading condition (inclined orbit, weather, dust, interference) to keep mission-critical communications running at all times.

FlexACM® is the unique end-to-end solution combining a range of technologies to optimize satellite links in the most efficient way. FlexACM can be used in point-to-point and point-to-multipoint systems and in one-way (with terrestrial return channel), as well as two-way configurations (with the return channel also over satellite).

ACM allows the network operator to automatically turn to more robust modulation in order to maintain the link service availability during fading conditions. Once the link conditions improve, the ACM system will immediately change to higher modulation coding without package drops and increase the data throughput to maximum levels again.

FlexACM can guarantee Committed Information Rate (CIR) in a dynamic adaptive environment, even allowing multiplexing fixed rate E1 circuits with regular IP traffic.

FlexACM is a cross-layer technology, where changes on the physical layer due to changing conditions ripple all the way up to the data network, assuring that the effect on traffic is handled in a controlled way and that the impact is reduced to an absolute minimum.

ST Engineering iDirect customers can benefit from FlexACM on Dialog, SCPC, Broadcast and of ACM on Evolution and Velocity networks.

VELOCITY
EVOLUTION
BROADCAST MODEMS
SCPC MODEMS
DIALOG

powered by Newtec iDirect

Benefits

- Market-proven end-to-end solution combining a set of optional technologies, including ACM, Thin Margin Manager Noise and Distortion Estimation, and predictive tooling on upcoming variation, to bring the satellite link to full efficiency
- Gain of FlexACM can range from 30% to 50%, nearly doubling throughput depending on the type of traffic and the satellite link conditions
- Provides optimal availability and added flexibility by allowing a wide range of terminal sizes and business models on the same network thus cutting OPEX costs
- Improves any IP related application over satellite suffering from variable link conditions due to the nature of the satellite (inclined orbit satellite), frequency band (Ka, Ku) or interference (rain fade, sun, shadowing effects)