

Novelsat FreeBand for Satellite Broadcasting

Hope Channel implements NovelSat solution that eliminates satellite contribution bandwidth costs

“Using resources that we already have in our distribution network to support our remote contribution units just makes sense. And now we know it is possible.”

Henry Bartz, CTO, Rede Novo Tempo de Comunicação



Challenge

Rede Novo Tempo de Comunicação, an international broadcaster of religious and lifestyle content, was looking for solutions to reduce satellite bandwidth costs.

NovelSat aimed to show how its NovelSat FreeBand solution completely eliminates bandwidth costs for delivering live video from remote satellite-based content contribution units.

Goal

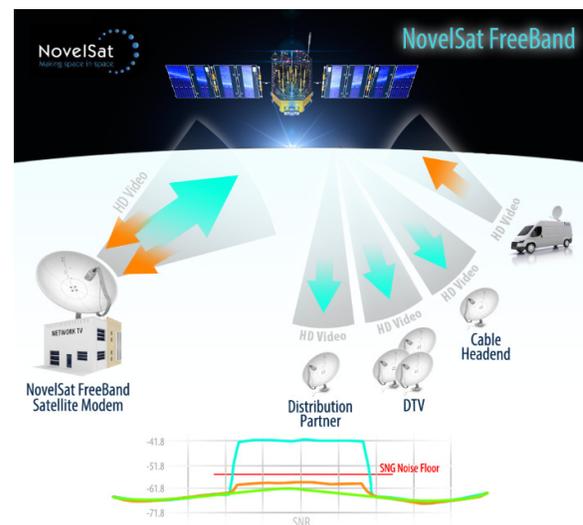
Implement NovelSat FreeBand to attain a free contribution channel using available bandwidth on the live satellite TV distribution network.

Background

Rede Novo Tempo de Comunicação broadcasts religious TV, radio and Web programming in Portuguese and Spanish to Latin America, the Caribbean, Western Europe, North America and Africa.

The Hope Channel is the international broadcasting unit of the Seventh Day Adventist Church providing programs on holistic Christian living focusing on faith, health, relationships, and community. They broadcast 23 channels on four continents.

Rede Novo Tempo de Comunicação, based in Brazil, is the official broadcast network for the South America Division of Seventh Day Adventist Church. They both deliver content and contribute local content via satellite for the Hope Channel.



For more information, please contact NovelSat at info@novelsat.com

Solution

Rede Novo Tempo de Comunicação successfully implemented NovelSat FreeBand for the Hope Channel at their broadcast center in Brazil. Using the broadcaster's DVB-S distribution bandwidth, NovelSat FreeBand provides up to 56% extra bandwidth for a new contribution channel.

With NovelSat FreeBand, by reusing the existing satellite bandwidth in their distribution network, the Hope Channel, in essence, achieves free return transmission of video and data from their remote broadcast contribution units.

As satellite bandwidth becomes scarcer and more expensive, the NovelSat FreeBand solution becomes more attractive to broadcasters who also deploy remote contribution units.

Technology

Broadcasters who use satellite bandwidth to deliver content to a point-to-multipoint distribution network can implement NovelSat FreeBand to reuse the same bandwidth to receive video and data from remote contribution units such as Satellite News Gathering (SNG) trucks, flyaways and remote studios.

With NovelSat FreeBand, broadcasters no longer have to pay for satellite bandwidth every time they deploy a remote contribution unit within the footprint of their satellite distribution network. This translates into huge savings in operational costs.

The NovelSat FreeBand solution is powered by NovelSat DUET CeC (carrier-echo-cancellation) band-reuse technology running on a NovelSat NS3000 Professional Satellite Modem at the distribution hub. A single NS3000 Modem can transmit from 100Kbps up to 425Mbps in each direction (850Mbps in full duplexed transmission).

The NS3000 Modem receiver channel is highly sensitive, taking advantage of the size difference between the hub antenna and the smaller remote units' antennas. This enables the NS3000 Modem at the hub to clearly receive transmissions of contribution video and data below the noise floor of the distribution hub, without interfering with outbound satellite transmission or being detected by other stations.

NovelSat FreeBand works with satellite industry standards including DVB-S, DVB-S2, DVB-S2 with 5% ROF. When deployed with NovelSat NS3 transmission technology, in addition to band reuse, both uplink and downlink benefit from a boost in spectral efficiency of typically 30% or more compared with DVB-S2.

Summary

Broadcasters can pay hundreds of dollars an hour for satellite bandwidth to carry their contribution content. NovelSat FreeBand showed the Hope Channel how to eliminate those costs. By delivering an additional 56% available bandwidth without leasing any additional spectrum, the Hope Channel discovered a way to acquire a free contribution channel.



NovelSat NS3000 Professional High-Data Rate Satellite Modem

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