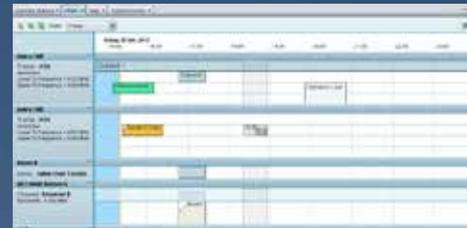


MEDIA FLEET MANAGER

Saving Potential through Media Fleet Manager



ND SATCOM

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Transponder management is usually a term in the satellite operator or satellite service provider world when leasing transponder capacity in demand-driven settings, e.g. for Occasional Use. Transponder management tools provide these companies with a full set of controlling and accounting mechanisms for their space capacity. ND SATCOM now brings the concept of transponder management into the world of broadcasters – as a software tool, which they can actively piggyback on. Today’s economic environment requires broadcasters which employ satellite technology to utilize their network and available resources more efficiently. ND SATCOM’s Media Fleet Manager software supports broadcast giants such as US-based ABC, Univision, TV Globo (Brazil) and SABC (South Africa), an African public broadcaster to plan, book and schedule their transponder resources online simultaneously – increasing their network’s purchasing power, eliminating error-prone manual procedures and increasing the degree of automation in their production workflows. Another aspect is the flexible combination of DVB and IP carriers. Although DVB transmission is still standard for live news gathering via satellite, IP increasingly blends in with a broadcaster’s daily operations. The development of Media Fleet Manager in combination with the company’s IP-centric satellite network, SKYWAN, opens up a new world for broadcasters, who are increasingly adopting Internet Protocol via satellite.

“A digital and automated production workflow has become almost a commodity for broadcasters. For us as a supplier and system integrator, it is no longer enough to simply develop clever software tools – we have to provide more”, says Michael Heuken, Head of Business Unit Broadcast at ND SATCOM, which has supplied broadcasters worldwide with media networks containing hundreds of SNG vehicles and uplink facilities. “Today, broadcasters expect perfection from new satellite equipment: the highest level of automation, fail-proof usage for non-technical editorial and camera teams, the ability to integrate any type of software into their existing production landscape, and of course significant further cost reduction.”



Saving # 1: Increased purchasing power through bulk leasing transponders

For broadcasters who have a network of nationwide affiliates with dozens of Satellite News Gathering (SNG) vehicles, fixed uplink stations, as well as central data servers at their regional headquarters, transponder management is a hot topic. If their stations procure satellite capacity on an individual basis, the prices are usually less competitive than if the station group bulk leases transponders: “But if broadcasters opt for bulk leasing, they will have to overcome the hurdle of taking care of

the allocation and management of capacity on their own”, says Heuken speaking from experience. That’s where ND SatCom’s Media Fleet Manager comes into play: it’s a tool for planning, scheduling and booking satellite transmissions for fixed and mobile stations online. The software allows broadcasters to have a single, shared database that manages transponder usage and enhances the automation level of their production workflow.

Saving # 2: Intelligent satellite modems for star and meshed media networks

In order to manage transponders properly, a station’s group multiple trucks and fixed stations are tied together in one satellite network in a star and/or mesh topology. Editorial and camera crews in the field either shoot their content and transmit it directly via satellite to the playout center (star config), or they shoot onsite, download additional content from other studios, or other sources such as SNG trucks, to finish their story and then send it later (mesh config). This meshed configuration is of particular interest where TV networks have regional affiliates with central data storage facilities.

A meshed network is today for example used by ABC, linking together ten fixed stations and a fleet of 18 fully automated SNGs. Another example is Univision, the leading Spanish-language media company in the United States and the fifth largest network in the nation overall. They implement a managed satellite network between their remote studios off-loading the fiber backbone using the under-utilized transponder space. The cost savings allow a payback of the satellite infrastructure in less than a year.

Saving # 3: Do anything in one network / no more manual lineup

The satellite network technology that ND SATCOM uses for such media networks is SKYWAN, which is optimized for IP transmissions. The technology allows for the convergence of broadcast transmission and office communication in one single network. The media network’s intelligence flexibly allocates DVB carriers when required for live DVB transmissions. The system also allows transponder capacity to be used for IP networking which enables Internet access, email and telephony via satellite for editorial teams in the field.

A second advantage that SKYWAN’s IP functionalities provide is that no manual lineup is required – this means that no technical operator needs to be in the field coordinating satellite access with his station and the satellite operator. “With SKYWAN, the public broadcaster SA BC has implemented a full automation of IP based transmissions for its SOTM SNG vans, fully releasing editorial teams from technical operation tasks when shooting live video while driving. This is true remote control from its headquarters in Johannesburg or any major regional studio.”

Saving # 4: Blend DVB with IP

Worldwide, DVB is still the most commonly used transmission standard for satellite news gathering and live event broadcasting, when reliability of transmission is key. "However, for us and some of our broadcast customers it tends to become more DVB mixed with IP", observes Michael Heuken. Usually, a broadcaster's transponder usage peaks in the afternoons and evenings for prime time news content. In the mornings and during night time, capacity is not (fully) utilized. Univision has taken a first step to efficiently utilize any free capacity with Media Fleet Manager as this software tool allows the broadcaster to set up either an IP- or DVB-based media network on demand. The station group for instance establishes a satellite-based IP content contribution system for nocturnal video file exchange between its affiliates: "Their previously under-utilized satellite transponder now supports several digital feeds, at the same time generating impressive savings. It really depends on how the customer is set up. But we also have customers with smaller networks comprising three trucks, and their investment has paid off fast", says Heuken.

Video streaming / large file exchange With Media Fleet Manager, broadcasters are able to dynamically distribute capacity between DVB and IP-based transmissions. They appreciate the new flexibility that they get through using IP transmission. There is much content that does not have to be broadcast live and can be transmitted at any time when capacity is available. Under-utilized transponder capacity allows a corporate backup network to be set up for exchanging video files (FTP) between a broadcaster's multiple data centres at night. In this way, the fully leased transponder and the slots can be utilized in a demand-driven way for DVB and IP transmissions. "One of our assets is that we have the modem in place, which allows this flexible switch. We can go one step further and provide live internet video streaming capabilities, e.g. for webcasting live events, which do not require the same level of bandwidth and quality as traditional DVB transmissions", states Michael Heuken.

Saving # 5: The automation concept

There are many established tools for transponder management on the market: "When we developed Media Fleet Manager, it was important for us to not create just another software tool, but to deliver added value to our users by bringing our competencies to automation and remote control in media networks. Proper transponder and resource planning is only one goal, but what is even better is to further automate the operation of the truck fleet through a monitoring & control system and automatic pointing for antenna uplinks," says Heuken. This is done using traditional client / server architecture, in which the server handles all the processing and connections to the central database. The clients can be placed anywhere on the network depending on the operational model of the client. Booking clients could be used in the newsroom, the satellite desk or even in the SNG truck itself if the reporters are enabled to set up their own satellite feed.

Avoiding manual, error prone procedures and using a single, standardized management tool accessible from any node in the network is a significant advantage. Remote field operations can be easily integrated in the production workflow. Editors and camera teams operate trucks in a one-button operation with only minimal training, while being able to concentrate fully on their mission. Administrators create resources centrally (satellites, transponders, slots and channels) for their media network, define transmission presets (MPEG encoder, modulator, encryption etc.) and links between devices (IRD, uplink chain, satellite modems) and configure the graphical user interface with maps, charts and a station overview. "Due to pre-configuration at the highest level, editorial teams can truly focus on the work at hand; for administrators handling the production workflow in regional and national studios, the remote operation of an SNG vehicle becomes as easy as operating their TV remote control at home", states Heuken.

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