



The satellite industry is gradually becoming a 'content management and distribution industry' as the integration of satellite uplink and capacity, so good at supplying large bandwidth to remote locations, moves apace. By Nick Thompson, Chief Executive Officer (CEO) of Inmedia.



by satellite

▶▶ **The trend towards** adding more technically capable equipment at the receiving site is opening new doors to methods of delivery. We only have to look at domestic satellite reception equipment to see this. In the UK, for example, over 400,000 people have a digital video recorder capable of storing more than 40 hours of content on a hard disk. The future of distribution will tend more towards delivery to equipment with its own storage and perhaps its own scheduling rather than to a simple Television (TV) set. Rather than follow a schedule, which forces viewers to watch what has already been decided by someone else, it is more likely that they will watch exactly the programme they want when they want.

So what does this mean for satellite distribution in the future? There are areas that will be largely unaffected and others that will be changed radically. The traditional approach of looking purely at satellite as the answer for delivery of content has been destroyed by the low pricing of fibre and increasing availability of data circuits. Operators now need to consider the detailed requirements of broadcasters and to understand in particular their needs for content distribution. Tailored solutions are becoming *de rigueur*.

Preparing for the future

A traditional use for satellite distribution is, of course, point to multi-point distribution. What are the likely fu-

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ture requirements for a tailored solution? The simple answer is getting content to multiple sites but tailored for each market through different schedules, audio tracks, subtitles, and channel IDs. Often the audience is relatively small, creating a challenging economic business case.

Until recently, the only way to do this has been through transmitting multiple channels, each consuming 3Mbit/s to 6Mbit/s. This tends to push up the price to the point where channels do not consider it economically viable.

It is now possible to load remote servers with content delivered via Internet Protocol (IP) and for those servers to run different schedules, audio tracks, and subtitles. This allows the broadcaster to tailor the content for the local audience, thus making their channel more saleable to the platform operators. It also helps the channel owner: they may well have content they can show in one country but not in another due to rights ownership or other issues. They can now schedule content to be broadcast in one country but not the other.

The advances in technology and the falling prices of storage combined with increased processing power and reliability in Information Technology (IT) are significant enablers of these new solutions.

Contributing content in non real time to different locations

This type of content is usually delivered to studios,

archives and playout centres as a digital video tape. Typically this material is then ingested onto servers for editing and storage. However, for the distribution, it is often then transferred back to video tape and dispatched via courier. This is wasteful in terms of time taken for dubbing and travel, and in terms of money spent on tape stock, courier costs and staffing.

By creating services that allow contribution via IP networks, the overall channel services costs are reduced. Content will usually be delivered using terrestrial circuits since this is the most economical method. However, some IP networks rely on satellite particularly where there is little terrestrial infrastructure.

Lowering costs, meeting needs, increasing opportunities

The satellite industry is continuing to grow in the area of video distribution as it continues to find ways to lower the costs of distribution and spend more time fully understanding broadcasters' requirements. This is fuelling the growth of new channels into new territories as well as maintaining growth in more mature markets. In turn, the demand for more space segment is increasing and satellite clearly remains the best way to reach millions of homes.

Distributing high quality content to the home is also now not only possible but economic. The advances in digital compression that have allowed broadcasters to reduce the price of transmission will now allow High Definition (HD) signals to be transmitted via satellite.





It will require a technical refresh in order to distribute high definition signals but the technology has been developed and proven. The new technologies of DVB S2, increasing the throughput available within the available space segment and MPEG4 reducing the amount of bandwidth required, will make it viable to launch HD channels and platforms.

OV Distribution

The recent tsunami disaster in Asia illustrated how satellite was still the main means of getting video footage from a disaster area. While Third Generation (3G) and Inmarsat terminals are used to file domestic news reports, broadcasters still want to use satellite's benefits. Chiefly, these are that it can be used as a standalone system in disaster areas, carrying high quality video. The ability to hold live two-way conversations with the studio anchor brings more immediacy to the reported story.

Whilst news has been the main driver for the development of satellite technology over the past 15 years, sport is the main driver for current and future requirements. As the majority of sporting events are broadcast live, they require live transmission paths capable of two-way operation. Rights holders now sell their content into more territories and satellite is still the most economical distribution method to multiple sites. Again the bit rates used can be altered according to the quality required and budget available.

It is clear that content distribution by satellite has a bright future. The initiatives taken by teleport operators to offer extended ground services is increasing opportunities for expansion into new territories and making new channels viable. ■

