nevion

telenor

Regional Adaptation DTT Network, Telenor

State-of-the-art DTT network architecture

Introduction

Telenor Satellite Broadcasting is part of Telenor Broadcast, one of the three core businesses of Norway's leading communications operator, Telenor ASA. Telenor Satellite Broadcasting provides extensive television broadcasting services for distribution, contribution and occasional applications to all the Nordic Broadcasters and many other broadcasters throughout Europe, using its hybrid network comprised of satellites, terrestrial circuits and earth stations. Additionally, it provides fixed satellite communication and uplinking services for data and remote Internet applications together with VSAT and broadband services in Europe and the Middle East.

Challenge

After a comprehensive selection process, Nevion was chosen to provide Telenor with a system to enable NTV to easily perform the regional adaptation of their signals. Telenor planned a solution based on a central play-out of all regional programs with local filtering and adaptation of programs to tailor the bouquet for each of its 25 subregions.

It had designed a state-of-the-art DTT network architecture which demanded extensive SI processing and high-speed service filtering.

"Telenor has designed a state-of-the-art DTT network architecture which demands extensive SI processing and high-speed service filtering. The cProcessors from Nevion provide an ideal solution for our regional portals. We believe this will provide us a satisfactory solution for our present and future needs."

**Torkel Thoresen
Program Manager,
Telenor Satellite Broadcast**

The Situation

Telenor required technology to provide its customer Norges Television (NTV) with a solution for the DTT Network in Norway that facilitates simple and cost-effective management of channels providing regional bouquets for TV services.

The Result

The Nevion solution included:

- CP510 DTT TS Processor – the CP510 is designed for terrestrial network operators in order to adapt Transport Streams for regional coverage.

- CP540 Monitoring Solution – the CP540 provides intelligent network redundancy switchover between two MPEG-2 transport streams.

- Nevion Connect Management Solution – a system for the management of Contribution and Distribution networks.

The solution provides easy supervision and inventory management of video equipment in the network. The CP510 has been adapted to include features designed specifically for Telenor's regional adaptation requirements. The CP510 DTT TS Processors remove services from other regions and update the Service Information (SI). In addition, the cProcessor has an embedded SFN adapter. The fully redundant solution also includes the CP540 Monitoring Switch which monitors the signal from the two CP510s and can perform a switch to the redundant path in case of an error.
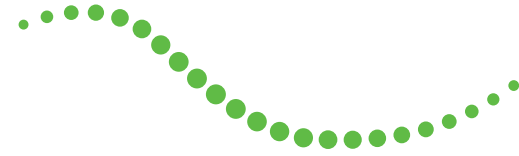
Why Nevion

Nevion has more experience in providing intelligent video solutions for regional adaptation of video services than any other company. Nevion has used this experience to products solutions for regional adaptation where other vendors would have to develop bespoke solutions. This lead in experience provided Telenor with more confidence in Nevion solutions than any other vendor. Telenor were also aware that Nevion had the in-house expertise to develop bespoke solutions where necessary, in what is one of the world's most advanced and complex DTT networks.

The CP510 DTT TS Processor is designed for terrestrial network operators in order to adapt multi-site Transport Streams for regional coverage. The product provides flexible and powerful PID and program filtering, PSI/SI regeneration, download and carrousel of data. The product has also a built-in SFN adapter and embedded GPS receiver. The CP540 provides intelligent network redundancy switchover between two MPEG-2 transport streams. The CP540 has the ability to monitor the integrity of both incoming MPEG-2 transport, and controls switch-over with based on configurable switching criteria.

The Norwegian DTT Network went on air in accordance with the plan on September 1st 2007, beginning with the Rogaland region in western Norway. The entire system will be on air by the end of 2008.

Contact information

As always, Nevion considers each customer and every project unique.
We assess and design before we deploy, ensuring that the solutions provided best meet immediate needs, long-term goals, and your overall environment. From there, we're always a phone call away.

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