



DIGITA

Moving DVB terrestrial network distribution to IP

Finnish digital terrestrial operator Digita chose Nevion equipment and software to provide transport of signals from its headend to its transmission sites

Background

Digita is a Finnish terrestrial network operator. Applying cutting-edge digital technology, Digita also develops and supplies versatile Internet TV and radio services along with services based on company's comprehensive network infrastructure.

The situation

In 2017, Digita was embarking on a project to renew its DVB (T and T2) distribution. The objective was to move from transporting signals from headend to the transmission site using SDH, microwave and IP to using exclusively IP.

The project required a solution to ensure the reliable transport of signals over IP.

The solution

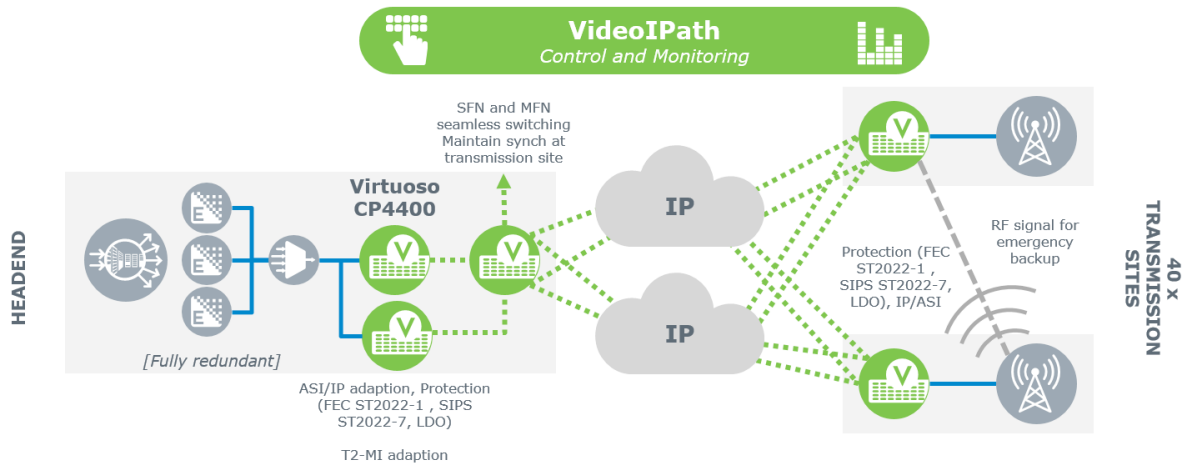
Digita selected Nevion equipment, software and services to deliver this solution.

Nevion's solution consists of:

- Nevion Virtuoso CP4400 DTT processors deployed at the headend and at the 40 transmission sites, providing multiplexed transmission for 22 regions, seamless switching, transport protection
- Nevion's VideoPath to manage and monitor the whole setup

"Thanks to the **density** and **functionality** of Nevion Virtuoso, we were able to achieve our objectives at the headend with about a third of the equipment normally needed"

Markus Ala-Hautala,
Chief Operating Officer at Digita



DVB T and T2 transmitter feed network

At the headend

The Nevia Virtuoso CP4400s take the multiplexed transmission for 22 regions and provide the T2-MI and IP adaptation, as well as multiple protection mechanisms, including FEC (forward error correction) for packet loss recovery, SIPS (streaming intelligent packet switching) for dual path transmission and LDO (launch delay offset) for dual stream on single path. Some Nevia Virtuoso CP4400 processors also provide the seamless switching between the redundant SFN and MFN streams.

At each transmission sites

The Nevia Virtuoso CP4400s processors receive the protected streams and perform an IP to ASI conversion, ready for transmission and enabling re-use of the first-generation transmitters. In addition to the dual streams received over the IP network, the processors also receive an RF signal from nearby transmission sites. This provides a further level of protection in case the IP link fails completely: the Nevia Virtuoso CP4400s can switch automatically to the RF signal for re-transmission on the site.

CONTACT INFORMATION

The Americas

ussales@nevia.com +1 (805) 247-8560

Asia Pacific

asiasales@nevia.com +86 18 6000 83921

Europe and Africa

sales@nevia.com +47 22 88 97 50

Middle East

middle-east@nevia.com +971 (0)4 390 1018

UK

uksales@nevia.com +44 118 973 5831

nevia.com

Management

The whole infrastructure is fully redundant to ensure maximum reliability, and managed and monitored centrally through Nevia's VideoIPath management software. In particular, VideoIPath enables Digita to roll out software updates remotely to the Nevia Virtuoso CP4400s in a planned and organized way, without ever interrupting the transmission.

Benefits

The project is designed to achieve cost efficiencies and easy regionalization.

Cost efficiencies come largely from rationalizing the various networks used (SDH/Microwave/IP to just IP). The high density of the Virtuoso CP4400 also means that fewer pieces of equipment were required to do the job.

Regionalization is simplified thanks to the capabilities of the Virtuoso CP4400, which allow regional feeds to be easily inserted into the distribution.

And of course, by using VideoIPath, Digita is able to centralize management and maintenance, for example monitoring the whole network from a single location or distributing software updates in a coordinated way.

As always, Nevia 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.

nevia