ARD ZDF

German public broadcasters choose Nevion’s NX4600 media gateways to transport their HD live contribution feeds from the 2015 FIS Alpine World Ski Championships.

Introduction
The World Alpine Ski Championship is a prestigious international sports event with a worldwide television audience of an estimated 1 billion people. In February 2015, the event took place in Beaver Creek, Colorado, USA. For ARD, the world’s second largest public broadcaster and ZDF German public-service television broadcaster, this was an important live broadcast event that needed to be broadcast in HD format to ensure an optimum quality of experience for viewers.

Challenge
For the broadcasters, the network costs associated with reliably transporting the live HD feeds from Beaver Creek back to Germany were obviously a prime concern. They needed to find a solution that was optimum in terms of balancing high image quality, low latency and minimum bandwidth usage. They identified H.264 encoding as the best option for this.

To help achieve their high service goals at low network costs, broadcasters realized that the encoders then needed would also have to offer high density, flexibility and built-in network aggregation. A highly efficient error correction and concealment were also important features for uninterrupted broadcasting.

The decision of which H.264 solution to go with was an extremely important one for both companies as the Alpine World Ski Championships were potentially the first of many live sports events that were to be covered using that equipment.

The Solution
After extensive testing ARD and ZDF selected Nevion’s NX4600 Media Gateway.

The NX4600 supports up to four H.264/AVC or MPEG-2 codec modules in a compact 1RU form factor. Each module can be licensed to be used either as an encoder or a decoder. Broadcasters deployed the NX4600 for transport over SDI, though the gateway also supports IP.

NX4600 includes built-in monitoring that helps anticipate and correct any issues with the network or transport should they arise. The NX4600 can also support Seamless IP Protection Switching (SIPS), which can provide error-free transport over IP, even in the case of severe packet loss or link failures on any of the two network links.

In common with Nevion’s other Media Gateways, the NX4600 has been designed with web-interfaces that make it possible to configure and monitor them from a variety of devices. All Media Gateways can also be managed and monitored via VideoIPath—Nevion’s media network management system.
The Result

With Nevion’s NX4600 media gateway, ARD and ZDF were able to transport the signals from World Alpine Ski Championship reliably and very cost effectively from the US to Germany. The success of the Alpine World Ski Championship event has given them the confidence to extend the use of the gateways to other major sporting and live events across the globe.

Why Nevion

Besides an impressive and intuitive user interface with built-in monitoring, one of the most important technical factors in the broadcasters’ decision to select the NX4600 was the outstanding picture quality relative to the bandwidth usage, which ensures an optimum quality of experience for viewers. Other important considerations were high density, flexibility and built-in network aggregation, keeping network costs down for ARD and ZDF.

The technical benefits were complemented by the excellent relationship ARD and ZDF had built with Nevion’s German partner LogicMedia over nearly two decades, during which ARD and ZDF have selected, and successfully, deployed a number of Nevion solutions.

The NX4600 is part of Nevion’s media gateway product family that are an award winning line of compact, powerful and cost-effective encoders/decoders and media transport devices designed for real-time contribution and distribution of broadcast quality video and audio over IP and other networks. Nevion’s media gateways are used by major broadcasters, telcos and other media organizations across the globe.

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