

A CASE STUDY OF: FiNE – THE EUROVISION FIBRE NETWORK



Seamless, secure and high-performance transport of live video from major news and sports events to broadcast customers across the world.

The Eurovision Fibre Network

"FiNE" was implemented at the beginning of 2004. The aim was to find the ideal solution for transmission of live broadcast video over a terrestrial, seamless, secure, high-performance network. Additionally this had to fit perfectly with Eurovision's existing worldwide satellite network. FiNE initially connected major broadcasters in Europe, plus sites in New York City and Washington DC using Net Insight's Nimbra platform. This case study will review the success of the network since its implementation in 2004.

Main features of FiNE:

- Point-to-point and point-to-multipoint connections for video, audio and data to and between major TV broadcasters in three continents
- DVB ASI transport stream interface for specific applications (HDTV or transparent bit-stream transportation for high-quality production applications)



- Ethernet interface for file transfer or high-speed data services
- Very low latency, virtually no jitter and guaranteed bandwidth
- Absolute security: private network with no IP access from outside

The network is built on fully secured SDH links and industry leading Net Insight technology. The Net Insight Nimbra™ platform allows synchronous connections without packet routing and virtual circuits are established port-to-port.

About Eurovision

Eurovision is a department of the European Broadcasting Union (EBU), the largest association of national broadcasters in the world. Eurovision operates a global fibre and satellite platform dedicated to the delivery of top sports and news events to the international broadcast and media market. A community of more than 3 000 broadcasters around the world is directly connected to the Eurovision platform.

Eurovision moved to video transmission over fibre networks in 2004

Eurovision implemented its terrestrial network in 2004 to maintain its position as the world's premier provider of international transmission services for major sports and

news events. By implementing a dedicated private network, Eurovision is in a position to take control of the various demands it puts on its technology platform.

There are four aims central to the Eurovision strategy:

- i) a guaranteed premium quality of service that meets the extreme requirements of real time TV transmissions in combination with file transfer and data traffic
- ii) optimization of allocation of capacity and resources
- iii) minimizing of operational costs
- iv) easy to manage combination with the existing Eurovision satellite platform.

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Eurovision selected Net Insight's Nimbra Platform...

"Whatever the event, whichever the media platforms. Eurovision has over 50 years of experience in putting sports and news programming exactly where our customers want it in a seamless, reliable and cost-effective way. For this reason we are delighted to have worked with Net Insight on the development of our network. We aim to be the standard-bearer for quality of service and reliability around the world." said Director of Eurovision Operations Stefan Kuerten.

"Before implementing the network we spent considerable time testing many different platforms and technologies, including MPLS and ATM", said, Eurovision's Head of Technical Development Didier Debellemanière. "It became clear to us that Net Insight's Nimbra™ platform was the only platform that could meet our requirements. It was also the most cost-efficient platform we had looked at. It had a very high bandwidth utilization and a low cost of ownership".

What is your experience now five years later?

"Well", says Debellemanière, "if all of our equipment would behave like the Net Insight platform, life would be wonderful. During these three years we have not

had any operational problem with the Nimbra network at all, and that is amazing. We have partially upgraded the network from STM-1 to STM-4 capacity. We have added a large number of network nodes to a peak during the Olympics of over 100 Nimbras. We have expanded the network to the Nordic region, to Russia, to the US West Coast and to Australia. In addition we have transported "Mobile" Nimbra equipment all over the world to cover sport and news events from temporary locations."

"The technology has never failed us. It has always gone according to our plans. The network quality and availability has even exceeded our highest expectations.

We just love the technology and its performance."

Didier Debellemanière, Eurovision's
Head of Technical Development

....to provide high quality video transmissions from all major events to its customers

The "FiNE" network has been used for video transmissions from major sports and news events to Eurovision's customers, which include all the main broadcasters in Europe, Asia and the Americas.

It all started in 2004 with transmissions to Europe from the Republican and Democratic conventions followed by the transmissions from the US presidential election. Since then, Eurovision has added a raft of prestige news and sports events to its network, including the Summer and Winter Olympics, top European and South American football, World Championship Athletics, Swimming, Winter Sports, and Grand Slam Tennis. On the news front, Eurovision has covered the end of the

pontificate of Jean Paul II, and a host of elections around the world, as well as following the top stories in the world's hot spots.

However, the Summer Olympic Games from Beijing 2008 broke all previous records with regard to usage of the FiNE network, transporting 12 multilaterals in SD (standard definition) and two in HD (high definition), as well as four unilaterals in SD and one in HD. There were three spare paths and 90 dedicated circuits out from the International Broadcast Centre (IBC), plus 43 dedicated circuits into the IBC, 32 dedicated Ethernet circuits and 20 E1 dedicated circuits. All to provide EBU member broadcasters with perfect coverage of the Games.