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EUROSPORT  
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IP STREAMING  
SOLUTION

## CASE STUDY



# VITEC Delivers Live, Low Latency Remote Commentary over the Internet for Broadcasters



## Remote Commentary Solution Successfully Deployed at Major Sports Events

VITEC's live, low latency solution for Broadcasters was deployed during the isolation of COVID-safe security measures, delivering excellent results for Eurosport during the lock down across Europe.

It has been used at major events, including the world's premier cycling race, the Tour de France, the French and US Open tennis tournaments, and is now used in their day-to-day operations.

The solution is planned to be extensively used for the upcoming Olympic Games in Japan this summer.



## Background

Over the years, VITEC has developed several IP streaming end-to-end contribution solutions for broadcasters. With the growing demand for live contribution feeds, the request from broadcasters to reduce operational costs (especially satellite links) and the rise of the internet, VITEC started focusing on reliably delivering high quality video content to meet these demands.

As Richard Bernard notes: "Our HEVC Gen2+ codec was crucial to deliver high quality content at bitrates down to 4-5Mbit/s, the ideal number to reliably transport video over the internet. Thanks to our codecs, remote production over the internet is no longer a dream for broadcasters".

## The Challenge

### **Delivering Live, Low Latency Remote Commentary over the Internet for Broadcasters in Spite of Demanding Global Logistics**

Remote commentary is used to deliver live sports content to different countries using remote production technology. As part of its remote production capabilities, the VITEC solution, thanks to its ultra-low latency performance, is perfectly suited to remote commentary. The concept ensures commentators can provide live commentary while being based at home, not at the event.

For the solution to be efficient, broadcasters require latency - from capture, to playback, to the commentator at home - to remain below 250ms, ensuring minimum impact on the live broadcast. On the business side, to ensure low operational cost and easy deployment, the 'public' internet as well as a software player at each commentator's location is used. As a result, no specific IT infrastructure, special equipment or logistic arrangements are needed.

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VITEC delivers a reliable, low latency and efficient remote commentary solution that perfectly meets our expectations

Anthony Sachot,  
Director of Local Markets Engineering  
Eurosport

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VITEC's video low latency contribution solution combined with Eurosport's well-established production capabilities ensured seamless live remote commentary, despite logistical challenges of commentators and production teams being in numerous, separate locations around the world.

Richard Bernard  
Senior Product Manager  
VITEC

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## The Solution

In consideration of the strict latency requirements, VITEC developed a workflow based on its existing MGW Ace Encoder to ensure highly reliable, ultra-low latency, and low bitrate HEVC encoding across the internet. Since several commentators can connect simultaneously, the solution is scalable based on the event's broadcast reach. VITEC incorporated ChannelLink IP gateway into the workflow to replicate encoded feeds to multiple locations, or in this instance, remote commentator's homes. The ChannelLink also serves the critical role of adding transport protocol protection and encryption to the encoded feeds to avoid video corruption over the lossy internet and to protect the high-value video content.



During operation, the live feed is received by the commentator on a customised software player featuring latency monitoring (compatible with Windows and MacOS) and then the commentator's audio feed is sent back to the production studio for mixing and distribution. VITEC ensured a 250ms delay point-to-point allowing broadcaster to mix the commentary from remote sources, so that live feeds could be sent out in native languages, for multiple markets, from a single live event video capture.



### FEATURED PRODUCT

Compact HEVC (H.265)  
Hardware Encoder

### MGW Ace Encoder and Latency Monitoring

Designed as a professional grade portable streaming appliance, the MGW Ace Encoder/Decoder is the world's first HEVC / H.265 hardware encoder. The unit is powered by VITEC HEVC GEN2+ codec and delivers the industry's best video quality enabling users to stream broadcast quality HD/SD video with up to 50% bandwidth savings compared to H.264.

## Industry Leading Video Innovation

Founded in 1988 VITEC is a pioneer in the design and manufacture of hardware and software for video encoding, decoding, transcoding, archiving and streaming over IP. In 1992, VITEC developed the first MPEG-1 encoder for micro-computers and is continuing this legacy of innovation by leading the development of the newest VVC codecs (H.266).

Today, VITEC's HEVC (H.265) with Gen2+ codec and H.264 class of products are the most extensive on the market for encoding and decoding devices:

- 100% hardware based encode/decode solutions deliver the highest quality IPTV streams over satellite links, private networks and over the internet.
- PCIe cards with SDK makes VITEC a world-class provider of Custom Design and OEM for high-performance video systems.
- Award-winning EZ TV solution that is a powerful suite of IPTV services for content management, digital signage, video archiving, and video wall processing.

Making a difference with green initiatives, VITEC is the first Zero Carbon MPEG company and encourages customers to buy GreenPEG™ for continued environmental efforts to reduce greenhouse gases.