

CASE STUDY

Finding the right disaster recovery encode/decode solution



Industry: Broadcast Production



AT A GLANCE

CLIENT: Gravity Media

LOCATION: UK

CHALLENGES

- Lightweight disaster recovery encode/decode solution
- Fast to deploy, configure and monitor
- Reasonable price

SOLUTION

- Haivision Makito X4 Encoder and Decoder



"We're looking to our vendors, like Zest, to push the boundaries of what is achievable regarding contribution equipment. With connectivity and freight costs so high and no sign of reducing, maximising bandwidth economisation and reducing equipment weight are key."

John Williams

Director - Media Services & Facilities

GRAVITY MEDIA



BACKGROUND

Gravity Media is home to state-of-the-art equipment, cutting-edge technology and world-class production and post-production facilities, and they are leading the way in global sports and entertainment content creation. Their team of experienced technical, engineering and creative experts bring some of the most iconic sporting moments and memorable, much-loved entertainment to screens around the globe.

Gravity Media has worked with the team at **Zest Technologies** on the solutions needed for coverage of many sports including World Rugby, Formula 1 Motorsports, and West Indies cricket. So, when they needed a disaster recovery solution, Gravity Media knew they could once again count on the Zest team.



CHALLENGES

Gravity Media supply all onsite facilities at each W Series Motorsport event for the creation of the host presentation and feature content. Their system consists of three RF camera links, wireless high-power sound mixer backpack, and site-wide in-ear monitoring. UK-based production company, Whisper, uses Gravity Media's system to roam far and wide, following all the W Series drivers and team in order to capture all the racing action. With installed Gravity fibre providing connectivity for their main circuits, Gravity Media was looking for a disaster recovery solution that would provide a diverse route for a single camera and return vision for their wireless monitor.

The main challenge was finding an encode/decode solution that was super lightweight, fast to deploy, configure and monitor, and at a reasonable price



SOLUTION

The Zest team knew the **Haivision Makito X4 Encoder and Decoder** would meet Gravity's needs. At the heart of a broadcast contribution network is the Makito X4 contribution encoder in the field, offering quad HD (or 1 x 4K) ultra-low latency HEVC/AVC video encoding in a compact appliance or rack-mountable blade. With native support for the SRT protocol, the Makito X4 is ideal for streaming over unpredictable networks, such as the public Internet. It also has 10-bit pixel depth, 4:2:2 chroma subsampling, and high dynamic range (HDR).

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The **Makito X4**, with its low footprint on size, weight and power, meets Gravity's need for a light-weight device that helps to keep freight costs down. In addition, the low bandwidth of HEVC technology helps lower connectivity costs. All this while providing total end-to-end control of signal deployment, management, and monitoring.

Broadcast Global Networks (BGN) provide a 20Mbps bi-directional Direct Internet Access (DIA) connection for this disaster recovery solution. And Gravity uses one of their owned and managed Cisco Meraki VPN device at both track and hub facilities, providing them with a VPN to link both sites.



RESULTS

The result is a very satisfied client who was able to provide an extremely high-quality and low-latency feed, which in turn allowed their client to shine with the success from the biggest broadcast of this kind.

Gravity uses the **Makito X4 Encoder and Decoder** trackside at each event to encode their main presentation camera with associated presentation audio microphones. Gravity Media encoded the camera feed at 16Mbps in HEVC whilst using the SRT protocol. At the other end of the network was the Makito X4 contribution decoder able to decode up to 4 x HD or 1 x 4K channel. They also used a return vision feed at 8Mbps in HEVC and SRT.



SRT IS A UNIQUE VIDEO TRANSPORT PROTOCOL THAT BRINGS THE BEST QUALITY AND LOWEST LATENCY LIVE VIDEO OVER ANY NETWORK.

In addition to the W Series, the Gravity team has made use of the **Makito X4 Encoder and Decoder** for cricket coverage in the West Indies and at Twickenham on a POC with AWS, and World Rugby for getting video into the Cloud.

W SERIES 2022 - DISASTER RECOVERY PLAN

