LIVE LANDSCAPES
TECHNICAL PROCESS

The technical wizardry behind the Live Landscapes project was achieved with simple technology providing a professional output. Although it was a minefield to arrange, the final result was one of success and achievement. Lessons were also learned that would make the whole process much easier should it be attempted again.

The live stream technology behind the project mostly consisted of a WMT Agile transmission (TX) unit which is a mobile 3/4G cellular broadcasting unit which streams images inputted into the device via a camera, through the mobile network (as well as wifi and/or ethernet connection if available) to the designated receiving point. The unit came with an external antenna for additional signal boost; the unit is the perfect solution for remaining portable on location without the need for an OB truck.

The challenge we faced was securing an option which provided low latency so that participants could participate and respond with the camera crew without there being a long delay. After a little research from Dan Stephens at 1080 Media which involved calling up the manufacturer of the equipment, they came up with the solution of an RTSP (Real Time Streaming Protocol) livestream. This hadn't been attempted by the company before or had Dan heard of anyone using the livestream via this means…potentially a first in the country for the equipment being used in a livestream in this manner (though this would be hard to verify). This offered us a very low latency of around 2-5 seconds which regularly worked around 3/4 seconds. This option also meant the receiving (RX) unit wouldn't be required at Dorchester Hospital, and so remained at the 1080 Media offices in London. We had been having issues working out how we would get around the NHS firewall as the incoming stream would require an open network; thus meaning we would have to take down one of the country's securest networks which would have been technically complex and uncertain, and just wasn't viable for this sort of project. The RTSP stream allowed us to transmit directly from location at Hengistbury Head through the internet to Dorchester Hospital. The RX unit in London wasn't doing much apart from bouncing the IP address from the TX unit to the RX unit through the internet.

This option also allowed multiple devices (laptops, iPads, phones etc) to connect wth the stream. All you required was the appropriate software installed (in this case we used VLC media player which worked a treat), a solid internet connection and the RTSP stream address. So multiple participants at Dorchester Hospital could view the stream at the same time. The stream could also be checked anywhere with this method; Dan in London or the crews on location in Dorset.

The TX/RX combination in this setup enabled visuals and audio to the hospital (provide through the camera) but not a return audio feed. There is a way in which this can be achieved through the TX unit but wasn't possible with the RX unit being in London). So we simply used mobile phones…a participant could easily speak into a phone at the hospital end whilst the camera operator would be at the other end of the phone call with headphones on to respond to the participants direction. The RX phone end was also split occasionally to a portable speaker on camera so that interviewees or other people could hear what was coming from the hospital. With moderate signal and a portable charger this held our fine throughout the five days.

The only technical issues we encountered during the five days of livestreaming was the occasional loss of signal with the TX unit and mobile phones. Hengistbury Head is relatively remote so this was to be expected. Going under thick tree cover would also mean a temporary dropout but this was rare and was only for a very short period.

Overall the live streaming to Dorchester Hospital was a success across the board, simple and easy to use technology that was portable and reliable certainly made the difference. Hopefully as a polite project it paves the way for future livestreaming collaborations.