

BEATING A PATH TO A 4K FUTURE

MALCOLM ROBINSON, DIRECTOR OF OPERATIONS AT BROADCAST SOLUTIONS PROVIDER VIDELIO-MEDIA, OFFERS DIGITAL STUDIO HIS TAKE ON THE STATUS OF 4K AND IP IN EUROPE.

DS: Where are we with 4K now? Is it a working solution in the UK?

Content capture on native 4K cameras, be it Grass Valley, Sony or others, is working in live production systems and is going-to-air for broadcasters such as Sky and BT Sports. There are still some work-arounds in that live production element with aspects like the PDS element where some are using 50P recordings rather than full 4K but that's the end customer's decision, and there are 4K options as well. We work with clients to make it as easy as possible from an integration and a day-to-day operational side as well.

DS: Are things moving at the speed you anticipated a year or two ago, and how important is IP?

Yes, probably slightly quicker, I think the IP part of 4K in our industry is how we move to an easier format of moving around systems. Obviously it's an evolution of IP though. We were quite early adopters with Grass Valley and Arena to do 4K with IP.

Videlio has delivered some 4K over IP projects in Europe: We worked on two OB trucks for Arena TV in the UK, all based around Grass Valley with VSN control system and Calrec audio desks. A third one is being built this year, around August. We've also done a studio complex for Canal Plus in Paris. They were ground breaking projects and were both done in IP and 4K.

DS: What were some of the challenges you faced during these projects?

With any change of format there are teething issues. Trying to get companies to talk to other companies at a technical level is challenging but we got through it and the systems are working. When changing technology there are usually some issues that come out of the woodwork that you're not aware of, but all the companies involved in the Arena project, from Cisco to Grass Valley, VSN,



Camera shading area on one of Arena's new 4K OB vans.

ourselves and the customers, there was a good attitude to solve issues for a fast turnaround. Moving forward we are very confident in recommending an IP solution to customers now.

DS: What are the main challenges of implementing 4K in general?

What you have to think about is bandwidth. Obviously 4K generates a large bandwidth of data. 4K is possible now with a 10Gb link with compression. It's a combination of everything; it's not just getting a video out: it's also what you do with the audio.

Technology-wise we try to keep it as simple as possible. A 4K system should work in the same way as an HD system from an operational point of view. That's part of our design process. Our aim is to try to make the transition from HD to 4K as simple as possible. From an operational and production point of view, it's just higher quality pictures and you still need to be able to do the same functionality, so that's really what we're designing into the systems. The big question that we always get asked by the operations staff who will be using the equipment is "what tools do we have to test equipment?" because they're used to having a monitor. With IP you have to learn a different operating language really, you have to use different tools and get used to a different way of

doing things.

DS: How long before 4K is mainstream in broadcast?

That's the golden question! What I will say is let's look at how HD was adopted and the fact that if you can shoot in 4K and archive in 4K, you're going to have a better HD picture anyway. 4K cameras are becoming more cost effective and more available. Broadcasters who are not yet ready for 4K but are upgrading their systems should also be aware that they can deploy 4K-ready systems and continue producing in HD until they are ready to switch to 4K, which they can do with a software upgrade. You also get a better picture if you shoot in 4K and down-convert to HD compared to filming in HD.

DS: What's your view on 4K standards initiatives?

We're really reliant on manufacturers and where they're going. I have my views on standards committees and how long they take to make decisions and I think sometimes manufacturers are pushing ahead with what the industry wants regardless of standards. It is important that we have standards initiatives happening. I sometimes wonder if we are going to end up with five or six different standards as has happened before. It would be lovely if we could agree on a worldwide standard and all stick to it.