

When German fibre network specialists BroaMan introduced their Mux22 they fully unlocked the potential of a self-contained and energy-efficient system that would give their broadcast customers the ability to transport a variety of audio, video and data signals over fibre.

The BroaMan solution would enable professional video signals to be sent, received and converted — including SD, HD and 3G-SDI — with or without audio, intercom and data. The scalable architecture could also be interfaced to audio and data network systems, such as Optocore, SANE, MADI and Ethernet, to provide an excellent and consummate transmission solution. Thus the introduction of the Mux22 and Mux22 MADI, supporting up to eight video channels with a selectable number of dual inputs and dual outputs, further caught the imagination of broadcasters looking to combine video and audio signal routing to multiple locations over optical fibre — particularly since it was protocol independent and was contained in an economical 1U rackspace. It has quickly taken off in Europe and Scandinavia before migrating to the other side of the world, where leading Australian production company Shine Australia has recently become another early adopter.

“We have a unique setup,” explained technical manager, Nick Parker, who had been responsible for the Mux22 procurement. “We have production and post production integrated as part of the same company, which allows our technical team to be across both aspects of the shows, and innovate on these workflows. The technical services group is able to use resources across both post and production and it allows us to put equipment in on a show-by-show basis.”

Shine deploys its own studio hardware for smaller shows such as Masterchef, Biggest Loser, The Bachelor, The Face, Top Model etc while for the larger shows they will contract external outside broadcast or rental houses to supply gear. Those prime time light entertainment franchises attract major viewing audiences — and the production company needed to find a cost-effective solution that would meet all their many requirements in a single environment.

“I had seen Optocore at IBC and NAB in previous years — but it was the BroaMan development that really interested me,” Nick reports.

And the cause of his interest was the fact that other network transmission systems Shine had reviewed had either been cost prohibitive or simply didn't meet their requirements. “For instance, one was video only rather than a true stage box, while another was messy, with lots of adapters and fibre cores all doing the same thing.”

But at the Australian Grand Prix an encounter with Patrick Hendriks from BP Satellite Solutions, whom he had met while working with him and Multi-Link Holland's Bob Snieder on a project for RTL Germany — was all the convincing necessary. “We got to discuss Multi-Link Holland's MUX22 system compared to other systems we had reviewed — and from the brief chat it sounded like it was everything we needed.”

“In fact Mux22 was a stand-out product from the moment I was introduced. It had all of our required features and allowed for the ability to scale to our future needs. Various configurations were available, and through CWDM a single fibre pair had the ability to carry a multitude of signals.”



MUX22 THE PERFECT SOLUTION FOR SHINE AUSTRALIA



Initially Shine Australia had taken a system on trial to replace their existing solution, on the Bachelor Australia (Series 3). “It has been working faultlessly,” he reports. “As a result, we plan to use the Mux22 on the forthcoming finale of The Biggest Loser and also Sharktank Series 2. Shine Australia has the device configured to transport six HDSDI inputs and two HDS-DI outputs. AES on one system allows for AES/EBU audio — along with four communications panels for the studio floor.

“IC485 which is RS485 and Analogue Audio, is also great as you can run these ports as RTS Communications Panels or as IFB's or Sends to the studio floor ... or a mixture. The system allows for Gigabit Ethernet and also is conveniently switched on the unit for additional ports.”

“The Mux 22 includes GPI's which is great for any remote triggers required,” he continues. In its current configuration Shine Australia is using the MUX 22 IC485 with two UHF radio bases and are triggering the Push to Talk via the GPI, while the audio is transported via the IC485 ports. Nick states that while many fibre systems exist in the market most of them don't cover as much functionality as the Mux 22 with 8 or even 16 x SDI Video, Fast Ethernet Data, GPIO; with Audio Options (AES, MADI, Analogue, IC485), bandwidth-independent Fibre Pass Through, Ability to run Communications Panels (RTS, Riedel or Clear-Com). The system scales with the SANE Optocore network and the possibilities on your audio capacity grow to a large scale audio network when required.

“The system has proved itself as a plug and play and has been very robust from the moment it was installed ... we haven't had any issues or need to reconfigure.” Shine Australia has also promoted the Mux22 solution to two big OB providers who also find the system they are presently using too expensive. “When our Mux 22's aren't in use I think a high demand on demonstrations from both will be in order!” he states.

“The Mux22 is highly versatile in the reality production space — but we aren't always shooting in a real studio. It might be a temporary warehouse or a converted wharf or a shed on a tennis court (Bachelor Australia for instance is shot in a converted private residence outside Sydney). This site required a temporary fit out where we built a studio on a tennis court, and a control room in the basement of the house hold; this meant we needed to get creative on how we got signals from the tennis court back to the control room. The Mux22 answered all these questions.”

In fact they are constantly facing challenges about how far cables can be run, how quickly they can be installed and the system built. “Mux22 gives us the ability to take on these shows and not have as many challenges as before,” confirms Nick.

It provides not only an elegant solution but a highly cost-effective one, with the minimum of cable runs. “Always when building a studio, running cable is the biggest issue, and this has given us a new way to keep costs down and still give us the full feature set we require on a constant changing production environment. If you count the amount of I/O that the Mux22 can handle — running the same amount of cables compared to the single fibre cable — this is the biggest way it keeps costs down, with all the feeds that we can run through just two pairs of single mode fibre!”

And as for system set-up and operability, to a technician as accomplished as Nick Parker it was little more than plug and play. “I needed nothing more than the manual — and I was then able to train our junior engineers in an hour as to how the system works.”