



**Realtime Media
Performance**



Evolution of Foxtel: The Leap to IP Infrastructure

**Transitioning from SDI
to IP with cutting-edge
monitoring solutions**





At A Glance – The Players

Foxtel is Australia's largest subscription-based television provider with approximately 4.5 million subscribers across various platforms including cable television, direct broadcast satellite television, and IPTV streaming services. Foxtel connects customers to award-winning live channels and on-demand libraries from major international studios featuring local and international drama, entertainment, movies, sports, news, documentaries, reality, lifestyle, comedy, and kids shows together with its own Australian Foxtel Originals.

Matt Carter, head of broadcast engineering and projects at Foxtel, looks after the provider's broadcast operations including playout, contribution, and distribution as well as the projects team. Additionally, he oversees all

upcoming projects and ensures that content is being delivered to subscribers.

Tim Banner is solutions architect for Magna Systems & Engineering. With offices in Australia, New Zealand, Singapore, Hong Kong and Indonesia, the company provides best-of-breed solutions to Media, Entertainment and Telecommunication Industries. As solutions architect, Banner is responsible for staying ahead of the technology curve by continuously seeking out new products and solutions that meet the needs of Magna's customers.

FOXTEL

MAGNA  SYSTEMS & ENGINEERING
empowering innovation

A case study with Foxtel and MAGNA Systems & Engineering



The Challenge

When Foxtel made the decision to decommission its legacy SDI Television Center at Macquarie Park and transition its entire architecture to an IP-based infrastructure it came with an overabundance of challenges and complexities. Future-thinking technologies had to be uncovered, evaluated, and implemented to drive a multi-format software platform comprising over 2000 channels with built-in mechanisms to handle future growth, both in number of channels and emerging formats. The project also required careful balancing of compute and memory capacity to work correctly.

The project was led by Carter, who brought

in Banner to collaborate on a system that serves customers with a mixed-format menu.

Beyond transitioning to all-IP, Foxtel needed to monitor multiple workflows and formats across multiple sites at high scale. A critical component of Foxtel's success rested on a monitoring and visualization system capable of

simultaneously handling all types of IP signals including any combination of uncompressed and compressed HD and UHD, NDI, and OTT streams including – HLS and DASH with CMAF including DRM. The system's ability to scale with the subscription-based television company's growth also topped the list of necessities.

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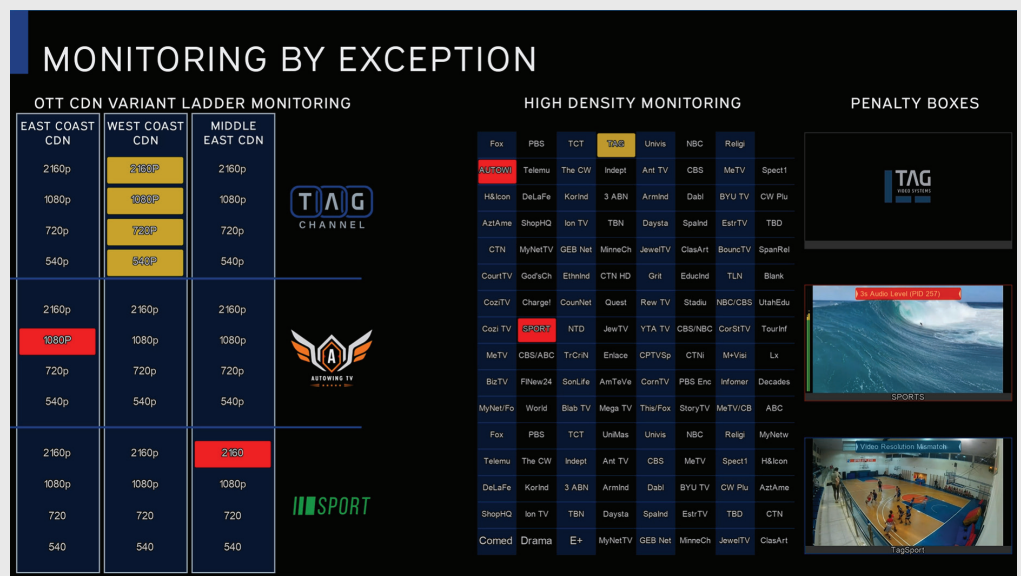
A Very Fast Solution

Carter and Banner had numerous aspects to consider, commercially, technically, and operationally, and decided on a TAG monitoring and visualization system following extensive market research, testing and trials. TAG's ability to support any format, protocol, codec, or resolution added agility to Foxtel's business strategies and in turn economics, as they could put a compressed feed against an uncompressed feed on the same COTS hardware, and confidently plan to expand offerings to include emerging formats.

"One of the things that made TAG really attractive to us was its ability to handle multiple formats," said Carter. "The fact that you could put a compressed feed against an uncompressed feed on the same hardware was a real selling point. It was huge."

"We've had a long relationship with Foxtel and we had been talking about doing a TAG demo for a while," added Banner. "The time was right. Foxtel was looking down the path toward IP and Magna responded with a TAG monitoring and visualization solution that was really solid."

The project team carefully addressed the current needs of the massive migration while considering future expectations. The TAG system includes built-in access to enhancements and integrations, ensuring that Foxtel easily keeps pace with industry changes. The TAG system is equally comfortable on-prem or deployed in a cloud environment, providing Foxtel with the agility they need to grow confidently as technology and market conditions evolve. TAG's unique Zero Friction® flexible licensing business strategy coupled with its Adaptive Monitoring and Monitoring by Exception solutions maximize resources by allowing assets to be used when and if necessary, reducing 'eyes-on-glass', costs and complexity, and taking Foxtel to a higher operational level.



TAG Realtime Media Performance Platform - Monitoring By Exception

Under the Hood & Up on the Cloud

Foxtel was coming from a very silo-based architecture with distinct separation of applications. For the new facilities, in addition to stream visualization on displays, they also required real-time probing of all signal formats and encoding types across the full workflow for a complete end-to-end view of the video workflow. The new IP facilities converge those former silos into a common platform with common support enabling

The Results

The project that launched with 2,000 channels with over 28 servers has already expanded with six additional servers handling playout monitoring as well. The TAG monitoring solution is currently one of the largest of its kind in the world.

“Not having to configure 28 individual servers was a blessing,” adds Carter. “When we put out the RFP, we were asking for a controller that could handle all of our platforms. But we were receiving vague responses. And then we looked at TAG’s MCS and realized how much easier the process would be for us. The fact that it can configure all the servers automatically really saved us a great deal of time. We are so pleased that we went with TAG’s MCS right from the beginning.”

Magna handled most of the project initially, but a team from TAG joined as things began to progress. Collaboration between Foxtel, Magna and

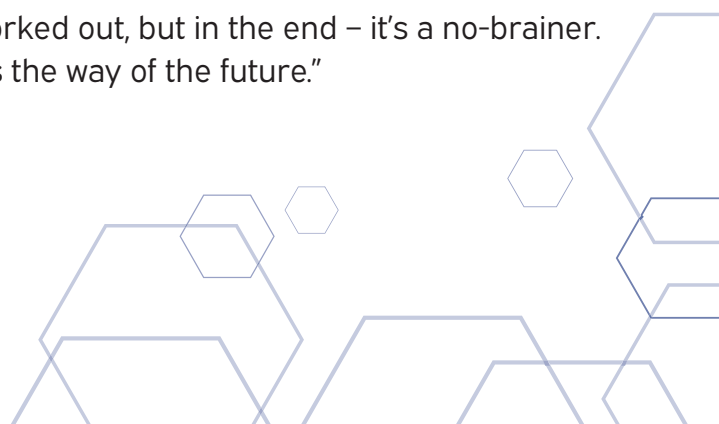


the full channel path to be viewed from contribution to distribution. Automation also played a significant role as TAG’s Media Control System (MCS) configured all the servers automatically adding the time-saving element Foxtel was seeking. TAG’s MCS provides a comprehensive suite of tools to manage the production and delivery of content across all platforms and is designed to automate the processes involved in creating, distributing, and managing content.

TAG was seamless and efficient, leading to a successful project outcome.

“The response from TAG has been incredible,” said Carter. “During the implementation of the project, TAG was a key part of an extremely smooth rollout. They replied very promptly throughout the process and were always attentive to our needs. The TAG team was right there to help us with any questions we had or issues we may have encountered throughout the project.”

Carter concluded, “The flexibility you get with a software platform is great. But there are also some complexities involved as well. For instance, with a hardware device, you know exactly what the capacity is and what it does. With software, it’s a bit of a balancing act between the compute, the memory, the bandwidth and interconnects. It all has to be worked out, but in the end – it’s a no-brainer. It’s the way of the future.”



Looking Forward

Foxtel is a leading Australian pay television company that has been providing premium entertainment and sports content to its subscribers for over two decades. With a strong focus on innovation and customer satisfaction, Foxtel is now looking to expand its services by migrating its live sport production, which is currently on the legacy platform, to its new IP infrastructure. This move is not only a significant undertaking for Foxtel, but also a major step forward in the Australian sports broadcasting industry. With



the migration, Foxtel is expected to offer an even better viewing experience to its customers, with increased UHD support and higher bandwidth requirements. TAG's capabilities and ability to handle live production with ease make it a natural fit for this next step, bringing Foxtel closer to

an all IP facility. Foxtel's commitment to embracing change and adopting cutting-edge technology is a testament to its dedication to providing world-class entertainment services to its customers in Australia.

