

Playout Customer Application Brief

Free to Air & OTT Channel Provider

- **Location:** APAC
- **Number of Channels:** 18
- **System Design:** N+N and N+1
- **Grass Valley Equipment List:** Morpheus & ICE, Morpheus Media Management, IQ Modular
- **Company Overview:** A free to air broadcaster with national feed and complementary OTT and catch up services

Challenges to Be Solved

- Replace the incumbent system, which comprised an array of disparate equipment, with a channel-in-a-box solution
- Automate all channel branding and graphics according to data provided by a third-party traffic system and a set of schedule-based business rules
- Comply with complex audio processing and compliance requirements
- Interface all Media Management processes with a third-party media asset management system
- Provide operators with instant schedule override tools to deal with urgent changes or fault conditions
- Provide customized user interfaces for a variety of applications

How The Challenges Were Solved

Morpheus and ICE were deployed to provide 18 channels covering master, regional, delay, backup and preview channels. The ICE servers provide all playout requirements, including open, closed and live captioning, graphics, audio processing and trigger insertion.

By using business logic and the pre-processing of the supplied transmission schedules and the advanced graphics capabilities within ICE, the customer was able to fully implement their desired channel branding, program menus and sponsorship requirements. Graphics could also be manually triggered for breaking news tickers, which read data from an external data source. Graphics data could be dynamically extracted from the live schedule, or from triggers passed down from the external traffic system.

Different channel types required different audio outputs. By using the audio processing capabilities within ICE, the different audio requirements for each channel type could be configured, and in some cases adjusted. Audio loudness compliance and audio description were also requirements and were achieved due to the comprehensive ICE feature set.

An interface to the customer's media asset management system was required for content delivery, etc. Content registration, delivery and subsequent deletion were handled by using the various Morpheus BXF services and media management tools.

Using "scripting" within Morpheus, the operators were provided with both software and hardware buttons to action a wide variety of functions. Operations such as overriding audio/graphics while an event is on air, easy manipulation of the schedule for live event insertion or a breakdown slide, switching to a backup channel chain, or synchronizing a backup channel are all achieved with a single button press.

The Morpheus UX web-based operator interface was used and the customer designed their own user interfaces to suite their operational needs. These different interfaces included various studio countdown clocks and essential schedule information in a "read only" format, which were used by remote sites.

Other Key Points

- All automation servers capable of running in a virtual machine environment
- Suitable SDI I/O density to provide the different levels of channel presentation required per ICE unit
- The ability to synchronize channels at the primary site with a disaster recovery (DR) site
- Customizable operator interfaces

Solution Architecture

