Playout Customer Application Brief

Live Sports Network

- ▶ **Location:** U.S., multiple sites
- ▶ **Number of Channels:** In excess of 40
- ▶ **System Design:** 1+1 Resiliency
- ▶ **Grass Valley Equipment List:** iTX with web-based UI
- ▶ **Company Overview:** A national live sports network

Challenges to Be Solved

- Synchronize national broadcast and three regional feeds, where the regional feeds have different graphics and commercials

- Dynamic, fast changes to the content of commercial breaks on very short notice

- Hot punch live sources to air if something important happens in the sporting event during a commercial break

- Graphics to be played and removed quickly, easily and manually

- HTML5 GUIs leverage touchscreens where appropriate

How The Challenges Were Solved

New graphical user interfaces were designed leveraging existing iTX APIs so that no changes were needed to the core product. HTML5 was selected as the best technology for the user interfaces to enable specific operational functions that had to be highly responsive. Design focused on user efficiency so that commercial breaks could be created or modified across the national and three regional feeds. The user interfaces were created for:

- Management of commercial breaks
- Switcher control to select between live sources or file-based content
- Control of on-air graphics for all channel outputs

Grass Valley designed a user interface where regional breaks are managed side-by-side with national breaks. Background color of the commercials would indicate if a spot in one or more regions was the same as the national spot, and simple visual cues would let operators know whether the total break duration was different in one or more region versus the national feed. Drag-and-drop made updating the content of a commercial break fast and easy. The design of the user interface made it easy for operators to completely change the content of breaks and make them ready for broadcast in just a few seconds.

The switcher interface was designed so that a single button could launch commercial breaks on the national and regional feeds. It also enables operators to override commercial playout and return (punch out) to the live event. The regional feeds may be matched to the national feed so that pushing a single button returns all feeds to the live event.

The Vertigo Inside feature of iTX enables playout of advanced graphics from within the playout channel servers. Grass Valley designed a user interface to make it easy for an operator to select the proper graphics for the national feed and the unique graphics for each of the regional feeds, and then to cue and take the graphics to air. Up to eight layers of graphics are supported for the national and each of the regions.

During tests with the operators, it became clear that using a touchscreen would be a natural way for people to control the system. Grass Valley designed the user interfaces so that either a conventional monitor with a pointing device or a touchscreen could be used.

Other Key Points

Innovation: Grass Valley's willingness to innovate to meet the customer's requirements. Several design sessions were held with the customer, with their own operators providing feedback and performing tests. Grass Valley's approach was iterative; there were many software updates as the product evolved, which meant that as new requirements came up the software could be quickly modified to meet those requirements.

Support: Grass Valley's reputation for supporting customers over the long term. It was important to the national sports network for Grass Valley to stand behind the new solution. New features were added, and the system continued to perform admirably during major live sporting events, some of which were broadcast worldwide.

System reliability: The solution is based on iTX, which has many years of development and reliability built in. Because the new system leverages existing iTX APIs, no changes were required in the underlying playout engine or any other part of iTX in order to deliver a cutting-edge and inventive solution. The well-established reliability of iTX remained intact and therefore our customer could be confident that their live events would be successful.

Solution Architecture
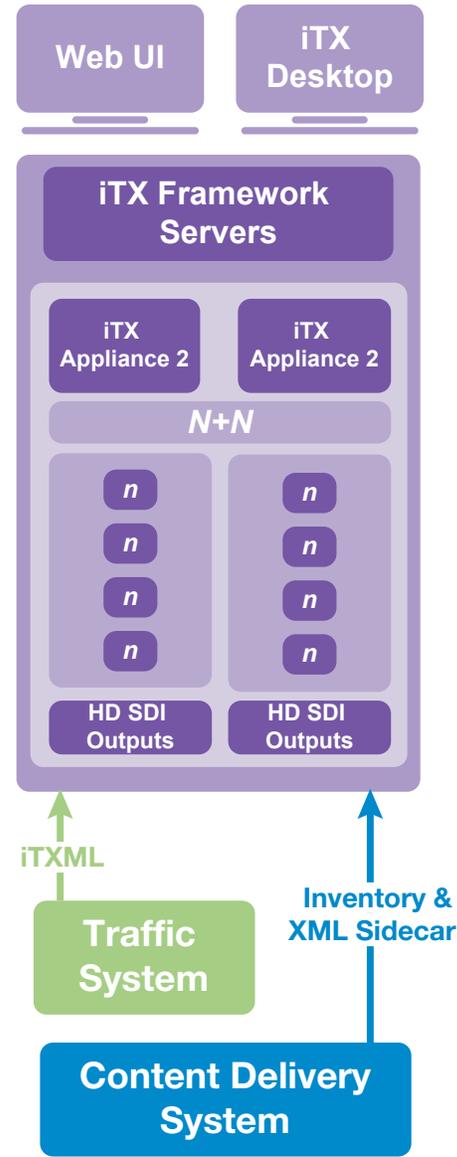
HTML5 User Interfaces
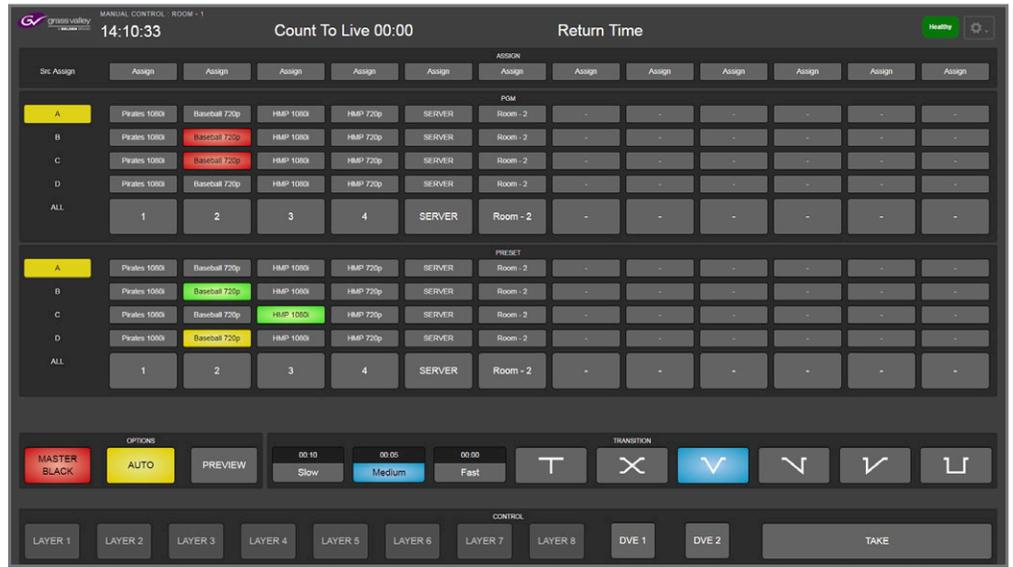
Switcher Control Panel
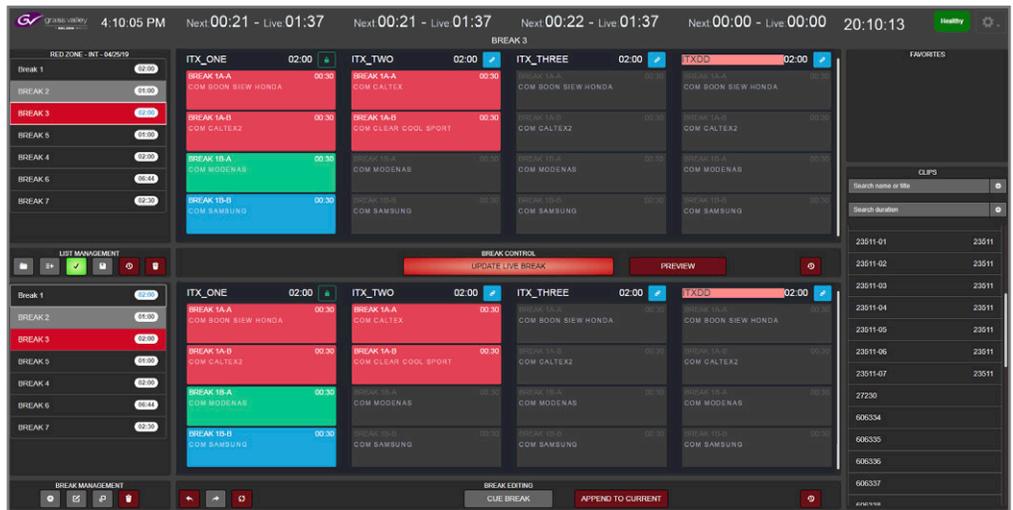
Commercial Break Manager

GVB-2-0882A-EN-AB