





China is an eSports powerhouse with more than 250 million fans and the most top competitors and professional teams including the League of Legends, which is co-sponsored by Riot Games. With fierce competition for fans, teams, tournaments, and sponsors, China is also a leader in the sophistication of eSports infrastructure and venues. And, as the eSports fan base continues to grow exponentially, live tournament broadcasts are increasingly popular.

Creating Best-in-Class eSports Broadcasts

Chongqing International Expo Center, the largest live venue in western China, is the home arena of the Snake eSports club, a professional League of Legends team. Seeking to broadcast eSports tournaments from the Chongqing Center, Snake's parent organization, Haoyou Media had *five primary selection criteria*:

- Robust production switcher technology to handle numerous sources and create an engaging live show, Haoyou Media was in need of a switcher with over 4 MEs and the ability to handle over 40 vary-ing input signals. To realize their creative vision, they wanted a switcher with substantial DVE resources, 3D DVE capability, macro commands and multi-screen processing.
- 1080p60 format support to create a broadcast-quality experience for viewers, subscribers, and spectators in resolutions up to 1080p and 4K UHD at 60fps.
- 3G signal processing to deliver high image quality and increased density of broadcasted gaming graphics.
- System reliability to ensure a consistent high-quality broadcast eSports experience.
- Future proof to implement a system that can be expanded upon as technology advances and needs evolve.



An Integrated eSports Broadcast Solution

Initially, it was the reputation and installed base of Ross Video production switchers at other major egaming tournament production houses in China that attracted the attention of the Haoyou Chongqing-based team. Upon further investigation, the team found that Ross checked all of their technical boxes including support for the 1080p60 format and 3G signal processing, plus offered simpler more intuitive control operations, unrivalled product reliability, and affordable pricing.

Ultimately, Haoyou Media selected an integrated Ross eSports solution for Chongqing featuring:

Acuity Production Switchers - Haoyou deployed main and standby Acuity switchers from Ross. Acuity is Ross' flagship large production switcher with support for 3G signals and UHD QuadLink production formats. This switcher boasts up to 120 input signal channels, up to 8 MEs (with 8 keyers per ME), 3D DVE, built-in 3G Level B to Level A converters, and macro commands. Every Acuity ME provides 16 channels of DVEs with dual channel key combiners, making it easy to assemble creative multi-box screen displays during tournament broadcasts. Acuity's Custom Controls with programmable macro commands make it simple to store/recall complex scenes with numerous sources such as images and data, graphic packaging, multi-camera views, player camera shots, and more with a single button push. Similarly, macro commands let users instantaneously recall graphics and trigger dynamic effects dissolves between.

Carbonite Black – Haoyou selected Ross' mid-size production switcher, Carbonite Black, for OB production of smaller events during the regular league season. As well, Carbonite Black supplements the primary Acuity switchers during large tournaments where there may be multiple semi-final events occurring at the same time.

Ultrix Video Router – Haoyou deployed the 2RU version of Ross' software-defined video routing platform that condenses up to 2 racks of infrastructure into a compact 72x72 footprint for a very power, space, and cost-efficient solution. Ultrix provides the Chongqing production team with signal channel retrieval routing, audio and channel monitoring, partial display segmentation on main screen, synchronization with external signals, MADI audio embedding, and more.

- Abekas Mira Replay Server Ross' 8-channel Mira replay server supports 1080p60 and lets the Chongqing production team seamlessly switch between input and output modes such as 7-input/1-ouput or 6-input/2-ouput (commonly used modes) based on different broadcasting requirements. All input and output channels support embedded audio formats. As well, Mira's AVC-Intra video codec faithfully reproduces high resolution game graphics.
- XPression Real-Time Motion Graphics The Chongqing production team relies on XPression's graphic packaging system with Datalinq (data interface server) to automatically display complex gaming tournament data onscreen in real-time without time-consuming and error-prone manual entries. As well, the use of network protocols to control the audio output of XPression addresses known image and sound synchronization challenges that occur when attempted manually.
 - MC1 Master Control The Chongqing team uses Ross' MC1 master control to securely switch between its main and standby switchers, simultaneously receive graphic signals of VCR channels, and implement simple video broadcasts and urgent productions.
- openGear With full 3G processing capability, openGear provides complete support for distribution, frame synchronization, embedding/de-embedding, conversion, and any other processing requirements of the 1080p60 format. Many competing solutions require numerous converters to fully support 1080p60, adding complexity, risk, and cost.



Reliable & Affordable

"Product reliability is our highest priority and concern. (Since we) first started using Ross Video's switcher products in 2010, we have not encountered any system breakdown or hardware failure. With the assurance of a 5-year product warranty, Ross Video is showing the world that their products are stable and reliable. We have also decided to implement their wide range of products for our Chongqing project based on their cutting-edge features and exceptional reliability. Attractive prices, including discounts, were also being offered which made the deal very irresistible."

Jiang Rui, CEO of Haoyou Media



Future Proof

The project team has reserved 20 inputs in the Acuity switcher and AR functions in the accessories of XPression's graphic packaging system in anticipation of additional signals required to support broadcasts of other types of gaming tournaments in future. In short, the new system is fully capable of producing current and future broadcasts of top level gaming tournaments.



Value Created

With this world-class broadcast infrastructure now deployed at its home arena in Chongqing, the Snake eSports club and its Haoyou parent are able to:

- Produce high quality eSports broadcasts;
- Attract more tournaments;
- Demand higher advertising and sponsor rates;
- Grow the team's fan base exponentially and globally.

To learn more about how Ross can up your eSports game, contact solutions@rossvideo.com.





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