How the World Cup IBC server workflow worked

World Cup workflow

EVS Broadcast installed and ran a media server system at the World Cup International Broadcast Centre (IBC) in Munich which, in its size and flexibility, has never been seen before. The Belgian manufacturer signed a contract to provide server hardware and software applications as well as support services such as training, maintenance, archiving, logging and database support. **Reinhard Wagner** visited the IBC to study the workflow

A total of 20 engineers and sales representatives were involved in the World Cup contract — which was unique to EVS as they normally supply equipment through the dealer chain and system integrators. All XT[2] HD servers on the OB trucks were either rented or owned by the production companies, as were the XHub[2], [IP]Directors and XFile[2] systems.

The tapeless central SD media server system, with 55TB of storage capacity, was installed by EVS technicians. The company delivered 18 XT[2] SD, 10 XFile[2], 62 [IP]Director and 5 XHub[2] for this system which incorporated two different network ring architectures — a 100BaseT ring for standard office applications and a 1.5Gbps Xnet ring (EVS SDTI) for file transfer purposes.

The network connected 25 [IP]Director browsing stations for the Broadcast Partners (BP) and 25 [IP]Director browsing stations for HBS producers, each with 500GB of local storage. Producers and editors could browse all of the content on the media server through the [IP]Director application (EVS), which offered a keyword grid, clip preview, search engine and other tools for pre-cut and preview purposes.

Premiere's Lars Päglow: "The database together with the keyword grid is of fundamental help for fast and easy access to the requested clip material"

Each BP had the ability to access all of its booked feeds on the media server (ie, up to eight feeds recorded at IMX 40Mbps and stored on the central media server). All ingest was completely monitored and permanently logged. Operators were specifically trained for this job, because they had to monitor at least six signals at once and select keywords from the keyword grid, which was defined by BPs and HBS — which was then associated together with the metadata and additional information (player list, event location, etc.) and the recorded signal.

As soon as the information was stored on the central media server, the producers, directors, editors and other personal could browse, select and choose material from the server.

Partner productions

Lars Päglow, manager Sports production with Premiere, Germany's leading PayTV channel, said, "The database together with the keyword grid is of fundamental help for fast and easy access to the requested/searched clip material — which is only available on the central media server. The accumulation of clips, pre-editing and creation of transfer, or even a playlist, is done almost in seconds!

"Although the total amount of logged events will exceed 70,000 logs, the search over all of the data does not need longer than 15 seconds. We prepare highlights clips, studio inserts and transfer of material to our central production facility in Munich," he said.

After the relevant clip appeared on the [IP]Director's screen, the operator could set mark-in and mark-out and prepare the clip for file transfer onto an EVS CleanEdit station or a connected Avid NLE system for final high resolution editing. The media server operator HBS limited the file length to a maximum of five minutes due to payload concerns with the 1.5Gbps network. "This limitation did not affect any of our work, because in news and sport programming, you do not need more material at once," said Paglow.

Production needs varied from one Broadcast Partner to the other. SRG SSR Idée Suisse for example, which produced its daily programme at a facility in Zurich, forwarded all feeds directly to the final destination via STM-1 lines. "We used media server material only for news clip productions together with tape-based camera material delivered by couriers to our production box within the IBC centre", explained Peter Biber, TOM of tpc Zurich (production unit for SRG SSR Idée Suisse).

Televisa Mexico on the other hand, although connected to the media server with all feeds booked, used only two [IP]Director clients to browse and access material while a game was running. They combined a classical sports configuration (highlight panel and local XT[2] server) with many VTRs and traditional linear editing for its programme editing. "We are quite sure that there is still a lot of work to do for us to convince broadcasters from Latin America to make more use of centralised storage — although they are used to it at home," said EVS' Nicolas Bourdon.

A daily backup of the XFile system — transfer management from BPs and from/to HBS — was performed on removable disks. The XT[2] servers were specifically modified to run in this dedicated configuration and constellation.

EVS demonstrated that they have moved from being a supporter of OB sports LMS production (which they still are of course) to a centralised media storage and content management provider. "The upcoming Confederations Cup in South Africa will be our next challenge", added Bourdon.

Server control stations (left) and Log/Browse client in the editing suite