

### World Cup Commentary



Nothing brings the world together more than football. A World Cup – even one with challenging off-field issues – is a very special, once-in-four-years occasion, and fans everywhere want to feel involved.

SuperSport holds the broadcast and streaming rights to the competition across its footprint in Africa. The host broadcaster’s feeds are trunked to the home of Multichoice, SuperSport’s parent, in the suburbs of Johannesburg.

While delivering the game coverage across all the countries in its footprint, it provides tailored feeds to seven countries, each with their own cultures and local languages. To provide a service for each community, SuperSport has to tailor the coverage for no fewer than 13 languages, along with the local commentators and pundits

It goes without saying that this is all live, which for sports fans means very low latency indeed, and the commentary must stay in precise synchronisation with the pictures. Nothing is more irritating than describing an incident which you can see happened many seconds ago.



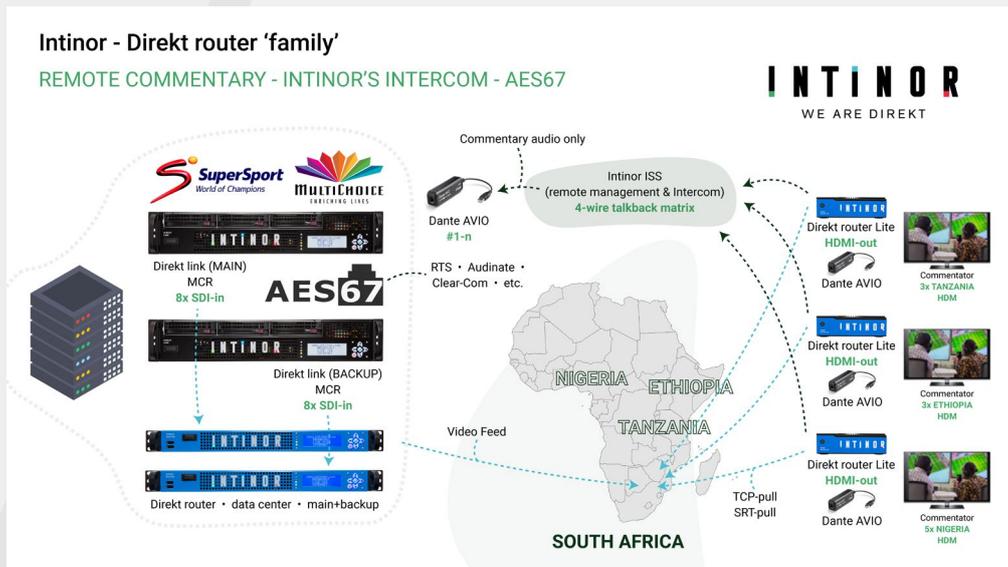
The only practical production workflow is to create the SuperSport production output in Johannesburg, then insert local language commentaries in each territory. So there is a need to provide high quality, ultra-low latency feeds to each remote hub, allowing each country’s football experts to add their commentary to the local feeds.

It is worth bearing in mind that this has to be accomplished over remarkable distances. Johannesburg to Addis Ababa in Ethiopia, for example, is over 4000km. Feeds have to be stable and fast over these sorts of circuits.

SuperSport already appreciated the unique capabilities of Intinor’s approach to video transport. It presented the obvious solution to this challenge. The Direkt family is designed to deliver high quality compressed video streams with very low latency to multiple receivers. This is important as each country hub supports multiple local languages: Nigeria alone has four different language commentaries.

Four Direkt link racks (main and backup) were installed in the MCR at SuperSport headquarters, receiving SDI feeds of the programme. These created the streams to each country. The headend supports 64 channels of audio, so there is plenty of headroom for expansion in future. The audio is handled as an AES67 multicast on a dedicated ETH port. That is important as it separates the commentary from the intercom.

At the receiving end, Direkt router Lite units provided an HDMI output to see the action, and Dante audio inputs for the commentators. The audio input could be USB, ethernet or AES67, depending on local facilities. By managing the latency throughout the process, the commentary remained timed to the pictures. The racks in each of the remote facilities each have a spare Direkt Lite unit to provide redundancy.



The Intinor network also carried the production intercom so the main gallery could talk to remote commentators, either altogether or selectively. The Direkt routers provide a direct interface for digital intercoms (CTP in this case), using AES67 and SAP (session announcement protocol) signalling and switching. In practice, it meant that the remote commentators appeared like any other destination on the talkback.

In the heat of the competition, the system is performing precisely as expected. At present the connectivity uses SRT, but Intinor will shortly make available a multipath request/pull architecture using its own bespoke transport protocol, Bifrost. This incorporates a sophisticated forward error correction which will increase still further the resilience of the signal. Also coming soon is the new version of the Direkt Link Compact units, which will allow SuperSport's MCR operators to see the remote commentators as well as hear them.

The result is that SuperSport has a high performance system for the current major events, with a clearly defined growth path to even greater flexibility and convenience. It means that the broadcaster can serve all its audiences, across the vast continent of Africa, giving each its favourite commentators and individual languages, and capturing all the excitement of the event.

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