

# World Championship Soccer in South Africa

*When the World is Watching...*

*...We're There*



As a contractor to Host Broadcast Services ([www.hbs.tv](http://www.hbs.tv) — Zug, Switzerland), Grass Valley is a Privileged Supplier for a full suite of broadcast equipment and integration services for the 2010 Worldwide Football Event in South Africa from June 11 through July 11, 2010.

## PROJECT SCOPE

Grass Valley™, through its Systems Integration group, will provide design, equipment, integration, and support of the technical infrastructure for broadcast production and control at 10 different venues (10 stadiums located in each of nine different cities across South Africa). At each venue, there is a container-based production and technical operations center. In addition, Grass Valley is providing design, equipment, integration, and support for a technologically sophisticated—albeit temporary—International Broadcast Center (IBC) in Johannesburg.

## PRODUCTION

At each venue Grass Valley is supplying 38 cameras to capture action on the field at each stadium including two each for infotainment and production studio and nine specialty cameras (in-goal, helicopter, spider cam, etc.). Six of these on-field cameras are 3X Super SloMo cameras (LDK 8300). For multilateral feeds, 34 cameras will be used.

## CONTROL

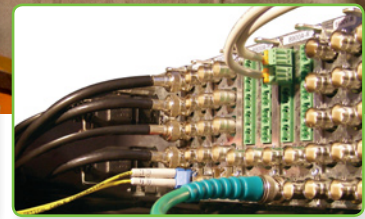
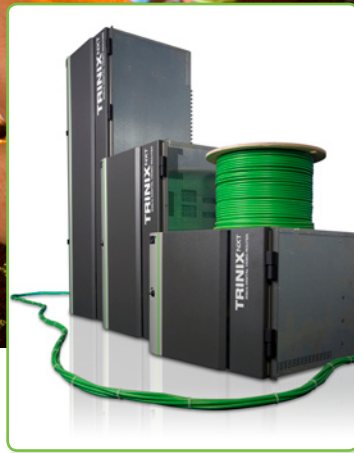
At each venue's technical operations center, multilateral and unilateral feeds (live plus some studio) are routed to telco and transmitted via fiber to the IBC in Johannesburg. HBS—Host Broadcast Services—is in complete control of all feeds for transmission, including unilateral feeds from broadcast partners.

At the IBC, 64 live HD feeds and 32 live SD feeds are displayed across six 70-inch multi-screens. Grass Valley is providing audio and video monitoring for each of these multilateral feeds. In addition, the unilateral feeds from broadcast partners as well as some studio productions will be displayed across seven 60-inch multi-screens. Grass Valley anticipates 248 HD/SD feeds, and Grass Valley will provide full audio and video monitoring of these feeds.

## Grass Valley is Responsible For:

- Overall system design for container-based infrastructure for production at 10 venues
- Qualification and subcontracting of services and equipment for venue and TOC coverage
- Design of 10 Technical Operation Centers (TOC), one at each venue:
  - Control Center for venue signals and interface via telco to the International Broadcast Center (IBC)
- System design for the IBC:
  - Control Center for all signals coming from the 10 venues for processing and transmission of worldwide broadcast feeds
- Production Studio for each venue:
  - 2-camera studio, fully equipped for unilateral production on-site interviews
- Infotainment infrastructure for each venue:
  - 2-camera production facility for venue entertainment
- Commissioning and acceptance tests according to international broadcast standards
- On-site support for the entire technical infrastructure during the month-long event
- Logistics support

To meet this challenge, Grass Valley™ will rely on its industry-leading solutions and a stable of top-tier facility providers from across Europe. These operators are well-known for their mobile broadcasting expertise.



## Facts & Figures

- 290 Cameras: Grass Valley LDK 6000, LDK 8000, and LDK 8300 3X Super SloMo Camera
- More than 40 Video Switching Systems: Grass Valley Kayak™ HD switcher (1 M/E and 2 M/E) and Kayenne™ HD Video Production Centers with Kayenne XL panel (4 M/E)
- Large-scale Routing Systems: Grass Valley Trinix™ and Trinix NXT digital video routers with a combined signal capacity of 1024x1024 at the IBC (exact details see end of document)
- 280 Modular Frames: Grass Valley Gecko™, GeckoFlex™, and Kameleon™ Series processing systems plus more than 100 Grass Valley downconverters and frame synchronizers (exact details see end of document)
- 30 multilateral video feeds per venue with embedded audio produced
- 250 feeds at the International Broadcast Center in Johannesburg

## Detailed Production Equipment List

### VENUES

#### Cameras (all Grass Valley, all HD):

- **Multilateral Production:** 19 x LDK 6000/8000 WorldCam, including 2 x wireless version, one camera dedicated for Mobile TV feed production, 6 x LDK 8300 Super SloMo cameras
- **Unilateral Production:** 2 x LDK 6000/8000 WorldCam
- **Infotainment:** 2 x LDK 6000/8000 WorldCam
- In addition, up to 9 x third-party specially cameras (for in-goal, helicopter, spidercam, etc.)

#### Production Switching (all Grass Valley, all HD):

- **Multilateral Production:** 1 x 4 M/E Kayenne XL HD (main production), 1 x 2 M/E Kayak HD (multifeed production)
- **Unilateral Production:** 1 x 1 M/E Kayak HD
- **Infotainment:** 1 x 1 M/E Kayak HD

#### Router (all HD):

- 1 x 128x256, various brands, from facility providers

#### Modular Equipment:

- Various brands, from facility providers

\* Disclaimer: Grass Valley is not an official sponsor of the FIFA 2010 World Cup South Africa, nor is it affiliated in any way with FIFA. Information supplied in this case study does not imply endorsement from FIFA. FIFA World Cup, World Cup Soccer, and World Cup South Africa are registered trademarks of their respective owners.

### IBC JOHANNESBURG

#### Production Switching (all Grass Valley):

- 2 x 1 M/E Kayak HD for EBIF
- 1 x 4 M/E Kayak SD

#### Router (all Grass Valley, all fully equipped):

- 1 x 256x256 Trinix
- 1 x 512x512 Trinix
- 1 x 256x256 Trinix NXT

#### Modular Equipment (all Grass Valley):

- 55 Kameleon Frames
- 56 GeckoFlex Frames
- 23 Gecko Frames
- Over 700 HD/SD Distribution Amplifiers
- Approximately 1,200 individual modular cards

### IN TOTAL

- 290 Grass Valley HD Broadcast Cameras
- 43 Grass Valley Production Switchers
- 3 Grass Valley Routers
- 134 Modular Frames
- ~1,200 Modular Cards

### SALES

Local and regional sales contacts can be found by visiting [www.grassvalley.com/sales](http://www.grassvalley.com/sales)

### SUPPORT

Local and regional support contacts can be found by visiting [www.grassvalley.com/support](http://www.grassvalley.com/support)