TV Coverage of the FIFA World Cup Germany 2006

How is it all done

By: Ben Sanchez, Systems Engineers and Football Enthusiast

WHO DOES IT?

First, FIFA contracted with a **Host Broadcaster.** This time it was **Host Broadcast Services**, (**HBS**), HBS was also the Host Broadcaster of the 2002 FIFA World Cup, and they will do it again in 2010 + they also do many other FIFA events.

WHAT IS A HOST BROADCASTER?

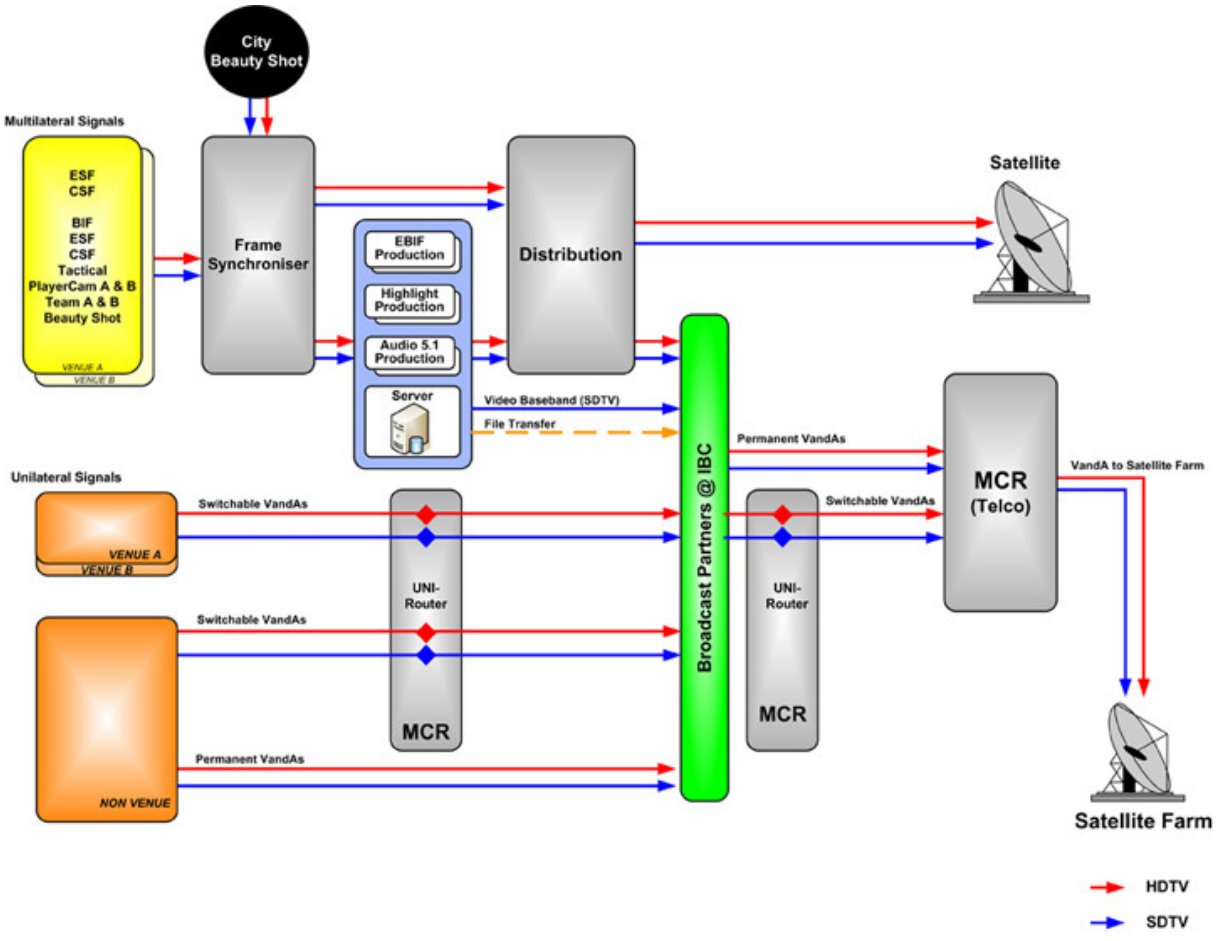
A Host Broadcaster is a dedicated broadcast company producing the television and radio signals for a big event - in this case, the 64 matches of the FIFA World Cup™. The Host Broadcaster produces the pictures and sounds of all matches and delivers them to televisions and radios around the world. The Host Broadcaster assists television and radio Broadcasters in their own operations by providing technical facilities and associated services at the stadiums (commentary positions, camera positions, television studios) and at the International Broadcast Centres (studios, technical rooms, office space).

HBS' ROLE AS AHOST BROADCASTER

As well as producing the multilateral coverage, HBS is responsible for providing unilateral production, transmission, commentary facilities and associated services for world Broadcasters. To achieve this, it designs, builds, installs and manages the International Broadcast Centre and the multilateral and unilateral broadcast facilities at the venues. For reference, at the 2002 FIFA World Cup™ in Korea/Japan, this involved a team of 2,800 International staff members from 65 nations who worked around the clock to deliver the host broadcast operations of the event.

THE INTERNATIONAL BROADCAST CENTER (IBC): The Broadcast Hub of the World Cup...

The IBC acts as the nerve centre for global broadcast and media coverage of the 2006 FIFA World Cup Germany™. It is connected to all World Cup venues (12 venues in Germany) by a telecom optical network, this time specially provided by T-Systems, a Deutsche Telekom subsidiary. The International Gateway for the delivery of the feeds of 2006 FIFA World Cup Germany™ is located at the International Broadcast Centre (Master Control Room) in Munich.



The IBC was housed in the Munich Trade Fair Centre, a 16-hall building covering a total exhibition area of 160,000m². Three out of the 16 halls were reserved for the event. These halls house the 2006 IBC offering a total of 30,000m² for multilateral and unilateral areas, as well as a press centre.

The North Entrance of the IBC
(image courtesy of Bayern Tourismus Marketing GmbH)

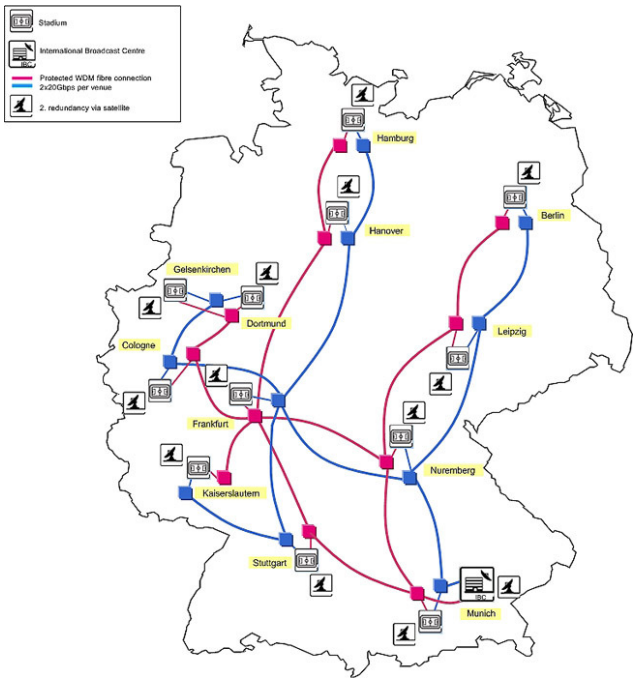
Master Control Room (MCR).
Located at the IBC, the MCR is the technical control centre housing all HBS equipment for the switching and distribution of multilateral and unilateral radio and television signals. These signals (the video coming from the venues) are then routed to the Broadcast Partners. The Partners are the Broadcasters that paid Millions of $ for the TV rights (The European Broadcast Union (EBU), OTI, ASBU, ABC Sports/ESPN, BBC, Univision, Televisa, Azteca TV, TV Globo etc., to name a few). They bring their own staff and build their own studios inside the IBC, in the case of Globo TV of Brazil they brought in a group of about 180.

THE TELECOM NETWORK, Telecom Infrastructure and Interconnections (IBC and Venues)
T-Systems designed a solution to overcome two specific difficulties:
☐ The amount of bandwidth / data rate requested by HDTV, multi feeds production and unilateral needs.
☐ The strong limitation / impossibility of satellite operations at venues, due to a lack of suitable space.

The dedicated network for the 2006 FIFA World Cup™ operations is using a redundant optical fibre network within Germany that connects all 12 stadiums to the IBC in Munich, using advanced technologies such as DWDM (Dense Wavelength Division Multiplex) transmissions.

This network connects the stadiums to the IBC through two protected routes, so as to preserve the reliability offered by the network concept.

The dedicated network is available during the "match period" only, (e.g. defined as –120min to +105min for the first round) and caters to the multilateral needs of HBS and to the unilateral needs of Broadcast Partners.



A PORTAL TO LATIN AMERICA

Cesar Gerbasi and Dario de la Peña are broadcasting veterans who have witnessed many changes in both the television and football arenas over the past 25 years. The pair are Team Leaders for Organización de Televisión Iberoamericana (OTI), the broadcasting union of Spanish and Portuguese-speaking broadcasters of America.

From left, Cesar Gerbasi and Dario de la Peña

During the 2006 FIFA World Cup™, OTI is acting as a portal for the unilateral signals of 18 Latin American BPs from Mexico down to Argentina, providing two feed packages which the broadcasters beam to approximately 300 million viewers. OTI also facilitates the participation of these broadcasters, with both Cesar and Dario working solidly for the past two years booking a range of unilateral and multilateral services on their behalf.

THE PACIFIC RIM – JC-OPS

Japan is still riding the wave of football excitement generated by the 2002 FIFA World Cup Korea/Japan™, as evidenced by the six Japanese Broadcast Partners who were in Germany providing coverage of the tournament to an estimated 30 million households in Japan. The six Japanese BPs — Fuji TV, NHK (Japan Broadcasting Corporation), NTV (Nippon Television), TBS (Tokyo Broadcast Systems), TV Asahi, and TV Tokyo — are all assisted in their work by Japan Consortium-Operations (JC-OPS), which acts as an intermediary between the broadcasters and HBS. JC-OPS is distributing High Definition television footage of all 64 matches live to its partners.

JC-OPS team

JC-OPS had a team of 16 at the IBC including 12 engineers, two producers and two support staff who coordinate the bookings for all six broadcasters and ensure that all commentary positions, announce platforms, and feeds are properly booked for the broadcasters. JC-OPS shares broadcasting rights with the six partners but does not produce any footage for them. Each Japanese broadcaster has brought a crew to Germany including OB operations and expert commentators in a bid to add its own flavour to its coverage.

¿HABLA ESPAÑOL?

You would have to assume that any broadcaster reaching a potential viewer base of 40 million Spanish speakers would be sending its signal to Spain or Latin America, but Univision is actually responsible for providing coverage of the 2006 FIFA World Cup Germany™ to viewers in the United States. The BP services Spanish-speakers in the USA via approximately 60 television stations, plus some direct-to-cable and satellite distribution.

Univision, set to please

President of Univision Sports David Downs says the BP's coverage is "able to reach virtually 100% of all Spanish-speaking homes and 80% of all English-speaking homes in the United States." Univision had a 160 staff in Germany, where it had been producing telecasts of all 64 matches along with six daily information programmes devoted to the tournament. Coverage is provided virtually around the clock and kicks off with the early morning show *Despierta America*, which leads into the day's first match.

The six additional programmes appear throughout the day (in between matches) and are dedicated to content such as interviews, cultural profiles, player profiles and analysis of completed matches. David says that his team is hoping for a "technically first-class broadcast that showcases Univision's passion for the sport," and adds that they are very proud of the work done to date."Unlike most English speaking people in the United States, to whom the FIFA World Cup™ is one event amongst many, the population that we service sees the FIFA World Cup™ as the biggest event in the sporting calendar – one which only comes along every four years."

THE SATELLITE TRANSMISIONS TO THE WORLD

SATELLITE FARM

The satellite farm was situated approximately 50m away from the IBC and 200m from the MCR.
T-Systems, the official 2006 FIFA World Cup™ telecommunications operator, oversees the uplink for HBS' satellite distribution of the multilateral feeds. Space in the satellite farm was also available for unilateral uplink operations.

Broadcasting the 2006 FIFA World Cup™ often requires those involved to master a specialised language of technical terms, so you may find it surprising that the man who monitors the transfer point linking HBS and its final product to each Broadcast Partner is frequently concerned with the exact location of "birds", the protection of "yellow jackets", and ways to maintain safe working conditions "out on the farm" to get the job done.

With more than 20 years of experience, HBS Satellite Farm Manager Simon Downs uses this straightforward terminology to coordinate the demarcation point that's essentially the end of the line for HBS, the final step in providing match coverage before it appears on the screen. Simon says the job isn't exactly hard labour, so long as each of the 62 antennas remains pointed at the appropriate "bird" (the satellite floating up in space) and the "yellow jackets" (the outdoor cable coverings that look like speed bumps) remain intact. Last, but certainly not least, he was responsible for ensuring the power generators and air conditioning units to keep the IBC Satellite Farm operational. "You have to be flexible in this job," said Simon. "The BPs have also done a great job when it comes to helping each other out."

THE PRODUCTION PLAN

Major production breakthrough for 2006: Widescreen HDTV

The 2006 FIFA World Cup Germany™ production plan offered a major breakthrough: for the first time in FIFA World Cup™ history, the 64 matches were covered in Widescreen 16/9 HDTV digital format.

Widescreen HDTV:
The decision of producing in Widescreen HDTV became an obvious option for HBS for two main reasons: the prestige of the FIFA World Cup™ calls for cutting-edge production and markets trends are showing a clear evolution. The main technical design was prepared after a complete feasibility study made in 2003. Extensive support from the industry was granted for its implementation.

Twenty-five Widescreen HDTV cameras were used for each match (compared to only 8 for the 48 matches covered in this format in 2002). This number includes six HD SSM cameras.

Ben Sanchez is Systems Engineer in the areas of Satellite Telecommunications and Fiber Optical Networks, Ben has participated in many World Cups and Olympic Games in various technical functions.