

BSkyB's new H1 Broadcast Facility

The new B Sky B building is a sustainable landmark broadcast facility which provides studios, technical and operational space for people in Broadcast Operations, Sky Sports and Broadcast Technology. Post-production and technical spaces are in the centre with office space wrapped around the building to allow everyone access to natural daylight, fresh air and great views across all floors.



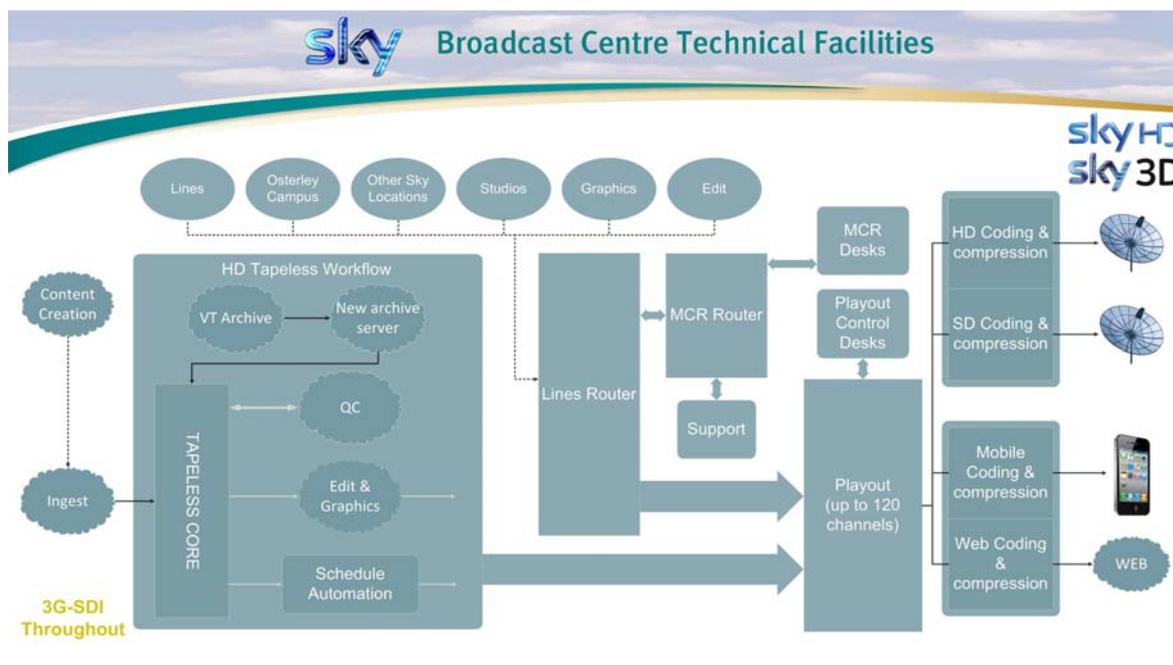
dB Broadcast was appointed to install, test and commission the core technical facilities covering the Central Technical Areas and Master Control Room within H1. This includes the playout, compression and lines processing (MCR) systems, enabling Sky to distribute their programmes to many platforms - including the traditional satellite feeds, new media streaming, mobile phone services and many more.

The Central Technical Area consists of a number of apparatus rooms with a capacity to hold 400 bays of technical equipment. At the outset approximately 80% of these are populated allowing space for further expansion and future technology to be easily accommodated. An install of this size was a major undertaking and for a period of three months dB had an onsite team of 45 wiring technicians and engineers, supported by 15 additional wireman prefabricating cables at dB's factory.

Size and timescales were not the only major issues. The entire core infrastructure was designed and installed to the highest standards to enable 3G signals to be carried successfully around the building. There was considerable use of fibre and ethernet interconnectivity utilising the building's structured cabling.

The Master Control Room boasts over 35 operational desks, controlling and monitoring B Sky B's output over the multiple platforms.

Another major area of work which dB Broadcast will undertake is supporting the period of migration of equipment and services into the building while maintaining live broadcasts. This will be done working closely with B Sky B specialists to ensure the process and turn around time meet the tight timescales required for service migration. It is anticipated that the migration will be complete by the end of 2011.



The delivery of the project was divided up into a number of work streams. These are as follows: –

- Lines Processing (MCR Facilities)
- Playout
- DTH Coding and Compression
- New Media (streaming, mobile, etc.)
- In-House Distribution (RF & IP Ringmain systems)
- Tapeless Production
- Talkback
- Monitoring and Control

Project led by in-house staff

The overall project is led from dB Broadcast by David Bird as the Project Director, with two project managers, Mike Bryan and Phil Snuggs, managing the day to day activities across the work streams. Phil Snuggs is based onsite with the BSkyB H1 Project Team, whilst Mike's time is split between site and the production facility in Ely where all of the logistics is managed from.

Technology

The technology is diverse and wide ranging across the work streams and in many areas is breaking new ground for broadcast installations in the UK and across the world.

Equipment selected includes the latest 3G multiviewer technology and routers from Evertz - two routers have been installed in the Lines Processing and monitoring systems. The router configuration and implementation gives maximum redundancy in the event of any failure, which is critical to BSkyB's operation. All the glue products are again the latest 3G designs and have been supplied by Axon. Across the complete system is a Broadcast Control System to allow control of many of the devices within the systems, plus provide monitoring for any faults or issues.

Logistics

Logistics plays a major role in the successful delivery of any project and this has been especially true with the H1 Project. A large proportion of the equipment was free-issued to dB Broadcast by BSkyB. All the equipment was delivered to dB's premises in Ely, where it was registered on the BSkyB asset system, PAT tested and marked up with installation location. The equipment was then delivered to BSkyB ready for installation. This proved hugely effective in utilising resource offsite and enabled deliveries to be carefully scheduled with the onsite logistics management team to ensure the most efficient use of off-loading facilities was achieved with limited waiting periods for deliveries.



Health & Safety

As with all projects, Health and Safety was of utmost importance. The new building was constructed by Bovis Lend Lease (BLL), and they continued to manage and run the site on behalf of BSkyB during the technical fit out stage. All staff had to hold a current CSCS card as well as attend a site specific induction run by BLL. In addition a second induction session was run for all staff working on-site by dB's Health and Safety Manager, Martyn Holmes. This ensures that all site specific information is fully conveyed to everyone working on site. This framework was followed up with regular 'toolbox' talks on-site on relevant topics.

Summary

This is a prestigious project that included many challenges including its size, 3G HD capability and the migration of existing equipment while keeping services operational.

Tom Swan, dB's Director of Sales and Marketing, said: "We won this major contract because of our experience in providing similar large systems and because we are one of the few companies with significant experience in encoding and compression as well as playout systems."

"dB Broadcast is one of the UK's largest independent system integrators with a full time staff of more than 50 and this enables the company to take on multiple large projects of this size."

