

BACKGROUND

The client, located in the Middle East, owned seven TV channels – including news, entertainment, sports and infotainment – across the region in SD and HD formats. They now wanted to upgrade the existing Master control facility. Accordingly, the customer approached Benchmark Broadcast Systems – based on its track record of several other successful project implementations in the region – and its local partner, to undertake this project.

The customer project team started discussions with Benchmark

Broadcast Systems for a 24 hours LIVE MCR upgrade system to completely overhaul its existing 35 years old setup which was a mix of Analog and SD. The new infrastructure was to be based on a revival of the complete MCR setup along with monitoring solutions for entire sources and destination from RF, baseband and IT equipment. This was to include multiple remote sites for live feed reception on fibre, two LIVE studios with production control rooms, a centralised equipment room, centralized talkback connectivity, and continuity rooms for seven channel master control playout.

CONSULTATION PHASE

After several discussions with the customer project team, BBS provided the concept proposal specifying the overall system concept, the technology to be used, smooth and automated work-

flow and overall project timeline for implementation. The solution, based on the latest in digital workflows and technology, included the initial bill of material, schematic and workflow drawings.

REALISATION PHASE

Based on the System outline design the project was awarded with an order for the complete systems integration, which included the provision of detailed designs, cable schedules, rack schematics, layout drawings for each area, power calculation for each equipment, heat dissipation requirements for each area and all third

party coordination.

The project implementation team was on target with the deliverables including submission of detailed design before commissioning.

THE SOLUTION

To ensure that the broadcast facility utilized the best available digital equipment, the project group decided to go with complete

latest-technology system environments. This included all equipment in High Definition and the entire cabling in 3G compatible mode

with an eye on future compatibility and expansion. All remote sites were connected through with fibre for faster, reliable and safer communication. The solution comprised of IRD's which receive DVB-S/S2 signals and provide SDI embedded sources for the

facility. These sources are taken to production and transmission routers and then switch to MCR based on master control playout for all seven channels.

GENERAL WORKFLOW

The central site has two Miranda routers – a production and a transmission router for sources routing. The configuration of Production router is I/O 144x144 and transmission router is I/O 72x72.

There are multiple remote locations from where live feeds are sent to the central site and are available on both the routers. Feeds coming through fibre connectivity from more than seven remote locations to central location are through Miranda transmitters/receivers having fibre to SDI converters and are used for live record and playout.



All critical sources are distributed to both the routers.

The On-Air signals are connected from both router destinations to changeover units. The output from the changeover units is sent to MCR switchers for seven channels On-Air operations.

The master control switcher is connected with feeds from various Omneon video servers for video playout and Vertigo graphics solution for channel branding.

The monitoring room provides the monitoring of all 250 channels source monitoring from RF downlink chain and also the fibre live feed monitoring. Trilogy Talkback system is

connected across the technical locations for a centralised communication solution.



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Revamping a 35 year old setup – a case study

WORKFLOW BENEFITS & ADVANTAGES

- All the components are tightly integrated with each other and there is no incompatibility between data sharing between two different equipment
- The solution helped to reduce the overall manpower cost without compromising the channel's look and feel
- The solution reduces the overall cost by choosing the right equipment/components as per requirement
- Faster content availability through fibre feeds to master control room
- Fibre connectivity between remote sites and central sides given faster access to MCR users for content access
- Centralised talkback systems provide excellent communication between multiple technical locations
- Any content from remote sides can be available for faster delivery
- More user friendly GUI of routers, multiviewers and controls

to get better hold of required content

- On-line high quality graphics access from Vertigo solution, which helps to provide the look and feel on all channels on a high note
- Redundancy at most required levels. Which includes routers, switchers, sync pulse generators, graphics, glues, multiviewers, audio and video processors etc.



ABOUT BENCHMARK

Benchmark Broadcast Systems, is a consultant and technology partner for media and broadcast companies in Asia. Headquartered in Singapore, the Company has offices in Bangkok, Chennai, Delhi, Dhaka, Kuala Lumpur and Manila. Its on-site engineering, software programming, software & systems integration, testing and support services are highly specialised. It operates in network mode with senior managers functioning out of Singapore, Chennai, Delhi and Manila.

Benchmark focuses on providing complete solutions for broadcast

and post production applications. The spectrum starts from simple modules to complete turnkey systems integration services for setting up a totally new TV station or upgrading/modernising existing ones. The Company also provides a complete range of services from pre-sale consultancy, through to systems design and integration, installation, user training, support and even to managed services. Benchmark Broadcast's capabilities extend to configuration of comprehensive enterprise-wide solutions, application support, systems installation and customer training and, importantly, to development of customised solutions.

CONTACT

S Ramesh Babu

Chief Technology Officer

Mobile: +65 9151 4088

Email: rameshbabu.s@benchmarkbroadcast.com

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BENCHMARK
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Benchmark Broadcast Systems (S) Pte Ltd

12 Tannery Road #09-05/06/07 HB Centre I

Singapore 347722

Phone: +65 6749 3372

Fax: +65 6749 3326