Astec

Remote Uplink
Monitoring & Control

Case Study

A major satellite broadcaster was able to reduce costs and guarantee the integrity and quality of their broadcast output when their off-the-shelf uplink monitoring and control software was replaced with a bespoke solution from Astec.

iBroadcast®

Remote Uplink Monitoring & Control

iBroadcast®

Background

A major UK satellite broadcaster were looking to replace their proprietary, vendor specific remote control and monitoring (RC&M) software with a configurable off-the-shelf solution. The proprietary software required recurring expenditure and did not offer the level of configuration and control the broadcaster desired. Their ultimate objective in taking ownership of the uplink control system was to reduce reliance on specialist programming knowledge when maintaining the system.

In addition, the broadcaster also wished to reduce costs by utilising a dynamic, multi-vendor remote control and monitoring system to circumvent these issues and create a fit-for-purpose system. The initial targets for cost reduction focused on lowering expenditure to maintain the proprietary uplink solution. It also extended to targeting more efficient technical maintenance activities through historical trending and reporting functionality.

Solution and implementation

Astec implemented a solution utilising the core of iBroadcast. Its base functionality offered all of the advantages of a dedicated, proprietary software package but did not require specialist coding knowledge.

Along with remote monitoring and control of the uplinks, the system offers a full site failover and site selection capability. If uplinking from the primary site is affected by adverse weather conditions, the system will automatically failover to the secondary site. In addition, a technical issue with equipment in any terminal or chain can be mitigated by the automatic failover of a single terminal or chain. By providing an automatic failover capability, operator workloads are significantly reduced and the time taken to transfer services is greatly decreased.

The iBroadcast drivers provide an abstraction layer between the physical equipment and the software, which allows the system to be entirely vendor agnostic. Any device may be controlled and monitored, regardless of protocol or supplier. This compatibility reduces the effort required when equipment is replaced through technical refresh. It also provides a software architecture through which any combination of devices can work in the same operational workflow. The iBroadcast abstraction layer ensures the system is easy to use and update, removing the costly reliance on software vendors.

Following the satellite broadcaster's vision, Astec provided functionality for the monitoring, logging and trending of the major performance indicators. These KPIs included parameters such as the carrier to noise ratio, bit error rate and beacon levels. When provided with a visualisation of this data, the broadcaster gained the ability to see in detail where their operation could be improved and the costs associated with completing unnecessary scheduled maintenance were reduced.

Environmental condition monitoring was included in the software package to allow a complete overview of each uplink site. By remotely monitoring the environmental sensors, such as temperature, humidity and air-conditioning, the satellite broadcaster could ensure equipment was being kept in the optimal environment and, therefore, maximise the longevity of any given piece of equipment.
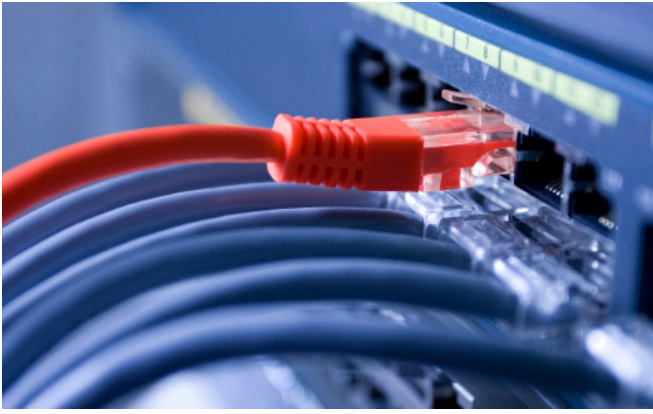
Results

The system is incredibly reliable and operates 24/7, 365-days a year. This comprehensive coverage is maintained and supported by the broadcaster's internal teams with no reliance on Astec engineers. The solution was optimised for one uplink and was then implemented for a total of ten terminals across two sites, reducing the cost and complexity of maintenance and installation through standardisation. The broadcaster now has a complete overview of both the physical condition of their equipment and the quality of their broadcast output.

The implemented system has significantly reduced the workload of the operators and has led to the broadcaster entirely automating one of their physical uplink sites. An increased responsiveness to issues and a reduced time to solution further support a reduction in workload.

The abstraction layer introduced with the system facilitates a hassle-free installation installation of new equipment, including it in the system without the need for a lengthy setup and configuration.

iBroadcast achieves cost reduction through the use of this system in multiple ways. The satellite broadcaster is no longer reliant on software vendors for updates as they now have complete control over their solution. Requiring no specialist knowledge, or the support of engineers, operational teams within the broadcaster's staff have full control over the customisation of their system and are free to update as and when they see fit.

Additionally, costs have been reduced further by the trending and reporting functionality, which is utilised to complete preventative maintenance in a timely manner. In-depth data reporting affords operational teams insight into when equipment is getting closer to failure, with trending of specific tell-tale data patterns presented to operators via the iBroadcast portal. With detailed data to act upon, team members can resolve problems highlighted by data trending before further issues arise.

Conclusion

The major UK satellite broadcaster has complete ownership of their remote control and monitoring software solution. Operators are able to implement equipment changes with ease and can update or configure their system without requiring specialist coding knowledge. This was achieved by Astec through the implementation of iBroadcast as the remote control and monitoring platform for the broadcaster.

Through the failover systems, detailed trending, and environmental controls provided in the software package, the broadcaster has been able to reduce costs and further guarantee both the integrity and the quality of their broadcast output.
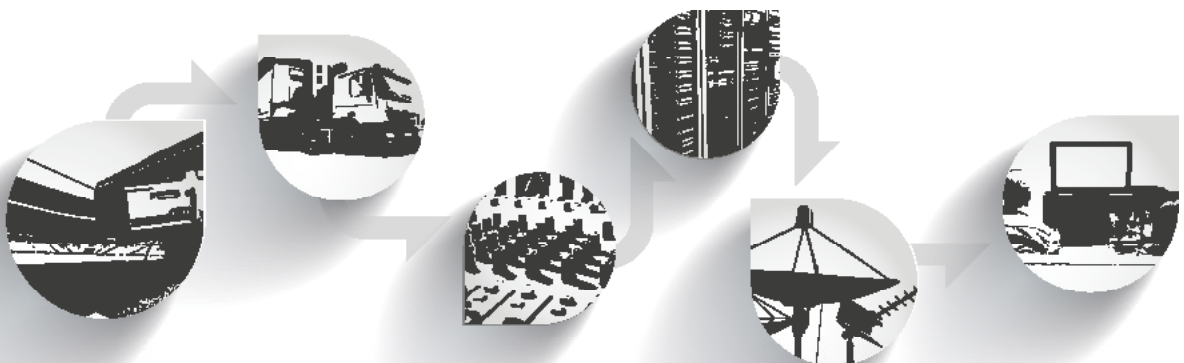
Astec

Background

Astec Solutions strives to improve operational effectiveness and profitability for clients by delivering specialist management, production, reporting, and monitoring and control solutions.

Our broadcast solutions are trusted by some of the world's leading broadcasters to control and monitor their entire broadcast platform and ensure they continue to provide quality services to ever more demanding customers.

Solutions

Astec's unrivalled product experience and expertise enables clients to optimise their software investment, with a range of solutions which support existing implementations or new functionality development.

- iBroadcast Network Management System
- Management Information Systems (MIS)
- Data Analysis & Reporting

Further Information

For further information relating to this case study please contact:-

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