

Case studies



ENTERTAINMENT TO THE BRITISH ARMED FORCES 📄

Services Sound & Vision Corporation (SSVC) provide two main services: the British Forces Broadcasting Service (BFBS) radio and BFBS television broadcasts, to the British armed forces stationed across the globe. Its mission is “to be the preferred provider of entertainment and information to service personnel and their families worldwide.”

SSVC is a registered charity whose activities are carried out directly for the Ministry of Defence. Any profits that are accumulated by SSVC are donated towards the forces’ welfare.

THE REQUIREMENT AND THE SOLUTION 📄

SSVC needed to upgrade obsolete computer systems used to control radio broadcasts transmitted to stationed forces on army, navy and air force bases across the globe. Within many areas and countries of operation, BFBS radio is the only means of communication with the outside world for those stationed there. Keeping up the morale of both troops and their families is a key role played by BFBS radio in these situations.

SSVC first approached Amplicon in December 2005. It needed a highly reliable computer system with a long life, and a clear road-mapped solution. With a total requirement of 65 systems, the project also required considerable capital investment and so it was important that the system precisely catered to SSVC’s needs.

SSVC originally wanted to implement commercial solutions because of their significantly lower initial cost; both Dell and HP solutions were considered. While both of these solutions would have offered a cost saving for the initial outlay, the initial purchase price was only a part of the consideration. SSVC were looking to limit both the budget required to complete the upgrade, and the long term cost of ownership. It was in the long term costs that Amplicon offered major advantages over its commercial counterparts. Amplicon proved that a small increase in upfront investment would save SSVC from experiencing technical problems in the future, which would in turn save them both time and money. In addition, Amplicon offered full engineering consultancy on site in Brighton which meant that SSVC could test its cards on different machines to ensure there would be no compatibility issues. A 3-year standard warranty, along with the ability to deliver on time, made Amplicon the ideal partner for this project.

At SSVC’s UK headquarters Amplicon’s systems were fitted inside each of the radio studios, together with supporting systems located in the server rooms. Smaller versions of this deployment were installed at SSVC bases throughout the world.

These Industrial Computers would be installed and used for 24/7 operation for a number of years. As such, the ability to repeat builds, in order to allow expansion of the system was paramount. In addition to this SSVC needed PCI expansion to allow it to install some PCI 7250 8 channel relay boards, used to switch transmissions.



THE REQUIREMENT AND THE SOLUTION

Any system selected for use by the SSVC needed to be reliable and rugged. With this in mind the Impact-R-4010 was selected. The Impact-R houses industrial motherboards with a proven record of .001% failure rate, and along with the same road maps as a single board computer (SBC), this ticked all the boxes for SSVC's requirements. The specification of the machine was simple, comprising of an Intel 3GHz Pentium 4, 512MB RAM and an 80GB hard drive. Amplicon considered using its Ventrrix range instead, however, the additional capital required for this would have been too high.



Impact-R 4010

industrial PC series

Long Life Industrial
Motherboard
designs

Designed for harsh
environments

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THE RESULTS ▾

After the success of the initial roll-out, SSVC has used Amplicon for other projects. One project required machines for use in more remote transmission stations, including the Falkland Islands and Belize. These machines needed the same high reliability and long road-mapped life, but in addition they needed to be easily serviceable. For this SSVC opted for the Ventrix 4003 12.2.



Ventrix 4000

4U industrial SBC based rackmount computers

Extensive PCIe, PCI and ISA expansion capabilities

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This machine houses a PEAK 760VLD SBC, a Pentium 4 3.4GHz CPU, 1GB RAM and a solid state hard disk drive. The fact that the Ventrix machine houses a SBC means that in the unlikely event of failure, it would be easy to swap-out a populated SBC in a matter of minutes, significantly reducing the downtime, compared to that of a commercial system. Fitting solid state hard drives allows the system to achieve a much wider environmental specification with regards to shock, vibration and toleration to a range of temperatures.

WHY AMPLICON? ▾

The Amplicon machines have been installed for nearly 3 years now, and to date have been doing their job with virtually no user intervention. Based on this success SSVC has invested in a number of machines in addition to the first project, and these machines have been commissioned throughout the SSVC broadcasting studios.