

partner profile

Livewire

Livewire's solutions are designed to withstand the rigours of use in hostile environments, whether that's in a war zone or on the open seas

the maritime markets, ranging from IP management systems that control access and service selection, through to high definition cameras for use in extreme environments.

Support does not just include help with Livewire's products. In-depth knowledge of Inmarsat services enables Livewire to provide comprehensive 'end-to-end' support to ensure that customers, who are often working in remote and hostile locations, and to a deadline, are able to achieve their goal. Terrestrial infrastructure and 'last mile' services are often provided directly by Livewire. This may be in the form of a backup to the client's own equipment, or, for freelance journalists and special interest groups, it could be a means of receiving media for onward delivery to other organisations.

For the Volvo Ocean Race which is currently taking place, Livewire has provided the on-board media delivery infrastructure for the entire fleet. The system, known as Media Desk HD, has a number of defined workflows that assist with the delivery of HD video, stills, audio and copytext, and weather downloads.

This is the fourth consecutive event that Livewire has supported in this way, and the most challenging to date. The client's decision to move to high definition has had a major impact of all the system components and workflows. New HD cameras and microphones have been designed to withstand the extreme environment on board the yachts; the infrastructure electronics supports 1080i video, and the communications and compression software delivers four times the quantity of data over the FBS00 satellite link.

Livewire has been working on the project for the last two years, starting with the system requirements, followed by a cycle of concepts, prototypes and trials. The project has exercised all the company's skillsets, from 3D modelling of camera components and custom HD video switching electronics, to HD video compression software and control and management of the satellite terminal.

Looking to the near future, Livewire Digital will be launching a raft of new products and services to the Inmarsat marketplace, including video and IP management systems.

Contact details: Livewire Digital Ltd, Units 14 & 15, First Quarter, Elenheim Road, Epsom, Surrey KT19 9QN. Tel: +44 (0)1372 731400 www.livewire.co.uk enquiry@livewire.co.uk

Inmarsat offerings

- M-Link - Live and store & forward video delivery for OSX and windows platforms
- JATS - optimised data transfer tool
- TCM - TTCN type approval system
- HD & SD camera systems with remote IP control
- Consultancy - Systems analysis and integration

From systems for the military to bespoke solutions for the media and kit for transmitting high definition video from the Volvo Ocean Race, Livewire Digital has a wealth of expertise in delivering Inmarsat-based solutions

Livewire Digital

Livewire Digital is probably best known as a leading provider of the M-Link video communications solution, and of 'off the shelf' products to the broadcast industry. What is perhaps less well known, however, is that the company also undertakes many R&D projects, and develops bespoke solutions for a wide range of clients.

Livewire has a reputation for technical expertise in satellite communications, and has been involved in the development of many Inmarsat services since the early days of Inmarsat A back in 1991. The company is based in Epsom, Surrey with strategic distribution partners in Germany, Spain, Australia, The Netherlands, and Singapore.

Livewire has provided the type approval systems to terminal manufacturers for Inmarsat-B, Inmarsat GAN and most recently, for the BGAN family. The Test Case Manager TTCN test system (TCM)



has many applications in the formal test environment. Livewire has also undertaken many studies into the performance or viability of new satellite services.

IP multicast service

Livewire is also part of a consortium including Inmarsat, EMS, Logica and Gatehouse, that is working on an ESA (European Space Agency) contract for the development of an IP multicast service over satellite. Livewire is responsible for developing the Radio Network Controller

(RNC), a kernel component that models the IAI2 protocols.

Although many customers have similar goals, they can require different workflows or customised solutions. Broadcasters, for example, put portability, operational costs and integration with their newsrooms high on their list of requirements, whilst the military demands encryption and operation over closed networks.

All of the United Kingdom's military forces (Army, Navy & Air Force) use Livewire's communications and video equipment, as do many other NATO forces. This extends to the Coastguard, and also, search and rescue services. The equipment has been designed to operate over Inmarsat and military satellites and has been packaged to suit the operating environment.

Innovative solutions

Working closely with customers often leads to innovative solutions; a key client approached Livewire regarding issues they were having with the transmission of large data files across terrestrial links. On paper, the link was capable of 6Mbps, but in reality only 1.6Mbps was being achieved. Livewire analysed the link characteristics and developed a software solution to optimise the available bandwidth, and then integrated this with the customer's workflows.

Often, customers approach Livewire because their project requirements cross multiple disciplines, for example combining software design with electronic and mechanical engineering. This is illustrated by the range of systems that Livewire has developed for