



WEST SUSSEX FIRE RESCUE SERVICE UNITED KINGDOM



West Sussex Fire Rescue Service (West Sussex FRS), located in the south of England, serves a population of just under one million people.

Their area of operations covers almost 2,000 square kilometers (770 square miles) of forest in the South Downs National Park and large populated areas which include an international airport and popular coastal towns along the English Channel. West Sussex FRS face a variety of complex and specific challenges on a day-to-day basis.

SITUATION

West Sussex FRS' fireground radio equipment had reached its end-of-life. They wanted to take advantage of technological developments to improve the safety of their firefighters and the efficiency of their operations.

Moreover, they wished to invest in a future-proof digital communications solution that would support their future choice of Breathing Apparatus (BA), whilst providing interoperability with adjacent Fire Rescue Services.

RESPONSE

Tait Communications and partner Affini Technology Limited – a pre-qualified supplier to the Crown Commercial Services and supplier of the Tait Fireground Solution – responded to West Sussex FRS' request.

Working in partnership with West Sussex FRS, a holistic view of the entire fireground was taken, carefully considering each operational task, including BA Wearers, Entry Control, Officers, and Incident Command Unit vehicles. The solution, jointly developed by Tait and Affini, addresses specific issues that this analysis identified.

One key requirement was to simplify and standardize the radios, batteries, and user experience across the fireground – keeping it simple!



UNITED
KINGDOM

LOCATION



EMERGENCY
SERVICES

EXPERTISE

SOLUTION OVERVIEW

- ▶ 400 Analog/Digital Portable Radios
- ▶ Blue ATEX IIC 1-Watt Radios
- ▶ Blue ATEX IIA 4-Watt Radios
- ▶ Red Non ATEX 4-Watt radios
- ▶ Common ATEX Battery
- ▶ RSM & Headset Solutions
- ▶ MTA Solution
- ▶ Tait Unified Vehicle
- ▶ Vehicle repeater solution
- ▶ Wireless accessory solution
- ▶ Tait Enable Fleet cloud radio management



OUTCOMES

The solution was supplied and implemented to a very high standard by Affini. 400 portable radios with a 50/50 mix of standard and Intrinsically Safe (IS) ATEX-rated radios and accessories were supplied, addressing both safety and operational requirements.

The digital radios comply with the UK FRS National Operational Guidance configuration and are backward compatible with analog radios used by neighboring Fire Rescue Services, to ensure interoperability.

For BA Wearers, high-powered ATEX IIA radios provide increased protection in hazardous environments, delivering enhanced range and speech quality, with reduced background noise. This is combined with glove-friendly Blue ATEX Remote Speaker Microphones (RSM), and an option to integrate a future BA Mask upgrade. ATEX IIC 1 Watt radios support staff working in environments containing volatile gases. Specialized Ballistic Headsets were provided to Marauding Terror Attack (MTA) officers.

Entry Control received high-powered Red non-ATEX radios and large glove-friendly Red RSMs with a lightweight, noise-cancelling headset, significantly improving communications with Breathing Apparatus wearers.

Officers also use the red non-ATEX radio with Bluetooth® RSMs and earpieces for discreet communications. Both BA Wearers and Officers use a common ATEX IIA battery, simplifying the battery choice on the fireground, which is a huge benefit to firefighters.

The Incident Command Unit vehicles were equipped with fixed repeaters to extend range and coverage. Tait Unified Vehicle provides converged mobile radio and 3G/4G broadband data services, with narrowband voice for traditional UHF fireground radio, and WiFi, LTE and Bluetooth® for enhanced connectivity.

A Voice Recorder app records and stores all transmitted and received voice communications, and a robust ICT policy protects the recordings with restricted access for training or incident investigation purposes.

The Tait Unified Vehicle application builder enables custom built applications to enhance efficiency, providing West Sussex FRS with options for future digitized operations.

All radio configurations are securely managed with the Tait EnableFleet cloud device management tool, providing complete control over the West Sussex FRS fleet of radios.

BUSINESS BENEFITS

- ▶ Enhanced Firefighter Safety through specialized equipment for each role on the fireground
- ▶ High-powered radios and in-vehicle repeaters provide increased range
- ▶ Optimized audio and carefully selected accessories for clearer communications
- ▶ Simplified operation with intuitive, user-friendly controls
- ▶ Secure Radio Management from one central location through Tait EnableFleet

