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## **How Primetech's MultiNet system helps fire services gather critical Incident Ground Intelligence, supporting a Common Operational Picture**

### **Grenfell Inquiry**

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### **Firefighter Safety Database**

Special report on the ambitious project on firefighter safety incidents and events



Primetech's market leading MultiNet Communications system integrates cutting edge communications channels and technologies to help emergency services gather critical Incident Ground Intelligence and deliver a Common Operational Picture across single and multi-agencies. **Henry Walker, Wayne Porter and Simon Land** report



# How Primetech's MultiNet system helps fire services gather critical Incident Ground Intelligence to support a Common Operational Picture

Recent events are an everyday reminder to the emergency services, other responders and decision makers of the critical need for single and multi-agencies to be able to create, maintain and share a dynamically updated Common Operational Picture. Seamless access to accurate and timely Incident Ground Intelligence supports crucial decision making, and the optimum deployment of the required resources, supporting improved public and emergency personnel safety.

Simon Land, Primetech's Senior Design Engineer, explains: "Primetech's MultiNet Communications system provides a platform for gathering critical Incident Ground Intelligence and delivering a Common Operational Picture. Our product is an easy-to-use, fully integrated solution, and by utilising all available communications channels, we can support fast, responsive and effective incident management.

"MultiNet includes audio and visual reporting through the use of body and helmet-worn cameras, combined with live-streaming, using drone technology and other available video camera imagery, connected by a self-healing COFDM Mesh network. Our technology has the capability to link computers and screens across incident grounds for onward transmission to a wider audience via either mobile satellite broadband through Ka-band, Ku-band or X-band, or 3G/LTE networks. Interoperable communications can be relayed, shared and captured when required, to ensure complete incident ground management.

"As Primetech celebrates its 20th anniversary, we are

proud to support our many clients within the emergency service sector, and we pride ourselves on developing and supporting a highly sophisticated, integrated command communications system that assists the emergency services to cope with whatever incident challenges they may face."

## Primetech MultiNet

MultiNet is a highly flexible system, allowing a wide variety of individual components to be housed easily, either in larger Incident Command Units, or, for example, within our Self-Contained Communications Trailer. Alternatively, for complete flexibility, it can be supplied as a fully portable version, installed in ruggedised waterproof cases powered by both mains or batteries and carried in smaller, lighter vehicles carrying the Primetech MultiPod lightweight storage system.

In whichever form MultiNet is deployed, the result is the same – an intelligent, resilient, incident command communications solution, capable of sharing critical up-to-date Incident Ground Intelligence across 3G/4G / LTE / Ka band, Ku-band or X-band Sat Comms, COFDM Mesh and other networks.

## Key MultiPod Features and Benefits

What are the key elements of the MultiNet Communications system?

In keeping with the demand for greater resilience and enhanced ease of working, Primetech offers

# Joining up a Single and Multi-Agency Common Operational Picture with Primetech's MultiNet Communications



Primetech's MultiNet Communications system allows sector commanders and others to gather and share live incident information - especially imagery and live video - and feed it through to commanders at all levels, and to receive risk, mapping and other information in a clear, unambiguous manner, reducing the need for excessive radio traffic.

emergency services an advanced new combined solution. Working closely with industry partners, the Primetech engineering team has developed, installed and successfully tested a radical new solution that offers the option of multiple services via a single satellite receiver frequency being based on Ka, Ku and X-band frequencies. This is complemented by COFDM Mesh networks, live streamed imagery from various sources including body and helmet-worn cameras and drones, plus interoperable voice communications.

Primetech has introduced a new, high-spec body-worn video camera (WCCTV Connect) to its MultiNet portfolio. The body-worn camera offered by Primetech is an award-winning UK-manufactured camera, offering live transmission of video, audio, real-time alerts and GPS information via 3G/4G and Wi-Fi connectivity.



New additions to the MultiNet portfolio of products include:

### WCCTV Body-Worn Camera (Connect)

Primetech has introduced a new, high-spec body-worn video camera (WCCTV Connect) to its MultiNet portfolio. The body-worn camera offered by Primetech is an award-winning UK manufactured camera, offering live transmission of video, audio, real-time alerts and GPS information via 3G/4G and Wi-Fi connectivity. It is the perfect system for integration into the MultiNet Communications system.

The body-worn camera is a single unit, with no external cables, battery packs, transmission units or tethering. The system drastically improves security, safety and decision making for emergency workers in the field, and helps incident commanders coordinate tactical operations

# “Primetech’s MultiNet communications system provides a platform for gathering critical Incident Ground Intelligence and delivering a Common Operational Picture”

Simon Land, Primetech’s Senior Design Engineer

in real-time. The system has the option to include evidence management software for secure, auditable post-incident analysis.

## Fire Cam 4K Helmet Cameras

Primetech’s FireCam 4K, heat-resistant helmet cameras have been specifically designed by firefighters for use within the fire and rescue services. The cameras can withstand extreme temperatures and provide high-resolution video imagery and high-quality audio. This can be viewed through Primetech’s MultiNet Comms network as well as on a unique smartphone app with secure access.

High spec HD versions of the cameras were used to film live-action footage for West Midlands Fire and Rescue Service’s reality TV series ‘Into The Fire’ shown on the Really channel earlier this year. This collaboration between Primetech, the West Midlands Fire Service and the TV production company won Project of the Year in *FIRE* magazine’s 2017 Excellence in Fire & Emergency Awards.

## Seek Reveal FirePRO Thermal Image Camera

The Seek Reveal FirePro, personal issue, thermal imaging camera is critical technology for aiding in

**The Seek Reveal FirePro, personal issue, thermal imaging camera is critical technology for aiding in search and rescue. Highly durable and easy to use, Seek Reveal FirePRO combines a high-performance 320 x 240 thermal image sensor, to assist in the finding of ‘Hot Spots’ and visualising hazards invisible to the human eye.**



search and rescue. Highly durable and easy to use, Seek Reveal FirePRO combines a high-performance 320 x 240 thermal image sensor, to assist in the finding of ‘Hot Spots’ and visualising hazards invisible to the human eye. Seek Reveal FirePro offers versatility in many situations to both emergency services and other organisations alike. With the added benefits of a powerful 300-lumen LED torch and image capture, both available at the touch of a button, this favourably priced personal issue thermal image camera could be part of every firefighter’s PPE.

## 3tc MODAS Incident Command solution

In partnership with 3tc’s MODAS Incident Command solution, MultiNet allows dynamic operational and risk-critical information to be made available where it is needed, when it is needed, for everyone who needs it. MODAS Incident Command provides a simple, intuitive tool for Incident Commanders and Operational Officers to view and manage a range of information streams through a straightforward map-based interface.

These systems will be on display at the Primetech stand at the Emergency Services Show, stand G13.

[www.primetech.co.uk](http://www.primetech.co.uk)

Henry Walker is Managing Director of Primetech (UK) Ltd; Simon Land is the company’s Senior Design Engineer; and Wayne Porter is Primetech’s UK and Europe Sales Manager.

Fire simulation images kindly provided by XVR Simulation.

**With 3tc’s MODAS Incident Command solution, and using Panasonic Toughbooks, MultiNet allows dynamic operational and risk-critical information to be shared to deliver a Common Operational Picture. (Image courtesy 3tc/Panasonic)**



The powerful, technologies integrated into Primetech’s MultiNet system can help emergency services gather critical Incident Ground Intelligence from around incident grounds, such as wildfires, wide-area and large-scale fires, floods and rail crashes, as well as terror attacks. It supports the creation and sharing of a Common Operational Picture across single and multi-agencies, assisting with the optimum deployment and utilisation of resources.