

Cumbria FRS launches new Cobra Intervention Vehicle from Primetech

New system supplied by Primetech will deliver massive improvement in firefighting effectiveness

New state-of-the-art firefighting equipment, integrated into a platform known as the Cobra Intervention Vehicle, has been taken into service by Cumbria FRS. The system, supplied by Primetech, uses a high-pressure hose to blast straight through brick walls and tackle major blazes on the other side.

Firefighters can identify the location of a fire inside a building using infra-red technology. The Cobra cold cutting unit on the Cobra Intervention Vehicle (CIV) then uses a lance to shoot an ultra-powerful jet of water loaded with an abrasive cutting substance to blast a 1.3mm thumbnail-sized hole in the wall. Water is then injected through the hole as a high-pressure mist to absorb the heat and gases from the fire.

The system can reduce the heat in the fire area from 700°C to 80°C in just 40 seconds. The system is far safer for firefighters, who can tackle fires from outside rather than entering a burning building, and the instant dowsing reduces the risk of explosions. The system instantly limits the spread of a fire and gives the Rescue Leader more time to plan operations.

The Cobra cold cutting system, normally used as an original equipment item fitted within conventional fire appliances, has been adapted by Primetech's design and engineering team for use in a more portable configuration within smaller, faster and more versatile vehicles such as

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Cumbria FRS's new Cobra Intervention Vehicle from Primetech.

Primetech launches MultiNet Comms family of portable, high powered incident ground communications

Major flooding and other scenarios drive requirement for modular, flexible, self-supporting communications systems

Following on from its work developing smaller, more agile incident ground communications systems and platforms, such as the Primetech Rapid Response Multi Role Vehicle and the Primetech Resilient Communications Trailer, Primetech has announced the launch of its new MultiNet Comms family of portable, battery-powered communications devices.

Covering mobile satellite broadband communications, UAV live imagery feeds, body-worn, tripod and other ground based imagery, life signs monitoring devices, plus COFDM-supported wide area WiFi and 3G/4G communications, the units are powered by light, powerful batteries and housed in rugged waterproof peli cases. The Primetech MultiNet Comms range has been developed in response to requests from emergency services for communications solutions that are not dependent on being housed in Incident Command Units, of whatever size.

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Cumbria FRS launches new Cobra vehicle

Cumbria FRS's Land Rover or Mitsubishi Trojans. Cumbria cabinet member for the Fire and Rescue service Councillor Barry Doughty said, 'This is a fantastic piece of equipment. It will enable us to tackle fires without exposing firefighters to very high temperatures and the potential health hazards of entering a fire.'

'It not only improves safety but because the hole created is so small, no oxygen is admitted to the fire which dramatically boosts the firefighting effect and reduces any potential backdraft.'

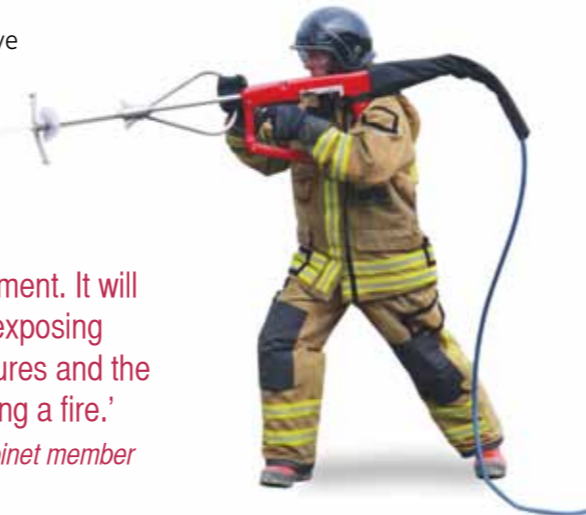
'The new vehicle will initially be deployed in the Barrow area, whilst a full evaluation is conducted in both training and operational environments, prior to the state-of-the-art equipment being fitted to newly commissioned fire appliances.'

Henry Walker, technical director for Primetech, said, 'We are delighted to have been able to support Cumbria FRS with this new Cobra Intervention Vehicle. The birth of this mini appliance

shows that innovative and cost effective new methods of firefighting can be introduced that protect public safety and firefighters' lives.'

'This is a fantastic piece of equipment. It will enable us to tackle fires without exposing firefighters to very high temperatures and the potential health hazards of entering a fire.'

Councillor Barry Doughty, Cumbria cabinet member for the Fire and Rescue Service



Primetech selected as Europe's first C-Com Authorised Service Centre

New status acknowledges company's expertise in satcomms service and support

Primetech has been selected by C-Com of Canada as its first European Authorised Service Centre. Authorised Service Centres must meet a number of very strict requirements. They must have at least 12 months minimum proven experience supporting and installing iNetVu satellite systems. They are also required to maintain a comprehensive local inventory of spare parts, and staff must have completed iNetVu training courses. With over 10 years of support for C-Com satellite systems in the UK and throughout Europe, Primetech has fulfilled these criteria many times over.

Drew Klein, Director, International Business Development for C-Com Satellite Systems Inc of Canada, said: 'Primetech is one of the most established

and successful C-COM partners in Europe, and we are proud to offer them the iNetVu Service Centre designation. This first European Authorised Service Centre is a long time coming.

'All C-COM customers in the United Kingdom, and throughout the continent of Europe, will benefit from having a local integrator with the expertise and quality of support that Primetech offers. With a significant customer base in broadcast, blue light vehicles, mobile banking, and government, Primetech is able to assist in helping all C-COM customers meet their support needs in a timely fashion.'



Henry Walker, director of Primetech said: 'We are delighted and honoured to have been selected as C-Com's first Authorised Service Centre for Europe. This designation recognizes the many years of work the Primetech team has put in serving our customers, and we look forward to meeting and supporting other C-Com customers who need technical and spare parts support. Having local support so close by will benefit everyone, as it will reduce the need for C-Com clients in Europe to contact C-Com Satellite Systems in Canada.'



iNetVu Fly-75V antenna from C-Com.

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Primetech launches MultiNet Comms family of portable, high powered incident ground communications

During the Somerset flooding in 2014, for example, there were areas in which emergency services needed to operate - village 'islands' cut off by flooding, for example - that could not be reached by ICU vehicles. Primetech had already created a first prototype of a portable communications unit for Gloucester Fire and Rescue Service that worked very well. The new Primetech MultiNet Comms range builds on this achievement.

There are a number of different units within the MultiNet Comms family, but all units have certain features in common; they are all highly portable and self-supporting, featuring lithium polymer batteries that are light, powerful, and capable of easy recharging; and they are all capable of linking together to form high bandwidth networks across incident grounds. Delivering different types of capability depending on incident requirements, they are all designed to be resilient and easy to use.

The units within the Primetech MultiNet family are as follows:

Command Master/ Primary Nodes

These are used for receiving feeds from the various Incident Ground Extender Nodes located around an incident ground. The onboard, powerful multi network router automatically connects to any available data network. Military spec encryption allows incident ground data to be securely transferred to the HQ. Within the node is a ruggedised computer acting as the site server. Additional briefing screens can be added depending on requirements.

Incident Ground Extender Nodes

These feature 2.4 and 5.8 MHz WiFi communications linked by a COFDM mesh network. This means they are capable of receiving and transmitting



Primetech MultiNet Comms Incident Ground Extender Node, featuring 2.4 and 5.8 MHz WiFi communications linked by a COFDM mesh network.

imagery, data, internet access and voice communications from the wide range of devices that are now deployed across an incident ground, including smart phones and ruggedised laptops featuring command and control systems such as the VectorCommand Command Support System.

Email, photographs and audio, live video feeds from body-worn, tripod, UAV and other cameras are transmitted back to the Command Master/Primary Nodes facilitating multi-agency command HQs at incident ground level. This video, voice and incident information can then be passed on through the multi-agency communications hierarchies. The nodes can also be used to receive data from life-signs monitoring equipment worn by emergency personnel, such as fire and HART ambulance staff, operating in hazardous environments.

Command teams can add as many Incident Ground Extender Nodes as they need to cover incident ground

areas. Battery charge lasts for about 24 hours, and can be supplemented with additional, swappable charged battery packs.

Satellite unit

This is a waterproof ruggedised peli case-housed unit linked to a C-Com Fly-75 satellite dish. It is battery powered and fully portable, linking the Command Master/Primary Node by high speed Ka mobile satellite broadband on to other command levels in the network.

Commenting on the launch of his company's new MultiNet Comms range, director Henry Walker said: 'Primetech is proud to have pioneered the concept of quickly deployable, flexible, high bandwidth communications solutions for UK and European emergency services. We have already done this

'Primetech is proud to have pioneered the concept of quickly deployable, flexible, high bandwidth communications.'

with the Primetech Rapid Response Multi Role Vehicle and the Primetech Resilient Communications Trailer. All these platforms and solutions have been developed by our engineering team to satisfy the growing demand for more portable, agile, self-supporting incident ground communications.

'Now, with the launch of the world leading Primetech MultiNet Comms range we are building on that success by supporting improved, interoperable and fully portable wide area incident ground command communications, providing the technology to support national standards and initiatives such as the Joint Emergency Services Interoperability Programme (JESIP). This powerful new system will also support the wider use of command and coordination systems such as VectorCommand's Command Support System, as well as HD ground-based video and UAV-sourced video.

Primetech Pioneers Portable, Interoperable Satellite and Incident Ground Communications

The launch of Primetech's innovative new MultiNet Comms range of self contained incident ground communications solutions will help answer a real need among emergency services for better incident ground communications to help improve their response to major public safety threats such as wide area fires, floods and fast moving terror attacks.



Primetech's new range will also complement and build on a number of other unique technologies and flexible, agile platforms that the company has developed for improving emergency communications and operational command.

Primetech has, over the past decade, built a growing reputation for developing and implementing advanced communications solutions. It supplies Ka-band mobile satellite broadband and other integrated communications systems, such as High Definition video and incident ground WiFi, to fire, police, ambulance and other public services on a wide variety of platforms, from major Incident Command Units to more mobile Resilient Communications Trailers and pickup-style vehicles such as the Mitsubishi Trojan and Land Rovers.

Now, with the launch of its new MultiNet Comms family of modular, integrated incident ground communications solutions, combining video, voice and internet access over 2.4 and 5.8 MHz WiFi via a mesh network and 3G/4G, the company has made another major leap forward,

demonstrating once again its commitment to supplying UK emergency services with some of the world's most advanced operational communications systems.

Emergency services around the world need high capacity, joined up and flexible communications to support them in their work, whether it is in fires, flooding, Urban Search and Rescue, firearms incidents, terror attacks or rail and road accidents.

Common issues impacting on the effectiveness of emergency response were identified in the various papers presented as part of the UK's Joint Emergency Services Interoperability Programme - JESIP (now Principles), with specific incidents and 'lessons learned' evaluated, as recorded in post-incident enquiries and reports.

In the past, as the JESIP working documents acknowledge, poor communications and organisational problems have often been the causes of ineffective multi-agency emergency management response. The consequences of such mistakes, involving many people's lives, incomes and property, can often be catastrophic and linger on for decades.

The active training and education phases of the Joint Emergency Services Interoperability Programme (JESIP) are now winding down. Around 10,000 staff from across the UK emergency services have participated in training courses designed to improve multi-agency communications, cooperation and operational effectiveness during large and complex incidents. Soon the word 'Programme' in the title will be replaced by 'Principles', to sustain the work done and to reinforce the lessons learned.

Two key issues highlighted throughout the JESIP papers (and the post-incident reports examined) were Operational Communications and Shared Situational Awareness, areas where in the past there have often been problems. Improved use of communications was one area focused on in the JESIP training and exercising sessions, with particular emphasis on the use of Airwave.

But radio is now only one of many options on the menu of communications options available to emergency service commanders; other, complementary, communications options are now available.

In fact, the communications solutions currently available to emergency services have never before been so powerful or comprehensive. Emergency services can now gather and share key incident ground information using live-streamed, High Definition video imagery, and share command information using ruggedised tablet and laptop computers linked by wide-area WiFi.

Large mobile Incident Command Units are still needed to manage many emergency situations, however, and Surrey Fire and Rescue Service's new ICU, supplied by Primetech, is probably one of the most advanced ICUs in the world, featuring Ka-band mobile satellite broadband and High Definition incident ground video imagery (an industry first). It was this range of features that helped it deliver outstanding performance during the large-scale Thames Valley floods in early 2014.

Under very difficult conditions, the service was able to deliver very high levels of satellite broadband command communications, both for itself and for all local emergency services. Using Primetech's C-Com satellite receivers and the Ka-band channel, continued overleaf ►

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the service was able to provide high levels of mobile satellite broadband capacity for emergency command teams from all local emergency services and agencies.

Surrey FRS's new ICU was deployed to its Chertsey station (a few miles south west of Heathrow), which was the incident joint forward tactical operating base for around two weeks in mid-

February 2014, during the height of the flooding crisis.

Based in the station's car park, and connected into the main building, it was able to provide previously unobtainable levels of satellite broadband communications capacity in support of command and field teams from the fire service itself, along with police, ambulance and other agencies, the local authority

and volunteers, as they battled to help local communities.

Rory Coulter, head of logistics at Surrey FRS, observes. 'Ka-band gave us a much better broadband capacity than we could achieve within the station. But it wasn't only us using the station, it was all the other agencies - the police, the HART teams, the local authority, plus volunteers. The station became the hub

of everything for our area of the river Thames. We wouldn't have been able to provide the level of information transfer which they achieved without the Ka-band communications systems of the ICU vehicle.'

Swaledale Mountain Rescue has successfully completed trials using Primetech's mobile satellite broadband to support a new multi-site Digital Mobile Radio (DMR) network comprising a number of base stations and terminals. The Ka-band satellite system is being used to address a broadband black spot in one of the sites, which previously had little or no coverage.

Black spots are a major issue for any rescue team, as volunteers rely heavily on mobile technology to communicate with each other during emergencies. (Swaledale Mountain Rescue is a volunteer service providing mountain and cave rescue services within the Swaledale and Wensleydale areas of North Yorkshire).

Another emergency responder which has adopted Primetech's Ka-band mobile satellite broadband is Northumberland National Park Mountain Rescue Team (NNPMRT), a volunteer service providing mountain and cave rescue services within Northumberland.

Both the Swaledale and Northumberland teams are made up of highly trained volunteers who are available to be called out (at short notice) for a variety of land based search and rescue operations, any time day or night.

Ka-band mobile satellite broadband provision doesn't need to be located in a big ICU format like Surrey FRS's. Primetech's Resilient Communications Trailer is a self contained, flexible, resilient and highly portable communications unit that Primetech has developed to deliver high bandwidth Ka-band capability, in any location, via an auto-seeking C-Com receiver system, with multi-VPN automatic 3G/4G failover and wireless communications from a 5-metre pneumatic mast.

The trailer allows mobile satellite broadband and wireless comms to be taken into sites not easily reached by larger mobile command vehicles.



Use of the trailer frees up larger command vehicles, essential during large-scale, wide-area, multi-site and multi-agency emergencies.

It provides a low cost 'force multiplier' to boost emergency services' communications capabilities and resilience.

With extension cables the trailer can be used at sites such as schools, community

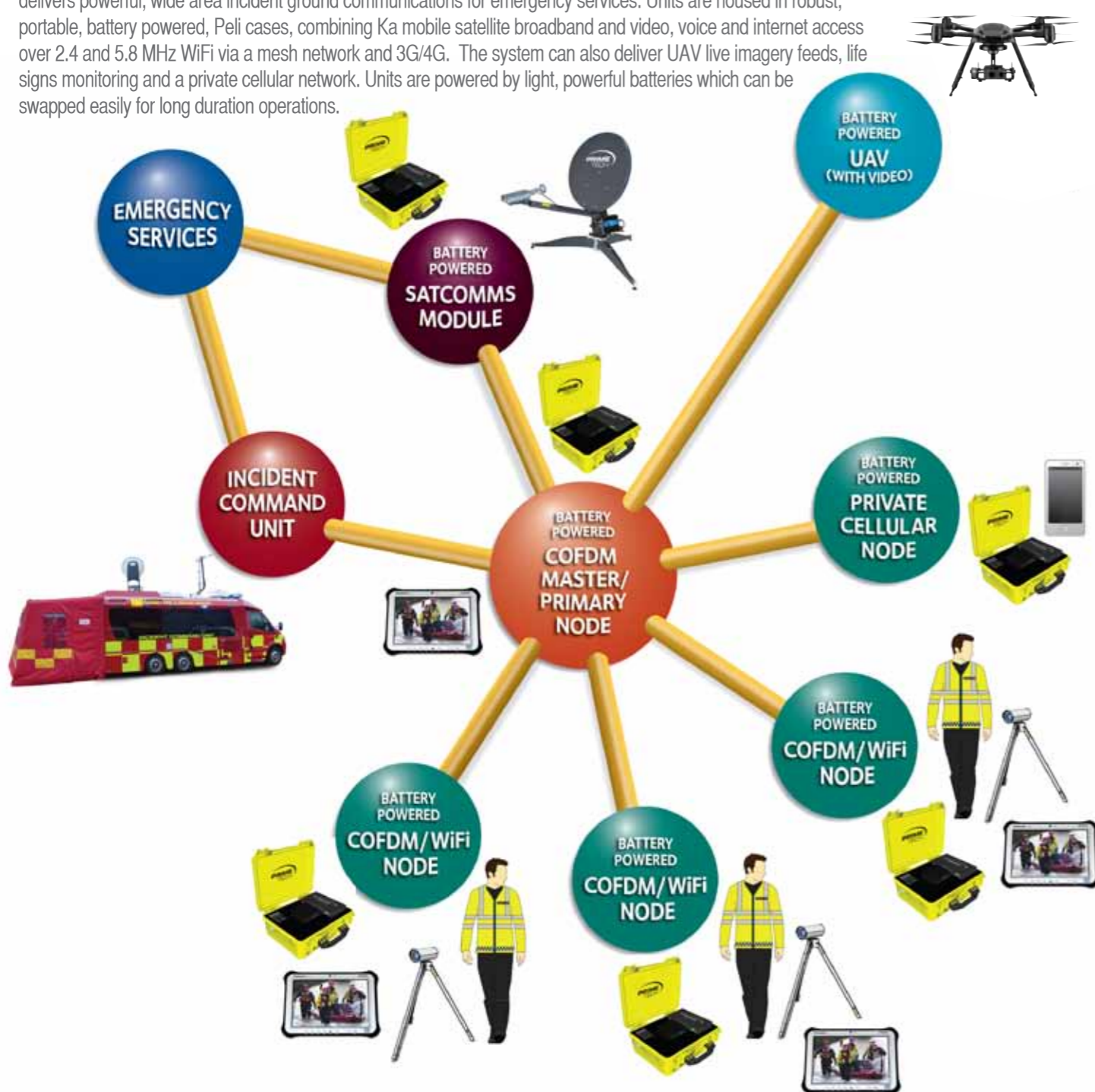
centres and office buildings, when major emergencies require short or long-term communications capability.

Mobile satellite broadband is also available as an option on the Primetech Rapid Response Multi-Role Vehicle, on Mitsubishi Trojan, Land Rover and other platforms.



Primetech MultiNet Comms Network

The MultiNet Comms family of modular, integrated voice, video and internet incident ground communications solutions delivers powerful, wide area incident ground communications for emergency services. Units are housed in robust, portable, battery powered, Peli cases, combining Ka mobile satellite broadband and video, voice and internet access over 2.4 and 5.8 MHz WiFi via a mesh network and 3G/4G. The system can also deliver UAV live imagery feeds, life signs monitoring and a private cellular network. Units are powered by light, powerful batteries which can be swapped easily for long duration operations.



Fast, Easy Comms in a Box

Mobile Ka-band satellite broadband, including Primetech's new MultiNet Comms family of modular, battery powered, wide area combined COFDM-supported 2.4 and 5.8 GHz WiFi, 3G/4G wireless solutions and supporting technologies, are what make this new level of video transmission possible, in particular the new, higher bandwidth Ka-band standard.

Covering mobile satellite broadband communications, UAV live imagery feeds, body-worn, tripod and other ground based imagery, life signs monitoring devices, plus COFDM-supported wide area WiFi, 3G/4G communications and a private cellular network, the MultiNet Comms units are powered by light, powerful batteries and housed in rugged waterproof peli cases.

The Primetech MultiNet Comms range has been developed in response to requests from emergency services for communications solutions that are not dependent on being housed in Incident Command Units, of whatever size.

Primetech - a market and technology leader supporting emergency services

Technological innovation, superb customer support for its emergency services and government customers, and a growing programme of creative partnerships with emergency services suppliers, have positioned Primetech as one of the UK's leading emergency services communications and support companies.

A key feature of Primetech's approach to its markets is the introduction of cutting edge emergency management technologies and communications solutions which deliver real benefits for fire, police and ambulance services.

Rapid Response Multi-Role Vehicle, on Mitsubishi Trojan (right), Land Rover

and other platforms, can deliver HD video, WiFi and voice comms in less accessible areas, extending joined-up voice, video and data coverage into hard to access areas.



iNetVu Fly-75V antenna. Ka-band satellites transmit up to ten times as much data over the same satellite capacity as Ku-band.

High capacity Ka satellite broadband from command vehicle to HQ

The new ICU supplied to Surrey FRS (right), with advanced communications technologies supplied by Primetech, incorporates mobile satellite broadband from the command vehicle back into the command headquarters over the Ka satellite system.



Other technology on the Surrey FRS vehicle includes COFDM cameras. Body-worn cameras send imagery via COFDM to both the main vehicle and a support vehicle. These also both have WiFi technology delivering capability onto the incident ground for tablet PCs and ruggedised laptops.

The Primetech Resilient Communications Trailer

Flexible, resilient satellite communications delivered in an easily deployed, portable, low cost system. Towable by vehicles of any kind, the Primetech Resilient Communications Trailer is a self contained, flexible and resilient communications unit that can deliver high bandwidth capability, in any location, via an auto-seeking Ka satellite system, with multi-VPN automatic 3G failover and wireless communications from a 5-metre pneumatic mast.



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