Hytera solutions help authorities deal with outdoor summer crowds and natural disasters

The 2020 summer season is going to be like no other as the UK emerges from the coronavirus lockdown. Indoor dining, leisure sites and entertainment facilities are still facing restrictive measures, while stadiums and festival sites will remain empty.

Leisure activities this summer will undoubtedly follow a completely different pattern than we are used to. Far fewer numbers will be holidaying abroad, as people choose to stay in the UK instead. This means the UK's public outdoor spaces such as beaches, national parks, mountains, campsites, and open-air leisure facilities will be far busier than usual.

Those flocking to remote leisure areas are going to put additional pressure on the rescue and emergency services and on local authorities looking to enforce extra safety measures such as social distancing and crowd control. The situation is further complicated by the evolving weather patterns in the UK, which are generating more natural disasters including heatwaves, storms, rural wildfires, and flooding.

The communications infrastructure in these outdoor leisure areas may not be adequate in normal times and will now have to deal with the additional number of people. This makes it more challenging for the emergency and rescue services, especially if they also must cope with any potential fires or floods at the same time.

Hytera offers rugged, fast deployable solutions without the need for any permanent infrastructure, which will enable emergency services, search and rescue teams and local authorities to access reliable, secure communications at a moment's notice in even the most remote parts of the UK.

It is also possible to upgrade existing DMR Tier II conventional radio systems to Hytera XPT systems to rapidly expand capacity. This will allow organisations to bring in additional staff, rescue personnel or social distancing wardens to cope with the increase in holidaymakers visiting public outdoor areas.

Hytera E-pack 100 ad hoc wireless network

One simple way of providing two-way radio coverage in outdoor areas is to use the Hytera E-pack 100 Digital Wireless Ad Hoc Repeater. Based on DMR Tier II technology, the E-pack 100 functions as radio, repeater and mesh node all on one

frequency. It can make calls and route voice at the same time to provide an ad-hoc voice network supporting up to 31 nodes.

It is extremely compact allowing it to be carried in a backpack, making it an ideal choice for firefighters or mountain rescue teams working in remote rural areas where existing DMR or mobile coverage may be patchy or non-existent. It can be deployed very rapidly as soon as it is powered up to provide an instant network.
E-packs will automatically seek each other out and link up to provide a dynamic, self-configuring network. The network is self-healing, because if a link is lost the E-pack will automatically connect to another node in order to guarantee link continuity.

The E-pack also features an embedded GSM card slot for backup, so if two meshed networks are separated, they can stay in touch via a public cellular network. An unlimited number of DMR radios can be supported, but as they operate in ‘simplex’ direct mode, only one person can talk at a time.

The E-pack also supports emergency calls and GPS location services, so you can see the location of radios and other E-packs on the network.

The E-pack is designed to be used in harsh environments as it is IP67 certified against dust and water intrusion and it meets MIL STD-810G standards for ruggedness and shock resistance.

Hytera XPT system
If a permanent communication solution is needed to provide coverage for beaches, national parks, and outdoor leisure facilities then a Hytera DMR two-way radio network is an excellent choice.

Given the expected increase in visitors to facilities this summer, local authorities and leisure operators might want to consider investing in a new Hytera XPT Digital Radio system or to upgrade their existing DMR Tier II conventional system to an XPT one.

Hytera's Extended Pseudo Trunking (XPT) system provides a simple way to expand a network without having to move up to a full DMR Tier 3 trunked radio system. The XPT solution, exclusive to Hytera, offers a way to replicate a distributed trunked network, but without the need to invest in a centralised system controller.

XPT uses a new distributed digital trunking protocol developed by Hytera. Rather than using a centralised system controller, as with DMR Tier III trunking systems, XPT uses the repeaters to broadcast the system’s status information and to automatically allocate a free channel to a radio.

XPT enables users to double their radio capacity using their existing spectrum resource, thereby offering a simpler and much cheaper alternative to fully trunked DMR Tier III systems. XPT allows customers to build a trunked radio system in a shared channel environment, rather than confining talk groups to a dedicated channel as with DMR Tier 2 conventional operations.

A single XPT system can support up to eight repeaters at one site and provide up to 16 traffic channels, supporting up to 1,200 users. Each traffic channel can be

customised to transmit voice or data. Hytera XPT is available in single or multi-site configurations.

Hytera XPT can be combined with the Hytera SmartOne dispatcher to provide affordable radio coverage and the ability to communicate with control rooms. SmartOne enables the system to support voice and messaging dispatch services, emergency calling, GPS location services, as well as Man Down and Lone Worker alarms to better protect staff, especially those working in isolation or in remote areas.

Hytera VM550D body worn camera

Adhering to social distancing rules in more crowded environments is likely to generate tension at times. Organisations may like to consider issuing staff and security guards with body worn cameras for evidence gathering and improved situational awareness.

For example, the Hytera VM550D device doubles as a bodycam and a remote speaker microphone, so it can be paired with a Hytera radio. The HD camera ensures high quality evidence is captured securely and accurately. Bodycams also help to protect staff as aggressive behaviour is often defused when perpetrators realise they are being filmed.

The bodycam is highly ruggedised as it is IP67 rated for dust and moisture resistance. The HD camera can capture high resolution live images, as well as having the ability to pre/post record. The 1W speaker with dual microphones allows the device to transmit high quality audio even in noisy working environments. It is light (145g including battery) and easy to use, with one-touch operation for video capture, voice recording and a two-inch coloured display screen.

A safer summer

Hytera has the solutions to provide affordable temporary and permanent mobile two-way radio systems to ensure those at the frontline always have the right communications in the right place at the right time to swiftly deploy and instant response to any situation or emergency.

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