🏠 **Directory**

Data & Monitoring

Arentis Limited

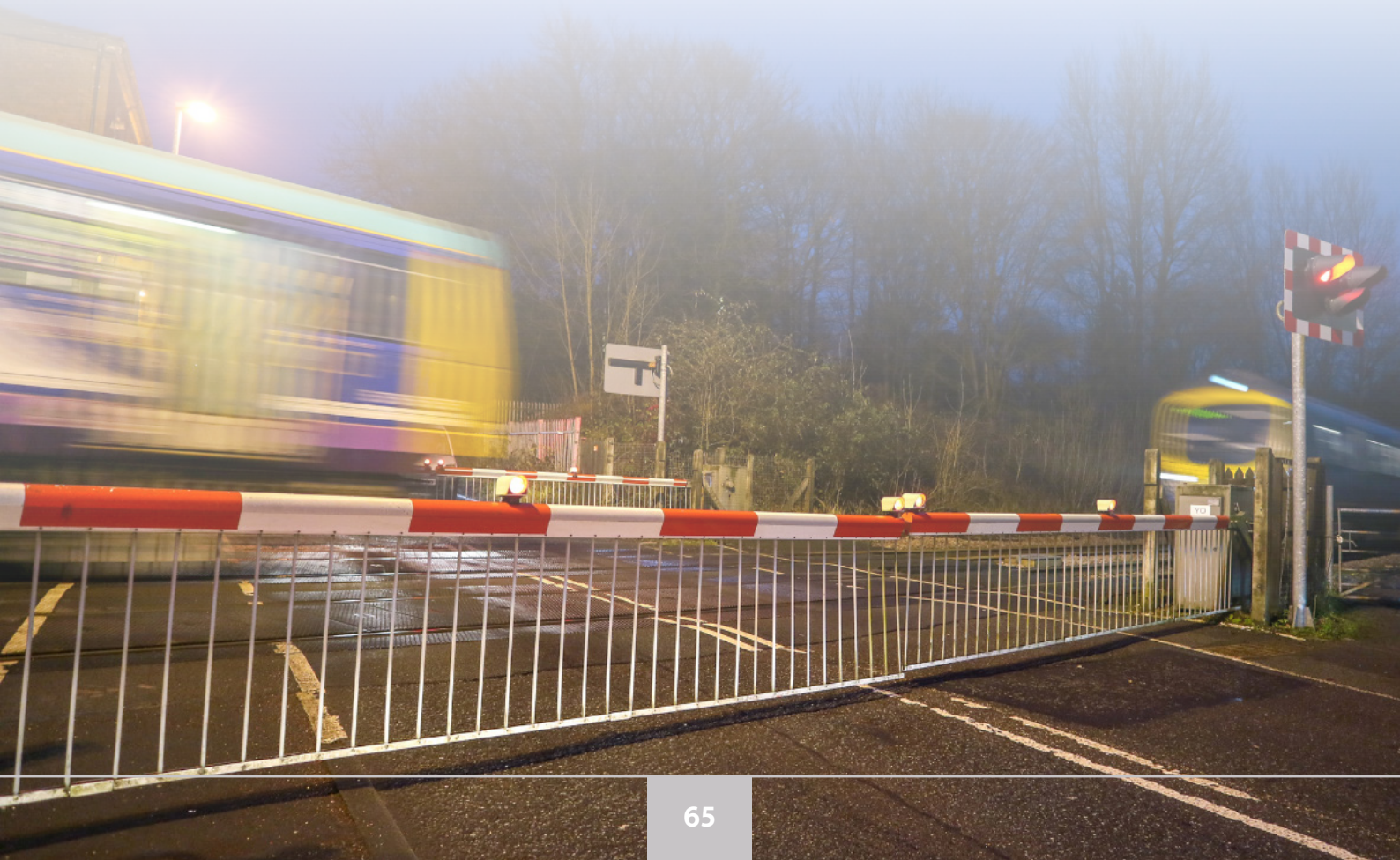## Arentis Offers Wireless Surveillance System

Wireless monitoring systems have been improving safety and cutting service disruptions for some time and although the technology is now established, it has matured considerably in recent years.

CCTV systems are delivering a much-enhanced product with each advance in digital technology. Specialist supplier Arentis Limited boasts 20 years' experience in the rail sector.

Arentis provides CCTV solutions for use at crossings, onboard and for depot and station security, most notably manufacturing the Network Rail-approved XNET-TE system in use at UK level crossings.

The company's latest product – VA-CONNECT – is a wireless camera transmission and recording system which allows clients to view live and recorded video footage from remote locations or from settings where wired infrastructure is cost prohibitive. It can be deployed on manually controlled barriers with obstacle detection (MCB-OD), automatic half barrier crossings (AHBCs) and barrow crossings, delivering live video images on demand or triggered by events on the track, and can also provide continuous recording.

VA-CONNECT allows up to 16 CCTV video images to be recorded locally and streamed wirelessly. It provides workers with access to images, allowing them to review maintenance faults, crossing misuse and detect trespass via inbuilt analytics.

The system comprises a remotely located video recording and streaming unit for connection to local cameras and wireless communications. A cloud/WAN-based management server provides the hub for administrator management of field units and users. Users access the system through client applications (including Windows and iOS) to view, control, review and download recorded footage. This can be done from the user's mobile, once they have the correct software installed.

Attractive Features

A key feature of the system is that users can choose their own peripherals. Camera choice is at the discretion of the customer. Additionally, the choice of data SIM card(s) is again up to the customer, although Arentis can supply a managed data SIM if required. Wi-Fi is included for local access using a PC for recording download and general administration tasks negating the need to physically access the field unit.
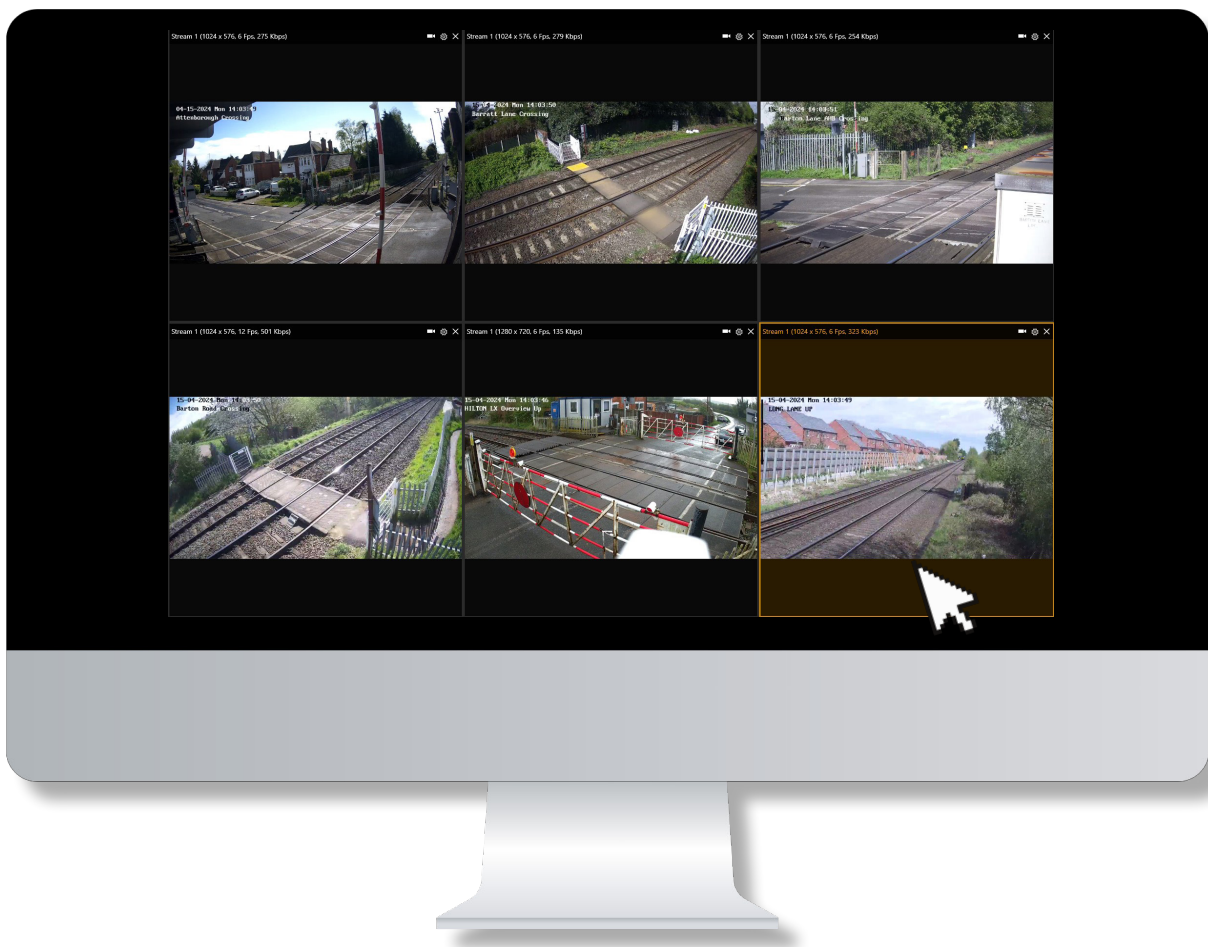
Ease of use is another factor that draws customers. Users can quickly deploy and redeploy CCTV cameras

"We have deployed one site with a people counting camera so we can see the number of users per day, which has been of great benefit in risk analysis. As there are an ocean of cameras with a variety of 'edge' functions, this versatility along with the support of the supplier allows maximum leverage of value from expenditure."

A representative from Network Rail's Combined Engineering Depot (CED) in Brighton [Sussex Route]

at locations where infrastructure is limited and the system requires very little setup, saving time and disruption to customer sites.

The system does not rely on network cabling and requires only a power source to operate. This can be a fixed power point, though the system's solar and battery options improve its flexibility. This aids with installation and makes the system resilient to cable theft, a problem which costs the rail industry millions of pounds each year and which VA-CONNECT can help protect against.

Proven Capabilities

VA-CONNECT has already been deployed at over 50 locations on the UK's rail network and the system has assisted in the unfortunate case of accidents and has helped secure successful prosecutions of misuse at crossings. It has helped British Transport Police secure convictions against drivers for various offences, from red light offences to unsafe loads damaging the crossing itself.

The system's rapid deployment has helped in instances where fixed monitoring systems have been knocked out of service due to occurrences on the track. *"In 2019 we had a fatal accident at one of our crossings,"* said a representative from Network Rail's Combined Engineering Depot (CED) in Brighton [Sussex Route]. *"The investigation took months as the data logger was destroyed in the accident. We needed to find a CCTV system that was affordable and quick to deploy to help with any future incidents.*
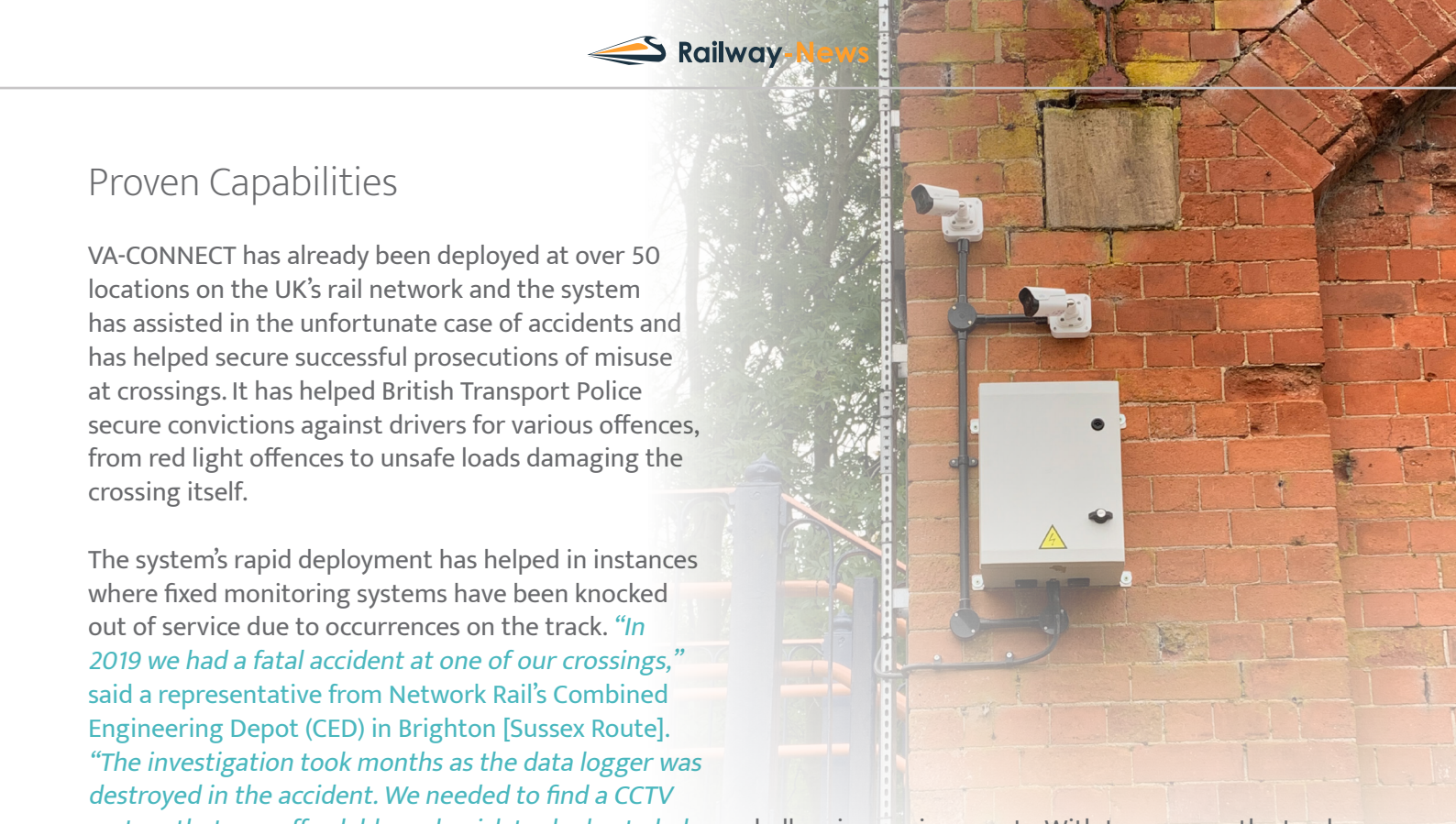
"Since then, we have installed around 20 VA-Connects to date with another seven sites planned this year. The system has also helped with failure investigation of auto half barriers, they have reduced our fault time drastically and helped with diagnoses of wrong side failures reducing the amount of testing and time required to bring them back into full operation."

The system has many more uses than surveillance at level crossings and can be employed at remote stations, depots and work sites where assets, workers or passengers may be at risk. All these uses, and more, make the system excellent value for money, according to Network Rail's representative.

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Confidence Assured

Arentis' system has been developed solely for use in the rail sector, recently being certified for use within the network by ascertaining EMC certification, so users can be confident when deploying the system in challenging environments. With trespass on the tracks becoming a growing problem (incidents of trespass increased by 40% as lockdown restrictions were lifted), tools that can act as a deterrent and gather evidence for prosecution of offenders are very attractive. After all, the rail industry is keen to take advantage of technologies to increase safety and avoid the fines that result from delays caused by accidents and trackside crime.
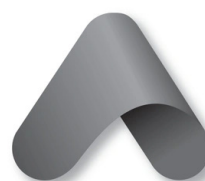

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