Case Study

Overhead Line Cable Replacement Site Protection



First published: July 2017, revised November 2021

This case study briefly describes how Scan-360 was fully integrated with the Remote Surveillance site security system to provides 24/7 security at remote sites, throughout the South West of England during overhead power line replacement work.

Background

The work sites tended to be very remote; tracks were laid for vehicles to access the site and specialised line replacing equipment, cable and other plant was temporally installed for weeks at a time.

The customer required 24/7 site surveillance to protect the equipment. Ogier Electronics' Scan-360 radar was chosen due to wide area coverage, low false alarm rate and low power requirements that suit off-grid applications. James Leventhal, Director of Remote Surveillance commented "The Scan 360 is installed in over 20 of our customer sites, the performance, detection and false detection rates are by far the best we have had from any sensor technology"





The stand alone integrated solution combines the Scan-360 Radar, Redvision camera, 4G-transmission with local recording and alarm integration all powered via Solar - with battery backup to provide a truly bespoke mobile platform.

Summary of Scan-360 Advantages

Scan-360 monitors the surrounding 360 degrees giving a detection area diameter of 400m. The user interface includes a straightforward map display that can be used to define the detection area as well as areas to exclude, for example where moving foliage is present to mitigate nuisance alarms.

Scan-360 automatically points the CCTV camera toward the detected intruder and sends an alarm output. The alarm is typically used to trigger the transmission of camera footage to a remote site. This reduces the data sent over the 4G connection, reducing operating costs.

Furthermore, compared to video analytic solutions, substantial power savings are possible during the night as illumination is only required briefly when the radar triggers the camera. In contrast video analytics requires illumination for the entire night and can rapidly drain batteries in off-grid systems.

The radar IP interface can be configured to output target information, such as the co-ordinates. This data can be utilised by third party software, for example to display the position on a map to aid the situational awareness of the remote operator. This facility prevents confusion when alarms occur, especially if it is hard to discern the location from the video footage, for example if no prominent features are seen.

Scan-360 has built-in timekeeping facilities and user-defined operating schedules to avoid false alarms during work hours. This prolongs the off-grid battery life as it prevents camera movement when the site is expected to be busy with workers. Configuration of all radar settings is via the IP interface so when equipment is relocated or working hours varied, the detection zones and operating schedule can be updated from the comfort of an indoor office, rather than out on site.



Please visit our website to discover more about our radar solutions.

