



Safety Registration System Defence Procurement Agency, Bristol

Abbey Wood is a modern office complex that was built specifically for the MoD Defence Procurement and Warship Support Agencies and covers 98 acres of land near to BAe Filton on the outskirts of Bristol. The DPA is an executive agency of the Ministry of Defence and its task is to procure the equipment that ensures the UK Armed Forces remain the best in the World. With an annual budget of £6 billion the DPA plays a crucial role in British industry. The DPA currently manages around 700 defence related projects including Typhoon, Skynet and Future Carrier.



This facility is the home for approximately 6000 Military and Civilian personnel, and in light of recent terrorist events, the Facility Management Group issued a new Health & Safety statement to cover emergency situations.

The Security & Facility Managers were tasked to provide attending Emergency Services a detailed report on the quantity and names of personnel believed to be trapped or left behind in the buildings after an emergency evacuation.

The traditional way to produce an emergency roll call report is to get a list of personnel normally in the building under evacuation and take this list to the Fire Assembly Point (FAP) to laboriously check against those present and ask everyone to account for those not present due to annual leave, sickness, off-site or any other reason. This list would not account for visitors and it would be the responsibility of everyone to ensure their visitors are accounted for and added into the report. Bearing in mind that the site has many hundreds of visitors per day, this task is virtually impossible.

In order for this new requirement to be met, the DPA tendered for a suitable system to monitor the movements of all staff and visitors on site, 24 hours a day, at all entry and exit points to all buildings and also the site's pedestrian and vehicle entry/exit gates.

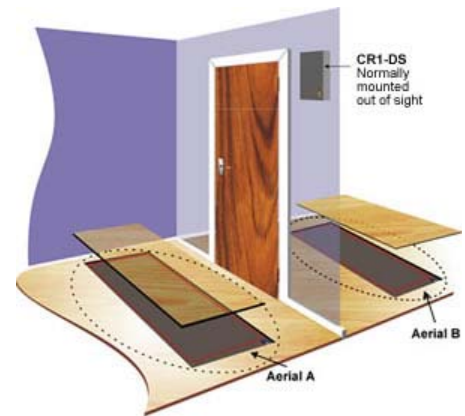
Safety Registration System

Evolution won the tender to design, install and maintain this system, the first **Safety Registration System (SRS)** of its type in the world. This system is able to monitor the movement of personnel on and off the site and also determine which building they are in by the use of long-range hands free RFID tags and readers.



Abbey Wood has a security policy to ensure that all personnel, including visitors, wear ID cards at all times and it was clear to Evolution that the Identec Census RFID technology was best for this site and the Cliptag was the best tag for personnel to carry. Cliptags are long-range active tags that have also been designed to act as a card carrier, to hold a personal ID card. They are generally worn around the neck, making the ID card and tag clearly visible.

The tags are detected and reported via antennae connected to Census door controllers at every single entry/exit location on all buildings and areas across the site. The antenna types vary considerably to cope with the sites varied access points. For example, standard Fire Exit doors may have an internal door/ground loop and an external buried ground loop. Buried loops are used to prevent damage by machinery such as lawn mowers and window cleaning platforms etc. Each door has at least two antennae to determine the direction of the person.



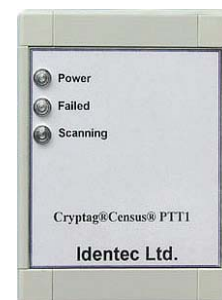
Vehicle and pedestrian access points are monitored by buried loops cut into the tarmac. The buildings main entrances have overt but aesthetically pleasing stanchion loops fitted to ensure best reading performance and are made of stainless steel to overcome affects from the salty atmosphere in and around the Bristol area.

In addition to the Cliptags, Abbey Wood have also chosen to use the Census Asset tags. These devices (shown right) are available in two styles designed for metal and non-metallic mounting. Typical use is for any high value or hard to locate asset. Used in conjunction with Cliptags, it is possible to find out who last moved the item through a Census managed door.



With over 250 doors, fire exits, car park gates, and muster points monitored using over 600 antennae, the project was planned for installation over an 18-month period and five phases.

All the doors, fire exits or car park entry/exit points are free access (no locking devices are used) and as no mechanical or user feedback is available, the Census system has been designed to monitor itself for any potential failure. Every antenna (loop) has an adjacent Performance Test Tag (PTT1) that continually transmits/receives data to the loop and its' controller, which will inform the management system of any fault.



The Census door controllers report tag information to the **C●CURE800** Security Management System via network connected iSTAR controllers.

C●CURE800 Server software runs on a dual PC server system managed by Legato software in order to maximise the systems availability. Servers are located at remote locations of the site and are connected by fibre optic links for disk mirroring. Failure of one PC server will automatically transfer control to the other server.

C●CURE800 client terminals are connected to the Server to provide the interface to the system. Functions include adding & deleting of personnel from the database, monitoring of the systems activity and producing the Roll Call reports, the prime reason for installing the system. During an emergency situation, on-site Manned Guarding Services evacuate the relevant buildings and personnel are directed towards marshalled Fire Assembly Points. The process of leaving the building will log personnel out of that area and move them into another area. Emergency Roll Call reports can be run from any client terminal take just a few seconds to be displayed and be printed.



In those instances where the personnel Cliptag cannot be read, for example, when a door or building has been damaged, the Roll Call report could be incorrect. To overcome this, personnel are requested to present their tag to the nearest Muster reader to log them out of the building and into a safe area.

Visitors & Sisys Visitor Management System

As the site attracts many hundreds of visitors every day, it was essential that the **C●CURE800** system be interfaced with the Sisys Visitor Management System. The Sisys system was adapted to export new visitor data and the **C●CURE800** was programmed to import the data. This has resulted in a process that ensures a visitor is enrolled in both systems and is issued an SRS tag within a 30 second period.

Visitors are classified as 'escorted' and 'un-escorted' and their movements are monitored as soon as they leave the registration area. At the end of their visit, the visitors' tag is placed into one of the capture readers and the visitor is then automatically logged off site within the SRS system. Ending the visit on the Sisys system will delete the visitor from the **C●CURE800** database allowing the tag to be re-used for the next visitor.



Identec Census RFID

The Census RFID product range has been developed from the original highly successful Cryptag technology to provide a higher throughput with greater flexibility in antenna quantity and configuration. Tag reading performance can now reach 55 tags per second.

The antennae can vary in size and shape and are completely dependent upon the door or area to be monitored. At Abbey Wood the Muster reader is a small self-contained reader with up to 1m reading range with other locations requiring a Census controller that manages between 2 to 16 antennae. These are used to create the correct reading 'field' which can cover many metres and a number of doors.

Many of the antennae are buried in the ground or fitted around the door frames for unobtrusive monitoring, but stainless steel stanchion loops have also been fitted where surface mounting is required with aesthetics and damage/corrosion resistance in mind.

Evolution is a qualified supplier and installer for the Census product range.

Evolution (Electronic Security Systems) Limited

Evolution have been supplying high-end security systems to Government bodies, MoD, Business & Commercial markets for over 10 years and have built up a reputation for quality and integrity with our suppliers and customers.

Quality approval to NSI Gold for the three main disciplines of Access Control, CCTV and Intruder Detection Systems and membership of the BSIA ensures a professional approach to resolving client's security issues.

Evolution are partners with the major security system manufacturers and typically specify core products which have been used extensively and more importantly are consistent in quality and fulfil the functions they are designed for. In addition to Software House and Identec, we also promote the following key product ranges:

SOFTWARE HOUSE

Software House C•CURE800

The C•CURE800 system is one of the top Security Management Systems available on the market today and is used by many of the worlds largest companies to secure their premises through global partnerships and support facilities around the world.

With a variety of system software sizes, all upgradeable, a selection of controller types and communications methods available, the system is open ended and allows integration of Photo-ID, CCTV, Intruder, Fire Alarm and Intercom systems with hardware, software, IP and RS232 data links.

Evolution have been suppliers and installers of this system for many years and are proud to be one of the very few Enterprise Partners in the U.K.



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