

## Solution Case Study



**Mail Rail saves valuable distribution time & improves asset efficiency using Eureka RFID.**

The Eureka tagging system identifies Royal Mail roll cages (Mini Yorks) used in mail centres and the underground mail delivery system in London.

The mail rail network suffered distribution problems with some sorting depots having too many mini york cages and others not enough causing major delays in the system. Locating the cages and redistributing them took time and used up valuable resources.

Implementing a Eureka RFID system in conjunction with a database written by the Royal Mail IT department provided a complete tracking solution that improved distribution and control.

### The solution

An active RFID tag is fixed to the underside of the mini york cage. Information programmed into the tag is related to that particular cage and is entered into the Royal Mail software database. The system holds a tally of cage numbers and their whereabouts enabling staff to ensure no shortages occur.

Pre-scheduled yorks are automatically identified at the entrances to lifts, without manual intervention, and are then sent to the relevant mail centres for sorting. The lifts are used to move mail from

the underground to one of four mail depots: Mount Pleasant, Rathbone Place, Paddington and EDO (Eastern Office). The communication of data between each lift location is then passed on to the main computer system used to track the movements of each mini york.

The Royal Mail software database effectively logs which lift the a york has entered and at which mail centre, thereby providing important data on the number of yorks at any mail centre at any one time. Allowing a york to be quickly located and routed back into the system.

### System Installation

The Eureka tagging system has been installed at over thirty lift entrances in the four mail centres with 1,300 active tags fitted to Mini York cages. The use of low frequencies allowed a flexible antenna design for the system with antennas installed in the floor at the entrance to each lift. These were then cabled back to the control reader installed alongside it.

### The RFID Tag

The supplied tags has both read and write capability, which means that data can be received from the tags as well as transmitted to them. The speed at which the tags can be read is dependent on the amount of data being transmitted. A 100% read rate has been achieved with this particular Eureka tag at speeds of up to 110km/h.

Operating at low frequency allows the tag to operate through all non-conducting materials and around metals, which provides the reliability required for the Mail Rail application.

### Conclusion

In the past staff would have to locate the required number of mini yorks needed to meet demand, a process, which would usually take several hours to complete and have a serious impact on the performance of a mail centre. Using the Eureka RFID system it is no longer necessary for someone to physically look for missing mini yorks and manually redistribute them. Saving valuable distribution time and improving asset efficiency.



Asset Tracking & Distribution Logistics Using Eureka RFID

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