



# Cash In-Transit Systems

## *A look at modern secure transit systems*

***Cash in-transit (CIT) systems are an interesting feature of modern business. As such, they provide the scope for playing a part with modern role-playing scenarios. And that's not just in recreating the armoured car heist from Heat.***

*The idea for this article originates from a few notes on the Millennium's End Mailing List back in January 2002 regarding the operation of cash in-transit systems. With a bit of fleshing out, here are a few more ideas.*

### **Why use cash in-transit systems?**

Over the last twenty to thirty years there has been a massive increase in the use of cash in-transit (CIT) companies. This has extended beyond the transfer of cash and valuable items between business premises and carrying parcels for secure delivery.

In the main this has been attributable to a number of shifts within society. There has been an increase in violent crime, and the use of security companies has been a convenient solution for many businesses. Within the modern business environment organisations have focused increasingly upon their core activity, rather than becoming specialists in moving their revenue around. It is far more cost-effective to outsource such activities to specialists than to try and sustain the capital investment necessary to keep up with the times.

There is a very simple and direct cost associated with this. Insurance costs for businesses are lower where they use CIT companies to move cash around. In many cases, insurers will not provide cover for large sums of money if they are not moved by such secure means.

However, technological and service development in the banking sector have both played a part. Most people in developed economies are now paid by credit transfer direct to their bank account. Many receipts by businesses are taken electronically from credit or debit cards. Business purchasing, even for the smallest items, is often through purchase orders, corporate credit cards or business accounts, all of which utilise money that only exists on paper or electronically. All this reduces the amount of cash that a business needs to have on hand, and hence why there are far fewer cash offices and petty cash floats.

People also use cash in different ways to how they did thirty or more years ago. Purchases in many sectors are predominantly electronic, using credit or debit cards. The ease of electronic purchasing and funds transfer means that cash has a different role, more often reserved for smaller purchases.

How people access cash has changed also. Rather than queuing up at the bank to see the cashier, cash can be obtained from Automatic Teller Machines (ATMs). Often these are not even located at the bank's premises but within other retail premises. Cash can also be obtained through cash-back given at retail outlets with debit card purchases.

Each of these requires a secure way of moving cash around. An ATM typically holds around £25,000 in notes and busy sites are replenished daily at least. Whilst retailers use this as an opportunity to securely transfer cash taken in their tills to the ATM (getting a corresponding electronic credit from the banks), there still needs to be a delivery of notes.

Legal obligations have also had an impact. There have been changes in not only health and safety legislation, but also the increasingly



litigious nature of western societies (particularly in the US and Britain). These mean that companies now pay far more attention to the health and safety of their employees and customers than they did thirty years ago. Gone are the days when the senior clerk would carry the payroll from the bank in a large case, perhaps escorted by one of the managers.

In terms of health and safety the benefits for companies are manifold. Aside from avoiding the losses that can be incurred from robbery, there are other benefits such as a more harmonious employee relations environment, better retention of staff and less lost time due to sickness resulting from robberies.

And it isn't just cash that the CIT companies carry. Before the growth in transferring cash, many of these companies specialised as couriers for parcels and valuable items. For many this business continues as part of their core business. Some companies have even extended into areas such as contracts for secure prisoner transfer from courts to prison and vice versa – This was notoriously the case in the UK where the particular company concerned had a very rocky start and a particularly poor profile in the national media as a consequence.

### Security Processes

The underlying principle is that the security company takes the valuables from the business, transfers them using their own specialised vehicles and then deposits the valuables at another point. The point where the valuables are deposited is typically

- A bank or safe location;
- Other business premises, either of the same company or another;
- The security company's own depot.

The key is to minimise the exposure of the cash or valuables to any parties other than those supposed to handle it. This includes those who are transporting the valuables.

In cases where there is more than one guard from the CIT company, one person will always remain inside the vehicle. This person will

accept valuables into the vehicle and is the only person that can allow personnel into the cabin.

At all times that there is a person outside of the vehicle they must wear their personal protective equipment. They will also seek to operate in full view of any CCTV or surveillance equipment.

Clients are provided with details of identity card numbers and signatures of CIT company staff who may visit their premises. Before allowing such people into secure areas or handing over valuables, clients are required to check their identity against the approved list. These lists are updated periodically by secure means.

Since there can be significant turnover of staff in the CIT industry it is not uncommon for former employees to attempt to enter premises, particularly where they may be visually known to the occupants and therefore not necessarily subjected to security checks.

The depots of security companies are extremely high security areas. Such depots can commonly be holding millions of dollars worth of valuables. More than that, they also hold the reputation of the company itself. If such depots are subject to robbery, this undermines confidence in the company, which is obviously severely detrimental to business.

### Security Equipment

There are a number of areas of equipment typically used by CIT companies.

- **Personal Protective Equipment:** Drivers and security guards usually wear body armour to protect from gun and knife attacks. As a minimum for low-risk activities they wear a helmet with a face visor and neck protection pad. In some countries, personnel may be permitted to carry licensed firearms.
- **Bar Code Scanners:** Most CIT companies remove their employees from handling the cash as much as possible. Collected packages are sealed and have a bar code, which is scanned into a rechargeable hand-held unit on receipt. The package is typically placed in a smoke box (see below) for transit



to the vehicle.

- **Smoke Boxes:** These are lockable transit cases for transferring valuables from the location to the vehicle. The box only opens with a special electronic tag, which is kept at the location and is not carried by the guard. The box can only be opened therefore in a secure area. If the box is tampered with, a cartridge inside releases smoke and indelible dye, rendering the cash and valuables both useless and easy to trace.

### CIT Vehicles

CIT companies use different kinds of vehicles for different purposes. Some may be small vans, with a single crew member. Others may be transit-size vans with two or three crew members. Particularly for parcel deliveries, larger vans may be used, right the way up to articulated lorries with secure trailers, used for moving parcels over longer distances between depots.

The vehicles themselves have a number of security measures incorporated. An example of a US company's CIT van can be found on Chris Kracik's [Millennium's End Notebook](#) web page (under Vehicles). Some of the features of the vehicles include the following.

- **Vehicle Tracking Systems:** Increased use of satellite navigation technology means that many CIT companies now track the routes of their vehicles routinely. Any deviation from the prescribed route will lead to an alert. This also allows the vehicles to be traced in the event that they are stolen.
- **Fire-Resistant Safe:** The safe within the vehicle is resistant to fire, meaning that even if the vehicle is involved in any kind of combustion, there is a higher chance of the valuables surviving.
- **Independent Safe:** Often the vehicle crew have no access to the safe and it can only be opened in a depot. Items enter the vehicle through a revolving

hatch and once deposited in the safe cannot be retrieved until the vehicle returns to depot.

- **On-Board Communications:** CIT vehicles are equipped with radios, enabling them to communicate not only with others in their company, but also directly with the police and emergency services, should they require it.

### Adventure Hooks

The most obvious adventure possibility is that the characters are hired to steal an item from a third party, which is known to be being moved by a CIT company. The only time that the item is without the heavy protection afforded by the third party is when it is in transit, in the hands of a CIT company. The item is at its most vulnerable at this time.

There are a few considerations around this:

- What is the item? How big / heavy is it and how easy is it going to be to steal?
- Why is the CIT company being used to move the item and why is the owner not moving it using their own formidable security? This could be as simple as a matter of insurance.
- Can the characters be identified, and what will the owner do to recover the item and exact their revenge on them?

Another option is that the characters are hired to investigate a theft or series of thefts at a CIT company depot. This is a very serious matter for the CIT company because their entire business reputation is built on probity. However, the security business does have a tendency to attract largely unskilled workers who are prepared to undertake the physical risks involved. Many of these workers might not normally have the opportunity to access the amounts of cash and valuables that they would through their employment, and with that opportunity comes the potential for someone to help themselves.

Perhaps the characters are hired by a client who has lost something valuable after an assault



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upon its courier. Whilst the insurance may pay for this, the item itself may be irreplaceable. CIT companies do generally offer significant rewards for information leading to conviction of those

who steal from them or assault their employees. This might offer additional reward for characters in addition for what they are paid for the job itself.