



BUSINESS REVIEW

INSURANCE LOSS PREVENTION & RISK MANAGEMENT

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THE RISE OF THE ITM

THE RISKS involved with ITM servicing and replenishment are complex and far-reaching. Yet, the opportunity for carriers to successfully mitigate the risks and employ sound operating practices can reap them more business from banks as ITM deployment continues to increase.



01 A CIT Carrier's Guide:
BUILDING YOUR ITM
PROGRAM



05 Crime Trends:
Attacks & Robberies
LATIN AMERICA:
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ITMs AND CITs

How ITMs are Changing the Business of CIT

It was not too long ago that CIT carriers operated armored vehicles with armed guards carrying cash from one brick-and-mortar facility to another. With the introduction of Automated Teller Machines (ATMs) in 1969, the role of carriers changed to increase the carriers' responsibilities in the distribution of cash to numerous types of facilities and settings.

Over time, changes in regulation, widespread internet and digital networks, and new banking practices led CIT carriers to become active partners in the financial system, specializing in cash management. Cash-in-transit carriers touch every point in the system where cash is in circulation.

This evolution continues today with the increasing adoption of ITMs (Interactive Teller Machines). Like disruptive technologies in many industries, the ITM is built on an interactive platform of digital information traveling over redundant networks. Unlike many disruptive technologies, the ITM continues to depend on physical locations and person-to-person communication. It is a unique combination of digital, human, and location factors that require CIT carriers to adapt to newly complex service requirements.

ADAPTING TO THE GREATER CAPABILITIES OF ITMS

With all ITMs have to offer, they require changes in standard ATM operations by CIT carriers to accommodate the greater variety and sensitivity of transactions. The core uncertainty for an ITM program is that these relatively new machines do not yet have an established niche. Banks and credit unions use them in different ways as they explore and learn how to profit from them, and these variations make it more difficult for carriers to develop routines that can be tested and proven. Coupled with the normal turnover of employees and the difficulty of finding qualified employees, carriers face changing circumstances in a number of ways that make risk management more challenging.



Some specific characteristics of ITMs pose great risks to carriers. Since these machines feature a wider array of services, such as check cashing, they must carry more varieties of cash, including coin. Checks are often written in amounts that require small bills or coins to cash, so the cassettes and coin loaders used are more varied. Documentation of transactions has to be retrieved and secured. And since ITMs offer a cost-effective solution to serve out of the way or rural locations, the protection of eyes on the street may be minimal.

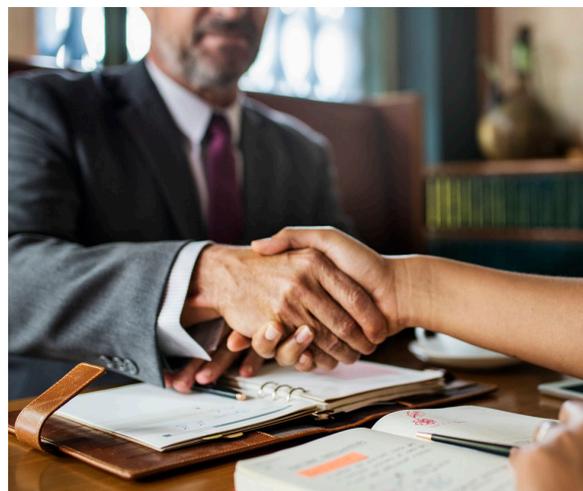
ADAPTING TO A VARIETY OF BANKING MODELS

Bankers sense a big opportunity in ITMs, though the exact nature of the prize is sometimes not quite clear. Basically, they believe the ITM will allow them to replace expensive employees who need to be home with their families with 'smart' machines who never tire and do not make mistakes on simple routine transactions. However, the exact way these new machines will fit into a banking system varies.

Some larger banking systems have found themselves with too many retail outlets in some areas where they have acquired other banks. They want to shrink the expensive

brick-and-mortar outlets without losing customers. One way to do that is to increase the number of ITMs, depending on customer receptivity. If they can make this work, it could actually increase the number of locations where a bank has a brand presence, but that will make a more difficult route for the carrier.

On the opposite side of the coin, ITMs may offer an alternative to a regular outlet in rural or urban under-served areas. Again, these can make the carriers' routes and service routines more complicated and time-consuming.



CIT CARRIERS AS THE COMPLETE BANKING PARTNER

In order to continue as the all-purpose cash management partner, CIT carriers will need to develop new service routines to match the ITM's capabilities and to provide the reliable cash controls banks demand.



5 ITM PROGRAM RISKS CIT CARRIERS MUST ADDRESS



INTERACTIVE TELLER MACHINES (ITMs) represent a major shift in CIT carriers' operations and that entails an added set of risks. In a global sense, ITMs offer an opportunity to expand a portfolio of cash management services that can make a CIT carrier even more important to a banking system. The rise of ITMs expose carriers to banks' evolving policies on the use of ITMs within their own operations. This is a risk to which carriers can only adapt as banks' operations become clear.

Beyond this, there is a set of specific risks that accompany ITMs. These risks are inherent in the flow of cash through the CIT system and changes in policies and procedures will be required to manage them so that the expanded cash management services are profitable. Here are 5 key ITM servicing risks that must be included in the CIT carrier's risk management planning:

1 LOSS OF LIFE

By their actions, some people put a monetary value on life. This is incomprehensible to most of us, but it is a fact. The large amount of cash in a carriers' truck or vault has always been a magnet to a few who will risk everything for a big payday. The advent of the ITM does not change this, though it may make the exposure even larger.

The reason we look at the extreme risk, loss of life, is because it focuses our attention on the fact that carrier's risk evaluation and mitigation demand a comparably extreme approach given the potential catastrophic loss.

2 INCREASING VIOLENCE

There is evidence that the extreme risks carriers face are increasing. Robberies are initiated with a drawn weapon more and more often. Robbers know that their "adversaries" are also armed, so the very fact that they persist in the attack indicates they are willing to use deadly force.

All carriers train extensively for these potentially violent encounters. The ITM poses challenges that make this even more important.

3 SERVICING COMPLEXITY

ITMs offer customers greater flexibility in cash services and a wider range of transactions, up to and including opening new accounts of certain types. All of this makes the spot audits, transaction history, cash servicing, and record keeping more complicated. This all takes more time to service than the traditional ATM.

Greater time in service means the carrier crew is exposed to attack for a longer time. When more than one ITM is serviced in sequence at a single location, this effect is magnified. Carriers' risk mitigation policies need equally robust improvements to accommodate the more vulnerable circumstances.

4 ORGANIZATIONAL FRAUD

The interactive feature of ITMs is one of its most attractive benefits. However, it sometimes means that a remote employee has to attend to a customer for a certain kind of transaction, such as identity verification or to explain and authorize a transaction. That means there's a person on the "inside" who has access to some aspects of the cash management system, with a corresponding potential for fraud.

While this is in some sense the bank's problem, carriers will often be held accountable for the failures that do occur. On the positive side, carriers can use this as an opportunity to deepen their cooperation with their banking partners.

Of course, another source of fraud is the CIT carriers' own employees. ITMs require new internal controls and audits to address the new risks they pose.

5 LABOR SHORTAGES

Every CIT carrier already knows there are precious few employees and potential employees who can handle the high intensity risk of cash management with intelligence and calm. The currently tight labor market doesn't help, and ITM complexity and service demand could make the situation even worse.

This risk has to do with the character and capability of employees and applicants. A very thorough background check can help, followed with intensive and on-going training. Given the high value of a tested and trusted employee, the premium on retention should be a special focus.

CIT carriers have always operated in a risky environment, so in one sense the addition of the ITM is business as usual. But the ITM is something new on the carriers' routes, with a tighter integration to banks' internal processes and a new class of risks built on the decentralized capabilities of the machines.

COMPONENTS OF A SUCCESSFUL ITM RISK MITIGATION PROGRAM

Successful CIT carrier risk mitigation—measured over time by the absence of loss of life and of cash—requires deliberate observation and analysis of every point in the journey of cash under the control of the carrier. It begins when cash is picked up from the bank or mint and ends when the cash goes out into society to be spent. Within this grand circle are all the steps required to service ITMs. Identifying the threats that exist at each of the steps and devising ways to counteract them are the key characteristics that constitute a risk mitigation program.

RISK ASSESSMENTS

The basis for a proactive strategy includes evaluation of the human and physical environments along the path of the ITM servicing crew. A risk assessment might identify:

- Places on the route where potential blockades could occur
- Locate CCTV cameras and police automated surveillance assets
- Specific ITM locations vulnerable to attacks
- Environmental threats to crew safety
- The security and testing of communication channels

This list of threat potentials is not exhaustive. Every CIT carrier has to examine its own routes, responsibilities, and capabilities in creating a risk assessment.



POLICIES AND PROCEDURES

From the analysis of risks, a carrier will develop concrete methods to mitigate them. Industry best practices have evolved for common issues and can be incorporated in policies and procedures within a risk management program for each carrier.

- Over-the-pavement policy
- ITM/ATM policy
- Accounting for vehicle keys
- Dual control
- Separation of duties

INTERNAL AUDITS

Each CIT carrier has to set up internal audits as financial controls to maintain an accountable cash trail for every step in a cash management sequence. These audits may use a variety of methods.

Audits will include on-going standardized procedures that happen at predictable times within a sequence. An audit may also be a randomized, unannounced review. The policy for random audits is simply that they exist and may occur at any time.



EXTERNAL AUDITS

An external audit firm is an important component of financial control. It is given great credence because it is an independent third party whose only interest in the cash management transactions is whether they are properly accounted for. For this reason, some banks and insurers require them as part of their agreements to work with specific CIT carriers.

Carriers should choose external auditors who have expertise in the CIT industry. These companies can bring a broadly experienced view that gives a carrier the advantage of learning from the successes and mistakes of other firms.

External auditors directly perform selected audits:

- Surveillance audits that may be scheduled or without notice.
- Random cash and coin audits that can detect theft or fraud when routine controls fail.



PERSONNEL SCREENING AND TRAINING

Employees on the front line have to be able to cope with threats appropriately as they arise. Some of these are urgent and potentially catastrophic, and others are emergent failures due to a weakened or defeated control. Selection and training help identify employees who can handle the threats.

Pre-employment screening is a critical first step, and be thorough enough to weed out applicants who are unfit.

At minimum, screening should cover at least 7 years of history, and should include:

- Work Experience
- Criminal Background Check
- Credit History
- Driving History
- Drug Screening

In addition to pre-employment screening, employees should be evaluated on a regular basis for changes in circumstances.



CIT TRAINING

Working in CIT has unique requirements that only on-the-job training can address. Since these employees have to operate without direct oversight at the exact times when risks materialize, they need to be as prepared as possible to make good decisions in the moment. There are several facets to their training.

Successful CIT carriers have thorough risk management programs based on continuous self-examination and process management. Every point of weakness that can be exploited by an attacker who has little to lose and a lot of cash to gain is identified and modified to mitigate the risk.

ITMs do not change the basic approach carriers need to take. But the differences in complexity, length of service interval, and expanded types of cash and transactions within ITM capabilities, require new thinking about the risk management program. The program should be able to accommodate variations due to customer and premise differences, and still maintain the high level of reliability cash management demands.

Good employees are essential to a successful CIT carrier. Selection and training are places where investment is definitely warranted.

Physical Security: Armored vehicles have some built-in protection, of course, but the doors have to open. The premises of an ITM also have various kinds of vulnerabilities. Entry and exit from the vehicle and to the premises, both by carrier employees and visitors, need to be controlled. Communications and alarm systems should be installed and tested at every point in the route, and they should be robust to survive attack. Hold up buttons may be used to alert backup.

Access Controls: Since ITMs are located in public spaces by definition, access control can be problematic. The area between the truck and the ITM is an access corridor for the crew. One avenue of threat deterrent is by design: if the access corridor can be changed to increase visibility or to restrict its use during service intervals, opportunities for attacks can be reduced. Other controls include keys, combinations and passwords used to gain entry to an area, and alarms on the teller machines.



About the CIT Industry: Understanding the cash management business provides the context needed to help the employee assess situations more accurately. This information should be accompanied by a code of ethics adopted to reflect carrier mission and objectives as well as the general conditions in the industry.



Carrier Policies and Procedures: Training in policies helps the employee become an integral part of the operation, especially when he or she has to act independently. CIT carriers have to be highly reliable in environments where risks are intense and unpredictable. Success will depend on the ability of the person on point.



Specific Activity Training: Beyond general policies, employees need to learn exact methods and procedures for the carrier's activities, including procedures for the vault, ATM/ITM servicing, on site cash management practices, route management, opening and closing procedures, and branch access control.



Emergency Situation Training: The physical threat of violence and loss has to be anticipated, with training that may include practice for known types of assault and incidents. Obviously, many carrier employees will need thorough training in weapons control and use. All of these components may include specific information or practices based on the facilities and environments where services are provided.



On-going Training: The complexity of the service requires refresher training, with updates to both legal and procedural matters. On-going training gives the carrier a good window into the employee's evolution and capabilities.



CRIME TRENDS: ATTACKS & ROBBERIES

LATIN AMERICA: FOCUS ON BRAZIL

INCIDENT SUMMARY 09.01.18



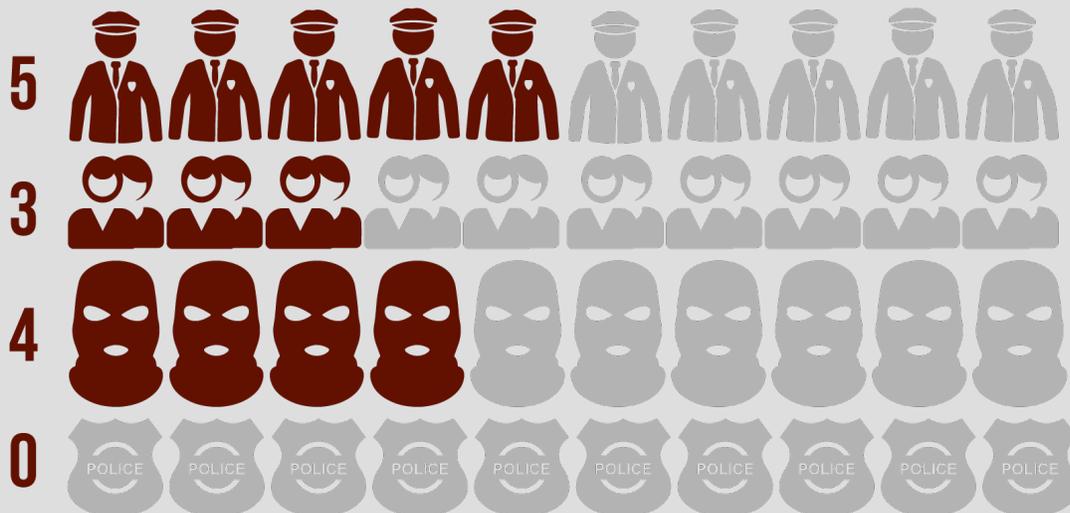
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FEB	7,146,830	2,127,307
MAR	19,657,091	6,059,100
APR	15,105,681	4,479,813
MAY	8,870,882	2,456,524
JUN	4,613,553	1,216,178
JUL	1,712,020	434,716
AUG	4,315,846	1,097,846
SEP	92,175	22,211
OCT	0	0
NOV	0	0
DEC	0	0
TOTAL	70,079,023	20,533,094



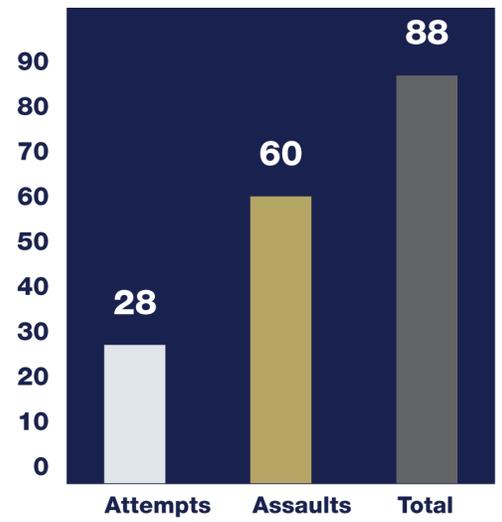
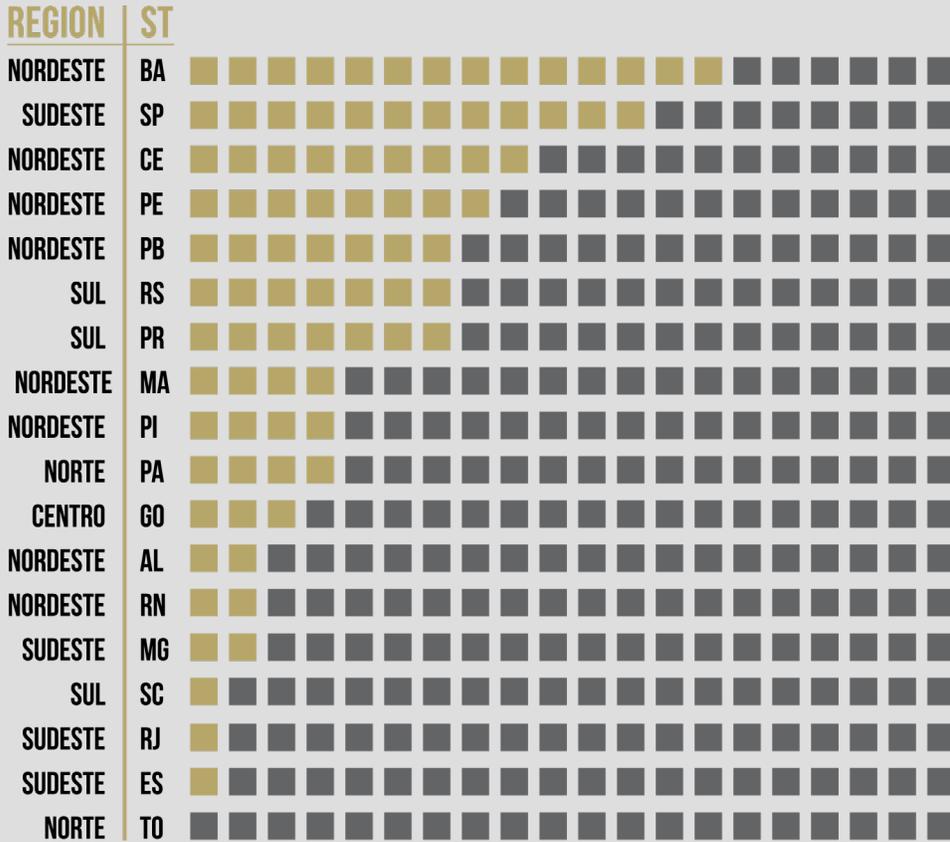
INJURED



KILLED



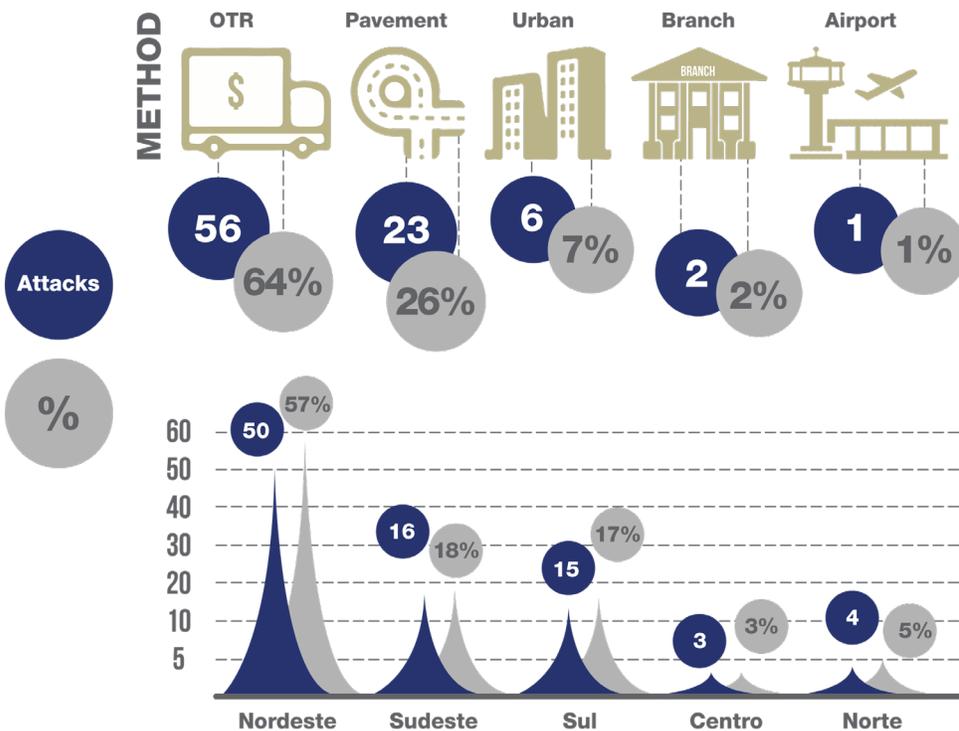
LATIN AMERICA



CRIMINAL INCIDENT INDEX

YEAR	Days	Start Date	End Date	Attacks	Index
2015	364	JAN. 1 2015	DEC. 31 2015	67	5.43
2016	365	JAN. 1 2016	DEC. 31 2016	84	4.35
2017	364	JAN. 1 2017	DEC. 31 2017	110	3.31
2018	272	JAN. 1 2018	SEPT. 30 2018	88	3.09

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