



# Cash Recycling in Next Generation Retail Banking

## Retail Banking OpEx Savings by Introducing TCR Technology

The ECB's directive on cash authentication, fitness and recycling triggers the retail banks interest to revisit their cash management model aiming to minimize costs.

Cash Recycling creates savings of up to 75% in cash handling by:

- Reducing the frequency of cash replenishment and removal by 3x-4x
- Decreasing Cash-In-Transit (CIT) transportation and processing costs
- Reducing cost of carrying floating cash
- Reducing the risk of robberies and enhancing staff security

Thus, cost elements such as among other the teller labor cost, outsourced services for Cash-In-Transit, Fitness and Sorting and ATM's cash replenishment may be sliced or marginally eliminated by migrating from the traditional unassisted teller into a new teller paradigm supported by Teller Cash Recycling assistant machines. A bank project targeted in TCR's technology deployment across branches may result in a significant net present value for the bank, along the equipment lifecycle, with CapEx investment Internal Rate of Return being equally attractive, challenging other corporate portfolio investment initiatives.

There is certainly an operating cost reflected in a given Retail Banking Unit structure and operating model. Next to the introduction of TCR's technology across the branches network, this cost is significantly reduced. This saving in OpEx is a key determining factor in bank's management decision to plan and deploy such a project.

## Teller Cash Recyclers A new era in handling cash

Teller Cash Recycler (TCR) is one out of many versions of a Teller assist unit (TAU). Thus, TCR's are electromechanical devices used in retail banking for the disbursement and deposit of banknotes, supporting decisively the bank teller transactional operations. Among others, TCR's are also deployed in casino operations, large retailers' back-office.

Intrinsic characteristics of modern TCRs are:

- Banknotes authentication and fitness checking
- High-speed of banknotes processing
- Strong box vault enclosure
- Digital communications interconnection with host banking systems
- Auditability and traceability of all operations

Benefits:

- Speed
- Accuracy
- Security
- Safety
- Auditability and traceability
- Real-time cash inventory

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- Complete physical protection of cash
- Certified Safes
- Controlled user access
- Secured communications
- Programmable access times
- Silent alarms
- Remote monitoring & updates

**Satisfies**  
Central Bank Standards

**Reduces**  
Cash Transport Costs  
Cash Counting Costs

**Allows ATMs**  
Loading with "fit" Notes

### Invaluable Teller Automation

The principle design objective, behind the CM18 Teller Cash Recycler unit, was to create an innovative device that would integrate seamlessly into any modern cash teller environment, performing the counting, depositing and dispensing of banknotes in the simplest and most straightforward of manners, whilst increasing teller position security.

### Intelligence included as standard

Using the integrated MS Windows CE based processor, the CM18 can perform many useful functions locally. Banknote counting and validation, note fitness sorting and management of foreign currencies are only some of the operations available. Detailed counting and note type information is displayed on the device colour display and stored in the internal journal file. Real-time update to Cash Management application.

### Smallest Service Footprint

The CM18 has one of the industry's smallest operational and service footprints which means it can be installed in the smallest branch or office space without the need for any refurbishment.

### Remote Management Options

Monitoring functions for optimised cash management. Management of device faults. Ability to program and configure the unit. Proactive management of Preventive Maintenance visits. Online updating of firmware and banknote templates over secure connections.

### Physical and Logical Security

UL291, CEN L, CEN III safes with standard options of floor anchorage. Alarm sensors and provision of secure locks. Safe door opening can be software controlled. Option of secure communications (TCP/IP V6-IPSEC). Left or right hinge on unit door.

### Counting, Validation, Fitness

Banknotes counting, denomination fit note sort, ATM Count. Validation/fitness via full image sensors for visible, UV & IR light, plus magnetic and ultra sound sensors. Reader stores up to 16 currencies, and 32 denominations per currency

### Capacity

8, 10 or 12 recycling cassettes. Up to 500 notes per cassette.

### Connectivity

Application communications via TCP/IP, or USB 2.0, or RS232. Optional peripherals via RS232. USB 2.0 and/or TCP/IP for service updates. Optional Embedded XP PC enabling integral Teller Application support.

### Multi-vendor Software Solutions

CM18 is compatible with many middleware platforms and multi-vendor cash teller solutions, such as Finsolint's CasheXpress.



Designed and developed

for next generation Retail Banking







# Remote Cash Control

## A paradigm shift in cash handling processes

### RCC and Secure Smart Safes

Remote Cash Control (RCC), the deployment of secure smart safes at merchant locations coupled with information reporting and provisional credit mechanisms, has been utilized for nearly 15 years as a means of improving merchant cash cycle control. Since 2004, when banks gradually began offering provisional credit based on validated currency residing at the merchant location, the industry has witnessed a surge in interest and adoption of these devices.

For most merchants, couriers and banks, cash handling is still predominantly manual, but a growing number of institutions offer Remote Cash Control products that sweeten the deal by providing provisional credit for deposits that are counted and validated by a "smart safe" that also provides audit trails for cash.

The primary benefit of RCC provisional credit is that it facilitates wholesale reengineering of the cash cycle within merchants and between merchants, armored couriers and bank cash vault networks. RCC removes the substantial burden of cash handling typically carried by bank branch personnel historically, largely with the introduction of meaningful automation.

### RCC Value Proposition

The adoption of a "Remote Cash Control" services by a merchant will show immediate tangible benefits, reflected directly or indirectly in his P&L bottom line. The higher the exposure to cash volumes the larger the monetary return will be.

Remote Cash Control services value proposition can be articulated as below:

- Simplify cash handling processes
- Reduce transportation expenses
- Enable single banking relationship independent of geo dispersion
- Offload labor burden
- Reduce need for cash handling competent/trusted employees
- Optimize floating cash
- Implement a cash flow policy (maximum cash per cash point, per sales outlet, etc.)
- Reduce staff fraud and theft, establish improved employees company culture
- Leverage your enterprise IT system by feeding them with accurate, real-time cash inventory and route tracing information
- Increase your ability for intelligent, information based, corporate decision making on improved strategies and tactics.

### Cash Monitoring Center

Monitor and control your cash collection points CMC provides you with the tools and the visibility to monitor and control your cash collection points network in real-time.

Try out CMC Demo at [tcr-cubeiq.gr/cmc](http://tcr-cubeiq.gr/cmc)  
User-id: demo password: ciq



#### View collection points status

See on the map all your collection points network with variable status indicators.



#### Discover cash inventory levels

Quick view on the map with the inventory level of each collection point. Drill-down info.



#### Focus on specific network entities

Isolate banks, or retail chains, or single retail outlets. Select geographical area to focus into.

### The lower-tier retailers smart safe infrastructure



SID is a robust and sturdy device designed to deposit banknotes. After operator identification, the system allows to deposit bundle of mixed banknotes. After accurate counting and validation, they are then deposited into a self-sealing plastic bag located inside a robust and secure safe. Each deposit transaction is monitored and all the data are available to the customer and to the bank. A receipt for each transaction is issued, which includes details of notes (quantity, denomination and total value).

### The mid-tier retailers versatile smart safe



FID is a breakthrough innovation by CTS. Its name stands for Fast Intelligent Deposit. It is a self-banking solution that allows users to deposit banknotes and cheques in bulk at an impressive speed. It is aimed to replace deposits made using envelopes (as in night-drop deposits) as well as automated solution either at the bank's lobby or in a self-service area, providing great improvement and benefits to banks and users.

### The top-tier merchants smart safe infrastructure



CM24B is a high-end smart safe designed for handling and control of large volumes of cash withdrawal and deposit. The cash fitness sorting feature allows the recycling of only the fit banknotes, while the unfit ones can be removed from circulation. The banknote "recycle" function reduces the money held in-place to a minimum. There are two separate safes, the main for recycling and the side safe where notes bundles are produced in CIT bags.