

# The Challenge of Large Deposits in Teller Capture

# Executive Summary

The implementation of Check 21, electronic check exchange systems, and the closure of many Federal Reserve Bank check processing centers have prompted a majority of financial institutions scan checks at branch locations. A study conducted by the UCLA Anderson School of Business estimates that 70% of US banks have adopted some form of imaging at the branch, while only 35% of teller stations are equipped to capture checks immediately by the teller. The 35% teller adoption rate may be over-stated because it includes two large banks, JP Morgan Chase and Wells Fargo, who image checks at the teller line.

Teller capture has only achieved limited adoption - mostly in technologically advanced and progressive institutions - because of widespread concerns primarily over implementation costs (scanners and software) and the perceived risk of slower customer service.

Numerous articles and white papers have been published on branch capture, along with the advantages and disadvantages of teller vs. backcounter capture. This white paper serves as a brief summary.

# Back Counter Capture

Back-counter capture is essentially Image POD with a remote first pass capture of the items. In back-counter capture, customer facing teller operations remain essentially unchanged. Tellers continue to record only deposits. Deposited checks are stored for later capture on a scanner at the back-counter or back-office of the branch. The branch or a regional/central operations center enters amounts not recognized by the Courtesy/Legal Amount Recognition (CAR/LAR) software engines, makes corrections for missing or incorrect characters in the code line, and balances the transaction.

## Advantages

- Least disruptive change that requires relatively limited teller retraining
- No risk of increased transaction time or wait time for customers
- Potentially fewer and less time-sensitive courier pickups
- Lower investment in hardware and software (1-2 workstations per branch)

## Disadvantages

- Does not significantly reduce or eliminate back-office operations
  - which is where the real cost savings are achieved
- Requires account adjustments and customer notification for out-of-balance deposits

- Complex exception processing – image quality defects necessitate a call to the branch, to retrieve the physical item if it cannot be recognized or keyed
- Less opportunity for automated fraud prevention
- Timely capture – Many institutions struggle with transactions that tend to “pile up” towards closing time

While the majority of banks have selected this option, back-counter capture should be no more than an intermediate step. Back-counter capture does not realize the real benefit of Check21 and image exchange: to record, authenticate, balance, and exchange items directly at the first point of contact and eliminate most day 1 back-office operations.

## **Teller Capture**

Teller capture eliminates secondary processes for most transactions. Each teller is equipped with a scanner and software. The teller scans, corrects, and balances deposits as they are presented by the customer.

**Advantages**

- Completely eliminates or drastically reduces regional/central processing operations
- Most deposits are balanced by the teller – no corrections and customer notifications required
- Opportunity for fraud prevention, since all checks are captured and imaged with the customer present – alert tellers
- Opportunity to integrate ID capture and authentication at the teller (refer to a recent publication titled ID Authentication in Banking Applications)

**Disadvantages**

- Investment in hardware and software
- Additional device competes for teller station workspace
- Potential for increased transaction time and longer teller lines
- Disruptive change that requires extensive teller training to be successful

Most importantly, teller capture makes the front line responsible for servicing the customer, without errors, and without passing problems to the next operation.

# Teller / Deferred Deposit Combination

It clearly does not make sense to process very large deposits at the teller line, keeping the customers waiting while the teller scans and balances a large number of checks. Note that customers who regularly make large deposits should be targeted for the bank's lockbox or remote deposit capture offerings, thus reducing the frequency of large deposits. But large deposits will continue to exist, albeit in lower quantities.

Most financial institutions using teller capture are setting a limit for deposits processed immediately by the teller with the customer present.

During the initial implementation of teller capture, deposit limits may be low (5-10 items). This avoids longer wait times while tellers become familiar with the new process. But even with low deposit limits, the vast majority of deposits (typically over 95%) are processed entirely by the teller since most deposits are 1-3 items.

Since the initial adoption of teller capture, leading early adopter banks have increased the speed of teller scanners and gradually raised the item deposit limits. A leading large adopter of teller capture recently increased the limit to 100 items. Tellers are allowed to make intelligent judgment calls, deferring deposits

during rush hours or when multiple customers are waiting in line. Tellers have three options to process a deposit:

1. Immediate scan and balance (for the majority of transactions).
2. “Deferred deposit” – teller records only the deposit, and sets the deposit aside. After the rush hour, the teller calls up the deposit and scans and deposits the items.
3. “Send for processing” – teller records the deposit and sends the items for later capture at the back-office or a regional processing center.

“Send for processing” is in most cases a costly exception operation. It requires additional equipment, facilities, staff, and software at the branch (back counter scanners) or time sensitive courier services to take the deposits to another location.

## **Teller Capture Today**

There is a clear move in top 100 institutions towards teller capture. But secondary “exception” processes remain, and they are always labor intensive, costly, and more prone to errors and fraud. To truly reap the benefits on Check 21, financial institutions need to completely eliminate secondary processes, including back-counter or regional processes for large deposits.

Teller capture technology advancements during the past 5 years are making the arguments against full teller capture obsolete. Let's examine some common miss-conceptions about teller capture, especially related to large deposits:

- Teller capture results in longer lines: There is no indication, both from personal observation and customer feedback that this is the case, as long as tellers are allowed to defer deposits during peak hours.
- Teller scanner speeds of 30-75 Documents per Minute (DPM) are sufficient. When leading institutions first implemented teller capture, most scanners processed at 30 DPM or less in real life production. Higher speeds scanners were bulky, more expensive, or prone to jamming. Over time, most institutions upgraded 30 DPM scanners to 60 or 90 DPM. Today's teller scanners are much faster, with better paper handling and image quality at higher speeds. Market price pressure has reduced the cost of teller scanners, with more performance available today at a lower price point.



# Requirements for the Elimination of Secondary Processes for Large Deposits

The elimination of secondary processes for large deposits is very feasible, with the right operational procedures, software, and scanner technology.

## **Operational Procedures and Teller Training**

To maximize customer service, branch managers must observe the service levels, and give tellers the leeway to defer large deposits during peak hours, or when customers are waiting or in a hurry. A deferral – unlike a back-counter transaction – does not mean that the teller “passes the transaction” on to a back-office or regional center; the teller continues to be the owner of the transaction and simply calls the transaction up for completion during a non-peak time.

## **Teller Scanner Software and Application**

Teller solutions must be user-friendly and minimize the teller workload. They must provide an effective method for the deferral and later recall and completion of deposits.

Two critical determinants of transaction time are amount entry and MICR scan line corrections:

- Amount Entry can be minimized with advancements in image processing, especially on challenging documents (money orders, items with dark/security backgrounds, or gel pen

writing), and by making documents more image-friendly. Advancements in image processing reduce image quality rejects, and the number of items keyed. The industry goal should be to exceed 90% CAR read rates with error rates no higher than human data entry.

- MICR recognition and accuracy: Teller scanners should read 98-99% of full check code lines with magnetic read only. A further improvement to well over 99% is possible with the combination of optical code line recognition from the image. Institutions may reject optical read of entire checks due to fraud concerns, but most corrections are for 1-3 characters in a code line.

### **Scanner Technology**

Scanner technology and price-performance have improved greatly. Scanner manufacturers design scanners optimized for one speed. This should be the fastest speed offered, although some scanners operate less reliably at the fastest speed. Most scanner manufacturers produce a single product, and adjust the speed by software. Buyers may obtain better terms by purchasing the higher speed initially compared with a subsequent upgrade.

# Future-proofing Your Teller Scanner Acquisitions

Speed at the teller line is essential to minimize the disadvantages of teller capture, and to eliminate costly secondary processes. Early adopters of teller capture mostly selected 30 DPM scanners and later paid dearly for upgrades to 60 DPM or learned that scanners did not perform well at higher speeds. Similarly, today most institutions subscribe to the common miss-conception that 75 DPM is the ideal speed for teller scanners, purchasing scanners that will in the future be too slow, too unreliable at faster speeds, or too costly to upgrade.

To future-proof a scanner decision, institutions should:

- Consider implementing only fast scanners (up to 150 DPM maximum speed) or at least a mix of 75 DPM for retail tellers with 150 DPM for the higher volume / commercial windows.
- Lock in the premium for later speed upgrades.
- Ensure that the scanners have capabilities you may need in the future, such as ID card scanning and magnetic stripe readers for authentication and fraud prevention applications.
- Insist on an auto-opening feeder for deposits of 100 items. Tellers must be able to scan most deposits with one hand, and without losing eye contact with the customer.
- Carefully test that faster speeds are achieved in a real application and processing environment.

- Analyze the Total Cost of Ownership (TCO). TCO includes not only the initial purchase cost and maintenance, but the cost of supplies such as ink cartridges. Avoid custom supplies and operator replaceable parts that increase TCO and require teller training on scanner maintenance tasks.
- And finally, carefully test and verify that the faster speed does not result in a deterioration of MICR or image quality, jams, repairs and teller maintenance, or a shorter life expectancy of the device.



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