STRATEGIES FOR SUCCESS

Industry Best Practices Guide

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REMOTE DEPOSIT CAPTURE MARKET

Expanding the Remote Deposit Capture Market With Software Tools for RDC and Remote Lockbox Development

Introduction

The growth and evolution of the Remote Deposit Capture (RDC) market continues to challenge the providers and users of the core technologies required to capture and process these types of transactions. RDC originally started with businesses who received a high volume of check payments. Processing a large number of checks justified the purchase of specialty check scanners and software. The growth of the RDC market has now expanded to businesses and consumers that require lower cost check capture solutions because of lower check volumes. This paper will discuss some of the business scenarios, technology challenges and solutions associated these new expanding markets.

## Business Drivers for the Evolving Remote Deposit Capture Market

For low volume RDC customers, it's all about the convenience of not needing to make special trips to the bank or to send the paper checks through the mail or to use courier services to deposit the paper checks they have received. They want the convenience and efficiency of RDC from wherever they are. Mobile phone cameras, portable page scanners, multi-function devices, high speed scanners with automatic document feeders each could be a suitable scanning and check image capture device for these new type of RDC users. They have these scanning devices already.

Types of Potential RDC Customers

- Field offices of insurance companies, brokerage firms, real estate

- Distribution companies providing delivery services

- Low volume remote lockbox receivable processors

- Branch offices needing a way to efficiently process check-paying walk-in customers

- Charity and property management organizations processing low volume check deposits from patrons on a periodic basis.

- Small business and consumers needing to use whatever scanner device they have available for their occasional deposits.

Field Offices - Insurance, brokerage and wealth management companies are organizations that have remote field offices with various types of scanners. They receive a low volume of daily checks (10 - 100), but those checks may be of high value. Without a RDC solution, the paper check payments have to be transported and physically deposited to a branch bank facility or sent back to headquarters. The collection and deposit of the paper checks may take several days, delaying the availability of funds that could be used for investment and cash flow. With an affordable RDC solution, the remote offices and representatives can now capture and transmit the received checks to a central location for same day

deposit. This increases cash flow and also reduces payment risk by detecting uncollectable payments sooner. A RDC solution using a document feeder could provide a means to capture and send in other associated documents with the transaction. These other documents could be invoices, notes, contracts or other transaction related communications.
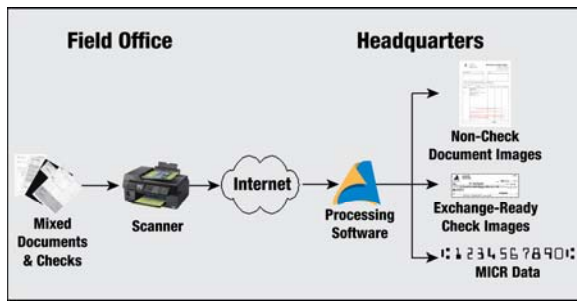
Distribution companies with mobile fleets (delivery drivers, field service/sales reps) receive payments during the route delivery process. These payments may be checks along with other payment types. Distribution organizations need a way to process the received paper checks electronically. A mobile phone or small portable scanner is an ideal way to capture check information. For these companies it's about accelerating the payment collection process to free up their customers' credit limit.

Low Volume Remote Lockbox - receivable processing via wholesale lockbox services is an opportunity for financial institutions to obtain and keep their corporate customers and depositors. They need to capture remittance vouchers, coupons and other associated transaction information. Because this is low volume and a service to the corporate depositors, the financial organization needs to make the process as efficient as possible. They cannot afford a two step process of scanning all the documents and then bursting apart the checks and using a specialty check scanner. They need an economical one step process.

Lockbox service providers (both wholesale and retail) also have a problem in which

payments are not sent to the lockbox address but delivered to field branches or misdirected to corporate addresses. These payments are defined as "stranded payments" and before affordable RDC they had to be physically redelivered to the central lockbox processing center. Now with RDC these stranded payments can be captured remotely and sent electronically to be processed at the lockbox centers. Any associated non-check documents can be scanned and sent as well. This speeds up the collection process for these items while reducing transportation and remote handling expenses.

Branch offices - utility companies and other service providers have hundreds of local offices. Daily walk-in customers would like to make check payments. The branch offices send these payments to headquarters. These offices do not have trained check processing staff nor dedicated check scanners, but they do have a wide variety of scanning devices.

Charities, non-profits and property management companies have patrons that regularly make contributions and payments. These are periodic payments that spike on certain days of the month. Overall their volume is low. These customers want a low cost efficient mechanism that eliminates the need to visit the bank for depositing checks.

Small Businesses & Consumers may have an inexpensive flatbed scanner or multi-function machine. They will want to scan a variety of documents that are not checks such as invoices, receipts, notes or other transaction related documents. They want to scan the occasional check as well, and send that directly to the bank without making a physical trip.

All of these potential new RDC users have two things in common:

1. Low volume of checks to process
2. Variety of scanning devices available

Processing Software

Technology Issues

These new RDC growth markets are changing the requirements and characteristics of the check image and MICR data capture process. Traditional specialty check scanners and current RDC software do a reasonable job of capturing accurate MICR data and producing exchange compliant images, but these specialty check scanners are not practical for low volume RDC users.

The new RDC markets require the use of lower cost check image capture devices that are portable and convenient to use and software that can handle the wide variety of scanned check images. RDC solutions are now evolving to include every type of document scanning capture device. However, these devices have two major issues:

1. **No MICR -** MICR information is not captured with these scanners by physical magnetic readers.

2. **Non-conforming check image -** The resultant scanned check image is probably not formatted for exchange or electronic deposit.

Since these scanners do not have magnetic MICR readers, it is now the responsibility of software to capture the MICR information using software optical character recognition (MICR OCR) technologies that read the E13B MICR fonts from the check image, accurately with low substitution errors.

Check images captured by this wide variety of scanning devices do not produce a check image that conforms to exchange standards. Check images from these devices are no longer captured properly framed and cropped with correct resolutions and in correct black and white TIFF file formats. The software technology needs to accept as input the variety of image formats produced by these scanners and format the images to conform to standards.

Checks can also be remittance vouchers with the check a component of a multipart form. The application technology will need to be able to filter out the non-checks while maintaining the integrity of the entire transaction. The technology will also need to locate and extract check images from the top, middle or bottom of a multipart check voucher forms.

Processing Software

Remote Deposit Capture Scenarios and Scanning Issues

Below is a table listing the business scenario, scanner type and their respective issues.

- Desktop flatbed scanner
- Mobile phone camera
- High speed & desktop ADF scanners
- Portable ADF paper scanner
- Multi-functions (scanner-printer-fax-copier)

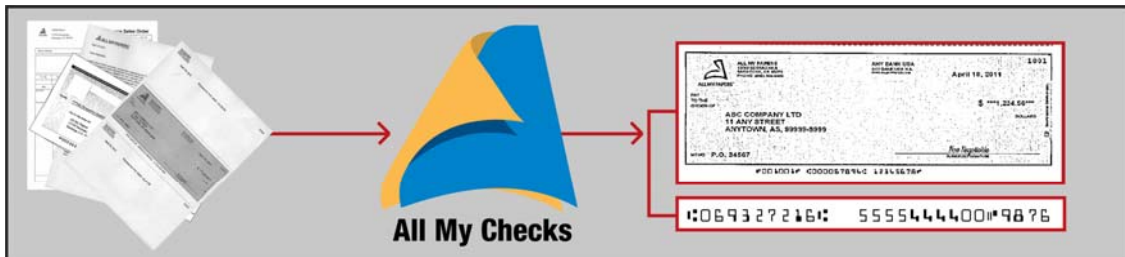## Business Application vs. Scanner Types

Document Stream & Scanner Type	Flatbed Scanner	Mobile Phone Camera	Desktop ADF Scanner	Portable ADF Scanner	Multi-function Device
Small Business	√	√	√		√
Branch Office	√	√	√		√
Field Office	√		√	√	√
Distribution		√		√	
Remote Lockbox			√		√

Technology Issues vs. Scanner Types

Technology Issue	Flatbed Scanner	Mobile Phone Camera	ADF Scanner	Multi-function Device
Scans at known resolution	Possibly	No	Possibly	Possibly
Upside down image	Possibly	Possibly	Possibly	Possibly
Framed and cropped	No	No	No	No
Poor focus, contrast, or lighting	No	Yes	No	No
Outputs B & W conforming TIFF file	No	No	No	Possibly
Conforming resolution for exchange	No	No	No	Possibly
Conforming TIFF Tags for exchange	No	No	No	Possibly
MICR Captured	No	No	No	No
Auto straightens (deskews)	No	No	Possibly	Possibly
Conforming image dimensions	Yes	No	Yes	Yes
Trapezoidal issues	No	Yes	No	No
Outputs color, grayscale image	Yes	Yes	Yes	Yes
Extracts check from Voucher	No	No	No	No
Endorses rear check image	No	No	No	No

All My Papers Provides Software Tools for Developing Remote Deposit Capture and Lockbox Applications

All My Papers (AMP) is the developer and distributor of software for check image cash letters and check image processing. AMP's core competency is Image Cash Letter (ICL) processing software. Products include the technologies required to perform interoperability and data integrity processes such as: extract MICR data from check images; process check images for exchange and electronic deposit; validate check data; view, edit, and conformance-check ICL files; and print IRDs.