



**White Paper**

**Banking in a Snap: Mobile Image Capture  
Can Transform Financial Services**



# Banking in a Snap: Mobile Image Capture Can Transform Financial Services

Consumers increasingly favor banking via a mobile device over visiting a branch. At the same time, their financial institutions seek ways to engage with them more deeply in order to solidify relationships, while reducing costs and growing revenue. An effective way to achieve all of those goals is to leverage the mobile device's attributes as a vehicle for delivering mobile image capture services. By allowing consumers to use their mobile device's photo and video features to conduct financial business, institutions will strengthen relationships with profitable accountholders, generate new revenue opportunities and reduce service costs.

With financial services competition growing fiercer and institutions struggling to maintain share against a rising tide of non-traditional providers, financial institutions seek ways to deepen consumer engagement. In our digital world, consumer-generated content proves a powerful tool to do that. While consumer-generated content used to mean written text primarily, today consumers are snapping smartphone photos of every aspect of their lives. The skyrocketing popularity of platforms like Facebook, Instagram, and Snapchat is evidence of consumers' increasing penchant to turn their photos into content.

Beyond using smartphones to take pictures, consumers are increasingly using them as their primary digital device and preferred banking channel. As noted in [The Rise of the Mobivore: Serving the Mobile-Only User](#), a growing number of consumers only go online via a mobile device. As these mobile-only consumers turn to their mobile devices for a frictionless experience for shopping, socializing and other tasks, they bring the same expectations to banking. [A May 2015 study by Javelin Strategy & Research](#) found that 23 percent of primary bank customers claim to be "mobile first," primarily using a mobile device to access a checking account. It's not surprising, then, that they're willing to switch banks for the convenience these services offer. In the [2011 AlixPartners Mobile Remote Deposit Capture study](#), 43 percent of consumers said the number one mobile feature they would switch primary financial institutions for is check deposit via a smartphone.

In tandem with meeting consumers' evolving mobile banking expectations, institutions also seek ways to reduce operating costs, especially in light of the escalating financial burden of maintaining regulatory compliance. Adhering to financial industry regulations and reforms, such as The Dodd-Frank Act, is an expensive proposition, with the required disclosures alone proving costly to generate, print and distribute. Bills are costly to generate too, with Blueflame Consulting estimating a typical bill costs 50 cents to produce and send.

In the midst of these cost-cutting pressures, mobile banking proves attractive to financial institutions because of its low cost-to-serve: A mobile transaction averages just 10 cents compared to \$4.25 for an in-branch transaction (Figure 1).

**Figure 1: Mobile Transactions Cost Considerably Less**

Channel	Average Cost Per Transaction
Branch	\$4.25
Call Center	\$1.30
ATM	\$1.25
Online Banking	\$0.19
Mobile	\$0.10

Source: Javelin Strategy & Research, 2013

Moreover, mobile bankers are more profitable. A Fiserv proprietary study of mobile users conducted in July 2014 found that compared to non-digital bankers, mobile bankers have an attrition rate that is 10 times lower, they use almost twice as many products on average, and they generate higher annual fees (over four times higher for customers aged 31-40).

**Making Banking a Snap**

These trends all point to one important conclusion: financial institutions can achieve the dual goals of increasing engagement and reducing costs by offering mobile image capture services.

The ability to capture an image via a mobile device is continually evolving (Figure 2), making this capability more and more viable for financial business. The earliest form of mobile capture involved checks, which are easy to handle because of their standard format – you know what to look for and where to find it. Next came bills,

which have more data fields and few standards for where the fields are located; receipts, which are entirely unformatted; and driver’s licenses, which vary in format based on the issuing state or country. Faces are even more complex to capture than documents, with no standardization. Yet as capture technology has advanced, each image type has become more feasible for mobile capture. The device itself has helped this evolution along, as the newest generation smartphones have more features, enhanced cameras and more processing power – all ideally suited to capturing images.

Financial institutions can leverage the increasingly advanced image capture capabilities of the smartphone to deliver high-value financial services and features such as the following.

**Mobile Deposit**

The first mobile capture service, depositing a check by taking a photo with a smartphone has become mainstream and is now offered by 90 percent of the top 30 financial institutions, according to the [Javelin Strategy & Research 2014 Mobile Banking Financial Institution Scorecard](#).

**Figure 2: Evolution of Image Capture**



Source: Fiserv, Inc.

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Consumer willingness to switch banks to obtain mobile deposit (as noted earlier) makes this service – once a hallmark of early adopters – a mobile banking feature most consumers expect today.

### Photo Bill Payment

Consumers can use a smartphone to take a photo of a bill and have the essential information automatically populated into the right bill payment fields so it's ready to pay – a fast and simple experience that is growing in adoption. Offering this functionality through Snap-to-Pay™ from Fiserv has helped [Bank of the West](#) drive mobile bill payment volume by 54 percent while enabling customers to add a bill in about 30 seconds.

### Balance Transfers

Imagine how successful your credit card switch-and-save offer could be if a consumer could transfer a balance from another institution to a new card with your bank – just by using a smartphone. [U.S. Bank](#) enables customers to snap a photo of a bill payment stub from a credit card statement from another institution and upload it to U.S. Bank's site. The bank then transfers the card balance to a new U.S. Bank credit card account – all in about a minute. This fast and easy process helps the bank secure new cardholders and increase interest and interchange revenue.

### Receipts

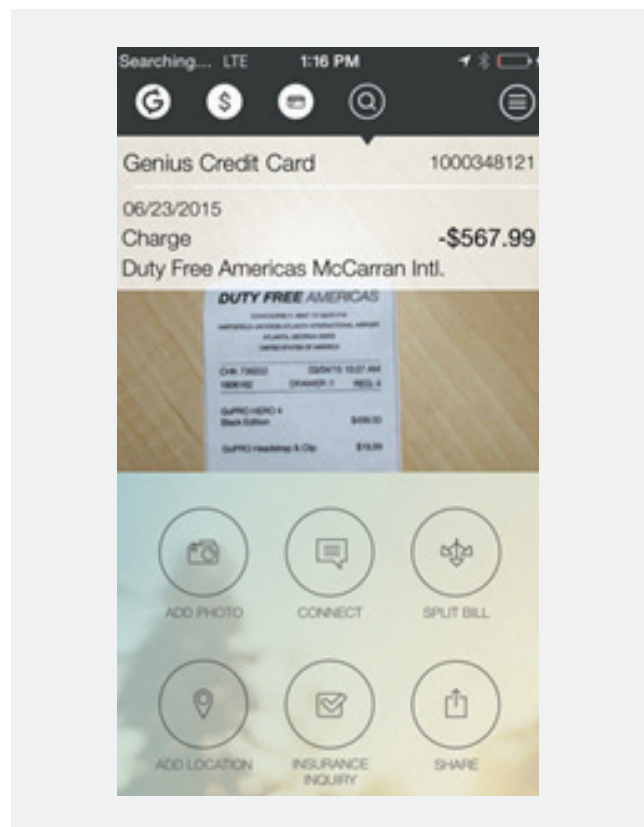
Mobile image capture can greatly simplify receipt management by eliminating paper. A receipt capture feature allows consumers to snap a picture of a receipt and attach it to the associated transaction in a mobile app. To find the receipt later, the customer simply locates the transaction and clicks on the “review image” icon (Figure 3). [American Express OPEN](#) offers this capability with its ReceiptMatch<sup>SM</sup> feature. ReceiptMatch allows users to take a smartphone photo of a receipt and then

matches captured images of business card receipts to transactions on the customer's online statement.

### Origination Documents

Mobile image capture can reduce inconvenient, costly trips to the branch by enabling the capture of documents needed to complete certain transactions, such as opening a new account. The customer can snap an image of a driver's license to provide proof of identity, for example, which makes for a fast, convenient experience.

**Figure 3: Mobile Image Capture Simplifies Receipt Management**



Source: Fiserv, Inc. 2015

### Authentication

One of the biggest obstacles to mobile banking adoption is concern about security – something mobile image capture can help alleviate. Sophisticated authentication technology is enabling institutions like [USAA](#) to use the image of a customer's face as the authenticating factor, much like an iris scan uses the eye. Customers with security fears will appreciate that facial recognition technology provides a stringent form of authentication; those who don't share those worries will benefit from an approach that is faster and easier than inputting a password or answering a challenge question.

### Beyond the Phone

A successful mobile image capture offering requires more than a smartphone and an app. For the best customer experience, financial institutions must address every aspect of a mobile image capture implementation from end to end, including supporting components like the following.

#### An Authenticated App

It is essential to incorporate an authenticated app that ensures the image capture process is secure and has the necessary controls – requiring that the image captured is stored only on the institution's server and doesn't remain on the device, for example.

#### The Right Platform

A mobile platform that manages the business logic and the user experience is vital to a successful implementation. Creating the required native app takes time and expertise; if you don't have the resource in-house, an experienced technology partner can provide that assistance.

### Image Quality Analysis (IQA)

IQA assesses whether a captured image is readable – a critical step, since dark, blurry or improperly cropped images can't be read by an optical character recognition (OCR) engine. Whether that happens on the device or the server, be sure it's part of the process and that the approach is chosen with full knowledge of its implications.

#### Optical Character Recognition (OCR) and Data Validation

Several technologies enable obtaining the required data and ensuring its accuracy. OCR capabilities are needed to capture and read the information contained in the image, while data validation compares the data read against another source to improve or confirm the accuracy. Data validation software should become more intelligent as it reads more of the same type of information, making it more effective as the system builds up an image history.

#### Integration to Back-End Systems

Once an image is captured and the necessary data extracted and validated, it is passed on to other systems for additional processing. For instance, a check image would be routed to an item processing system for check clearing with other institutions and deposit posting to customer accounts. A driver's license image or other form of identification might move on to an account origination system as part of the account opening process. Deep integration between the mobile capture technology and the various systems it needs to interact with is critical to ensuring a smooth customer experience and a lower cost to serve.

#### Image Archiving and Retrieval

For security's sake, the mobile capture process should support archiving the image on the vendor's server and not on the consumer's device. For a convenient

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experience, it should be easy to retrieve and view images on a mobile app, either right away if your institution uses real-time processing or once processed if you use batch processing. It's essential to set a policy for how long images are accessible.

### Device and Operating System (OS) Support

Keeping up with the myriad of smartphones on the market can prove challenging. Your institution will need to think about what is needed to support devices that work and render images differently and how to keep pace with frequent OS updates. An experienced technology partner can complement your in-house resources and help navigate this complex landscape.

### Value-Add Components

To make the customer experience more satisfying and holistic, consider adding downstream capabilities that complement mobile image capture. A live chat feature that integrates a service representative's photo or live video image can enhance the customer service function, while push notifications can keep customers informed on their finances and able to take appropriate action.

### User Experience

Customers won't adopt a mobile image capture feature unless it's easy to use. Solutions like Snap-to-Pay provide that ease by automating the tricky task of focusing the camera for the best image quality. The solution uses video capabilities to provide real-time guidance and automatically captures the best focused and properly aligned image, eliminating guesswork and frustration.

Video capture technology like this can improve the user experience and is already doing so for customers of some of the top 10 banks in the U.S. As video capture technology advances and becomes mainstream,

more mobile users will benefit from an experience that is more intuitive, yields images with higher resolution, and leads to better image recognition rates. And as the technology is deployed more widely and added to financial institutions' mobile repertoires, it will inevitably shape what customers expect of the mobile banking experience.

### Getting Started

Attracting and retaining profitable customers, and keeping competitors at bay, demands an aggressive approach to the mobile channel. Mobile image capture can move the institution closer to a paperless bank, which is what mobile bankers seek. Taking that leap will require going beyond the basics of mobile check deposit and offering the full range of mobile image capabilities, supported by the infrastructure that is vital to success.

**Staff training** in the mechanics and benefits of mobile image capture is essential for an effective program. Staff members need to know how it works so they can answer questions knowledgeably, and they need to understand the benefits so they will buy into the concept and become active advocates. For example, a branch staff employee can physically walk a customer to a kiosk and teach them how to capture a check on a mobile device. By teaching and allowing customers to self-service on routine tasks, staff members can focus on customer engagement and other high-value functions.

**The end-to-end experience** must be smooth and seamless. That demands attention to the many supporting components required for an effective mobile image capture implementation – from the necessary apps and data validation technologies, to the various features that simplify customer use and improve image quality.

**Marketing** is equally integral to a successful program and should combine both education and awareness. It's best to employ a multi-pronged marketing effort that integrates multiple channels and tactics, such as video demonstrations that show the ease of the process and website banner ads that pique curiosity and generate leads.

As consumers increasingly favor banking via a mobile device and grow more inclined to use those devices to snap images, financial institutions have an opportunity to use mobile capture image as a means to deepen customer engagement, reduce costs and grow revenue. A successful mobile capture offering demands an array of services and attention to the many components that enable a satisfying user experience. Financial institutions that take a bold and comprehensive approach to mobile image capture will make it a snap to work with them – attracting and securing the business of some of the most profitable consumers.

## About Fiserv

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**Fiserv Inc.**  
255 Fiserv Drive  
Brookfield, WI 53045  
800-872-7882  
262-879-5322  
getsolutions@fiserv.com  
www.fiserv.com

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