



## Leveraging Mobile Apps for Mortgage Field Services

### Executive Summary

Since the housing crisis unfolded in 2008, much discussion and analysis has been expended on the issue of foreclosures and remedial measures to stem them. Nevertheless, the number of properties moving into real-estate-owned (REO) and foreclosure is still on the rise.

During and after foreclosure, the servicer (whether on its own or on behalf of the investor) is responsible for maintaining these properties per local and state regulations. These responsibilities include assessing, improving and maintaining property so it remains in livable condition and complies with local civic regulations. Typically, investors or government agencies such as the Federal Housing Administration (FHA) and the Veterans Administration (VA) reimburse most of the costs for these activities. Servicers do not perform the assessment, improvement and maintenance functions themselves but instead outsource these activities to specialists known as field services (FS) companies.

This white paper details the challenges faced by FS companies and lays out a move-forward strategy whereby role-based mobile applications can be deployed to co-exist with the Web channel to streamline field service processes across the value chain.

### Real Estate Bubble Repercussions

With the rise in foreclosures, the services that FS companies provide are in high demand. However, many are struggling to meet the demands of their clients with respect to timely and adequate service delivery.

For field services companies, servicers and vendors are key business partners. Servicers need property inspection, improvement and maintenance services, while vendors perform the actual field work. The FS is thus a distributor and aggregator of various property-related services. The revenue model for FS companies is the spread between what they invoice the client and what is paid to vendors.

FS work can be broadly classified into two categories – inspections and property preservations. Inspections comprise observation and/or information collection on property or contact with the borrower (e.g., foreclosure inspection, bankruptcy inspection, borrower contact inspection, occupancy determination inspection, etc.). Property preservation comprises work done on the property to ensure its condition is up to snuff (e.g., cutting grass, debris removal, re-keying of property, securing premises, maintenance of pool, winterization, etc.).

## Challenges for Field Services Players

Most FS companies require their vendors to go out into the field, perform the inspection/preservation work and submit their results/reports through a standard Web-based application. However, all of these activities need to be performed in a pre-defined timeframe. This time window is usually between a day to a little more than a week, depending on the priority requested by the client. Typically, for the same service, the shorter the window, the higher the fees.

These windows are defined on the basis of turnaround time required by vendors to do a field visit, return to their facilities and submit the results. If FS companies could reduce turnaround time through process innovation/excellence or technological advancement, they could turn around orders faster and command higher fees. Further, once the vendor reaches the site, it might discover that some items can't be performed within the limits (commonly referred to as allowables) set by the client/investor/government agencies, etc. For these items, vendors need to submit separate bids to the FS company and receive approvals from clients. These activities require them to substantiate the bids with photographs and third-party cost estimates.

The FS company and its vendors must also contend with a time lag in getting approval from clients, after which the vendor needs to re-visit the site to complete the work. Normally, invoices with exceptions but no supporting documents or prior client approvals are summarily rejected by clients. Vendors might discover that some items are detrimental to the property and cannot wait for the approval of the client (e.g., basement flooding, fallen tree on the property, etc.). They might proceed with the fixes to these glaring hazards and submit an invoice for payment by the client.

But in some cases, the client might disagree with the subjective nature of "detrimental to the property" and refuse payments for services performed without their consent. Since vendor contracts entitle them to payment on the work performed and not on the client payment, the cost typically ends up being borne by the FS company. Settlement of these invoice disputes is typically time-consuming and costly.

For FS companies, the key challenges include the aforementioned latency issues/inefficiencies, combined with unprecedented volumes and

the push from clients to make the process more transparent. Additional challenges include the need for cost reductions and faster turn-around times for service delivery. Thus, FS companies need to optimize their own processes to meet client expectations while reducing their operating costs to boost their bottom lines. Technological advances, such as mobile applications, can enable them to assume higher volumes of work and increase the productivity of their employees and vendors.

## Leveraging the Power of Mobile Apps

In the last few years, the proliferation of "mobile apps" has demonstrated how businesses can leverage the power of mobile communications and computing "anywhere and anytime." Field services businesses can achieve huge productivity and business performance gains by leveraging mobile apps. Imagine vendors submitting results from the field and getting approvals on their bids on the spot. This would enable vendors to cut down their processing time to a fraction of what it is today and reduce costs. Hence, vendors could handle much greater volumes within the same time and cost ranges.

Figure 1 (next page) depicts the ideal solution, comprising an integrated suite of role-based applications accessed by various business partners (including clients and vendors). The applications are accessible via Web and phone channels that offer comprehensive capabilities across key business functions – service request, work completion, result submission, result review, tracking, invoicing and delivery.

### Client Features

The ideal solution would provide FS company clients with the following capabilities.

- **Order transfer:** A client-facing app would enable users to submit a work order from anywhere instead of waiting to login to a Web application using their laptops.
- **Reviewing of bids:** Clients can review the submitted bids by vendors from anywhere and provide quicker, potentially real-time turnaround with their approval/denial of the bids.
- **Tracking of orders:** Using the same application, they can also check the status of orders, as well as the results of completed orders.

Accessing the FS application "on-the-go" to submit orders, review bids and track orders

## The Ideal Integrated Field Service Suite

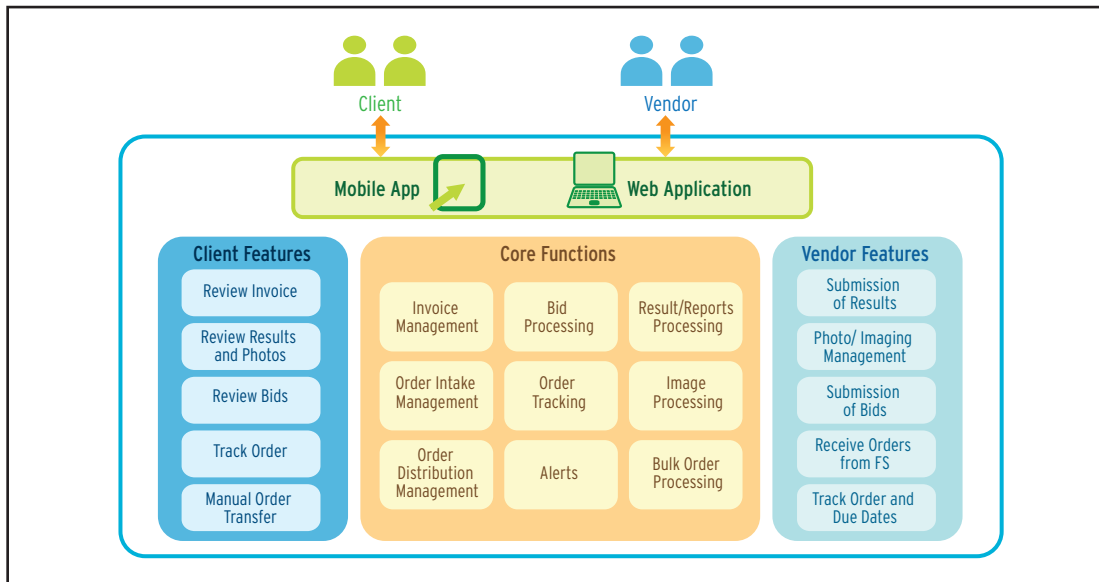


Figure 1

enables self-service for the client and provides a differentiated customer experience. Faster bid resolution reduces processing time and removes any process redundancy of dealing with re-bids from vendors.

### Vendor Features

The ideal solution would provide FS company vendors with the following capabilities.

- **Photo management:** All inspection and preservation work requires vendors to snap photos of the property to substantiate their observations, and the “before and after” condition to substantiate their work. Photos taken with a smartphone can be directly attached to the order and uploaded to the field services application rather than transferred from a digital camera and uploaded to the FS site.
- **Result submission:** Inspection orders, as the name suggests, require the vendor to perform an inspection of the property and report its observations to the client. These products usually carry a government-mandated standard price that doesn’t vary based on an observation of the property. With a mobile app, vendors can directly submit their results from the field, eliminating the need for a window of time in which to complete the work and submit the results. Orders would be completed on the day of the field visit. Further, the app can be configured so the picture taken from the

mobile device contains embedded data such as GPS coordinates and a time stamp to improve accountability and transparency, while reducing fraud.

- **Bid submission:** While in the field, if the vendor notices any work item that can’t be performed within the allowables per the investor, the vendor can photograph the work item (e.g., debris, grass, pool, etc.) and submit its bids from the field using the app. The bid can be routed in real-time to the client, who can review the bid and related photos and provide real-time approval/denial of the item to the vendor. The vendor would thus get the result of its bid in real time and complete the work without having to re-visit the property. This addresses another potential problem, in which vendors re-bid for the same work item that is pending in the client queue due to latency. This would save time and effort of the FS company analysts who process/cancel these re-bids.

Submission of bids to clients usually requires vendors to attach supporting documents to substantiate the price quote, which is often provided via a third-party quote. Instead of scanning such a quote and attaching it to the bid, for instance, vendors can use a smartphone to take a photograph of the quote and attach it to the bid.

- **Receiving of new orders:** Additionally, vendors can check the app in real time when new orders are allocated to them; they can also view the

status of their order queue (i.e., the status of each order or how many orders are completed/pending, etc.).

- **Tracking of due dates:** An FS app can send “push alerts” to vendors on their mobile phones to alert them to approaching due dates and/or items requiring any action such as invoicing, etc.

## Challenges and Mitigations

Enabling vendors and clients with mobile apps is not without challenges. Skeptics would be quick to point out various deterrents, such as bandwidth contention when transferring high volumes of data, as well as the potential for fraud; however, these issues can be easily dealt with. Key challenges and their corresponding mitigants include the following:

- **Submission of results and photos by vendors involves the exchange of a high volume of data, which might be hampered by the cost, coverage and quality of the cell service provider.** The number of photographs in some preservation work orders can range up to several dozen and can be large in size to ensure useful resolution. Most standard cellular service providers offer unlimited data plans to support data-intensive user needs, which should take care of data volume concerns.
- **Mobile access to data is a necessity, not an option.** Since we can safely assume that most properties are located in the coverage area of one or more cellular service providers, transmission of data and images should not be an issue. Additionally, mobile apps will not be the only medium for communication, as the Web-based channel will still be available.
- **While inspections have standard prices based on the product (foreclosure inspection, bankruptcy inspection, etc.),** preservation orders are priced according to the work performed (main lock change, boarding of windows, etc.). Within these areas, investors have pre-defined lists of allowable prices for work items. Thus, if the vendor needs to prepare the invoice for preservation work orders by pulling from this long list, it could create a performance problem for the app. But strictly speaking, vendors don't need to prepare invoices themselves. They can provide

the details of the work they perform (read, quality) in the submitted results, and the invoice could be generated on the FS side. This would reduce bandwidth requirements, with communications with vendors and clients taking place at a later time.

## Moving Forward

The power, accessibility, speed and versatility of mobile apps perfectly complement and extend the functional requirements of field services. They can reduce turn-around time and costs, as well as improve productivity while providing transparency and accountability. If properly leveraged, along with accessibility and speed, role-based mobile apps can provide users across the FS value chain with a suite of comprehensive features that streamline and expedite key business processes.

A mobile app doesn't introduce a new set of processes; in fact, it retains all the necessary approvals within the workflow. However, it does free vendor employees from time spent on submitting the results in the Web application once they return from the field. Vendors, in particular, may utilize that time processing another work order and attending to more properties in the field. Mobile apps can reduce the time spent waiting for vendors to submit results and thus decrease processing and wait time. This would allow the same number of employees and vendors to work on more orders, boosting productivity and business performance.

Given ongoing economic stagnation and high unemployment levels, the number of mortgages moving into foreclosure is not expected to decline anytime soon. While this would ensure that FS companies will have more than enough business and strong revenue streams, at least in the near term, smart FS companies will take this opportunity to leverage mobile technologies to optimize their business processes and reduce costs and turnaround times. Doing so will help them improve their bottom lines while preserving their top lines over the long term by increasing transparency (which builds investor trust and loyalty) and delivering a better and more differentiated customer experience.

## About the Authors

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