



Just as the computer has evolved with each generation and advance in technology, so has the field services industry.

The Next Generation of Field Services

The Industry Continues To Evolve As New Technology Emerges, Regulations Heighten

By **George Mehok** and **Rick Moran**

When the first digital electronic programmable computers were introduced more than 70 years ago, they relied on vacuum tube technology, the lowest level programming language, and could only solve one problem at a time. They were huge machines, often filling entire rooms, and were expensive to operate. They were also prone to overheating, causing them to frequently malfunction. As technology advanced, four more generations of computers emerged, including artificial intelligence technologies being groomed for future use.

With each generation, computers advanced from the use of vacuum tubes to transistors, integrated circuits to the present-day microprocessors. The machines themselves decreased in size significantly enough to fit in home offices and—with mobile devices—even the palm of one's hand. And what now fits in our hand can process more than the computers that once filled an entire room.

Just as the computer has evolved with each generation and advance in technology, so has the

field services industry. Vendors completing work in the field have progressed from using pencils and paper, taking Polaroid photos, and faxing field results that took hours—and sometimes days—to process, to submitting property information and digital photos from the field in almost real-time using mobile devices and applications. This evolution has led to improvements in on-time performance, quality and an overall more efficient process from the field to the mortgage-servicing client. It also has sparked the next generation

of field services as companies within the industry continuously upgrade to new technologies for both internal and external uses.

Internal Systems Updates

Similar to computer and mobile technologies, companies are consistently re-evaluating and updating internal operations systems. What worked even a few years ago can be improved upon with new technologies emerging every day. Technology has sped up the pace of business and field services companies' internal systems need to remain in line with the latest technologies to be able to process the millions of points of data gathered daily about properties they maintain on behalf of their servicing clients across the country. With the advances in mobile technology, and its ability to transfer information in near real-time, internal field services employees need to have the tools to process and analyze field results quickly and accurately. And as mobile technologies and devices continue

to change the face of the field services industry, those companies' internal systems must take advantage of the efficiencies and quality that mobile has to offer.

Recently, Safeguard Properties, the largest field services company in the U.S., completed the first phase of replacing its core, internal field service system. The new, state-of-the-art system, named SPIGlass, integrates all internal, client and vendor systems to display field results, photos, and updates in one central workflow system. Property information and history are easily reviewed and recorded in this updated system.

Safeguard focused the first release of this new system on one of the most important functions within its operations—property damage assessment. When vendors submit their work order results, that damage data is automatically separated and stored in the SPIGlass system. Employees receiving those results are then able to identify and review damages and property history more efficiently without having to toggle between multiple systems. Additionally, photos are displayed by category, side-by-side, so they



can easily make apples-to-apples comparisons of any damages to help determine if the issue is worsening.

The design of the system also improves quality and accuracy by standardizing the process of auditing damages. Employees are prompted with a script of questions they must answer when reviewing a property, creating a more robust tracking system. The information that is displayed represents the entire loan history related to damages, including when the condition was reported, the level of severity, and when steps were taken to resolve the damage.

Mortgage servicing clients benefit from field services companies' internal system upgrades, like SPIGlass. They can access information more efficiently and with confidence that the results are quality checked and accurate. The entire history of the property is at their fingertips making it easier to pull reports and make more informed business decisions on the maintenance of each of the properties in their portfolios.

Mobile Generation

As the field services industry cycles through its own generations of technology, mobile has been one of the biggest game changers for improving quality and efficiency of results from the field. This is especially important to servicers who face heightened scrutiny from regulators and who need to make critical decisions on preserving their assets or properties in their portfolios.

With mobile devices and applications, results from the field can be delivered and quality checked in a fraction of the time it used to take vendors and field services employees. As that information comes in at a faster pace, the next generation of field services must be able to guarantee the quality and accuracy.

Photos are key to the field services industry. They serve as the

evidence in determining occupancy, property condition, and that work was completed properly and on-time. Field services companies need to validate their authenticity and protect the quality of the images that are submitted to them and subsequently submitted to servicing clients. Mobile devices and applications are the key to compliance and are used by vendors in the field services industry to capture a rich set of information each time a photo is taken. Using that information can help field services companies weed out potential duplicate photos, ensure those photos were taken within the proper work-order timeframe, and confirm they were taken at the correct location.

Because photos help create a timeline or story at each property, it is important that they are used to paint an accurate picture. Having the ability to identify and mitigate the potential for duplicate photo submissions is critical for field services companies. Often these duplications are a result of human error, and can be detrimental to preserving the integrity of a property.

To eliminate the possibility of duplicate photos, field services companies can rely on the information—or metadata—captured by the mobile device or app. This information can be used to build an index of all of the photos already submitted. If a vendor erroneously tries to upload an image through his or her mobile device that is already in the system, he or she is notified and the image is rejected. To move on with submitting the field results, the vendor must submit a different photo. This helps protect field services companies and their servicing clients from duplicate images being used across orders and ensures the work was completed by the vendor.

Equally as detrimental is the potential submission of photos taken for previous work orders. For example, a vendor may take hundreds of photos during one visit, but only submit half with

the field results. When he or she has to go back to the property for subsequent orders, those “leftover” images cannot be uploaded on new orders because of date and time stamps built into the mobile device or apps. The vendor also cannot submit photos that were taken with the date and time stamp feature turned off.

One of the most recent advances in technology for the field services industry is capturing geolocation data—longitude and latitude coordinates—attached to photos submitted through mobile devices. If these coordinates do not match established GPS data of the property, the image is either rejected immediately or flagged for internal review. This is a critical advancement for field services companies and servicers in ensuring vendors are at the correct property.

Safeguard conducts regular audits on its field results and photos, including determining the accuracy of the geolocation data gathered by its vendors in the field. It also uses this data in its new internal system to map the exact location each photo was taken at a property. Servicing clients also ask for this information when conducting audits on the company.

The goal of these multiple layers of quality checkpoints is to get immediate validation that the vendor is at the right location and submitting accurate information and photos, rather than reviewing the information after the vendor has left the property. This saves time for both the vendor and the field servicer because issues are resolved immediately, additional trips are not necessary, and the field servicer can be confident in the information it receives.

Future of Field Services

Video technology is the future of field services. While there are some hurdles such as inconsistent cellular networks, mobile device limitations, and servicer compatibility issues, field services companies like Safeguard have begun testing its use in the field. The possibilities seem endless. Imagine vendors being able to show the full extent of damages in the field and receiving approvals in real-time while still at that property. Or having video proof that a property is in convey condition, and rather than calling into the field services company, the vendor can show the property's condition through a live feed or streaming video. Although video probably will not replace the need for photos in field services, it certainly will enhance the quality of work completed in the field.

Like the evolution of the computer, field services companies need to constantly refine and improve their processes as new technologies emerge. Technology has propelled the industry from notepads and waiting days for field results to mobile devices transmitting near real-time information. But some of the most significant advances are the quality and accuracy of the information being submitted and processed. The future of field services will continue to be influenced by emerging technologies. The key is how those companies choose to put it to use. Investing in technology will be a huge differentiator in determining what companies remain successful in the field services industry. **M**



GEORGE MEHOK is the chief information officer and **RICK MORAN** is the assistant vice president of application architecture for Safeguard Properties, the largest field services company in the U.S.