Mobile Technology:
The Revolution In
Human Resource Management

By Saeed Kazmi
President & CEO
Vertical Systems Inc.

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Executive Summary

Many hotels are using workflows designed as long as 50 years ago during the age of centralized computing when mainframes were state-of-the-art technology and paper was the accepted form of communication.

This started to change with distributed computing — namely, the advent of PC's and databases — which minimized the use of paper, but didn't eliminate it.

Now mobile applications are harnessing the power of mobile computing. *We are seeing "workflow automation" — and with it, almost no need for paper.*

The impact is significant on how hotels operate, how staff members perform daily tasks, and how human resources are managed productively. *My column examines "how" and "why."*

Mobile technology applications are making human resource management more efficient and more profitable.

On its surface, that's a rather obvious and logical statement – and because the widespread usage of mobile applications in hotel operations is a relatively young practice, there are no studies that can scientifically back-up the claim.

There is, however, considerable anecdotal evidence to support the point. For example, my company — Vertical Systems Incorporated — monitored the use of mobile applications in housekeeping, maintenance, and room inventory over a one year period at a 2,000-room full-service luxury hotel in Chicago.

Dramatic results were achieved in managing workflow — *and whenever you make enhancements to your workflow, you have by definition enhanced the way you manage people.* Managing workflow and managing people are overlapping concepts, with overlapping human resource implications and human resource benefits.

This article will examine the "how" and the "why" of these two interrelated concepts — and in the process, I hope to give you a variety of sound reasons for implementing mobile applications more extensively at your hotel properties.

Managing Workflow

Every hotel has policies and procedures for handling the day-to-day operations that make its business tick — from check-in/check-out to "back-of-the-house" functions such as housekeeping, maintenance, inventory control. Typically, the term "workflow" refers to the tasks, tools, and status updates that are needed to complete each procedure.

Sometimes the procedures are defined or mandated by brand standards; sometimes the procedures have been developed by the local owner or manager and are unique to the property; and sometimes the procedures are a hybrid of these two approaches.

Regardless which of these systems is in the place, it traditionally involves a high volume of paper-based documents, including forms, spreadsheets, templates, and reports. This maze of information can be disorganized, is probably confusing, and is almost certainly overwhelming.

That's because *most hotels are still using workflows that were designed almost 50 years ago,* when mainframes and centralized computing were considered state-of-the-art technology — and when paper was the accepted form of communication.

Today's typical room inspection involves at least four-steps — from filling out forms manually to entering the information in database to generating a report to review the data with management and team members.

Similarly, initiating room repair requires multiple steps that start with reporting the problem and continue with generating a repair ticket, fixing the problem, closing the repair ticket, entering the data, generating a report, and having management review the report.

For employees, the result is lots of job frustration — due to lost paperwork, missed deadlines, missing or incorrect information, and long completion times.

For guests, this translates into the "red tape" of inefficiency — which reduces their loyalty, their return visits, and their satisfaction scores.

For owners, the bottom line suffers.

This started to change with the age of distributed computing — namely, the advent of personal computers (PC's) and databases — which minimized the use of paper, but didn't eliminate it.

Now we are harnessing the power of mobile computing with its mobile applications, or mAPPs, and we are seeing what amounts to "workflow automation" — and with it, almost no need for the use of paper.

Installed on a smart phone, tablet, or mobile device, mAPPs are a combination "to-do" list and comprehensive project management tool — with a template or dashboard that is customized for the brand, the property, and the function.

Instead of recording information on paper, employees use the mAPPs to enter data — including photos, if desired — into the mobile device, using pre-designed custom forms. That data is instantly transmitted throughout the company network, then available simultaneously and in real-time to all authorized personnel.

With mAPPs, a room inspection involves one step — entering the data on the mobile device. All desired recipients receive the report immediately, then can review and respond as needed at their desired pace.

A room repair is equally easy — with mAPPs a problem reported and a repair ticket generated in one step, then the ticket is closed in the second and final step. Again, all recipients receive the report immediately, then can review and respond as needed at their own pace.

Consider these statistics from our 12-month trial at a 2,000-room Chicago hotel:

- Inspections classified as "unsatisfactory" dropped from 26% to below 1%
- Inspections classified as "satisfactory" rose from74% to a whopping 99%
- The frequency of inspections increased consistently from about 300 per month when mAPPs were introduced to more than 1,000 per month just nine months later
- A single manager could report on the occupancy status of more than 400 rooms in less than three hours, which is an average of less than 30 seconds per room
- Vacant rooms were added to the inventory and available to rent at the rate of about 100 rooms an hour – and these rooms were added within minutes after being cleaned by housekeeping, compared to several hours lag time using paper-based reports

These results represent measurable gains in employee efficiency, employee productivity, and overall business performance. They underscore how mAPPs enable hotel management to move quickly towards a "best practices" level of performance, for example, with:

- Elimination of duplicate data entry, which increases data accuracy
- Faster access to data, as well as continuous 24/7 online access to that data, which together improve both employee communication and employee decision-making – including the ability to make immediate adjustments to assignments
- Quicker employee response time, which translates into lower operational and maintenance costs

An additional human resources benefit of mAPPs is that they provide a verifiable version of the "truth" – namely exactly what functions were performed, when, and by whom. This can be especially important in complying with certain regulatory or insurance requirements, in resolving disputes, or in dealing with a union workforce.

In fact, Vertical Systems Incorporated is currently developing a mobile application for the reporting of accidents on hotel property. This product is intended to provide indisputable, time-stamped documentation of the facts and the photos associated with any situation – for use as needed by the owner, the brand company, the police, the insurance companies, the courts, and others.

However, perhaps the most significant human resources benefit of mAPPs is a shift from work being done manually by humans to work being done by machine, under the supervision of humans.

For example, another mobile application under development by my company is an easy-to-use inventory management system for hotel banquet departments, which traditionally keep cumbersome paper records of items in stock such as plates, silverware, and serving dishes.

By eliminating the clutter of paper-based reports and by streamlining tasks that are mundane or repetitive, mAPPs are allowing employees to concentrate on more significant responsibilities and to function at a higher intellectual level.

The payoff for owners is a work environment that is more creative and more satisfying for employees — and ultimately, more welcoming for guests.

Managing Personnel

Mobile applications will never replace the "human" side of "human resources" — supervisors still have to discuss any number of issues with employees — but mAPPs certainly are changing the process dramatically and for the better.

Just as mAPPs are automating the workflow, they are also causing a web-based automation of the workforce. For example, some of the more popular human resource benefits of mobile technology include:

- Tracking time spent on given tasks to determine the value received compared to the resources invested
- eTraining and eLearning with download of reference materials, webinars, manuals, and summaries of business books

- Fast, easy, and fair changes in work schedules — for example, one hotel uses a mobile application to advise employees of shift openings every day and the first employee to respond receives the assignment, thereby eliminating any claims of favoritism
- Convenient centralized record-keeping for personnel matters, ranging from performance reviews to health insurance matters to accrued time for vacation, sick days, or special compensation

Summary

What started as evolutionary change in hotel workflow with the advent of PC's and databases has now, in the age of mobile technology, become revolutionary.

Mobile applications are having an increasingly significant impact on efficient human resource management — on what tasks hotel personnel are assigned as well as on how those tasks are effectively completed. *Hotel properties and hotel personnel are becoming productive.*

In the process, as we have seen, mAPPs help create a more comfortable, more valued experience for both employees and guests — *the hotel becomes a place where employees want to work and guests want to stay.*

The ultimate payoff of mAPPs for owners is, therefore, both simple and significant — they make it easier for you to attract and to retain both employees and guests.

And that's a bottom line revolution we can all get behind!

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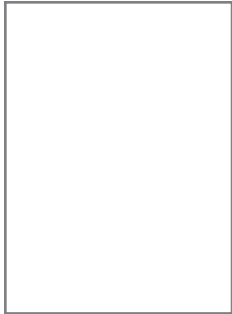
For almost 30 years, Saeed Kazmi has been developing innovative technologies that empower business to move in new directions. Today, he serves as the Chief Executive Officer (CEO) of Vertical Systems Inc. (VSi), a Silicon Valley-based company he co-founded in 2001 to provide sophisticated solutions for the hospitality industry.

Previously, he co-founded a series of firms that achieved high-tech "firsts" such as the first company in the world to focus on Virtual Private Networks (VPNs); a company that conceived and developed a mobile tablet PC with embedded GPS unit; and a company that was one of the first developers of fabless PC semiconductor products, notably PC chip-sets and microprocessors.

Mr. Kazmi earned an undergraduate degree in electrical engineering at NED Engineering University in Karachi, Pakistan and a master's engineering degree at Oregon State University (OSU). In 2008, he was named to OSU's Academy of Distinguished Engineers.

His e-mail address is skazmi@ver-sys.com for questions.