

REAL WORLD CASE 2

For Companies Both Big and Small: Running a Business on Smartphones

In early 2006, San Antonio, Texas-based CPS Energy, the nation's largest municipally owned energy provider, was by all accounts riding the road to riches. The company had the highest bond ratings of any such utility provider. Its workforce and customer base in general expressed satisfaction. And most important, it was profitable. In other words, there were no external signs that the company was about to launch a technology program that would redefine the way it did business and reshape its workforce of roughly 4,000.

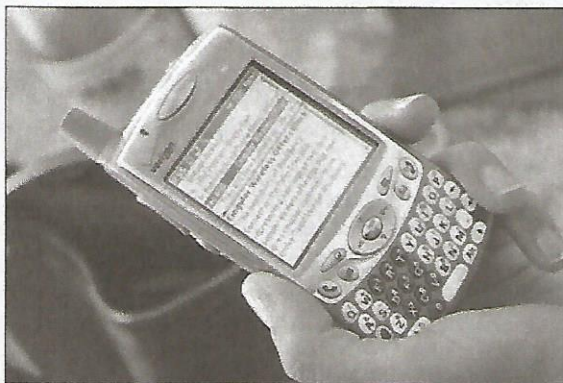
There weren't external signs, but for those in the know, including Christopher Barron, CPS Energy's VP and CIO, it couldn't have been more clear that a change was imminent—and that the future of the company might depend on it.

"We had a much larger workforce than a business our size maybe should have," Barron says.

Barron looked at other companies with large mobile workforces like its own, companies like UPS and FedEx, and he saw a huge disparity in the way his business was operating. For instance, specific CPS workers had little or no access to IT systems and resources while they were away from the office or warehouse. They were often required to visit work sites or customer locations to diagnose issues or suggest fixes before reporting to the appropriate departments or parties, which would then initiate the next step of the resolution process. That could mean dispatching additional workers, and the whole ordeal could take days.

"If we kept with the amount of manual labor that it took for us to accomplish that work, we would not be in the position to be competitive in the future," Barron says. From this realization, the company's Magellan Program was born.

FIGURE 2.9



Companies of all sizes can benefit from using smartphones to improve their business processes.

The Magellan Program was envisioned by Barron and his colleagues as a better way to mobilize and connect its traditionally siloed workforce to the people and systems they needed to do their jobs. The goals of the program were to extend CPS's networking infrastructure, build its own secure Wi-Fi networks in offices and warehouses, and deploy smartphones and custom mobile applications to all CPS staffers who didn't currently have a laptop or other mobile device. For Barron, the first and most significant challenge in deploying smartphones to such a large user base was getting executive buy-in.

"One of our biggest headaches has been, and continues to be, the perception that the technology brings little to the table other than e-mail, and it costs a lot," Barron says.

"For a CIO to try to eliminate all the resistance from a senior executive might take forever," Barron says. "So rather than try to get to the execs and mollify all their fears about cost, usage and safety, we've gone to specific groups, engineers, line workers, office workers, and because it's so cheap we've been able to give the devices out on 'experimental basis.' There's so much value in these handheld devices and two or three applications that they prove themselves," he says. "You just have to get them into the hands of the people that actually need to use them in order to demonstrate that."

Three innovative ways CPS staffers use their smartphones are as digital cameras at work sites, as GPS tracking mechanisms, and as emergency notification receivers. In the past, CPS might have had to dispatch a small group of "generalist" workers to a service call to make sure the correct person was there. Today, a single worker can visit a site, take a photo of a damaged piece of equipment or infrastructure, and then send it back to headquarters or the office.

Then an expert diagnoses the issue and sends along instructions to fix the problem or dispatches the appropriate worker, who is available immediately via voice e-mail and SMS text via smartphone.

"The Magellan Program, through the use of smartphones and other technology, has or will empower all employees, no matter what work they perform, to become part of the greater company's 'thought network,'" Barron says. "Each person is now like a node in our network." The company is also seeing significant gains in supply chain efficiency related to Magellan and the smartphone deployment, he says. For instance, smartphones help speed up the purchase order process, because in the past a specific person or group of people needed to be on-site to approve orders. Now the approvers can be practically anywhere with cellular coverage. The company's supply chain buyers can also visit warehouses to work with the people who actually order parts, leading to faster order times and more proactive supply chain management overall. In just one year, the time it took to close purchasing and procurement deals decreased by more than 65 percent. Also, inventory levels were reduced by more than \$8 million since the Magellan Program began.

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In addition, both employee and customer satisfaction levels are up, Barron notes, because staffers now have more access to corporate systems and information, and they feel closer to the business. Because CPS can now resolve more customer issues with fewer processes, they've reduced the time it takes to complete most service calls, leading to happier customers. In fact, the company received the highest score in J.D. Power and Associates' 2007 Gas Utility Residential Customer Satisfaction Survey.

The technology, however, is no longer the exclusive purview of large companies with significant IT budgets, at least not anymore. Lloyd's Construction in Eagan, Minnesota, might not seem as if it needs flashy phone software. The \$9-million-a-year demolition and carting company has been run by the same family for the past 24 years. Lloyd's takes down commercial and residential buildings and then hauls them away. What could be more simple? That is, if wrangling 100 employees, 30 trucks, and more than 400 dumpsters can be called simple. Coordinating those moving parts is crucial to growing the business—and to saving the sanity of Stephanie Lloyd, 41, who has run the company for the past four years. Until recently, Lloyd's used a hodgepodge of spreadsheets, paper ledgers, and accounting software on company PCs to keep track of its workers and equipment. To make matters worse, the company used radios to coordinate with its workers on the job. The more cell phone towers that came online in Minnesota, the worse Lloyd's radio reception got. It was time, the Lloyds decided, to drag their company into the 21st-century world of smartphones.

Lloyd's considered a half-dozen mobile-productivity software suites before settling on eTrace, which happened to come from a company called GearWorks based just across town. Not only was GearWorks local, but its software worked on Sprint Nextel's i560 and i850 phones, which are aimed at the construction industry. Lloyd's had already started buying these push-to-talk phones to wean workers from their dying radios. Immediately, technophobic staff had trouble. Employees had to be guided up a steep learning curve in order to master even basic features on their new phones. For 18 months, the two systems ran side

by side: eTrace as it was phased in, and the old paper-and-pencil system as it was phased out. Accounting inconsistencies quickly crept in.

And eTrace gave rise to a delicate labor problem. The software featured integrated mapping and travel data that showed the real-time locations of all company assets. To their chagrin, the Lloyds discovered that those assets were spending too much time parked outside the same lunch spots—ones that were not on prescribed routes. Lloyd was sympathetic to workers' needs for breaks—"we've all worked demolition here," she says—but quickly clamped down on unauthorized ones.

GearWorks' CEO says the challenges Lloyd's faced are to be expected. "All these products operate under the ominous pendulum of challenge and opportunity," says Todd Krautkremer, 47. "But our software does a good job of letting the customer control that rate of change in the business."

Once the deployment dust had settled, the savings became clear. The company employs 12 drivers, 22 foremen, and 7 office workers who use 41 phones running eTrace. The company buys an unlimited data package for each phone, which totals about \$4,000 a month. Add other networking charges, and Lloyd's spends about \$50,000 a year for a complete business, accounting, and communications solution.

Before eTrace, the company paid an accountant 40 hours a week to do the books. Now that person comes in one day a week for 6 hours, saving roughly \$1,000 a week.

Data entry and job logging by the dispatcher and foremen, Lloyd says, is roughly 1½ times faster than paper and radio. More efficient routing has cut fuel costs by about 30 percent. And employees have stopped making unauthorized stops. Lloyd estimates a net improvement in performance of 10–12 percent, or roughly \$1 million for 2007—not a bad return on \$50,000.

"It really does work," she says.

Source: Adapted from Jonathan Blum, "Running an Entire Business from Smartphones," *FORTUNE Small Business*, March 12, 2008; and Al Sacco, "How Smartphones Help CPS Energy Innovate and Boost the Bottom Line," *CIO Magazine*, July 11, 2008.

CASE STUDY QUESTIONS

1. In which ways do smartphones help these companies be more profitable? To what extent are improvements in performance coming from revenue increases or cost reductions? Provide several examples from the case.
2. The companies described in the case encountered a fair amount of resistance from employees when introducing smartphone technologies. Why do you think this happened? What could companies do to improve the reception of these initiatives? Develop two alternative propositions.
3. CPS Energy and Lloyd's Construction used smartphones to make existing processes more efficient. How could they have used the technology to create new products and services for their customers? Include at least one recommendation for each organization.

REAL WORLD ACTIVITIES

1. In addition to the companies featured in the case, others like FedEx and UPS, which have large mobile workforces, heavily use mobile communication technologies. What other companies could benefit from these innovations?
2. Go online and research uses of smartphones in industries different from the ones reviewed here. Prepare a report to share your findings.
3. Use the Internet to research the latest technological developments in smartphones, and discuss how those could be used by companies to deliver value to customers and shareholders.