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Boosting Mobile Productivity for Field Workers

CartoPac moves its CartoPac Mobile* solution from single-purpose devices to more flexible Intel® Core™ i5 processor–based tablets

CartoPac International helps organizations in oil and gas, utilities, and other industries support a wide range of location-enabled asset inventory and inspection workflows for managing critical asset information. The company had been using single-purpose GPS devices for its CartoPac Mobile* Platform, which enables field workers to collect high-accuracy GPS and asset description data. But recently CartoPac moved to Dell Venue 11 Pro* tablets equipped with Intel® Core™ i5 processors and the Windows* 8.1 operating system (OS). The new hardware platform helps CartoPac customers such as Tallgrass Energy boost mobile productivity and centralize data accessibility by enabling field workers to run multiple applications simultaneously from a single device. CartoPac anticipates increased sales of its solutions as organizations deploy devices to more employees in a wider variety of roles.

Challenges

- **Increase mobile flexibility and productivity.** Provide field workers with an intuitive, single platform that supports multiple enterprise applications and helps eliminate redundant data-entry tasks.
- **Generate new opportunities.** Expand the market segment into a much broader asset management and inspection application for CartoPac Mobile solutions to new organizations and new job functions within existing customer organizations.

Solution

- **Dell Venue 11 Pro tablets with Intel Core i5 processors.** The company moved its CartoPac Mobile solution to Dell Venue 11 Pro tablets equipped with Intel Core i5 processors and running the Windows 8.1 OS.

Technology Results

- **Performance for data-intensive applications.** The Intel Core i5 processors enable workers to harness better insights from large data volumes and render images rapidly while out in the field.
- **Energy efficiency.** Tablets with Intel Core i5 processors help deliver the all-day battery life CartoPac customers need. Workers can maintain productivity in remote locations without charging devices frequently.

Business Value

- **Mobile flexibility.** With the ability to use more than one mobile application, workers can accomplish primary field tasks and office tasks from a single device.
- **Improved mobile productivity.** Tallgrass Energy's field workers spend 50 to 75 percent less time entering data using the new solution, enabling them to be more responsive to new customer requests.
- **Better office efficiency and accuracy.** Office workers have improved efficiency by approximately 90 percent, eliminating a data backlog. Direct data uploads from mobile devices to corporate applications improve accuracy.

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> — *Glenn Vlass,*
> *Vice President,*
> *CartoPac*

Intel® Core™ i5 processors provide the performance and battery life to handle data-intensive tasks in the field

"For a mobile solution to be successful, it has to be readily adopted by users, both in the field and in the office. We spend a lot of time out in the field with our customers, experiencing the environment they work in and identifying the problems they encounter. As a result, we produce solutions that are easy to use and truly meet their needs."

— Glenn Vlass,
Vice President,
CartoPac

• **New marketplace opportunities.** CartoPac can expand into new application areas, reaching smaller customers and enabling large enterprise customers to offer devices to workers in a wider array of roles.

Moving to a New Model for Field Work

The CartoPac Mobile Platform plays a vital role helping organizations in oil and gas, utilities, and other industries locate and maintain a wide variety of geographically distributed assets and resources—from pipelines to environmental assessments. The company prides itself on offering a mobile solution that addresses the unique requirements of workers in the field. "For a mobile solution to be successful, it has to be readily adopted by users, both in the field and in the office," says Glenn Vlass, cofounder and vice president at CartoPac. "We spend a lot of time out in the field with our customers, experiencing the environment they work in and identifying the problems they encounter. As a result, we produce solutions that are easy to use and truly meet their needs."

Until recently, CartoPac offered single-purpose GPS devices as part of its end-to-end portfolio. "Field workers

entered data into single-use devices that had a small screen and lacked the touch interface they had come to expect. They required separate mobile devices to stay connected with the office and work with other Windows-based applications," says Vlass. "We saw an opportunity to change the model. We recognized that moving our solution to a multipurpose device could enable field workers to improve mobile productivity while offering a price point that would allow companies to enable a much larger mobile workforce."

Increasing Flexibility with Intel Core i5 Processor–based Tablets

The emergence of new technologies helped spur the company to move the CartoPac Mobile Platform to a new type of device. "The introduction of Windows 8 enabled us to move our Windows-based software to new, modern touch-enabled mobile devices, which our customers want," says Vlass. "When Dell began offering integrated GPS capabilities into tablets, we found the right fit for our solution."

The company now deploys CartoPac Mobile on Dell Venue Pro 11 tablets equipped with Intel Core i5 processors and running the Windows 8.1 operating system. The Intel Core i5 processors

used with the Dell tablets provide the performance for data-intensive work. "In many cases, field workers collect, store, and access several gigabytes of data on their mobile devices," says Vlass. "The Intel Core i5 processors provide the performance that field workers need to process large volumes of data and render images quickly."

At the same time, the Intel Core i5 processors can help workers sustain continuous productivity. "Our goal is to provide all-day battery life," says Vlass. "By combining excellent performance with energy efficiency, the Intel Core i5 processors enable field workers in even very remote locations to continue to work uninterrupted without having to recharge."

Enhancing Productivity and Efficiency

The new devices can save companies such as Tallgrass Energy a significant amount of time and improve productivity. "In the past, our pipeline patrollers working out in the field collected data points with GPS devices, entered that data on paper forms, scanned the forms, and then e-mailed the forms to the office," says Jason Harrington, GIS analyst at Tallgrass. "Data then had to be entered manually into our database. It was a time-consuming process.

"By using the new CartoPac tablet-based solutions, our field workers can collect data and then enter data into smart electronic forms using a single device," continues Harrington. "We estimate that field workers are saving 50 to 75 percent of their time. As a result, they can respond to more requests, faster than before, and provide better customer service."

Enabling field workers to enter data directly in electronic form also eliminates the need for on-site manual data entry. "Now our office team just performs quality assurance and then sends the digitized data directly to
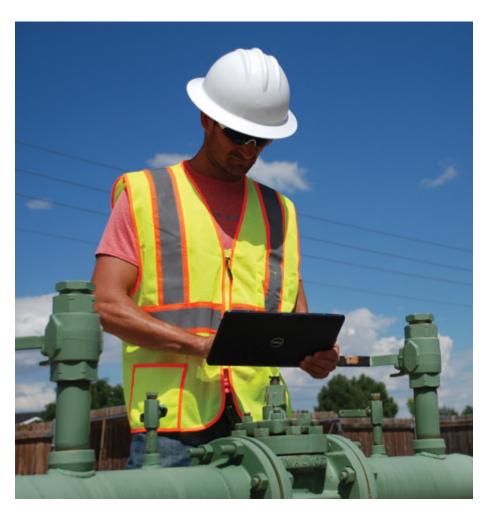
the database," says Daniel Armel, GIS analyst at Tallgrass. "It might have taken us 20 minutes to enter a single form in the past. Now we can enter 20 forms in the same amount of time."

Helping Customers Control Costs by Consolidating Devices

CartoPac customers are able to cut hardware costs by reducing the number of mobile devices and computers they provide to field workers. "The new tablet-based CartoPac solutions are less than half the cost of our previous single-purpose devices," says Harrington. "And because they run multiple applications, these tablets can reduce the need for additional devices in the field. We are saving money while giving workers all the tools they need for both field and office work."

Lessons Learned

"In moving our CartoPac Mobile* solution to multipurpose tablets, we discovered ways to help organizations make significant strides in their mobile initiatives and better integrate data collection with analysis and other tasks," says Glenn Vlass, cofounder and vice president at CartoPac. "Organizations can eliminate redundant tasks and focus more on the value that data can deliver."

Capitalizing on New Market Opportunities

The move to a multipurpose device is opening new market opportunities for CartoPac. "In the past, we were very focused on supporting asset inventory with our single-purpose device," says Vlass. "With this new platform, we can expand more into asset management, asset inspection and maintenance, and other applications."

The company expects the size of typical customer deployments to change as organizations provide CartoPac to more employees with more varied roles. "Traditionally, an organization might have adopted 50 single-purpose devices for its field workers," says Vlass. "Now organizations are deploying 300, 400, or more devices as they enable additional workers to use the devices to view, collect, inspect, analyze, and manage assets after the field data is collected."

In addition to moving to new devices, CartoPac is expanding server capabilities to include reporting and analytics, and exploring software-as-a-service (SaaS) offerings, all of which should help open doors at mid-size and smaller organizations. "There is a great opportunity to bring enterprise-level best practices and complete solutions to organizations of any size," says Vlass.

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