LinCo Services and Prism Visual Software: Cutting Edge Mobile Data Solutions for Rural Work Environments

Executive Summary

LinCo Services is an Indiana-based distributor of beverages, portion packed items, cleaning supplies, paper items, as well as office products and furniture. In November 2001, LinCo used Prism Visual Software to deploy a Palm OS-based hand-held application for operational and accounting activities. As a result, the company's ten drivers have improved delivery times, efficiency, and accuracy.

Business Challenge

LinCo distributes over 41,000 items to over 3,200 customers at offices, convenience stores, restaurants, hospitals, and nursing homes in Indiana, Illinois, and Kentucky. The 36-person company achieved $10.5 million in sales in 2001. Prior to the mobile data deployment, LinCo's ten route drivers handled an average of 20,000 invoices per month.

Once the routes were created and printed at headquarters, drivers made deliveries and left paper tickets with customers, returning to the office with another set of tickets that contained numerous handwritten changes and critical payment information. These notes were manually entered into the accounting system. For office workers, this handwritten information had to be combined with a complex state tax system, making accurate invoice calculations a painful process. Using this paper-based system, LinCo processed and sent out an average of three or four corrected invoices per day.

Selection Criteria and Evaluation

LinCo was looking for a mobile data solution that would allow its drivers to:

- Eliminate the existing paper-based system
- Manage routes more efficiently
- Digitally connect the warehousing process with the loading and returning of trucks
- Deliver products more quickly
- Allow for access to customer information on the road
- Print invoices at customer locations

- Correct delivery orders and notes on the road
- Integrate the firm's accounting system with information captured electronically in the field

LinCo found its eventual mobile solution partner when Prism Visual Software advertised in a beverage delivery mailer that was associated with the National Coffee Services Association. LinCo determined that the vendor's software solutions could make a positive impact on the product-delivery side of its business. Two other competitors were ruled out, as they lacked the vertical domain expertise and solutions to support handheld devices. In addition, LinCo ruled out the possibility of deploying a wireless solution right away, given the extensively rural nature of many of its deliver routes and the associated poor network coverage.

Initially, it tried to solve the problem by implementing a desktop routing and scheduling software developed by Prism Visual Software, Visual BeverageMate. This software integrated LinCo's operational software with Prism's Visual AccountMate accounting software, in order to manage its routing data and streamline delivery operations. Even with this solution, LinCo's staff took up to one hour per day to manually create and print each delivery route.

The company needed to find a more efficient way to manage its routes, collect customer data, and process invoices. To that end, Prism Visual Software suggested that LinCo consider its new Palm handheld application.

The Deployment
The mobile data solution was deployed in two stages. After implementing Visual BeverageMate. This software integrated LinCo's operational software with its Visual AccountMate accounting software, to manage its routing data and to streamline delivery operations. This stage also included plans to train approximately 140 relevant workers on the new solution. Next, LinCo deployed Prism's MiniMate for Route Delivery, which is the handheld extension to LinCo's existing operational and accounting desktop software.

Before drivers leave the warehouse in the morning, orders from Visual BeverageMate are now downloaded via cradle synchronization to their Palm handhelds. The handhelds also store all current customer-specific prices and taxes, as well as detailed information including a customer's current balance, aging, and purchase history. Prism sent one technical support person to LinCo to oversee the deployment over a four-day period. LinCo management estimates that the total deployment required approximately 50 man-hours.

As drivers make deliveries, they now look up customer information and adjust delivery tickets using the handheld device. For example, if a customer changes an order or makes a substitution, the driver can adjust the ticket on the handheld at the delivery site.

After making any adjustments, an invoice is generated on the handheld and sent via infrared to a printer on the driver's belt. The customer receives a printed invoice on the spot, eliminating the possibility of errors and expediting the payment process. Drivers can also indicate any customer payments made during the delivery, ensuring correct billing for both customers and LinCo's accounting department. After completing all deliveries, drivers return to the office and synchronize their handhelds via cradles that are connected to the back-end accounts receivable system.

LinCo learned that when deploying a handheld application, planning for their future needs became critical. Current wireless coverage currently does not reach all of the remote areas on LinCo delivery routes, so Prism recommended the use of wireless Palm handhelds. That way, LinCo Services ensured that it could easily provide service as new areas received coverage. This option protects LinCo's investment in training and implementation, so that the transition to wireless is also less expensive.

The Results

The MiniMate handheld solution paid for itself in four months. Cost savings were recognized in the following areas:

- *Paperwork* — LinCo has eliminated 10,000 tickets per month that were previously generated during route deliveries.
- *Headcount* — LinCo has reassigned two full-time positions since MiniMate was fully implemented, due to the reduction in paper handling.
- *Invoice Accuracy* — By giving drivers the ability to correct and generate invoices electronically in the field, invoices rarely, if ever, need to be corrected.
- *Inventory control* — The MiniMate solution puts detailed customer information in the hands of LinCo route drivers, so they are more in touch with customers and better able to complete orders quickly and accurately.
- *Increased sales* — Armed with this customer information, drivers can make purchase recommendations on-site.

Greg Linneweber, LinCo's Vice President of Operations, estimates that his company saves approximately six hours a day among the ten drivers in the field. This recovered time allows LinCo to take on more business without adding additional drivers. After careful training sessions, the drivers — many of whom had never used computers before — enthusiastically accepted solution.

LinCo is planning to expand its mobile software usage by adding signature capture capability and deploying wireless service for the company's seven service technicians, as soon as wireless services are available in the rural areas serviced by LinCo's trucks.

Aberdeen Conclusions

Many mobile data solutions are limited by the availability of wireless coverage in required geographies. Prism's ability to deliver a superlative solution demonstrates that wireless coverage is not always necessary for businesses to benefit from mobile applications. As is the case with many larger deployments, LinCo's mobile data system has delivered a high-return solution to a specific business challenge. Prism Visual Software's clearly demonstrated vertical domain expertise was an added value, underscoring the importance of smaller, highly focused software and systems integration vendors, particularly those addressing small-to-mid-market opportunities.