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Cart management olympics: **HP, Hillary Software prepare Smarte Carte for 2002 Olympics**

By Floyd Patterson

With air travel increasing at a rate of 5 percent per year, and many airports already serving 25 to 50 million passengers per year, one expects corresponding growth and greater capabilities from the information systems that are part and parcel of an industry that operates much of the time at 30,000 feet. A down-to-earth case in point is Smarte Carte of St. Paul, Minn., a concessionaire of baggage cart, locker and stroller services at airports, train stations, bus terminals, shopping centers and entertainment facilities.

The company first introduced the public to the convenience of baggage carts at the Salt Lake City and Minneapolis/St. Paul airports in 1967. Since then, the carts have become ubiquitous features for overburdened travelers willing to pay a small fee for help with a heavy load.

Outsourcing of the management and overhead of carts and lockers certainly has the potential for eliminating multiple sources of headaches for airport managers. The job not only requires an obvious infrastructure for rental dispensing, tracking and collection of carts, but also tools for analyzing cart traffic, cart and locker usage patterns, and revenue in order to minimize airport congestion and maximize convenience for travelers.

The company's growth to more than 1,000 cart, locker and stroller operations at airports and other facilities, of course, is good news for company executives. Customers' expectations and the overall growth of the business both present challenges to management fundamentals such as having a timely picture of the supply and demand on its cart operations. What's a COO to do?

For starters, Ed Rudis, president and COO, began the process of decentralizing its business operations in January. The idea was to move 22 regional managers from corporate offices in St. Paul to the airport locations. While the managers are closer to the action, the move puts them further from the company's IT group and source of information for gauging each location's operation.

New role for IS

Decentralization is a fundamental strategy for improving cart management. But it also necessitates corresponding tactical changes and improvements to its management systems matching travelers' demand for carts with accurate distribution or allocation of these resources and ultimately optimizing profitable operations.

What was not immediately clear to Smarte Carte's MIS group was how data could be collected from the remote reporting locations, processed at corporate offices with an existing application, and then formatted into various reports and, finally, distributed back to appropriate managers.

You get an idea of how big this challenge was by envisioning a stack of 1,400 reports processed, printed and distributed each month, 600 of these being profit and loss statements essential for an intensive, cash-based business. All in all, it was an eight-day process every month for the MIS group, which was, in the newly distributed company organization, a far too lengthy cycle for giving managers a timely view of cart management.

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While this challenge was similar to that confronting many businesses who've since gone on to reengineer processes and deploy new, next-generation planning and resource control solutions, Smarte Carte's MIS team concluded their cart management systems could not simply be replaced by new management software. With more than 200 custom programs in four unique modules and 10 years of historical data, replacement of the software did not seem like a practical solution.

This is a cash business and for this reason is important to be especially watchful of non-contributing locations and equipment and focus on profitable locations through constant cash analysis.

The key to success in Smarte Carte's particular situation was supplementing the legacy system with report formatting and distribution capabilities to speed up the reporting and distribution cycle. Moreover, this was the ideal time for making cost improvement as managers envisioned goals for reductions in people hours, mailing expenses and the huge quantities of paper required to get the reports out. Dramatic, industry-wide reductions in the cost of "pipelines" such as T1, DSL and cable modems were making electronic delivery the most cost-effective avenue.

Merging new technology

For 14 years, Smarte Carte used the Caelus Management System (CMS) to interweave finite capacity schedules (FCS) and MRP for realtime, fully integrated decision support, operational control and financial management. This system is essentially an information engine, comprising a number of custom modules supporting accounting, planning and financial analysis for various Smarte Carte departments from a common database that can be updated in realtime. Transactions recorded in one area of the company immediately provide results that can affect cart allocations and decisions of other managers.

The Caelus application itself is supported on an HP 9000 G50 Enterprise Server. This combination provided the requisite parameters for high availability and performance for supporting the application and processing cycles. And while Smarte Carte's managers had customized and perfected their use of the Caelus application for very point-specific needs during the years, it remained an open platform, amenable to integration with applications as appropriate.

The MIS team reviewed several applications for report formatting and distribution, ultimately selecting byRequest, an electronic report distribution utility from Hillary Software Inc. of Spring Lake, N.J. "Specific capabilities were sought," noted Wiseman Sikakane, Smarte Carte's Applications Systems Analyst who headed the MIS team.

"For one," said Wiseman, "the application was needed to integrate with Caelus, processing the HP-UX reports and automatically transforming them into familiar Microsoft formats such as Excel and Word."

Distribution of reports was highly automated. Compatibility with Novell's GroupWise collaboration and messaging network already in use at Smarte Carte enabled e-mail or fax distributions of reports, thereby reducing the number of paper copies printed and mailed. As such, the reports arrive user-ready in managers' e-mail inboxes.

"Using familiar Microsoft applications avoided potential user training issues while allowing managers to easily share reports for collaboration and planning," Wiseman said. "Backward compatibility of the Microsoft suite enables file sharing among managers using earlier versions of Word and Excel."

With the same strokes greatly enhancing reporting efficiency, system administration was made easier. Installation of byRequest is not with client-side software, it is not loaded on remote desktops or PCs and therefore saves administrators from updating the PCs and laptops of every company manager.

The system is supported on an NT server to retrieve reports from the HP9000 Caelus application server and database. Using the corporate Novell GroupWise server collaboration package, the reports are then automatically distributed to Smarte Carte's 22 regional managers and more than 90 airport location managers.

At their desktop or laptop workstations, regional and location managers can browse, copy/paste the original file (whether a Word, Excel, data-based PDF or HTML file) into new documents or proposals, print and reply. The byRequest application accomplishes and automates a number of steps for Smarte Carte's MIS group. First step is to establish and organize output or "spool" files into pre-established folders. The folders define the character and content of the reports as well as the specific distribution throughout Smarte Carte's network. As the data is collected and formatted appropriately into preferred file types, the files are e-mailed or faxed to the company's managers e-mail inboxes and to folders on the Novell network.

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Smarte Carte's implementation of byRequest and integration with Caelus and GroupWise began February 2000 with planning sessions.

There are eight types of management reports, covering activities for both carts and lockers. Each report can be run for multiple locations. The programs have been customized to create a separate output file for each location, which is placed in that location's directory for electronic distribution.

Smarte Carte uses several reports to maintain a close watch over location and business efficiency:

- *Gross Margin report* - transaction detail for the gross margin report
- *Customer Service report* - details calls made to the customer service department during the month.
- *Location analysis report* - an analysis of a location by unit for a month.
- *Location analysis mega report* - a complete statistical analysis of a location in a 12-month format.
- *Monthly audit report* - compares usage and revenue
- *Unit history report* - a usage report by individual unit for a requested range of months
- *Credit card usage and analysis report*

All-important ROI

When the byRequest solution taxied out for takeoff in February, a number of improvements immediately followed. For one, month-end closings, previously a two-week process, were completed within just a few days. The eight day cycle of report collation and distribution was cut to one day. All this despite increasing data volumes commensurate with Smarte Carte's business growth on the order of 25 percent for the last several years. This meant that local managers had fresh data and were equipped to make decisions or take corrective actions when it counted.

The application deployment also enabled the MIS group to set up folders so that, for example, the various cart management reports used by the location manager at Chicago's O'Hare International Airport were not only more robust than managers needed to support operations at smaller airports, but routed to corporate managers as well as the JFK airport manager for collaboration.

Smarte Carte's approach to collecting, slicing and dicing, and then distributing information provides a consolidated view of information and combats problems inherent to highly distributed operations:

Helping managers focus on high-priority, business parameters by delivering relevant information in a preferred format that managers can process quickly and analyze closely.

Managers can work with familiar applications and collaborate via GroupWise e-mail. Managers supporting several locations can access reports no matter where they are. Information is downloaded as needed for offline viewing and analysis.

Jim Meyer, Smarte Carte vice president and corporate controller, said the key, as it will be for many similar cash business enterprises, is to put information into the hands of remote business managers quickly and efficiently.

"Prior to using byRequest, we spent two to three days just printing, copying and sorting before faxing and distributing the reports. Now, with a push of a button, the reports are sent via e-mail instantly," Meyer said. "This saves us considerable time and money and gets the information into the hands of our business managers quicker."

Although administration aspects of Smarte Carte's reinforcing of the information system aren't so obvious to travelers as a silvery cart in the right place at the right time, ease of administration clearly helps. For example, Hillary Software developers collaborated with Smarte Carte's MIS team to facilitate administration of the large number of spool files created and distributed each month. Hillary's customization means that as files are created and sent, the large spool files are automatically deleted. This capability saves Smarte Carte's system administrator from six to eight hours of tedious, manual work each month after the closings are made.

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Airport managers can look at this as validation that Smarte Carte's technology underpinnings are secure. Moreover, Smarte Carte's own quality of service measures demonstrate availability of the management system on the order of 99.984 percent. With uptime, timely report distribution and savvy decision making, Smarte Carte's customer service group is dealing with just 1.74 traveler complaints per 10,000 customers and quarterly surveys of airport managers indicate comparable satisfaction.

Although Smarte Carte dominates the baggage cart concessions at virtually all U.S. airports, the company is sustaining a 20-plus percent growth rate per year, primarily by building a strong presence at international airports, of which there are more than 100 new opportunities. Will the company have to look at another round of information system upgrade or additional MIS staffing? This was, in fact, an early consideration of the MIS group because the company's executives had clearly described plans for an expanded and international presence.

For this reason, the capacity of the applications and the capability for the application server to be easily extended went into decision making. The byRequest application and distribution routine is able to work with most hardware platforms and data types. By choosing an HP 9000 Enterprise Server, Smarte Carte saw a straightforward upgrade path for keeping pace with the increasing transaction and data processing loads that accompany penetration of new markets.



The real test of Smarte Carte's system will come during the 2002 Olympics.

Let the games begin!

Possibly the best test of Smarte Carte's progress and MIS strategy will come as the Salt Lake City Airport gears up for the 2002 Winter Olympics. Smarte Carte is currently supporting travelers on 331 daily departures, some 42,000 seats per day. Yet, airport managers are preparing for significant increases, especially on days when athletes, country delegations and corporate sponsor groups arrive, pushing capacity to 24,000 seats above regular capacity. Those are peak periods when Smarte Carte's flexibility and ability to anticipate and react to passenger demands will show how well founded its business and information technologies are.

Yet, by anticipating numbers of travelers, making special allocations of carts and optimizing the cart processes minute-by-minute, Smarte Carte should help Olympic travelers have a good first impression of the airport as they arrive and again as they travel home.

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