Exchange Carts
—Better Service *and* Profitability

A Virginia healthcare operator uses advanced software and improved inventory management to distribute linens

By Scott C. Sloan

At present, HandCraft services over 4,000 hospital and nursing home beds, and hundreds of physician offices that use about 22 million lbs. of healthcare linens per year.

No company can achieve effective inventory management with a system that simply produces utilization, or adjusted patient-day usage reports. Effective inventory management must include control of the entire inventory cycle—from injecting, to processing and restocking. By fully managing this supply chain, it's possible to create accurate information that can be used for material and cost containment. This article highlights the efforts of a laundry to move from bulk processing to an exchange-cart system.

HandCraft Services Inc., Richmond, VA, contracted with Computer Software Architects, Bath, ME, to replace their existing route-accounting system with one that could provide route accounting for their retail-medical customers. The system also needed to satisfy their healthcare customers' processing, billing and reporting needs. Additionally, HandCraft wanted a direct, real-time interface

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between the hospital's linen-management system, such as LinenHelperNet, and the laundry's route-accounting system. The driving force behind the change was to move away from traditional bulk processing, and toward an exchange-cart system for nearly every customer.

HandCraft's management realized that by controlling the linen supply chain, they could provide better service, while returning a lower linen supply expense to their healthcare customers.

Essential elements

Converting to an exchange-cart program isn't just a matter of collecting data in separate systems and having the customer service representatives provide monthly reports. In order to move to an exchange-cart program, as proposed by HandCraft, three key elements were required.

1. Corporate culture and 'Organizational Behavior'

The first and foremost element is staffing. HandCraft has developed an outstanding corporate culture by using effective Organizational Behavior (OB). They've assembled a successful management team that understands how laundries work and the benefits of various linen-process models. Every employee has a common understanding of the direction and vision of the company. These efforts have created a culture of pride, responsibility and accountability. Due to HandCraft's effective use of OB, they can dedicate the human resources needed to make a laundry-based exchange-cart program function effectively. It's vital that the laundry's entire staff realizes the importance of each of their jobs and how the effective use of OB can help advance this goal.

2. Technology at the customer site

The second element is an effective linen-management tool for use at the client site. Generally, hospitals and healthcare-related service providers use an application provided by the linen supplier such as Medline, Encompass, or one purchased directly from a software vendor. Some route-accounting packages offer program extensions that provide a level of linen management. However, these offerings may be limited in functionality and scope, due to the philosophy that linen-room-management tools are not a core business function of the overall system. Therefore, laundry operators should consider

HandCraft software provides simple and effective inventory management that makes it easy to quickly respond to a client's often varying needs.

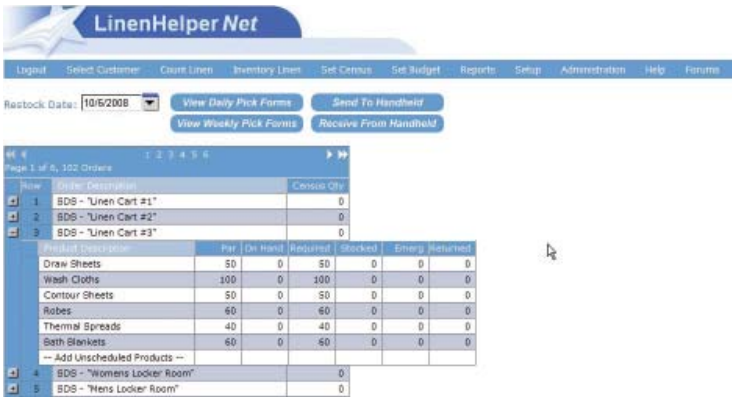
adding a stand-alone, dedicated linen-room management package.

2. Technology at the laundry

The third element is a route-accounting system designed to work with bulk and exchange-cart business models. The applications used in the laundry collect soil weight, clean returned weight and inventory shelf counts. The software then calculates requirements based on those metrics. In addition, the system should be able to generate invoices for the processed linen, using any method the customer prefers—daily, weekly, monthly, by facility and/or department.

Right tool for the job

Laundry operators should focus on what business models the route-accounting software can accommodate. If a route-accounting package is chosen that's specially geared to one type of business model—such as food and beverage (F&B) or garments, the system most likely won't function as effectively as the needs and business strategies change. Ultimately, the laundry will work outside the route-accounting system.



Determining the appropriate operational model and its corresponding software is the first and most critical step toward gaining the most from route accounting.

It's common to see technology in the laundry used in ways for which it wasn't originally designed. In yesterday's market, laundries chose to dedicate their operation to specific business models—healthcare, F&B, uniform, dust, hospitality, etc. The route-accounting package chosen often was limited to features and functions that were required at that time, without considering future needs.

For example, management for a laundry with F&B routes most likely will have chosen the software package that had a good reputation of working in similar laundries. But what if there is a need to change, or to add on a different operational model?

It's becoming more common for laundries to take on new business models. This commonly occurs in the area of retail medical accounts (RM), as more route-accounting laundries are attempting to take on RM accounts. Difficulty in executing this model may stem from the fact that the incumbent route-accounting system can't accommodate the billing and reporting models the healthcare community requires.

At the same time, as energy costs increase and other economic factors come into play, healthcare laundries are seeking opportunities for increased revenues by taking on more RM accounts. The downside is that in order to achieve the improved pricing models, traditional dedicated healthcare-based route-accounting software doesn't accommodate advanced inventory models, such as item-floor pricing or every-other-week scheduling.

It's important to use the right tool for the job! As business models change, operators should review their current technology to determine if it can be updated or replaced—not worked around.

Conjoined data systems increase response speed and minimize errors in serving and satisfying customers.

Faster customer response lends itself to increasing service fees to offset the expense of transportation, production and personal delivery.

At HandCraft, the new route-accounting system allows the management team to pursue several business models, including—but not limited to—RM, garment tracking, healthcare bulk and exchange cart. The flexibility of the system allows management to utilize the current system to achieve a specific business strategy. It's expected

that the route-accounting system will accommodate their business needs.

Need for control

The true technology advantage for HandCraft is integration between the laundry's route-accounting software and customer's linen-management system. The linen-management system communicates in real time with the route-accounting system, updating par, on hand and stocking counts.

Real-time and integrated data exchange provides the best level of control. Most route-accounting systems aren't conjoined, and as such, inventory levels and stocking counts are collected into separate systems. The biggest issue is that the hospital's data isn't in sync with the processing information from the laundry. That makes it subject to errors and discrepancies. In a nonconjoined data system, you can't guarantee accuracy between systems, even if they collect the same information.

Be like Brown

HandCraft has the technology to implement strategic changes in their operational model; but why should they do it?

As an industry, when we review processing models, questions are asked about other nonlaundry service-based companies and how they handle similar challenges. What if United Parcel Service (UPS) changed their business model to be more in line with bulk-laundry processing models?

Here's what we might get when we need to make a delivery. …

The driver comes to the door and collects all packages and sends them to their destination. Instead of having the driver stop at the exact location and deliver the package, UPS requires you come to a central processing location to sort through all the packages until you find what you think is yours.

In this hypothetical example, UPS has reduced transportation and production costs by reducing the level of service. The result is that UPS wouldn't charge as much for its service, but customers would

Delivery dates from 10/6/2007 to 10/6/2008, All Customers, Organized by quarter, All Items, Total,

Description	2007 Qtr 4	2008 Qtr 0	2008 Qtr 1	2008 Qtr 2	2008 Qtr 3	Total
Grand Total	$ 800,936.76	$ 0.00	$ 873,739.32	$ 87,526.65	$ 0.00	$ 1,762,202.73
Customer						
	2007 Qtr 4	2008 Qtr 0	2008 Qtr 1	2008 Qtr 2	2008 Qtr 3	Total
Bath Hospital	$ 538,679.97	$ 0.00	$ 589,141.30	$ 42,982.20	$ 0.00	$ 1,170,803.47
Department						
	2007 Qtr 4	2008 Qtr 0	2008 Qtr 1	2008 Qtr 2	2008 Qtr 3	Total
1101 Outpatient Medical Imaging	$ 939.78	$ 0.00	$ 964.39	$ 61.38	$ 0.00	$ 1,965.55
2 SE Parent Sleep Rooms	$ 1,163.54	$ 0.00	$ 1,025.97	$ 130.72	$ 0.00	$ 2,320.23
2 SW - Short Stay	$ 7,529.42	$ 0.00	$ 9,202.83	$ 704.83	$ 0.00	$ 17,437.08
4 South Nursery - Postpartum	$ 1,858.94	$ 0.00	$ 1,946.53	$ 171.44	$ 0.00	$ 3,976.91
5 South Nursery - Postpartum	$ 366.44	$ 0.00	$ 376.47	$ 35.91	$ 0.00	$ 778.82
Adult Hospitalists	$ 57.81	$ 0.00	$ 81.51	$ 37.62	$ 0.00	$ 176.94
Ambulatory Surgery Center - 1 SE	$ 8,989.07	$ 0.00	$ 9,565.83	$ 788.70	$ 0.00	$ 19,343.60

Utilizing integrated data systems can save a facility costly capital investments on equipment, maintenance, inventory or staffing, which means that costs can be carefully budgeted, closely monitored and expensed against operations.

By having the laundry route-accounting system tied to the linen-management system, the laundry has complete control of usage and restocking data. The client simply needs to maintain the departments, item lists and par levels in their linen-management system. As carts arrive at the plant and are weighed in, the route-accounting system calls out to the customer's linen-management system and retrieves the current stocking, on hand and par level information for the selected-use area's next scheduled service date. As the laundry staff counts in the clean returns (on hand counts) the route-accounting system updates the corresponding information in the linen-management system. Finally, when the use area's cart is restocked, weighed up and packed out for delivery, the route-accounting system updates the stocking information in the customer's linen-management system. Throughout this process, if the client makes changes to their data, the two systems exchange and update information. So in effect, right up until the cart is packed out for delivery, any data element can be updated to ensure the timeliness and accuracy of the usage, restocking and billing information.

lose the auditing and tracking capabilities they've come to expect.

Now, let's switch roles so that a laundry becomes more like UPS. By offering door-to-door service, transportation and production, costs do increase. However, that increase in cost justifies larger service fees.

Pros and cons

Billing – in both models, regardless of weight or piece-based methods, the same amounts of linen are processed and billed. However, by using an exchange-cart method, the customer receives a higher level of service, for which they are willing to pay a premium.

Transportation – an argument can be made that returning clean linen to the laundry doesn't make the most effective use of the truck. Further, one could argue that by not shipping in bulk, more space is required in the truck, thereby requiring more shipments to deliver all customers.

The counter argument is that soiled linen takes up about 20% more volume than clean. So, if shipping in bulk, at some point the driver will need to transport empty carts, and moving empty carts

Right up until the cart is packed out for delivery, any data element can be updated to ensure the timeliness and accuracy of usage, restocking and billing information.

does not make money. If the bulk carts are packed to allow for the 20% soil volume, most likely the number of carts required will equal the carts required in the exchange-cart model. Once again, no significant gain or loss is realized with either processing model.

Production – The amount of soiled linen doesn't change, so no gain or loss on volume is realized. The main difference between the two models is in pack-out. In pack-out, bulk processing is the most effective, when it comes to getting the linen into the carts and ready for shipment.

CHP-ERC#1 1 / 1 — Delivery 136338

Order	CHP-ERC#1	Description	EMERGENCY ROOM CART 1		
Cart	1 / 1	Pick Date	Wed, Apr 30	Delivery Date	Thu, May 01
Build Location		Inventory	Cart Type	Sched/Route	Destination
1		HCAREWELSH	ANY	3	100074

Item / Description	Pack By	Stock	Onhand	Required	Packed	Item ID
05003 BLANKET, THERMAL	Piece	36	21	15		
01002 SHEET, KNIT	Piece	10	16	0		
03011 GOWN, PATIENT LUNAR	Piece	35	19	65		
03009 GOWN, JUMBO 3X SNOWFLAKE	Piece	10	4	6		
02001 TOWEL, BATH	Piece	20	14	0		
08001 UNDERPAD	Piece	20	20	0		
01001 SHEET, FLAT	Piece	150	97	78		
04001 PILLOWCASE	Piece	50	30	20		
06001 WASHCLOTH	Piece	50	60	0		
03002 GOWN, ISOLATION	Piece	5	3	12		

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Exchange carts simplify ordering and delivery, while also serving to reduce overhead in fulfilling linen requests.

With exchange carts, each cart must have the returned, clean linen counted and restocked with the exact item-by-item requirements until the cart is stocked to its full par/inventory level. So, in a head-to-head comparison exchange-cart processing does require more time and effort. However there are various reasons why this doesn't matter in the long run.

Forest for the trees

The bulk vs. exchange cart comparison above has a major flaw.

The comparison is viewed from the perspective of a laundry that has adopted a bulk-processing model as its only or primary method of processing. To be fair, the entire inventory process model must be considered. All business process methods, such as Six Sigma, Kaizen, TQM, etc., emphasize looking at the entire process in an organization to determine the effect a process change will create.

Trading nickels for dimes

The phrase, "Trading nickels for dimes," is a concept used in negotiating. The idea is to give up a little in a trade in order to get something greater in return. To generalize, by moving to an exchange-cart system, the nickel offered may be the increased transportation and production costs, while the dime returned is increased revenue.

The value for the customer is enhanced service and a reduction in linen-management staffing costs. As HandCraft has found in managing the entire linen supply chain, the associated linen supply costs may exceed those of standard bulk processing. However, the company achieves overall savings by reducing the customer's payroll and eliminating the need for supervisors or managers to oversee linen distribution. Therefore, offering an exchange-cart service is appealing because it helps reduce customer staffing and payroll demands. For more information, see HandCraft's Web site at **http://www.handcraftlinenservices.com**.

Command & control

The customer could also realize additional savings through the use of exchange carts. By having the laundry assume control of the linen supply chain, the operator can document for the customer that expenditures for linen injections and replacements are accurate and that linen usage reflects established norms.

The key here is that the laundry has control of the linen-replenishment process. Although customers can establish the use-area par levels, the laundry has control of the data that shows the actual usage and exposes whether or not the established par levels are justified.

The payback

HandCraft has redesigned its business model from a laundry that provided bulk processing services to one that now provides enhanced services to nearly all customers, thereby enabling it to increase revenues through superior service and support. HandCraft has applied technology and effective management techniques to give it complete control of its linen supply cycle. That, in turn, has enabled HandCraft to offer customers a value-added exchange-cart service that saves customers time and labor in handling linens. TR

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