Case Study

Vanguard
HEALTH SYSTEMS

Overview

Based in Nashville, Vanguard Health Systems (VHS) is a leading operator of regionally focused integrated healthcare delivery networks with significant presence in several large markets. The company owns and operates 28 acute care and specialty hospitals and complementary facilities and services in metropolitan Chicago, Illinois; metropolitan Phoenix, Arizona; metropolitan Detroit, Michigan; San Antonio, Texas; Harlingen and Brownsville, Texas; and Worcester and metropolitan Boston, Massachusetts. Its strategy is to develop locally branded, comprehensive healthcare delivery networks in urban and suburban markets.

Challenges

Through numerous acquisitions of hospitals and other facilities throughout the U.S., Vanguard Health Systems has acquired many disparate supply chain technologies and processes, including three different materials management information systems (MMIS), managed by six separate market teams as well as two group purchasing organizations (GPOs). While all markets were working collaboratively to manage data integrity and resolve discrepancies using GHX for electronic data interchange (EDI) transactions with business partners, utilization and outcomes varied greatly across the organization.

The high volume of manually processed purchase orders (POs), invoices and metadata managed in multiple locations led to widespread transactional errors and discrepancies. Vanguard Health Systems allocated extensive resources to manually identify and resolve issues in purchasing and accounts payable (AP). In 2012, the organization spent more than 9,600 labor hours for PO price discrepancy resolution tasks alone.

Solution

In 2010, Vanguard Health Systems began working with GHX on a strategic effort to improve operational efficiency, increase transactional accuracy and drive down costs by standardizing e-commerce processes and increasing partner participation significantly across its provider base. Central to this initiative was the establishment of a touchless procure-to-pay environment.

Organization:
- Vanguard Health Systems
- Nashville, TN
- Total licensed beds: 7,100

GHX Products:
- GHX Exchange
- GHX Trading Partner Acceleration
- GHX MetaTrade
- GHX CCXpert

Highlights:

Vanguard Health Systems achieved greater control over and visibility into its procure-to-pay process throughout its 28 member hospitals, expanded its electronic trading partner base by 315%, and improved contract management with more than 75% of on-contract orders matched to a firm price list, resulting in about $800K in annualized savings.

After steady but gradual increases in electronic trading partners, Vanguard Health Systems recognized the need to quickly and efficiently grow its overall volume of electronic transactions to realize a best-in-class, automated, managed-by-exception operational model.

This included achieving:
1. Consolidated data management,
2. Real-time contract price validation,
3. Management by exception rather than volume,
4. Visibility into and measurement of all orders being placed,
5. Being one of the most electronically enabled IDNs in the country.

In September 2012, Vanguard Health Systems engaged GHX in Trading Partner Acceleration and MetaTrade solutions. Simultaneously, during the 2012 final calendar year quarter, Vanguard Health Systems standardized to a single GPO, implemented centralized data integrity and constructed an infrastructure capable of providing near-real-time, detailed analytics.

"Our intent is to reduce our back office footprint through automation as much as possible while increasing transactional accuracy so that we may focus our limited resources on our core business which is delivering patient care," said Abe Metcalf, Corporate Director of Shared Services & Analytics for Vanguard Health Systems.

A single, shared vision

This transformation to a consolidated, shared services approach required a major shift in how Vanguard Health Systems' business transactions were managed. While in the past each of the individual markets had its own goals for EDI utilization, all of its markets would now operate under a single strategic vision guided by the broader healthcare organization.

"Standardizing our approach and expanding our relationship with GHX is a key component of the Vanguard initiative to drive toward common system solutions that leverage the scale of our organization," stated Thomas Chickerella, System Vice President, Performance Improvement and Supply Chain.

Although Vanguard Health Systems chose to take a high-level approach to its supply chain transformation, it also implemented tactical support and metrics requirements to confirm it was achieving

a solid return on its investment. Vanguard Health Systems assigned Michael Augustine, Systems Optimization Analyst, to take charge of the overall e-commerce tactical execution and held him accountable for not only expanding EDI capabilities but also improving utilization of GHX solutions. To assist Vanguard Health Systems in its efforts, GHX assigned a single point person from its side as well. Together the organizations developed a set of measures that they could track against to help ensure the project's success.

"We knew that operating at the same level of utilization with new e-commerce products would only give us a bigger cup at an increased operational cost," said Metcalf. "To get the most out of our investment we worked with GHX to measure our progress and ensure we were filling that bigger cup with operational efficiency and reduced expense."

Achieving a touchless environment

The Trading Partner Acceleration program enabled Vanguard Health Systems to rapidly expand its electronic trading partner base by targeting suppliers on the GHX Exchange, managing the boarding and registration processes, and boarding a large number of suppliers in a short period of time. Through Trading Partner Acceleration and MetaTrade, Vanguard increased its number of electronic trading partners on the GHX Exchange from 49 to 297 in only three months.

For those suppliers not yet connected to the GHX Exchange, Vanguard Health Systems leverages MetaTrade to facilitate electronic transactions. With MetaTrade, GHX converts Vanguard Health Systems' electronic POs into fax or e-mail format for those suppliers who cannot accept EDI transactions. Suppliers can then use an Internet link within the orders to respond with electronic purchase order acknowledgements (POAs). This solution enables Vanguard Health Systems to increase its volume of e-commerce transactions while reducing the number of time-consuming, labor-intensive manual transactions and associated data entry.

To further streamline the ordering process, Vanguard Health Systems' hospitals use the GHX My Exchange web portal to view and manage orders placed with both GHX-connected and non-connected suppliers. Buyers can now identify errors and discrepancies contained within orders and address them during the transactional process before they lead to costly and time-consuming invoice exceptions.

The 300%+ increase in PO trading partner capacity coupled with a 100%+ increase in electronic invoice partners over the project period delivered a run rate improvement of more than 6,000 FTE hours attributable to manual data entry in fiscal year 2014.

"The fewer transactions we touch manually equates to an ability to zero in on value added activities like improving procurement accuracy and targeting overpayment. Management by exception is a value proposition both in terms of labor and return on investment of electronic integration. This drives down operational cost while increasing our overall accuracy rates," said Metcalf.

Driving greater contract pricing accuracy

To address contract overpayments, Vanguard Health Systems also maximized the use of GHX CCXpert, a contract management tool that helps maintain pricing accuracy through price validation, detailed historical purchasing reports and contract updates. When an order is placed, CCXpert performs a three-way price match between the PO, POA and contract price to help ensure the right product is purchased at the right price.

Working with GHX, Vanguard Health Systems loaded all GPO contracts and local contracts into CCXpert so it could actively manage its entire contract portfolio electronically. Now when one of its facilities purchases a contracted item, the product price in the PO and POA are matched against the respective contract to ensure pricing accuracy at the time of purchase. Today, more than 75 percent of Vanguard Health Systems' on-contract orders are matched to a firm price list during the transactional process.

GHX solutions played an instrumental role in helping Vanguard Health Systems navigate a $1.5 billion GPO conversion. In mid-December 2012, Vanguard Health Systems began receiving contract data feeds from its new GPO. While the GPO conversion in itself was a challenging endeavor, a glitch resulted in Vanguard Health Systems loading inaccurate contract data, impacting 75 percent of its item file. Subsequently, Vanguard Health Systems experienced price exceptions on nearly half (48 percent) of the orders placed by its affected hospitals.

Using CCXpert and the My Exchange web portal, Vanguard Health Systems quickly isolated the top 50 price discrepancies on a daily basis to prioritize its contract data cleanup efforts. For the three

months following the GHX, GPO and shared services project implementation, price exception rates reduced by over 60 percent. Metcalf notes: "Thanks to the hard work of our markets, GHX, Novus Informatics and newly formed data integrity teams, we were able to collaboratively and rapidly limit the financial impact associated with incorrect pricing and payments."

Facilitating continuous improvement

Leveraging GHX solutions in conjunction with reporting to measure its achievements, Vanguard Health Systems has the resources in place to facilitate continuous improvements in its supply chain business transactions. One way that Vanguard Health Systems ensures that it is making the most of its e-commerce investment is through tracking its EDI volume and accuracy rate by individual buyers.

Through daily reporting, Vanguard Health Systems has determined that some of its member hospitals are reaching 95 percent utilization of electronic POs with suppliers capable of processing these transactions, while others are lagging behind. For those facilities underutilizing their e-commerce capabilities, the Systems Optimization team can quickly intervene and address issues preventing the flow of electronic transactions, such as a vendor who is on the GHX Exchange but not properly set up to receive electronic POs, to boost EDI utilization rates.

In an effort to increase PO and invoice accuracy, Vanguard Health Systems is also using GHX reporting tools to evaluate the performance of individual buyers within its member facilities. While currently 40-45 percent of Vanguard Health Systems' orders are touchless – meaning the PO, POA and invoice are processed electronically without human intervention – the IDN is working to increase its touchless order rate by addressing issues during the transactional process. Ted Willms, Senior Systems Optimization Analyst at Vanguard Health Systems, explains their approach.

"When those orders capable of electronic processing go through without human intervention then we know everything has been handled properly by the buyers," said Willms. "But when manual intervention is needed, we can quickly find out why and take steps to address issues before they impact our operational performance."

Benefits

Vanguard Health Systems' partnership with GHX has enabled it to secure greater control over and visibility into its procure-to-pay process throughout its 28 member hospitals. The IDN has significantly increased its volume of electronic transactions, driving greater operational efficiency as well as order and invoice accuracy, while driving down manual labor and costly pricing errors.

"The efficiencies gained are helping to facilitate a shared services model for our organization," said Metcalf. "Working with GHX we've created a scalable framework that enables a smaller subset of staff members to manage their workload by exception so that our organization can reallocate resources to what's most important – patient care."

Results

Through its partnership with GHX, Vanguard Health Systems was able to finalize the MetaTrade and Trading Partner Acceleration implementations two weeks ahead of schedule, achieving a 99.7 percent transmission success rate at go-live. As a result of the on-going partnership with GHX, Vandguard Health System has achieved the following:

MEASURE	BASELINE	BASELINE (GROWTH ADJUSTED)	CURRENT	CHANGE (GROWTH ADJUSTED)
Staffed Beds	2,757		4,020	
PROCUREMENT				
Trading Partners	49	72	297	315%
PO Volume	4,830	7,052	22,748	223%
PO Lines	28,695	41,895	175,477	319%
PO Gross Transactional Volume	$7,759,056	$11,328,222	$25,522,414	125%
Gross Transactional Volume /Staffed Bed	$39,245		$79,054	101%
PAYMENT				
Trading Partners	41	60	82	37%
Invoice Volume	2,965	4,329	22,555	421%
Invoice Lines	16,060	23,448	180,816	671%
Invoice Gross Transactional Volume	$4,478,321	$6,538,349	$27,510,582	321%
Gross Transactional Volume / Staffed Bed	$1,624		$6,843	321%
DISCREPANCY RATE				
Price	5.87%		2.90%	
Part Number	3.40%		0.66%	
UOM	1.44%		1.28%	
ANNUALIZED SAVINGS*				
Time, Efficiency (HOURS/DOLLARS)	10,809 / $234,223			
Discrepancies / Payment Variation	$654,280			

*All savings figures are adjusted by 46% to account for acquisition growth.