



Transforming from a cost center to a revenue center

In the world of K-12 education, the print business has certainly changed over the decades and Cengage has changed with it to remain one of the top publishers of learning materials. From its inception over a century ago, Cengage has changed their formula and found a balance with print and digital content distribution. Now their distribution business includes 3rd party logistics customers based on Cengage's mastery of distribution excellence. Throughout the last 15 years of evolution, Lucas has partnered with Cengage to increase their productivity and accuracy while also providing a distribution competitive advantage fueling the 3PL business.



Over 100 years produced by the control of the contr



5% increase in accuracy



10% less labor



15% productivity increase

Started in 1903 as a publisher for South-Western, Cengage has found a strong footing in publishing educational print materials. Cengage operates 5 warehouses globally with their largest US location in Independence, Kentucky. This warehouse alone has over 14 miles of conveyer systems and employs over 200 workers.

Cengage deployed their initial system from Lucas, featuring Jennifer over 15 years ago with a goal of increasing performance and worker safety. Before using Jennifer, performance was hampered by the slow pace of handling paperwork and the lack of a hands-free environment. "You're opening cartons, handling books, putting them into those cartons, combing them into trains. We knew we needed a hands-free solution," says Jason Tucker, Director of Fulfilment Center.

Since the installation of the Lucas Warehouse Optimization Suite, Cengage has increased key performance metrics across the board. The initial deployment started in the Replenishment area, then migrated to all other work areas of the warehouse. Sonny Adkins, Director of Distribution says, "There has been an overall boost in productivity of 15%, order accuracy increase by 5%, and a 10% reduction in labor needed."



"One of the biggest impacts from Lucas is the increase in accuracy and how it allows us to have fewer workers on downstream processes like quality control and shipping."

Jason Tucker Director of Fulfillment Services

A distribution centric competitive advantage

With tight labor markets for warehouse workers, using voice directed technology became a competitive advantage when trying to hire new workers. One major benefit for Cengage is how easy it is for new workers learn to use Jennifer. "The simplicity of training with Jennifer helps us attract new employees. Training takes an hour to half an hour." remarks Sonny Adkins.

Crystal McGee, Picking Lead who has used Vocollect headsets in the past states, "My previous company used Vocollect. Jennifer is way easier. With Vocollect, you had to train the system with your own words. Vocollect didn't have good voice recognition. When a new employee would start, we would spend 40 minutes training the system just to recognize the employee's specific words. You'd had to speak exactly as you trained the system or Vocollect is not going to understand you. Jennifer has made it way better."

Even with adding seasonal staff and training new employees, Cengage still reaches their goals of high volume and same day turn around Sonny Adkins comments, "Cengage provides over 4 million units in a single month while still maintaining that 99.5% orders go out within 24 hours."



30 minutes - hour for training



99.5% orders go out within 24 hours



190,000 orders a month



4 million units per month in peak season



"We have seen a decline in print, but with help from the 3PL business. We are now a revenue center, not a cost center."

Sonny Adkins Director of Distribution

Competing in a digital world

Jason Tucker stated, "The Cengage business has changed quite a bit over the years. Twenty years ago, we were primarily higher education and traditional textbook publisher. As the marketplace has changed, Cengage has moved to a 50/50 split from traditional textbook publishing to offering all kinds of digital solutions, E-books and homework assistants."

With the Warehouse Optimization Suite technology and support from Lucas, Cengage realized they had become quite good at distribution. In fact, so good that they began attracting 3rd party logistics customers to fill in some of the empty space that was given up to the digital business.

"The distribution team realized that while we have a great distribution facility we need to replace the volume lost to the digital business growth. There has been a lot of time and effort invested in this facility. What we decided to do was to start bringing in 3rd party customers that would use us as a fulfilment partner and allow us to run the same amount of volume we were running previously," Jason Tucker responds. "As more 3PL customers join, they are easily transitioned into the Lucas system."

Over the recent years, Cengage has added ten 3PL customers to their US warehouse. Sonny Adkins exclaims, "We have seen a decline in print; but, with help from the 3PL business, we are now a revenue center, not a cost center." Over the past 20 years, Cengage has built a strong library of print and digital media for education and has successfully transitioned their distribution business into a revenue center.

About Lucas Systems

Lucas Systems helps companies transform their distribution center operations and continuously adapt to changing market dynamics. We dramatically increase worker productivity, operational agility, and customer satisfaction.

Our solutions are built on 23-plus years of deep process expertise and smart software using Al and voice technologies. Our solutions feature Jennifer $^{\text{TM}}$, the brain, voice, and orchestration engine that drives performance improvement gains. Make the smartest moves at the lowest cost with Jennifer $^{\text{TM}}$.



