**Competency**

In this project, you will demonstrate your mastery of the following competency:

* Assess aspects of a distribution center facility for their potential to optimize efficiency

**Scenario**

You have recently been hired by AmeriWidgets, which is looking to optimize efficiency in its distribution center facility. The company has recently expanded its number of stores in the region and has acquired a new 95,000-square-foot distribution center. Although its processes have worked in the past, the company has noticed a decline in efficiency during recent months and has asked you to conduct an analysis and provide a recommendation to improve efficiency.

The decline in efficiency has led to a decline in customer satisfaction, as evidenced by the customer complaint line and customer feedback cards included with every delivery. This is a big concern. Management realizes the efficiency issue must be addressed immediately in order to maintain customer satisfaction and the company’s stake in the market.

Sarah, the manager of the new distribution center manager, has gathered her team to help improve warehouse efficiencies and address customer satisfaction issues. She has asked her shipping manager, Dan, to address the recent decline in orders shipped— down to 10,500 per day from 12,000 per day. With a growth in distribution, management had increased expectations to ship 15,000 orders per day. The decline is concerning because the capacity of the organization should have increased with the additional distribution center added to the supply line. In addition, the current delivery success rate is 87%, which is a 7.5% decrease during the past six months. AmeriWidgets strives to reach a 97% success rate.

Sarah has identified additional concerns within the distribution center and asked her inventory manager, Jim, to review internal warehouse practices to see if worker productivity, warehouse capacity, and inventory accuracy are operating at peak efficiencies. Currently, Jim manages a team of 30 employees focused on inventory. Jim has noted in previous meetings that deliveries to the distribution center have increased from 8,500 pieces a day to 11,000 without additional personnel being hired. In addition, Jim has informed Sarah that a new product assembly area offered by the company has decreased the available space within the walls of the distribution center. Finally, Jim has noted that without additional personnel hired at the center, the cycle counts performed monthly to help maintain inventory accuracy will naturally be affected by the increased daily deliveries and shipments.



**Directions**

**Distribution center facility improvement recommendations report:** You are tasked with evaluating the information provided, determining whether corrections can be made, and making recommendations for improvements using to the following criteria:

* Assess the distribution center’s current performance to determine areas of improvement. Include the following in your response:
	+ What changes occured in the number of deliveries shipped and the delivery success rate, and why is this information significant?
	+ What additional performance measures and information could be considered to assess the efficiency of delivery processes?
	+ Based on the information in the scenario, what are the key takeaways to be considered for potential optimizations in efficiency?
* Recommend an approach for optimizing AmeriWidget’s delivery success rate, explaining how the recommended approach should result in an increased delivery success rate. Include the following in your response:
	+ What technology and processes are commonly used in distribution centers to optimize delivery success rates?
* Recommend a strategy for meeting the goal of 15,000 orders shipped per day, explaining how the recommended strategy will support AmeriWidgets in meeting its goal. Include the following in your response:
	+ Specifically, which aspects of the distribution center facility would be most crucial in meeting the goal?
	+ What types of technology resources could support the distribution center in meeting its goal?
	+ How could the use of simultaneous shipments support the distribution center in meeting its goal?
	+ How could employee resources and an employee interface support the distribution center in meeting its goal?
* Recommend an approach to accommodate the increased volume of deliveries received, explaining how the recommended approach would be beneficial. Include the following in your response:
	+ What types of technology resources are commonly used to manage the volume of deliveries? Would a similar technology resource benefit AmeriWidget?
	+ What employee interfaces are commonly used in distribution centers, and how would they support the distribution center in accommodating the increased volume of deliveries?
* Recommend a strategy for optimizing the management or maintenance of inventory within the distribution center. Explain how the strategy will facilitate efficient inventory management using details from the scenario. Include the following in your response.
	+ How can utilization of space support effective inventory management in a distribution center?
	+ What technology resources are commonly used to effectively manage or maintain inventory?
	+ What process efficiencies are commonly used to effectively manage or maintain inventory?

**What to Submit**

Every project has a deliverable or deliverables, which are the files that must be submitted before your project can be assessed. For this project, you must submit the following:

**Distribution Center Facility Improvement Recommendations Report**
Provide a professional recommendations report for AmeriWidgets that is 750–1,000 words long and addresses all criteria listed.