

# Collaboration Improves Warfighter Sustainment

## Part I of II: **MEASURING** and **IMPROVING** Enterprise Performance

This is Part I of a two-part series describing how collaboration improves the performance of the Department of Defense (DOD) distribution network that sustains the Warfighter.

a global performance-improvement effort called *Distribution Process Owner (DPO) Strategic Opportunities*.

### INTRODUCTION

Supporting DOD sustainment requirements is a sizeable business operation. Combatant Command (COCOM) customers generate a daily demand of more than 15,000 requisitions against the nation's wholesale supply system, equating to nearly 3000 tons of cargo entering the DOD sustainment supply chain every day. Requisitions can take anywhere from a few days to a few months to be picked from stock, packaged, consolidated, shipped, de-consolidated, and transported to forward supply points. The DOD supply chain is uniquely supported by a worldwide network of supply sources, large fleets of multi-modal transportation assets, and modern distribution infrastructure. It is also complimented by a responsive command and control system that effectively mitigates challenges such as hostile interdiction and nature's unforeseeable events.

This article introduces the metrics framework that is instrumental in understanding and managing the global distribution system and provides examples of two recent initiatives that improved sustainment distribution performance. The focus of Part II in this series will shift to the application of recent lessons learned in

### BACKGROUND

To address unreliable distribution performance throughout the 1990s, United States Transportation Command (USTRANSCOM) and the Defense Logistics Agency (DLA) co-sponsored the Strategic Distribution Management Initiative (SDMI) in 2000. SDMI was the first significant effort to leverage commercial best practices to improve the DOD supply chain. In a related endeavor, the RAND Corporation developed a suite of initial distribution metrics along with a supporting database to identify improvement opportunities, design solutions, and measure the impact of change implementation. Initial efforts to capitalize on these opportunities took place in an era where there was not a single DOD distribution process champion or change manager. These efforts, while providing some initial gains, also highlighted a need to further cultivate synchronization and unity of effort.

In 2003, the Secretary of Defense designated USTRANSCOM as the DOD's DPO with the responsibility to oversee the overall effectiveness, efficiency, and alignment of DOD-wide distribution activities and to implement distribution process improvements that enhance the Defense Logistics and Global Supply Chain Man-

agement System. The DPO mission also requires that USTRANSCOM unify efforts among enterprise stakeholders to improve supply chains serving the regional COCOMs. To assist the DPO in making fact-based decisions to improve distribution performance, USTRANSCOM established a Center of Excellence, the Joint Distribution Process Analysis Center (JD-PAC), in 2006.

USTRANSCOM's DPO designation rejuvenated efforts to establish best practices and became the catalyst for refining a measurement framework for end-to-end performance called Integrated Distribution Lanes (IDL). With JDPAC support, the IDL framework enabled root cause analysis to pinpoint distribution problems and to develop, implement, and monitor solutions. The framework constituted the foundation for collaboration between the DPO and its strategic partners. With DPO governance in place, the stage was set to reap the potential benefits of implementing commercial best practices.

### MEASURING AND IMPROVING DISTRIBUTION PERFORMANCE

An enduring theme of the DPO mission is enhancing the Global Supply Chain Management system. The DPO and its partners stay true to this theme by measuring overall distribution performance in a hierarchy of supporting metrics from the enterprise level to the process level.

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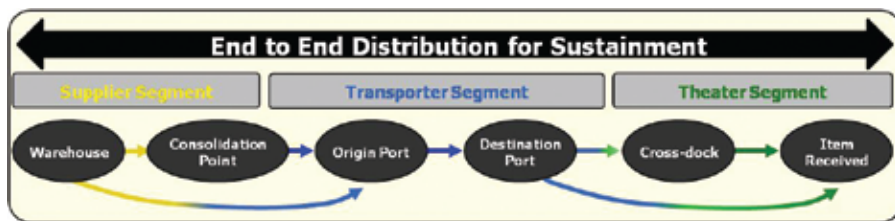


Figure 1 – General DoD Wholesale Distribution Process

The IDL framework essentially measures performance from source of supply to final consumption point across more than 250 individual “lanes” (IDLs). Each lane is divided into three segments: Supplier, Transporter, and Theater. Figure 1 illustrates the flow of requisitions through the distribution process from source of supply to receipt. IDL standards are negotiated between the warfighting customer, distribution network operators, and sustainment providers. Distribution performance measurement is managed within a monthly “battle rhythm” that basically involves collecting and analyzing actual pipeline data and then collaborating among enterprise partners to identify trending problem areas. Performance solutions requiring major supply chain policy changes or large investments are prioritized by and implemented through the DPO governance structure in a series of joint forums at various levels of senior leadership.

USTRANSCOM and its partners have pioneered numerous projects and initiatives that have resulted in improvements such as streamlining container processes, reducing aerial port hold times, and enhancing coordination with host nation customs. The information gained from measuring distribution performance has not only led to identifying these opportunities, but simultaneously provides the DPO the ability to measure and report progress during implementation. Trust is also built throughout the process through information sharing. The following sections illustrate two types of improvement opportunities—Process and Network Design.

### PROCESS IMPROVEMENT

One notable process improvement engagement focused on ocean distribution procedures. The ocean mode contains many inter-related processes in which synchronization can greatly impact enterprise performance. In January 2007, IDL analysis indicated that the Kuwait Ocean lane was operating at 86 days compared to a 64-day standard.

Through teamwork, enterprise partners achieved significant improvements. In the Supplier segment, DLA, General Services Administration (GSA), and Norfolk Consolidated Freight Station improved packaging and consolidating of their containers and container booking. Traditionally, shippers booked containers to the first vessel departing the port. IDL analysis revealed that the first vessel departing was not necessarily the first vessel arriving at the destination due to more direct shipping routes, leading to fundamental changes in the booking policy. The carriers responded by optimizing their schedules and processes. The customer in the theater segment quickly closed their requisitions. The outcome of these collective efforts produced a 29% reduction in distribution days to the customer in the Kuwait Ocean lane. Figure 2 illustrates the positive impacts made possible through collaboration.

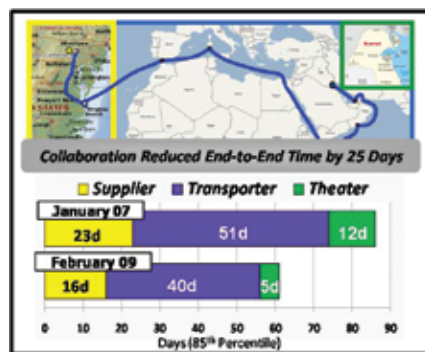


Figure 2 – Kuwait Ocean Improvement

### NETWORK DESIGN

Process change is just one way to enhance the performance of the Supply Chain. Network design changes can also improve effectiveness and efficiency by reducing the number of touch points in the supply chain, reducing bottlenecks, and reducing overall enterprise time. An example of such an effort is Distribution Network Optimization–Europe (DNO-E). The effort was led by a cross-functional team with members from the supplier, transporter, and customer communities.

Figure 3 shows a progression of the distribution network. In the early network design, many point-to-point movements were made from CONUS to DOD customers in US-European Command (EUCOM). The team identified opportunities to better utilize the capabilities of the Theater Consolidation and Shipping Point–Europe (TCSP-E) and to leverage the established truck network serving many EUCOM customers. Today, containers and pallets are typically built for mixed consignees and shipped to the TCSP-E for deconsolidation and onward movement. Previously, containers and pallets were frequently pure and shipped direct to the customer site. This network change allowed the system to provide better velocity and more reliable service to customers while using the existing cross-docking capability at the TCSP-E and the mature trucking network in EUCOM. These changes led to many significant improvements, one of which was air cargo bound for Northern Italy. Velocity improved by 38% with a 24% reduction in cost. The study team documented the key drivers of success for future efforts: using a common measurement framework, earning trust by sharing information with cross-enterprise teams, and providing continuous feedback to keep change implementation on track.

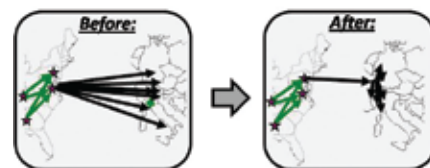


Figure 3 – Network Design Change

### WAY AHEAD

Through a collaborative approach to performance measurement, the DPO has continued to align business processes to reach desired outcomes and remove waste in the system. Part II of this series will examine work underway to perform system optimization through the DPO Strategic Opportunities initiative involving a cross-enterprise team consisting of USTRANSCOM, DLA, Defense Distribution Center, and GSA. Cost savings are projected to reach 500 million dollars annually with up to 25% improvement in performance. DTJ