

Transportation Management System: TransIT and ePOD

Access to medicines, health products, and other essential commodities is critical to ending extreme poverty, building human capacity, and creating vibrant markets around the world. Through Chemonics' health supply chain solutions portfolio, we provide health commodity procurement services and systems strengthening technical assistance that address all elements of a comprehensive supply chain. We hold ourselves to a similar standard as commercial supply chains, yet we operate in some of the world's most challenging environments to get critical health supplies to where they are needed.

A New Tool for Improving Last Mile Visibility

The Challenge

As Chemonics continues to develop innovative ways to improve on-time and secure delivery of commodities, such as through the USAID Global Health Supply Chain Program-Procurement and Supply Management (GHSC-PSM) project, one persistent challenge is the lack of visibility into the supply chain, particularly in low-resource and challenging last-mile environments. Although transportation management systems are important for tracking where shipments are at any given time, whether they've been delivered, and costs at each stage, many commercial solutions are too costly or not flexible enough for diverse and low-resource environments.

The Solution

In 2018, Chemonics developed a transportation management tool called TransIT, which is currently being used on the GHSC-PSM project and will be rolled out to other donors and clients in the coming year.

With engineering support provided by our partner Arizona State University, TransIT uses a cloud-based system that enables access to transportation information anytime and anywhere while minimizing infrastructure, set-up, and maintenance costs. The tool aggregates end-to-end data — from distribution planning through delivery to the recipient — to track performance, location, and costs as commodities move through the in-country distribution network, which enables operations to run smoothly and on time. Through the supply of constant information, TransIT creates an "instant report card" that enables distribution managers to better track shipments, make data-driven decisions, optimize distribution resources and assets, and use historical data to show trends over time.

We created an accompanying Android app, the Electronic Proof of Delivery App (ePOD), for truck drivers to upload information about shipments and their delivery status. The ePOD app also allows drivers to upload pictures of the ePOD, its recipient, and the shipment at a delivery location, with a time and location stamp. If the

Why Use TransIT?

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Key Considerations:

- GHSC-PSM staff are available to support implementation, leading to cost savings and a quicker response to country needs.
- Initial training and implemented can be completed in as little as one to two weeks.
- Support and maintenance can be done remotely.
- Built for low-resource settings.

Progress by Country:

- Angola completed implementation
- Mozambique Phase 1 implemented
- Cameroon implementing soon

driver is in an area without connectivity, the system uploads information automatically once internet becomes available. Chemonics worked with the GHSC-PSM project to complete implementation of the tool in Angola, is testing in Mozambique and Cameroon, and will roll out to additional countries soon.

The Results

- Provides supply chain distribution managers with greater visibility into in-country distribution networks, thereby improving functionality and services for end beneficiaries, reducing donor costs, and demonstrating the benefits of transparency to all supply chain stakeholders.
- 3PL providers have improved ability to develop route plans, warehouses improve how they pick and pack, program and logistics managers have visibility on deliveries, and logistics staff are better informed on performance and costs.
- Finance managers are better able to match invoicing to actual work completed by the transporter. Product from different donors sent to the same facility can be combined to utilize a single truck, reducing costs that can be reallocated towards additional health commodities.
- Distribution manager or anyone involved in the transportation or project management can run reports for various functionalities such as utilization of transport vehicle, cost, on-time delivery, outstanding orders, proof of delivery, and over, short, and damaged (OS&D) information.
- Along with TransIT, the ePOD app offers additional features for the driver, such as the number of shipments with customer information and the date of delivery with details on priority deliveries. It also eliminates the use of paper-based POD, which increases visibility immediately after delivery and improves efficiency in processes. The ability to attach pictures of customers makes the system more reliable.
- TransIT and ePOD can be used across donors, countries, and projects with minimal infrastructure, setup, and maintenance costs.



Regional Warehouse in Nampula, Mozambique. *Photo credit: Mickael Breard*

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