

CASE STUDY

ParkourSC Empowers a Global Pharmaceutical Company to Track Blood Plasma Samples with 100% Visibility



CUSTOMER

Global Pharmaceutical Company



INDUSTRY

Pharmaceutical



OBJECTIVES

Reduce blood plasma re-testing, spoilage and waste, provide complete record of plasma movement history for FDA compliance, and increase visibility from 20% to 100%.



CHALLENGE

- Millions of dollars lost annually due to plasma sample spoilage, re-testing, waste and compliance issues.
- Manual methods for tracking blood plasma samples resulted in a low Supply Chain Visibility Index of 20%.
- Manual tracking did not capture the complete movement history of the samples, which meant the company was not in 100% compliance with FDA regulations.



SOLUTION

ParkourSC's solution provided end-to-end visibility and condition information of the plasma samples, from the arrival at the loading dock, to the pallets, and finally, to the freezer. ParkourSC enabled the company to achieve 100% visibility into the flow of their plasma samples, with 100% count accuracy.



RESULTS

- **50x ROI**
- Supply Chain Visibility Index increased from 20% to **100%**
- **\$60M value** creation; saving millions in product losses
- Able to **track 25,000+** pallet movements



To meet the growing demand for life-saving plasma-based drug therapies, a global pharmaceutical company collects and transports over 8 million liters of blood plasma from 82 donor centers to its 5 plasma facilities around the world. Patients with a variety of rare, life-threatening, chronic and genetic diseases depend on the availability of high-quality drug therapies.

This is where ParkourSC expertise comes in. The company was losing tens of millions of dollars every year due to plasma sample spoilage, re-testing labor costs, and FDA compliance issues. The company turned to ParkourSC to provide a complete system that provides real-time, accurate monitoring of the location, dwell times, condition, and movement history of the blood plasma samples.

Challenges in Tracking Blood Plasma Movement with Outdated Technology

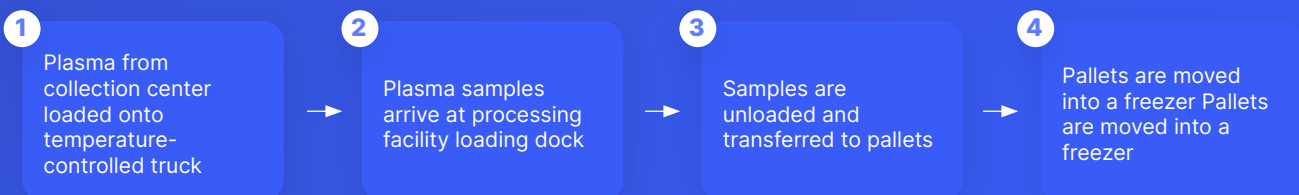
The global pharmaceutical company is one of the top 10 largest pharmaceutical companies in the world by revenue, with research and development sites in Asia, North America and Europe. At their North American plasma facility is a new, 1.1 million-square-foot, state-of-the-art manufacturing space where they produce Albumin, which is used to treat rare, life-threatening, chronic and genetic diseases.

In order to produce Albumin, they collect and transport pallets of blood plasma samples from 82 plasma services centers to the North America facility every year. The beginning of the journey starts at the donor centers, where a plasma donation is put into a test tube sample bottle, and then into a small freezer.

To ensure the safety and efficacy of the blood plasma, the company must comply with strict FDA regulations regarding transportation of the samples. Unfortunately, plasma spoilage, re-testing, and waste cost the business millions of dollars every year.

The illustration below depicts the journey of a blood plasma sample, starting from donor center to plasma processing facility.

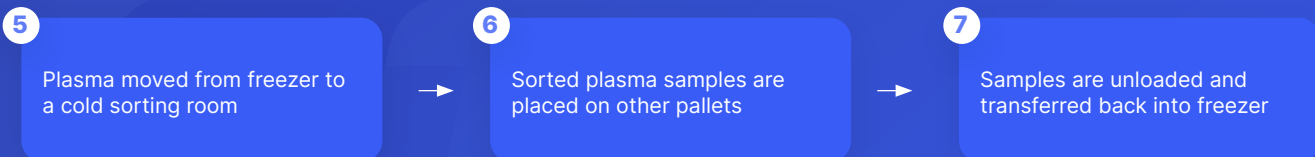
PLASMA SAMPLE ARRIVAL



Plasma samples arrive at the facility and are unloaded and transferred to pallets, which must be immediately moved to the freezer to avoid spoilage. The loading dock is not refrigerated, so it's critical that the pallets are moved into the freezer as soon as they're unloaded to avoid being exposed to ambient temperatures. If the batch of samples are exposed to more than 60 minutes of ambient temperature, then those samples are quarantined. After the quarantine period, the samples must be re-tested for viability, which results in extra labor costs.

When the plasma is needed for Albumin production, the pallets are moved to a cold sorting room (+5 degrees C) for sorting by origin and profile. The sorted samples are then placed on other pallets and moved back into the freezer. There is a threshold (dwell time) for how long the samples can be out of the freezer — if the samples exceed that time, they are discarded.

PLASMA PRODUCTION



At the time of production, pallets are moved to a cold sorting room for sorting by origin and profile. The sorted samples are then placed on other pallets and put back into the freezer. In between, samples go on excursions where there is a threshold for how long they can be out of the freezer.

The processing facility, where plasma collected at remote donation sites is separated.

Before implementing ParkourSC's solution, this global pharmaceutical company was relying on older, manual tracking methods which involved the use of hand-held RFID bar code scanners. RFID technology did not provide them with the timely, accurate data that they needed. As a result, a significant number of plasma samples spoiled due to temperature excursions — when samples are exposed to temperatures outside the recommended storage conditions. Fines and costs for each excursion top \$5M each.



ParkourSC gives us 100% visibility into the movement of our blood plasma samples, resulting in over 50x ROI. Now we can track pallet movements with 100% accuracy, and achieve 100% compliance with FDA regulations."

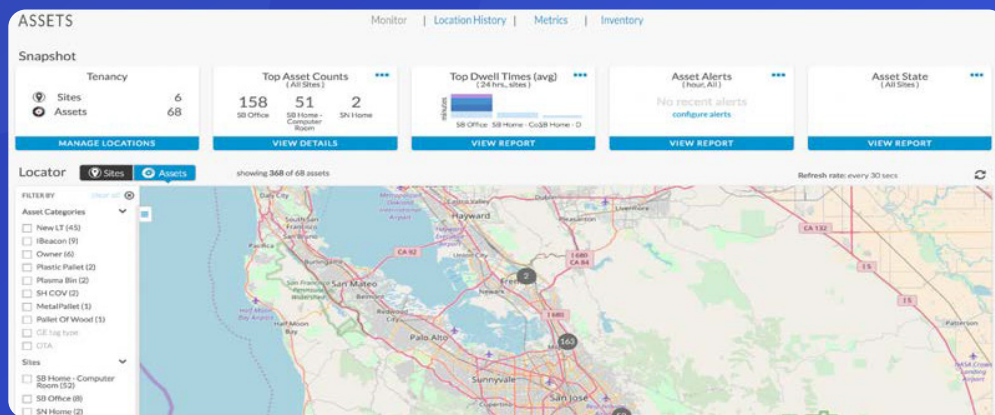
SVP Strategy,
Global Pharmaceutical Company





100% Visibility with ParkourSC Means Full FDA Compliance and \$60M Value Creation

ParkourSC provides the pharmaceutical company with the ability to capture real-time product flow data with in their plasma facility. The ParkourSC solution, which included a software platform paired with 5,000 sensors and 60 gateways, enabled them to accurately monitor the plasma samples' location, dwell times, condition and movement history, from the point when a truck pulls up to the receiving dock door to the end point when the final product is created. With the click of a button, the company can provide the FDA with a complete record of plasma movement history, resulting in significant cost savings.



Asset Monitor Dashboard – Insights

In a world of disruption, unpredictability, and increased expectations, companies need constant awareness of their supply chain exposure and opportunities to quickly adapt. ParkourSC was founded in 2014 (as Cloudleaf) with a vision for a radical new approach to unlock value trapped within supply chains, transforming them into powerful data-driven strategic assets. We are at the heart of supply chain transformation and strive to deliver a world where there are no supply chain delays, and where any changes- planned and unplanned- can be solved quickly and easily based on informed decisions.

To take the first steps to gain greater visibility and agility in your supply chain operations, contact ParkourSC

parkourSC.com