



# DSV Implements a Single-Instance Control Tower with a Global Footprint



A “Slick Solution” for Connecting People, Systems, & Processes: Learn how DSV eliminated information silos and mastered SLAs

## About DSV

DSV is one of the biggest names in transport and logistics, operating in over 90 countries with a global network of over 75,000 employees. They recently opened a new warehouse in Johannesburg, strategically positioned for freight shipments and courier services via air, road, or sea. The Gauteng facility is approximately 139 000m<sup>2</sup> and the largest integrated logistics center on the continent. The park presents exciting opportunities for growth throughout the region: With a stronger supply chain network, businesses can increase their distribution area and expand into new markets. The ambitious project would require extensive visibility and seamless coordination across expansive and dynamic networks. As a customer of Kinaxis’ end-to-end logistics and transportation management system, which is used at the DSV Solutions sites in Europe, they reached out to Kinaxis to develop a supply chain control tower solution to meet those needs in South Africa.

## One DSV, multiple divisions and third parties

To understand the challenge, it's important to first also understand the business structure of DSV. DSV is a multinational business comprised of three distinct divisions or identities. There's the freight forwarding and clearing division, primarily responsible for international imports and exports, as well as all regulatory and compliance related activities, such as customs and brokerage; the contract logistics division, which covers warehousing and all aspects of storage (standard, regulated including high grade and high risk); and the road transport division, spanning the physical movement of goods domestically and into Africa. Within this road division there are three subdivisions that collectively comprise the greatest portion of DSV South Africa: Full-Truck-Load, General Courier Business, and Secure Division. Brett Sauerman, General Manager of Freight Management Solutions for DSV South Africa (SA), states that while the divisions represent a shared company vision and mission and integrated approach across the supply chain, from an operational and cultural perspective - in terms of systems, people, and processes – they are all unique. "It presented a challenge to us with a large, multi-national client in the Fast Moving Consumer Goods (FMCG) sector. Our services for this client were to be the first of its kind attempted in SA for DSV, and the client was crystal clear about the need to have a single point of contact for the end-to-end supply chain." In this case, end-to-end referred to the inbound management of freight arriving into SA from other countries, outbound flows for both freight leaving SA and domestic distribution, as well as storage and value added services during storage.

At the time, all three business units were required to participate in that full transaction. However, they were operating three very different systems across those units (a global freight forwarding system, a global warehousing system, and a new transport management system). The gap in continuous visibility, planning, and execution, was a challenge in the FMCG space for DSV. "It meant that an order given to us by the customer needed to be interpreted by these three systems and its people before we could actually start working on the order," explained Sauerman.

DSV wanted a solution that would retain the identity of the different business units in terms of who they are and what they do best, while still meeting the needs of the customer.

### The Complex World of FMCG

Adding to the challenge was the highly complex nature of the FMCG sector in which the customer operated: Healthcare. "We are dealing with regulated healthcare products, together with other general goods all processed from the same facility. We must maintain compliance and meet service level expectations," says Sauerman. In terms of execution, the customer had very particular requirements: "In addition to needing specific products at a specific



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location at a very specific time, we had to coordinate a combination of internal and external resources to be present on site to assist with merchandizing during delivery and simultaneously collect certain goods to return.”

Practically speaking, that is quite a complex thing to execute and to do so at a cost that makes sense to both the client and DSV.

**“It requires a very slick solution that allows people, systems, and processes to, in cohesion, meet one demand. And that one demand is the customer service level agreement,”** says Sauerman. For DSV, on-time and in-full (OTIF) delivery would mean contending with a new form of internal and external factors requiring the systematic coordination from origin and across multiple modes of transport across all their divisions and external transport service providers. “The work instructions need to be clear, everyone involved in the process must understand exactly what they need to do, and when to do it in order to meet the ‘customer promise.’ That is a big ask. Even as one business, it’s as though we each reside in our place upon a giant wheel, coordinating one push to make it turn.”

### **What is yet unknown, and flexibility to scale**

While determining the right solution for their needs, DSV recognized that they were treading new waters with freight management services in the FMCG space in SA. Therefore, they also acknowledged the difficult truth that they didn’t yet know everything they needed to know for running that operation as effectively and efficiently as they aspired to do.

“It’s difficult to describe what it feels like to think you know what you need, to not be certain, and to find a provider that is okay with that uncertainty. It’s a very peculiar conversation and process to go through,” explains Sauerman. “We needed a partner that could be flexible with us as we grew from what we knew then versus what we know now. We needed a provider able to absorb our learning journey and sometimes short notice requirements until we stabilized.”

DSV turned down prospective solution providers who insisted on rigid or fixed options that were claimed to work best in other geographies. “We needed to grow by learning; to do that, we needed someone who would listen to us, interpret the problem, and offer a solution that’s unique to us and works for us.”

The success of DSV entities in other geographies using Kinaxis played a large role in the selection process. “In other geographies, the technology has proven its ability to optimize the supply chain against service and cost,” says Sauerman. The platform’s ability to automate highly complex workflows and processes made it a good fit for the project; in terms of the implementation and what DSV wanted to achieve, Kinaxis’ flexibility, scalability, and willingness to give DSV room to explore and innovate is what clinched the deal.

**Considering how trailblazing and complex the venture with their FMCG client was, Sauerman adds, “I was confident that had we selected the incorrect partner, we would not have managed to learn, stabilize, and achieve what we have today.”**

**35,000 - 40,000**

orders per annum, averaging  
20mil units processed

**15%**

orders within the highly regulated  
pharmaceutical sector

**5%**

of the 15% are for exports and is a  
combination of pharma grade and  
standard product

**40%**

loads (deliveries) requires white  
glove bookings and order management

**60%**

automatically planned

**3,500**

known delivery locations

**5-10%**

location variability month  
over month

## Coordinating business units through smart automation

DSV would be managing 35,000 - 40,000 orders per year, with varying order requirements for different customers; some orders were highly regulated, others required white glove service, and others were subject to location variability.\* As such, they needed to connect to a large carrier network. To keep costs low and ensure consistent and better delivery times, they needed a solution that could help consolidate orders and optimize flows between multidirectional shipments, as they coordinate and orchestrate orders between multiple parties.

To accommodate this, the Kinaxis supply chain control tower would systematically connect the disparate systems including third parties, so real-time information could be received through multiple pipelines and centralized across the complex multi-party network. "The control tower, at its most basic level, allows us to receive complex instructions from customers and, through the integration of multiple internal and external service providers, determine what exactly is required to meet that need. If accepted, the control tower also contractually binds parties to their portion of the transaction," explains Sauerman. "It ultimately allows us to act as one synchronized machine. Having undergone minimal internal change in systems, processes, and people, we've retained our DNA but also gained the critical ability to work together as one in a new and critical sector."

Visibility was particularly important as, in this instance, a large part of the warehouse is dedicated to consumer-based medical and pharmacological products, which have specific environmental and regulatory requirements.

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\* Figures reflect order volumes and demands on average per year for their multi-national FMCG client

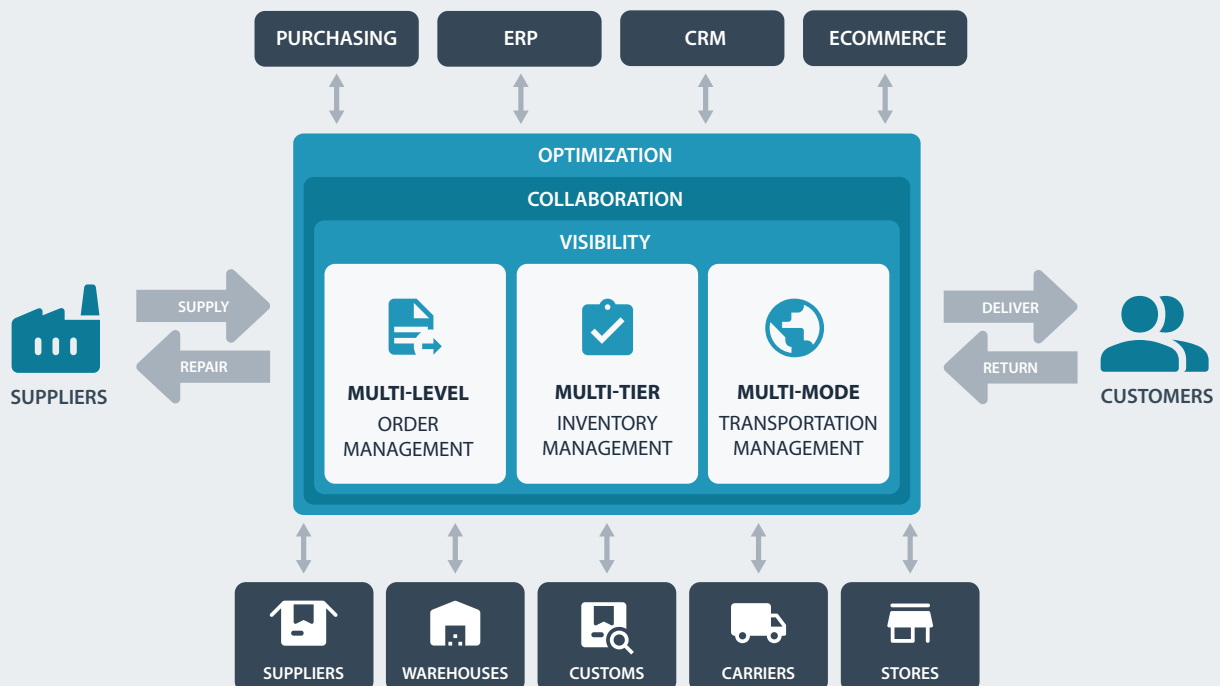


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## Functional and not merely analytical

The control tower would also be functional and not merely analytical—offering in-app options for active and timely planning, execution, control, and analytics. Since the initiative centered around fulfilling complex order flows, DSV and Kinaxis focused on the following key capabilities:

- **Leveraging master data** to calculate warehouse activities and resourcing, shipping capacity and optimize space utilization—even taking into consideration variables such as different pallet and product types and whether a product can be stacked securely.
- **Automated carrier selection and assignment** based on the customer and order workflow requirements
- **Connecting returns to outgoing deliveries**, thereby providing pickups in the same area as their distribution service and minimizing trips.
- **Integrations with existing WMS and legacy systems** for improved communication between business units including expressing progress to their client.





It was critical for us to be able to optimize the supply chain very quickly after implementation. Information had been sitting in isolated sectors of the supply chain; Kinaxis allowed us to aggregate that data in a meaningful way on a single-view platform. We were able to interpret instructions and give feedback across several service providers and have that be visible on what we call an 'order lifecycle view' – at a transactional level as well as at a group level. Leveraging intelligence empowered us to make informed decisions that helped stabilize and mature our value offering and get to the point where we enabled our customer's growth. It also allowed us to improve productivity on average by 17%.







## Advanced capacity planning and inventory management

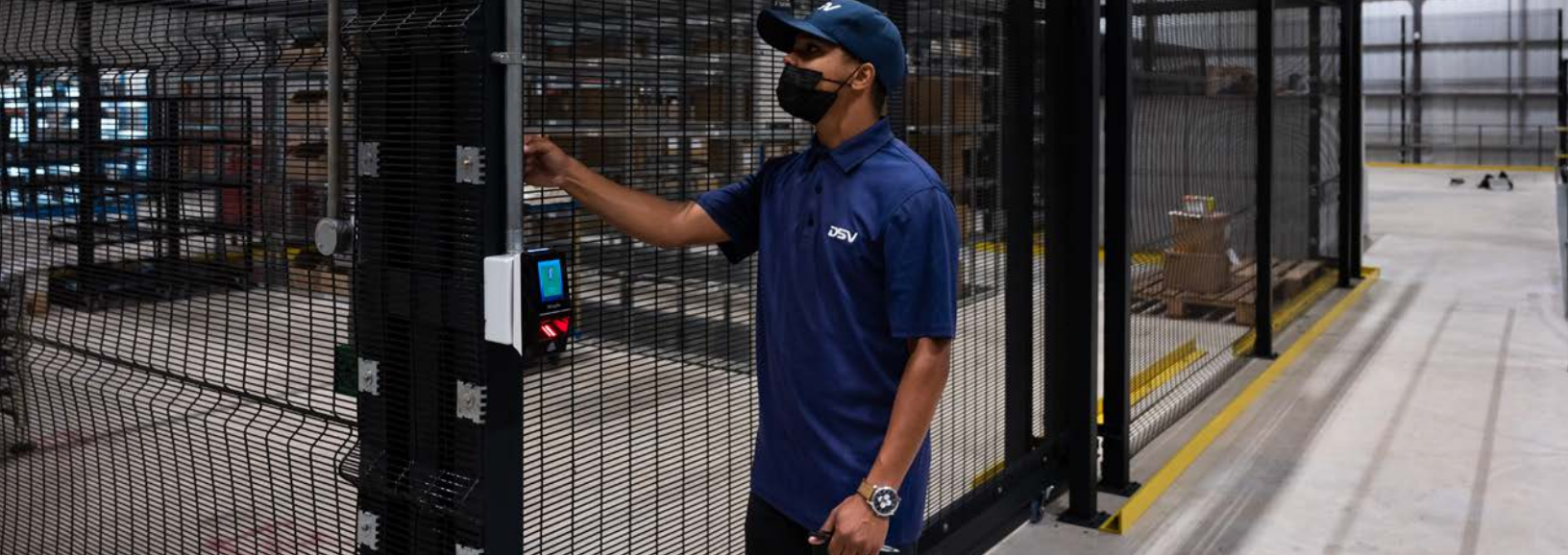
Capacity planning was another critical success factor for this solution. Accurately resourcing shifts per order activity proved challenging considering the complexity, creating unnecessary overtime expenses and, in other cases, less than optimal productivities in picking and packing. Physical flows coupled with sophisticated information flows involving different product types—including, for example, standard and pharmaceutical—need to be tightly controlled and monitored with unique environmental constraints. DSV needed a control tower solution that would aggregate and compile real-time information about order requirements and incorporate those insights into shift planning supply chain and order management.

One of Kinaxis' greatest assets when it comes to capacity planning is the extensive master data they've accumulated through their network of platform users and simulation exercises. With global and granular views of the supply chain landscape, patterns can emerge that may yield valuable insights— for example, by improving replicability and automating manual tasks.

In this instance, the Kinaxis control tower incorporated a number of variables into shift (wave) planning, including:

- Three categories of picking: full-pallet pick, carton pick, and fine pick. These distinctions provide insight into how much labour, time, and product will be needed.
- Managing varying order parameters, such as Just-in-Time (JIT) delivery for core products and warehouse storage for other inventory.
- Creating recurring service orders for warehousing and transportation with capacities that have already been calculated and accounted for.
- Scalable functions for changing capacity requirements as needed, depending on long-term or short-term parameters (holidays or new operational hours, for example).

The control tower also provided a flexible option to overrule capacity in unexpected events, such as notable unplanned volume variations, pandemics, or any external factors. **As a result, DSV was able to increase automated order planning from manual bookings, including warehouse and transit needs, by 14%.**



## Having eliminated information silos, DSV masters SLAS

A large portion of the DSV Park Gauteng was dedicated to the FMCG client, an industry giant with a reputation for reliability and service. Complete order visibility and delivery notifications were critical to building a successful relationship with the client, but segmentation across the supply chain, including external service providers, made this meaningful visibility challenging. Separate enterprises and business units each used their own systems, set of standards and processes, creating information silos.

Data quality and integrity are critical to integrating across systems successfully, so the first step toward end-to-end visibility is to collect data, verify it, and then apply the same standards across units. Once there is a centralized repository of reliable, standardized data, it becomes much easier to collaborate and generate synergies between systems and partners' capabilities alike. An ordercentric approach is like creating separate supply chains for every order—thereby allowing greater visibility and control.

“With mountains and mountains of data coming in, Kinaxis made it possible for us to start with the basics first: Understand where this data comes from, how to interpret it, and how to use this information to improve the value chain for customers,” says Sauerman.



The key objective is to ensure customers get the best possible service at the best possible rate. Kinaxis is helping us do that.





To create transparency with stakeholders and highlight performance value, the control tower solution provided:

- **End-to-end visibility** at every transaction point and integration across systems into one platform, eliminating the need for separate carrier portals, forexample, and streamlining communications.
- **Individual order tracking** through EDI, API, and/or Web service technology, which is more precise than bulk shipment tracking and allows for exception events, like shipment expedites.
- **Delivery notifications and shipment updates** in real-time to all stakeholders in the supply chain.
- **Comprehensive dashboarding** to support planning and analytics, in addition to presenting data in a clear and compelling format for stakeholders.

Visibility, in this example, serves both an executive function (via improved coordination between parties) and analytical function (via performance monitoring and insights). This resulted in a 22% improvement in vehicle utilization on direct, retail for consumer, FTL, and LTL. Greater visibility, and the ability to take immediate action within the application, also resulted in an astounding 76% decrease in resolution response times for multi-supplier queries.

“The Kinaxis platform allows us to orchestrate across different service providers with different systems and capabilities, to fulfill certain service instructions, regardless of how complex they are – be it operationally or IT or process-wise,” says Sauerman. He explains that the key objective is to ensure for their customers the best possible service at the best possible rate. “Kinaxis is helping us do that.”

## Results

Major Improvements in Productivity, Efficiency, and Problem Resolution

**17%** Increase in service provider productivity

**22%** Improvement in vehicle utilization for direct, retail for consumer, FTL, and LTL

**14%** Order planning automation increase (from manual bookings) including for warehouse and transit needs

**76%** Decrease in resolution response times for multisupplier queries



## What's next for DSV South Africa?

Freight management services was a concept initially employed to meet DSV's integrated contract multi-national customer's requirements. It was new territory for DSV in this geography, but they were able to meet their customer's expectations and strengthened their expertise in this area. According to Sauerman, "Kinaxis' flexible approach allowed us to scale and connect complex networks of systems, people and processes. We've now reached a point in our journey where we feel confident commercializing Freight Management Services and bringing similar success to other customers." This next step in their journey is an ambitious one, and not without its challenges. The ultimate objective is to aggregate the demands of their customers through FMS using Kinaxis, so they can use collective intelligence toward forecasting and employing the knowledge they've gathered to improve their services offering. Sauerman admits that while great strides have been made in eliminating silos, "we have existing integrated contracts in other sectors which still operate in their separate structures, in some cases from the same geographical location but with limited knowledge share on how to execute that same work or demand in a better way." In a sense, what prompted this initial journey and indeed its current success reflects DSV's ongoing strategy. "By breaking down silos to harvest as much information as we can, we will learn from our data and discover the gaps between what we presume and what is known - and scale that collectively across our national network in favor of our clients and their shareholders."



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## Supply chain management on a global scale

DSV has several facilities in SA that all service different sectors and markets. Though they all run off the same warehouse management system (WMS) and are all managed by the same division, Sauerman says that the next step is building up strategic operations. "From my experience in the direct to consumer, direct and indirect retail the next logical short term goal would be to focus on connecting our clients with more options in terms of service flexibility." The FMS division will make this possible through leveraging the Kinaxis control tower platform to safely and securely aggregate client demands, understand the data, and put it to work unlocking value spanning service, cost-to-service, and improvement initiatives," says Sauerman. "Continuous improvement is a really big part of our culture. We've been relying mostly on the expertise of those involved in specific operations. We'd like to make the process more automated, data-driven, and intelligent to understand what needs to be prioritized, how best to manage and execute it, and whether our actions are creating our desired impact." In some ways, the challenges of orchestrating a project of this scale were commensurate with the size of its ambition. DSV had to fulfill orders for a number of customers, each with their own service level agreements (SLAs) and constraints; develop efficiencies

for order consolidation and shift planning; and connect business units and systems through an integrated data flow platform with end-to-end visibility. The Kinaxis control tower platform for supply chain orchestration revealed itself to be uniquely positioned to address these needs because of the solution's flexibility and end-to-end visibility. Kinaxis adapted the processes and system landscape that had proven successful in Europe and applied them to the Plumbago project in South Africa. The system's parameters can be changed to suit the user's evolving needs, whether that means building on a new continent or expanding into a new market. DSV Solutions FMS has proven that supply chain control tower technology can be scaled to intercontinental global operation.

## About Kinaxis Inc.

Navigating supply chain volatility takes agility. Why? Because plans are never perfect. Kinaxis® is the authority in empowering fast, confident decision-making across the supply chain so people plan better, live better and change the world. Trusted by top brands, we combine human intelligence with AI and concurrent planning to help companies plan for any future, monitor risks and opportunities and respond at the pace of change. Powered by an extensible, cloud-based platform, only Kinaxis delivers industry-proven applications so everyone can know sooner, act faster and remove waste. Don't believe us? Ask us to prove it. Learn more at [Kinaxis.com](https://www.kinaxis.com).



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