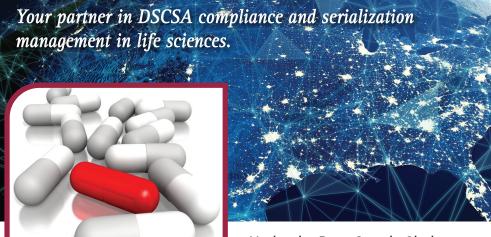




KNIPPER VRS

Verification Router Service (VRS) for Serialization

Cloud based automated verification of serial numbers for DSCSA compliance.



Under the Drug Supply Chain Security Act (DSCSA), under specific circumstances wholesale distributors

and others in the life sciences supply chain are required to verify the product identifiers on packages and cases. This includes the US National Drug Code (NDC), serial number, LOT, and expiration.

Knipper VRS verification router service is an interoperable solution developed based on a standard established by the Healthcare Distribution Alliance (HDA) and US life sciences industry stakeholders. It is used to manage the acceptance, formatting, and delivery of requests and responses to support DSCSA verification requirements and other business requirements as defined between trading partners. Industry stakeholders have publicly estimated over 80,000,000 drug products are returned per year and resold by wholesalers — and each would be potentially subject to verification under the DSCSA.

When a return occurs, and if the item will be returned to stock for future sale, the recipient scans the DSCSA required Data Matrix symbol on packages or barcodes on cases. The recipient's VRS system routes the verification request through the VRS network. When Knipper 3PL is acting on behalf of a manufacturer, the Knipper VRS service will process their required DSCSA verifications. If the verification is successful, the recipient's VRS is notified. If the request is unsuccessful, it may indicate there is a suspect product and both Knipper 3PL and the recipient are made aware of the situation.

- Based on industry accepted standards and interoperable with other VRS systems.
- Documented and validated cGMP procedures ensure the consistent and repeatable configuration, management, and response to potentially suspect products.
- Especially beneficial for products that are often returned to wholesale distributors and may be redistributed.
- Eliminates the need for a Knipper 3PL client to add VRS services to their enterprise serial number management solution.
- When used with Knipper SEAL™ (Secure Exchange of Authentic Logistics) with Premium Serialization, Knipper 3PL will manage all serialization for its client, so that the client does not have to acquire, manage, or maintain their own enterprise serial number management solution. Reducing their operating costs and risk.



THE KNIPPER 3PL ADVANTAGE

It's Built for You:

The flexible, tailored solutions of Knipper 3PL integrate an agile, responsive business model with trusted, proven distribution services and an innovative suite of combined technology capabilities to drive performance, efficiencies and cost-controls.

Our Leadership & Experience:

Dedicated solely to the Life Sciences industry for more than 35 years, Knipper is an industry leader in trade distribution, free goods distribution, dispensing and sampling.

Your Passionate Partner:

We work closely with your team providing a holistic, consultative approach to address brand challenges and build advocacy, while providing value-added insights and actionable data in a timely, results-driven manner.

EXPERT 3PL DISTRIBUTION & LOGISTICS

- Inventory, storage management
- Automated pick and pack (Perfect Pick®), Pick to Light
- DSCSA full end-to-end serialization solutions
- DEA Controlled
- Cold chain



COMPREHENSIVE **3PL SERVICES**

- Product launch commercialization, advanced data and analytics
- EDI comprehensive reporting
- 3PL Consignment and Flash Title models
- Repacking/kitting/relabeling
- Reverse logistics
- Tamper seals

3PL CUSTOMER AND FINANCIAL SERVICES

- Account set-up and management
- Full order-to-cash
- Contract management
- DSCSA Buyer support





