

# **Enhanced Drug Distribution Security in 2023 Under the Drug Supply Chain Security Act (DSCSA)**

**FDA Public Meeting  
November 16, 2021**



# Opening Remarks

Donald D. Ashley, J.D.

Director

FDA/CDER/Office of Compliance

# Purpose of the Meeting

To provide members of the pharmaceutical distribution supply chain and other interested stakeholders an opportunity to provide input on the implementation of the enhanced drug distribution security provisions of the DSCSA that go into effect in 2023.

## Objectives of the Meeting

- Learn about how implementation of the 2023 enhanced system requirements is progressing for organizations across the pharmaceutical distribution supply chain
- Learn about what challenges organizations are facing with implementation of the 2023 requirements
- Identify how helpful the proposed recommendations are in FDA's guidance on enhanced drug distribution security at the package level to achieve compliance with the 2023 requirements

# Meeting Logistics

- All meeting attendees are in listen-only mode only(except speakers & moderators).
  - Today’s format will only allow for the FDA panel to ask questions to speakers
  - The chat should only be used for technical support
- **For attendees**  
Use your computer audio to listen; no separate dial-in is needed.
- A recording of the meeting and slides will be available on the webpage after the meeting

# Meeting Logistics

- Selection to speak today should not be interpreted as FDA's position on an entity's compliance with regulatory requirements or an endorsement of a particular technology, system, or approach.
- Speakers should avoid presenting any promotional material related to your organization.
- **Confirmed speakers** will be presenting during their allotted time on the agenda.
- **Open Comment Session (3:00 - 3:45 pm)**
  - Additional speakers may present oral remarks for a maximum of 5 minutes each.
  - To request a slot, email your request with your name and organization to: [CDERODSIRPublicMeetings@fda.hhs.gov](mailto:CDERODSIRPublicMeetings@fda.hhs.gov) no later than 12:40 pm.
  - Requests received after 12:40 pm will not be accommodated, and comments can be submitted to the public docket.
  - We will do our best to accommodate up to 8 speakers during this session.



## Submit Comments to the Public Docket

- Submit either electronic or written comments on this public meeting [Docket No. FDA-2021-N-1004] by January 18, 2022.
- Follow instructions in the Federal Register Notice:

<https://www.federalregister.gov/documents/2021/10/15/2021-22474/enhanced-drug-distribution-security-at-the-package-level-under-the-drug-supply-chain-security-act>

**U.S. Food and Drug Administration**  
**Public Meeting: Enhanced Drug Distribution Security at the Package Level Under**  
**the Drug Supply Chain Security Act (DSCSA)**

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Docket No. FDA-2021-N-1004

Tuesday, November 16, 2021: 9:00 am – 4:00 pm EST

**AGENDA**

9:00 am	Welcome	Daniel Bellingham <i>Policy Analyst, Office of Drug Security, Integrity and Response (ODSIR), CDER/OC/FDA</i>
9:00 am – 9:05 am	Opening Remarks	Donald D. Ashley, J.D. <i>Director, Office of Compliance, CDER/FDA</i>
9:05 am – 9:10 am	Goals of the Public Meeting and Logistics	Daniel Bellingham
9:10 am – 9:35 am	Overview of Enhanced Drug Distribution Security	Abha Kundi, J.D., M.P.H. <i>Regulatory Counsel, ODSIR, CDER/OC/FDA</i>
<i>Stakeholder Presentations</i>		
9:40 am -9:50 am	Pharmaceutical Distribution Security Alliance (PDSA)	Mark Hendrickson
9:50 am – 10:00 am	Partnership for DSCSA Governance, Inc. (PDG)	Eric Marshall
10:00 am – 10:10 am	Pharmaceutical Research and Manufacturers of America (PhRMA)	Ryan Kaat



10:10 am – 10:20 am	Novartis	Dave Mason
10:20 am – 10:30 am	FDA Questions to Speakers	
10:30 am -10:50 am	<i>Break</i>	
10:50 am – 11:00 am	Healthcare Distribution Alliance (HDA)	Anita Ducca
11:00 am – 11:10 am	Cardinal Health	Maryann Nelson
11:10 am – 11:20 am	McKesson	Scott Mooney
11:20 am – 11:30 am	Smith Drug Company	Brad Pine
11:30 am – 11:40 am	FDA Questions to Speakers	
11:40 am – 12:40 pm	<i>Break</i>	
12:40 pm – 12:50 pm	American Pharmacists Association (APhA)	Ilisa Bernstein
12:50 pm – 1:00 pm	Walgreens	Michele Davidson
1:00 pm – 1:10 pm	FDA Questions to Speakers	
1:10 pm – 1:50 pm	<i>Break</i>	
1:50 pm – 2:00 pm	National Association of Boards of Pharmacy (NABP)	Josh Bolin
2:00 pm – 2:10 pm	Softgroup	Iordan Dunkov
2:10 pm – 2:20 pm	LSPEDIA	Riya Cao
2:20 pm- 2:30 pm	FDA Questions to Speakers	
2:30 pm – 3:00 pm	<i>Break</i>	
3:00 pm – 3:45 pm	<i>Open Comments Session</i>	Moderator: Daniel Bellingham
3:45 pm – 3:55 pm	FDA Questions to Speakers	
3:55 pm – 4:00 pm	Closing Remarks	Leigh Verbois, PhD



# The Drug Supply Chain Security Act DSCSA

- Enacted November 27, 2013
- Outlines steps to build an electronic, interoperable system to identify and trace certain prescription drugs as they are distributed in the U.S.
- Enhances ability to help protect consumers from exposure to drugs that may be counterfeit, stolen, contaminated, or otherwise harmful
- Improves detection and removal of potentially dangerous drugs from the drug supply chain

# DSCSA Goals

1. Implement interoperable, electronic tracing of products at the package level by 2023 that will:

Enable secure tracing of product at the package level

Use product identifiers to verify product at the package level

Enable prompt response to suspect and illegitimate products when found

Improve efficiency of recalls

2. Establish national standards for licensure for wholesale distributors and third-party logistics providers (3PLs)

# DSCSA Key Requirements

Product  
Tracing

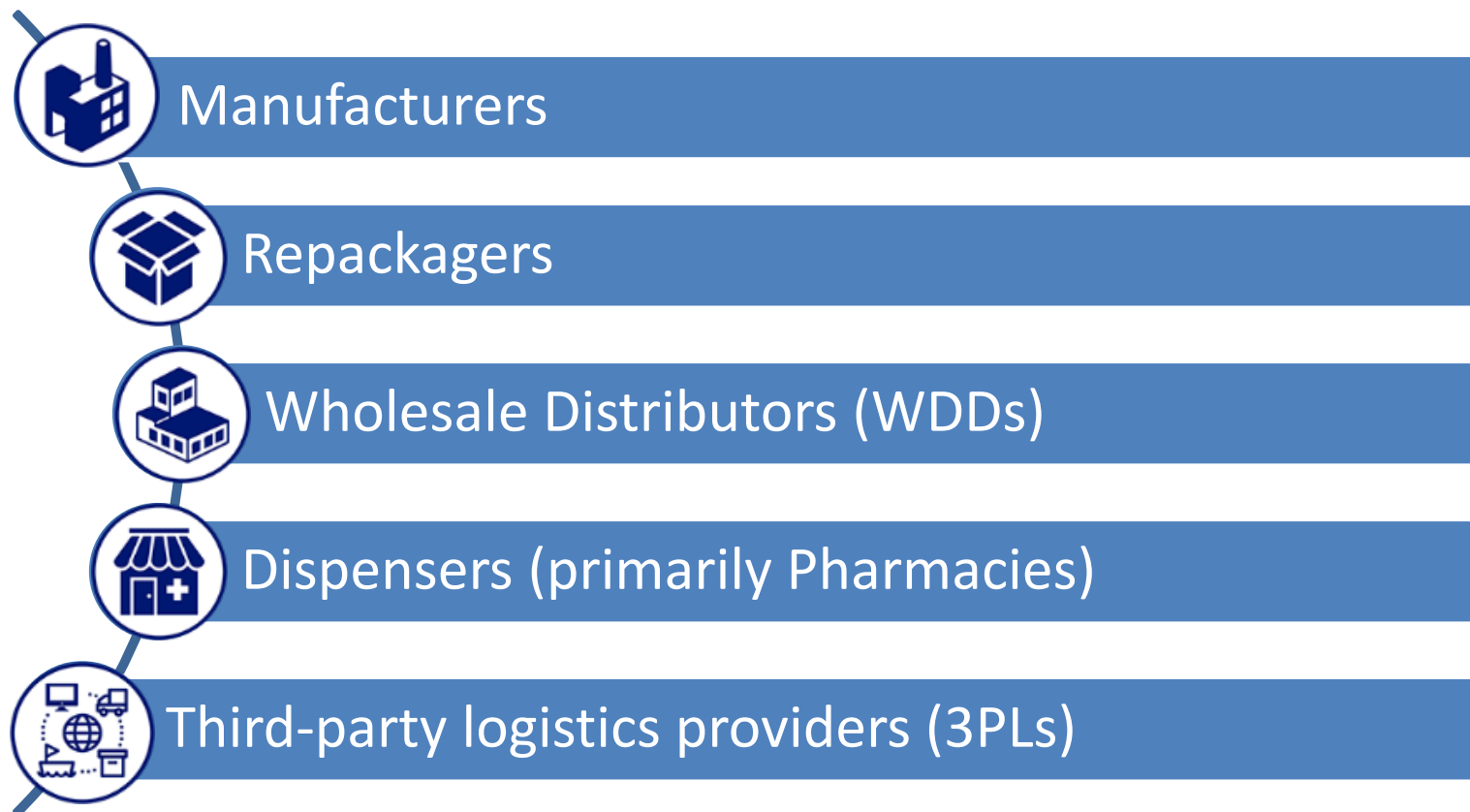
Verification

Product  
Identifier

Authorized  
Trading  
Partner

The requirements under section 582 of the FD&C Act apply to manufacturers, repackagers, wholesale distributors, and dispensers (pharmacies).

# Trading Partners under DSCSA



# Products

- What's covered:

Prescription drug in finished dosage form for administration to a patient without further manufacturing (such as capsules, tablets, lyophilized products before reconstitution)

- What's not covered:

- Blood or blood components intended for transfusion
- Radioactive drugs or biologics
- Imaging drugs
- Certain IV products
- Medical gas
- Homeopathic drugs
- Lawfully compounded drugs

*Refer to the definition for “product” in section 581(13) of the FD&C Act for specific information regarding exceptions.*

# Transactions

- Involve transfers of product where a *change of ownership* occurs

- Excludes:

- Intracompany distributions
- Distribution among hospitals under common control
- Public health emergencies
- Dispensed pursuant to a prescription
- Product sample distribution
- Blood and blood components for transfusion
- Minimal quantities by a licensed pharmacy to a licensed practitioner
- Certain activities by charitable organizations
- Distributions pursuant to a merger or sale
- Certain combination products
- Certain medical kits
- Certain IV products
- Medical gas distribution
- Approved animal drugs

*Refer to the definition for “transaction” in section 581(24) of the FD&C Act for specific information regarding exclusions.*

# Product Tracing Information

## Transaction Information (TI):

- Proprietary or established name or names of the product;
- Strength and dosage form of the product;
- National Drug Code number of the product;
- Container size;
- Number of containers;
- Lot number of the product;
- Date of the transaction;
- Date of the shipment, if more than 24 hours after the date of the transaction; and
- Business name and address of the person from whom and to whom ownership is being transferred.

**Transaction History (TH):** A statement in paper or electronic form, including the transaction information for each prior transaction going back to the manufacturer of the product

**Transaction Statement (TS):** A statement, in paper or electronic form, that the--

- Entity transferring ownership in a transaction is authorized as required under DSCSA;
- Received the product from a person that is authorized as required under DSCSA;
- Received transaction information and a transaction statement from the prior owner of the product, as required under the law;
- Did not knowingly ship a suspect or illegitimate product;
- Had systems and processes in place to comply with verification requirements under the law;
- Did not knowingly provide false transaction information; and
- Did not knowingly alter the transaction

# Investigate and properly handle suspect and illegitimate products

**Suspect Product:** *reason to believe* that product potentially is:

- counterfeit, diverted, stolen
- subject of fraudulent transaction
- intentionally adulterated or appears otherwise unfit for distribution such that the product would result in serious adverse health consequences or death to humans

**Illegitimate Product:** *credible evidence* shows that the product is:

- counterfeit, diverted, stolen
- subject of fraudulent transaction
- intentionally adulterated or appears otherwise unfit for distribution such that the product would result in serious adverse health consequences or death to humans

***Notify FDA of Illegitimate Product within 24 hours (Form FDA 3911) and other trading partners within 24 hours***

# Product Identifier (Serialization)



## Manufacturers/Repackagers (November 2018)

- Encode product identifiers on prescription drug packages
- Determine smallest individual saleable unit
- Verification requirements changes once products are serialized with product identifier

NDC: XXXX-XXXX-XX  
SERIAL: XXXXXXXX  
LOT: XXXXXXXX  
EXP: YYYY-MM-DD



## Product Identifier

- National Drug Code (NDC)
- Serial Number
- Lot Number
- Expiration Date

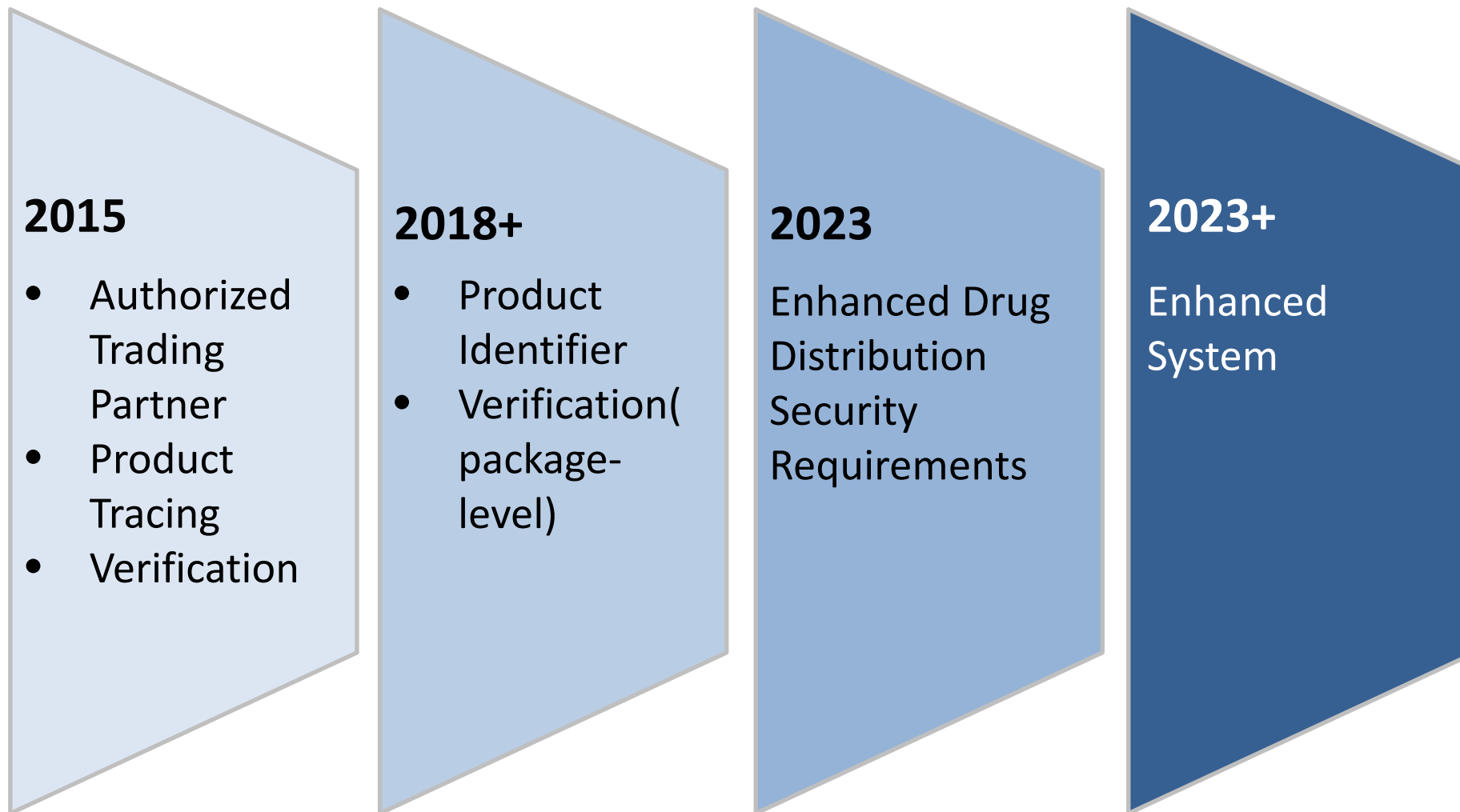
## Human and machine readable formats

Machine readable barcodes:

- 2D data matrix for packages
- Linear or 2D data matrix for homogenous cases



# DSCSA Implementation



The requirements under section 582 of the FD&C Act apply to manufacturers, repackagers, wholesale distributors, and dispensers (pharmacies).

# DSCSA Implementation

**2015**

## Authorized Trading Partners

- Manufacturers and Repackagers: valid registration with FDA
- WDDs & 3PLs: valid State or Federal license and compliance with reporting requirements
- Dispensers: valid State license

**2015**

## Product Tracing

- Lot-level
- Provide and receive transaction documentation with each sale
- Respond to request for information
- Store records
- Paper and electronic formats

**2015**

## Verification

- Quarantine and investigate suspect product
- Investigate illegitimate product
- Notify FDA and trading partners of illegitimate product
- Response to verification requests
- Store records

# DSCSA Implementation

**2018**

## **Product Identification (Serialization)**

- Manufacturers & repackagers encode product identifiers on prescription drug packages on the smallest individual saleable unit

*Product Identifier: National Drug Code (NDC), Serial Number, Lot, Expiration Date)*

**2018+**

## **Verification**

- Serialized product can be verified down to the package level using the product identifier
- Saleable returns
- Compliance policies issued that provide additional time

# DSCSA Implementation

**2023**

## **Enhanced Drug Distribution Security Requirements**

- All electronic
- Enhanced product tracing at the package level (i.e., includes product identifier)
- Enhanced verification

**2023 & Beyond**

## **Enhanced System**

- Enhanced drug distribution security
- Across the pharmaceutical supply chain
- Improved inspections and investigations
- Improved data analytics
- Continued compliance and enforcement

# 2023 Enhanced Drug Distribution Security

## Effective 11/27/2023



### Section 582(g) Enhanced Drug Distribution Security -

(1) In general.--On the date that is 10 years after the date of enactment of the Drug Supply Chain Security Act, the following interoperable, electronic tracing of product at the package level requirements shall go into effect:

(A) The transaction information and the transaction statements as required under this section shall be exchanged in a secure, interoperable, electronic manner in accordance with the standards established under the guidance issued pursuant to paragraphs (3) and (4) of subsection (h), including any revision of such guidance issued in accordance with paragraph (5) of such subsection.

(B) The transaction information required under this section shall include the product identifier at the package level for each package included in the transaction.

(C) Systems and processes for verification of product at the package level, including the standardized numerical identifier, shall be required in accordance with the standards established under the guidance issued pursuant to subsection (a)(2) and the guidances issued pursuant to paragraphs (2), (3), and (4) of subsection (h), including any revision of such guidances issued in accordance with paragraph (5) of such subsection, which may include the use of aggregation and inference as necessary.

(D) The systems and processes necessary to promptly respond with the transaction information and transaction statement for a product upon a request by the Secretary (or other appropriate Federal or State official) in the event of a recall or for the purposes of investigating a suspect product or an illegitimate product shall be required.

(E) The systems and processes necessary to promptly facilitate gathering the information necessary to produce the transaction information for each transaction going back to the manufacturer, as applicable, shall be required-

(i) in the event of a request by the Secretary (or other appropriate Federal or State official), on account of a recall or for the purposes of investigating a suspect product or an illegitimate product; or

(ii) in the event of a request by an authorized trading partner, in a secure manner that ensures the protection of confidential commercial information and trade secrets, for purposes of investigating a suspect product or assisting the Secretary (or other appropriate Federal or State official) with a request described in clause (i).

(F) Each person accepting a saleable return shall have systems and processes in place to allow acceptance of such product and may accept saleable returns only if such person can associate the saleable return product with the transaction information and transaction statement associated with that product.

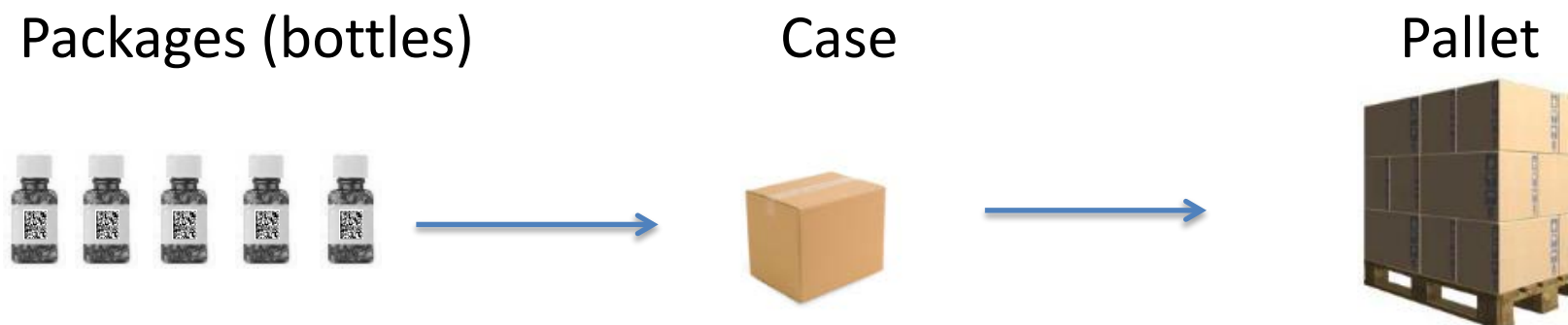


# System Attributes

- Transaction Information (TI) and Transaction Statement (TS) will be exchanged in a secure, interoperable, electronic manner...
- TI will include the product identifier at the package level for each package included in the transaction.
- Systems and processes for verification of product at the package level, including the standardized numerical identifier...which may include the use of aggregation and inference as necessary.
- Systems and processes necessary to promptly respond with the TI and TS for a product upon a request by FDA (or other appropriate Federal or State official) in the event of a recall or for investigating a suspect product or an illegitimate product
- Systems and processes necessary to promptly facilitate gathering the information necessary to produce the TI for each transaction going back to the manufacturer, as applicable (upon a request by FDA...or an authorized trading partner...)
- Systems and processes in place to allow acceptance of saleable returns and only if such person can associate the saleable return product with the TI and TS associated with that product.

# Aggregation and Inference

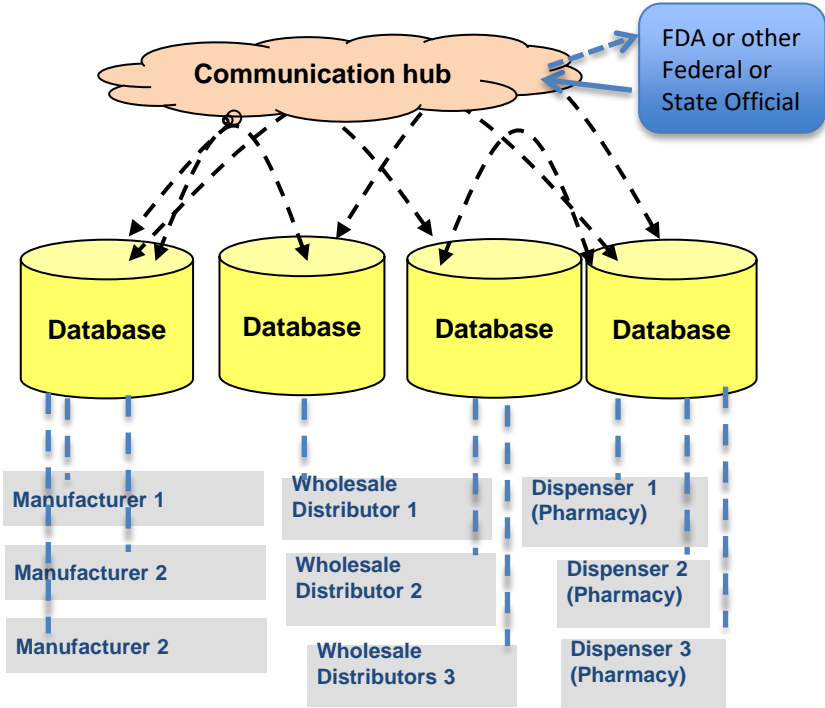
- Aggregation is the process of building a relationship between unique identifiers assigned to packaging containers.



- Inference involves examining information for a higher level of packaging to infer information about the next level of packaging and its contents.

# System Structure

## Semi - centralized Model



**Centralized**

- Trading partners provide data into a central repository (database)
- Product tracing and verification is performed by querying the central repository

**Decentralized (or Distributed)**

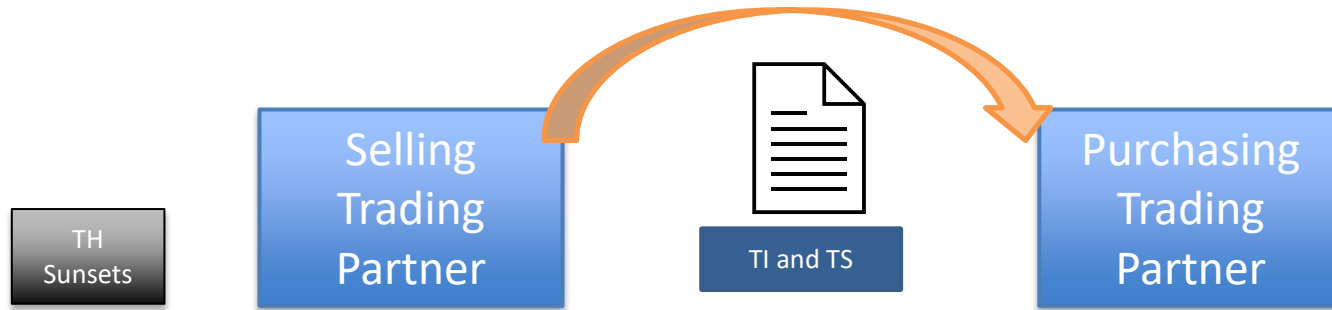
- Trading partners maintain their data in their own local database or a data storage provider's database
- Product tracing and verification is performed by querying the multiple databases
- A communications hub (active or passive) connects different databases

**Semi – Centralized (or Semi – Distributed)**

- Trading partners maintain data into a few centralized databases or data storage provider(s) database(s)
- Product tracing and verification is performed by querying the databases
- A communications hub connects different databases



# Enhanced Product Tracing: Exchange of Transaction Information & Statement



Beginning 11/27/2023 -

- Exchange of transaction information and transaction statements must be in a secure, interoperable, electronic manner
- Additional requirement to promptly facilitate the gathering of information necessary to produce the transaction information for each transaction going back to the manufacturer

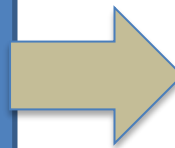
# Enhanced Product Tracing: Serialized Transaction Information

Beginning 11/27/2023, the exchange of transaction information (TI) shall include the **product identifier** at the package level.

## Pre-November 2023

### Transaction Information:

- Proprietary or established name or names of the product
- Strength and dosage form of the product
- National Drug Code number of the product
- Container size
- Number of containers
- Lot number of the product
- Date of the transaction
- Date of the shipment, if more than 24 hours after the date of the transaction
- Business name and address of the person from whom and to whom ownership is being transferred

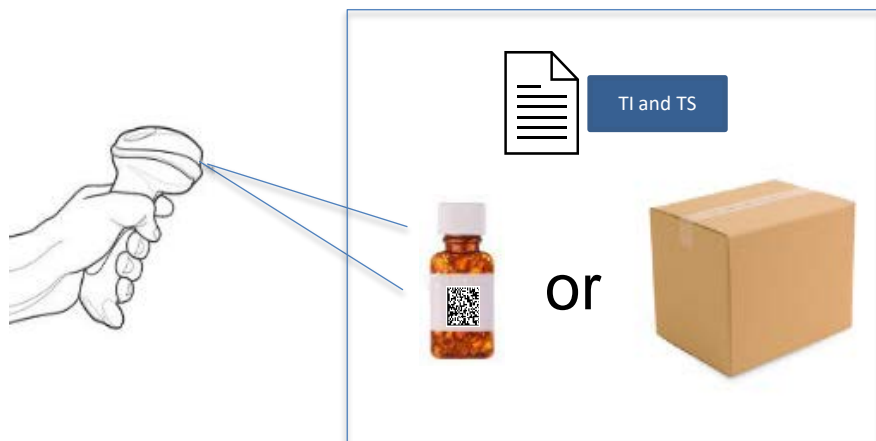


## November 2023+

### Transaction Information:

- Proprietary or established name or names of the product
- Strength and dosage form of the product
- **National Drug Code number of the product**
- Container size
- Number of containers
- **Lot number of the product**
- Date of the transaction
- Date of the shipment, if more than 24 hours after the date of the transaction
- Business name and address of the person from whom and to whom ownership is being transferred
- **Serial number**
- **Expiration date**

# Enhanced Product Tracing: Reconciliation of Data and Product



## Selling Trading Partner

- Read product identifier (barcode) on the outbound package(s) or homogenous case(s) to fulfill an order
- Capture this data for the product tracing information (TI/TS) to be sent to the purchasing trading partner
- Provide data (TI/TS) and product(s) to purchasing trading partner

## Purchasing Trading Partner

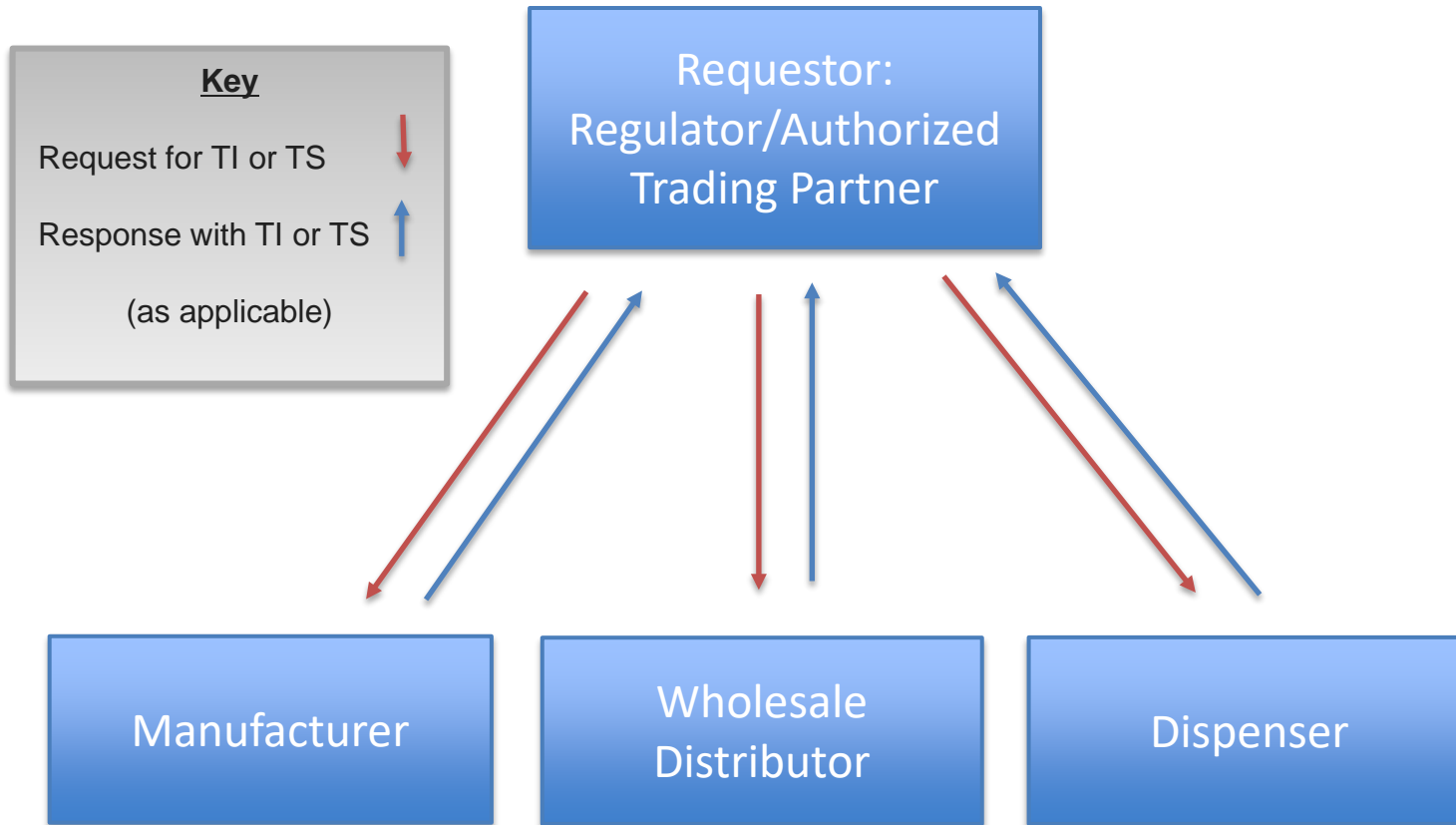
- Receive data (TI/TS) and product(s) from selling trading partner
- Read product identifier (barcode) on the inbound package(s) or homogenous case(s) received in an order
- Capture this data and reconcile with associated product tracing information (TI/TS) received from the selling trading partner



# Enhanced Product Tracing: Handling Aggregation Errors & Other Discrepancies

- Product tracing information should be true, accurate, and complete.
- There may be a clerical error or discrepancy in product tracing information that may not be indicative of a suspect product.
- If a trading partner purchases product and identifies a potential clerical error or other discrepancy in product tracing information it received, that trading partner should resolve the error or discrepancy.
  - Immediately contact the trading partner that provided product tracing information
  - Do not sell product until the error or discrepancy has been resolved
  - If the error or discrepancy cannot be resolved and the product is determined to be a suspect or illegitimate product, follow steps for verification if applicable (e.g., quarantine and investigation)

# Gathering of Relevant Product Tracing Information

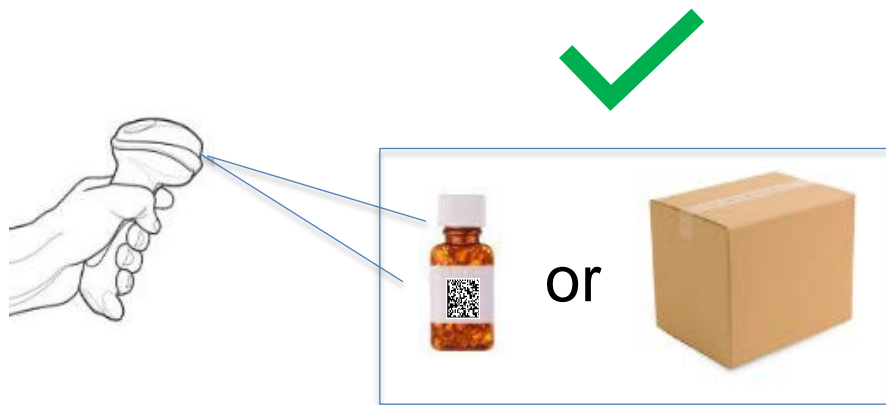


Under sections 582(g)(1)(D) and (E) of the FD&C Act:  
 ...promptly respond with the TI and TS...upon a request by the Secretary (or other appropriate Federal or State official) in the event of a recall or for the purposes of investigating a suspect product or an illegitimate product shall be required...

and

...promptly facilitate gathering the information necessary to produce the TI for each transaction going back to the manufacturer... (i) in the event of a request by the Secretary (or other appropriate Federal or State official), on account of a recall or for the purposes of investigating a suspect product or an illegitimate product; or (ii) in the event of a request by an authorized trading partner, in a secure manner that ensures the protection of confidential commercial information and trade secrets, for purposes of investigating a suspect product or assisting the Secretary (or other appropriate Federal or State official) with a request described in clause (i).

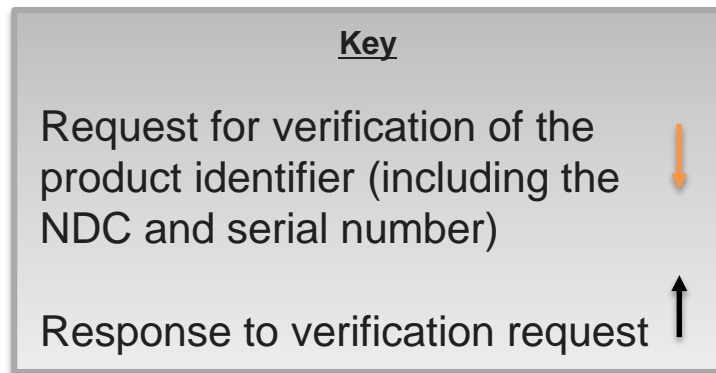
# Enhanced Verification: Package-Level



Requestor:  
FDA/Authorized  
Trading Partner



Under section 582(g)(1)(C) of the FD&C Act: systems and processes for verification of product at the package level, including the standardized numerical identifier shall be required in accordance with the standards established under the guidance issued pursuant to subsection (a)(2) and the guidances issued pursuant to paragraphs (2), (3), and (4) of subsection (h)...which may include the use of aggregation and inference as necessary.



# Enhanced Verification: Saleable Returns



Authorized Trading Partner:  
who is accepting  
returned product

Under Section 582(g)(1)(F) of the FD&C Act: Each person accepting a saleable return shall have systems and processes in place to allow acceptance of such product and may accept saleable returns only if such person can associate the saleable return product with the transaction information and transaction statement associated with that product.



**Effective  
November 27, 2023**

**Enhanced Drug  
Distribution  
Security**

Electronic

Interoperable

System across the pharmaceutical  
distribution supply chain



# Stakeholder Presentations

*The findings, conclusions, or recommendations in the following presentations are those of the authors and do not represent the U.S. Food and Drug Administration's position on any compliance requirement or endorsement of any particular technology or approach.*

*Reference herein to any specific commercial products, process, or service by trade name, trademark, manufacturer, or otherwise, does not constitute or imply an endorsement, recommendation, or favoring by the U.S. Food and Drug Administration. The views and opinions of authors should not be misconstrued as advertising products nor for endorsement purposes.*



# FDA Panel Participants

Abha Kundi	Regulatory Counsel CDER/OC/ODSIR
Connie Jung	Senior Advisor for Policy CDER/OC/ODSIR
Sridhar Mantha	Director CDER/Office of Strategic Programs/Office of Business Informatics
Katelyn Mineo	Regulatory Counsel CDER/Office of Regulatory Policy
Michael Bernstein	Director, Division of Regulatory Policy II CDER/Office of Regulatory Policy
Anita Richardson	Associate Director for Policy CDER/Office of Compliance and Biologics Quality
Christine Hunt	Regulatory Counsel FDA/Office of the Chief Counsel
Dinesh Kumar	Regulatory Counsel FDA/Office of the Chief Counsel

# Enhanced Drug Distribution Security at the Package Level Under the Drug Supply Chain Security Act (DSCSA) PDSA Presentation

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FDA PUBLIC MEETING – NOVEMBER 16, 2021





# Key Steps to 2023

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- To meet prior requirements of the DSCSA, industry has implemented, and continues to implement, solutions for serialization and data exchange that have become the foundation for 2023 systems and processes.
- The “enhanced system” for 2023 should not be viewed as a single system, technology, or asset but as a network of independent, but interoperable, trading partner systems and processes.
- “Access” to DSCSA data should not be viewed as direct access to data, but rather an interoperable protocol to request data and respond with data, intermediated by a business-by-business gatekeeping function.
- To avoid impeding industry’s implementation of the 2023 requirements, the Agency should:
  - Focus the statutorily mandated guidance on standards on the recognition of existing technical standards (e.g., GS1 EPCIS and the lightweight messaging standard for verification).
  - Focus its guidance on core compliance obligations, not future enhancements.





Partnership for  
DSCSA Governance

Advancing Collaborative, Timely Implementation  
of DSCSA Interoperability

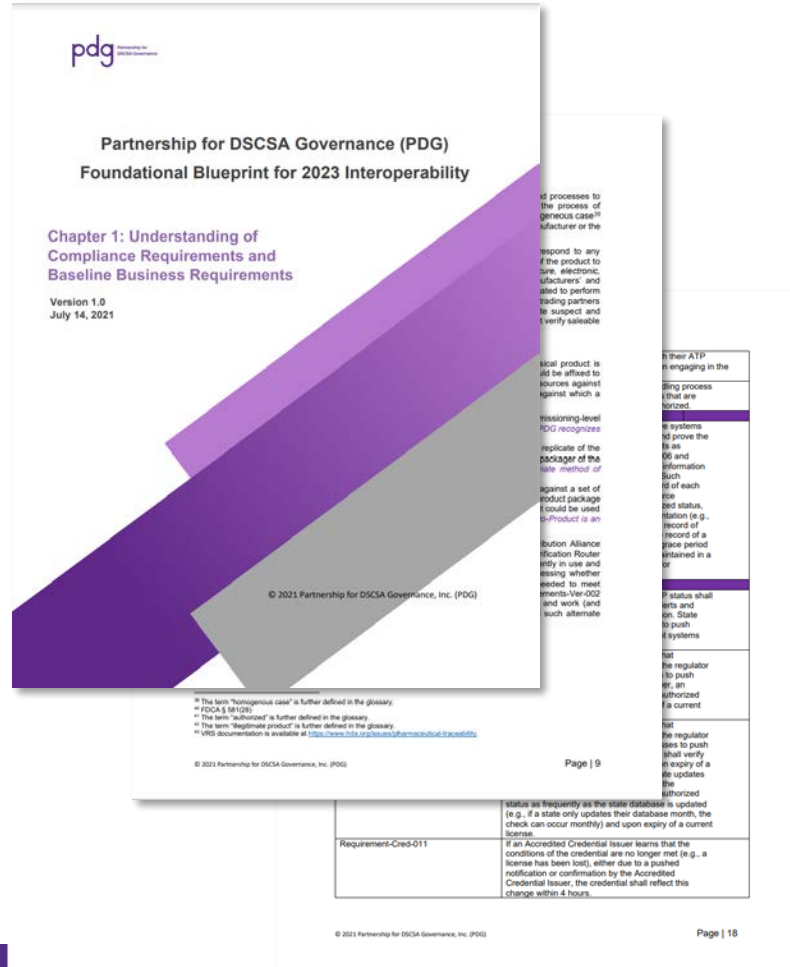
# Enhanced Drug Distribution Security

FDA Public Meeting—November 16, 2021

# Partnership for DSCSA Governance (PDG)

*PDG is a collaborative forum and FDA public-private partnership dedicated to developing, advancing, and sustaining an effective and efficient model for interoperable tracing and verification of prescription pharmaceuticals in the U.S.*

# Foundational Blueprint for 2023 Interoperability



- Confidentiality
- System Access
- TI Reconciliation
- Exception Handling
- Facilitating the Gathering
- Verification
- Status/Alerts

Available at <https://dscsagovernance.org/blueprint/>



# More Information



For additional information and to join:

Visit [www.DSCSAgovernance.org](http://www.DSCSAgovernance.org)

Email [admin@members.dscsagovernance.org](mailto:admin@members.dscsagovernance.org)



# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Ryan Kaat**

**Pharmaceutical Research and Manufacturers of  
America (PhRMA)**



# FDA Presentation

## November 16, 2021

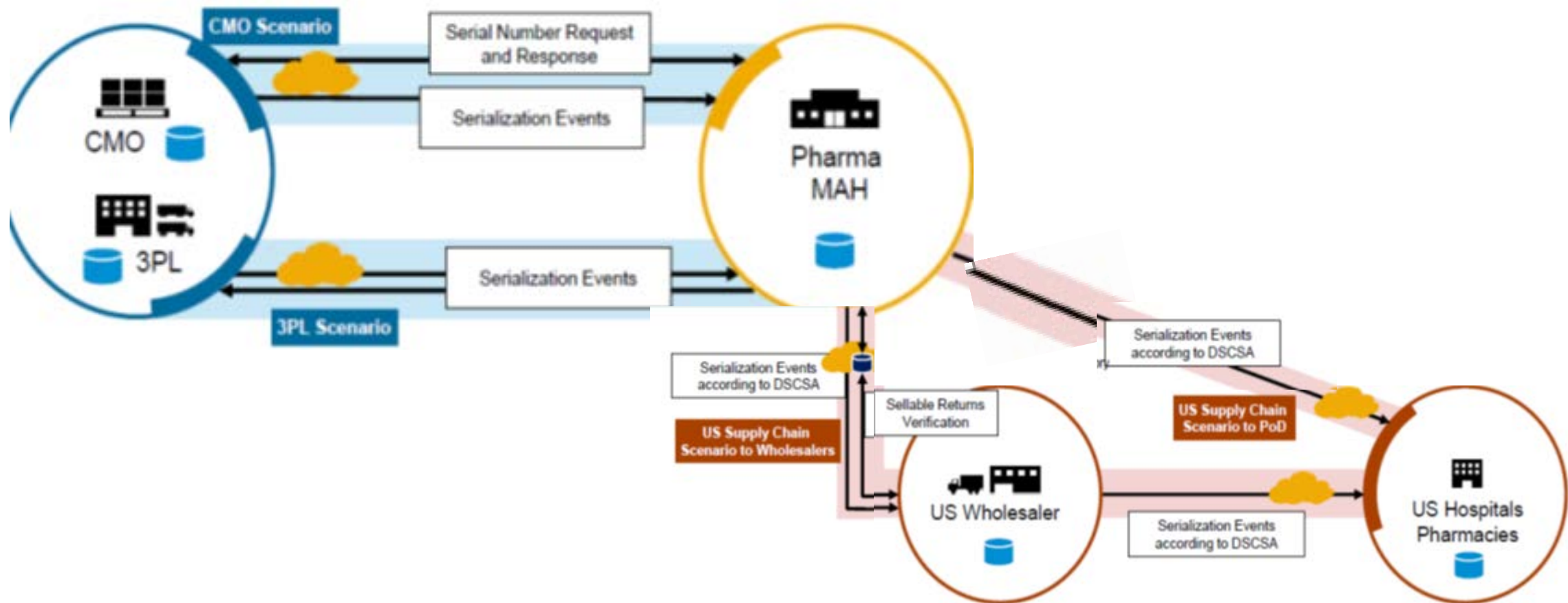
David Mason

Supply Chain Compliance and Serialization Lead- Novartis

# Foundation Being Built to meet 2023

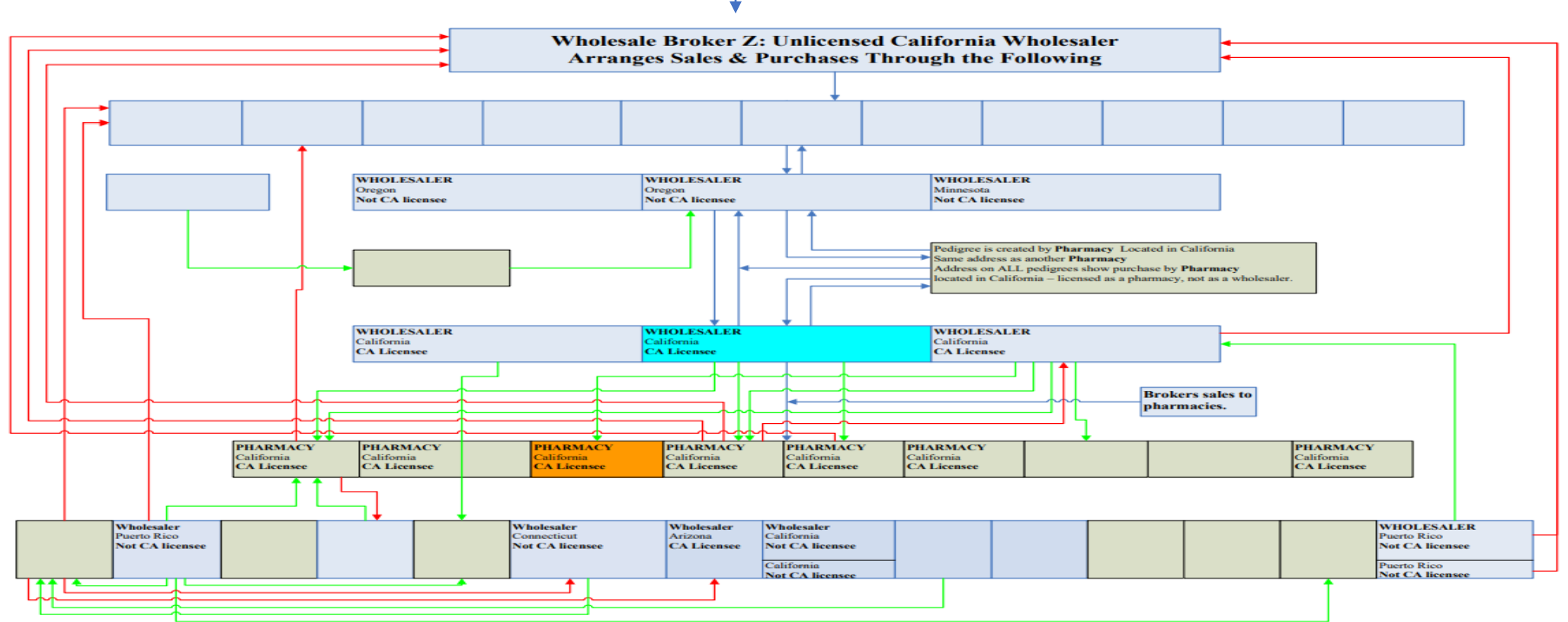
- Since 2016, industry has been building a **distributed model** to meet 2023 requirements: ( Separate systems on different networks via internet)
  - Serialization Enterprise systems that are generating Serial numbers and managing the serial number data
  - Using the US GS1 Healthcare Standards to build systems and assure interoperability
  - Data exchange is done by Email, Portal, AS2, Service provider (per 2014 Guidance)
  - EPCIS Format is being used to transmit data (GLNs are used for communication)
  - VRS has been developed for verification request (wholesalers and then dispensers)
  - Credentialing to identify the requester and responder -**OCI** (pilot completed –multi-partner end to end integration testing)
    - I am Novartis
    - Here is proof (Credential) I (Novartis is) am an ATP
    - Here is proof (Credentials) I am who I say I am
- Pilots in enhanced recalls, and tracing (systems have been developed and testing)
- Manufacturers have been asked to start exchanging data by the end of 2022 by wholesalers ( allow 1-year hyper care and transition). Too late for changes in the model (**without jeopardizing meeting 2023 requirements on time.**)
- Data Integrity is inconsistent between partners causing issues

# Simple Version of the Distributed Archetype



# Supply Chain is Complex with over 60K partners

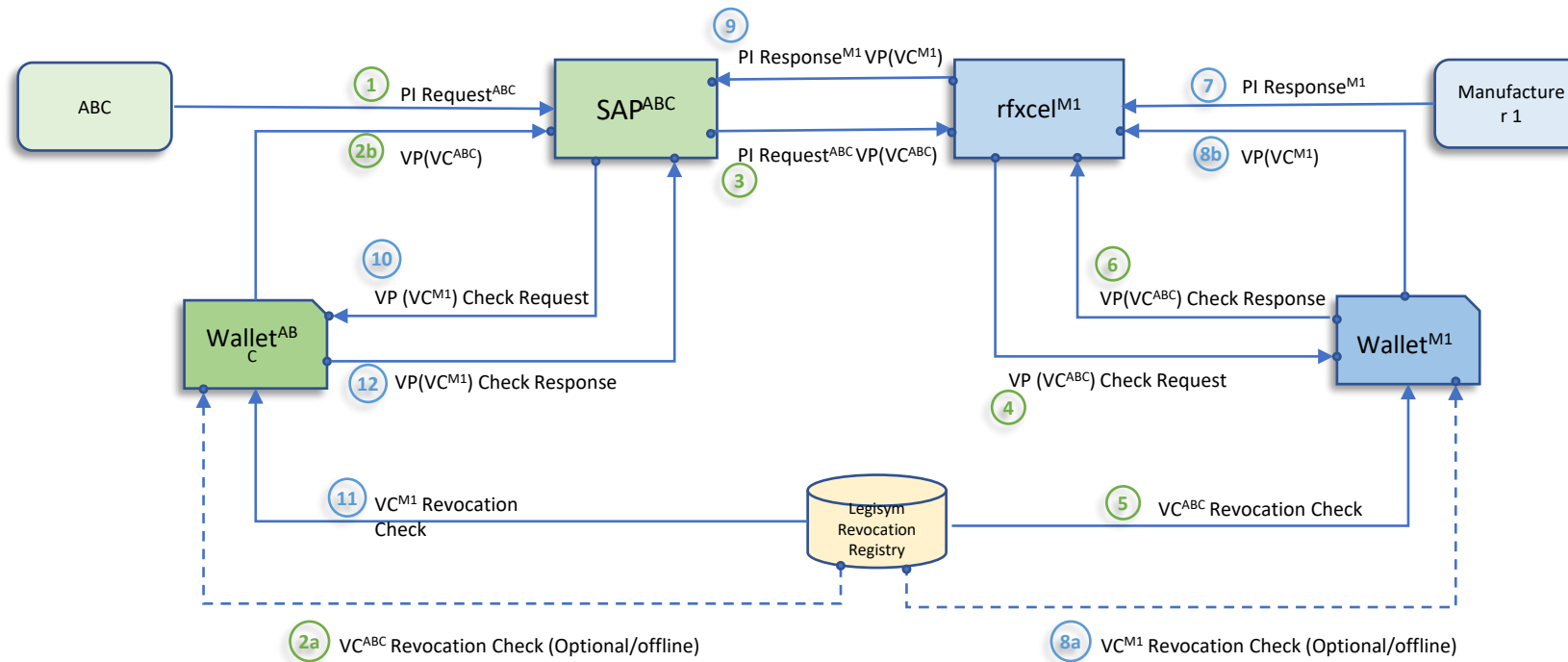
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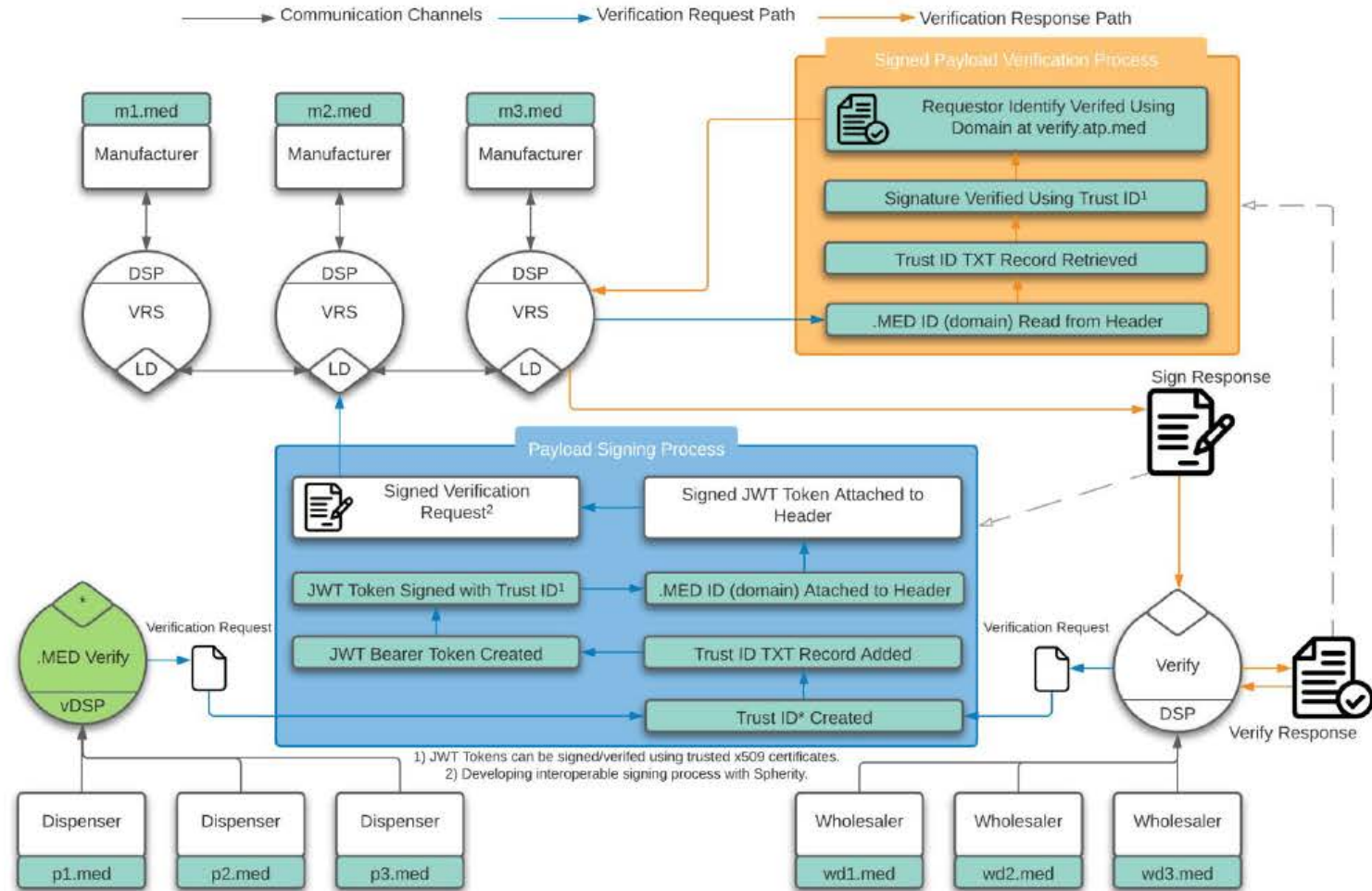
# Credentialing Scenario Executed

Successful PI Request/Response

there are four service providers implementing in May 2021



# .MED ARCHITECTURAL DIAGRAM



- [ id ].med Domain name registration and operation coupled to Continuously Verified ATP Credential (powered by Legisym)
- Trust ID .MED Trust ID is a short lived identity verification token
- .MED Verify .MED Verify is our lightweight gateway to the VRS network (powered by Lookup Directory provider)



# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



## FDA Questions to Speakers

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



**Break**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Anita Ducca**

**Healthcare Distribution Alliance (HDA)**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Maryann Nelson**

**Cardinal Health**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Scott Mooney**

**McKesson**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Brad Pine**

**Smith Drug Company**

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



## FDA Questions to Speakers

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



**Break**





# FDA Public Meeting on Enhanced Drug Distribution Security at the Package Level Under the DSCSA

American Pharmacists Association  
November 16, 2021

*For Every Pharmacist. For All of Pharmacy.*

[pharmacist.com](https://www.pharmacist.com)



How is implementation of the 2023 enhanced system requirements progressing for your organization?

What challenges is your organization facing?



Are the proposed recommendations in FDA's guidance on enhanced drug distribution security at the package level helpful to achieve compliance with 2023 enhanced system requirements? If not, what additional information would be useful?

# 2023 requirements are just that...requirements --- not a “system”

“Enhanced system” is a misnomer and confusing

- DSCSA calls for requirements of enhanced drug distribution security
- No single system is being developed
- DSCSA requires trading partners to have “systems and processes”

# Keep it simple – stick with the basic requirements

- Assess current and predicted state of readiness across the supply chain
- Set forth a tiered approach to implement full capabilities and requirements
  - Reassess as systems, processes, experience matures
- Stick to the basics....avoid “nice-to-have” elements

# Consider risk-based reconciliation

- Available systems, processes, and resources will make it difficult to:
  - Automate reconciliation
  - Reconcile each product package with transaction documentation
  - Automatically upload information
- Pharmacies do check inbound orders
- Identify risk-based reconciliation and verification if reason to believe product may be suspect or illegitimate



Are there areas in which FDA could provide more clarity?

## Please clarify:

- What is “appropriate access” to individual systems
- Expectation for “facilitates the gathering”
- Handling clerical errors and discrepancies
- Systematic approach to handling alerts





? Questions ?

**Thank You FDA!!**

**Ilisa BG Bernstein, PharmD, JD, FAPhA**

Senior Vice President, Pharmacy Practice and Government Affairs

American Pharmacists Association

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**FDA**

**Public Meeting on Enhanced  
Drug Distribution Security at  
the Package Level Under the  
Drug Supply Chain Security  
Act (DSCSA)**

Michele V. Davidson, R.Ph.

Sr. Manager, Pharmacy Technical  
Standards, Policy & Development



# Walgreens By the Numbers

**78% of Americans live within 5 miles** of a Walgreens store.

More than **8 million customers** and patients interact with Walgreens each day in communities across America.



## Our Stores

Over 9,000 locations nationwide

In 50 states plus DC, Puerto Rico, and the Virgin Islands



## Our Employees

More than 250,000 employees

Over 26,000 pharmacists



## Community-based Specialty Locations

More than 300 locations throughout the country



# Enhanced Product Tracing

- COVID – 19 has provided new IT challenges
  - Development has lagged
- Receive over 1.5M individual saleable units daily
  - Rely on inference and aggregation
  - Concern with workflow disruption

# Trading Partner Readiness

- Seeing improved quality of 2D barcodes
- Enhanced verification appears to be on target
- Need to streamline gathering product tracing information
  - Current solutions can be time consuming
    - Email
    - Portals
- May need additional time for development

# Patient Impact

**Must have consistent experience in all stores**

Timing and accuracy of Enhanced Product Trading data is critical for exception processing

Consistent messaging to the patient in all stores

Delays in therapy due to changes in workflow



# Areas of Concern

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## Aggregation

Need to be able to use inference for products received with aggregated data

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## Exceptions

Timing is critical  
Volume of potential errors

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## Requests for Information

Currently no automated solution to gather relevant product tracing information going back to the manufacturer

Manual processes

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## Timeline

Additional time may be needed due to COVID

# Clarification Needed from the FDA on these issues



## Aggregation and Inference

Current guidance only references the use of aggregation and inference of homogeneous cases/pallets. What about nonhomogeneous cases/shipping containers?



## Dispenser Expectations

What is the expectation from the FDA on how the industry will gather tracing information?



## Pharmacist Guidance

Talking points for patients



# Thank You!

Contact information

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# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



## FDA Questions to Speakers

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



**Break**



**NABP**

National Association of  
Boards of Pharmacy

# NABP Comments Regarding Enhanced Drug Distribution Security System



**NABP**

National Association of  
Boards of Pharmacy

## **About NABP**

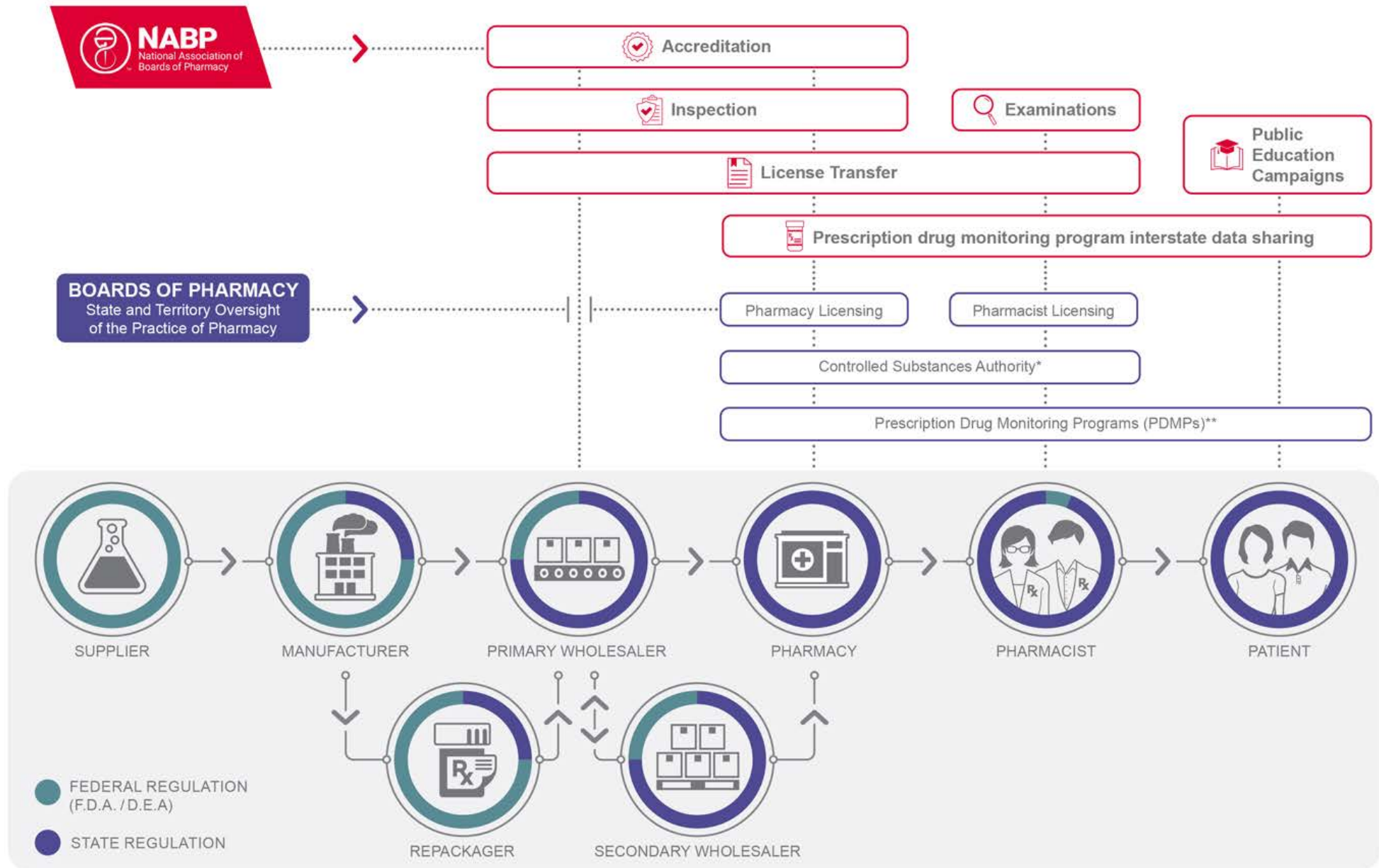
The National Association of Boards of Pharmacy® (NABP®) is a 501(c)(3) nonprofit organization founded in 1904. We support and work with our members, the state boards of pharmacy, to protect the public health.

## **Our Mission**

NABP is the independent, international, and impartial association that assists its member boards and jurisdictions for the purpose of protecting the public health.

## **Our Members**

Our members consist of the 50 United States state boards of pharmacy, as well as the boards in District of Columbia, Guam, Puerto Rico, the US Virgin Islands, 10 Canadian provinces, and the Bahamas.



\* 29 states and territories house controlled substances authority in the board of pharmacy, 10 in the Department of Health, 5 in professional licensing agencies, and 7 in law enforcement agencies.

\*\* 24 PDMPs are housed within the board of pharmacy, 18 in the Department of Health, 5 in professional licensing agencies, and 4 in law enforcement agencies.



**NABP**

National Association of  
Boards of Pharmacy

### **NABP Member Engagement on DSCSA**

- How will regulators assess trading partner compliance with the Drug Supply Chain Security Act (DSCSA)?
- How will regulators request transaction information from trading partners within the secure, electronic, interoperable system?
  - Illegitimate, suspect product investigations
  - Fraudulent activity
  - Product recalls
- How does the industry ensure that new and continuing participants in an interoperable system are “authorized?”

## **FDA – State Board of Pharmacy Communications**

- Executive Officer  
Webinar
- Interactive Forums
- Intergovernmental  
Meeting



**NABP**

National Association of  
Boards of Pharmacy

## **NABP Member Feedback**

- Develop education and training for regulators and trading partners
- Develop uniform guidelines and tools for assessing DSCSA compliance
- Develop a system to facilitate regulator requests for information from trading partners
  - Consistent with DSCSA Uniform National Policy and FDA Guidance
- Leverage tools being used widely by the industry to make change management and compliance easier for all.

## **Sec. 585. Uniform National Policy**

- (a) Product Tracing and Other Requirements
- (b) Wholesale Distributor and 3PL Standards





**NABP**

National Association of  
Boards of Pharmacy

**Primary Goal: Create a network to facilitate regulator requests for transaction information from trading partners.**

**The network will:**

- Be consistent with the Uniform National Policy (Sec. 585) and FDA guidance
- Create a uniform request/response standard for state regulators that mirrors DSCSA requirements and FDA Guidance
- Create a consolidated source for state regulator/trading partner communication
- Ensure that only authorized regulators make requests to authorized trading partners
- Protect confidential/proprietary information
- Focus on the most critical patient safety use cases

**Network Outcomes:**

- Increase efficiency of inspections and investigations
- Rapid disposition of suspicious or illegitimate products
- Reduce manual requests/responses for information



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## **Stakeholder Engagement**

- NABP will work with trading partners, existing stakeholder and standards groups (such as the Partnership for DSCSA Governance and GS1) to:
  - Enable a consistent electronic approach across all state regulators;
  - Ensure that the network adheres to established standards;
  - Inform ongoing standards and implementation discussion; and
  - Identify the most critical use cases that protect patients and the integrity of the supply chain.
- December 2021 – Trading Partner and Solution Provider Workshops
- February 2022 – Launch Critical Use Case Pilots



**NABP**

National Association of  
Boards of Pharmacy

## **Summary**

- Education and training for regulators and trading partners
- Uniform guidelines and inspection tools for assessing DSCSA compliance
- Launch DSCSA Interoperability Network
- Explore ways to simplify Authorized Trading Partner credentialing
- Help the industry make the US supply chain more secure



**SOFTGROUP**

Supply Chain Traceability



16 November 2021

DSCSA Public Meeting, Enhanced Drug Distribution Security at the Package Level Under the Drug Supply Chain Security Act

# End-to-end traceability technology by SoftGroup

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SoftGroup is a software company that provides end-to-end traceability technology to the pharmaceutical industry worldwide.



17 years of experience, we have been recognized by Manufacturers and MAHs as a reliable serialization and aggregation solution provider



Certified Gateway Provider and Trusted partner of the EMVO and trusted partner of the Bulgarian Medicine Verification Organization (BgMVO)



Certified partner of GS1 Healthcare



Revalidated Solution Provider and Integrator of MDLP and OMS systems



# Content

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**Enhanced Drug Distribution Security**



**System Structure**



**Enhanced Product Tracing**



**Gathering of Relevant Product Tracing Information**



**Enhanced Verification**

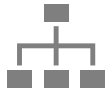


**Trading Partner Readiness**





# Enhanced Drug Distribution Security



- ✓ Next level of security
- ✓ Process optimization
- ✓ Different levels of aggregation / homogenous products
- ✓ Physical security in terms of physical traceability

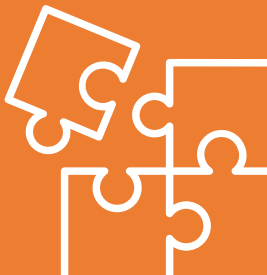


- Centralized authorization as recommended
- Different access levels for different roles/stakeholders
- Communication hub to limit access to confidential commercial information



## SG Insight:

Large volume of data for a single lot/batch is a challenge to overcome during the initial upload and further verification / status update





# System Structure



Limitation of the entering of new players on market, infrastructure costs, support uncertainty:

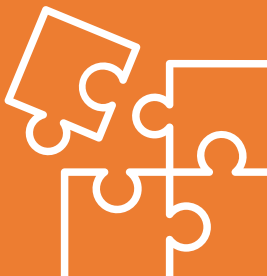
- Security concerns
- Control of the administrative/regulatory process
- Solution provider lock-in situation



## SG Insight:

Synchronization between DBs and prompt sequential system response, data interoperability concerns

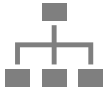
Standard onboard procedures for every partner along the value chain







# Enhanced Product Tracing



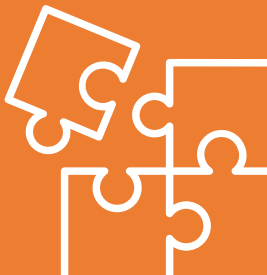
- ✓ Ability to rebuild aggregated units - enhance the whole process :
  - Local generation of aggregation SNs/identifier
  - Reworking of shipping containers
- ✓ Requirement of the appropriate user rights in the system



## SG Insight:

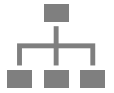
Aggregation / re-aggregation of collective units at any location at any time during the entire lifecycle through the supply chain w/o damaging the aggregation data

Decommissioning or commissioning of a single unit without changing the aggregation number





# Gathering of Relevant Product Tracing Information



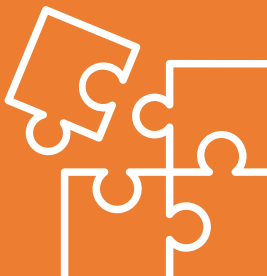
- ✓ Enhancing Safety/Security Data Exchange of Pharma Distribution Supply Chain
- ✓ Continuous access to product location and property information (change of ownership)
- ✓ General centralized database - protects manufacturers' brands, profits and patients' security



## SG Insight:

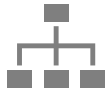
Only public / non-sensitive data should be transmitted along the supply chain

Private data available only to the data owner





# Enhanced Verification



- ✓ Standardized verification and alerts: data format, statuses unified, across multiple participants/providers



- ✓ Alerts management

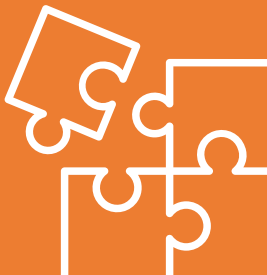
- ✓ Linked events - alerts availability in the system along with the alerts inheritance



## SG Insight:

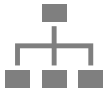
Verification have to be accessible for everybody throughout the supply chain

Vendor-neutral process (devices, apps, etc.)





# Trading Partner Readiness



- ✓ As an experienced solution provider, Softgroup overall level of readiness is significant:



- Initial marking/verification and data reporting
- Data interoperability and availability



- ✓ Main challenge: interconnection with external databases and interfacing between different systems

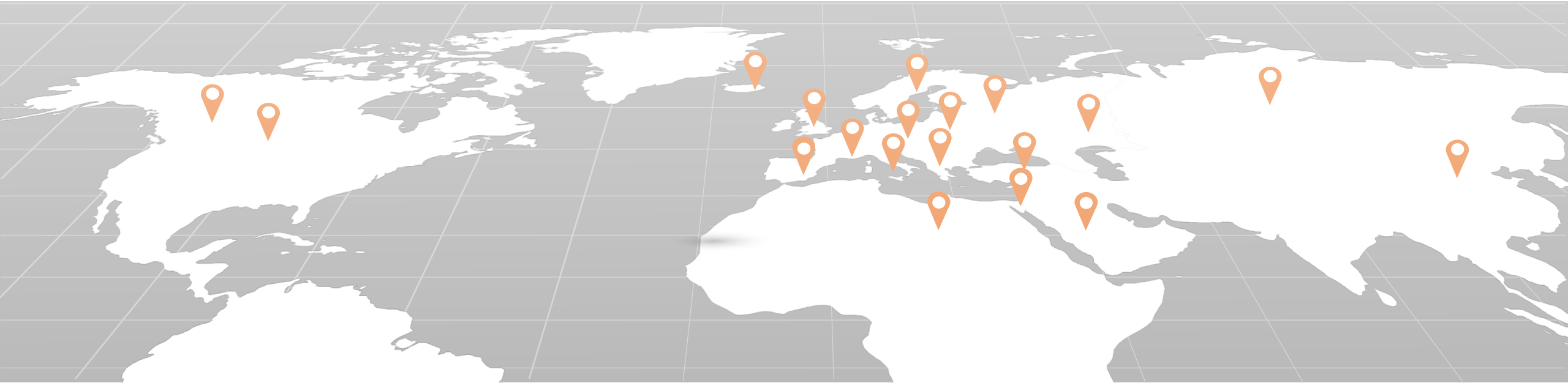


## SG Insight:

Marking, verification, interfacing, coding, communication between systems, should be based on common widely adopted standards



**Presentation is based on regulations and good practices from the following countries:**



USA

EU EMVO

RU MDLP

Jordan

UAE

Brazil

UA

SA

China

UZB

KZH

Nordic



SOFTGROUP

# Let's Talk

CONTACT US



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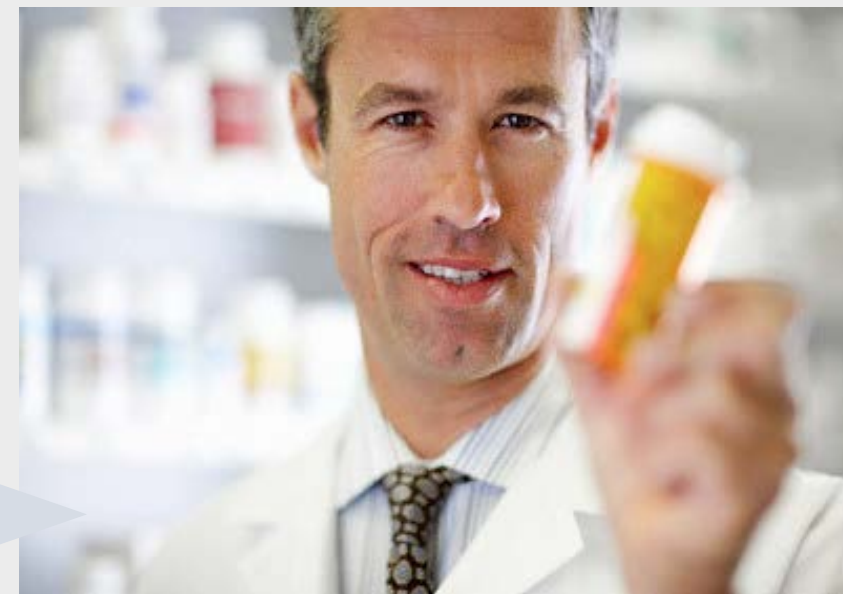
Head of Strategic Partnerships  
and Initiatives





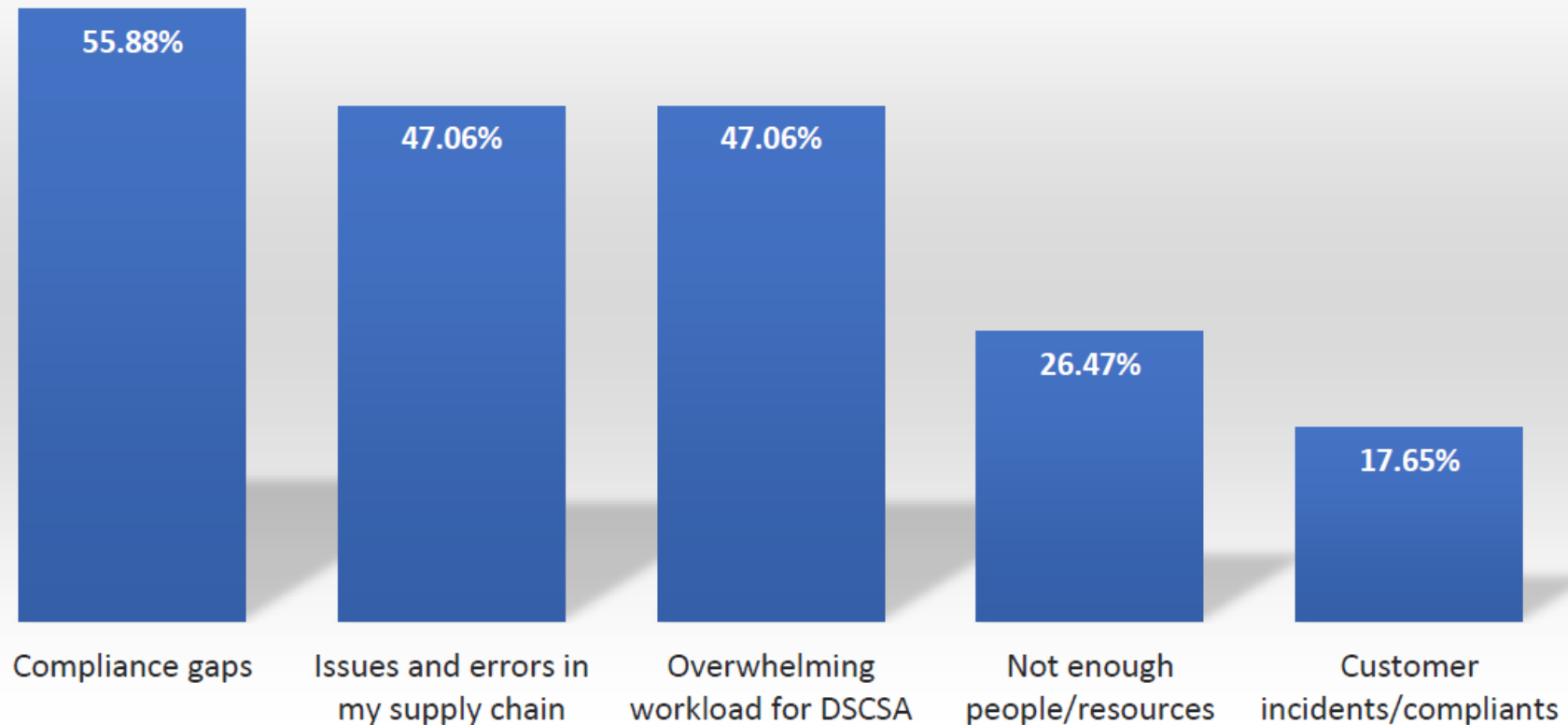
# Remarks on Enhanced Product Tracing & Trading Partner Readiness

November 17, 2021



# Top Trading Partner Concerns

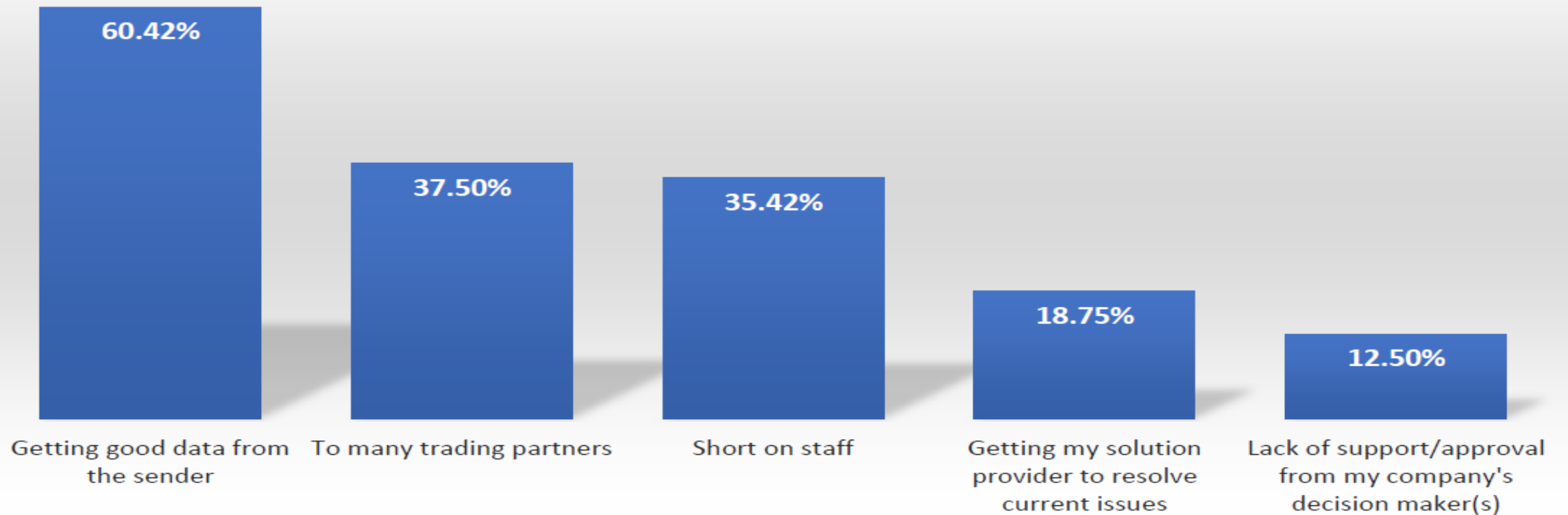
Approaching 2023, what keeps you awake at night?





# Supply Chain Hinges on Getting Good Data

What are your biggest challenges of EPCIS Data Exchange?



# Enhanced Product Tracing

## Data Quality

- “The product tracing information that will be provided to the purchasing trading partner in an electronic format should be checked to ensure that it accurately reflects the product that will be physically shipped.”

## Product & Data Match

- “the trading partner purchasing the product must not accept ownership of the product unless the previous owner provides the product tracing information before, or at the time of, the transaction.”

## Data Remediation

- “clerical error or other discrepancy in the product tracing information it received, that trading partner should resolve the error or discrepancy within 3 business days.”

## Happy Path



**Receiving**



**Stock**



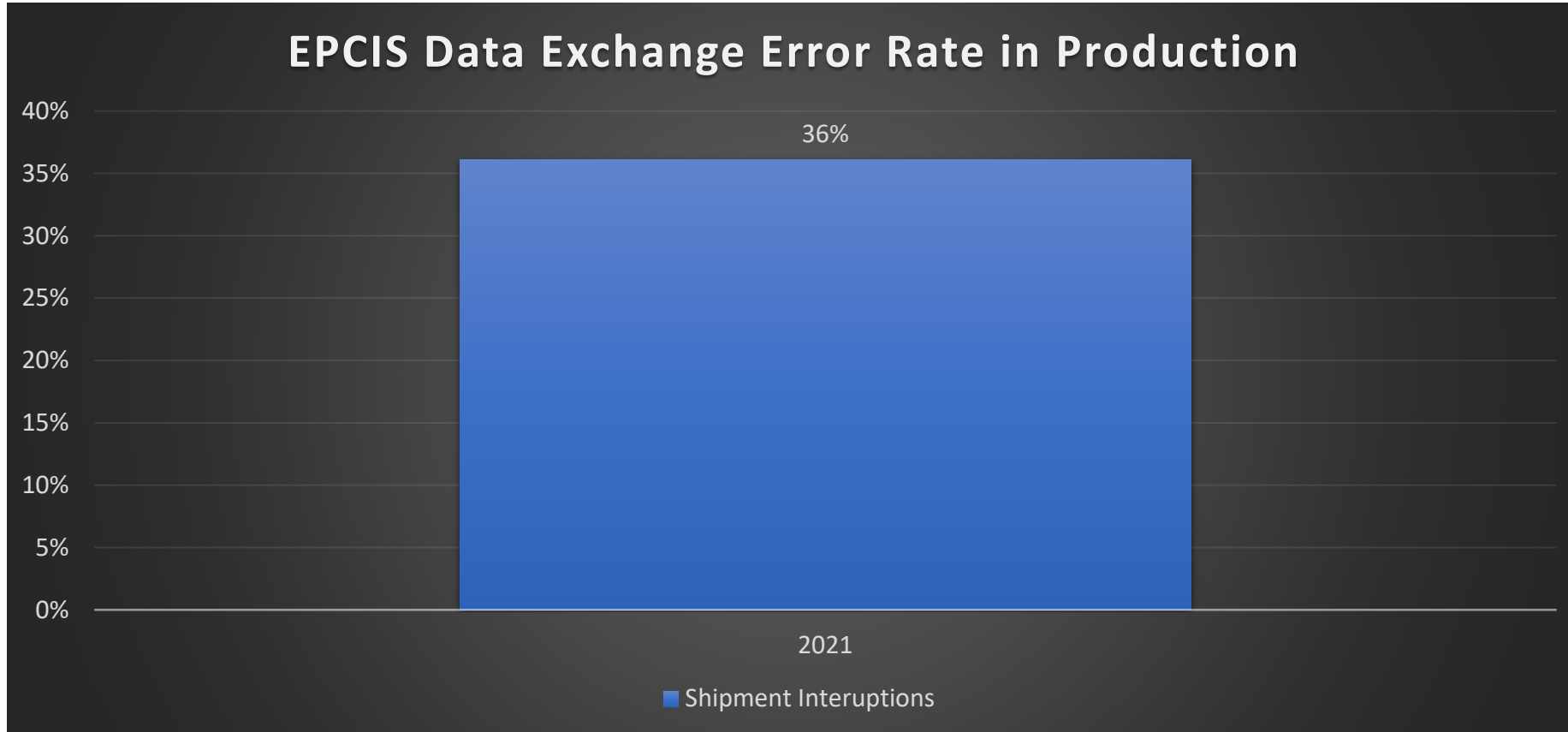
**Quarantine**



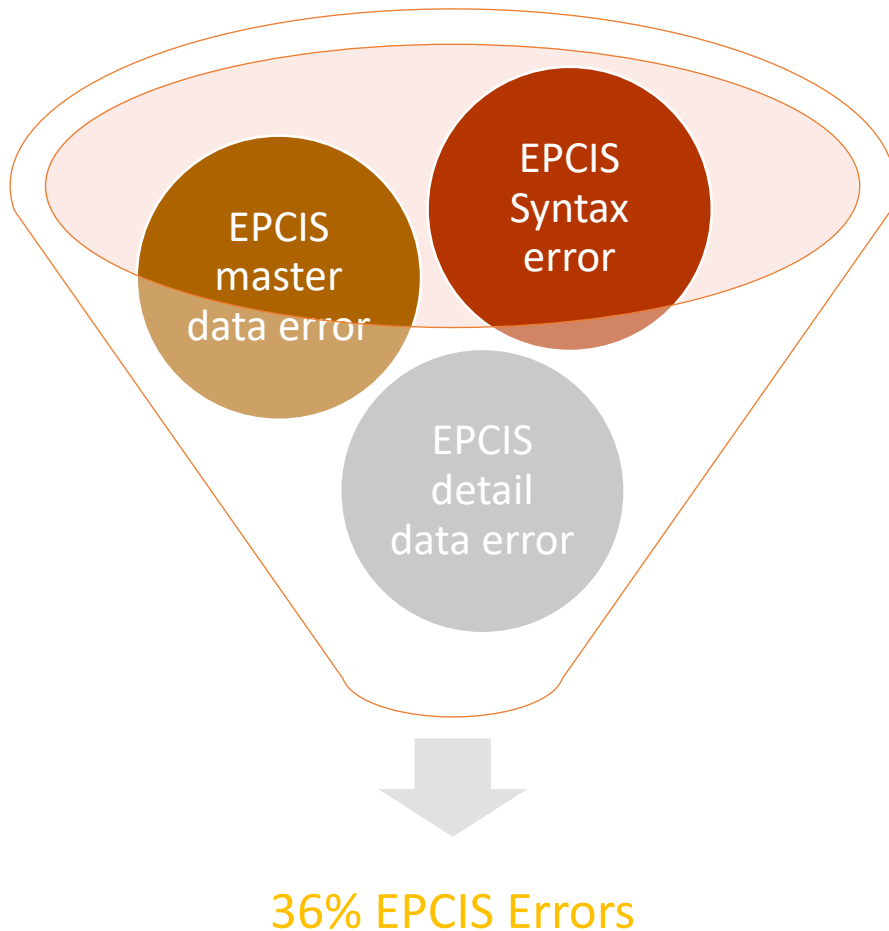
**Return**

## Exceptions

# 1 in 3 EPCIS Fails

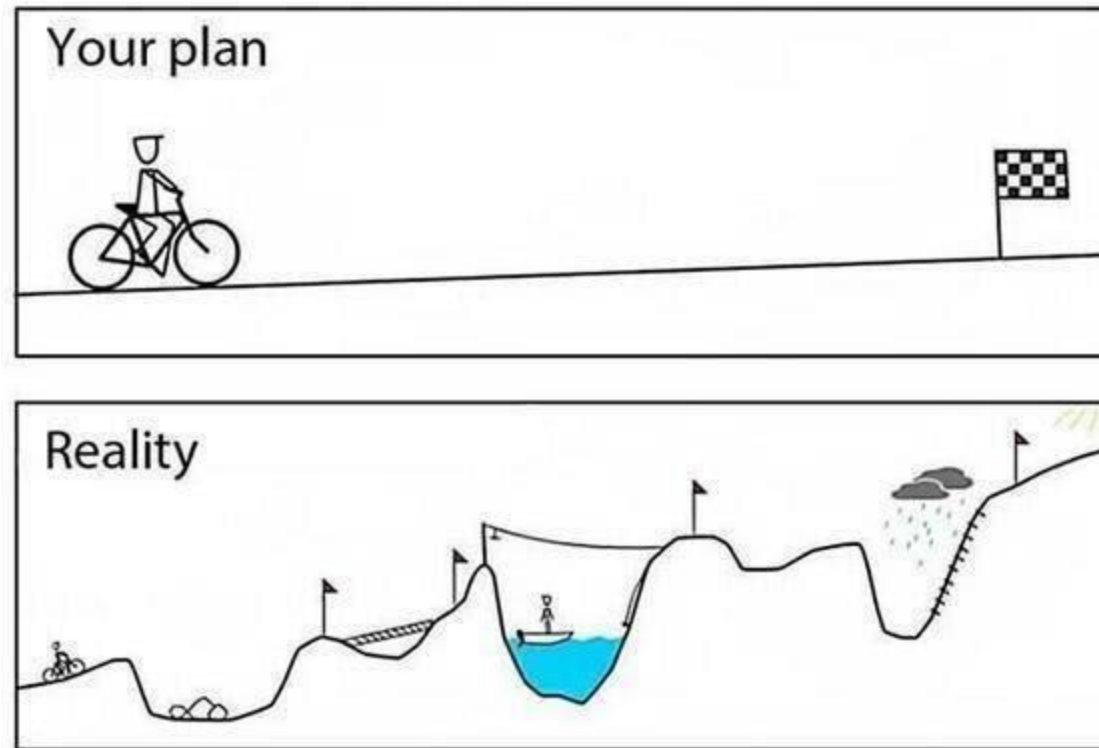


# Complex Exceptions



- **Syntax Errors**
  - Malformed XML
  - Whitespaces
  - Nonstandard tags
- **Semantical errors**
  - Chronology issues
  - Incorrect sGLNs
- **Older versions**
  - EPCIS 1.0
  - EPCIS 1.1
- **Missing master data**
  - GTINs, senders, receivers
- **No data**
- **Late data**

# Plan for Reality

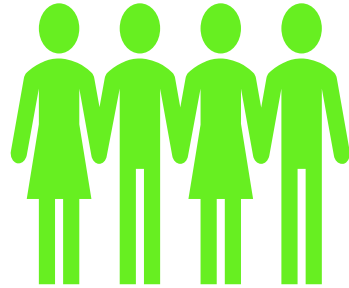


# How to address the increasing workload?

More work for  
current staff



Hire more people



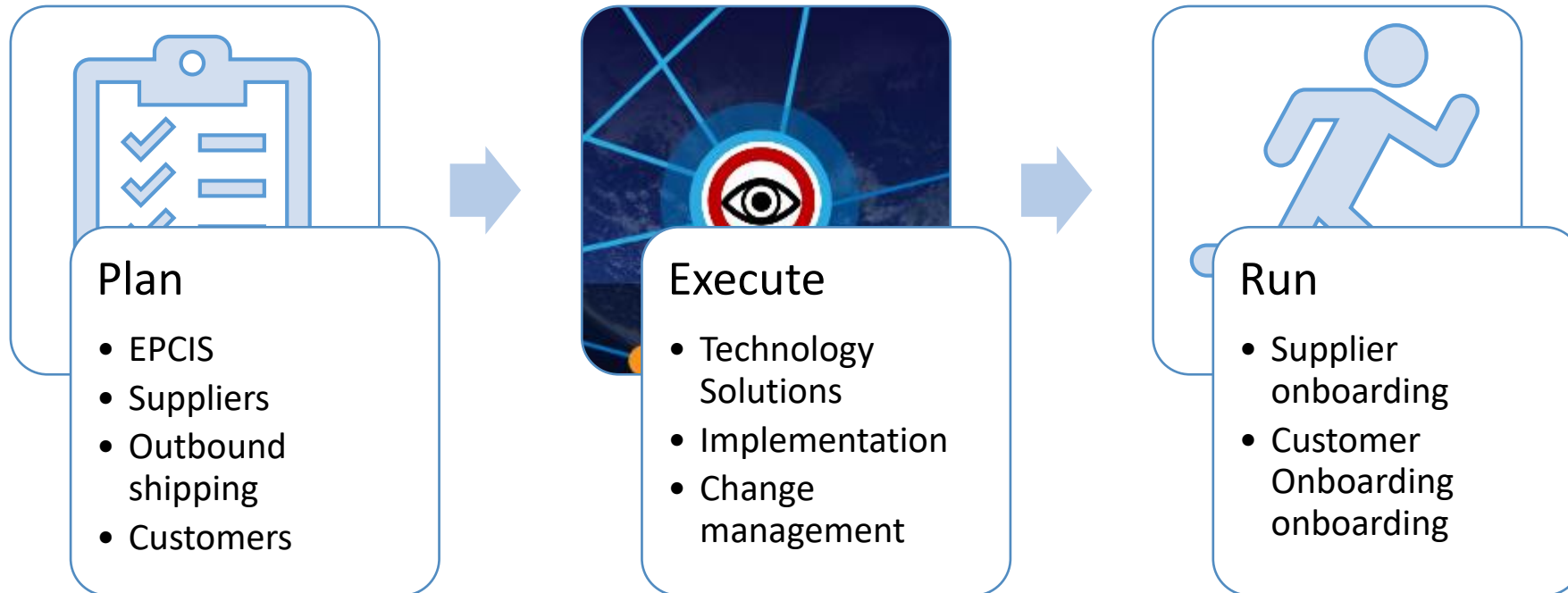
Get external help



Use Technology



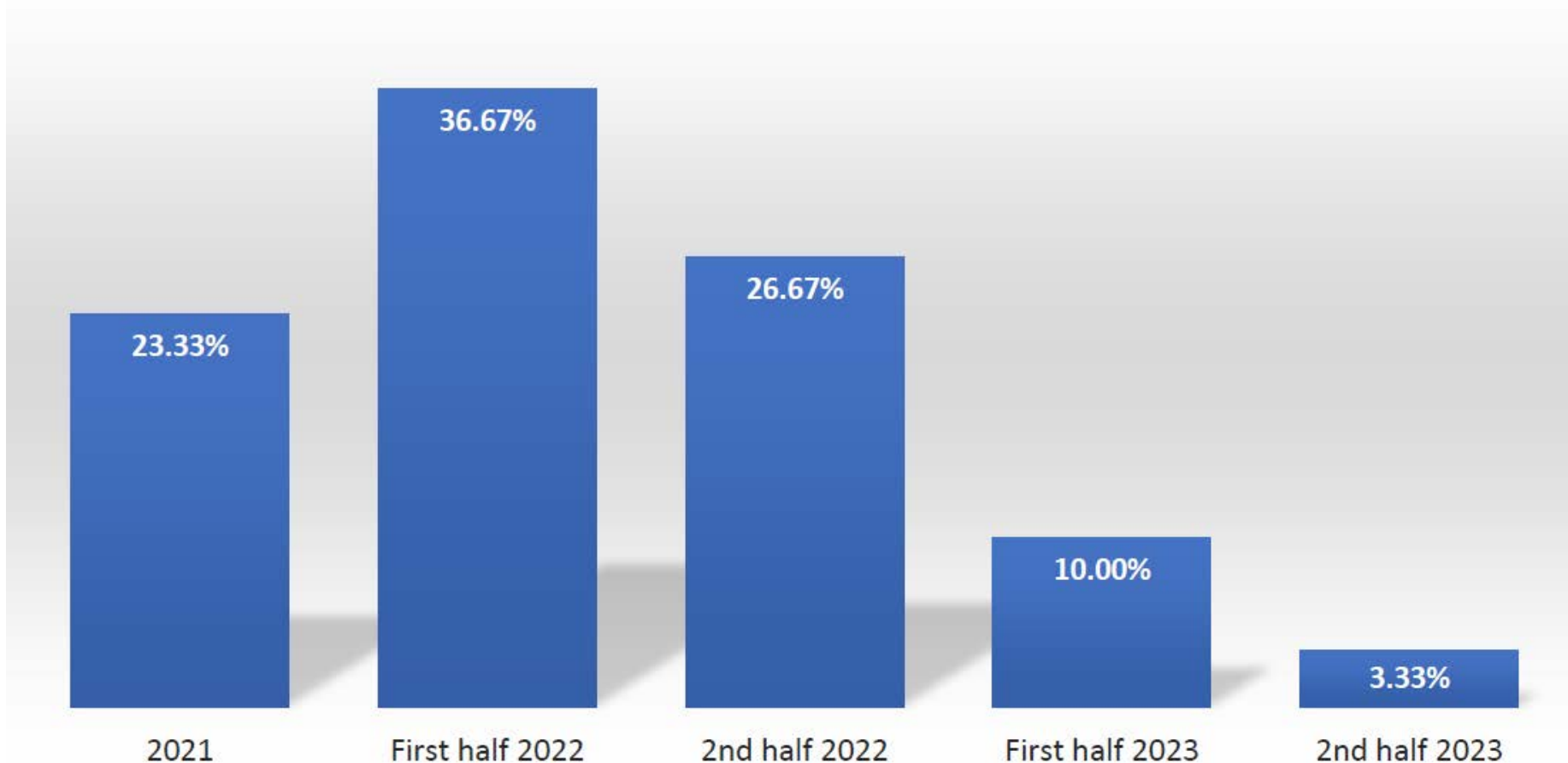
# Next Steps for Trading Partners





# Trading Partner Readiness

I will test outbound EPCIS with my customers in



# Q&A



[DSCSA@lspedia.com](mailto:DSCSA@lspedia.com)

[www.lspedia.com](http://www.lspedia.com)

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



## FDA Questions to Speakers

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



**Break**

# Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021



## Open Comments Session

Moderated by: Daniel Bellingham

FDA/CDER/OC/ODSIR

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Matt Sample**

**AmerisourceBergen**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Carl Accettura**

**Global Pharma Consulting LLC**

# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



**Remarks presented by: Dr. Swami Subramanian**

**Michigan State University- The Axia Institute**



# **Enhanced Drug Distribution Security at the Package Level Under the DSCSA FDA Public Meeting - November 16, 2021**



## **FDA Questions to Speakers**



# Closing Remarks

Leigh Verbois, Ph.D.




Director

FDA/CDER/Office of Compliance

Office of Drug Security, Integrity and

Response

# How DSCSA Protects Patients

-  **Prevent** harmful drugs from entering the supply chain.
-  **Detect** harmful drugs if they enter the supply chain.
-  **Respond** rapidly when harmful drugs are found.



# FDA Resources

- DSCSA main webpage

<https://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/default.htm>

- DSCSA regulatory documents (i.e., regulations, guidances, federal register notices, pilot programs)

<https://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/ucm424963.htm>

## Submit Comments to the Public Docket

- Submit either electronic or written comments on this public meeting [Docket No. FDA-2021-N-1004] by January 18, 2022.
- Follow instructions in the Federal Register Notice:

<https://www.federalregister.gov/documents/2021/10/15/2021-22474/enhanced-drug-distribution-security-at-the-package-level-under-the-drug-supply-chain-security-act>