Optchain™

BY OPTEL

Reinventing traceability

HOW OPTEL CAPTURES DATA IN SUPPLY CHAINS

optelgroup.com

Reinventing traceability

OPTEL's Optchain™ platform is designed to help your business achieve regulatory compliance, reach your sustainability goals and optimize your operational performance.

Optchain captures accurate, dynamic and granular data along the supply chain to provide an unparalleled level of visibility and transparency, a key differentiating factor backed by more than 30 years of expertise.

Optchain acts as a supply chain control tower powered by OPTEL's world-renowned traceability technologies to provide the right insights at the right time, storing all your trusted data in a secure and confidential cloud database.

WHAT IS DATA CAPTURE?

Data capture is the act of collecting key information at a specific point in time and converting it into a digital format. It can be done automatically or manually depending on your current data-capture processes and the maturity of your technology. The captured data relates to real-world entities such as trade items, logistics units, physical locations, documents or suppliers.

HOW OPTEL CAPTURES DATA IN THE SUPPLY CHAIN

Each data-capture method is adapted to your supply chain segment and requirements.

Data can be collected via:

- Mobile/web applications (smartphone, tablet and/or computer)

- Enterprise software (MES, PLC, ERP, WMS, DRP)

- Uploading of Excel/CSV or Google files

- Integrations via APIs (EPCIS, EDI, Google)

- Integrations with IoT connected objects (GPS, RFID, NFC)

- Integrations with equipment on production lines (inspection point with vision systems)

- Integration with logistics partners

- Audits (supplier or process evaluation)

VISION SYSTEMS FOR DATA CAPTURE

OPTEL's expertise in data capture started more than 30 years ago with the commercialization of vision systems to ensure quality and safety in the pharmaceutical industry. OPTEL's vision systems allow you to inspect products, kits, labeling, printing and packaging, and link the data to each item's profile via a unique identifier. Our systems are now used in multiple industries.

In a manufacturing plant, OPTEL's vision systems can capture data on high-speed manufacturing lines of up to 1,700 units/min. The data is stored in a cloud database along with complimentary data to be empowered with algorithms.

TRACEABILITY DATA

WHAT TRACEABILITY DATA CAN OPTEL CAPTURES?

Trading partners have workflows in place to store information related to each transaction, which can be used to track products. Each supply chain stakeholder is responsible for collecting data received from an upstream supplier and sharing it with the appropriate downstream supplier.

In accordance with GS1 standards, trading partners need to maintain records containing **Key Data Elements (KDEs)**, which need to answer the five Ws (Who, What, Where, When and Why) of Critical Tracking Events (CTEs), such as reception, transformation, packing, shipping and transportation. OPTEL's Optchain platform integrates data from supply chain events based on these standards. This data is then shared with partners through EPCIS files, which enable your products to be tracked and traced throughout their journey along the supply chain.
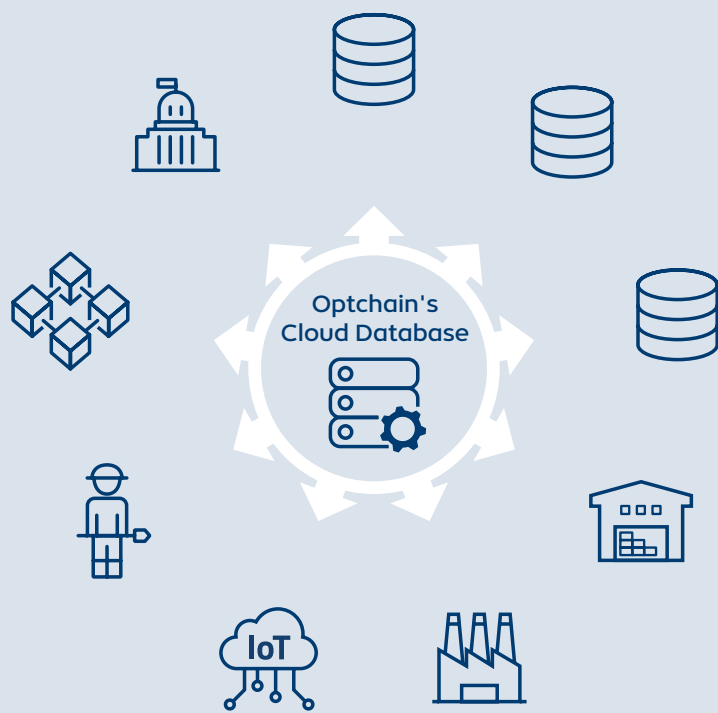
DATA GENERATION

OPTEL captures and empowers all kinds of data and can also create data for advanced applications or legislation requirements. Our systems can generate unique identifiers (UID) for serialization, serial numbers, lot/batch numbers and more.

Commonly done via a Data Matrix and QR codes containing key data elements, product serialization provides a unique identifier to all of your items or products, allowing them to be tracked and traced along the supply chain.

DIFFERENCE BETWEEN TRACKING AND TRACING?

Powered by OPTEL's traceability technologies, Optchain gives you the ability to follow an item or product all along the supply chain, from the raw materials to the final consumer. Tracking means following the journey forward (e.g., from manufacturing to where the item is now), whereas tracing means following the journey backward (e.g., from the source materials to how it got to where it is now).

Optchain's
Cloud Database

DIGITIZATION:
Conversion of information into a digital format

DIGITALIZATION:
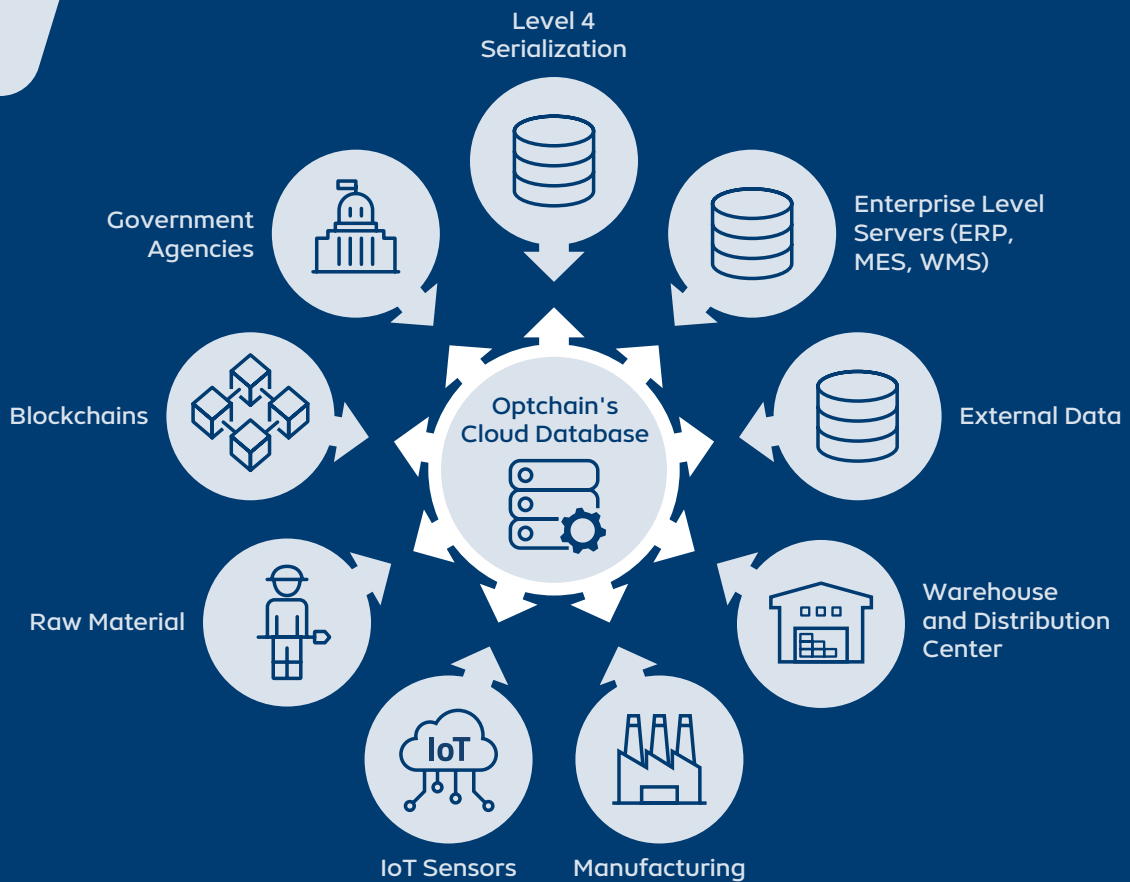Automation of process

DIGITAL TRANSFORMATION:
Usage and empowerment of digital data

DIGITAL TWIN:
Digital representation of a system serving as counterpart for practical purposes.

Level 4
Serialization

Government
Agencies

Enterprise Level
Servers (ERP,
MES, WMS)

Blockchains

Optchain's
Cloud Database

External Data

Raw Material

Warehouse
and Distribution
Center

IoT Sensors

Manufacturing

NEXT GENERATION SUPPLY CHAINS

SUPPLY CHAIN MAPPING

In response to our customers' needs, OPTEL has developed a Supply Chain Mapping tool that maps the entire supply chain ecosystem, from raw materials to finished goods. It connects all the stakeholders, providing necessary data to establish the relationships between purchase orders (POs), suppliers, products, lots, CTEs, KDEs, etc.

INTEROPERABILITY

Data capture can present an interoperability challenge, which is often a major obstacle to supply chain visibility and transparency. OPTEL has overcome this challenge by pushing and standardizing all captured data into its cloud database, creating robust APIs, enabling multiple systems, applications and devices to connect and communicate in the same language.

ARTIFICIAL INTELLIGENCE

The accumulation of volumes of data (big data) is at the heart of machine learning. The effectiveness of artificial intelligence (AI) therefore depends on the amount and accuracy of the data you can capture as well as the methods you use to process and manage them. The digitization of the data is the first step toward harnessing the tremendous possibilities of AI in your value chain. OPTEL's data-capture methods provide trusted, authentic and secure data, helping your business to take a major step toward digital transformation.

CONCLUSION

With more than 30 years of expertise in digitization and traceability across the supply chain, OPTEL is on a mission to help organizations improve supply chain performance, enable industries to comply with ever-evolving regulations and ensure the sustainability of our planet.

NORTH AMERICA
HEADQUARTERS
OPTEL Canada
1989

EUROPE
OPTEL Ireland
2014

EUROPE
OPTEL Germany
2021

ASIA
OPTEL India
2016

SOUTH AMERICA
OPTEL Brazil
2017

ABOUT OPTEL

OPTEL has a proven track record of over 30 years in providing end-to-end and highly granular traceability solutions that enable companies to unlock the potential of intelligent and digital supply chains. Optchain™, OPTEL's flagship traceability solution, connects all stakeholders across the value chain to ensure complete, real-time visibility for better supply chain performance, carbon footprint tracking, and compliance with regulatory standards.

CONTACT US

For more information,
visit: optelgroup.com.

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