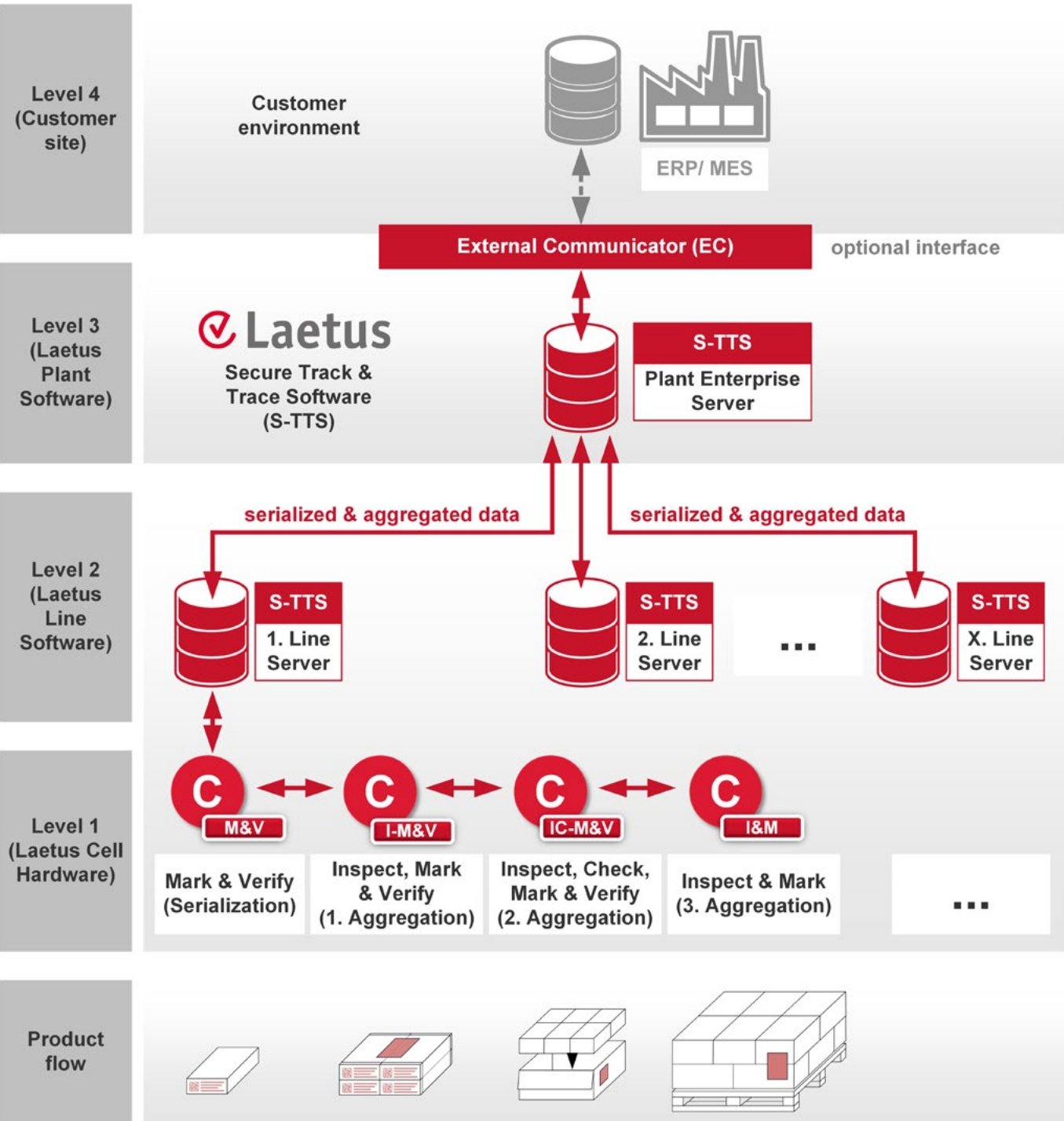# S-TTS

Secure Track & Trace Solutions

Engineered for your success

FLEXIBLE LEVELS FOR YOUR TRACK & TRACE SUCCESS

The growing complexity of the packaging process places high demands on the Track & Trace system. Although stand-alone units can still be used when it comes to simple serialization. The requirements for the implementation of several lines are more complex. To connect to an existing superordinate business IT system, a network architecture with a centralized approach is needed to enable central order management and the exchange of serial data. With the flexible Secure Track & Trace Solutions, it is possible to map centralized network architectures connected to customer systems, as well as solutions with less complex architectures. The developed Track & Trace approach therefore offers the best possible implementation of individual requirements.

Level 4 (Customer site)	Customer environment				ERP/ MES

External Communicator (EC) — optional interface

Level 3 (Laetus Plant Software)

Ͼ Laetus — Secure Track & Trace Software (S-TTS)

S-TTS — Plant Enterprise Server

serialized & aggregated data   serialized & aggregated data

Level 2 (Laetus Line Software)

S-TTS 1. Line Server	S-TTS 2. Line Server	...	S-TTS X. Line Server

Level 1 (Laetus Cell Hardware)

C M&V	C I-M&V	C IC-M&V	C I&M	
Mark & Verify (Serialization)	Inspect, Mark & Verify (1. Aggregation)	Inspect, Check, Mark & Verify (2. Aggregation)	Inspect & Mark (3. Aggregation)	...

Product flow

PLANT LEVEL

The Plant Level is the main control center of the Track & Trace software architecture. It enables the central user management and hosts the main database, which manages the master data and the audittrail. These can be synchronized with the customer's IT system using a configurable interface as required.

The Plant Level also manages interfaces to L4 (ERP) to handle orders for all packaging and shipping processes. The configuration of the individual lines also takes place on this level. This means that further aggregation cells within a line or extra production lines can be added.

SPECIFICATIONS

- Product information such as GTIN, product description, material number, etc.
- Parameter configuration set
- User management / active directory connection
- Complete process data from batch production to shipment
- Manually created or automatically received order data via ERP
- Preparation and sending of data to the respective production line
- Report creation
- Audit trail
- CFR 21 Part 11

ADVANCED OPTIONS

- **Laetus External Communicator (EC)**

  Data exchange with existing IT systems (ERP/MES) via the configurable interface

  Datasets to be exchanged are:
  - Product details
    (GTIN, material number, SSCC, etc.)
  - Serial numbers
  - Order details
  - Shipment details

- **Integrated USC (unique serial code) engine**

- **Active directory**

  To connect Track & Trace system to the customer user management

- **Manual import of serial numbers**

  Serial numbers for specific markets, such as China, can be manually imported into the system using the Laetus USC Import Manager.

- **Export and import data between Track & Trace systems**

  The export/import system tool transfers all master data from one Track & Trace system to another, for example from a test or validation system to the production system.

LINE LEVEL

The Line Level lies under the Plant Level in the Track & Trace hierarchy. It receives all production-related data from the Plant Level. The data is temporarily stored on the Line Level, so that no permanent data exchange with the Plant Level is necessary. Every production line has a Line Level and can process the respective orders independently. During the handling of a packaging order, the Line Level sends all necessary data to the cells configured for this order and synchronizes these along the packaging route.

SPECIFICATIONS

- Automatic Line setup – no need to manually set devices to order specific data
- Management and organization of the Track & Trace process of a production line including the multi-level aggregation
- Preparation and sending of the data to the individual Track & Trace control units
- Ensuring integrity via real-time exchange of the serial number reference lists
- Exchange of production-related data with Plant Control – also possible during batch production
- Supporting manual processes, such as line reworking, taking quality samples and manual aggregation

CELL LEVEL

Cell / Device Level is the lowest level in the T&T network hierarchy. Every cell represents a packaging step. The cells are independent modules which are configured in series to reflect the production flow of a packaging line. Systems can therefore be implemented across multiple levels of aggregation. The cell receives all function-related data from the Line Level and processes this data by, for example,

printing the serial number on a folding box and verifying it with a camera system. The cell delivers the results back to the Line Level for data management. Whether folding boxes or bottles, from bundle and/or case aggregation to pallet aggregation, the system can be customized for the respective production line. Depending on the packaging order, individual cells can be hidden.

CELL LEVEL SOLUTIONS

MV-50:
Serialization

MV-70:
Serialization, Tamper Evident Labeling, Check Weigher

Series 1000:
Serialization, Tamper Evident Labeling

CS-ML:
Case Aggregation

SPECIFICATIONS

- Integration of individual devices (cameras, code readers, printers, Mark & Verify units and machines)
- Guarantees the prevention of "double code" thanks to secure code verification
- Existing, verified interfaces for standard printers
- 100% inline code quality control (grading) according to ANSI/ISO
- Supports validation using standardized modules
- Receipt and management of serial numbers and batch-related data from the Line Level
- Sending of serial numbers and batch-related data to the respective printers and camera systems
- Sending the serial numbers used and batch-related data to the Line Level
- Prevention of mixing with external products by comparing the recorded serial numbers to the reference list of the upstream cell

ARCHIVING

The main purpose of S-TTS is to manage the ongoing production. However, sometimes historical data is required or can be helpful for review and planning purposes. The Laetus Database Archiving Solution became a standard feature starting with S-TTS version 2.12 and can be used to review data from former productions. Archiving is intended for data that is not needed on a regular base but must to be kept to adhere to compliance regulations or for you to evaluate historical productions. With the continuous production of your business, the amount of data grows at a rapid pace. It takes up space on your servers and, at a certain level, might impact your production performance.
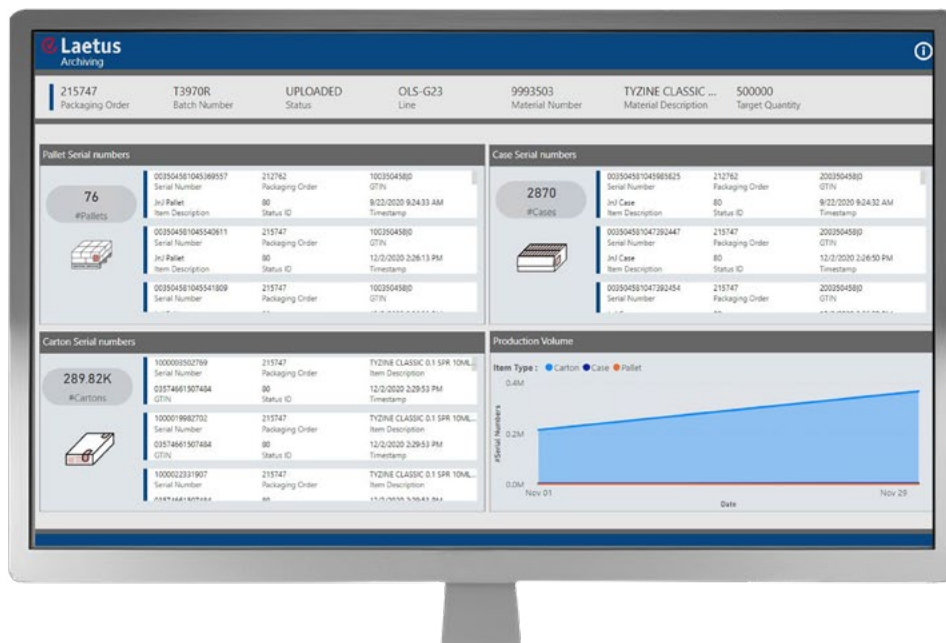
ARCHIVING BENEFITS

- Cost reduction – since historical data is archived, no additional hardware is necessary to provide space for all the new data being created.

- Space saving – archived data requires less space as they can be merged.

- Time saving – the more data is kept in the current system, the slower the production processes will be. With archived data not clogging the productive database performance improves.

- Regulatory compliance – records are kept for the required minimum of 10 years so they can be retrieved when necessary.

- Visibility of archived data – More data & statistics available with existing and standardized tools; easily accessible via web browser from multiple locations.

SERVICES

A worldwide service network is available 24 hours a day. Laetus supports global SLAs (Service Level Agreement), specific to each customer's needs.

Standard service packages are also available.

www.laetus.com/services

Laetus

WHY LAETUS?

We partner with you
– from initial contact and implementation to continuous support.

- 50 years of experience in vision inspection and quality control

- Expertise in track & trace solutions for pharma, food, beverage, cosmetics and other industries

- Flexibility in integrating solutions due to brand agnostic and modular approach

- Project management from consultation to implementation

- Training academy with individual offers

- Worldwide technical support with 24/7 hotline

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