TRACELINK UNIVERSITY

TraceLink Glossary

A

- Administration

  An application utility that includes tools for configuring global company settings for use across all TraceLink applications. Users that have access to this utility are considered Administrators.

- Advance Ship Notice (ASN)

  A notification of pending deliveries, usually in an electronic format.

- Agentic Business Network

  A supply chain operating model where governed AI Agents working with humans collaborate across a network of control towers with interlinked trading partners to orchestrate business processes.

- Agentic Business Process

  A working model in which OPUS Agents reporting to human managers perform tasks that achieve objectives based on real-time business transactions to efficiently and effectively execute processes.

- Agentic Control Tower

  A command center for OPUS Agents and humans to jointly monitor, manage, and execute processes based on real-time end-to-end supply network visibility and analytics built with an integrated understanding of information from business transactions.

- Agentic Supply Chain Operating Model

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A way of running supply chain operations where autonomous software agents continuously sense conditions, make decisions, and execute actions across end-to-end processes like procurement, inventory management, logistics, and finance. Instead of work being handled through sequential, human-driven steps and periodic planning cycles, agents coordinate in real time to execute tasks such as approving purchase orders, managing supplier interactions, monitoring and rebalancing inventory, validating and processing invoices, and triggering replenishment based on live demand and risk signals. These agents operate under defined business policies and constraints, sharing context across functions so that decisions are optimized globally rather than made myopically within silos. The result is a supply chain that is more responsive, efficient, and resilient, where humans focus on setting strategy, governance, and exception handling while agents continuously perform operational work to achieve targeted outcomes.

- Aggregation

  The process of recording the serial number of a container along with the serial numbers of its contents; often referred to as a parent/child relationship, or a serialized container to content relationship.
- Agile Process Teams (APT)

  A multienterprise application that enables cross-enterprise teams to digitally execute, manage, and track shared processes to increase speed and improve effectiveness of the supply chain.
- Alphanumeric

  Character set made up of digits and letters of the alphabet.
- Applicability Statement 2 (AS2)

  The protocol used to securely transmit data over the internet in the preferred method for exchanging Electronic Data Interchange (EDI) transactions.
- Application Administration

  An OPUS enterprise app, provided by TraceLink, that supports the routing of event handlers and message handlers to the correct app.

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- Application Administrator

  An Application Administrator for TraceLink is a user authorized to manage and configure application-specific settings, such as linking Partners, adding networks, and aligning application functions within the organization's broader TraceLink products. These configurations are performed in the Administration solution.
- Application Identifier (AI)

  A GS1 term for numeric prefixes used in barcodes and Electronic Product Code (EPC)/Radio Frequency Identification (RFID) tags to define the meaning and format of encoded data elements.
- Application Master

  The master metadata store for all of the application metadata.
- Application Metadata

  Defines the metadata of an application or platform service. The goals of accelerating application development, facilitating the management of apps, and presenting a developer with a visual Solution Builder require that much of the behavior of an application be defined via metadata. See: Solution Builder
- Application Program Interface (API)

  The interface that allows other software programs to interact with applications. Members on the Network can generate a series of request and response messages corresponding to various TraceLink applications (whether synchronously or asynchronously).
- Application Repository

  Defines where application images are stored so they can be deployed as running code.
- Application(s)/App(s)

  A product offering that includes one or more functions to fulfill customer/market needs. Applications are offered in various forms including, but not restricted to, web applications, mobile apps, APIs, and SDKs to appeal to different user needs.

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- Application/App

  An application is a product offering that includes one or more functions to meet customer and market needs. OPUS apps are exposed as APIs. They are "headless," meaning they don't have a built-in user interface; instead, that is expressed by the solution. TraceLink's OPUS Development Environment (ODE) is the solution where OPUS Developers can create applications.
- Assembly Object

  An Assembly Object is a data structure used in system applications, such as Application Manager. It connects related items, such as Applications, Projects, Environments, and Resource Configurations, making it easier to manage complex relationships. By linking these items together, the system can automatically determine if any pieces are missing, which helps streamline how data is handled and improves efficiency.
- Asynchronous Message

  An integration message (formerly known as transaction) is used as an interface to exchange data between two companies. Asynchronous messages do not fully process in real-time.
- Attribute

  An attribute is a characteristic or inherent feature of an object type or relationship. When applied to a specific instance of an object, an attribute becomes a property.
- Authenticate

  The practice of checking a unique identifier against a set of captured serialized data to determine its authenticity.
- Authorization Manager

  An OPUS system app, provided by TraceLink, that governs what authenticated users are authorized to do within the context of an app through enforcement points and policies.
- Authorized Distributor of Record (ADR)

  A wholesale distributor that a manufacturer designates or authorizes to

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distribute its products.

- Auto ID

  Method of automatically capturing data encoded on items and containers, and entering that data directly into computer systems without human involvement.

  B

- Bahrain (BH) Compliance

  A TraceLink compliance reporting app that searches, views, and generates reports required by the Bahrain National Health Regulatory Authority (NHRA).

- Base State

  Base states are key steps in a workflow that represent significant milestones in the journey of a business object through its process. These states are defined by the OPUS Developer and are typically high-level and denote major phases. This is not configurable to OPUS Solution Designers but is the foundation upon which OPUS Solution Designers can extend functionality in OSE.

- Batch

  A group of products associated with a manufacturing or packaging operation. Synonymous with lot.

- Bill of Lading (BoL)

  A document issued by a carrier which details a shipment of merchandise and gives the shipment title to a specified party.

- Bootstrapping

  A process in which the kernel is installed and made operational for the first time so that the rest of the system can be built using ODE.

- Brazil Compliance

  A TraceLink compliance reporting app that searches, views, and generates reports required by ANVISA.

- Brazil Product Track

  TraceLink app. Tracks movement of products within the Brazil supply chain.

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- Brazilian Health Surveillance Agency (ANVISA)

  The Brazilian Regulatory Agency responsible for the approval and supervision of food, cosmetics, tobacco, pharmaceuticals, health services, and medical devices.
- Bright Stock

  An approach to labeling and packaging operations in which products are produced in large batches, stored in unlabeled containers, and then labeled just prior to shipment.
- Build Pipeline

  Defines a module's build and deploy processes in ODE to enable continuous delivery.
- Bundle

  A group of items held together, usually by shrink wrap. Synonymous with Inner Pack.
- Business-to-Business (B2B)

  Interactions that support the transfer of standardized interchange files up to an enterprise’s EDI system. B2B interactions are not integrated with manufacturing, warehouse, or other backend business systems.
- Business Object

  A business object is a representation of a real-world entity or a key component within a business process. It encapsulates both the metadata and behavior associated with a specific aspect of the business. Business objects are essential in software systems, particularly in enterprise and multienterprise applications, where they are used to model, manage, and facilitate business processes.
- Business Object Workflow

  OPUS Solution Designers configure business object workflows by extending standard workflows to meet specific business requirements. This can include defining unique substates and/or transitions within the original workflow.
- Business Process

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A business process is a sequence of integrated business objects working together to achieve a single business outcome, such as "procure to pay." Business Processes are what enable Orchestrations.

- Business Transaction Object (BTO)

  A Business Transaction Object (BTO) represents and manages the lifecycle of B2B transactions. It serves as the foundation for tracking, processing, and interacting with business transactions in a structured and consistent manner across the TraceLink platform. The BTO encapsulates transaction data, processing details, states, and transitions as the transaction progresses through various stages in the transaction workflow. TraceLink's BTO can be configured by companies to handle specific transaction types (e.g. Purchase Orders, Invoices) with additional attributes and workflow configurations that meet specific business requirements.

- Business Transactions

  The exchange of information between trading partners to conduct commerce, planning, tracking, and services to maintain formal documentation in their respective systems of record.

  C

- Cadastro Nacional da Pessoa Jurídica (National Registry for Legal Entities) (CNPJ)

  An identification number issued to Brazilian companies by the Secretariat of the Federal Revenue of Brazil.

- Cardinality

  Cardinality defines the number of instances that can exist between two related data types in a data model. It indicates whether the relationship between two data types one-to-one, one-to-many, many-to-one, or many-to-many.

- Case

  A container of product eaches (e.g. cartons, packages, bottles) which may or may not be bundled.

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- Catalog

  A catalog in the TraceLink ecosystem is a compilation of catalog items (e.g. Transforms, Link Actions, Solutions, Reports, Dashboards, Link Actions, Transforms) with varying levels of configurability.
- Catalog Exchange Manager

  An OPUS system app used to manage global catalog items available to all companies on all environments.
- Change Management

  A TraceLink app that allows the users to manage and view supplier changes.
- Channel Partner

  See Solution Partner and Technology Partner
- Check Digit

  Redundancy check used for error detection of identification numbers, used in National Drug Code (NDC) numbers, US Drug Enforcement Administration (DEA) numbers, Global Trade Item Number (GTIN-14) identifiers, and Serial Shipping Container Codes (SSCC).
- China Compliance

  A TraceLink compliance reporting app that integrates with the National Medical Products Administration (NMPA) reporting system directly or through a local partner.
- China Electronic Data Monitoring Code (CN_EDMC)

  The encoding format for serial numbers, issued by the Chinese government, used for products sold in China.
- China Food and Drug Administration (CFDA)

  Former organization in China responsible for ensuring pharmaceutical quality. Replaced by National Medical Products Administration in 2018. See NMPA.
- Cluster

  A logical grouping of containers where tasks can be placed. A cluster represents an instance of an AWS EKS controller.
- Collection

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A group of objects.

- Collections

  A collection is displayed in the user interface (UI) as either a single field or a group of fields, often presented as a list or a table depending on the context. The underlying data structure that supports this UI representation comes with its own set of properties, similar to individual fields. For example, line items in a purchase order (PO) are typically grouped in a collection that is presented as a table. This structure enables the organized presentation and management of multiple related data points within a single view.

- Commerce Orchestration for Multienterprise Information Network Tower (MINT)

  The commerce orchestration for MINT involves the coordinated and seamless execution of business processes across business objects related to procurement and sales activities. The commerce orchestration uses digitalization to streamline procure-to-pay (procurement) and order-to-cash (sales) processes, ensuring effective communication and collaboration between supply chain partners. For example, a commerce orchestration could support order-to-cash transactions between a pharmaceutical manufacturer and its customer (e.g. health system or wholesaler) networks, enabling the exchange of purchase orders, price sales catalogs, invoices, and other business objects, as the manufacturer supplies its pharmaceutical products to the customers.

- Commissioning

  Process of associating a serial number to a particular object (product or container).

- Company

  A company within the TraceLink Network can perform operations in various apps and is classified as an Owner, Partner, or both. Companies being verified by the TraceLink Network Success team is a key step in setting up the "Integrate Once, Interoperate with Everyone™" model. This verification, using

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a unique identifier such as the Global Location Number (GLN), ensures that only legitimate entities can join the network. This process is essential for maintaining the integrity of the TraceLink Network, enabling seamless integration and interoperability between verified companies.

- Company Object Type

  A company object type is a specialized version of a standard object type that enables TraceLink's metadata-driven approach. It builds upon the standard object type by inheriting its core attributes and behaviors, while also introducing additional features or modifying existing ones to suit specific needs. This makes company object types powerful tools for no-code solution design, enabling users to create tailored solutions without the need for coding. By allowing different object types to share and utilize metadata from a common base, company object types support flexible and efficient business process configurations.

- Company Solution

  Company Solutions are highly configurable solutions created by saving and modifying Marketplace Solutions or Standard Solutions. They are designed to the specific needs and processes of a customer's company. Company Solutions allow for extensive configuration of pages, menus, roles, workflows, business objects, and policies, providing a flexible and adaptive solution that can evolve with the company’s changing needs. These configurations ensure that the solution aligns perfectly with the company's business demands. OPUS Solution Designers working for Solution Partners, TraceLink product development and services teams, or a customer's company can all configure Company Solutions.

- Compliance Reporting

  Each TraceLink product app that corresponds to a specific country, retains compliance data, and allows users to search and review the details of that data in compliance reports.

- Compliance Reports

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Reports that display specific country compliance data.

- Component

  A component is a metadata-driven element that the system automatically selects and applies based on the associated metadata, ensuring the correct functionality and UI treatment when OPUS Solution Designers curate pages in OSE through drag-and-drop functionality or when end users of a solution interact with the component..

- Container

  A standardized unit of TraceLink code. A container is created from a Docker image at runtime.

- Content Area

  The Content Area in the OPUS User Experience is the primary focal point where users spend the majority of their time managing and accessing content across various types of pages (e.g. Search, View/Edit). The design is user-friendly and organized to facilitate efficient in-screen navigation and task completion. The Content Area is also responsive, adapting to changes in the interface, such as the opening and closing of the side menu or push panel, and adjustments in browser size. This area ensures a cohesive user experience with consistent layout, task flows, and in-page navigation across all pages.

- Contract Development and Manufacturing Organization (CDMO)

  A CDMO is a third-party company that provides drug development and manufacturing services for pharmaceutical, biotechnology, and life sciences companies. CDMOs may support activities such as formulation development, clinical trial material production, commercial manufacturing, packaging, serialization, quality control, regulatory support, and supply chain coordination.

- Contract Manufacturing Organization (CMO)

  A company providing manufacturing and sometimes packaging services for one or more pharmaceutical manufacturers based on contracts or service

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agreements.

- Contract Packaging Organization (CPO)

  A third-party organization that manufacturers subcontract to package products.

- Core Business Vocabulary (CBV)

  Vocabulary elements agreed upon by trading partners who will exchange data. See: http://www.gs1.org/epcis

- Corrective and Preventive Action (CAPA)

  Improvements to an organization's processes taken to eliminate quality failures.

- Counterfeit

  An imitation usually created with the intent of fraudulently passing it off as genuine, often to take advantage of the established worth of the imitated product. The word counterfeit frequently describes the forgeries of currency and documents, and the imitations of clothing, software, pharmaceuticals, jeans, watches, electronics, and company logos and brands. In the case of goods, it results in patent or trademark infringement.

- Crypto code

  Encrypted identification numbers generated by the Tsentr Razvitiya Perspektivnykh Tekhnologiy (CRPT) for use in Russia. Provides additional security and allows Russian pharmacies without internet access to verify products. A crypto code is associated to a serial number and consists of a key portion and a code portion.

  D

- Dashboard Element

  A graph or chart within a dashboard that displays specific information or data visualizations. Each dashboard element is populated from an existing report. Dashboard elements can be configured by Tracelink Administrators to adjust the chart or graph type, legends, colors, labels, and position on the dashboard.

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- Dashboard Filters

  Dashboard filters are tools within a dashboard that allow users to narrow down the data displayed by applying specific criteria (e.g. process network, Partner). These filters enable users to modify their view of the data, making it easier to focus on the most relevant information.
- Dashboards

  Dashboards are an assortment of pre-defined reports in the form of dashboard elements, where users can interact with the data while obtaining key orchestration insights.
- Data Carrier

  A GS1 term for the different kinds of media, such as barcodes, that can hold GS1 identification keys and application identifiers.
- Data Component

  A special type of a UI component in the XD Studio that has been preconfigured with an OPUS Query. Included as part of a Screen Template section and configured to have specific behavior based on the Properties setting. To use a Data component, apps must be licensed so they can provide an API that responds to the OPUS Query.
- Data Mesh Pipeline

  A Data Mesh Pipeline is a series of steps set up by an application to process and improve data as it’s collected or updated. These steps can clean, transform, and organize the data, turning it into useful information that can be used for reports and analysis. Each pipeline is designed to meet the specific needs of the application that created it.
- Data Mesh Pipeline Manager

  The Data Mesh Pipeline Manager is a tool within the OPUS provided by TraceLink. It helps manage and run processes that transform and combine data as it moves through the system. This tool watches for specific data events, sends the data to the right processes, and makes sure everything runs smoothly. The end result is well-organized data that can be used for

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reporting and analysis in various business applications.

- Data Model

  Data models depict data elements and the relationships between them. By structuring and defining data in the context of business processes, these models facilitate the creation of efficient information systems. They allow business and technical teams to collaboratively determine how data will be stored, accessed, shared, updated, and utilized across the system. Data models are the foundation of a metadata-driven platform.

- Decommission

  To disassociate a serial number from a product or container so that it is no longer tracked. In TraceLink, decommissioned serial numbers can be reused, whereas destroyed serial numbers cannot be reused.

- Delivery

  In TraceLink, a delivery is considered a sale, transfer, or return.

- Destroy

  To disassociate a serial number from a product or container so that it is no longer tracked. In TraceLink, destroyed serial numbers cannot be reused, whereas decommissioned serial numbers can be reused.

- Digital Twin of the Supply Network

  A digital representation of the end-to-end supply network with relationships between companies, the flow of products, materials, and financial information based on transactions from the Agentic Business Network, visualized in the Agentic Control Tower.

- Digital Work

  Operational work performed collaboratively by humans and OPUS Agents through Agentic Business Processes using real-time Business Transactions, Processes, and governed execution across the supply network. Within Digital Work, OPUS Agents execute Tasks and Decisions as operational actions while performing work through continuous coordination and reasoning to achieve OPUS Agent Objectives and produce measurable OPUS Agent Outcomes.

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- Disaggregate

  To remove products or containers from a parent container. The serial numbers of the contained product or container are no longer associated as children of the parent container.
- Dispenser

  A retail pharmacy, hospital pharmacy, group of chain pharmacies, or any other person authorized by law to dispense or administer prescription drugs. Under DSCSA (United States), an entity is not considered a dispenser if it acts as a wholesale distributor or dispenses products only used for animals.
- Disposition

  The state of a serial number. TraceLink updates serial number disposition states after provisioning, encoding, commissioning, aggregating, decommissioning, and destroying serial numbers.
- Distribution Center (DC)

  A warehouse stocked with goods to be redistributed to retailers, wholesalers, or customers.
- Docker Image

  A file that includes the code, runtime, tools, libraries, and settings needed to execute code for an app. A Docker image becomes a container at runtime.
- Double Byte Character Set

  A character encoding that contains a large number of unique characters or symbols that is used to express languages such as Japanese, Korean, and Chinese.
- Downstream

  The direction of product flow, e.g. pharmaceuticals travel first through the manufacturers, then downstream to repackagers, then downstream to wholesaler distributors, and finally downstream to dispensers.
- Drill-Down Report

  A drill-down report allows users to navigate from a summary level of data (e.g. a chart), to more detailed levels, providing deeper insights into specific

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areas of interest.

- Drug Quality and Security Act (DQSA)

  US Federal Legislation passed in November 2013.
- Drug Supply Chain Security Act (DSCSA)

  An Act signed into law in 2013, which dictates the governance of pharmaceutical distribution and traceability in the US. See https://www.fda.gov/Drugs/DrugSafety/DrugIntegrityandSupplyChainSecurity/DrugSupplyChainSecurityAct/ for details.
- Drug Track and Trace System (DTTS)

  The Saudi Arabia compliance reporting repository, which supports Saudi Food & Drug Authority serialization and traceability regulations.
- Dun & Bradstreet (D&B)

  A company that publishes a business directory of other companies and assigns and maintains a unique identifier for each company within the directory.
- DUNS® Number

  D&B's copyrighted, proprietary means of identifying business entities on a location-specific basis. Assigned and maintained solely by D&B, this unique nine-digit identification number has been assigned to over 100 million businesses worldwide.
- DUNS® Number+4

  The DUNS Number plus a 4-digit extension (13-digit total) created by assignees when there is a need for more than one bank/Electronic Funds Transfer (EFT) account for a location. D&B does not create or maintain the +4 number.

  E
- Each

  The smallest saleable unit of product, the secondary package level. Synonymous with item.
- EdgeLink Intelligence

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A TraceLink app that consolidates scan events from Smart Inventory Tracker (SIT) and presents them as structured insights to support monitoring, performance tracking, and operational review.

- Elastic Container Registry (ECR)
  A fully managed Docker container registry from AWS that makes it easy for developers to store, manage, and deploy Docker images.
- Electronic Data Interchange (EDI)
  The electronic transfer of data between computer systems in a standardized message format.
- Electronic Drug Monitoring Code (EDMC)
  A unique identifier provided by the Chinese government for serialized product.
- Electronic Product Code (EPC)
  A unique number that identifies a specific item in the supply chain. Also known as a serial number.
- Electronic Product Code Information Services (EPCIS)
  See: www.gs1.org/epcis for the definition.
- Encoding
  The process of preprinting labels for serial numbers after they are provisioned. Once the labels are affixed to the products, the serial numbers enter the "commissioned state."
- Enterprise Application
  Enterprise applications are a type of app designed to operate within a single corporate environment (i.e. they are used only by the owning company). Enterprise apps do not have linked Partners, however they can be integrated with the company's other enterprise systems (e.g. SAP), if supported. Examples of Enterprise Applications are Serialized Product Intelligence (SPI), UAE Compliance, Uzbekistan Compliance.
- Enterprise Resource Planning (ERP)
  Business process management software used to manage and automate back-office operations.

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- Enterprise Serialization Manager (ESM)

  A term used for a serialization system that a customer may use as its System of Record (SOR) for serial numbers instead of TraceLink's serialization services. The ESM system provides serial numbers to TraceLink for serialization operations and global compliance reporting. Synonymous with External Serialization Manager.
- Environment

  An environment is a specific configuration or instance of a system, platform, or software used for development, testing, validation, or production. It provides a controlled setting where applications and processes can be deployed, run, and managed under defined conditions, ensuring consistency and reliability across different stages of a project lifecycle.
- EPC Global

  An organization sponsored by GS1. Develops the standards for Electronic Product Code (EPC) and for Radio-Frequency Identification (RFID) systems that store and manage EPCs.
- Error Correction Coding (ECC)

  A code applied to transferred data for error control. The ECC provides redundancy and allows the receiver to recover the original data.
- Essential Drug List (EDL)

  A country-specific list of drugs that satisfies the healthcare needs of the population majority. In China, serial number file structures differentiate whether or not a drug is on or off the EDL and is known as Provincial Reimbursement Essential Drug List (PEDL).
- EU Compliance

  TraceLink app. Generates EU required reports regarding Serialization and Product Verification.
- European Hub

  A cloud-based gateway for EU compliance reporting. Provides interoperability between different national systems in the EU, and manages product status

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(e.g. decommissioning, recalls) and exceptions throughout the life cycle of a product. The hub does not store serialization data like a repository – instead it acts as a single point of entry.

- European Medicines Verification System (EMVS)
  Pan-European system that implements the Falsified Medicines Directive (FMD). Verifies the authenticity of a medicinal product.
- Event
  Any action that is triggered in the TraceLink system becomes an "event" once processed in the system.
- Event Gateway
  Event Gateway is an OPUS system app, provided by TraceLink, that manages the flow of events between different parts of the system or between different systems. Its primary role is to route, filter, and transform events based on predefined rules or conditions.
- Event Repository
  A computer system designed to store serial number information and events relating to serialized products.
- Exchange Transaction
  A DSCSA term that describes the movement of a product where a change of ownership occurs.
- Exclusive Distributor
  A wholesale distributor that purchases directly from a manufacturer and is the sole distributor of that manufacturer’s product.
- Experience Manager
  An OPUS system app, provided by TraceLink, that provides the APIs to enable the creation of solutions in the OPUS Solution Environment.
- Experiences
  Experiences enable access to app functionality in a responsive web user interface (UI) accessible across devices (PC, mobile, etc). Experiences are defined using the Solution Builder Design Studio using low-code, UI-driven

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configuration. Experiences can include functionality within a single app or functionality that spans across apps. For example, an experience can be created that provides access to features of two different apps in an integrated user experience (when the customer has licensed both apps). Different Experiences can be created for different classes of users that may use the same app. For example, one app can contain a Dispenser Experience, a Manufacturer Experience, and a Partner Experience.

- Expiry

  Date of expiration or the last day an item should be used.
- Extensible Markup Language (XML)

  A set of rules that allows documents to be readable by both humans and machines.
- eXtensible TraceLink Transfer (XTT)

  An extensible integration interface supporting AS2, SFTP, and SMTP with pluggable modules for any ERP or business system for all transaction types.
- Extension Digit

  A one-digit segment used to extend the serial reference segment of a Serial Shipping Container Code (SSCC) identifier. The SSCC format is: urn:epc:id:sscc:"[company prefix].[extension digit + serial number]."
- External Product Identifier

  A standards-based product code, e.g. Global Trade Item Number (GTIN) or a market-specific product code, used to identify the product. Note that this is not a manufacturer Stock Keeping Unit (SKU), as SKUs are not regulated or standardized.

  F
- Facade Object

  A facade object is a design pattern that provides a simplified, unified interface to a complex subsystem or set of interfaces in a software system. The facade pattern aims to make a system easier to use and understand by offering a higher-level interface that hides the underlying complexity and interactions of

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the subsystems. A facade object provides content and behavior that are delegated to otherwise inaccessible data and applications. They are used to facilitate access to data that is not directly accessible via GraphQL and can be sub-typed under specific conditions.

- Falsified Medicines Directive (FMD)

  A pan-European directive intended to protect patients from counterfeit medicines in the regulated pharmaceutical supply chain. The European Medicines Verification System (EMVS) was developed to implement the FMD.
- Federal Law No. 425-FZ

  A law enacted in 2017 that dictates the governance of pharmaceutical distribution and traceability in Russia.
- Fields

  Fields are data entry points within a system that can be either simple (e.g. text, number, date) or complex (e.g. lookup, auto-number, master-detail). Each field type shares common properties, such as a display name, and also has specific properties unique to that type. For example, a Text Area field may include "Number of Visible Lines," a Number field might specify "Number of Decimal Places," and a Date field could have a "Date Time Format." These properties help define how data is inputted, displayed, and managed within the system.
- File Manager

  An OPUS app, provided by TraceLink, that supports the ability to import and export files to and from an app.
- Filter Value

  A digit in the 0-9 range that is used in certain EPC and coding formats, as part of the RFID control information, to specify the packaging level associated with the serial number (e.g. each, case, pallet).
- Foundation

  Foundation layer of the platform. Experiences are built on top of the Foundation, which is always visible.

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G

- Global Catalog Administration

  An OPUS enterprise app that allows authorized administrators to approve or reject requests to promote catalog items from a company's catalog into the global catalog. UI access to the Global Catalog Administration app is provided by the Global Catalog Administration solution.
- Global Company Prefix (GCP)

  The Company Prefix of the GS1 Identification Key. The Company Prefix is used for any location (physical, operational, or legal) that needs to be identified for use in the supply chain.
- Global Identifier

  A unique reference number used to identify a legal entity (e.g. company, location) to support the secure exchange of business information.
- Global Location Number (GLN)

  A unique 13-digit number containing a GS1 company prefix, a location reference, and a check digit, used to uniquely identify a physical location or legal entity in the supply chain. The GLN makes possible the unique and unambiguous identification of those locations and entities.
- Global Trade Item Number (GTIN)

  A globally unique product identifier used by a company to identify its trade items at all item and package levels. To ensure the identifier is globally unique, GTINs contain the company's GS1 Company Prefix which is assigned by GS1.
- Good Practice (GxP)

  A general term, usually referring to quality and regulations, in which "x" serves as a variable (e.g. GMP is "Good Manufacturing Practice").
- Groups

  A Group is similar to a type definition, where a set of related attributes is presented to the user as a cohesive unit. All attributes within a Group are always included together and are displayed with a meaningful heading that

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reflects the Group’s purpose, such as “Ship to Address” or “Ship from Address.” Each instance of the Group could leverage a type def like "Address," ensuring that fields (e.g. street, city, country) are consistently presented together in the user interface with a visual treatment that indicates their relationship to the high level purpose. This helps maintain clarity and organization in data presentation, such as displaying a supplier's address in a purchase order.

- GS1

  A leading global organization dedicated to the design and implementation of global standards and solutions, to improve the efficiency and visibility of supply and demand chains globally. The GS1 system of standards is the most widely used supply chain standards system in the world (more at www.gs1.com).

- GS1-128

  Formerly known as Code-128. A linear barcode used by organization members of GS1.

- GS1 Company Prefix

  A 4-12 digit globally unique company identifier assigned and administered by GS1 Global. A component of Global Location Number (GLN), Global Trade Item Number (GTIN), and Serial Shipping Container Code (SSCC) identifiers.

- GS1 Datamatrix

  A two-dimensional matrix barcode, also called a 2D matrix, consisting of black and white cells arranged in either a square or rectangular pattern. The information to be encoded can be text or raw data. Usage granted by the GS1 standards organization.

  H

- Handler

  A mechanism that executes one or more actions in response to an event. Handlers can be organized into modules.

- Header

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Headers comprise the prefixes used in Human Readable Interpretation of variable data. Common headers include GS1 Application Identifiers (AIs) or GS1 recommended field labels.

- Headless App

  In software development, a headless application architecture leverages an API-first approach that is focused on the data model, workflow, business logic, and APIs. The APIs are at the center for exposing information that can be consumed by solutions and used for integration with other systems and applications. All OPUS applications are headless apps built using the API-first paradigm.
- Health Industry Number (HIN)

  9-character alphanumeric unique identifier that is assigned to every facility, delivery location, and business activity in the healthcare supply chain.
- Healthcare Distribution Alliance (HDA)

  US National Association representing primary, full-service healthcare distributors. Formerly the Healthcare Distribution Management Alliance (HDMA).
- Homogenous Case

  Defined under DSCSA as a sealed case containing only a product that has a single National Drug Code number belonging to a single lot.
- Human Readable Interpretation (HRI)

  Characters (e.g. letters, numbers) which can be read by persons and are encoded in data carriers. HRI is a one-to-one illustration of the encoded data.
  I
- Illegitimate Product

  Defined under DSCSA as a product for which credible evidence shows that the product is counterfeit, diverted, or stolen; is intentionally adulterated such that the product would result in serious adverse health consequences or death to humans; is the subject of a fraudulent transaction; or appears otherwise unfit for distribution such that the product would be reasonably

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likely to result in serious adverse health consequences or death to humans.

- Importer

  A company that oversees the importation of products to a specific country.

- India Compliance

  TraceLink app. Searches and views reports required by the Indian government.

- Individual Saleable Unit

  Defined under DSCSA as the smallest container of product introduced into commerce by the manufacturer or repackager that is intended by the manufacturer or repackager for individual sale to a dispenser.

- Indonesia (ID) Compliance

  The Indonesia Compliance™ solution enables companies to meet the reporting requirements for Law No. NOMOR 33 TAHUN 2018 (BPOM Regulation 33-2018). Indonesia Compliance generates reports for regulated products as they move through the supply chain and allows Owners to submit compliance reports to the Indonesian Food and Drug Authority (BPOM), which is Indonesia's national reporting system.

- Inference

  The recognition of the serial numbers within a sealed container based on previous observation, and not by directly reading each serial number. Inference is accomplished using data systems or documents and is controlled through validated procedures.

- Info Exchange

  A TraceLink B2B monitoring tool. Allows certain users to review data that is moving in and out of TraceLink. Monitors and logs file exchanges, errors, search details, and raw files.

- Info Express

  A TraceLink app that allows for B2B transaction exchanges between Trade Partners in custom formats.

- Inspection

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The process of reviewing an item, either manually or using automated systems.

- Installation Qualification (IQ)

  Demonstrates that a process or equipment meets all specifications, is installed correctly, and all required components and documentation needed for continued operation are installed and in place.
- Integrate-Once™ Model

  The innovative foundation of the Agentic Business Network, which enables the transformation of information from any source (UI, API, or File) and format from one company to any other company on the network with a single integration by all companies. This breakthrough capability requires all the foundational components of the OPUS: metadata models for all objects, canonical representation for all transactions, XTT for all integrations, OSE for building no-code UIs, digital twin of the end-to-end supply network, and multienterprise applications for collaborative solutions between partners and their users.
- Integration Catalog/Manager

  Integration Manager is an enterprise app and is made of two components, Link Actions and Transforms. Integration Manager provides an interface to create, store, view and edit Link Actions and Transforms.
- Integration Profiles

  A profile that defines how a network entity is configured to exchange data with the TraceLink Network. It outlines the rules and configuration settings governing the communication method (e.g., AS2, SFTP, API) and the data format (e.g., X12, EDIFACT, IDOC, custom formats, etc.) used by that entity.
- Internal Material Number

  A number assigned to a product for internal use and not for identifying the product externally.
- Internal Partner

  A location within the Owner Company that has been granted specified access

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to a TraceLink app.

- Interoperability

  The ability of technology systems and software to communicate, exchange data and/or information, and make use of the information that has been exchanged.

- IOTDR Framework

  A governance framework used to define and control how OPUS Agents perform work within Agentic Business Processes. IOTDR specifies the Intent, Objectives, Tasks, Decisions, and Rules that govern agent behavior, operational scope, reasoning boundaries, data access, and execution policies to ensure controlled, measurable, and compliant operational outcomes.

- Item

  The smallest saleable unit of product, the secondary package level. Synonymous with each.

  K

- Kazakhstan (KZ) Compliance

  The Kazakhstan Compliance™ solution enables Marketing Authorization Holders (MAHs), Distributors, and Importers to comply with the Order of the Minister of Health of the Republic of Kazakhstan for KR DSM-11, on regulation of trading activity and determine procedure for marking and traceability of medicines in the Republic of Kazakhstan. Owners use the Kazakhstan Compliance solution to meet the reporting requirements for Kazakhtelecom JSC, the traceability operator. Kazakhstan Compliance generates reports for regulated products as they move through the supply chain and submits those reports to the Government systems. The Ministry of Health has established the Order Management Station (OMS) and Information System Center for Electronic Documentation of Labeled Goods (IS CEDM) to enable the traceability of pharmaceuticals.

- Kernel Developer

  Responsible for maintaining the vertical, which serves as the starting point of

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every app. The kernel developer maintains code that defines default behavior for every pod in the system.

- Korean Pharmaceutical Information Service (KPIS)
  The South Korea compliance reporting repository, which supports serialization and traceability regulations.
- Kubernetes (k8s)
  Enables dynamic deployment of a group of apps so they can be accessed at runtime. A Helm chart describes how Kubernetes deployments are grouped together in an environment.
  L
- L1-L5
  The 5 levels of serialization and information management, which include: L1 – Device, L2 – Packaging line software, L3 – Site-level serialization, L4 – Enterprise serialization system, and L5 – Network-level serialization system.
- Lightweight Directory Access Protocol (LDAP)
  An industry standard protocol for accessing and maintaining distributed directory information services.
- Line Management System (LMS)
  A system that manages a production line and interfaces with a company's Enterprise Resource Planning (ERP) system.
- Link
  A Link is the representation of the relationship between an Owner and a Partner within the context of an app. It creates the shared context within the app and defines the permissions for data exchange and access. A Link can only have one Partner in one app.
- Local Library
  A company’s local storage for solution packages. Each company can maintain their collection of packages in their local library. In a future release, companies will be able to download solution packages and add to their local library, save their local solution configurations as packages to their local

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library, and use their local library to move packages between environments (i.e. from Validation to Production).

- Location

  A Location is a type of Member on the TraceLink Network that represents a physical location. A company can add locations and associate them to one or more apps if they have more than one location, either at the internal company level or the external Partner level. A location is classified as a Partner (i.e. an internal partner).

- Logistics Labeling

  Comprises the data and process of printing labels for use on all containers above the secondary packaging level (e.g. shipper and pallet labels).

- Logistics Orchestration for Multienterprise Information Network Tower (MINT)

  The logistics orchestration for MINT involves the coordinated and seamless execution of business processes across business objects related to warehousing, fulfillment, and distribution activities. It uses digitalization to streamline order-to-cash (sales/fulfillment) processes, ensuring effective communication and collaboration between supply chain partners. For example, logistics orchestration could support vendor managed inventory transactions between a pharmaceutical manufacturer and its customer (health system and/or wholesaler) networks, enabling the exchange of inventory balance reports, inventory updates, warehouse stock transfers, and other business objects, as the logistics service provider supports the manufacturer’s supply its pharmaceutical products to the customers

- Lookup Relationships

  Lookup relationships are used to connect 2 primary object types, which can reside within the same application or across different applications. These relationships are presented to users through a field type called Lookup. From the user’s perspective, the Lookup appears as a field on the primary object they are interacting with. However, the system links this field to another primary object, and may display additional details (e.g. attributes) of the

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related object to help the user accurately select the correct item. For example, when specifying a delivery location named "Kendall Pharmaceuticals," the Lookup field might display the full shipping address to ensure the user selects the correct Kendall Pharmaceuticals location. This information could be pulling from the object and metadata from Partner Master Data.

- Lot

  A group of products associated with a manufacturing or packaging operation. Synonymous with batch.

  M

- Management

  An application utility that includes tools for managing application settings and Partners. Users that have access to this utility are considered Managers.

- Manufacturer

  An entity or organization responsible for producing a product.

- Manufacturing Execution System (MES)

  A control system for managing and monitoring work-in-process on a factory floor.

- Manufacturing Orchestration for Multienterprise Information Network Tower (MINT)

  The manufacturing orchestration for MINT involves the coordinated and seamless execution of business processes across business objects related to planning & production activities. The manufacturing orchestration uses digitalization to streamline make-to-order/make-tostock (produce), procure-to-pay (procurement) and order-to-cash (sales) processes, ensuring effective communication and collaboration between supply chain partners. For example, a manufacturing orchestration could enable procure-to-pay transactions between a pharmaceutical manufacturer and its contract manufacturers, facilitating the exchange of net requirements, forecast planning schedules, purchase orders, advance shipping notifications, and

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other business objects, as the manufacturer procures finished goods from its CMO network.

- Marketing Authorization Holder (MAH)

  The license holder (brand owner) of a pharmaceutical product.

- Marketplace Solution

  Marketplace Solutions are available in the Marketplace Catalog and offer a broader range of functionalities designed to meet specific business needs. These solutions are not usable as-is; customers must save these solutions to make them configurable within the scope of that company. Once saved, OPUS Solution Designers can modify and release them into the Company Catalog. This allows companies to start with a robust foundation that they can refine to meet their unique requirements. Solution Partners and TraceLink's own Professional Services and product development teams create Marketplace Solutions with the intention of designing to solve unique challenges both within an organization and across its trade partners.

- Markirovka (MDLP)

  The Russia compliance reporting repository, which supports serialization and traceability regulations. MDLP is controlled by the Tsentr Razvitiya Perspektivnykh Tekhnologiy (CRPT).

- Master-Detail Relationships

  A master-detail relationship connects a shared object type to a primary object type within the same application. This relationship is displayed to users as a group of interconnected fields. For example, comments and attachments related to an application's Supply Chain Work Management (SCWM) issue might be linked to the main issue record through a master-detail relationship, allowing these related items to be easily managed together.

- Master Data

  The collection of data representing a company's details, global identifiers, products, and trading partners. Particular types of data are required for serialization and global compliance reporting.

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- Master Data Exchange (MDX)

  TraceLink app for managing Company Master Data, Partner Master Data, and Product Master Data.
- Member

  A Member is any company, location, or person on the TraceLink Network. A Member who owns or is licensed to use an app or solution is an Owner. When an Owner connects to another Member in the context of a Link., the Member becomes a Partner of the Owner in the context of the licensed app/solution.
- Message

  An integration message (formerly known as transaction) which is used as an interface to exchange data between two companies. Messages process in real-time.
- Message Hub

  A user app, provided by TraceLink, that enables notifications based on the triggering of certain application events.
- Message Processing Framework (MPF)

  Message Processing Framework is an OPUS infrastructure app, provided by TraceLink, that is used by OPUS developers to define message processing flows and branching, which support asynchronous message processing via message handlers.
- Metadata

  Metadata is data that provides information about other data, acting as a descriptive layer that summarizes and categorizes essential details. In an app or platform service, metadata plays a crucial role in accelerating app development, simplifying app management, and enabling no-code capabilities. Metadata describes what type of data it is and how it behaves, but does not contain the content itself. This descriptive information is stored in a metadata repository, which contains object types, relationships, and attributes, defining much of the app's functionality and how it interacts within the platform. This structured approach makes it easier to find, manage, and

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work with specific data instances, ensuring efficient and organized operations.

- Metadata Manager (MDM)

  Metadata Manager is an OPUS system app that is shared across all TraceLink environments. It is used by TraceLink Data Modelers, who leverage a graphical user interface to manage attributes, object types, and relationships within the metadata model.

- Mobile App

  A mobile instance of a customer's application runs on a tablet or phone.

- Module

  Organizes a set of event handlers. Modules have their own Git repositories and their own build pipelines. In ODE, a developer selects which modules to include in the app they are building.

- Multienterprise Application

  An app used by the owning company that enables the company to share the app and data with supply chain partners on the TraceLink Network, which facilitates supply chain orchestrations. Examples of multienterprise apps are Agile Process Teams (APT) and Multienterprise Process Link (MPL). Multienterprise apps create a business ecosystem for a set of related processes, enabling the exchange of information between companies and functions.

- Multienterprise Information Network Tower (MINT)

  Multienterprise Information Network Tower (MINT) is a Multienterprise Solution for digitalizing business information exchange with supply chain partners. Developed and hosted on TraceLink's OPUS, MINT enables customers to create and leverage digital networks with Partners to exchange business transactions through secure, configurable Links, and can link to enterprise Customer’s business systems to accelerate cross-company sharing of interoperable supply chain data. MINT enables Customers to gain actionable insight through access to select dashboards that span their own organization and their supply chain partners. When used in combination with OPUS

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Solution Environment, MINT can be configured by OPUS Solution Designers to meet the unique requirements of the Customer's business processes while maintaining network and information interoperability with supply chain partners.

- Multienterprise Process Link (MPL)
  Multienterprise Process Link is a multienterprise app that allows Owners to digitally exchange critical business transactions (e.g. Purchase Orders, Invoices, Advance Ship Notices) with Partners across the supply chain. These transactions are the cornerstone of supply chain orchestrations.
  N
- Namespace
  A term used by Kubernetes as a mechanism to support multiple virtual clusters backed by the same physical cluster. These virtual clusters are called namespaces and can be thought of as an abstract container or environment created to hold a logical grouping of apps and data stores.
- National Association of Boards of Pharmacy (NABP)
  A nonprofit organization that promotes safe pharmacy practices.
- National Drug Code (NDC)
  A unique three-segment numeric identifier assigned to each medication prepared for commercial distribution in the United States. The three segments of the NDC identify the label, the product, and the commercial package size. The NDC is used as the Item Code in Product Master Data for products distributed in the US.
- National Essential Drug List (NEDL)
  A list of drugs that a country specifies that satisfies the healthcare needs of the majority of the population.
- National Medical Products Administration (NMPA)
  The organization in China responsible for ensuring pharmaceutical quality. Replaced China Food and Drug Administration (CFDA) in 2018.
- National Medicines Verification Systems (NMVS)

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A country-specific product verification system that implements the Falsified Medicines Directive (FMD). NMVS systems verify the authenticity of a medicinal product by leveraging information sent through NMVS Compliance.

- National Medicines Verification Systems (NMVS) Compliance
  A TraceLink app that generates searchable reports about pack verification and status update events across all European national systems.
- National System
  An information system set up and governed by national stakeholders to ensure a medicine’s authenticity by verifying its safety features. This prevents falsified products from entering the supply chain.
- National Trade Item Number (NTIN)
  A product identifier that adopts the structure of a Global Trade Item Number (GTIN) and is assigned by a third-party national agency. An NTIN contains a country-specific drug registration number.
- Navigation Drawer
  Provides access to app destinations as the side menu of the Design Studio. The navigation drawer allows a user to navigate content by selecting different objects to perform actions on.
- Network
  A single network is owned by a company and enables the execution of one or more processes. It can contain one or more Partners based on the nature of the business processes the app supports.
- Network Administration
  An OPUS system app, provided by TraceLink, which is responsible for arranging entities on the TraceLink Network, including companies, locations, users and roles, and their associations. Other end-user apps, such as Administration, leverage this application's capabilities to facilitate the administration of their companies and networks.
- Network Administrator
  A member of a network that has the permissions to perform administration

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functions specific to a network (e.g. adding users at the network level, linking Partners and internal locations). Only apps that support multiple networks have Network Administrators.

- Network Application

  A Network Application is a type of Multienterprise Application of which TraceLink is the Owner, that enables companies to exchange information with direct and indirect Partners. Companies and their Partners are added by TraceLink as members of the Network Application with a specific role. Members of the Producer role can contribute information that will be shared with other parties. Members of the Consumer role can access data from other parties. A company can have both roles.

- Network Integration

  A Business-to-Business (B2B) connection between a company's ERP system and TraceLink that allows the company to exchange files with other companies from the TraceLink Network. Once a company is integrated to the Network, they can access TraceLink through an Applicability Statement 2 (AS2) mailbox, Secure File Transfer Protocol (SFTP) directories, or HTTP Post web upload location (in addition to the web browser application).

- Network Node

  A network node represents a physical location, logical location, sub-location, organization, legal entity, or even specific system. Network nodes could be a plant, warehouse, or logical sub-division of a warehouse. For example, a 3PL facility that services multiple customers could have a different Network node representing a logical warehouse for each customer serviced at that location, a business unit or line of business, a geographic organization, a specific ERP system, or a corporate entity.

- Network Onboarding

  Defining the company on the Network. TraceLink onboards a company once by adding a Company Profile to the TraceLink Network. The company’s Network profile defines the company so that TraceLink can always interact

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with it. The profile uniquely identifies each company on the Network to distinguish it from all other parties.

- Network Resource Planning (NRP)

  An analytics-based application that will allow customers to plan and optimize demand and supply across the end-to-end supply chain.

- Node Pool

  Namespaces can be mapped to node pools to control the placement of pods on physical devices.

  O

- Object

  An object is a fundamental entity that enables object-oriented development that encapsulates metadata and behaviors. It represents a real-world entity or concept within a software system. An object is an instance of a type of object (i.e. class), which defines its structure and behavior.

- Object Instance

  An object instance is a specific, concrete occurrence of an object type (class). When a type is instantiated, an object instance is created, with its own unique set of attribute values and state. Multiple instances of an object type can exist simultaneously, each with its own distinct data but sharing the same methods defined by the type. For example, once a Purchase Order object type is instantiated, it becomes a unique Purchase Order (e.g. Purchase Order#12345).

- Object Operations

  Object operations are pre-defined actions that can be performed on business objects, enabling users to manipulate and manage data effectively. For example, viewing a purchase order, creating a new purchase order, or editing an existing purchase order. Object operations streamline development processes by eliminating custom page-specific logic. They reduce complexity and offer the flexibility to scale as the organization grows. There are 2 types of object operations: standard and specialized.

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- Object Type

  An object type, also known as a class, is often thought of as a template that defines the structure and behavior of objects. It specifies the attributes and methods that the objects of this type will have. This serves as a “supertype” for creating objects where all instances share the same characteristics and behaviors.
- Operation

  An operation is an action that can be performed (e.g. View, Edit, Delete).
- Operational Context

  The real-time combination of Business Transactions, Process state, operational conditions, events, policies, relationships, and supply network activity used by humans and OPUS Agents to understand, coordinate, reason over, and perform operational work across the supply network.
- Operational Intelligence

  The continuously updated understanding of Business Transactions, Processes, operational conditions, events, analytics, and supply network activity used by human employees and OPUS Agents to monitor operations, govern execution, make decisions, coordinate responses, and improve business performance in real time.
- Operational Qualification (OQ)

  Formal testing of the TraceLink Life Sciences Cloud (TL-LSC) system performed by the TraceLink software quality assurance team. This formal testing is required by TraceLink's Software Development Lifecycle procedures for all changes to the system before a version is approved for release to customers. All OQ testing is documented and reviewed, with objective evidence filed with the test results.
- Operational Reporting

  Within TraceLink, operational reporting allows TraceLink members to pull existing product data from the system into a CSV file.
- OPUS

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The Orchestration Platform for Universal Solutions (OPUS) provides a low-code/no-code development environment for creating network-building multienterprise applications and solutions while also putting configuration power in the hands of customers so solutions are tailored to the nuances of their needs. The platform ensures all networks are interoperable, creating a network of networks to drive the digital transformation of the life sciences industry.

- OPUS Agent Context

  Defines the environment with respect to the Intent, Objective and Tasks that the OPUS Brain will evaluate the interaction with the OPUS Agent in an Agent Session.
- OPUS Agent Objectives

  Establish SMART goals for OPUS Agents where Specific outcomes are defined by the input and output of OPUS objects, Measurable metrics are tracked for the work performed, Achievable tasks are defined based on the knowledge available in the OPUS, Realistic decisions are governed through operational rules and context, and execution is Time-bound by the level of reasoning and operational urgency required.
- OPUS Agent Outcomes

  OPUS Agent Objectives take inputs (e.g., purchase orders, invoices, ASNs) and perform work specified by the Tasks, Decisions, and Rules to create Outcomes which consist of outputs (e.g., purchase order acknowledgements, approved invoices, or shipment exception acknowledgements) and metrics.
- OPUS Agent Profiles

  Structured configurations that define the intent, objective, tasks, decisions, and rules/guardrails (IOTDR) of an OPUS Agent. Agent Profiles govern how agents operate within Agentic Business Processes, including what actions they can take, what data they can access, and how they interact with human participants.
- OPUS Agent Sessions

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The set of interactions between the OPUS Agent and the OPUS Brain within the Agent Context.

- OPUS Agentic Experience

  The dynamically-generated OPUS Agents interface for a human user, which leverages rich graphical components selected based on the reasoning about the goals, type of information, decision context, and the most effective experience patterns.

- OPUS Agents

  No-code agents created as users governed by roles and permissions (Agent Profiles) that work for human managers and participate in processes based on objectives enabled by real-time supply chain transactions, business objects, events, and information understood by the OPUS Brain.

- OPUS AI

  The platform components of OPUS that enable OPUS Agents to reason about objectives, act on tasks, access information to make decisions, and interface with humans using agentic user experiences.

- OPUS Brain

  A composition of numerous core brain agents that plan, execute, and validate the choreographed use of metadata and meta-reasoning artifacts to perform the objectives and tasks of an OPUS Agent.

- OPUS Brain Agents

  Dozens of specialized OPUS Brain Agents that use a variety of Large Language Models (LLMs), Small Language Models (SLMs), short-term memory, Outcome memory, and tools to perform the work necessary to create the Outcome specified by the OPUS Agent's Objective.

- OPUS Canonicals

  A shared semantically rich standard definition of information for all transactions on the OPUS that are exchanged between internal and external systems. An Integrate-Once Network enables each company to transform each transaction into a unique canonical representation of the information for

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that transaction from their native format and definition.

- OPUS Development Environment (ODE)

  An OPUS enterprise app, provided by TraceLink, that enables OPUS Developers to quickly build business process applications in a low-code, cloud-scale environment.

- OPUS Digital Network

  A multi-tenant cloud environment for developing and hosting supply chain solutions and applications.

- OPUS Ensemble

  OPUS Ensemble is the global user experience that seamlessly delivers personalized settings, powerful navigation, and company-specific context, providing instant access to essential tools and notifications through an intuitive, browser-like interface to all users on the TraceLink Network.

- OPUS Lakehouse

  A metadata-driven system capturing supply chain events occurring on the Agentic Business Network from business transactions, process execution, agent and user work, and related context to derive visibility, insights, and intelligence from their digital twin of the supply chain.

- OPUS Link Actions

  An extensible set of pre-built, low-code connectors to enterprise systems via an application programming interface (API) to exchange transaction information on TraceLink's Agentic Business Network.

- OPUS Meta-Reasoning

  The conceptual information of all the supply chain information in the digital twin representation of the Agentic Business Network that the OPUS Brain uses to attain intelligence and be more effective with the inference required to perform complex work with many layers of tasks and decisions involving many types of objects by OPUS Agents.

- OPUS Metadata Model

  Semantically rich definition of object types, object relationships, and object

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operations for all information in the OPUS that is used to create a shared understanding in processing transactions, displaying user interfaces, creating reports and dashboards, and enabling agentic access for performing work by OPUS Agents.

- OPUS Multienterprise Applications
  A fundamental capability of the OPUS to create shared applications that enable multiple companies to link to multiple partner companies, and create information and execute workflows across those links while maintaining secure access for users only to access the information shared between the two companies. A single login provides access to collaborative processes across all companies (many-to-many) on the Agentic Business Network.
- OPUS Reports and Dashboards
  Provide real-time visibility into the integrated, end-to-end supply chain operations for humans and agents to leverage in key decisions that will improve business performance.
- OPUS Solution Designer
  OPUS Solution Designers can configure OPUS solutions that meet specific business needs. OPUS Solution Designers come from a range of backgrounds and create no-code or low-code solutions even without formal programming training. They have an understanding of business processes and are skilled at translating these processes and requirements into functional solutions within OPUS.
- OPUS Solution Environment (OSE)
  OPUS Solution Environment (OSE) is a powerful no-code solution designed for various levels of OPUS Solution Designers. OSE enables OPUS Solution Designers to effortlessly configure business objects, workflows, menus, pages, roles, and policies to create Standard, Marketplace, and Company Solutions for supply chain challenges. With its intuitive drag-and-drop interface, OSE empowers everyday professionals to address specific business needs without requiring formal programming expertise.

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- OPUS Solutions

  A portable package of assets that contains object definitions, workflows, menus, roles, and visual pages that can be shared via the corporate and marketplace catalogs.

- Orchestration

  An Orchestration is the coordinated and seamless execution of multiple business processes across various business objects, each with its own defined workflow, to represent a broader business relationship. It connects supply networks by facilitating the flow of various business processes, across multiple companies, within the supply chain. By linking different systems and Partners on the TraceLink Network, it enhances digital collaboration, leading to improved supply chain efficiency and transparency. Orchestrations are crucial for managing complex supply chain operations, enabling companies to quickly adapt to changes, ensuring compliance, and optimizing overall performance through real-time data exchange and collaboration. Different segments of the supply chain face unique challenges with their trade partners. Supply Chain Orchestrations directly address these unique challenges by raising visibility across all supply chain processes (e.g. Manufacturing, Logistics, Commerce, Transportation, and Clinical Trials).

- Orchestration Architect

  An Orchestration Architect is a senior-level professional responsible for designing and monitoring the execution of TraceLink solutions that align with an organization's business goals, enabling increased effectiveness of their organization. They are domain experts who understand business processes and data and both the current ("as-is") and future ("to-be") orchestrations, enabling them to blueprint out the most effective data models, workflows, and more. Creating the blueprint and technical process for specific TraceLink solutions ensures that key Orchestrations (e.g. for Manufacturing, Logistics, and Commerce) can be seamlessly configured, improving organizational effectiveness. Serving as a central hub of coordination for process,

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technology, and people, the Orchestration Architect collaborates with various stakeholders, including TraceLink Administrators and OPUS Solution Designers, to ensure successful execution and alignment with business objectives.

- Overall Equipment Effectiveness (OEE)
  Evaluation of the effectiveness of a manufacturing operation.
- Owner
  A TraceLink customer that licenses a particular TraceLink app. The company that owns an app controls access to the app's data, even if they have Partners linked to the app.
  P
- Pack Marking
  Data and process for printing on primary and secondary product packaging.
- Package
  A portable version of a solution that preserves the functionality of the solution and the assets the solution uses (e.g. role or policy configurations, data model or workflow configurations, user experience tasks). Each package has a unique combination of package name and version number.
- Package Transfer Service (PTS)
  Track and trace system that transfers serialization data between entities when products are sold in Saudi Arabia. A component of the Drug Track and Trace System (DTTS).
- Packaging and Labeling
  Physical material, artwork, and printing used for all levels of product and logistics containers.
- Packaging Code
  A code that can be assigned at multiple levels of the packaging aggregation. The code type is chosen by the user. Packaging codes do not have to be the same code type between packaging levels.
- Page Types

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Page types are used as an efficient and consistent method for OPUS Solution Designers to create pages for a solution, as they are completely metadata-driven. By using a drag-and-drop interface in OSE, designers can create various pages, including Search, New, and View/Edit pages, by adding and organizing the information (i.e. metadata) on the pages to optimize usability for when users start to interact with a solution. Page types leverage standard object operations, which also accelerates the design and development of the solution, eliminating the overhead of complex application logic as these actions come out of the box with any solution.

- Pallet

  Largest of the TraceLink defined packaging levels. A flat transport structure that supports goods while being lifted by a forklift or other jacking device. Goods or shipping containers are often placed on a pallet secured with strapping, stretch wrap, or shrink wrap and shipped.
- Parallel Importer

  An organization that buys a product on the open market with the intention to repackage or relabel, and then distributes the product to a different market.
- Park and Retry

  A practice for pausing the processing of a message if certain prerequisite conditions have not been met. If a prerequisite for a message has not been met, TraceLink stops processing that task, returns the task to the queue, and then tries to process the task again every 15 minutes for a predetermined amount of time (the default amount is two hours).
- Partner

  A supply chain Partner on the TraceLink Network is linked to an application owned by another company, enabling the Partner to participate in a shared business process with the app Owner.
- Partnership for DSCSA Governance (PDG)

  A collaborative forum and FDA public-private partnership dedicated to developing, advancing, and sustaining an effective and efficient model for

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interoperable tracing and verification of prescription pharmaceuticals in the US.

- Pedigree

  A certified record that contains information about each distribution of a prescription drug. It records the sale of an item by a manufacturer, any acquisitions and sales by wholesalers or repackagers, and final sale to a pharmacy or other entity administering or dispensing the drug. The process generally begins with the serialization of a product, and then continues through the supply chain as the product is received by each trading partner.
- Performance Qualification (PQ)

  The documented evidence that the system, equipment, or process is capable of consistently producing a safe product of high quality.
- Pharmaceutical Manufacturer

  An entity or organization that is the license holder of the pharmaceutical product. This includes Brand Owners, Generics, MAHs, and other Specialty Companies.
- Picking

  Process of collecting articles in a warehouse to fulfill a customer order.
- Platform

  A group of TraceLink-developed technologies that are used as a base upon which other applications, processes, or technologies are developed.
- Platform Webapp

  An OPUS app, provided by TraceLink, that provides the basic UI framework for OPUS applications including the header, utilities menu, side menu, footer, and the content explorer. These major aspects of the UI framework are always present within any OPUS app.
- Pod

  A Kubernetes term for a group of containers deployed together.
- Policies

  A policy defines the expression that determines whether a user with a

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particular role is authorized to perform a specific action (e.g. acting on an object in a particular solution). This expression is evaluated instantly when the user initiates the action, with a response time in sub-milliseconds. TraceLink provides a set of predefined policies with each app, and OPUS Solution Designers and OPUS Developers have permission to update policies for the solutions they license. See Roles for more information.

- Portal

  TraceLink web application particularly for Trading Partners as opposed to TraceLink Customers.
- Post-Transition Actions

  Post-transition actions are pieces of JavaScript code that execute when a transition occurs (i.e a state change happens). These actions enable the configuration of additional logic by specifying what should happen when a transition is successful.
- Primary Package

  The packaging material in direct contact with a product's contents, usually the smallest unit of distribution or use (e.g. blisters, bottles).
- Process

  A process represents the specific business objective (e.g. purchase orders in MINT) that is shared by the members of the network. A workflow reflects the journey of that business objective and follows the business object throughout each state of the defined process.
- Process Network

  A Process Network is a business ecosystem within a multienterprise app that comprises the membership of its participants. This includes the TraceLink Customer (app Owner) and linked Partners, both of whom participate toward a shared business goal within the app. Each multienterprise app must have at least one Process Network. These networks are named to reflect the specific business activity they perform. A Process Network is always associated with a single solution, although a solution can encompass multiple Process Networks.

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- Process Orchestration for Empowered Teams (POET)

  Process Orchestration for Empowered Teams (POET), formerly known as Supply Chain Work Management (SCWM) is a Multienterprise work management Solution for digitalizing supply chain business processes and enabling structured execution cross-functionally and cross-company with supply chain partners.
- Process Status

  A process status is the result or outcome of a business object moving through a process within its workflow, such as "Delivered" on an Advance Shipping Notice (ASN).
- Process Team Administrator

  A member of the APT app and one or more Process Teams with permissions to add/remove user access to the Process Team, link/unlink Partners to the Process Team, and assign the Process Team user roles to users and Partners.
- Processes

  Digitally orchestrated workflows that coordinate people, systems, and partners through defined steps, roles, rules, and data exchanges to consistently deliver cross-enterprise business outcomes.
- ProcessLink

  A TraceLink term that describes a one-to-one B2B relationship between a TraceLink customer and its Trade Partners.
- ProcessLink Workspaces

  A collaborative workspace that includes all active product apps as a B2B toolset for a TraceLink customer and its Trade Partners.
- Product

  A prescription drug that is fully manufactured and is in its intended dosage. Synonymous with Medicine.
- Product Code

  A unique identifier assigned to each finished manufactured product that is ready to be marketed or sold. Synonymous with Universal Product Code.

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- Product Information Exchange

  A TraceLink app that routes Consumer verification requests to Product Information Manager (Product Verification). This app also stores a history of verification requests and responses.
- Product Information Manager - Master Data Share

  A TraceLink app that allows users to exchange product master data with any of their supply chain partners.
- Product Information Manager - Product Verification

  A TraceLink app that enables direct and indirect trading partners to manage product verification requests in real time across any party in the supply chain, without a need for preexisting relationships between the requesting and responding parties.
- Product Verification

  Allows a user to verify the status of a serial number against a pharmaceutical manufacturer's data.
- Production Cluster

  Each region has one production cluster and one test cluster.
- Project

  A collaboration space for developers to create versions of a set of apps. A project is used to develop one or more versions of one or more apps. A company in a namespace creates a project. A client must address events to ODE to create a new project.
- Property

  The specific object instance of an attribute (i.e. the value of the attribute).
- Provisioned

  A serial number state in which the serial number has been created and reserved for a product, but has not yet been commissioned.
- Pseudo Commissioned Serial Number

  A serial number that appears as "commissioned" in a downstream EPCIS event without a corresponding commissioning event received in an earlier

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EPCIS message. This can occur due to missing or ignored commissioning events, or when inventory was shipped before DSCSA Serialized Traceability requirements went into effect.

Q

- Quarantine

  The storage or identification of a product, to prevent distribution or transfer of the product, in a physically separate area clearly identified for such use or through other procedures.

- Query Object

  Query objects are the basic building blocks for generating reports and dashboards, serving as the core structure for linking primary, secondary, tertiary, and quaternary objects within an application. The query object defines the type of data to present in reports, since reports are built from Query Objects. When creating query objects, users can either start from scratch, tailoring them to meet specific reporting requirements, or leverage pre-existing Query Objects available in their Company Catalog or the TraceLink Marketplace. By using these pre-defined Query Objects, users can expedite the process by refining and adapting established criteria to suit their needs.

R

- Radio-Frequency Identification (RFID, RFID tag)

  The use of an object applied to or incorporated into a product, animal, or person for the purpose of identification and tracking using radio waves.

- Recall

  The removal of a drug product from the market. In the US, recalls fall under three classifications: Class I is for drug products that can probably lead to adverse health effects or death; Class II is for drug products that can cause temporary or reversible health effects; and, Class III relates to instances where the drug product is not likely to cause adverse health effects.

- Receipt

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An inbound purchase, return, or transfer within TraceLink.

- Reconcile

  The process of verifying that information in a digital system accurately reflects the state of objects in the real world (e.g. comparing a label on a package with the same label in TraceLink).

- Region

  Company data is stored in a data center in one of 2 regions: US East or EU Central. For data residency and privacy, a company can only have their data in one region. Companies can exchange data with companies in other regions, but a company cannot move data to another region. If a company needs to migrate data from one region to another, TraceLink creates a new company in the other region. Migration happens only on the production cluster.

- Relabel

  To assign a new serial number to a container (preserving existing aggregations) within TraceLink.

- Relationship

  One of the 3 primitive building blocks used to create the data model. (The others are object type and attribute.) A relationship is how business objects can be connected to each other; relationships represent "why" 2 objects are connected.

- Report Criteria

  Report criteria define the parameters and conditions for determining which data displays in the report based on the process network and Partners.

- Report Definition

  The report definition sets the visual layout of a report, including layout and data presentation. TraceLink Administrators decide which criteria to display or hide and how to present them. Once finalized, the report can be saved and retrieved anytime.

- Reports

  A report is composed of the Report Criteria and Report Definition, that are

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combined to provide a configured tabular view of the data. Reports can be viewed independently or within the content of a dashboard in the form of a visualization. Users can easily filter reports to limit the fields and records that are displayed for a more focused data analysis. Reports can also be configured and leveraged to convey important information to stakeholders, helping them understand the current status, results, or insights on a particular issue.

- Reports and Dashboards

  An enterprise no-code solution designed to provide in- or cross-application views of partial or entire business processes. Focused on data transparency and visualization, it allows TraceLink Adminstrators to configure query objects, create report definition, reports, and dashboards for users within their company.

- Roles

  Roles control permissions to pages, functions, and data within an app and solution, whether accessed through the user interface or integration. In the OPUS Solution Environment (OSE), an OPUS Solution Designer defines roles and assigns permissions to them. TraceLink Administrators (with Role Management access) then assign these roles to users. Each solution can have multiple roles to manage what different users can see and do within the solution. At a minimum, every enterprise solution must include one user with a System Administrator role, while multienterprise solutions must also include a System Administrator user for the Partner. TraceLink provides a set of default roles with each standard or marketplace solution, which can be extended via OSE.

- Roszdravnadzor

  Also known as the Federal Service for Surveillance in Healthcare. An executive body responsible for the control and supervision of the healthcare system in Russia. Part of the Ministry of Health. See http://www.roszdravnadzor.ru/en for more information.

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- Runtime Model

  Currently placed under the metadata model.
- Russia Compliance

  A TraceLink application that allows Marketing Authorization Holders (MAHs) who sell products in Russia to meet the reporting requirements of Federal Law No. 425-FZ.
- Russia Crypto Codes

  A TraceLink application that enables Marketing Authorization Holders (MAHs) and their CMOs to manage encrypted identification numbers with the Tsentr Razvitiya Perspektivnykh Tekhnologiy Order Management Station (CRPT OMS).
- Russia Health Products Compliance

  The Russia Health Products Compliance™ (formerly known as: Russia Biologically Active Food Supplements (BAFS) Compliance™) solution enables companies to meet the reporting requirements for Federal Law No. 29-FZ of 2000 regarding the quality of food products and supplements and their safety for human health. Russia Health Products Compliance generates reports for regulated products as they move through the supply chain and allows Owners to submit compliance reports to the Order Management Station (OMS) and Track & Trace Government Information System (TT GIS), as applicable. The Russia Ministry of Health (Minzdrav) has established the OMS to enable the traceability of active food supplements, and the TT GIS to capture the circulation of Health Products that are imported into Russia and approved by customs for distribution.
- Russia Health Products Crypto Codes

  Russia Health Products Crypto Codes (formerly known as: Russia Biologically Active Food Supplements (BAFS) Crypto Codes) allows Owners to manage encrypted identification numbers with the Order Management Station (OMS). Russia Health Products Compliance requires barcodes to include crypto codes (i.e. encrypted identification numbers that are associated with a serial

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number) generated by the OMS.

S

- Safety Features

  Elements (e.g. anti-tampering devices, barcodes) carrying product and pack data, that are incorporated into a medicine product’s packaging and identification to facilitate verification. Under FMD, for instance, safety features contain a unique identifier encoded in a 2D barcode and anti-tampering technologies.
- Saudi Arabia Compliance

  A TraceLink application that enables Pharmaceutical Manufacturers and Wholesale Distributors to comply with Saudi Food & Drug Authority (SFDA) regulations.
- Saudi Food & Drug Authority (SFDA)

  Saudi Arabia federal agency that oversees the regulation of food and health products within Saudi Arabia.

  See https://www.sfda.gov.sa/en/pages/default.aspx for more information.
- Schema

  The physical database instantiation of the Logical Data Model that defines the detailed definition (i.e. attributes) of a particular object type or relationship, as opposed to the metadata model, which is used when referencing the object types, relationships, and attributes of the system.
- Screen

  Screen represents the user's wholistic experience, which includes everything in OPUS Ensemble along with the metadata-driven page types from solutions.
- Screen Template

  Defines physical and behavioral boundaries of a specific area in the UI, such as whether it spans across the entire screen or only part of the screen. A Screen template is composed in the XD Studio and can be reused across different devices.
- Script

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Defines a user's company-specific behavior. A script can insert pre-processing or post-processing steps to an event, or even override an event's defined behavior.

- Section

  An area on a New or View/Edit page that helps group like-information together, helping user's readability and consumability. A page can have 1 or more sections (with up to 2 columns) that contain fields, groups, and/or collections.

- Secure File Transfer Protocol (SFTP)

  A network protocol that provides file access, transfer, and management over a secure channel.

- Segment

  A section of a market or industry. The pharmaceutical supply chain includes segments such as Manufacturer, Wholesale Distributor, Dispenser, Contract Manufacturing Organization (CMO), Third-Party Logistics (3PL) companies, and Repackagers (also known as Third-Party Packagers or 3PPs).

- Serial Number

  The distinctive portion or component of a Unique Identifier (UID), also known as a Serial Reference.

- Serial Number Exchange (SNX)

  The TraceLink app used to exchange and track serial numbers during the manufacturing and packaging stages of the product.

- Serial Number Manager (SNM)

  The TraceLink app used to generate serial numbers. Manufacturers define the types and formats of the serial numbers and can assign them to packaging sites.

- Serial Shipping Container Code (SSCC)

  The number used to identify shipping pieces such as pallets and cases. See the "GS1 Glossary" at http://gddold.gs1.org for more information.

- Serialization Process Visibility

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A TraceLink app that allows users to run complex queries against the events that take place in TraceLink. Users can search company data for compliance, reconciliation, and troubleshooting needs.

- Serialized Global Location Number (SGLN)
  A unique identifier to a physical location (e.g. a specific building or bin within a warehouse). Where the Global Location Number (GLN) is a GS1 format, the SGLN is an Electronic Product Code (EPC) format, and is represented in Uniform Resource Identifier (URI) format (e.g. urn:epc:id:sgln:0030001.12345.400).
- Serialized Global Trading Item Number (SGTIN)
  The combination of a Global Trade Identification Number (GTIN) and serial number which uniquely identify an item.
- Serialized National Drug Code (sNDC)
  The accepted format of unique identifier as defined by the US Food and Drug Administration (FDA) for serialization of US marketed products. The sNDC is comprised of the National Drug Code (NDC) and a serial number.
- Serialized Operations Manager (SOM)
  The TraceLink app that manages and reports on serial numbers and their corresponding products and containers.
- Settings
  An application utility that configures app notification settings and TraceLink default settings.
- Shared Catalog Manager
  An OPUS system app used to add and edit catalog items in a company’s catalog in a specific environment for an enterprise or multienterprise solution . A release of catalog items will make them available in all other environments.
- Shared Object Types
  A Shared Object Type is an object type that users interact with exclusively within the context of a primary object. These objects are not managed

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independently; instead, they appear on a primary object's page as fields, typically in the form of Master-Detail fields.

- Simple Object Access Protocol (SOAP)

  A messaging protocol for exchanging structured (XML) information in the implementation of web services.
- Single Sign-On (SSO)

  A session and user authentication service that allows software system users to log in with a single username and password to access connected systems.
- Site Server

  A computer system responsible for a location-specific function. In traceability systems, site servers usually refer to local servers that allocate serial numbers to packaging control systems and manage serial number data before it is transmitted to an enterprise traceability event repository.
- Smart Event Manager

  A TraceLink app that serves as an event ledger to capture and record serial number observations on serialized objects (in whatever order they may occur) related to pharmacy, warehouse, and supply chain activities in an independent repository, without depending on full track and trace and serial number life cycle requirements.
- Smart Inventory Tracker

  A TraceLink app that operates on a handheld device or smartphone that assists with warehouse and distribution functions.
- Smart Rx Manager

  A TraceLink mobile app that allows Pharmacies and Hospitals in the European Union to meet verification and reporting requirements. Smart Rx Manager leverages Smart Event Manager to store all events and National Medicine Verification System (NMVS) Compliance to communicate with the appropriate European national system.
- Snapshot

  Represents the state of metadata and code at a particular point in time.

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Developers can choose to take a snapshot at any time. Snapshots are identified by snapshot numbers. Test companies can be configured to use a specific snapshot number of an app's specific version, or to always use the latest snapshot. The latter is useful in development, as the developer makes changes without having to continually change the settings for their test company.

- Software Development Kit (SDK)

  A set of developer tools that allows other software programs to interact with the TraceLink Platform. Members on the Network can generate a series of request and response messages corresponding to various TraceLink applications (whether synchronously or asynchronously).
- Solution Builder

  Solution Builder is an OPUS enterprise app, provided by TraceLink, that contains the functionality that enables TraceLink, Customers, and Solution Partners to create and configure solutions in OPUS Solution Environment (OSE).
- Solution Catalog

  The global catalog where authorized solution providers can publish approved solution packages to be distributed to TraceLink customers. Companies can download packages from the catalog for the apps they have licensed, which they can then install as a solution and configure if needed.
- Solution Designer

  see OPUS Solution Designer
- Solution Package

  A portable version of a solution that preserves the functionality of the solution and the assets the solution uses (e.g. role or policy configurations, user experience tasks, data model or workflow customizations). Each package has a unique name and version number.
- Solution Partner

  A Solution Partner is an organization that collaborates with TraceLink to

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deliver comprehensive supply chain management solutions. These partners typically offer complimentary services such as consulting, implementation, and ongoing support to maximize the value of TraceLink's solutions for their clients.

- Solution(s)

  Once a bundle of applications (from one or more Solution Areas) are chosen to meet a customer's needs, that customer's Solution is established.
- Solutions

  A solution is a comprehensive set of tools and functionality designed to address specific business needs within an organization. Customers can save and configure solutions from TraceLink's Marketplace Catalog, tailoring them to align with their unique business processes and orchestrations. Data models, workflows, user experiences, and roles can be configured to meet unique requirements. Data models and workflows originate from the underlying application but can be extended by OPUS Solution Designers. Additionally, menus, pages, and roles can be configured to tailor what users can see and do.
- South Korea Compliance

  TraceLink app. Searches and views reports required by the South Korean government.
- Specialized Operations

  Specialized operations for solutions are created to address unique business requirements that Standard Operations cannot meet. They are typically implemented when specific operation permissions are required, beyond what menu item permissions can provide. These operations ensure that the application can handle complex business processes effectively.
- Standard Carrier Alpha Code (SCAC)

  Code used to identify transportation companies.
- Standard Operations

  Standard Operations refer to the essential, predefined actions available across

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business objects. These operations include creating, editing, deleting, searching, and viewing data associated with a business object. They provide the fundamental functionality required to take action on business objects while eliminating the need for configuring application logic, as they are already pre-defined and available on each page type of a solution. For instance, when a purchase order (PO) is defined as a business object, these operations are pre-defined to support actions like creating new purchase orders, filtering across PO instances, updating existing PO instances or deleting a PO instance without requiring that an OPUS Solution Designer develop and design each of those actions.

- Standard Solutions

  Standard Solutions are pre-installed by TraceLink's product development team and available for any company to use. These solutions provide baseline functionality that addresses common needs across multiple companies. They come with predefined pages, menus, roles, workflows, business objects and policies. They are available in the Standard Catalog, but cannot be directly configured by OPUS Solution Designers.
- Standard Workflow

  Standard Workflows are predefined sequences of states and conditions commonly used for typical business processes. While OPUS application developers are defining business objects and Business Transaction Objects, they are also creating the standard workflows and transaction workflows for those objects. Subsequently, the workflow is instantiated once the application is added to the data model. This is not configurable to OPUS Solution Designers but is the foundation upon which OPUS Solution Designers can extend functionality.
- Standardized Numerical Identifier (SNI)

  A standard identifier affixed to a prescription drug package.
- State License

  Within the US, a particular state’s license as a wholesale drug distributor, e.g.

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Indiana issues a wholesale drug distributor license number, in the format 4800XXXXA (including the “4800” prefix and the "A" suffix).

- Stock Keeping Unit (SKU)

  Specifies a distinct type of item for sale. SKUs are not regulated or standardized and thus are not used for serialization.
- Storage Area Network (SAN)

  A network that provides access to consolidated, block level data storage.
- Substate

  Substates are more granular states that exist within a base state. They provide additional detail and specificity about the status of an object within a particular base state. Substates allow for finer control and tracking of workflow progress.
- Supplier Issue Tracking

  TraceLink app. Tracks external and internal supplier issues.
- Supply Chain Issue Management (SCIM)

  A multienterprise collaboration solution for Tracelink’s Agile Process Teams (APT) app that allows capturing, analyzing, resolving, correcting, and preventing supply chain issues.
- Suspect Product

  A product for which there is reason to believe that such product is potentially counterfeit, diverted, or stolen; potentially intentionally adulterated such that the product would result in serious adverse health consequences or death to human; potentially the subject of a fraudulent transaction; or appears otherwise unfit for distribution such that the product would result in serious adverse health consequences or death to humans.
- Synchronous Message

  An integration message (formerly known as transaction) is an interface where data exchanges between two or more entities. Synchronous messages are fully processed in real-time.
- Synchronous Processing

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Type of processing that provides an immediate response to a query. Simple Object Access Protocol (SOAP) and REST web services provide synchronous processing.

- System Administrator

  The System Administration role within the Administration solution is for advanced users with elevated privileges and comprehensive knowledge of the TraceLink system. This individual has the authority to configure, manage, and maintain the organization's core settings, such as networks and applications, user roles, and integration configurations. They are responsible for ensuring the system operates efficiently, addressing technical issues, and implementing updates or changes. Their deep understanding of the system's functionality enables them to support other users, troubleshoot complex problems, and optimize the system to meet the organization's specific needs.
- System Application

  System apps provide core functionality that powers other apps and solutions within the platform. This functionality is essential for the operation of various processes and is leveraged by users across different applications and solutions, enabling them to perform tasks. This app is not visible to TraceLink users. Users interact with the functionality through the vehicle for the solution or application.
- System of Record (SOR)

  A data storage system that is the authoritative source for a particular data element when there are multiple sources of the same element.

  T
- T3

  Under DSCSA, the combination of Transaction Information (TI), Transaction History (TH), and the Transaction Statement (TS) for a product as it moves through the drug supply chain.
- Team

  A team is composed of users from the company that owns the network and

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users from the linked entity who have access to the Link. Each Link within the network represents a single team.

- Team Administrator

  A member of an app or network that has permission to perform administration functions for that app or network (e.g. adding users at the network level, linking Partners and internal locations). Only apps that allow linking have Team Administrators.

- Technology Partner

  A Technology Partner is an organization that collaborates with TraceLink to integrate and enhance their platform with complementary technology. These partners provide specialized software, hardware, or infrastructure solutions that enable advanced capabilities, improved performance, and expanded functionality. This partnership focuses on technological innovation, interoperability, and mutual growth through the combined strengths of both TraceLink and the Technology Partner.

- Telepresence

  For rapid development work, platform developers can use Telepresence to allow code to be run on their local machine and proxied to the cloud.

- Templates - Serial Number

  Using the Serial Number Manager (SNM) app, manufacturers define the formats of the serial numbers for particular products using serial number templates, which are defined presets for correlated serial number data.

- Tempo

  Leverages the OPUS Lakehouse information of supply chain events from the digital twin to enable no-code creation of analytical data products that users and agents can leverage in business and operational decisions.

- Test Cluster

  Contains the company namespace, QE, namespace, and other namespaces for QA/testing in a runtime environment for debugging. Each region has one production cluster and one test cluster.

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- Theme

  Defines the visual branding information and applies to all screens hosted in the XD Studio. A theme can be modified by companies and users. Examples: color, font, spacing, and other visual aspects not affecting functionality.
- Third-Party Logistics (3PL)

  A contracted company that provides distribution services of finished goods on behalf of another company. A 3PL provides distribution services, but never takes ownership of the product although the product is in its possession.
- Third-Party Manufacturer (TPM)

  A company contracted to manufacture products for a pharmaceutical manufacturer.
- Third-Party Organization (TPO)

  Term used to refer to any Third-Party Manufacturer (TPM), Third-Party Logistics (3PL), Contract Manufacturing Organization (CMO), or other externally contracted organization.
- Third-Party Packager (3PP)

  An organization that is contracted to package products.
- Third-Party Printer (3PP)

  An organization that is contracted to print serial numbers onto packaging containers.
- TL Runtime

  The set of implementations for the interface provided by the API package in the OPUS SDK. It is part of the TL kernel vertical, and is shared by all subordinate vertices located in the container.
- TLDB

  A logical database built by TraceLink (based on RocksDB) to provide data persistence for OPUS applications. An OPUS application communicates with a TLDB instance through the Worldview data access layer.
- TraceLink Administrator

  The primary goal of the TraceLink Administrator is to ensure seamless

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operation and management of networks, users (including network and role assignment), applications, and integrations for both Owner and Partner entities on the TraceLink Network. This involves managing and maintaining robust IT systems, supporting their colleagues and Partners, and helping the company to gain important insights by report and dashboard configuration. In short, this is an important enabling position within a company.

- TraceLink Application (App)

  A TraceLink product offering which includes a fixed set of functions. For example, SNX is an app which includes provisioning, commissioning, and aggregation functions.
- TraceLink Community

  Community is a collaborative network of digital supply chain actors in the life sciences industry. Explore live meetings and discussion forums at tracelink.com/resources/tracelink-community.
- TraceLink Country Compliance

  Capabilities that ensure business transactions, product movements, and regulatory activities adhere to country-specific requirements across the supply network. These capabilities operate in conjunction with Track & Trace and the digital twin of the supply network to maintain compliant execution across jurisdictions.
- TraceLink Customer

  The company or organization that enters into a commercial relationship with TraceLink, purchasing a TraceLink product offering, such as Product Track.
- TraceLink Experience Design Studio (XD Studio)

  App used to build TraceLink experiences. In the XDE, a user composes and customizes screens and assigns those screens to personas.
- TraceLink Network

  TraceLink is the “Network of Supply Chain Networks” The foundation of the TraceLink product offerings (i.e. TraceLink at the highest level) supported foundationally by the OPUS. Members join the TraceLink Network and access

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business applications and solutions either as Owners (if they purchased the application) or Partners (if Linked to the application).

- TraceLink Web Experience

  A responsive web experience that is accessed from http://opus.tracelink.com and will replace the tracelink.com website. The TraceLink Web Experience provides a Foundation layer of the platform UI that is always visible.
- Track & Trace

  Provides serialization and traceability capabilities that integrate with packaging, shipping, receiving, dispensing, returns, destruction, and government reporting across end-to-end supply chain businesses and their systems.
- Track and Trace

  A group of systems and processes used to determine the status and location (past and present) of a unique item.
- Trading Partner

  An on-going business-to-business relationship where a product transfer and change of ownership occurs (e.g. Customer, Supplier, 3PL).
- Transaction History (TH)

  A Drug Supply Chain Security Act (DSCSA) term. A statement in paper or electronic form that includes the Transaction Information (TI) for each prior change of ownership, going back to the manufacturer of the product.
- Transaction Information (TI)

  A Drug Supply Chain Security Act (DSCSA) term. Information that documents the change in ownership of a product including drug product information, dates, and business party details.
- Transaction Object

  A Transaction Object is a specialized data model object that enables a Transaction Workflow to move through states without direct human intervention. This allows for both automated and manual transitions within workflows, supporting automated processes across various processes, such as

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managing CSV imports, creating remote exceptions, or enabling information exchange. Transaction Objects can be subtypes to support specific use cases (e.g. the mpcSerialized TransactionObject can be subtyped for invoices, ASNs, or shipments).

- Transaction Statement (TS)

  A DSCSA term that refers to a statement, in paper or electronic form, that provides a legal attestation that the entity transferring ownership complies with DSCSA requirements. The Transaction Statement is included with the Transaction Information and History.
- Transaction Workflow

  A workflow specifically designed for a transaction object or Business Transaction Object, automatically processed by the Transaction Workflow Runtime (TWR). This workflow guides the transaction through a sequence of defined steps, ensuring that each part of the business process is executed as intended. Transactions can be paused as defined by OPUS Developers if additional data is needed, allowing for user edits before the workflow continues. The workflow can also integrate app-specific logic at each step, making it highly adaptable. In some scenarios, a transaction might be partially processed by the TWR and then completed manually by a user, allowing for flexible handling of business processes.
- Transaction Workflow Runtime (TWR)

  A runtime layer responsible for automatically processing and managing a Business Transaction Object as it moves through its defined workflow. This workflow consists of a series of steps that the transaction progresses through. During processing, the transaction cannot be edited unless it is paused. Pausing occurs when additional information is required, and it is determined by OPUS Developer or OPUS Solution Designer through specific post transition actions. Once paused, users can make the necessary edits, and processing resumes when the transaction is unpaused. The TWR also allows for the integration of application logic at each step using MPF Messaging or JavaScript

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snippets, enabling complex scenarios where transactions may be partially automated and then manually completed by users. The TWR ensures that all processing steps are carried out effectively, resulting in well-organized and optimized data products for business use.

- Transforms

  Transforms are responsible for converting data from one format to another (e.g. JSON to CSV). Transforms allow OPUS Solution Designers to send and receive information in any formats that are needed by Partners or business processes. Transforms are the key vehicle to ensuring TraceLink's integrated and interoperate model.

- Transition Conditions

  Transition conditions are a configuration option on business object workflows and are the criteria that must be met for a transition to be considered valid, and therefore for the business object to progress to the next defined state. If these conditions are not met, the transition is effectively treated as if it does not exist. An example of this could be if a purchase order does not contain the supplier's address, it cannot move from a Draft state to a Submitted state.

- Transitions

  Workflow transitions refer to the moving of an object’s workflow state from one state/substate to another state/substate. The 2 pieces of information used to manage transitions are transition conditions and post-transition actions. The management of these 2 configurations ensures that objects move through their workflow in a controlled and predictable manner.

- Tsentr Razvitiya Perspektivnykh Tekhnologiy (CRPT)

  The public-private organization in Russia responsible for generating crypto codes via their Order Management Station (OMS). See https://crpt.ru/ for more information.

- Type Definition

  A Type Definition is a predefined set of attributes that can be applied to an object type or relationship as a single unit. A Type Definition serves as a

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reusable template. It can be added to an object type or relationship either as a single field or as an array, streamlining the process of assigning multiple attributes consistently across different objects or relationships. An example is an address which includes attributes like company name, street address, city, postal code, and country.

U

- UAE Compliance

  The UAE Compliance™ solution enables companies to meet the reporting requirements for Ministerial Decree No. 73 of 2021 Regarding Pharmaceutical Products Traceability. UAE Compliance generates reports for regulated products as they move through the supply chain and allows Owners to submit compliance reports to the Tatmeen system, which is UAE's national reporting system.
- UI Component

  Included as part of a screen template section in the XD Studio and configured to have specific behavior based on the Properties setting.
- Uniform Product Code (UPC)

  The US standard article number. A form of GTIN data carrier or barcode.
- Unique Identifier (UID)

  A string of numbers and characters relating to a product that is unique within a given system.
- Universal Product Code (UPC)

  A unique identifier assigned to each finished manufactured product that is ready to be marketed or sold. Synonymous with Product Code.
- Upstream

  The opposite of the normal product flow in a supply chain (i.e. moving back up the supply chain). Generally speaking, the pharmaceutical product flows, and transactions occur, through the supply chain from manufacturers, to repackagers, to wholesaler distributors, to dispensers.
- US Center of Veterinary Medicine (CVM)

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An FDA Organization that regulates some products that are administered by veterinarians but can also be consumed by humans.

- US Compliance

  The US Compliance solution enables Owners and Partners to meet the interoperable, electronic tracing requirements for serialized products as they move through the supply chain established by the US Drug Supply Chain Security Act (DSCSA).
- US Drug Enforcement Administration (DEA)

  Federal Agency which enforces federal drug laws within the US.
- US Drug Enforcement Administration Number (DEA Number)

  A registration number assigned to an entity that has to be authorized by the US Drug Enforcement Administration (DEA) to manufacture, distribute, research, prescribe, or dispense a controlled substance for the purpose of tracking controlled substances. A valid DEA number consists of: 2 letters, 6 numbers, and 1 check digit. The first letter of the code identifies the type of registrant (P/R-Manufacturer/Distributor). The second letter is the first letter of the registrant's last name.
- US Food and Drug Administration (FDA)

  US Federal Agency that oversees the regulation of food and health products within the US.
- US Product Track

  TraceLink app. Tracks movement of products within the US supply chain.
- User

  An individual associated with an entity or organization responsible for making use of a product, process, or systems. A user must be an Owner or Partner (i.e. "Linked" within the context of an app).
- User Application

  A set of apps that enable general functionality, such as receiving notifications and setting preferences. These apps are available to any registered user on TraceLink without the need to own or link to an application and are available

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via the OPUS Ensemble solution.

- User Interface (UI)

  TraceLink web application for TraceLink customers.

- Uzbekistan (UZ) Compliance

  The Uzbekistan Compliance™ solution enables companies to meet the reporting requirements for Decree PKM-737 of Establishment of Obligatory Digital Labeling. Uzbekistan Compliance generates reports for regulated products as they move through the supply chain and TraceLink automatically submits those reports to the Order Management Station (OMS).

  V

- Validation

  The documented procedure for obtaining, recording, and interpreting the results required to establish that a process will consistently yield product complying with predetermined specifications.

- Value Added Network (VAN)

  A hosted service that acts as an intermediary between business partners sharing standards based on proprietary data via shared business processes.

- Verification

  Defined under DSCSA as a means of determining (i.e. verifying) whether the product identifier affixed to, or imprinted upon, a package or homogeneous case corresponds to the standardized numerical identifier or lot number and expiration date assigned to the product by the manufacturer or the repackager.

- Verified-Accredited Wholesale Distributors (VAWD)

  An accreditation for pharmaceutical wholesale distribution facilities. Those wholesale distributors that achieve accreditation are in compliance with state and federal laws, and NABP's VAWD criteria.

- Vert.x

  An open-source toolkit for building asynchronous apps on the JVM using reactive design patterns.

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- Verticle

  A unit of deployment of code for one or more event handlers. Each Jar corresponds to a verticle. Jars can dynamically load multiple verticles when an app or microservice starts up.
- Virtual (Manufacturer or CMO)

  A company that outsources services to a Manufacturer/CMO.

  W
- Warehouse Management System (WMS)

  A software application that supports the day-to-day operations in a warehouse. Enables centralized management of tasks such as tracking inventory levels and stock locations.
- Web Application (Apps)

  Web-based applications are accessed over a network connection and run inside of a web browser.
- Web Service Definition Language (WSDL)

  An XML-based interface used to describe the functionality of a web service. In TraceLink, WSDLs are typically used to implement synchronous serial number requests and responses.
- Wholesale Distribution

  The movement of a drug where the recipient is not a consumer/patient.
- Wholesale Distributor

  A company that purchases products from manufacturers and then sells them to an entity other than a consumer or patient.
- Workflow

  Actions that are enabled in TraceLink based on particular events. For example, these events may trigger government reports (e.g. shipping, receipt).
- Workflow Manager

  An OPUS system app, provided by TraceLink, that executes standard state transition conditions and transition actions as well as the configured

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transitions and actions for a given business object (e.g. Incidents) to facilitate standard and business object workflows.

- Worldview

  A collection of lightweight data access APIs that OPUS apps can use to interact with data services, including S3, OpenSearch, Memcache, and TLDB. The Worldview API is part of the TL Runtime and is available to every OPUS app.

  X
- XSD

  Describes the structure/schema of an XML document.
- XTT Exchanges

  An integrated network-to-network interoperability capability for a shared hub or exchange (e.g., SAP Ariba, GHX, EDI VANs, or similar) to interoperate seamlessly with TraceLink customers of all OPUS Applications as if they are partners on the TraceLink Network.
- XTT Link Actions

  XTT Link Actions is an enterprise low-code solution designed to enable seamless integration with external systems. Focused on extensibility, it allows Application Administrators to integrate with these systems without requiring any modifications or with specific configurations. All configurations and logic are managed entirely within the OPUS, eliminating the need for external changes. This solution provides the essential building blocks and processing paths necessary for pushing and pulling data, streamlining integration processes, and making it easier for customers to manage external interactions directly from within OPUS.

Community, TraceLink University

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