

Accelerate Supply Chain Digitalization with *Opus Solution Designer*



tracelink[®]
NETWORK FOR GREATER GOOD

KEY TAKEAWAYS:



TraceLink, with its Opus Platform, provides a supply chain network infrastructure for building, customizing, and deploying the multienterprise software applications that companies can use to digitalize supply chain processes and create value for their own enterprise and for their ecosystem of supply chain partners.



Unlocking the potential of Industry 4.0 initiatives through multienterprise supply chain applications requires that companies enable two critical, but often competing, capabilities:

- Integration and interoperability of shared processes across all supply chain partners
- Customization of the experiences, workflows, roles, permissions of each of the shared apps



Opus Solution Designer is a low-code/no-code development solution that enables business users to customize multienterprise solutions, thereby accelerating Industry 4.0 supply chain digitalization.

Opus Solution Designer directly supports “citizen developers,” who are capable business users leading or highly engaged in the digitalization of supply chain processes.

75% of low-code/no-code adopters experience a significant increase in the IT bandwidth to work on specialized projects.



Opus Solution Designer helps boost internal and partner engagement by enabling companies to customize user experiences to the unique needs of the supply chain partner process. **80% of organizations who have adopted low-code/no-code platforms excel at meeting internal and partner needs.**



Opus Solution Designer helps companies improve the precision of multienterprise processes across a partner ecosystem by enabling users to customize and deploy multiple specialized workflows for the same solution on a process network basis.

Opus Solution Designer helps companies with rapid scaling, updating, and management of solutions across partners and networks by enabling the citizen developer to make customizations and deploy updated multienterprise solutions at scale.



The winners of the “supply chain digitalization race” will be organizations prepared to respond quickly to evolving transformation requirements. Using Opus Solution Designer, companies can focus on supply chain digitalization, not the technology infrastructure.

[LEARN MORE ABOUT OPUS SOLUTION DESIGNER](#)

TABLE OF CONTENTS

Introduction: Leverage Low-Code/No-Code Capabilities to Realize Industry 4.0 and Accelerate Supply Chain Digitalization Goals.....	4
Part 1: Supply Chain Digitalization Requires More Than Sending Data Between Enterprise Systems.....	7
Part 2: A Revolutionary Leap Forward with Opus Solutions and Opus Solution Designer.....	9
Part 3: Opus Solution Designer Accelerates The Pace of Supply Chain Digitalization.....	11
Part 4: Five Critical Capabilities of Opus Solution Designer that Support Supply Chain Digitalization.....	17
Conclusion:	23

Leverage Low-Code/No-Code Capabilities to Realize Industry 4.0 and Accelerate Supply Chain Digitalization Goals

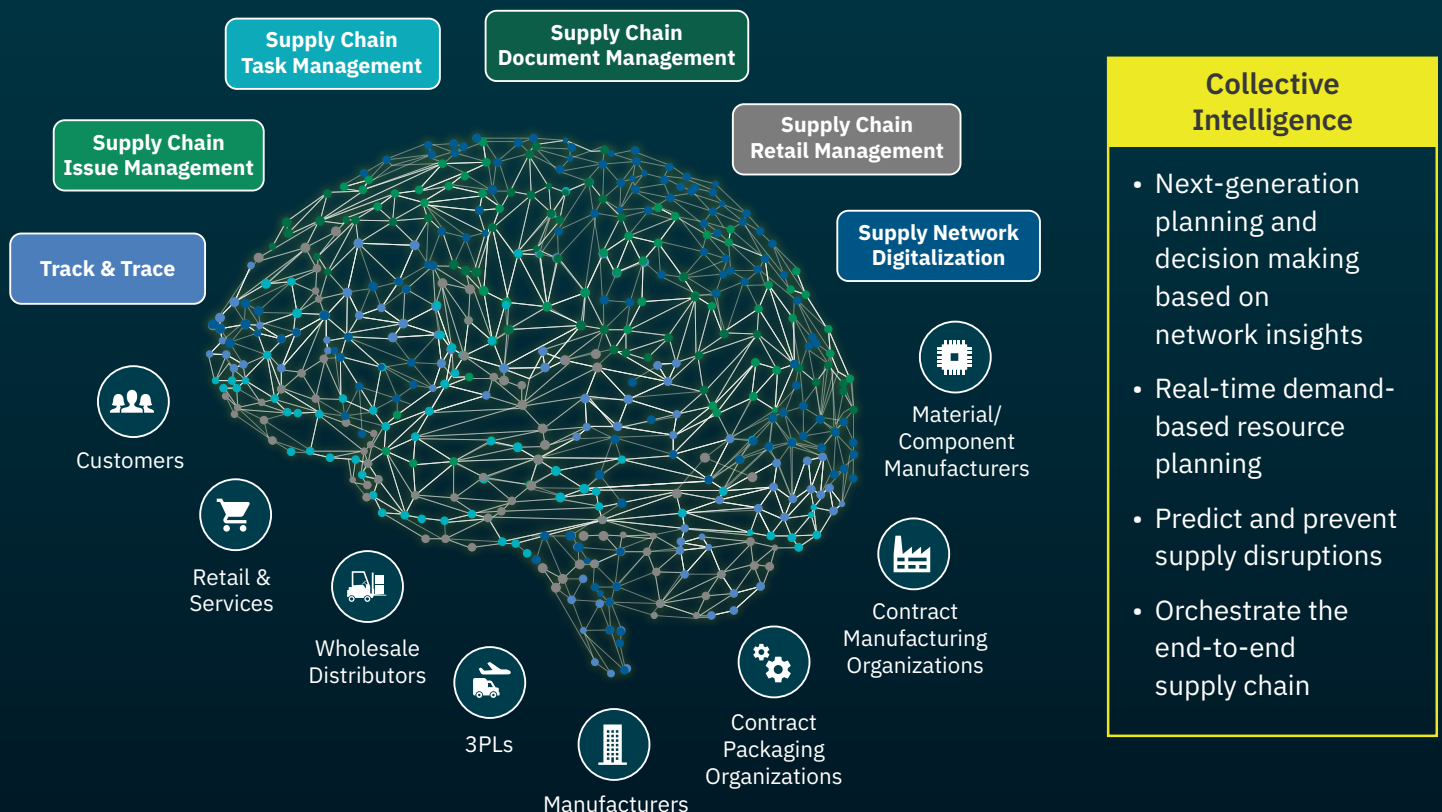
Companies that aspire to achieve leadership in the Industry 4.0 landscape must rapidly evolve their internally-focused supply chain infrastructure to become an externally-connected, responsive, and efficient digital supply chain network ecosystem. Building an Industry 4.0 digital supply chain ecosystem requires software provided as a set of capabilities that interconnect people, information, processes, and business workflows as part of an interoperable digital network. TraceLink, with its Opus Platform, provides a supply chain network infrastructure for building, customizing, and deploying the multienterprise software applications that companies can use to create immense value for their own enterprise and for their ecosystem of supply chain partners.

Powering Industry 4.0 Digitalization with Supply Chain Work Management





Multienterprise apps and networks will revolutionize the way work is managed across global supply chains

Industry 4.0 Drivers

- Create digital networks for all processes
- Shared processes and applications across the network
- Cross-functional and cross-company execution
- Common data model for information in the network
- Collective intelligence from across the network



The TraceLink Opus Platform enables the creation of integrated and interoperable end-to-end networks with an innovative new multienterprise application paradigm. Multienterprise applications:

-  Build networks that interconnect companies and functions that digitalize end-to-end threads across any industry.
-  Enable the formation of cross-functional and cross-enterprise teams that can collaboratively make decisions at all levels of the organization using multienterprise applications.
-  Create a shared information model built on a common metadata model across the industry.
-  Build an integrated data mesh of historical information across the network that enables collaborative decision making that is supported by machine learning, predictive models, and real-time, permissioned enterprise and partner-enabled information.

Unlocking the potential of Industry 4.0 initiatives through multienterprise supply chain applications requires that companies enable two critical, but often competing, capabilities:

1. Integration and interoperability of shared processes across all supply chain partners through shared multienterprise applications and a common data format and communication protocol
2. Customization of the experiences, workflows, roles, permissions (and more!) of each of the shared multienterprise apps to meet the tailored business process requirements of the application owner and its partners—without losing the benefits of industry-wide interoperability

This handbook explains how organizations can leverage TraceLink Opus Solution Designer, a low-code/no-code development solution that enables business users to customize multienterprise solutions, thereby accelerating Industry 4.0 supply chain digitalization goals. While low-code and no-code development tools have gained adoption in recent years among a new class of “citizen developers” (i.e., business users), they have been applied predominantly inside of the enterprise. This handbook will demonstrate how business users—and the internal information technology teams that support them—will rapidly acquire value from Opus Solution Designer and its ability to customize multienterprise solutions to meet specific business or partner needs, while ensuring that the customized apps remain interoperable with other applications and solutions across their digital ecosystem.



WHAT IS INDUSTRY 4.0?

Industry 4.0, first described in an [analytical summary by the European Parliament](#), is “the organisation of production processes based on technology and devices autonomously communicating with each other along the value chain.”

The four foundational disruptions that create the Industry 4.0 revolution are:

1. Intercompany networks that connect people and things into a work management system for shared execution across multiple organizations
2. Shared information across end-to-end networks that enable comprehensive information flow and empower individuals to make more effective decisions
3. Decentralized decision making by collaborative teams of individuals working across functional and enterprise boundaries
4. Collective intelligence built on the capturing of structured information from across the value chain to drive predictions that augment human intelligence



Supply Chain Digitalization Requires More Than Sending Data Between Enterprise Systems

For more than 25 years, companies and solution providers have tried various methods to connect enterprise systems operating at different nodes of the supply chain. The goal of these investments have been to gain the benefits of information exchange and to orchestrate supply chain operations. The primary methods that have been pursued include:

- EDI executed through third-party value added networks
- Control towers layered on top of enterprise applications, using B2B messaging to collect supply chain data
- Point-to-point integrations of enterprise systems based on FTP and AS2
- First-generation multienterprise supply chain business networks designed to share data through proprietary cloud applications, and lacking support for multienterprise supply chain work management



Ultimately, all of these approaches have failed to enable true supply chain digitalization in the form of highly-collaborative, network-wide supply chain process execution and orchestration—this can more accurately be labeled “supply chain work management.” At best, legacy solutions have enabled data sharing between two partners’ enterprise software systems with the goal of digitalizing internal manual processes, often for the tangible benefit of only one of the trading partners. Point-to-point networks or hub-and-spoke models have been created to support that model. Unfortunately, the lack of interoperability among these disconnected “networks” has hindered true supply chain digitalization. As a result, many of these legacy solutions have become costly, customized, “Frankenstein” architectures that require significant IT resources to build and maintain, and have proven to be incapable of scaling to the hundreds or thousands of supply chain partners that most companies have.



The primary factors leading to the overall industry-wide failure to achieve supply chain digitalization and highly orchestrated supply chain work management include:



Low Engagement and Productivity: Point-to-point (P2P) integrations are built over time to exchange selected data between the company and one partner or a small group of partners, and it is prohibitively expensive to extend these integrations to all supply chain partners. P2P integrations map data to the company's enterprise application, which means supply chain partners that should be working in a shared process are using two or more entirely different applications. This limits the engagement and productivity as supply chain managers must supplement integrated data sharing with workaround methods for supply chain work management, which primarily default to emails, ad hoc meetings, and video calls. Additionally, there is no way to customize the software supporting the shared process to meet the unique requirements of the business relationship.



Slow Response Time: While control towers provide some visibility into the flow of orders, shipments, and deliveries to points in the supply chain and generate exceptions, they are not connected to supply chain partners to enable collaborative resolution. This leads to the need for follow-up emails and phone calls that result in a longer resolution time.



Limited Third-Party Usage: While portals might be considered a shared application, they take a one-size-fits-all approach and lack the customized experiences required to meet the unique needs of different supply chain partners. The failure to deliver customized experiences, while maintaining a consistent and unified navigation, leads to low adoption or limited usage of portals. Additionally, partner portals place the burden of managing access and support for hundreds or thousands of external users on internal IT teams. The limited adoption of portals results in information gaps that are detrimental to the success of supply chain partners.



Difficult Scaling and Evolution: Business users responsible for digitalizing shared supply chain partner processes must rely on IT groups for all deployments and customizations. As the business process evolves, business users create more and more customization requirements for IT and must wait for solutions. This dynamic means supply chain digitalization projects evolve much too slowly. To be successful, the business users leading digitalization need the digital tools to evolve processes themselves without creating new requirements for IT.

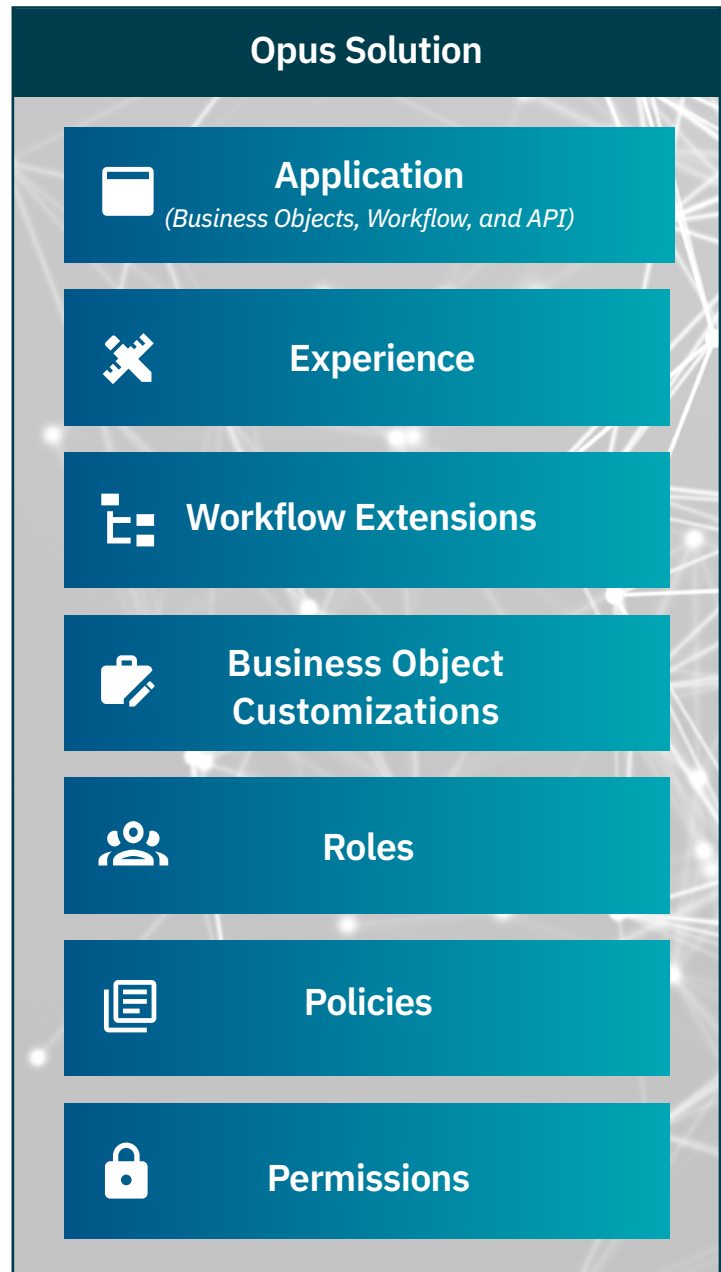
A Revolutionary Leap Forward with Opus Solutions and Opus Solution Designer

Supply chains are networks of partners that need to execute shared processes to produce goods and services. We call these multienterprise processes. To be responsive and effective, the software supporting these multienterprise processes must address the unique business requirements of each partner organization. The TraceLink Opus Platform enables the development of componentized applications that bundle the data model, application logic, workflow, roles and policies, APIs, and user experience to support these types of multienterprise processes. Opus Solution Designer leverages this modular capability to enable customers to customize the user experience, data model, workflow, and roles and policies, while simultaneously preserving the interoperability of these applications across trading partner networks.

With Opus Solution Designer, business leaders play an active role in the digitalization process.

Opus Solution Designer enables:

- The user experience of any Opus multienterprise solution shared by partners to be customized for specific partners or groups of partners while maintaining consistent and unified navigation. This enables business users to easily jump from one solution to another and from one network to another.
- Data attributes to be added to business processes while preserving the integrity of the solution data model and communication protocol. As a result, information can be exchanged in real time with governance and security controls, but without technical restrictions on extracting valuable business insights.
- Customized solutions to meet governance and compliance requirements. IT groups can be confident in rolling out multienterprise solutions internally and to multiple partners, thereby accelerating the time to realize value from supply chain digitalization investments.



Opus Solution Designer directly supports “citizen developers,” who are capable business users leading or highly engaged in the digitalization of supply chain processes. These users understand the organization’s business challenges, and can use the low-code/no-code capabilities and visual editing functionality to customize shared supply chain partner processes and meet the evolving requirements of supply chain digitalization. This benefit removes much of the required application or solution work from the IT backlog, thereby enabling redeployment of these valuable IT resources to more complex technical projects. A majority of low-code/no-code adopters—75%—report a significant increase in the time they have available for specialized projects, according to a recent study.

WHAT IS LOW-CODE/NO-CODE?

Low-code/no-code is a way to build or customize application software faster using a graphical user interface with minimal coding instead of traditional hand-coded programming. Low-code/no-code tools such as Opus Solution Designer offer development, customization, and deployment capabilities that can be leveraged by users of any skill level to fast-track supply chain digitalization. While most low-code/no-code tools are designed for internal enterprise use only, Opus Solution Designer enables multienterprise solutions to be developed and customized for the benefit of broader supply chain work management.

DO I NEED LOW-CODE/NO-CODE?

Three signs that you could benefit from using a low-code/no-code tool like Opus Solution Designer:



Adapting to change and uncertainty is difficult because digitalized partner processes need customizations and updates to meet evolving business needs.



IT resources are constantly overloaded with critical demands and have a difficult time addressing business team requirements.



Business users are not able to innovate fast enough due to IT backlogs that result in delays in the delivery of new digital processes and productivity losses.

Opus Solution Designer Accelerates The Pace of Supply Chain Digitalization

Opus Solution Designer accelerates the pace and value of supply chain digitalization initiatives by:



Boosting internal and partner engagement.



Enhancing workflows to streamline multienterprise processes.



Designing experiences to enable better and faster decision making.



Ensuring security and compliance.



Rapidly scaling and providing simplified management of complex multienterprise processes.





Boost Internal and Partner Engagement

User experiences that uniquely cater to the needs and habits of a specific set of users, while maintaining consistency and intuitiveness, play a key role in driving the usage and adoption of any new system. This dynamic becomes more important when a shared solution is used by cross-functional internal and external trade partner users, and the solution must meet the diverse user experience, data, and visibility requirements of a cross-company, multienterprise process.



Opus Solution Designer helps boost internal and partner engagement by enabling companies to customize user experiences to the unique needs of the supply chain partner process. These customizations can be as simple as hiding a field for a category of partners for simplicity, adding new fields, and denoting standard fields required to collect information on an initial entry.

HOW TO BOOST ENGAGEMENT WITH TRACELINK SUPPLY CHAIN ISSUE MANAGEMENT

Supply Chain Issue Management (APT-SCIM) is a critical capability found in the TraceLink Agile Process Teams suite of Supply Chain Work Management solutions. APT-SCIM digitalizes supply chain issue management processes so that partners can collaborate more effectively to resolve supply chain issues using a single source of data. The flexibility and configurability of APT-SCIM also supports simpler requirements, such as following up with direct suppliers regarding late shipments, to more complex requirements, such as working with contract manufacturing organizations (CMOs) to capture, analyze, resolve, correct, and prevent supply chain issues like shipping delays or material shortages.

Opus Solution Designer enables a company using APT-SCIM to deploy multiple sets of user experiences for different groups of external supply chain partners. For a group of partners with recent and frequent complaints and more quality defects, the manufacturing company that has deployed APT-SCIM can set more mandatory data fields and add fields to capture more complete incident descriptions during the incident creation process. Opus Solution Designer enables the manufacturing company to limit this enhanced incident entry form to this specific group of partners. Partners with fewer complaints and defects can continue to use a more streamlined incident entry form.

For a group of suppliers linked to critical products and components, the manufacturing company may want to add a workflow step to ensure senior management is aware of new issues with critical suppliers. This helps guarantee that issues—even those that appear to be relatively insignificant—will get prompt attention if an exception occurs. Additional fields can be added as well to ensure that all necessary information is available to resolve issues quickly. This will reduce the risk associated with delays in the time taken to resolve issues for critical products. With Opus Solution Designer, the CMO can now be confident in its ability to meet its own unique business requirements, as well as those of its business partners. The result is a more productive end-to-end supply chain network.



Enhance Workflows to Streamline Multienterprise Processes

TraceLink Opus Solution Designer helps companies improve the precision of multienterprise processes across a partner ecosystem by enabling users to customize and deploy multiple specialized workflows for the same solution on a process network basis. A process network is a predefined subset of partners that enables customized solutions to be executed across a specific supply chain ecosystem. These customizations can range from having additional steps in the workflow to performing certain checks and triggering actions such as sending notifications.

For example, the Incident process in the Supply Chain Issue Management solution provides three base states for an Incident, including “To Do,” “Under Investigation,” and “Closed.” A manufacturing company might want to add an additional sub-state called “Triage” for one of the process networks to encourage users to create all types of issues. The manufacturing company can then use the “Triage” state to decide if an issue can be resolved quickly or if it requires further detailed investigation.



WHAT ARE PROCESS NETWORKS?

TraceLink Opus multienterprise apps create networks of companies and partners that operate together using common business processes. These networks are called “process networks” and they consist of the application owner and the linked entities sharing the application. Each multienterprise app has at least one process network which enables collaboration and information sharing within the network.





Design Experiences to Enable Better and Faster Decision Making

One of the benefits of digitalized partner processes built on an interoperable supply chain network platform is the ability to extract real-time information from the collected data. However, these potential benefits can only be unlocked if companies are able to capture contextual data that helps them collaboratively answer difficult business questions and address unique needs of different partner networks.

Opus Solution Designer helps companies design user experiences that enable better and faster decisions across the supply chain network. Opus Solution Designer allows companies to customize the data attributes of a shared partner process on a process network basis, while maintaining a common data model and communication protocol across all shared business processes. This capability enables required solution and process customizations and simultaneously ensures that all data captured among partners is retained in a common, usable format. This includes updating dashboards to give users on both sides of a multienterprise work management process real-time visibility into metrics that are important to this specific relationship.

For example, a manufacturer that has deployed APT-SCIM can use Opus Solution Designer to add an additional field, “Reason for Hold,” to the APT-SCIM Incident process. This helps the manufacturer and the corresponding supplier partner understand the reason why a received item was put on “Quality Hold.” This additional field also helps the supplier more quickly understand what they need to do to resolve the issue. Having more complete explanations for issues such as quality holds enables the manufacturing company to use this data more effectively in continuous improvement projects.





Ensure Security and Compliance

Most enterprise collaboration applications fail to be deployed beyond a few critical partners because IT groups lack the necessary budget to deploy security tools, processes, and resources to manage access of hundreds and even thousands of third-party users. This challenge is even more pronounced given the complex nature of multienterprise supply chains with a variety of suppliers, partners, and customers, each with their own sophisticated organizational structures, internal policies, and access control requirements. Rising cybersecurity threats have also made IT leaders more concerned about governance, security, and compliance requirements for shared solutions. As a result, opening up digital information sharing among enterprises is rightfully approached with caution.

Opus Solution Designer helps IT leaders and business executives ensure security and compliance across the digital partner ecosystem, without increasing IT burden, by allowing precise definition and reuse of roles, permissions, and policies. IT groups can be confident that only relevant people have access to solutions, processes, data, and APIs across internal operations and external partners. This makes it practical for companies to adopt true multienterprise supply chain collaboration apps used by hundreds of external partners.



Leverage Rapid Scaling and Easy Management

The ability to update shared solutions as digital business processes evolve is a critical factor in keeping pace with supply chain digitalization. IT groups typically do not have the additional resources necessary to manage, update, validate, distribute, and deploy solutions that are required by different supply chain partner processes. Therefore, it becomes essential for IT groups to share some of the digitalization backlog with capable business users—the citizen developer.

Opus Solution Designer helps companies with rapid scaling, updating, and management of solutions across partners and networks by enabling the citizen developer to make customizations and deploy updated multienterprise solutions at scale.

For example, a manufacturing company may adopt an agile methodology to implement the TraceLink APT-SCIM solution to minimize the risks of waterfall implementation and quickly react to changing business needs. Companies can start with the out-of-the box processes included with the APT-SCIM solution and begin by deploying them at a small scale for internal engagement. Business users can then iteratively test the solution, learn from the results, and use Opus Solution Designer to make custom changes to processes, data attributes, or role-based access, and then expand the solution to external users in measured steps and over time.



The Benefits of using Opus Solution Designer for Supply Chain Digitalization

Solutions developed, customized, and deployed using the Opus Solution Designer Low-Code/No-Code platform not only enable business users to support the supply chain digitalization effort, they inherently include critical capabilities to execute multienterprise processes. *See Table 1.*

Capability	Benefit
Easy Customization	Drive internal and partner engagement for greater productivity across the entire supply chain. According to a recent research report, 80% of organizations who have adopted low-code/no-code platforms excel at meeting internal and partner needs.
High Availability and Scalability	Solutions run in high availability data centers and can be scaled out for use by hundreds of business partners globally within just a few hours.
Security-First Architecture	Opus Solution Designer supports secure access for hundreds or thousands of external third-party users without placing additional burdens on IT teams.
Low-Code/No-Code Development	Low-code/no-code capabilities enable companies to develop applications 2.5 times faster than traditional IT development processes.
Cloud-First Infrastructure	Cloud platform is operated and maintained by TraceLink with no hidden costs or impact on IT staff.


While the absolute monetary value of these Opus Solution Designer benefits will vary from company to company and supply chain to supply chain, it is indisputable that supply chain digitalization and collaborative supply chain work management will impact every company. The winners of the “supply chain digitalization race” will be organizations prepared to respond quickly to evolving transformation requirements. Using Opus Solution Designer, companies can focus on supply chain digitalization, not the technology infrastructure.

Five Critical Capabilities of Opus Solution Designer that Support Supply Chain Digitalization

Opus Solution Designer is a simple and powerful tool that enables digital business users to quickly and easily make changes to user experiences, data models, access rights, workflow (and much more!) to ensure solutions meet current business needs and can be updated as requirements change. The five core capabilities of Opus Solution Designer include:

1. Data Studio
2. Workflow Studio
3. Design Studio
4. Role and Policy Maker
5. Manage Solutions and Packages

Opus Solution Designer *Low-Code, UI-Driven Configuration*



Manage Solutions and Packages

Manage Solutions

Install solutions from library


Customize solutions using studios

Local library for each customer

Download available packages from solution catalog

Move packages to environment

Save solutions to local library




Data Studio

Capture the right data in the right format:

Extend object types with fields

Configure field validations

Configure field conditions




Workflow Studio

Extend digital workflows to make them more precise:

Customize workflow

Add logic by checking transitions

Add logic with transition actions




Design Studio

Customize user experience to uniquely cater to the needs of specific sets of users:

Design user experience with components

Customize existing experiences

Configure data & actions without code



Role and Policy Maker

Control access to screens, functions and data in UI & APIs:

Define roles

Create policies & enforce on API



Using Data Studio, users can customize a shared data model by adding data attributes to the Opus process. Data models act as a data dictionary for an Opus application and describe the shared business processes that the solution provides.

Data studio enables various customizations to attributes and rules associated with a process. Data attributes can be customized to control the visibility of the data or to validate the data input. Users can add new data fields, mark fields as auditable, mark the fields to be mandatory when they are optional, add field validation rules, and define dependencies between data fields.

The screenshot shows the Data Studio interface for editing a solution. The main header includes 'tracelink NETWORK FOR GREATER GOOD', 'Network', 'Team', and 'Process' dropdowns. The left sidebar has navigation options: LEARN, SHARE, DO, OPERATE, ADMINISTER, and CUSTOMIZE. The main content area is titled 'Edit Supply Chain Issue Management' with a sub-header 'Modify the assets that this solution uses.' Below this are three tabs: DATA MODEL (selected), WORKFLOW, and EXPERIENCE. A table shows the 'CONNECTED' and 'NOT CONNECTED' object types. The 'NOT CONNECTED' tab is active, displaying a table with columns 'Base Object Type' and 'Available Object Types'. The table lists several incident types and their associated object types. A modal titled 'Connect Object Types' is open on the right, showing a list of object types with checkboxes. The 'Direct Supplier Incident' is checked. The modal also includes a 'CONNECT' button and a 'CANCEL' button. At the bottom of the page, there are social media icons, a footer with 'VERSION', 'TERMS OF USE', 'TRUST & LEGAL', and 'CONTACT US', and a copyright notice: '© TraceLink Inc. 2009-2020 All Rights Reserved'.

Base Object Type	Available Object Types
General Incident	2 Object Types
Direct Supplier Incident	3 Object Types
Indirect Supplier Incident	4 Object Types
External Manufacturing Incident	2 Object Types
Internal Manufacturing Incident	2 Object Types

Rows per page: 10 | 1 - 7 of 7 | Page: 1



Workflow Studio allows users to customize the workflow of Opus solution processes to meet the unique needs of a partner network. Workflows define the lifecycle, or process logic, of a shared process within a solution, such as the “Direct Supplier Incident” process in APT-SCIM.

Using Workflow Studio, users can extend the default workflow associated with a process by customizing the states which define the statuses that a process can have. Users can also manage the transition of a process, which is the movement of a process from one state to another, by defining conditions that have to be met for the transition, and by defining the actions that should be performed after the transition is complete.

The screenshot displays the Workflow Studio interface for editing a solution. At the top, there is a navigation bar with 'My Company', 'Team', and 'Process' dropdowns, along with help, chat, and user icons. Below this is a breadcrumb 'Solutions / Edit Solution' and the main title 'Edit Supply Chain Issue Management' with the subtitle 'Modify the assets that this solution uses.' A central toolbar contains buttons for 'DATA MODEL', 'WORKFLOW' (which is highlighted), 'EXPERIENCE', 'ROLE', and 'POLICY'. The main content area is titled 'Base Workflow' and includes a description: 'Specify which workflows the solution's object types use, and manage workflow states, transitions, conditions, and actions. Workflows define the process lifecycle for object types in the data model.' An 'Object Type' dropdown is set to 'Direct Supplier Incident'. The interface is divided into 'STATES' and 'TRANSITIONS' sections. The 'STATES' section shows a 'Starting State' and two other states: 'Under Investigation (Base State)' and 'Closed (Base State)'. A context menu is open over the 'Starting State', offering 'Connect', 'Add', and 'Remove' options. The footer contains social media icons, a 'VERSION' dropdown, and links for 'LEGAL & TRUST', 'TERMS OF USE', and 'CONTACT US'. Copyright information for TraceLink Inc. (2009-2021) is also present.



Design Studio

Design Studio allows users to clone and customize the user experience of Opus solutions for internal use, or for a partner or a partner network, as often as required to meet dynamically changing business needs. The user experience can be customized to change the data displayed in a form, table, or chart, to modify the display labels on forms, to add or remove fields from forms, or to make various other modifications to the component display and behavior.

Design Studio also enables users to customize navigational elements in the side menu that allow users to access different screens. Users can create new navigational elements or modify properties such as name and description of existing navigational elements. This ensures all the relevant tasks required by a business process are available and easily accessible in the side menu.

The screenshot displays the 'Edit Supply Chain Issue Management' configuration page in Design Studio. The interface includes a top navigation bar with 'My Company', 'Team', and 'Process' dropdowns. A left sidebar contains navigation icons. The main content area features tabs for 'DATA MODEL', 'WORKFLOW', 'EXPERIENCE' (active), and 'ROLE'. Below the tabs, a section titled 'Specify which tasks this solution uses to determine the user interface behaviors available.' contains two dropdown menus: 'Task' (set to 'Monitor Direct Supplier Incident - Owner') and 'Screen' (set to 'Monitor Incidents'). Below this, there are sections for 'Components' (with a 'Summary Table' component) and 'Properties and Events' (with 'Properties' and 'Sent Events' dropdowns). A right-hand 'Connect Tasks' modal is open, listing three tasks with checkboxes: 'monitorDirectSupplierIncident Partner' (checked), 'monitorIndirectSupplierIncidentOwner' (checked), and 'monitorIndirectSupplierIncidentPartner' (unchecked). The modal has 'CANCEL' and 'CONNECT' buttons at the bottom.



Role and Policy Maker

Roles are a vehicle used by Opus Solution Designer to group together one or more permissions to define various levels of access that can be assigned to a group of users. Policies are used to define granular access to Opus solutions at the API endpoint level and supply logic for the permissions associated with roles.

Using Role and Policy Maker, users can define and customize roles, permissions, and policies to control access to solutions, processes, screens, data, and APIs across internal operations and supply chain partners.

The screenshot displays the 'Role and Policy Maker' interface. The main window shows the 'Edit Supply Chain Issue Management' solution page with tabs for DATA MODEL, WORKFLOW, EXPERIENCE, and ROLE. A 'Copy Role' dialog box is open on the right, containing the following information:

- Role Name***: Expanded Access for Partner
- Description**: Partner user who has full access to the APT solution

The dialog box also includes a 'CANCEL' button and an 'ADD' button. The background interface shows a list of roles under the 'Roles' section:

- Expanded Access**: Business user who has full access to the APT solution
- Standard Access**: Business user who has limited access to the APT solution

The 'Permissions' section is also visible, showing 'Experience Tasks' with checkboxes for 'Read APT Processes', 'Add APT Processes', and 'Download APT Processes'.



Manage Solutions and Packages

The Opus Platform enables the creation, distribution, and deployment of multienterprise solutions. Out-of-the box solutions such as APT-SCIM are listed in the Solution Catalogue. Users can browse the solutions available in the catalogue and install them for use with a few clicks. Users can rapidly scale digitalization efforts by deploying the same solutions across multiple process networks, or build customized solutions on top of existing ones to quickly introduce new digital processes as business needs evolve, all without the need for IT support

Business users can easily make modifications to live solutions, without breaking the network connections, thus simplifying the update process for themselves and partners. The ability to modify the live solution, combined with other Opus Solution Designer features that enable teams to download and install the package, can be leveraged by customers in various ways. For example, a customer may need to make a rapid change in production. They can do this directly in Opus Solution Designer so that the change takes effect immediately. For something more complex, a customer may choose to stage their changes in a test environment, verify that the changes behave as intended, and then export the solution to a solution package so that it can be imported into the production environment.

The screenshot shows the Tracelink 'Solutions' management page. The top navigation bar includes 'My Company', 'Team', and 'Process'. A left sidebar contains navigation options: LEARN, SHARE, DO, OPERATE, ADMINISTER, and CUSTOMIZE. The main content area is titled 'Solutions' and includes a description: 'Customize solutions to specify how users interact with an app or network. Solutions define which assets (i.e. object types, workflows, tasks, roles, and policies) the app or network uses.' Below this is a filter for 'Application' set to 'Agile Process Teams'. The main section displays a table of solutions, categorized into 'INSTALLED SOLUTIONS', 'SAVED PACKAGES', and 'AVAILABLE PACKAGES'. The 'INSTALLED SOLUTIONS' table has columns for Status, Solution, Description, Installed From, and Last Modified. A green plus icon is visible in the top right of the table area.

Status	Solution	Description	Installed From	Last Modified
✓	Supply Chain Issue Management	Enables coordination on multiple types of supply chain incidents	SCIM 1.0.	10/1/2021
	Supply Chain Issue Management - America Partners	Supply Chain Issue Management copy for America Partners	SCIM 1.0.	10/15/2021
	Supply Chain Issue Management - Validation	Supply Chain Issue Management copy for Validation	SCIM 1.0.	10/7/2021
	Supply Chain Task Management	Enables managing and tracking processes that require collaboration between multiple supply chain partners	SCTM 1.0.	10/1/2021
	Supply Chain Recalls Management	Enables management of tasks against a project, tracking details with due dates, owners, workflow, shared documents	SCRM 1.0.	10/1/2021
	Supply Chain Document Management	Enables sharing, storage, and collaboration on documents internally and across supply chain partners	SCDM 1.0.	10/1/2021
	Supply Chain Balanced Scorecard	Enables collaboration with individual partners, either internal or multienterprise, on a balanced scorecard process	SCBC 1.0.	10/1/2021

CONCLUSION:

Industry 4.0 initiatives are transforming global supply chains with a heavy focus on interconnectivity and interoperability so organizations can share the value of intelligence at each node in the supply chain. As you digitalize your supply chain and transition to a new class of multienterprise supply chain applications, customization will play an important role in making sure you meet the unique requirements of your business and keep pace with constantly changing business needs. Opus Solution Designer low-code/no-code capabilities help you deploy digitalized processes faster by empowering citizen developers to customize multienterprise solutions to support evolving digital business processes, while maintaining interoperability across all solutions and supply chain networks.

**LEARN MORE ABOUT
SOLUTION DESIGNER**