

Amadeus: Leveraging AI for Intelligence in Orchestrating Your End-to-End Supply Chain

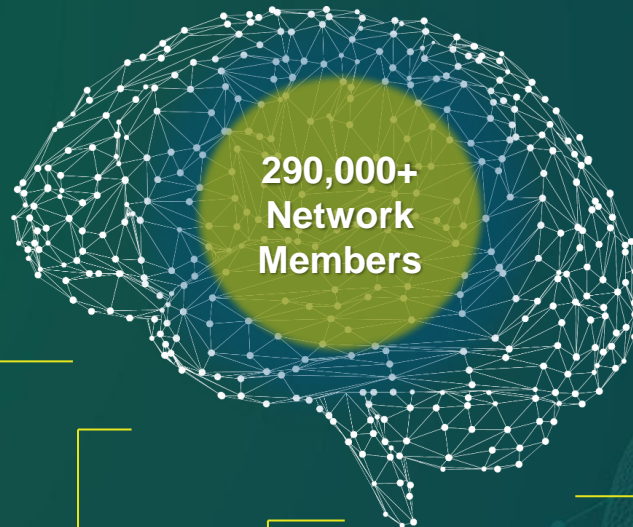
Caitlin Czulada, VP Solution Center of Excellence, TraceLink

Paul Cianciolo, Chief Operating Officer, TraceLink



An **Explosion of Real-Time Data** – and Opportunity – Through End-to-End Supply Chain Orchestration

1,150,000,000+
Transaction
Histories



257,603,783,896
Reserved Product
Serial Numbers



Retail
Pharmacies



Health
Systems



Logistics
Providers



Wholesale
Distributor



Brand
Owners



Regional Contract
Manufacturers

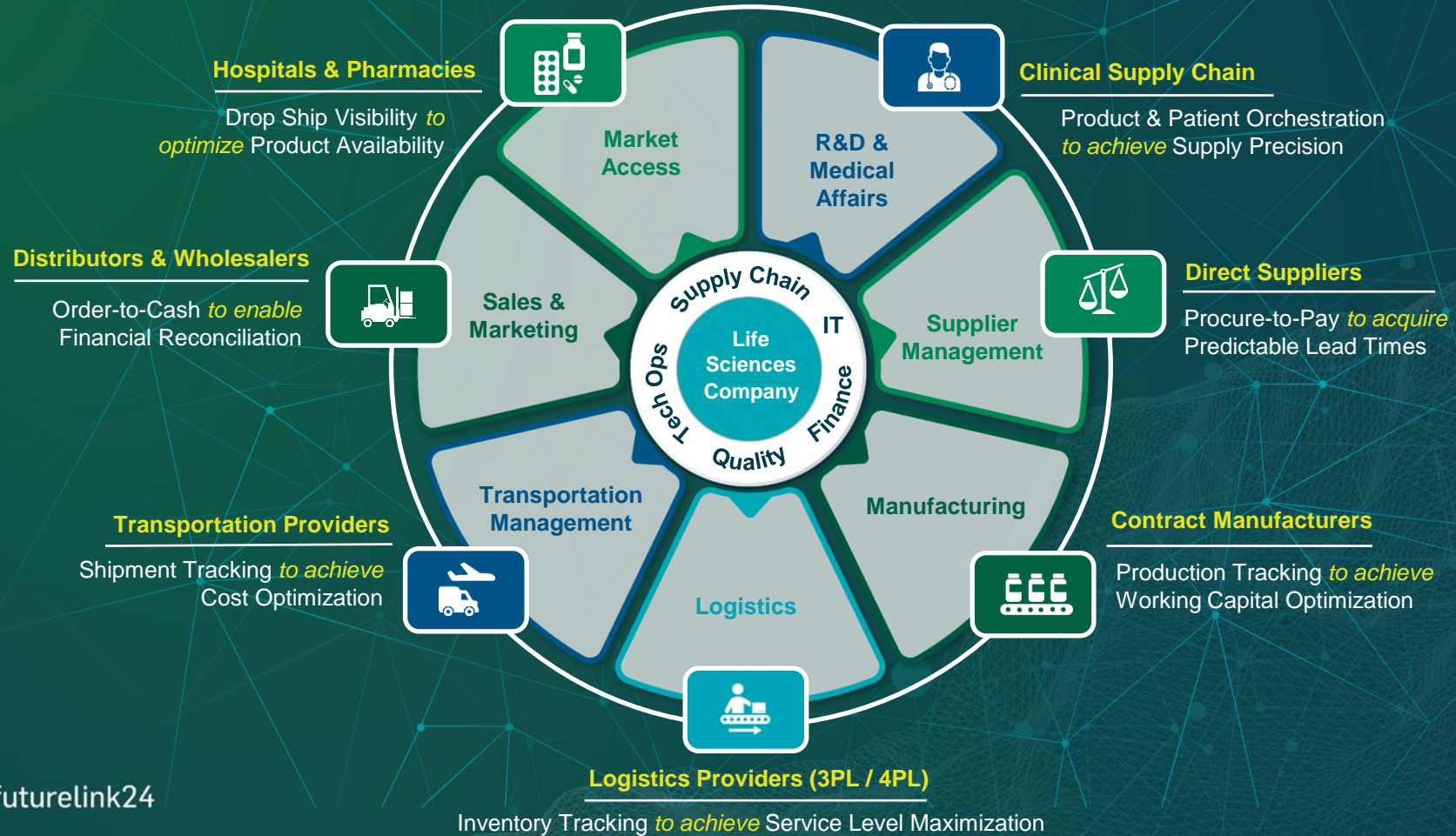


Packaging
Manufacturers

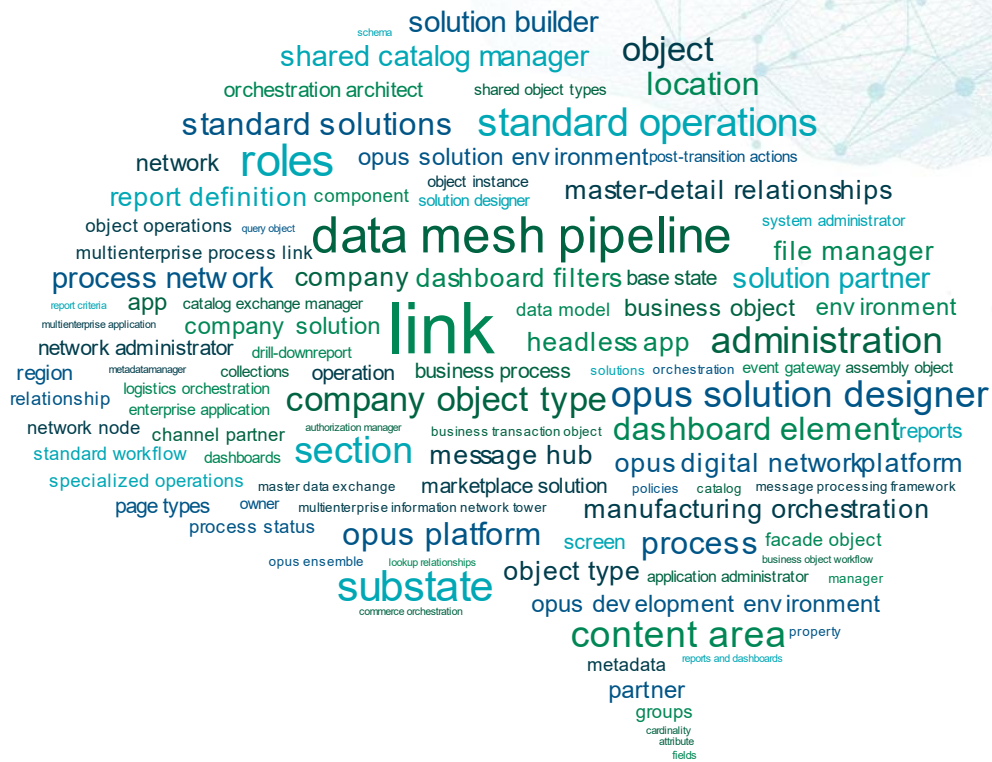


API/Viral Vector
Manufacturers

Begin Your Orchestration Journey with Any Supply Chain Process



Our Challenge: We Finally Have a Platform to Digitalise Our Supply Chains... But How Fast Can We Learn to Leverage the Capability?



Thousands of Pages of Content & Resources

- How-To's
- Certifications
- Courses
- Design Guides
- Explainer Videos
- Technical Guides
- Use Cases
- and more...

The Evolution of Learning at TraceLink with Opus

One location for all education and enablement content



Technical Documentation



General Partner Information



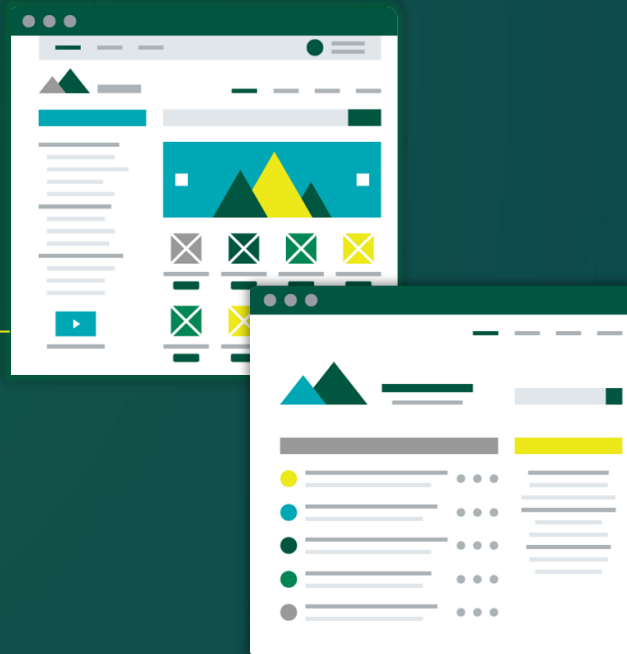
Industry / Community



TraceLink University



Developer Relations



One experience to create tailored learning paths for different users



TraceLink Administrators



Orchestration Architects



Solution Designers



Users



Solution Partners

Unified Content Experience on TraceLink.com



“I am a **Solution Designer**, and I want to see “how-to” documents related to logistics orchestrations.”

The screenshot shows the TraceLink website interface. At the top, the logo and navigation menu are visible. Below, a search bar contains the text 'Warehouse Stock Transfer API'. The results are displayed in a grid of cards. The first card is titled 'Warehouse Stock Transfer API' and includes a 'VIEW MORE' link. The second card is titled 'Serialized Shipment Notice (EPCIS v1.2)' and also includes a 'VIEW MORE' link. The third card is titled 'Building a Strategy to Digitalize Order-to-Cash Across Commercial Relationships.pdf' and includes a 'VIEW MORE' link. The fourth card is titled 'Looking Forward Direct Supply Clinical Supply and Other Supply Chain Relationships.pdf' and includes a 'VIEW MORE' link. The fifth card is titled 'Opus Ensemble The Next Generation User Experience.pdf' and includes a 'VIEW MORE' link. The sixth card is titled 'DSCSA Compliance Exceptions Orchestrating Exception Management from Issue Identification to Resolution.pdf' and includes a 'VIEW MORE' link. The seventh card is titled 'Capturing and Distributing Recall Notifications Internally with Collaborative Workflow Enablement.pdf' and includes a 'VIEW MORE' link.

The screenshot shows the TraceLink website interface for a document page. The document title is 'Serialized Shipment Notice (EPCIS v1.2)'. The page includes a 'TABLE OF CONTENTS' section with links to 'Serialized Shipment Notice (EPCIS v1.2)'. Below the table of contents, there is a 'Supported Documents' section with a list of documents and their sizes. The documents are:

- Building a Strategy to Digitalize Order-to-Cash Across Commercial Relationships.pdf (1.96 MB)
- Looking Forward Direct Supply Clinical Supply and Other Supply Chain Relationships.pdf (8.53 MB)
- Opus Ensemble The Next Generation User Experience.pdf (4.94 MB)
- DSCSA Compliance Exceptions Orchestrating Exception Management from Issue Identification to Resolution.pdf (6.7 MB)
- Capturing and Distributing Recall Notifications Internally with Collaborative Workflow Enablement.pdf (2.18 MB)



Meet Amadeus, Your AI-Enabled “Front Door” to Opus

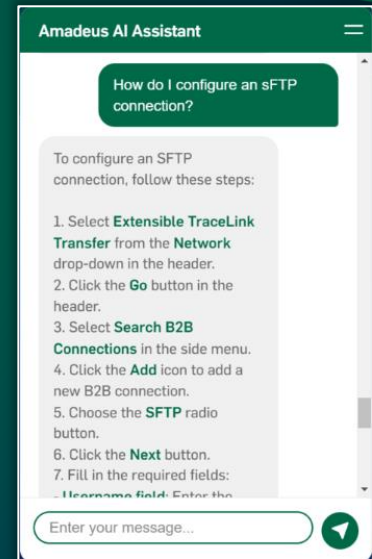
Amadeus is an AI-enabled chatbot that guides users with intelligent recommendations, advanced search capabilities, and context-aware assistance, ensuring an efficient content discovery and learning process.

Instant Access to Open Content: Amadeus delivers **quick, within-seconds access** to relevant educational documents for specific customer use cases.

User-Centric Search Experience: Tailored to streamline content discovery, improving customer experience by guiding users to the most relevant information.

Rapid Deployment: Built on existing, **powerful, and secure generative AI** technology, Amadeus is designed to be deployed quickly with high adaptability.

Continuous Updates: The chatbot is **continually trained** on the latest documents, ensuring users always receive up-to-date information.



Exploring Amadeus: Real-World Use Case

Scenario

- I'm the **Head of Supply Chain** at a pharmaceutical and medical device manufacturer
- Working with **Logistics** and **Business Technology leadership teams** to determine **new market entry strategy** for an emerging product line
- Goal to create a **fully digitalised order-to-cash process** with **10+ 3PLs** for Europe and Asia
- Read about TraceLink's Magnum release of its Opus Platform; the concept of using a **single, multi-modal integration to link to 100% of my supply chain partners** quickly and cost-effectively caught my attention
- Interested in learning more, but don't yet understand the relationships between concepts like ***business objects, no-code environments, integrate-once***, and more on TraceLink

Amadeus in Action: Demo

The screenshot displays the Tracelink website's navigation and content. The top navigation bar includes the Tracelink logo (NETWORK FOR GREATER GOOD), search and user icons, and menu items for Supply Chain Orchestrations, Network, Products, Resources (highlighted), and About. A CONTACT US button is also present. The main content area features a left sidebar with a RESOURCES menu containing Resource Center, Tracelink University, Partners, and Community. The central content area is titled 'Resource Center' and includes a descriptive paragraph, a 'VIEW ALL RESOURCES' button, and two columns: 'BY SEGMENT' (with 'Life Sciences Company') and 'BY TYPE' (with 'Webinar' and 'Blog'). A video player control bar is visible at the bottom right of the page.

Best of Both Worlds: Amadeus Combines the World's Top AI Platform Capabilities with a Focus on Supply Chain Digitalisation

Best-in-Class, General-Purpose LLMs

- Uses state-of-the-art backend APIs made available through OpenAI
- Enterprise security / access controls
- Delivers comprehensive, tailored answers within seconds
- Human-level “understanding”
- Scalability as underlying knowledgebase and usage increases

TraceLink Amadeus AI Assistant

- Grounded in TraceLink knowledgebase
- Refreshed daily with real-time info
- Accuracy based on advanced prompting
- Eliminates “hallucination” in results
- High trustworthiness score with settings
- Always cites information source(s) for user reference and recall

Amadeus is on a Journey of Innovation



Phase 0

Conversational UI to query robust educational content

Large Language Model Agent
Tuned to TraceLink Data

User-Enabling TraceLink
Platform Content



Phase 1

Conversational UI to ask supply chain questions about raw data inside your TraceLink solutions

Large Language Model Agent
Tuned to TraceLink Data

Your Orchestration Information
in TraceLink

User-Enabling TraceLink
Platform Content



Phase 2

Leverage supply chain KPIs for supply orchestration use cases

Large Language Model Agent
Tuned to TraceLink Data

Orchestration
KPIs

Your Orchestration
Information in TraceLink

User-Enabling TraceLink
Platform Content



Phase 3+

Leverage predictive & prescriptive analytics to proactively address challenges and optimize decisions

Large Language Model Agent
Tuned to TraceLink Data

Orchestration
KPIs

Predictive &
Prescriptive
Intelligence

Your Orchestration Information
in TraceLink

User-Enabling TraceLink
Platform Content

Timeline:
12-18 months

Progression of Experience – From Q&A to Supply Chain Intelligence

Amadeus MVP Phase [0]

Non-conversational Q&A on UCE content

You are having a knowledge-based Q&A with TraceLink L1 Support Specialist

What is Opus?

Opus is a digital supply network creation platform that provides a low-code environment for developing multi-enterprise applications that digitize processes between companies. Reference: <Source>

How to build a report?

I am sorry I don't understand the question.

Amadeus + SCI-MVP Phase [1]

GenAI-supported Opus content generation

You are making a technical request to TraceLink Certified Opus Technician

Make me a report that shows <ORD parameters>

Here is your report: "<title>" Link: <URL>

What can you tell me about it?

I am sorry I don't understand the question.

Post-MVP Phase [2]

Conversational analysis of Opus content

You are having a basic conversation with freshly "MINTed" Data Analyst

Make me a purchase order lead time report

Which of the following purchase order lead time definitions should I assume?

- Supplier Lead Time...
- Total Lead Time...

Total Lead Time.

Got it. What fields?

X, Y, Z

Here is your report: "<title>" Link: <URL>

Questions?

Lowest performers?

For which product?

SKU / NDC AAAAAAA

Supplier CBA

Is it in line with historical info? Any external risks? Will it get worse for this supplier?

It deviates by X%. I am sorry I don't have access to external data sources and cannot predict.

Multiple Future Phases [3+]

Conversational insight identification, analysis, and recommendations based on Opus platform-wide data

You are having a conversation with TL Certified Decision Scientist Experienced in Supply Chain

Make me a purchase order lead time report

Which of the following purchase order lead time definitions should I assume?

- Supplier Lead Time...
- Total Lead Time...

Total Lead Time.

Awesome choice. What fields?

X, Y, Z

Here is your report: "<title>" Link: <URL>

Questions?

Lowest performers?

For which product?

SKU / NDC AAAAAAA

Supplier CBA isn't faring well for...

Is it in line with historical info? Any external risks? Will it get worse for this supplier?

It's not in line. Risk is due to API X...this supplier and multiple other suppliers will be affected for SKUs / NDCs in the next X months...

Where We're Going: **Imagine You Lead a Demand Planning Team**

- What are the **historical demand patterns** we're experiencing?
- How do market trends and **external factors** impact demand?
- What are the **customer order forecasts** from key partners?
- What impact do **promotional activities** have on demand?
- How does **seasonality** or disease prevalence affect demand?
- What are the **lead times for raw materials** and production?
- What is the **risk of stockouts** or excess inventory?
- How do clinical trials or **R&D pipelines impact** future demand?
- What is the **accuracy** of previous forecasts?

What to Expect Next from Amadeus!



**On-Demand
Audit Experience**



**Customer Data
Integrated Securely**



**On-Demand
Reports & Graphs**

