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FutureLink Barcelona Keynote: Intelligent Orchestration of Your End-to-End Supply Chain

Intelligent orchestration of products, partners, and processes can transform supply chain performance, feeding internal stakeholders and cross-company teams with new levels of visibility, collaboration, and intelligence that enables them to meet strategic business goals and exceed corporate KPIs.

Today, end-to-end digitalization of your supply chain can link your enterprise systems to your distinct networks of suppliers, logistics service providers, customers, and clinical partners, fueling your AI and machine learning data lakes with real-time supply chain information. Supply chain digitalization can result in increased revenue and profits while ensuring resilience and risk reduction across all supply network relationships.

In this keynote address from FutureLink Barcelona 2024, TraceLink President & CEO Shabbir Dahod highlights the revolutionary capabilities of the OPUS Platform and MINT solution that enable digitalization and intelligent orchestration of your entire supply chain. See how any company, regardless of size or technical capability, can now transform their supply chain. Watch the video now.

Video Highlights:

TRANSCRIPT

TRANSCRIPT

It's really amazing to be here today. You know, I feel that this particular moment that we're all in that we talked about in the orchestration of the end-to-end supply chain is something that we've all been working towards for a very long time.

And I know that there's been a lot of effort by all of us to collaboratively work on this.And it's such a pleasure to be up here to really represent the work of everyone, whether it's the people that are customers, our partners, the sales team, the marketing team, the engineering team. Because when you get to a certain point in any sort of business or industry, it is truly a collaboration. It is really us

learning from each other in order for us to get better and better.

And for me today is really a momentous occasion, right? Because ultimately, we've spent the past year with the sales and marketing team convincing you that we have a product and a platform that's worthwhile for you to look into, invest into, and come to FutureLink for. It's been four years of the engineering team working on the platform and the product in order for us to be able to deliver what I believe to be an awesome product and an awesome platform.

It's been 15 years of all of us collectively building an end-to-end digital network in order for us to be able to transact and track and trace products to make sure that patients are safe. It's been, for some of us, 21 years on this journey, starting back with the previous company. So, nothing happens overnight.

For us to actually work with the industry to define the standards: We've had leadership from our team that have actually built the standards, built the capabilities, collaborated even with our competitors to make sure that we're able to all be interoperable on this end-to-end journey. And on top of that, for me personally, it's been 40 years, almost 40 years, of actually trying to build the most awesome platform for the industry.

It's been a mission of mine ever since I was in college and I feel that what we are unveiling today and yesterday and from now on is the best, most awesome platform ever built. And we're willing to back that up by walking you through why that's the case.

So, the first thing is that: What drives us? What wakes us up in the morning? What drives us in the late night? And it's really, we have this passion for this purpose for the patients. I got enamored with that passion back in 2003 when I learned about counterfeit drugs and I learned what kind of damage it does to lives, to people, to companies. And for me and for all of us here, that is really central to what we do.

We are very, very focused on: How do we do the end-to-end digitalization? How do

we make sure that the products for patients are safe, are secure? How do we make sure that they're there at all, that they're available for them? How do we make sure that we bring down the cost of actually delivering those products as much as possible? How do you create efficiency such that by meeting the supply chain challenges, we're not only improving the lives of patients, but we're also improving business? And that can be achieved, that greater good can be achieved. And so that really drives us on a daily basis.

And I think that particular purpose, that mission, that ability to just be open and collaborative and innovative with the industry is really what's made us successful, right? That ability to say, "Hey, our partnerships matter more than anything else." We have to make sure that everybody on this vast network that we built over the 15 years can participate.

Whether you are the smallest pharmacy in the most obscure place in the world, or you are the largest pharmaceutical company in the world, or you are the largest contract manufacturer, or you're the smallest contract manufacturer, or you have the most complex business model: Like your business model is, "Hey, I'm a virtual wholesaler. I'm really basically a virtual pharmaceutical company. I'm a virtual contract manufacturer." We know the complexity of the industry and we didn't just say, "Hey, we're just going to deal with the stuff that's easy to do, the stuff that is going to be the most cost effective for us, generate the most profits."

We said no, it doesn't matter which market it is, we're going to support it. Because whether it's in Saudi Arabia, whether it's Bahrain, whether it's in any European country or any state that everyone needs to have a solution and a capability that is the best that they can have, whether you're the largest pharmacy in the world or you're the smallest pharmacy in the world. You're the largest or the smallest of anything, the most complex or the least.

That's what's enabled us to build this network. And the network is incredibly active, right? I mean, you all sit in it and you live in it but you don't know exactly the

collective activity that goes on. So, the collective activity is one terabyte of transactions a month. That is the activity that goes on on our network every month. We process one terabyte of transactions. These aren't videos and movies. You guys know that, right?

Each serial number that has a commission has to have a particular status and that has to be shared across the industry on an end-to-end basis. And we do about 1.1 billion serial numbers commissioned a month and that number continues to rise. And we have over 100 billion serial numbers in reserve. I think it's 150 billion at this point.

So, we operate at just a massive, massive scale and that scale is there for everybody to use. That product, that capability, again is the same product that everyone can use in order to continue to grow the network.

But in order to achieve this, it wasn't something that we could do easily, right? We had to really innovate. We had to break the norms of how people think about how to solve problems at all. Because when you look at it from the perspective of when we started in 2009: This was the way you integrated with people is that you had these choices. OK? Everything's gonna be custom. So, everyone, oh it's custom in this company and that company and you have to manage and maintain that particular integration, that particular link.

Or you can say, "Oh, well, maybe let's try EDI." But we all know trying to get anyone to speak EDI in the same way, it doesn't really work. EDI doesn't really scale to the level you need, the level of complexity that's necessary for all the different orchestrations. Should we create an industry exchange? That also went around for a little bit.

And I mean, I've been through all these cycles, right? Should we build an industry exchange? Well, who's going to invest $200 million building an industry exchange? Who's going to pay for it? Well, does everyone have equal access to the exchange?

And so that also became a challenge. And then, oh, maybe we'll put up a portal and everyone will come to talk to the same portal at the same time.

And OK, well, that doesn't quite work either because portals aren't exactly the place you want to go there and have humans go ahead and continue to uh interact with portals in order to move products and information between companies.

And then finally to maybe APIs. Well, APIs also are not particularly standardized. So, we had this problem that said, "OK, in 2009 and 2010, we need to drive this end-to-end integration, we have to make it so it's feasible for everyone to do it. And we decided to just basically turn the problem inside out. We said, "Hey, turn it on his head."

Why not just let everyone integrate however they want, whether we're talking to an exchange like GHX, or we're talking to someone's custom integration, or if they want to use EDI, or if they want to use a portal, or if they want to use an API. We said we shouldn't care. We should be the Rosetta Stone. We should be the one that creates a network that enables anyone to talk to each other however they want. And that moment was probably about 15 years ago. George was with us at that moment, right? And we just basically changed the whole marketplace around from that perspective.

And I'm going to walk you through why it's so valuable to approach building a network in this manner, and why it's so scalable, and why it's so applicable to all forms of information exchange that occur on an end-to-end basis. And why it's valuable for you and your business as well as how that will help patients.

So, what you're doing today on the TraceLink network is that every one of you, whether you're big or small, have the ability to effectively create your own network, right? You say, "Hey, I want to be able to work here with these partners." And somebody else says, "I want to work here with these partners." And anyone and everyone can join, right? But you're collectively building a network together at

the same time.

And that's the real beauty of this: It is truly, collectively working together to say that, "Oh, my efforts are not just my efforts. My efforts actually contribute to that greater good, to that ability for all of us to get better and better together.

And that's what we mean by the network of networks, right? That your network and everybody else's network, even a third-party network, can all be interoperable and we can bring them all into the same fold with this approach, this innovative approach. No one had ever thought about really approaching it this way. And so that is what enables the end-to-end integration, the end-to-end information flow.

And so I want to get a little techie if that's OK. I am a techie, I fully admit it. My team knows that. Because you know, I go to many customer meetings, I spend my time between the product and the customer side. And everyone tells me the same thing: You're lying. It can't be true. You're going to raise prices.

I hear it every time. How is this possible? How can you do it? Even though they're soaking in it at that moment. Right? They're actually in it as a track-and-trace customer and they were telling me, "Hey, you could do more on it." So, let me kind of unravel the onion a little bit or take some layers off. So, step one, the first decision we made is that the network is the center of our platform.

What does that mean? If you look at ERP, the center of its platform is the general ledger. I have built accounting packages in the past. If you look at a CRM, the center of that application is the customer, right?

So, the center of TraceLink, as a platform, is what we call the network object. It is the network. Every company that is either a customer or a partner has a node on that network. It is your digital twin.

We have an identification that is your unique ID and you don't have just one. You sometimes have thousands of unique IDs and we have a whole team that goes

through and says, "Hey, this company has these unique IDs or those unique IDs," much like the internet. The internet has an IP. So, we manage those unique IDs for each of these different companies. So when you refer to them and you say, "Hey, I want to do business with that company."

You know that when you're going to be sending information or getting information, it is the right authoritative company that you're working with. That's step one. Because if you don't have that, you do not have a network. So, when other companies say, "I have a network," you'll usually find that there is no such network that's being managed by anybody.

There's nobody actually taking ownership and saying, "I am going to manage a network for you," and it's not at the heart of what they do. The second kind of breakthrough which you'll see here is that you basically can integrate however you want, right? So, if one party over here on the left hand side says, "Hey, I've got SAP HANA." The other one says, "I just use EDI." And fine, no problem.

SAP HANA speaks IDoc, and we say, basically, "OK." We'll take your IDoc, whether it's a purchase order or an ASN whatever it is. And then we convert it into an internal universal format called the canonical.

Inside the TraceLink network. We think about canonicals all the time. That is the universal data format, right? So, now that is the Rosetta Stone. We have taken your language, put it into a universal language. The other company does the same thing. It speaks EDI. So it's X12. We take that information and we turn it into the canonical. Then we share canonicals across each other via that unique ID.

So, if one company wants to send to the other one, it is completely exchanged, and internal to TraceLink, we manage and maintain the information and we have good representation, very clean representation of every piece of data on an end-to-end basis across the whole industry.

Nobody's done that before. Complete clean data all the way across the industry.

And so now these two companies can exchange. The beauty is if that company on the other side decides that, "Hey, I'm gonna move from EDI to something else."

Maybe I'm going to go to SAP, I don't need an EDI system and I'm gonna go to SAP. This company decides it doesn't want to use HANNA. It wants to move to something else. No problem. They don't care about each other doing that. The network still works, right? So, maintainability of this network is significantly better as well because you're independent from each other. In the early days, we called them shock absorbers. I'm not sure it's the best term. And so, you're then able to completely interoperate and the cost level is very low.

You just speak whatever language you want to speak. And TraceLink actually builds those transforms of the API integration that you need. Then if you say that, "OK, let's go add more companies." Right? Because we get more customers and each one starts to come on board and they talk to different parties.

So like, the white line there goes from PharmaXcel to VitaCore. And then Orion Health Systems goes to MedicaSupplies. Someone uses Netsuite from an API integration. Somebody else uses Microsoft Dynamics. Somebody else uses Oracle Fusion. Somebody says, "I'm just gonna use the user interface."

And we'll get back to that and see how that will work. But they're just going to use the user interface. We have many customers that do that. They just work with us through the user interface. And now the network has been built. But in this particular case, you can say, "OK, well, that's only a network for these companies. How do they actually help each other?"

Well, the beauty is that once they integrate their particular partners, they've helped collectively build the network because it is just a configuration change for us to say, "Hey, if PharmaXcel wants to work with everybody here, and if VitaCore wants to work with everybody there, or with each other, it's a configuration, right? And now we even used RPA to make that happen. And that's like that.

That is amazing. This is why TraceLink is successful, because this is how we've been scaling up to over 290,000 companies on the network and 1600 customers that drove that. Over 350,000 links between these companies and the ability to exchange terabytes of data every year. This is a network. Everybody else says they're a network. They're not. This is a network.

How would you like the internet to be one in which every time you loaded yourself on, you have to do, point-to-point to let everybody else talk to you. That wouldn't work. That's not a network. I mean, you wouldn't call the internet a network at that point, right? That's what everybody else is telling you. We actually have a network. And this is the test for anyone else that's asking you and telling you that they've got a network: Can you do this? Because this drives costs down by 10X, 100X.

It creates scalability that's unbounded, completely unbounded. It lets anyone participate. It's not just for the big guys, it's anyone, however they want. It gives the capability in a collective way for everyone to share into, however they participate. OK? But we don't stop there. We actually at the same time say that this information we have, this canonicalized information is actually very rich.

And we actually can capture all the relationships because we know that this ASN refers to this purchase order. This invoice refers to that purchase order. So, we actually have a relationship and we have deep understanding of the semantics of that data. We're not just a pipe.

We're not just like shuffling files back and forth. We actually understand it. We have knowledge about this data. And so what we do is we turn that knowledge into a visualization. And we say, "OK, we can take that canonical and turn it into a UI model," which is what you saw in MINT and what you see in our UI.

And we can create a user interface. And this user interface is a universal capability. Everyone can have it and everyone can now, through the OPUS Platform, configure it to however you want. These are the core capabilities that you've all been using

for the last 10-plus years. It's what enabled us to be so successful. But you know, four years ago, we said, "We believe that we can do more than just track and trace. We believe track and trace is just the beginning."

We actually believed that 15 years ago when we started the company and everything we built was really more general purpose. But we said that we need to platform it. We need an ability to create a means by which this can be scaled up tremendously so that you can add as many transactions as you like, hundreds of them, and connect with all different sorts of orchestrations on an end-to-end basis.

And the reason why we thought it was important is because we recognize that in the industry that, while we had digitalized the track and trace on an end-to-end basis, everything else was still fairly backwards, quite honestly.

And as you know, in the supply chain, you've got the physical companies that are moving [products]. They have the actual facilities, right? That's very important, those facilities where you've got people and equipment that's actually managing all the physical processing and manufacturing processes and the pharmacies and so forth. And then on top of that, they're managing the inventory flows between them, but the information flows are more or less broken.

But you need clean information flows because you need to synchronize on an intent basis in order to have a demand forecast that is going to be actually synchronized with your supply forecast. Your production forecast is gonna be based on real-time synchronized information, and you need to have real KPIs.

So, while we had digitalized everything else in the middle, all of this still remained between the contract manufacturers. The same customers we have were saying, "Oh yeah, we do track and trace great. We're sending, we get all these serial numbers, and we do shipments. But our PO, yeah, we get it via PDF via email. Oh yeah, that ASN? Yeah, I do a WhatsApp message to them to let them know that I sent them information."

Sometimes you'll get some companies doing EDI, but most of our customers are like, "Hey, EDI, that's out of my ball game. I'm not gonna spend half a million dollars." And by the way, each one is going to be different with every party.

And so EDI is good for the larger companies. So, the rest of the industry was still not synchronized, not digital. And so we said, "Let's go focus on solving that problem, applying the same capabilities that we have." And in the 15 years since we started the company, we hadn't seen much progress there.

So, what we did was we said, "OK, let's go ahead and create a platform, OPUS, that enables us to build an application and solution, MINT, that enables us to digitalize all the transaction flows on an end-to-end basis. And that we can do that in a manner in which every participant with every single use case with every single type of orchestration on an end-to-end basis can be digitalized.

But that's a lot of work. So, we've got to have a platform that can enable us to do this really fast because otherwise we'll be spending a lot of time doing it one by one. So, we look through all the different entities that you work with, the types of relationships you have, what we call "orchestrations.'

And the orchestrations are between dispensers, direct material suppliers, etc., contract manufacturers, going to wholesale distributors, and everyone you orchestrate with in a particular way. And some people do it a little bit differently than with each other. And so we analyze all of those different transactions that participate in that orchestration and how you use them because sometimes the same transaction is used in a different way, right?

So, that same EDI transaction in one orchestration that works in order to help you with external manufacturing works a little differently when you're doing BMI. So, those types of things have to be accounted for. So, we do really think of the semantics of what you're doing, not just the information that's being in the file formats themselves.

And so then what we did was we basically went through, leveraging the power of the OPUS Platform, and we built out, for each one of those particular orchestrations, all the different transaction types that are necessary. And those have become available, and we did that in a very short period of time.

So, the actual transaction and the definition of those transactions was earlier this year. So, we did all what we term as the 'canonicals' for them. And then with the power of the OPUS Platform, in a very short period of time, within three months, we actually were able to create all the UIs and the digitalization of all of them simultaneously.

And out of the box, you get IDoc support, X12 support, UI support, out of the box with MINT. So, that just comes with the product and you can continue to add more and more. We're doing Netsuite support. Soon we'll be doing Microsoft Dynamics.

So, out of the box in our catalog are all these capabilities and the platform enabled us to build all of this at an incredibly fast pace. And I'll explain to you how we did that next. Because MINT, the product, the application, the product itself, is really built on top of OPUS. OPUS is what enabled us to build MINT.

And you have to understand the power of that because you'll see that that core foundation, or that core power, is what will now enable us to drive more and more productivity, but also be the foundation for AI, right?

Because if you have knowledge of information, you have knowledge of its actual relationship, you have knowledge of the platform itself, you can actually do amazing things with AI at that point. And that's the journey we're on. Hopefully by the next FutureLink, you'll see all those capabilities as well. So, let's do step one, right? Step one is we all know that a supply chain is a network. It's a network of networks.

And you have to have the ability to navigate and interoperate on that network. So, that's a whole mind shift, right? I mean, usually you're still using an application and

you're like, "OK, here's my view of things, they have their view of things."

You're kind of disjointed from each other as to what's really happening between each other. And so many years ago when we started TraceLink, we said that there's a new class of applications which we termed as 'multienterprise applications.'

Those are applications that actually live on the network and that enable collaboration between companies. So, when we build the platform, we basically platform that capability so that we can just say, "Hey, I want to build a multienterprise application." It's just like you can go to any other platforms and say, "I want to build a multi-tenant application."

Enterprise-wise, we can build a multi-tenant multienterprise application that's inherent in the platform. But you have to have a metaphor by which everybody could now work together as if they're on the network. So, if you can roll the video, we can kind of show how that works. And I'll try to explain afterwards the specifics of what you're looking at.

The MINT user experience allows owner and partner users to quickly and securely access the data that they need.

In this example, I am a MINT owner and I have access to three different process networks for my distributor customers, my external manufacturing partners, and my logistics partners. Once I've selected a network on the left, I then see the associated partners on the right-hand side. This list of partners is dynamic depending on the network that you've selected.

Also, once I've selected a network, my transaction menu on the left changes to show transactions associated to that specific orchestration. If I choose a different network like external manufacturing, the transactions that I see on the left changes accordingly.

If I change to look at things from the partner side, I will see a similar list of networks. But instead of seeing networks that I own, I will see networks that I am a partner of. Once I've selected a network, once again, I get the list of associated transactions on the left.

Everything that I can see and do is controlled by the owner and the roles and permissions that they give me. For example, as a partner user, I can see purchase orders, but I cannot create purchase orders. However, if I go into a specific purchase order, I do have the ability to create the associated PO acknowledgment, invoice, and ASN.

And all of this access is controlled by the owner via a combination of a robust administration user interface that allows the owner administrator to control the network's links and users and roles, and the ability of the owner to configure their solution based upon the transactions that they want to use.

So, I know that went a little fast, but it takes a little while to see the paradigm shift, right?

The paradigm shift is that what Peter showed there in the demo was how you navigate the network of networks, right? Because you have, say within your company, if you say, "Hey, I've got an external manufacturing orchestration with its network. I've got a logistics orchestration with its network that I work with." You can go ahead and segregate those networks separately, and then you can navigate and see who are all my partners there. And then everything in the UI now forms around the transactions that you interact with.

But not only does it do that, but your partner has a similar viewport into that same collaboration and you can control what your partner can do, right? So, your partner then comes on board and says, "OK, I'm working with you on purchase orders. You sent me a purchase order in the UI, I can immediately see it."

But you can just say, OK, I'm gonna let that partner have this capability to go

ahead and, which is inherent in the platform, turn that PO into a PO Ack. One click of the button copies into that PO acknowledgement, makes whatever changes, hit send, and you get that transaction back to you, done.

So, the paradigm is that you are on a network, you're navigating to networks, you have your network, people have their networks, you have partners and you have shared contacts in which you can work with. And as if you are the owner of the TraceLink application, then you can design what you want your partner to see. This is the multienterprise aspects of it. This is at the foundation.

You achieve this because the network is at the core of everything we do and applications are aware of that network and that's what makes the multienterprise. And then we can construct all the different configurations and UIs based upon that.

So, that was step one of being network centric. Step two is: OK. How do you create a no-code environment around all this? And how do you create a no-code environment in which you can build everything from the ground up in the platform? Right?

So, step two is how do I build a no-code platform? And so that starts with metadata. You may have heard of this term. There's data and there's metadata.

Metadata is data about the data. It gives you richer information that tells you, "Hey, for this particular date field, I want to use this particular UI control." Right? By default, because it's related. Because this date field should be using a calendar control. And then you can even say, "Well, in the catalog, there can be different catalog controls that I can then use to connect with that."

Metadata also tells you, "Hey, I have a relationship between this object and that object," and an ability for me to say that I want to look up. When I'm looking at a particular ASN and I see a purchase order, I want to be able to click on that and go directly to that purchase order. So, you have the ability to have these relationships.

You also have the ability to create complex information because you've got addresses, PO line items, and you need to be able to construct all of that. So, from a no-code perspective, the OPUS Platform enables you to have metadata. So, let's take a look at that.

Browse all standard business objects from TraceLink across apps and create company-specific objects based on these standards. Objects consist of fields, groups, and collections, starting with standard fields. You can also add your own company-specific fields. These fields are metadata-driven. Simply specify a type, such as date or pick list, and configure their properties.

These settings drive the behavior of the pages, enhancing functionality and user experience Look-up fields enable dynamic connections to one or more business object types, allowing you to add them to your configured objects, and create relationships between them.

Groups allow you to model a set of fields, like addresses, while collections can represent order line items. All of these leverage metadata capabilities to automatically drive page behaviors.

So, there have been many different no-code platforms built. There have been none that have
been able to deal with, in a no-code manner, the complexity of the objects and the relationships and the ability to represent them. I can say that standing tall. Better than Salesforce. Better than ServiceNow. Better than anything SAP has. This is the most modern no-code environment ever built.

And it starts with rich metadata. Rich metadata on the network is how you drive all this richness that you see built in OPUS and you see it in the MINT application. So, now that we have the network, we have metadata about all the information that's there, and it's completely Integrate-Once™.

Well, how do I create user interfaces and how do I do workflows? How do I

configure all those things? Now let's take a look at that.

When you create a new page, it includes essential UX patterns and workflow fields, allowing you to quickly add sections and drop in fields as needed.

By dropping fields like supplier address, all related fields are automatically generated, letting you choose and visually organize what you need. Autofill works like magic, pulling data from related objects into relevant fields, boosting efficiency for end users. Enterprise data often exceeds simple fields.

Dropping collections with fewer fields gives you a list view, allowing easy add and remove operations, while organizing your fields. When you drop collections with a larger number of fields, you gain a table experience.

On the main page, you can select which key fields appear as columns and arrange their order. Dropping an order line item creates rows on the main page where each row features, add, remove, and view operations, all housed in their own exclusive push panels. These panels are automatically created and accessible, letting you focus on design.

You can individually design each push panel, just like the main page, simply by dragging and dropping fields within the order line item. When you're done, preview your design pages. Create and test complex layouts in minutes with options to configure page rules and operations all through simple drag and drop.

So, what you observed there was the fact that you basically saw the building of a purchase order, completely drag and drop, right?

So, you saw the ability to basically take what was defined in metadata and say, "Hey, I have this purchase order object defined." I'm gonna drag and drop the fields that I want because there could be hundreds of fields in there. You only want a few of them. It can be complex with line items and collections, etc. You just drag and drop them.

You actually saw the inputting of the actual line item. So, what you saw being built was MINT. What you saw being built was actually MINT using the OPUS Platform. What does that mean? That means that MINT is just another solution on the OPUS Platform. You could have built it.

Our MINT developers are just OPUS no-code developers. That's all they are. Think about that. They're just data modeling the canonicals. They're just drag and dropping after they do their data models.

They write a little bit of low code for the transforms and they're done. MINT UI, All of those different UIs - once the OPUS Platform came to completion in the early August time period - was built in six weeks.

Over 50 to 100, depends on inbound and outbound transactions. 300 screens. And it was an army of people. It was a lot of late nights. I have to admit that, because we had a deadline: FutureLink. But that's how they built it.

I want you to think a little bit further. Everything you see in OPUS is built in OPUS. So, the solution designer, you see itself that is enabling you to build MINT, was built in itself. What does that mean? That means that we now create new versions of the Solution Designer using the Solution Designer, no code.

So, our ability to accelerate, or to create more and more enhancements has just gone through the roof. 10X. 100X. This is revolutionary. I challenge anyone to find the platform that does this and is multienterprise on top of that, and deals with all the complexity of supply chain transactions. You have one more video on the workflows.

You can also completely no-code configure the workflows as well. Every business object includes its standard workflow. The PO workflow starts in draft, then moves to submitted. The base states can be configured to meet business needs.

For instance, a company may want to introduce an approval process. In this case,

they can add the approval required sub-state to the draft base state. Transitions can then be created from in-draft to submitted, enhancing the workflows flexibility. Further logical checks can be added, ensuring specific fields are filled before moving to approval as transaction conditions. That's it.

With this configuration, the PO workflow now begins in the new in-draft state. From there, it can be moved to pre-approval. If a user attempts to transition without filling in the required fields, the action is prevented. Additionally, transition action logic can be added, executing automatically upon successful completion of a transition.

So, all workflows are completely no-code configurable as well. So, every object comes with a base workflow. You can configure it however you like in your solutions as well. It's completely open to partners as well to do it this way. So, what you see now is that the foundations of MINT, built on OPUS, are very strong. But now we could get a little more MINT-specific about the Integrate -Once capabilities as well.

So, as you see, moving forward here, what we'll show you is the ability to have this very interoperability on an end-to-end basis, whether you're talking from any particular message type or an API integration that you need to do.

And all of these integrations are in the catalog. Everything we do, we put in the catalog. And so, all the IDoc transforms, all the Netsuite API integrations into what we term as the Link Action catalog. That catalog is shared amongst the whole industry. So, we continue to contribute that.

Within any company, or within any partner, they can add more and more transforms to that catalog. And then they can continue to build up their own needs that they have for the different types of integration they want to do.

In the near future, we will enable you to add to the shared catalog as well. So, we can share amongst the community. This is how we can drive everyone to work

together to drive more and more integration on an ongoing basis. So, if you can show the video on this please.

The MINT user experience combined with the Integrate Once, Interoperate with Everyone™ capability enables multimodal support for any transaction. Any MINT transaction can be sent or received using multiple methods like EDI X12 SAP IDocs, direct API calls, or the user interface.

In this example, the MAH, Nova Corp., sent a forecast plan to their CMO partner, Zenith RX. Nova Corp. sent the transaction to TraceLink via SFTP as an EDI X12 830 transaction. TraceLink transformed the file into our canonical and made the transaction available to both parties in the MINT user experience.

Finally, TraceLink transformed the file into an SAP DELFOR IDoc and sent it to Zenith RX via their B2B connection. If necessary, admins can see the transaction from both parties under Search Business Transactions.

This allows the admins to see general information about the transaction and the specifics about both the inbound and the outbound formats. These powerful multimodal support capabilities allow MINT owners to transact using the method and format that works best for them without having to worry about how their partners want to send and receive the data. TraceLink takes care of that for you.

So again, there you saw the multimodal integration, right? You saw the integration from EDI to UI to IDoc. There's no coding involved there. We can add a new transform and say, "OK, Netsuite do the Link Actions to that." Everything works fine all the way through end to end. You can then add somebody and say, "Oh I want to add MS Dynamics. I wanna add Edifact. I want to add something that's configured."

Everything just continues to work. You just keep adding new Link Actions, configure your integration profile and everything just flows. Imagine the productivity we just gained. Imagine the speed we just gained. So, if you need to

onboard partners, 50 of them, 100 of them.

And imagine the fact that the speed multiplies and probably even goes up exponentially because we are all doing it together on the same platform. Everyone helping each other. Dan brings on somebody that can be used by Merck. Somebody else brings on somebody that can be used by somebody else.

We're all helping each other grow the Network for Greater Good. So, everyone always wants to say, "Well, but you know, it's all great, but I need to have the ability to have better visualization of this data."

So, sitting on top of all of this, because we understand the data, we capture it, is a rich Reports and Dashboards capability. So, if you can show that please.

Creating rich visualizations with your data is easy using the Reports and Dashboards builder. Start by defining one or more transaction types from which you want to return data by selecting a query object.

Then shape the report by choosing the appropriate process network, partners, data ranges, and selecting the data fields you want to include. The report will instantly populate with your MINT data and you can further refine.

Using these purchase orders, for example, one can sort by expected delivery date to prioritize incoming shipments and ensure you're prepared for the most critical deliveries. Group by purchase order number to view all related items in one place, making it easier to track order progress and avoid missing or incomplete shipments. Aggregate product quantities to get a clear overview of total order volumes, helping you align inventory with demand and avoid overstock or shortages.

Compute expected lead times by adding a calculated column to your report. With this, you can easily track how long each order is expected to take from placement to delivery. This helps you track supplier performance and adjust procurement

strategies to meet delivery timelines more effectively.

Next, bring your reports to life with the dashboard. It's as simple as drag and drop. Easily arrange reports side by side or layer them to create a comprehensive view of your data. Whether you need charts, graphs, or tables, the layout is fully customizable to suit your workflow.

And as new data flows in, your reports will automatically update, ensuring you always have the most up-to-date insights at your fingertips. This gives you an intuitive, real-time visualization of your data designed to help you quickly spot trends, identify disruptions, and make informed decisions.

So, real-time information flows multimodal across the whole network with real-time reports and dashboards available at your fingertips. Hopefully, people are happy with that.

So, now imagine how much better we can do, making sure that we can drive availability of product to the patient level. How much better we can know that, hey, I know the inventory levels in this place or that place. It's real time. I can have reports and dashboards I can just pull up and see it immediately based on the information flows occurring across your network.

We can also integrate internally as well. But we do that today in track and trace. We integrate internal sites, internal systems, multiple systems can get integrated in as well.
So, we can also then provide it from an internal and external perspective on top of that. So, you know, I believe that this is the most awesome product ever built, the most awesome platform ever built. And clearly the best ever for supply chains.

And it's a platform that's win-win for everybody, right? The fact that you can have this single shared view, working with your partners. And just think about when you go to a partner and you want to bring them on board and everyone's always resistant and they're like, "Hey, should I join? Should I not join?"

But the value proposition for them is amazing. First of all, it's free. Other companies say, "Oh, you have to pay depending on how much volume you do, how many invoices you send, the value of those invoices."

No, it's free. It's completely free for them. And they get, on top of that, we do the integration with them. We say, "OK, tell us how you want to integrate." That's free from us. We say, "OK, you don't have a particular format that's right for you."

The TraceLink Network Success Team will go build that, go onboard them. And on top of that, we will, for the customers, run a program that will go onboard all these partners and help them come on board.

Then the partner can then, if anybody asks them and said, "Hey, I want to integrate with you via EDI," or somebody else comes in and says, "Oh, I want to integrate with you via my Oracle system," or "I want to integrate with you via Edifact."

The partner has now just done their last integration into TraceLink and maybe forever, the partner can just say, "Hey, just go to TraceLink." I've already integrated into TraceLink and I'm not paying anything. And if you want to get on TraceLink with your EDI system, you can join for 600 bucks a year. That's it. For three transactions.

The partner has a great deal. Any sort of reports, anything that you do, they get to see. So you can have the shared scorecard with them and everything else like that. They get a Network Success Manager that anyone calls up and wants to integrate with them, we do the work. What an awesome value proposition for them.

And what we know is that once we get a partner, they start to see that awesome value. Well, I really want to become a customer, too. Because I see the fact that I want reports and dashboards. I want to bring on my own partners. I have my own orchestrations that I want to integrate. That's how we build the network on an ongoing basis.

And for the solution partners, the people that we co-innovate with: Now what we've done with the OPUS Platform is completely opened it up. So that now we say, "All APIs, everything that TraceLink can do on the platform, you can do, because it's been all standardized."

All APIs are open, everything is defined, all information is on the TraceLink website, open to the world. And as you now know, we've also put an LLM agent that you can ask questions to and get answers, and it will tell you exactly what to do.

And so whether you're a solution designer, creating and configuring these workflows and experiences and reports and dashboards, complete no code: You have full access. Everything we can do, you can do. If you're an orchestration architect that says, "OK, let me design exactly how your business is set up, etc." You can set them up however you want using the TraceLink administration capabilities. You can work with them on that. And so, you can drive innovation completely no code.

And we want you to do all the services. We are there on the back end. We're not going to compete with you on this stuff. We are a software company. We provide high-end services in support of our customers and our partners.

And if the partners want to own completely the ability to implement and grow, we are here to support you on that. That's our commitment, that we're not going to compete with you. But we will work with you and work with the customer simultaneously.

So, partners now have the ability to do what they've never had the ability to do. Actually, not just do the first stage of supply chain digitalization, which is the strategy. They can actually do the implementation now. Because to date you guys all know it, right? You do the strategy and when it comes to implementation, it's like, oh my God, you know, this is gonna cost $100 million and take 10 years and nobody wants to do that.

But now you can say, "Hey, I can do this myself, with you, within years. And I can get started and get partners onboarded within months, weeks." You have that ability now to go do that for your customers. And every AI project in the supply chain must start with data. If you don't have good data, you don't have data end to end, you can't really have an AI project.

So, not only do we drive the information into your ERPs and your financial systems and your warehouse management systems, but we also drive it into your data lakes, so that you can leverage your own platforms for AI with rich, real-time data that can drive predictive and prescriptive decisions for you.

So, now you have actually the foundation through TraceLink and the platform to actually build an AI project that will have the information you need. Because without that information, as we all know, AI is only as good as the data.

It's only as good as the real-time nature of the data in the supply chain. It's only as good as the synchronization of that data. And so, we can fuel your AI projects as well.

TraceLink itself is investing heavily in AI and has been for over four or five years now. And so we have our own timeline for how we're going to leverage AI and how we can contribute to everybody else's growth in intelligence in the supply chain. So, as I now talk about the next 12 to 18 months.

Let me show you what we're investing in. So, the first stage you've already seen. We have taken all our content, all our platform content, put it in a single repository and put an AI agent on top of that. We've used the RAG model to be able to create an intelligent agent that if you go to and say, "Hey, I want to add a new partner, how do I do that?" It'll give you the instructions directly.

So now, in this way, anyone can train, learn, do, based upon what the agent can tell them because all the information is rich and managed. I want to create a new transform for Netsuite. I want to put it in this particular format. The agent will work

on it and be able to tell you the instructions.

The next step, which we're working on right now, is the ability to take that metadata. Remember that metadata we talked about that describes everything? Well, that could add a lot of intelligence to an LLM. So, we're taking that metadata that describes everything, the data, the applications, everything, and we're going to put it into the agent.

So, now it will not only just tell you what to do, it could do it. You could say, "Add a partner." You could say, "Create a report." It will go off and do it. The power of the platform, the power of metadata, the power of incorporating that into an agent.

As we move forward, we're releasing an intelligence application, again added to the platform, that will constantly manage KPIs. The agent will have that available to them as well. So, now you can leverage KPIs into reports, into dashboards, to have better real-time decision making.

Finally, we're gonna continue our ML journey and continue to implement predictive models that will predict lead time, that will be able to predict cycle time. And it can use it not just with your data but collective intelligence.

So, we can leverage the information going out on the network to make sure that if something is changing that lead time and that cycle time in the industry, we incorporate that into the ML model so that we'll then be able to have that available to the agent.

It could probably tell you what your forecast should be. Imagine the power of that. So, this journey has just begun. I know it feels like a long time. I'm a little bit over time as well, I know.

But we feel like we've just reached a new height that will get us to another height. And the speed at which we will go, will go faster and faster. And that we're really excited about doing that with all of you.

Like I said, you know everything for us is collective. Everything is about the greater good. It's about how do we all work together? How do we all come together? How do we get our best brains, our best people together to succeed? And this is a forum for us. And in this particular forum, what we have really emphasized is that everybody has a voice.

We have a voice, customers have a voice, partners have a voice. So, what you see laid out in the agenda here is everyone will have a chance to share their knowledge. Whether you come from a contract manufacturer, whether you come from a clinical area, whether you come from cell and gene therapy, wherever you come from, you have a voice.

And I want everyone to participate in those meetings and discussions to make each other smarter, make each other better. We succeed for the patient when we all work together in a way that is truly equal.

Everyone's voice matters, whether you are the smallest or largest of any particular aspect. And we always try to stay humble and make sure that our job is to listen and share whatever we can from a software perspective of what we can do to make things better as well.

I really love being on this journey with all of you, and I'm incredibly excited about what's coming ahead for us. And I really want to thank you all for being here and participating.

Thank you.

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