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# Enabling and Optimizing External Manufacturing and Material Supply with MINT and Opus



Learn how Multienterprise Information Network Tower (MINT) dramatically simplifies the integration of external manufacturing and material supply transactions to ensure all network members' enterprise systems have accurate and timely data. You'll also learn how:

- Opus Solution Environment (OSE) enables no-code solution configuration for the unique production and sourcing needs of life sciences companies, material suppliers, and contract manufacturers.
- OSE empowers manufacturing, procurement, quality, and other teams to tailor the data, user environment, business rules, and other business process needs to maximize user productivity and business performance.
- Opus Reports and Dashboards provide easy-to-configure capabilities to give executives, managers, and users critical analytical data to plan better and reduce the risk of supply disruptions.

Watch the video to learn more!

## Featured Speakers:

### **Moiz Khanbhai**

Principal Solution Consultant EMEA

TraceLink

### **Dan Walles**

General Manager Track and Trace/Compliance

TraceLink

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## **TRANSCRIPT**

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**Dan Walles:** What we're going to talk about over the next 25 minutes or so is enabling and optimizing external manufacturing and material supply with Opus.

I'm going to do a little bit of setup here at the beginning, but really, the star of the show is Moiz and the Opus platform, and the functionality that he'll be showing. We'll cover just a quick overview of some of the things that we're seeing in the industry around trends and technology constraints, and then going over with the demo.

Let's talk about, very high-level, what's happening with life science companies and their contract manufacturing partners. What you have happening on the manufacturer side is, we've heard this a lot throughout the past two days, is inconsistent delayed demand signals coming in. Having challenges around being able to generate accurate and timely forecasts.

Along with that, you have an increasing number of supply disruptions, whether it be from natural causes or geopolitical situations. I think we're all aware of the large strike that's happening with the ports in the US. That creates a lot of challenges.

Layered on top of that is we are continuing as an industry to use more partnerships with CMOs to deliver our products to the market, which creates some additional requirements and additional challenges around exchanging information.

What's happening on the other side of the equation with the CMOs is they're facing many of these same challenges. They're getting an increasing number of requests and demand for visibility and for data exchange.

We see challenges with API and other materials being delivered to them, which creates concerns for them as they're trying to maximize their equipment capacity and being able to manufacture those products. That's all happening in this forum and in this environment of decreasing demand on cost of goods. We always want to be reducing costs.

That's the environment that we're in. It starts to speak to the fact that the processes that we've used today and that we've used for many, many years just don't scale anymore.

What we do find though is everybody's asking for a lot of the same things, whether the PO was accepted, is the order ready to ship? Does the CMO have the capacity? How much raw material is in place? Do we have any real-time information on-demand? What's the status of the return?

These are just common questions that are being asked from all manufacturers to their CMOs and vice versa. How we've dealt with that in the past is we've hired more people. For a CMO, it might be through their customer relationship organizations and adding more staff to those organizations, or for the MAH, external manufacturing relationship managers, whatever it might be.

It's been to hire more people, which leads to more and more emails being sent, more and more PDFs being exchanged. What it ultimately results in is you have all of these mini distinct processes from customer, to customer, to customer, and that's a challenge.

People put their heads together, and they said, "You know what? Why don't I put up a portal? And I'll have everybody come to my portal, and they'll upload information into that, and that serves my needs as a company."

It doesn't really help your partner because now your partner's got your portal and everybody else's portal to deal with. That becomes a challenge. There's data entry issues. There's security challenges that happen with that.

Then finally, some had tried, "Let's do point-to-point integrations." I think what you've been learning is that at some point, they just don't scale. They're costly, they're fragile, expensive to maintain. These are some of the challenges. Ultimately, your suppliers and contract manufacturers are all facing these accessibility challenges in terms of how to get data.

Let's put this in a more pictorial format. We'll take that relationship between the life science organization, and say, a CMO, and we'll pick a couple of examples. In this case, you have a European company that's got their US operations, a global company serving a number of markets.

For them, when we've talked to them, they are asking for things like, "My strategy over the next year is to integrate my top 10 percent of my suppliers across these transactions." Maybe they're trying to improve cycle time or getting better visibility into API at the CMO.

You flip that around, and on the CMO side, many of them are large organizations. We heard from Siegfried and Merck earlier today, serving multiple customers, multiple markets with their processes. They're looking to make changes in their organization and drive business impact.

For them, it's all about how do they mitigate risk within their relationships with their MAHs? How can they better prepare their production schedules, or how do they expedite receiving processes? One that we hear often from the CMOs is how can we accelerate the payment cycle, get themselves paid for the services that they're providing?

Ultimately, that's where we're trying to fit, is in that middle and start to enable these types of relationships and help organizations start to execute on these particular goals.

With MINT for external manufacturing that Moiz will start to take us through is it's that Integrate Once across a number of transactions involved in the orchestration process between an MAH and a CMO. The forecasting process, purchase orders, acknowledgments, advanced ship notices, invoicing, understanding inventory, updating inventory, bill of materials, whatever it might be.

Looking holistically at how do we orchestrate digitally the relationship and the process between a pharmaceutical company and their strategic partners? Frank Binder yesterday reminded us that and others reminded us that all CMOs are strategic. They're all strategic because they represent your brand or your name as they're manufacturing their processes.

In managing this type of activity, before we pass it over to Moiz here, is it's understanding how can we now start to enable partners to be able to integrate, and link, and exchange information to orchestrate that external manufacturing process.

It's not just technology. It's about having resources available to you, of which TraceLink does through its network success group, whether it be onboarding those partners, helping to manage that account, maintenance within that account, technical support.

Giving your partners a seat at the table, if you will, around the collaboration

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process and the orchestration process. What I'd like to do now is pass it over to Moiz, who's going to walk you through the orchestration process.

**Moiz Khanbhai:** That's great. Thank you very much, Dan. By magic, great. I appreciate it's a bit late in the day, but who's excited to see real product? Hey. You got some hands there. That's great. Just a bit of a caveat for myself, the product is brand new. I've got special access to the development environment. If something doesn't go to plan, it's not my fault.

[laughter]

**Moiz:** Just going to put that. A transition from the last slide, we've heard, I think, in every presentation, the heart of TraceLink is the network. Welcome to Opus. What I've logged in, I've logged in as someone maybe the head of supply chain with administration access.

On here on the screen, you can see that I can see different links here on the left-hand side for networks and links. I've preloaded some master data of my partners.

What I can then able to do is I can select my external manufacturing network, for example, and click on Apply, and it shows me everyone that I am currently linked to. You heard the phrase linked quite a few times over the last couple of days.

For whatever reason, if you if you stop manufacturing with a certain CMO, you can immediately come in here and deactivate links very quickly. In addition to this, you may want to start working with a new partner. You can click on the Add Link menu option there. Select the application, which is MINT. Then you can give them which part of my process network.

Again, as an administrator or head of supply chain, I can see my distribution process network, my external manufacturing, and my logistics. In this example, I can say I want to give access to my external manufacturing process network.

Then because I've already loaded my master data and the great work that the NSM

team does, I've already got the details in here in terms of the different companies that I want to link to, but as well as all the different locations within those companies.

I can just click on one here. I can send a notification to an email address at that particular partner company, or I can leave it blank and it goes to the administrator of that organization. One cool feature with Opus now is that you can actually now specify the roles that the administrator at the partner company is allowed to pass on to the rest of the team and users on their side.

You can select the different roles. We have all the material explaining what the roles mean and what access to different roles are. You can ask Amadeus. I hope it's all loaded in there. You can ask Amadeus, and Amadeus will be able to tell you and give you descriptions of all the different roles within here.

You would just simply select some roles and click on the link button, and away it goes. You are now partnered with that company. It's the power of the Opus platform allowing you to do that very, very quickly.

Now moving on to some of the orchestration and transaction information. Sweep. Give that a second. I've got a tab here, which it lands me on my external manufacturing network. It automatically highlights the business transactions here on the left.

In this list, it shows me all the different business transactions where they're sent B2B between myself and my partners. In here, you can see you've got different states. The results, as in delivered, not delivered.

The type of transactions. I've got inventory updates in here, I've got ASNs, I've got purchase orders, invoicing, transaction ID, who the sender and the receiver is, and then some data information as well.

Having conversations this week and also previously with other customers, getting

this information in this easy-to-view form is actually very difficult from various ERP systems. We made that extremely easy to be able to see all the transactions that are being sent in and out of your company, inbound, outbound, in one easy page.

I'm going to go down to the manufacturing network here and click on purchase orders. You can also see here all the different other transaction types within this orchestration. When you click on a certain transaction type, you get this table view of PO numbers and some other information like supplier and order date, etc.

I'll click on one of these purchase orders to take you down to a drill down view. I can also use this little collapsible menu on the left to give me more space. Hopefully, you can read that OK. This is a purchase order that's been sent out from my company, Novacorp Pharma, to a receiver, which is Zenith RX.

You see the transaction information, the order information. You have all the customer and supplier details. This information is pulled from your master data. It's like a type ahead. The ship to location, bill to location information.

Then quite important, you've got a line item down here at the bottom. I can click on a certain line item here. Just highlighted the first line here. It's got an item code of NX 50 milligram tablets.

Then clicking on the eye icon gives this pop up menu on the side, which gives you a little bit more information so you can actually see the full drug name, the unit price, quantity, delivery date, etc. We have these menu items that open up on the right-hand side in various areas of the solution.

In addition to this, you can also completely use the user interface to create a new transaction. I could click on the new button and it opens up a blank purchase order page where you enter the PO number, and then you go next and you can fill out the different fields.

I've had lots of conversations this week with lots of customers that actually don't



have an ERP or don't have the technical capabilities for an ERP right now. They want to start completely from the UI by creating transactions and having their partners collaborate with them on those transactions through the user interface side of things.

I'm going to open up my side menu and show you purchase order acknowledgments. It's going to be a very similar screen to the purchase orders. You can see all the different acknowledgments that have been received into the system. The form -- I'll click on any random purchase order acknowledgment -- is the same as the purchase order.

What we'll see towards the end of the demonstration, we'll see some reports that we can create that show which purchase orders have been acknowledged and which ones haven't.

I'm going to show you inventory balance. Working with CMOs and you want to see the inventory information, they can send inventory about the products that they have within their warehouse stored for you.

If I click on one of these inventory transactions, it shows you all the necessary information, the inventory balance information, some head information, the report and client. Then you have the line item information down here as well.

I can highlight one of these line items and open up the side panel. It gives you a bit more information about that particular line item. It's a finished good. The quantity status is on hand. Exactly how many of each unit do they have, etc.

This similar type of concept is also used -- and I won't go through all of them -- but the materials issued, produced, and consumed. There are many companies that the government or regulations or regulators will tell them, "We need to know, for a particular batch, how much API material was issued, consumed, and produced."

They usually have 24 hours to return that information. We've built those

transactions in here. As you can see here on the left, it's very similar to the inventory balance screen, but it gives you that live information that's sent from your suppliers to show you all the inventory updates and the API material information as well.

I'm going to finish off on the transaction side with an ASN. Let me click on one of these. Same table view. I can collapse this here on the left. What I want to highlight here again, so with the ASN, it's got a bit more information, you can see.

With the Opus Solution Environment, users will be able to configure, drag and drop different fields to suit their own business requirements and business processes. We've got the transaction information here at the top.

We've got some shipment information. You've got the delivery information, the shipment data. Is it a partial shipment, a drop shipment? What's the net weight? Then the unit of measure, whether it's kilograms, tons, etc. What's the carrier details?

Then what I think is absolutely brilliant is this orchestration part. Here, you can go from the ASN, you can actually tie it back to delivery number and the actual purchase order as well. You can tie the orchestration together from the ASN.

Then we have the customer and supplier details, and then the ship to, from location. Then in here, you can see that here, it's the second of the second delivery. You can have line item notes as well.

I'm going to move on to the final piece, which is the reports and dashboards. Just bear with me. At first, I'll show you a report. You have different filtering options here to find the report that you want. Let me get that open for you.

I've got a simple report that I created, which is showing me the purchase orders and which ones have not been acknowledged. What you'll see after I show you the report is how this can actually be displayed on a dashboard as well. Just a simple

report that I've done here with PO number, the acknowledgment number, receiver, and the order date.

Where you can see there's a blank here in the PO at column means that this particular purchase order, 004, does not have an associated acknowledgment. We'll see how this goes into the dashboard view as well.

There's tons of options within the reporting capabilities of changing columns. You can drag columns up to group by. You have lots of options here on the left-hand side for filtering and also some computing columns as well. It's a matter of adding up quantities or whatever you'd like. There's loads of different options here on the left.

Finally, let me go to the dashboard piece and click on all. I created a dashboard again. I can filter and find the dashboard that I created. I've got PO dashboard.

When this loads, you'll be able to see that you can actually create multiple pages in different sections of a dashboard. You can have differences between charts. You can have pie charts to change the chart that changes colors, but you can also have tables as well.

With this, I can actually expand this. This actually shows me the bottom is the line items by PO, so they group by PO number, what's the drug on the line item, and then also by quantity on the left. This is just one chart I created.

Then scrolling down, I have the report I showed you earlier, but again, it's all on one dashboard screen. I can see that this 004. It doesn't have an acknowledgment assigned to it. Then in this example here, I have ASNs and PO verifications chart. This shows me that this particular tablet on this PO number, 001, actually had two deliveries.

One of the comments I showed you is a second delivery, this would be the first delivery. It shows you a simple way of showing how many ASNs you receive for

each purchase order. That is it. Happy to take questions later, but I'm going to hand over to Dan to wrap up on our final slide.

[applause]

**Dan:** Nice job, man.

**Moiz:** Thank you.

**Dan:** A couple things there. Some themes that we've been hearing throughout the past couple of days is I have a variety of different technical maturities across my supplier base or my external manufacturers.

What Moiz took us through is that ease in which you can identify those partners, add them to the network, and start to orchestrate a process with them very, very quickly.

The other thing that we saw in here that's really exciting is the theme around speed and scalability. You're able to see, from a usability point of view, how quickly the data is available to you in real time, no matter how it was sourced.

As soon as that's entered by a partner or it's through a transaction, that's available immediately. The third thing, the other term that we heard throughout the past two days is agility. Our business changes on a daily, sometimes an hourly basis. What we're really interested in is can I get a different view of my business?

Through the reports and dashboards, to be able to build that information very quickly and have the information provided back to you very quickly in real time is astounding, and one of the reasons why Shabbir, and others, and myself are really, really excited about this opportunity.

I'll leave you with this. You may be asking yourself, "This is great. I see all the benefits for me as an MAH, but why will my partners be excited about this? Is this just one more thing that they have to work within that's different?"

What we ultimately start to see when we talk to both manufacturers and CDMOs is, as we talked about on the slide, everybody's looking for this real-time information exchange.

Your ability to provide information in an easy way to your external manufacturers benefits them, whether it's getting the forecast quicker, whether it's getting paid faster, whether it's getting that API faster or understanding that it's going to be delayed. That's very important.

Improved responsiveness to customer requests. They're struggling. They have a different economic model and their business is different in terms of their margins. They're trying to respond to a variety of customer requests so that they can have a better experience, and this starts to give them that ability to do that.

Ensure that resources are focused on what they're being paid for, not to do manual data entry, but to really do supply chain planning or to really do forecasting. That becomes very important.

Participating in real-time information exchange without having to go through the challenges and the costs of being onboarded and standing up an integration project.

Single link into TraceLink reduces those overall IT costs. I think probably everyone in the room here has had some experience with EDI, and so you can have a good appreciation for even one transaction is a challenge not just to stand up, but also to maintain.

Finally, it helps the CDMO, the external manufacturer, be much more efficient in how they run their business. That's ultimately what they're looking for because they're, as we talked about earlier...

[background music]

**Dan:** under that constant pressure to reduce overall cost of goods, and they want to run their operations much more efficiently.

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