

Enabling and Optimising External Manufacturing and Material Supply with MINT and Opus



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Agenda

External Manufacturing Business Goals & Supply Chain Challenges

Technology Constraints

Use Case Spotlight: Digitalizing External Manufacturing with Opus

Value Realization

Q&A

MAHs & CMOs Operating in Process and Data Silos

Manufacturer Trends



Inconsistent and delayed demand signals creating forecasting challenges



Increasing supply disruptions from geopolitical and natural causes.



Increasing reliance on CMOs pressuring manual and paper-based processes

CMO Trends



Increasing customer requests for visibility and automated data exchange



Delays in API delivery and other suppliers creating machine capacity constraints.



Constant pressure to reduce Cost of Goods

Current Options for Sharing Information Digitally with Partners are Costly, Inefficient, and Will Not Scale to 100% of Your Supply Chain

Everyone is Asking Trading Partners the Same Questions:

- Has my supplier accepted the PO in full?
- Is my order ready to ship?
- Does my CMO have capacity?
- Is my batch quality released?
- How much raw material inventory does my CMO have?
- Where is my shipment?
- Did my customer receive the order?
- What is the real-time and forecasted demand?
- Has my return been authorized?
-

Hire and Train More People

- Resource intensive, labor cost does not scale
- Data entry errors
- Emails, PDFs, and spreadsheets
- Different processes for each partner

Develop Company Specific Portals

- Everyone has their own portal
- Data entry errors
- Initial and ongoing IT costs and security risks

Establish Point-To-Point Integrations

- Authenticate and onboarding partners
- Building integrations
- Maintaining integrations when systems or partners' systems evolve

Your suppliers, contract manufacturers, 3PLs, and customers all face the same accessibility challenge

External Manufacturing Orchestration – Use Case Spotlight

MAH / Brand Owner

CMO



- EMEA HQ w/ US Ops
 - >100 Global Markets Served
 - >23,000 Employees
 - >\$9.6B Annual Revenue
- EMEA HQ w/ Global Ops
 - >50 Global Markets Served
 - >10,000 Employees
 - >\$1B Annual Revenue

Voice of the Customer – We aim to...

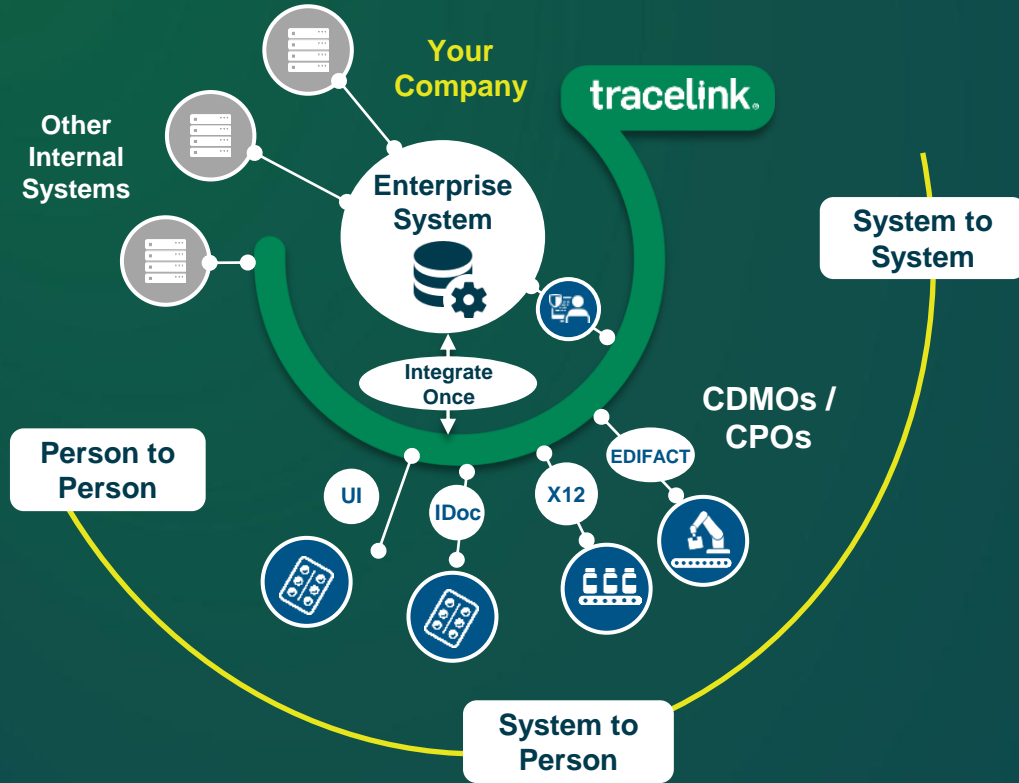
1. Integrate top 12 key CMOs digitally over next 12 months
2. Digital exchange of POs, PO Acks, ASNs, inventory balance, material issuance & consumption
3. Improve PO confirmation rate and API visibility @ CMO

Business Impact – We aim to...

1. Mitigate write-off risk owing to buffer stock build up
2. Improve production planning schedule
3. Expedite receiving process & available to promise inventory



MINT for External Manufacturing Orchestration



Integrate-Once™ for:

- Forecast Planning
- Schedule
- Forecast Planning Response
- Purchase Order
- PO Acknowledgement
- Advance Ship Notice
- Invoice
- Remittance
- Inventory Balance Report
- Inventory Update
- Batch Master
- Bill of Materials
- Master Data

Real-time business transaction exchange to:

- Align on annual production forecasts
- Confirm PO quantities and due dates
- Ensure inventory availability for upcoming production runs
- Accelerate invoice and payment process

TraceLink Network Success Supports Full Onboarding & Maintenance

■ Onboarding

Partners are onboarded and enabled at no cost

■ Account Management

Single point of contact for all partners, and access to partner training

■ Maintenance

Maintain the partner accounts & links

■ Technical Support

Handle connectivity setup, mapping, and testing



MINT FOR EXTERNAL MANUFACTURING

Product Overview



Links

View Links with external Partners and your company's internal locations to a network that your company owns, and manage Links established with your company to another company's networks.

MULTI-NETWORK

SINGLE-NETWORK

FAILED

View Links for apps that allow multiple networks (e.g. MINT, SCWM).

Application - Network (Owner) *



Linked Entity

All



RESET

APPLY



Network

Owner

Linked Entity

My Company's Role

Linked Entity Type

Last Modified

Make sure a network is selected. If a network is selected, no Links exist for that network.

Networks

Links

Users

B2B Relation

My Network Company



Networks

Links

Users

B2B Integration

My Network Company

Add Links

Establish a Link with external Partners or internal locations to an app that your company owns.



Step 1: Network and Application



Step 2: Roles

Network

Application *

Multienterprise Information Network Tower

Network *

Sapphire Labs - Manufacturing Information Network



Entity to Link

Entity

Garnet HQ - GLN 5155229012018 (Company Level)



Send Notification To



CANCEL

NEXT



Networks

Links

Users

B2B Integration

My Network Company

Add Links

Establish a Link with external Partners or internal locations to an app that your company owns.



Roles

Specify the roles that the linked entities can assign to their users.

- Buyer Member - Standard Access**
Buyer Member - Standard Access
- Buyer Partner Member - Standard Access**
Buyer Partner Member - Standard Access
- Member - Expanded Access**
Member - Expanded Access
- Member - Standard Access**
Member - Standard Access
- Partner Member - Expanded Access**
Partner Member - Expanded Access
- Partner Member - Standard Access**
Partner Member - Standard Access
- Seller Member - Standard Access**
Seller Member - Standard Access
- Seller Partner Member - Standard Access**
Seller Partner Member - Standard Access

BACK

CANCEL

LINK

- Networks
- Links**
- Users
- B2B Integration
- My Network Company


Links

View Links with external Partners and your company's internal locations to a network that your company owns, and manage Links established with your company to another company's networks.

MULTI-NETWORK SINGLE-NETWORK FAILED

View Links for apps that allow multiple networks (e.g. MINT, SCWM).

Application - Network (Owner) *

Multienterprise Information Network To... 

Linked Entity

All 

RESET **APPLY**



Network	Owner	Linked Entity	My Company's Role	Linked Entity Type	Last Modified
Manufacturing Information Network	Sapphire Labs	Garnet Labs	Owner	Partner Company	06 Sep 2024 08:43 PM GMT

Rows per page 10 1-1 < >

Purchase Orders

NOVACORPHARM86

MINT External Mfg

MINT - External Mfg | All Partners

Search Purchase Orders

View all purchase orders.

PO Number	State	Supplier	Order Date	Delivery Date	Last Modified
4000023004	Sent	ZENITHRX86	Sep 26, 2024	Dec 3, 2024	1727444819646
4000023003	Sent	ZENITHRX86	Sep 22, 2024	Nov 3, 2024	1727444799816
4000022001	Sent	ZENITHRX86	Jul 23, 2024	Oct 5, 2024	1727444799776
4000023002	Sent	ZENITHRX86	Sep 18, 2024	Dec 6, 2024	1727444784928
4000021001	Sent	ZENITHRX86	May 23, 2024	Aug 15, 2024	1727444484749

Rows per page 10 Showing 1 - 5 items

Filters

APPLY

- State: 1 Selected
- Supplier
- Last Modified: Last 1 Week

Purchase Orders

NOVACORPHARM86

MINT External Mfg

Purchase Order Details

MINT - External Mfg

All Partners

GO

View and edit purchase orders.

Country: US(UnitedStates)

State: CO

City: Denver

Postal Code: 80203

Contact Telephone Number

Contact Fax Number

Party ID Type: COMPANYSITEID

Party ID Value: 8862123456788

Party: COMI

Party: 8862

View Details

Item Information

Line: 00010

Item: Nexaril 50 MG TAB

Item Code Type: CUSTOMER

Item Code Value: NX-50-MG-TB

Description

Unit Price

Net Price: 10.00

Quantity: 6,500

Unit Of Measure: (EA) Each

Delivery Date: Nov 3, 2024

Line Notes

Line	Item Code Type	Item Code Value	Description	Quantity	Net Price	Delivery Date	Line Notes
00010	CUSTOMER	NX-50-MG-TB		6,500	10.00	Nov 3, 2024	
00020	CUSTOMER	NX-100-MG-TB		4,250	10.00	Nov 3, 2024	

Rows Per Page: 25

Showing 1 - 2 Items

#futureli

PO Acknowledgment

NOVACORPHARM86

MINT External Mfg

MINT - External Mfg | All Partners

Purchase Order Acknowledgment Details

View and edit purchase order acknowledgments.

State: CO, City: Denver, Postal Code: 80203, Contact Telephone Number, Contact Fax Number

Party ID Type: COMPANYSITEID, Party ID Value: 8862123456788

Line Items

Line	Item Code Value	Item Code Type	Description	Quantity	Net Price	Delivery Date	Lin
00010	NX-50-MG-TB	CUSTOMER		6,500	10.00	Nov 2, 2024	
00020	NX-100-MG-TB	CUSTOMER		2,250	10.00	Nov 2, 2024	
00030	NX-100-MG-TB	CUSTOMER		2,000	10.00	Nov 8, 2024	

Rows Per Page: 25 | Showing 1 - 3 Items

View Details

Item Information

Line: 00020
Item: Nexaril 100 MG TAB
Item Code Type: CUSTOMER
Item Code Value: NX-100-MG-TB
Description
Unit Price
Net Price: 10.00
Quantity: 2,250
Unit Of Measure (EA) Each
Delivery Date: Nov 2, 2024
Line Notes

Advanced Shipment Notice

NOVACORPHARM86

MINT External Mfg

NOVACORPHARM86

MINT External Mfg

NOVACORPHARM86

MINT External Mfg

NOVACORPHARM86

MINT - External Mfg

All Partners

GO

Advanced Ship

View and edit advance shipment notice.

Transaction Info

Sender
ZENITHRX86

Process Status
Done

Last Transaction Error

Shipment Inform

Delivery Number
2024092401

Delivery Date

Partial Shipment

SCAC

Gross Weight Unit of Measure (KG) Kilogram

Net Weight Unit of Measure (KG) Kilogram

Lading Quantity Unit of Measure

FOB Transfer Location

Action
Create

Referer

Transaction

Delivery

Bill of Lading

External Deliv

Tracking Num

Custom

Ship To

Ship To Location

Location
[PharmaTrans](#)

Address 1
789 Cedar Ro

Address 2

Country
US(UnitedSta

State
TX

City
Austin

Advanced Shipment Notice Details

View and edit advance shipment notice.

Line Items

Line	Item Code Type	Item Code Value	Description	Quantity Value	Unit Of Measure	Lot Number	Purchase Order Ide...	Purchase Order Lin...	Line Notes
> 000010	SUPPLIER	NX-50-MG-TB		1200.000	(EA) Each	0000012935	4500021250	000010	

Rows Per Page 25 Showing 1 - 1 Items

Packaging Aggregation

PO Number

Identifier Type	Packaging Identifier	Packaging Level	Gross Weight	Gross Weight Unit Of Measure	Parent Packaging Identifier
E	00010305912002745650	PL	120.00	(LB) US Pound	

Rows Per Page 25 Showing 1 - 1 Items

Notes

Comments

REQUESTED ORDER 100923

Inventory & Material Issued/Prod/Consumed

NOVACORPHARM86 NOVACORPHARM86 NOVACORPHARM86

MINT External Mfg MINT Ext NOVACORPHARM86 MINT External Mfg

Manufacturing - Customer **Inventory** MINT - External Mfg All Partners GO

Purchase Orders
Purchase Order Acknowledge
Invoices
Inventory Balances
Inventory Updates
Material Issued
Material Produced
Material Consumed
Batch Creations
Remittance Advices
Advance Shipment Notice
Forecast Plans
Forecast Plan Responses

View invent **Material Issued Details** View material issued.

Tran
Sender ZENITHRX8
Process Stat Done
Last Transac

Inve
Inventory Bal INV202409
Start Date
Action

Rep
Line
Line
10
20
30

Delivered

Material Information

Material Issued Number 4599003213
Material Issued Date
Action Original

Reporter and Client

Reporter	Client
Reporter Location ZenithRx Manufacturing	Company Novacore Pharmaceuticals
Country US(UnitedStates)	Party ID Type GLN
State FL	Party ID Value 8862123456788
Location ID Type GLN	
Location ID Value 8833126656789	

View Details

Item Information

Item
[Test Text](#)

Item Code Type
VENDOR

Item Code Value
NEXARIL50API

Description

Quantity
300

Unit Of Measure
(KG) Kilogram

Plant Identifier
0125

Storage Location
1234

Customer Lot Number
LT102521

Supplier Lot Number
WHLOT123

Sales Order Number

Sales Order Line Number

PO Number
P045674520

PO Line Number
10

Item Code Type	Item Code Value	Description	Quantity	Unit Of Measure	Plant Identifier	Storage Location	Line Notes
VENDOR	NEXARIL50API		300	(KG) Kilogram	0125	1234	

Rows Per Page 25 Showing 1 - 1 Items

Reports

PO-POACK BCN 2

Report Criteria View Save

Edit



Released



Move To

Drag here to set row groups

PO Number	PO Number (Ack)	Sender Location	Supplier
4000023004		NOVACORPHARM86	ZENITHRX86
4000023003	4000023003	NOVACORPHARM86	ZENITHRX86
4000023002	4000023002	NOVACORPHARM86	ZENITHRX86
4000022001	4000022001	NOVACORPHARM86	ZENITHRX86
4000021001	4000021001	NOVACORPHARM86	ZENITHRX86

Search...

PO Number

Contains

Filter...

PO Number (Ack)

Sender Location

Contains

Filter...

Supplier

Order Date

Delivery Date

Pivot Mode

Search...

PO Number

PO Number (Ack)

Sender Location

Supplier

Order Date

Delivery Date

Row Groups

Drag here to set row groups

Values

Drag here to aggregate

Columns

Filters

Compute Columns

NOVACORPHARM86

MINT External Mfg | Reports and Dashboards | MINT Logistics | Reports and Dashboards

ASN and PO Verification

Filter Save

Edit Released

Move To

ASN and PO

ASN and PO Verification

PO ACK and Inv Balance

PO Acknowledgements

Group	Item (Ext...)	Item Cod...	Item Cod...	Quantity ...	Unit Of
4000023005	Nexaril 50 MI	NX-50-MG-TE	CUSTOMER	12450	EA
	Nexaril 100 N	NX-100-MG-T	CUSTOMER	13400	EA
	Zyntara 25 M	ZY-25-MG-CA	CUSTOMER	5600	EA
4000021002	Nexaril 50 MI	NX-50-MG-TE	CUSTOMER	16500	EA
4000023002	Nexaril 50 MI	NX-50-MG-TE	CUSTOMER	10000	EA

Inventory Balance Reports

Dashboards

The “Win-Win” Outcome: Why Your CDMOs Will Benefit from MINT



Real-time exchange of forecasts, inventory balances, and purchase orders enables more precise production planning and better capacity utilization.



Improved responsiveness to customer requests for changes ensures better on-time, in-full deliveries with at higher operational efficiencies.



Ensure that the energy, efforts and resources are focused on strategic initiatives, launches/tech transfers and less on chasing open orders and data reconciliation.



Participating in real-time information exchange improves relationship with customer with no onboarding or integration costs.



Single link to TraceLink reduces IT costs related to maintaining outdated modes of information exchange, including EDI and point-to-point integrations.



CDMO can use the single link to improve the operational efficiency with other customers.

Thank You