Case Study: Blue Diamond Growers' Multi-Step Almond Journey via Synchronized Planning & Transportation

Serena Cooper, Senior Manager, Digital Supply Chain, Blue Diamond Growers
Anton Karnaukhov, VP of Application Delivery, XpertMinds

Chicago

2024

SAPinsider
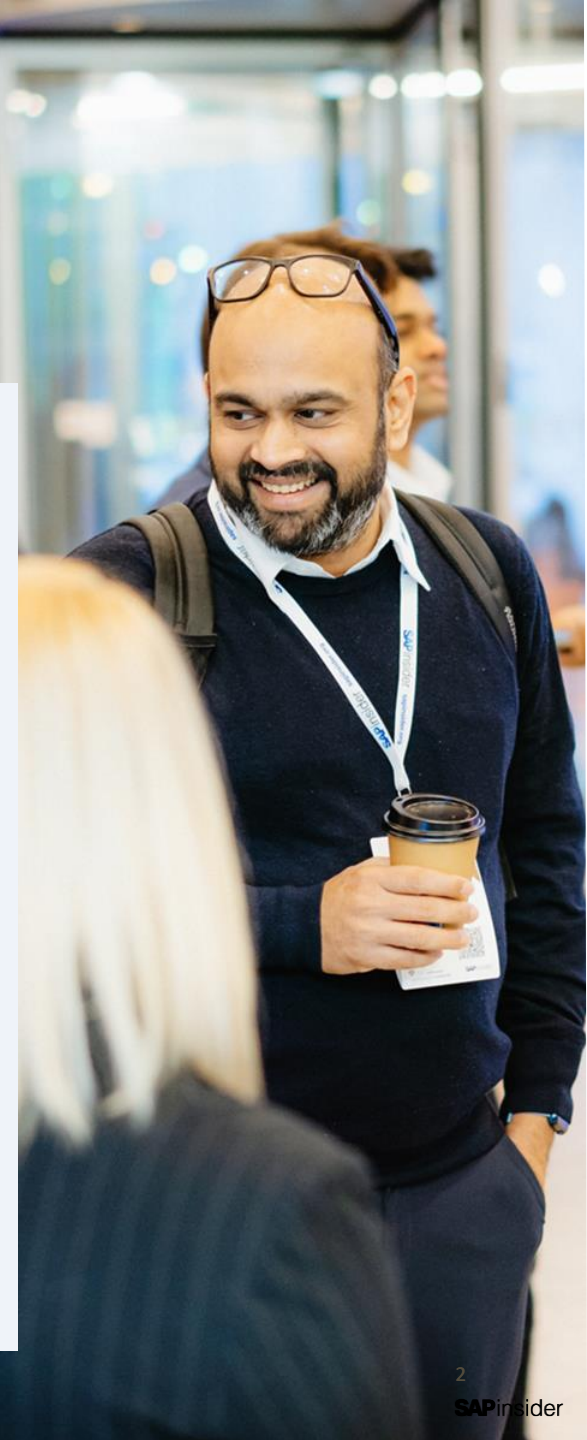
SAPinsider

What We'll Cover

- About Blue Diamond Growers & XpertMinds
- BDG Transportation Footprint
- Why SAP TM & BN4L
- Project Overview
- Deployed TM Functionality
- Transportation Planning Process Flow
- Business Network for Logistics
- Future Initiatives
- Wrap up

About Blue Diamond Growers and XpertMinds

The Who, What & Why of BDG

- Farmer's co-op owned by nearly 3,000 grower-members
  - Our farmers carefully grow and harvest the freshest California almonds, as generations did before them.
- BDG only *handler* (of approx. 100) with significant roasting & processing capabilities
  - We turn raw almonds into delicious almond-based snacks, beverages, and ingredients using state-of-the- art technology, which we've pioneered and improved for generations.

- Each almond product undergoes strict quality assessments and food safety standards.

3,000 Growers Strong

It begins with our hardworking cooperative , who carefully grow and harvest the freshest California almonds, as generations did before them.

The Blue Diamond Family

1910: *The California Almond Growers Exchange* is founded, to lead California's almond industry

1915: The blue diamond—The Exchange, distinguishing its product from Spanish and Italian imports.

1949: the 6oz can of Blue Diamond Smokehouse almonds is introduced.

1980: The Exchange officially becomes Blue Diamond Growers.

1986: The debut of the "A Can a Week" ad campaign featuring actual growers.

2013: The Blue Diamond Almond Innovation Center opens—the first and only research center dedicated to almond innovation.

2019: Blue Diamond Growers expands supply chain capabilities with expanded production and cold storage capacity to meet growing demand

Today: new generation of growers, trust Blue Diamond Growers to deliver the benefits of almonds to the world.

2023 SAP Innovation Award Transformation Titan

> "By leveraging the SAP S/4HANA ecosystem, and specifically with SAP Transportation Management and SAP Business Network for Logistics, SAP Integrated Business Planning, and SAP Analytics Cloud, we have created the ideal foundation for an intelligent, data-driven cooperative that provides the best value for our growers."
>
> Steve Birgfeld
> Vice President Information Technology and Services
> Blue Diamond Growers

Transportation Management Experts

SAP's Go-to Partner for TM & Logistics Collaboration

XpertMINDS
SAP DONE RIGHT

Deep Transportation Management Expertise

Guiding customers through business process decisions as well as solution implementation in areas such as:

- Road, Ocean and Rail modes of transport

- Logistics Collaboration

- Transportation Optimization

- Freight Execution & Monitoring

- Integration with SAP ERP & 3rd-Party Systems

- Order & Delivery Integration

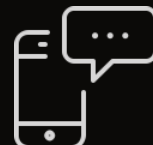- Freight Agreements & Cost Settlement

Our SAP Consulting Focus
- *Transportation Management*
- *Logistics Collaboration with SAP Business Network*
- *S/4HANA Digital Core*

"XpertMinds is truly a top-notch organization with a focus on results…"

– Connie Moylan, Woodgrain Millwork CIO

contact@xpertminds.net
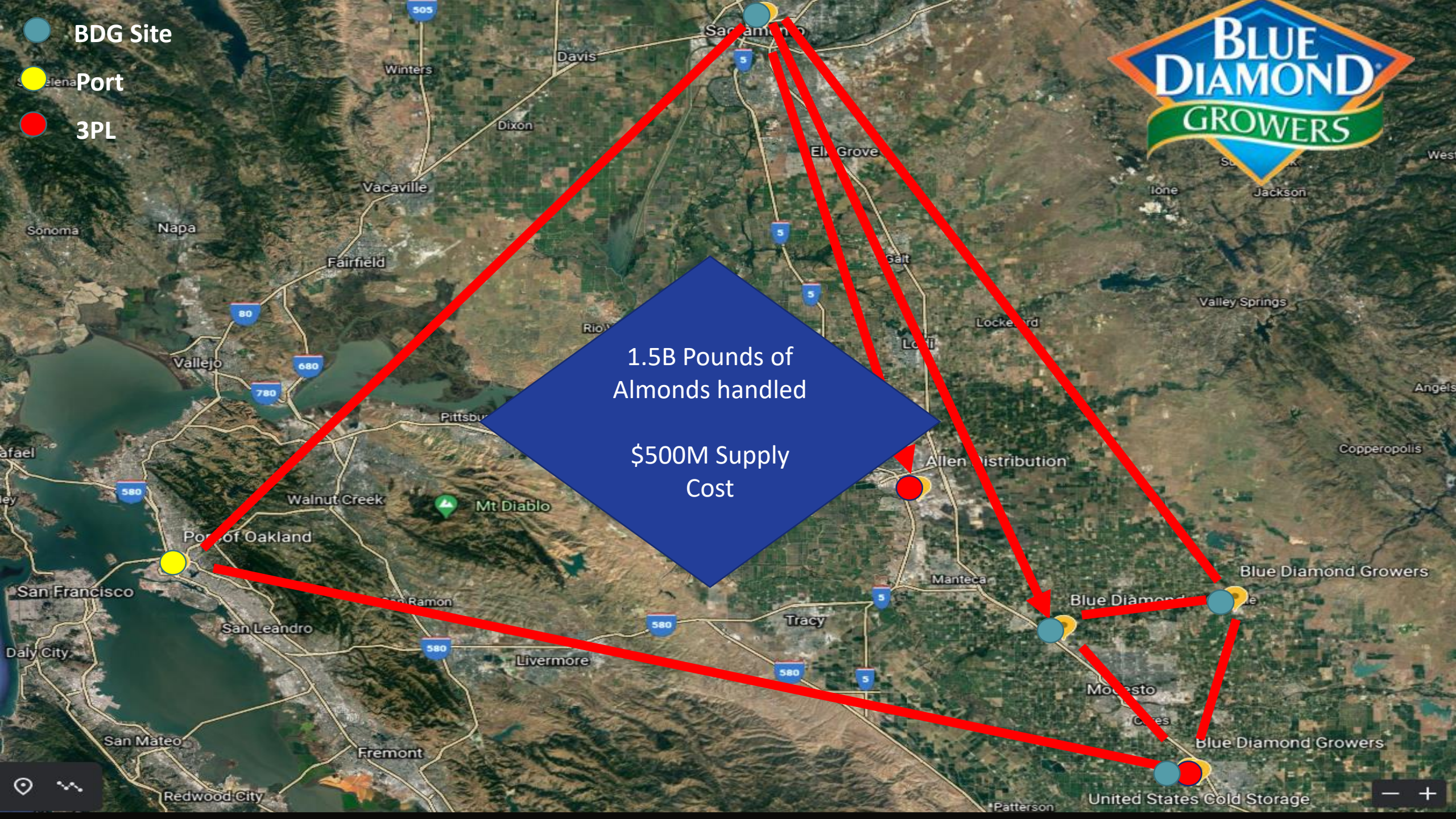
844 SAP-MIND
(844-727-6463)

www.xpertminds.net

Blue Diamond Growers Transportation Footprint

Legend:
- BDG Site (teal)
- Port (yellow)
- 3PL (red)

1.5B Pounds of Almonds handled

$500M Supply Cost

Blue Diamond Growers

Blue Diamond Global Business Breadth

Why SAP TM & BN4L?

Challenges

Resilience	Visibility	Freight Cost
• Relied on manual processes for creating and updating bookings • COVID impact on internal and partner staffing put a huge strain on manual processes	• Lack of single source for visibility information • Not being able to expose visibility to CSRs	• Lack of visibility into expected/planned freight costs prior to receiving the invoice • Large tolerances for carrier invoices

Business Benefits

Visibility and Velocity of Data
- Productivity improvements for data entry/reporting
- Ability to act quickly with real-time updates
- Freight visibility across shipments and countries
- Provides benchmark data for supplier performance

Error Reduction
- Improved accuracy and reliability of data across contributors

Hard Savings
- Freight cost reduction

Freight Process
- Move from manual websites to one dynamic tool for securing capacity
- Ability to respond to 5-week commitment periods

Automation and Engagement
- Improved visibility to warehouse scheduling
- Improved customer service
- Improved resiliency and agility

SAPinsider

Project Overview

Project Overview

- Existing SAP S/4HANA 2020 instance
- SAP solutions
  - In-stack (aka embedded) SAP Transportation Management
  - SAP Business Network for Logistics
- Agile Project Management
- Phase 1 – Container Export Shipments
- Phase 2 – Domestic Shipments

SAPinsider

Benefits of in-stack TM

- Reduced hardware cost
- No need for master data replication (business partners, materials, etc.)
- Tighter integration (for example, updating of delivery dates on deliveries)

- Considerations for extra-stack TM deployment <u>not</u> applicable to BDG
  - Multiple SAP ERP systems
  - Use of Global Logistics Company functionality

Agile vs Waterfall Project Management

	Agile	Waterfall/ASAP
Business Requirements	Dynamic	Up-front & Static
Validation of Solution	Demos & Feedback	Documentation
Change	Responded To	Avoided
Hands-on in the System	Early & Often	Last Minute
Integration	Continuous	Isolated
Teams	Self-Directed	Micro-Managed

SAPinsider

Deployed SAP TM Functionality

Deployed SAP TM Functionality

Order Management

- Sales orders
- Purchase orders
- STOs
- Deliveries

Transportation Planning

- Optimizer
- Consolidation
- Routing, resource and carrier selection
- Background planning
- Interactive planning in Transportation Cockpit

Transportation Execution

- Track & trace via SAP GTT with project44

Freight Costing and Settlement

- Mode-specific freight agreements
- Charge calculation
- Outbound settlement to profitability analysis
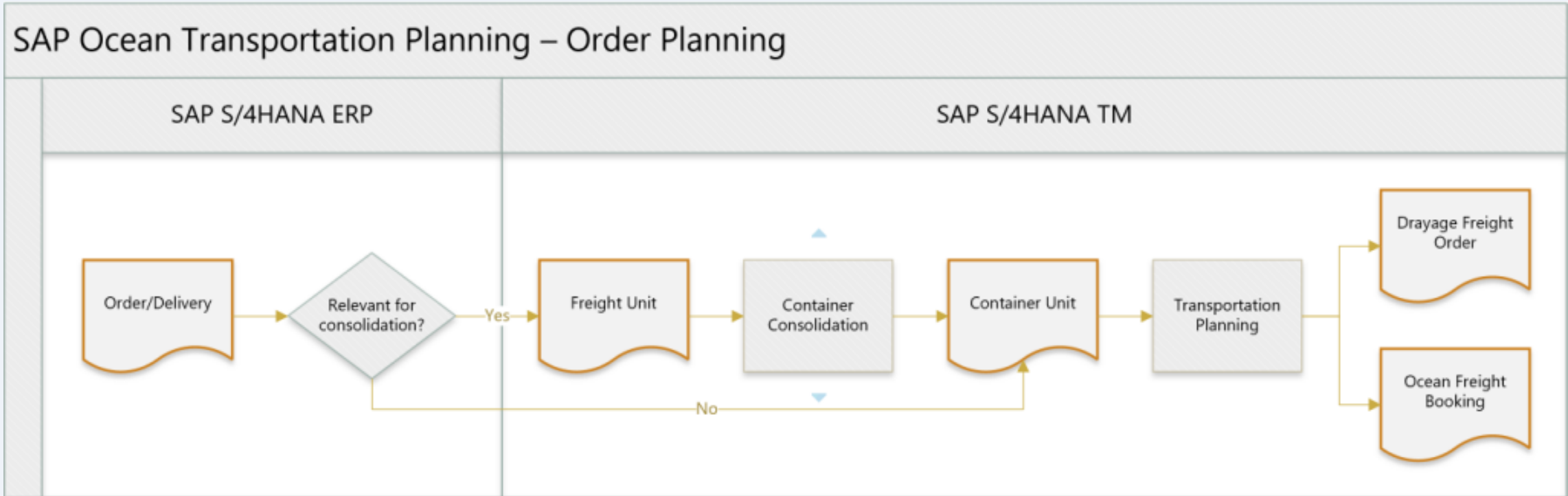- Inbound settlement to material valuation

Analytics and Reporting
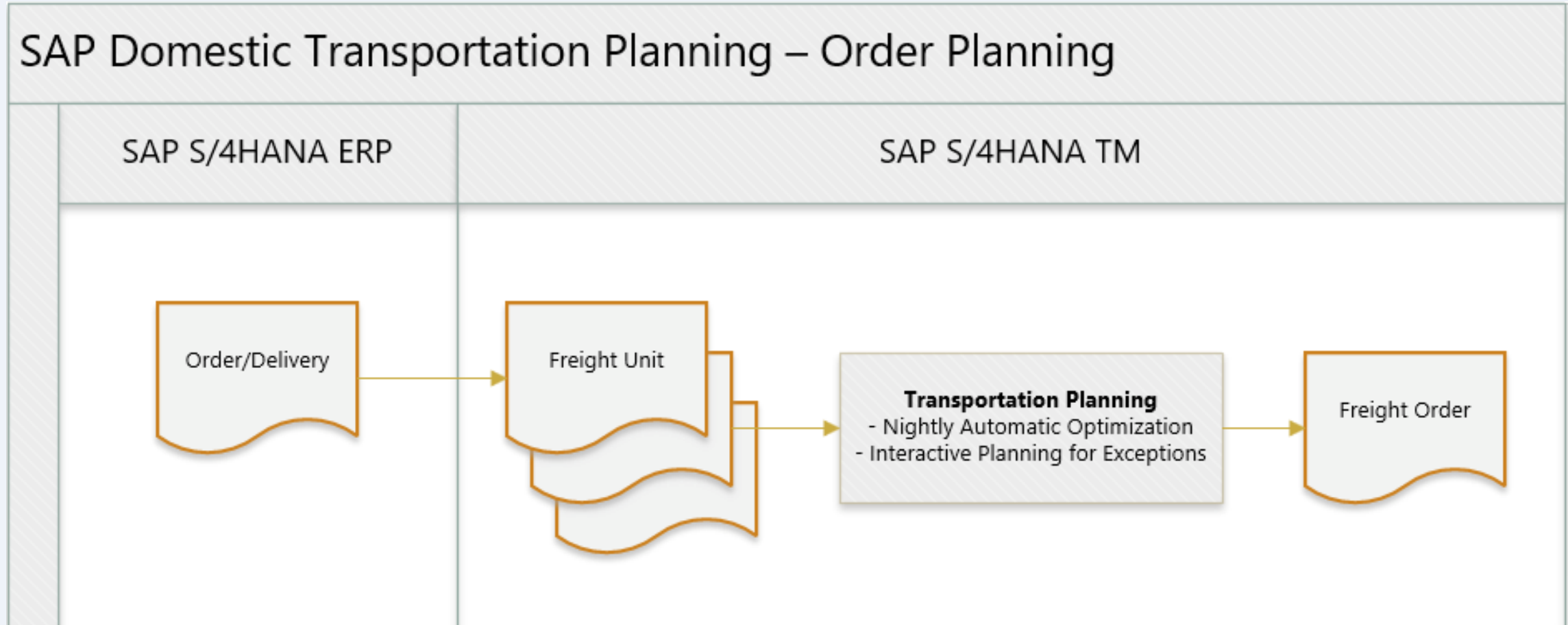
- POWL operational reporting
- SAP BI integration

SAPinsider

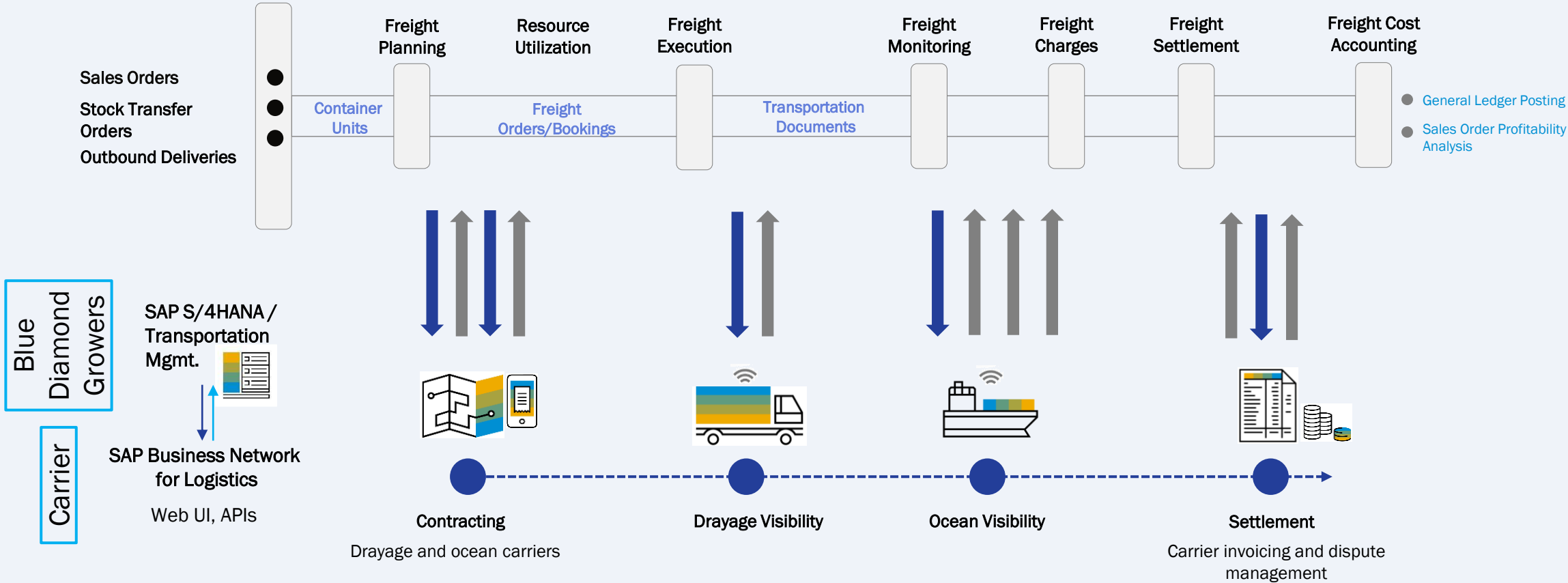# TM Planning Process Flow

Transportation Planning - Export

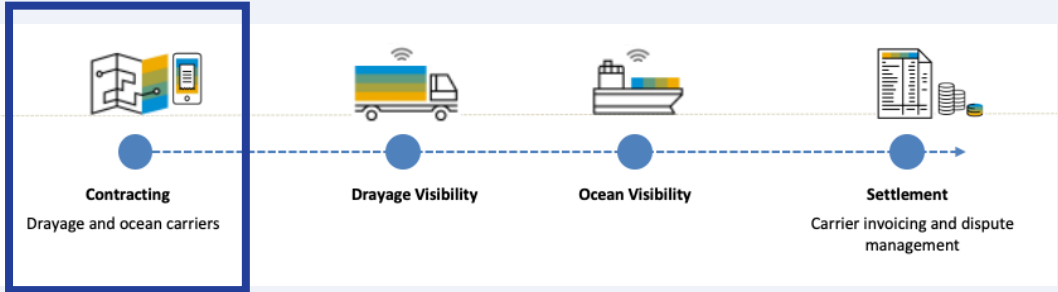SAP Ocean Transportation Planning – Order Planning

SAP S/4HANA ERP	SAP S/4HANA TM

Order/Delivery → Relevant for consolidation? → Yes → Freight Unit → Container Consolidation → Container Unit → Transportation Planning → Drayage Freight Order / Ocean Freight Booking

No

Transportation Planning - Domestic

SAP Domestic Transportation Planning – Order Planning

SAP S/4HANA ERP	SAP S/4HANA TM

Order/Delivery → Freight Unit → **Transportation Planning** - Nightly Automatic Optimization - Interactive Planning for Exceptions → Freight Order

Business Network for Logistics

End-to-End Transportation Collaboration

Sales Orders

Stock Transfer Orders

Outbound Deliveries

Container Units

Freight Orders/Bookings

Transportation Documents

Freight Planning

Resource Utilization

Freight Execution

Freight Monitoring

Freight Charges

Freight Settlement

Freight Cost Accounting

General Ledger Posting

Sales Order Profitability Analysis

Blue Diamond Growers

SAP S/4HANA / Transportation Mgmt.

SAP Business Network for Logistics

Web UI, APIs

Carrier

Contracting

Drayage and ocean carriers

Drayage Visibility

Ocean Visibility

Settlement

Carrier invoicing and dispute management

23

SAPinsider

Contracting - Export

SAP S/4HANA / Transportation Management	SAP Business Network for Logistics

1) Create freight order / booking

2) Send freight booking for confirmation

DESCARTES

3) Confirm ocean freight booking

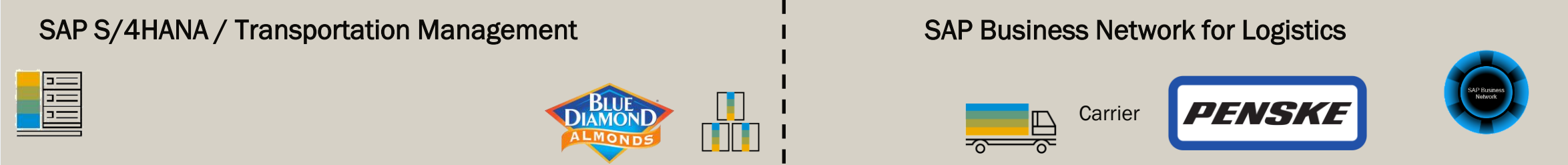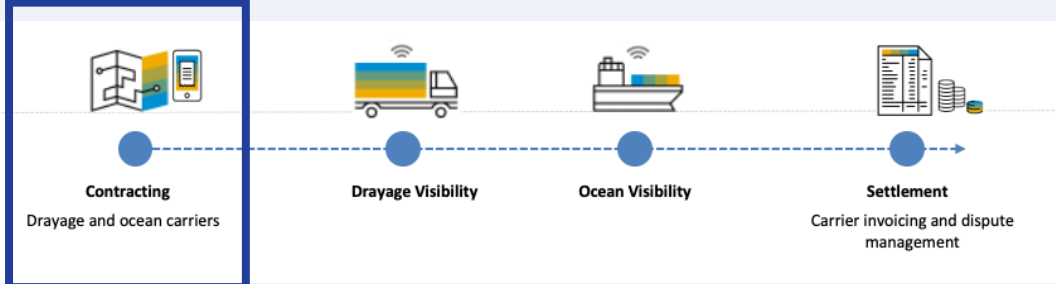4) Send drayage freight order for confirmation

Web UI / API

5) Confirm drayage freight order

7) Status update on confirmed freight order, set on ready for transportation execution

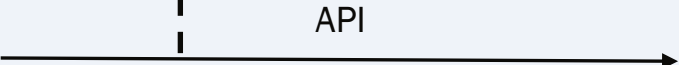6) Add additional details (e.g. name of driver, license plate of vehicle, vessel number)
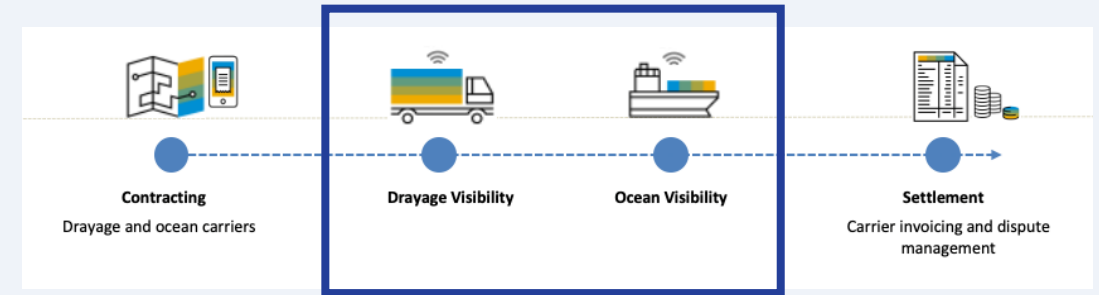
Contracting - Domestic

Contracting
Drayage and ocean carriers

Drayage Visibility

Ocean Visibility

Settlement
Carrier invoicing and dispute management

SAP S/4HANA / Transportation Management	SAP Business Network for Logistics

Carrier

1) Create freight order

2) Send freight order for confirmation

API

3) Confirm freight order

Visibility - Export

Contracting
Drayage and ocean carriers

Drayage Visibility

Ocean Visibility

Settlement
Carrier invoicing and dispute management

SAP S/4HANA / Transportation Management	SAP Business Network for Logistics

Carrier

2) Mark drayage FO as "In Execution"

← Web UI / API

1) Report pick-up of container at plant

4) Mark drayage FO "Executed", mark ocean FB as "Ready for Transportation Execution"

← Web UI / API

3) Report arrival and delivery of container at terminal

6) Update ocean FB as "In Execution" (making it available for invoicing)

project44

5) Report ocean leg milestones (departure, delay, arrival, etc.)

6) React upon changes in freight order/booking execution (e.g. inform customers, re-consignment, …)

SAPinsider

Visibility - Domestic
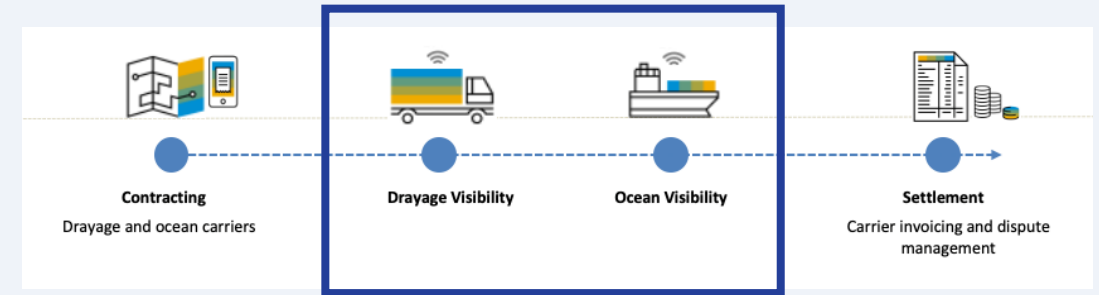
Contracting
Drayage and ocean carriers

Drayage Visibility

Ocean Visibility

Settlement
Carrier invoicing and dispute management

SAP S/4HANA / Transportation Management

SAP Business Network for Logistics

Carrier

PENSKE

2) Mark FO as "In Execution" (making it available for invoicing)

API & project44

1) Report departure from pick-up location

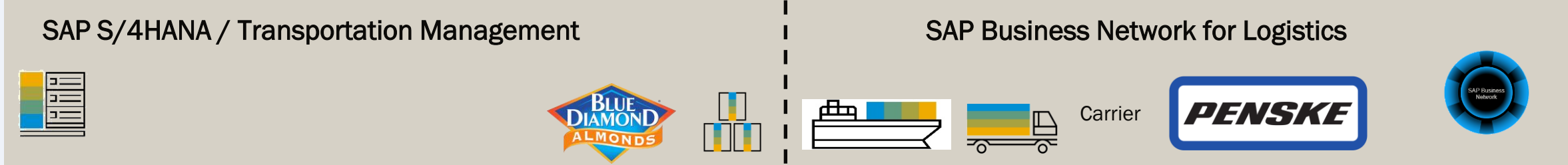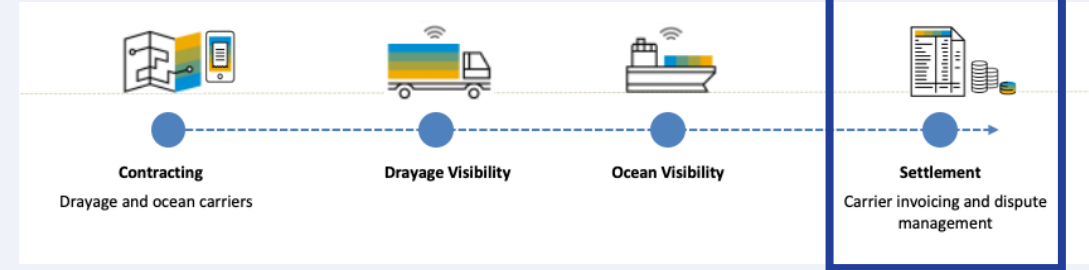4) Update Execution data on FO

API & project44

3) Report delays, POD, etc. events

6) Mark FO as "Executed"

API & project44

5) Report arrival at delivery location

SAPinsider

Settlement – Export & Domestic

Contracting
Drayage and ocean carriers

Drayage Visibility

Ocean Visibility

Settlement
Carrier invoicing and dispute management

SAP S/4HANA / Transportation Management | **SAP Business Network for Logistics**

Carrier

1) Share freight document with expected charges

2) Create invoice, add charges if required and submit

3) Receive carrier invoice

4) Raise and process dispute

5) Collaborate on dispute

7) Update charges

6) Resolve dispute

9) Create carrier invoice and process payment

8) Resubmit invoice
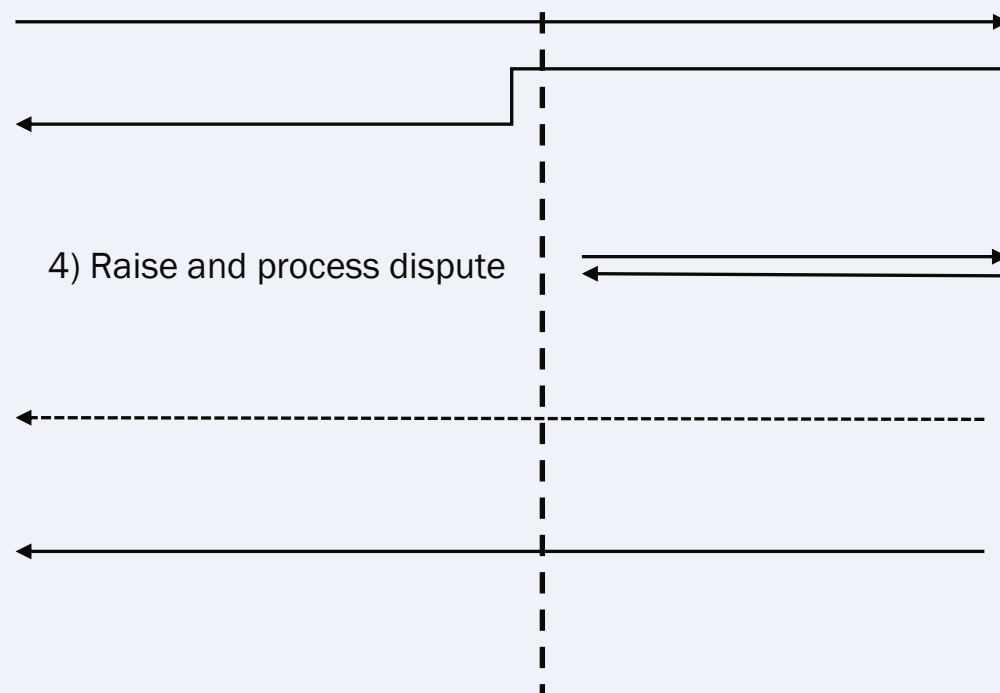
Dock Appointment Scheduling

Ease appointment collaboration
Carriers book appointment via a self-service. Guest access for carriers with whom no direct business relationship exists, in case of supplier/customer-managed, or subcontracted transports

Efficient dock and gate operations
View and manage dock appointments in a calendar, see status at a glance via color coding. Access worklists to assign gates, perform lean check-in and check-out, add notes and attachments.

Split duties between you as a shipper and your (external) warehouse / yard operators
Instantly share master and operational data across all involved parties

Master data
Define yard, gate, docking locations, loading points and capacities. Leverage calendar view and color coding to keep track of dock appointment status.

Integrate with your logistics backend systems for seamless operations
Standard or cookbook-based integration via open APIs
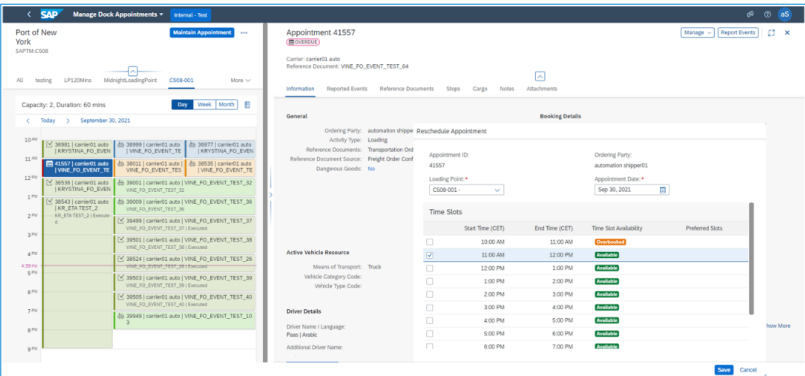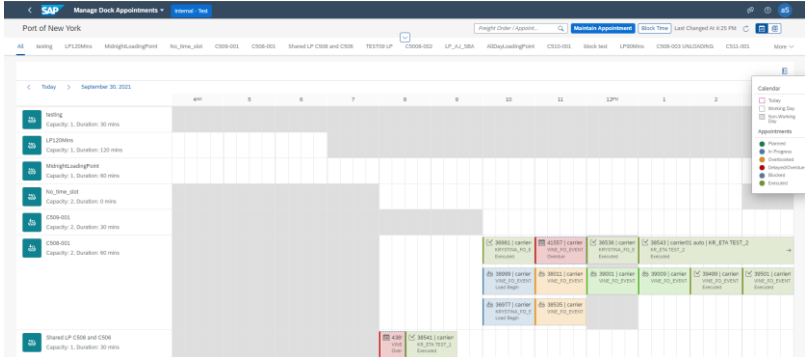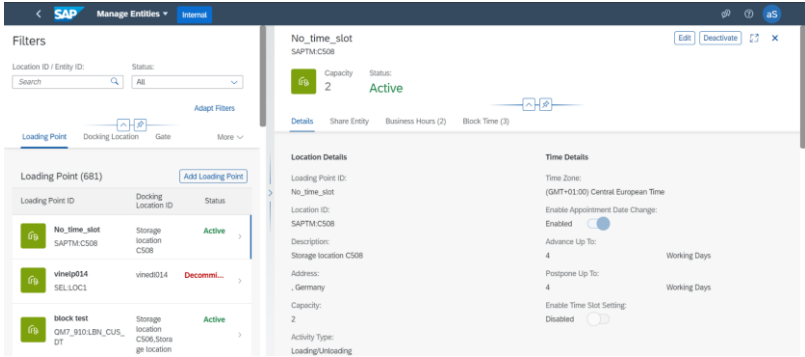
Future Initiatives

Continuous Improvement

- Export
  - Expand the use of Descartes integration to all/most ocean carriers
  - Ocean Schedules – Flexibility vs Productivity
  - Carrier invoicing technical issues

- Domestic
  - Reduce manual planning scenarios
  - On-time Delivery Reporting
  - TM Order Scheduling

SAPinsider

Wrap up

SAPinsider

Where to Find More Information

https://www.sap.com/asset/dynamic/2023/10/c07c8a52-947e-0010-bca6-c68f7e60039b.html
- Blue Diamond Growers customer success story on SAP TM and BN4L implementation

https://xpertminds.net/tag/transportation-management/
- XpertMinds blog focused on SAP Transportation Management topics

https://roadmaps.sap.com/board?range=CURRENT-LAST&PRODUCT=089E017A62AB1EDAA6CCB767DDDCC0E5#Q4%202024
- SAP Transportation Management roadmap

https://roadmaps.sap.com/board?PRODUCT=73554900100800001025&range=CURRENT-LAST#Q2%202024
- SAP Business Network for Logistics roadmap

Key Points to Take Home

- SAP Transportation Management provides a best-of-breed foundation for transportation planning and freight cost management

- SAP Business Network for Logistics is instrumental for effective carrier collaboration

- Investigate integration of SAP with other logistics solutions – Descartes, project44, etc. – to help reduce manual effort and increase digitization

- Implement SAP TM and BN4L in multiple phases (for example by mode, geography, etc.) to minimize risk and reduce change management effort

- Utilize Agile Project Management to increase business ownership and participation

SAPinsider

Thank you! Any Questions?

Serena Cooper

Linkedin.com/in/serenacooper

Anton Karnaukhov

Linkedin.com/in/anton-Karnaukhov-40bb698

anton.Karnaukhov@xpertminds.net

+1 (916) 715-8464

www.xpertminds.net

Please remember to complete your session evaluation.

SAPinsider

SAPinsider.org

SAPinsider comprises the largest and fastest growing SAP membership group with more than 800,000 members worldwide.