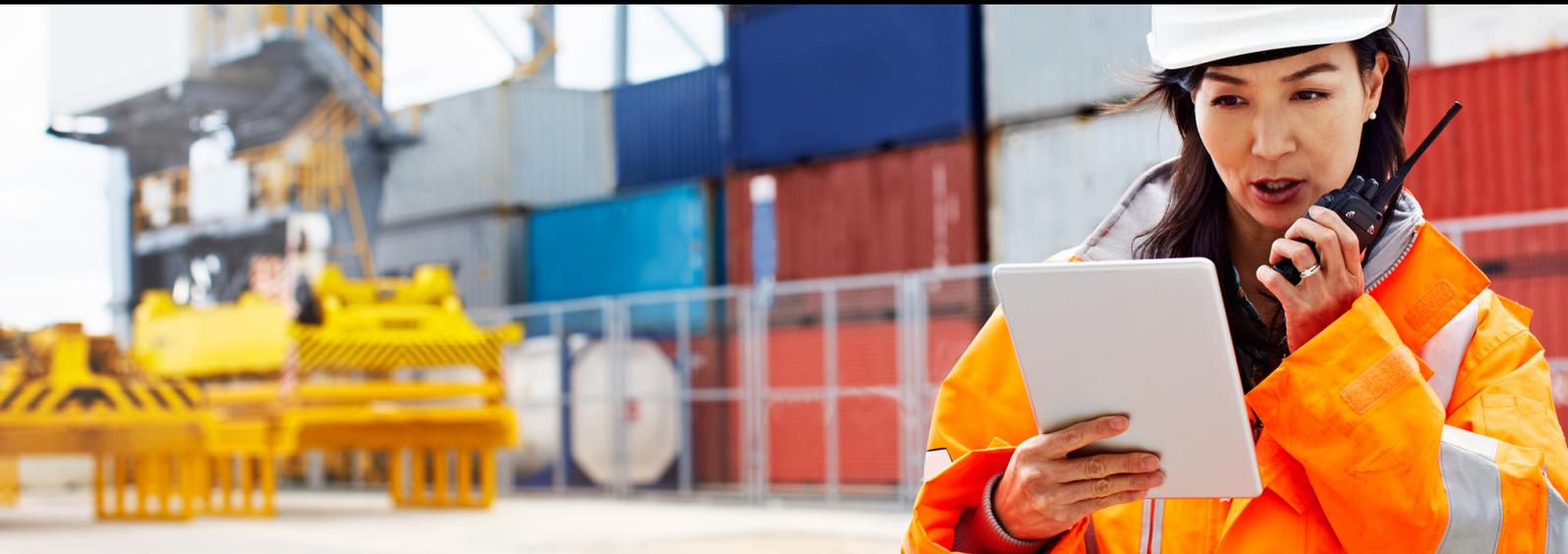SAP Solution Brief | PUBLIC
SAP Transportation Management

Enable More Risk-Resilient Logistics with Comprehensive Transportation Management

THE BEST RUN **SAP**

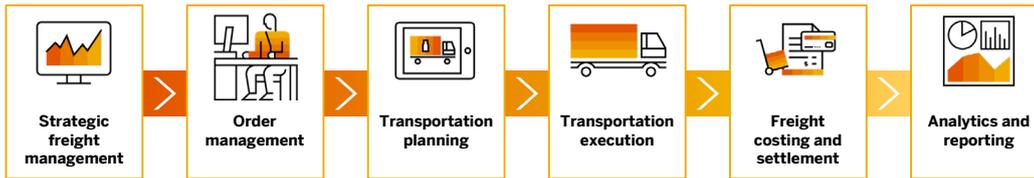# Deploy a Holistic Application for Connected Transportation

To address the increasing complexity and volatility of global logistics, companies must optimize logistics processes and improve service while increasing visibility and control. The SAP® Transportation Management application streamlines comprehensive processes for goods movement across various transportation modes, which helps **improve operational efficiency and reduce costs**.

While handling more data and greater complexity, transportation managers are expected to reduce spending as a percentage of cost and maximize the return on each asset. To enhance service levels, your business needs better logistics visibility so you can offer reliable, on-time delivery. You also must improve corporate sustainability and regulatory compliance. Meeting these needs requires a holistic business solution that offers efficient connectivity to business partners and external systems, enabling streamlined communication across the value chain. To get there, you also need a solution that optimizes your end-to-end transportation management processes (see [Figure 1](#)) and meets your supply chain execution mission.

SAP Transportation Management helps you meet these needs by providing the ability to manage transportation demand, consolidate orders, monitor and track your shipments, and maximize the return on your transportation spend.

| Strategic freight management | > | Order management | > | Transportation planning | > | Transportation execution | > | Freight costing and settlement | > | Analytics and reporting |

Deploy a Holistic Application for Connected Transportation

Figure 1: End-to-End Transportation Management Process

Build a Platform Strategy for Supply Chain Execution

Transportation operations can no longer succeed as a functional silo focusing solely on transportation procedures. You need an integrated, comprehensive logistics solution to smoothly run your logistics processes, respond quickly to changes, and get a holistic view of your logistics operations.

Many vendors simply integrate disparate existing solutions. However, SAP solutions help your business run better by converging your processes with a dynamic platform strategy. This strategy combines the capabilities of the SAP Extended Warehouse Management (SAP EWM) application, SAP Transportation Management, and

SAP Business Network for Logistics with the power of intelligent technologies including the IoT, machine learning, and blockchain. Together, they can help you orchestrate your logistics as part of a compelling, executable vision.

The combined applications create a digital logistics platform, which helps align your logistics processes so your customers get fast and agile fulfillment experiences. You can also optimize logistics functions, provide integrated analytics and cost visibility, and support growth and scalability, lowering your cost of ownership. The digital logistics platform helps synchronize your logistics operations with the rest of your company and provide a single, consistent view of your systems, partners, and processes.

Build a Platform Strategy for Supply Chain Execution

Enable Strategic Freight Procurement and Capacity Monitoring

Orchestrate Freight Order Management

Optimize Transportation Planning

Improve Visibility with Efficient Transportation Execution

Manage Freight Financials Through Freight Settlement

Power Intelligent Transportation with Analytics and Reporting

Enable Strategic Freight Procurement and Capacity Monitoring

When you are buying freight services, you need a solution that optimizes capacity for transportation modes on both common and remote shipping lanes. That's why SAP Transportation Management offers strategic freight procurement features that help you identify freight needs, collaboratively manage the process of buying freight capacity, and efficiently create freight agreements.

SAP Transportation Management supports the freight capacity management process using one integrated application. You can enable flexible and efficient freight capacity procurement through freight contract negotiations. Simple modeling of complex scenarios and powerful what-if simulations help you choose the strategies most likely to enhance profitability, cost efficiency, and customer satisfaction. In addition, real-time reporting helps you measure compliance against carrier agreements and identify opportunities for cost savings.

Using SAP Transportation Management, you can **align logistics processes** to create fast, agile experiences for your customers.

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Orchestrate Freight Order Management

Accurately receiving orders and efficiently processing them are critical capabilities in the logistics business. SAP Transportation Management helps you receive order-based or delivery-based transportation requirements from multiple order management systems. You can confirm, plan, and execute orders, coordinate delivery with the warehouse, and communicate order status with business partners.

The application offers the following features:
• Dynamically generated, optimized routing proposals for orders based on business rules that avoid extra freight costs and deliver better customer service
• Holistic integration of transportation demand with order-to-cash and procure-to-pay processes, with real-time change management based on business rules that helps ensure a closed-loop communication cycle
• Integration with order and delivery data in SAP S/4HANA®, including cross-system order access and visibility into the status of each order

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Optimize Transportation Planning

Achieving on-time, low-cost freight delivery requires sophisticated transportation planning. SAP Transportation Management helps you optimize your transportation plans while improving resource utilization and reducing freight spend (see **Figure 2**). You can consolidate domestic or international shipments using single or multimodal transportation. The application also helps you achieve the right level of centralized or decentralized planning to meet your delivery goals.

The application's planning features include:
- **Flexible planning** and dynamic replanning functions that consider constraints and offer insights from huge volumes of data to optimize freight planning and tendering
- **Visual load planning** down to the pallet level, helping you visualize vehicle space and optimized loading based on various attributes (such as dimensions and weights), axle constraints, stacking rules, and delivery-stop sequences
- **Optimal and efficient selection** of modes, routes, resources, and carriers by factoring in costs and penalties
- **Freight tendering**, which supports multivariant tendering and enables communication through multiple channels

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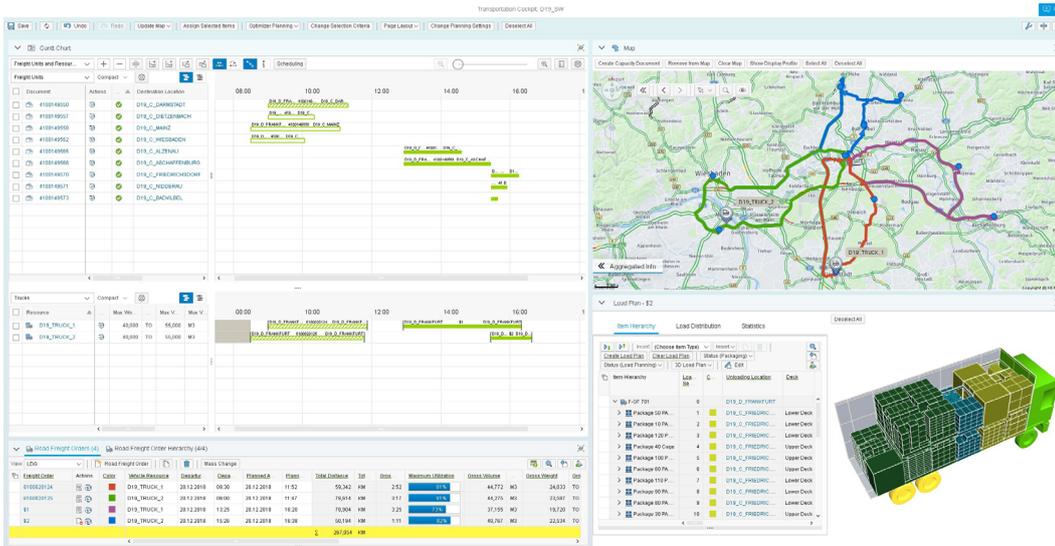Enable Strategic Freight Procurement and Capacity Monitoring

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Figure 2: Transportation Cockpit 3D Load Plan in SAP Transportation Management

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Improve Visibility with Efficient Transportation Execution

To achieve efficient and effective transportation, your business needs the ability to execute a plan and adapt it to real-life events in a dynamic environment. Harmonized planning and execution can help you economically deliver goods when and where customers expect them while spotting risks early, handling delays, and avoiding disruptions.

Execution features in SAP Transportation Management include:

- **Direct, real-time integration** with SAP EWM to synchronize freight documents until the freight has been received or loaded and share truck arrival and departure information between the two applications

- **Freight execution** through integration with SAP Business Network for Logistics to enable freight collaboration with logistics partners
- **Comprehensive document templates** for road, sea, and air shipments
- **Integration with the SAP Global Trade Services application** for trade-regulation compliance functions such as handling export declaration, import declaration, and transit and security filing
- **Instant, comprehensive summaries** of your logistics processes that help you spot risks and avoid disruptions

Manage Freight Financials Through Freight Settlement

Accurately manage transportation charges and cost settlement with carriers to optimize freight costs. SAP Transportation Management offers freight cost management functionality for costing, auditing, settlement, and reporting.

Key features include:
- **Advanced freight charge calculation** and mode-specific charge and tariff management for road, rail, ocean, and air
- **Accurate freight cost allocation** across orders and materials for material valuation and cost analysis

- **Freight settlement features** for accruals posting, carrier self-invoicing, invoice verification and payment, and credit memo processing
- **Invoice dispute management** in connection with SAP Business Network for Logistics, supported by tolerance settings and workflows
- **Integration with SAP S/4HANA for use in freight settlement and invoicing**, with general ledger posting, material valuation, and order profitability analysis
- **Freight cost reporting** using an interactive freight cost dashboard

Power Intelligent Transportation with Analytics and Reporting

Managing transportation operations effectively requires instant access to data as we enter the era of data-driven logistics. Real-time analytics offer instant insight into key strategic and operational performance parameters to help you focus on improvement areas with reduced data complexity. With real-time operational insights from a variety of data sources, you can tightly monitor and limit the number of expedited shipments. SAP Transportation Management includes

comprehensive, flexible decision support tools that help you stay informed, get in-depth business insights, and make faster, smarter business decisions (see **Figure 3**).

The analytics and reporting capabilities in SAP Transportation Management include dashboards for SAP HANA®, overview pages with KPIs to manage your operational business, flexible reporting, and real-time data-based reporting – all of which help you spot risks early and avoid disruptions.

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Figure 3: Transportation Management Analytics

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Realize the Benefits of SAP Transportation Management

SAP Transportation Management delivers business benefits that include deep visibility into logistics processes and faster, more efficient transportation enabled by smarter decision-making and real-time insights. Your IT department can enjoy robust functionality for flexible, scalable system and process configuration. The application integrates with a unique enterprise-wide ecosystem of SAP software. There is a robust ecosystem available to help you through your implementation and onward with continuous innovation and reinvention.

Automated processes, electronic collaboration, and reduced redundancies help increase business efficiency and productivity, and enhanced visibility throughout the value chain helps increase service responsiveness. Many companies achieve significant freight savings through consolidation, optimal carrier selection, better use of assets, and fewer expedited shipments. In addition, more-accurate costing and settlement can improve cash flow and reduce your freight-costing workload. Detailed reports, real-time analytics, and drill-down functionality provide instant insights that support faster freight cost analysis and improved business decisions.

Realize the Benefits of SAP Transportation Management

Summary
The SAP® Transportation Management application helps you create efficient and responsive transportation operations and standardized processes that allow you to reduce transportation costs and improve customer satisfaction. The application helps with order consolidation, maximizing return on spend by fine-tuning your transportation planning, execution, freight cost settlement, and data analysis processes. It also allows you to define processes to mitigate risk while helping meet sustainability goals.

Objectives
- Run transportation integrated with core sales, warehousing, global trade, and finances
- Achieve faster fulfillment while optimizing resources and mitigating problems and risks efficiently
- Identify risks and avoid disruptions with instant, comprehensive views into your logistics processes
- Make your transportation processes more risk resilient
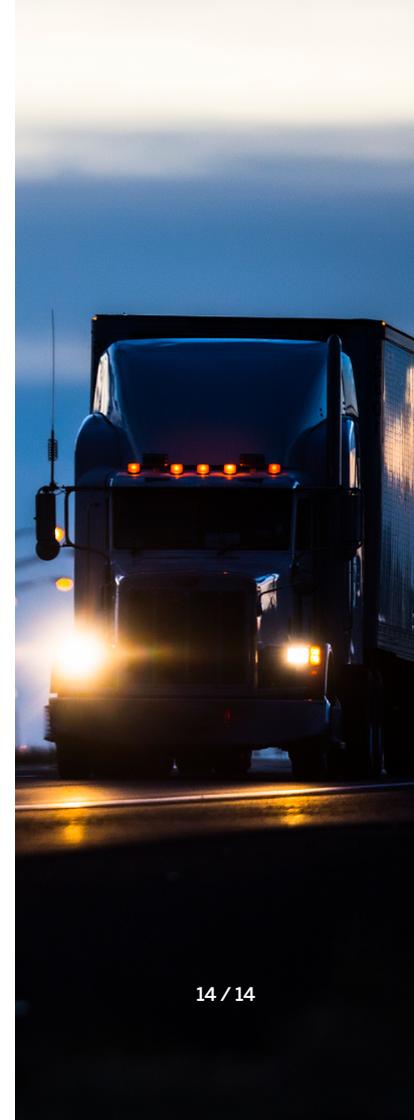
Solution
- Comprehensive transportation solution
- Integration with SAP S/4HANA® with advanced functions
- Centralized or decentralized deployment

Benefits
- Lower freight spend
- Decreased expediting costs
- Shorter average trailer turn
- Fewer invoice errors
- Enhanced customer satisfaction and loyalty thanks to improved service effectiveness and on-time delivery rates

Learn more
To find out how SAP Transportation Management can help your company improve its transportation processes, visit us **online**.

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