Scenario-Driven Implementation Pattern:

SAP Transportation Management and LES – Evolve, Replace, Innovate

Debbie Zuckerman Kaplan
Learning Points

- Compare and understand SAP TM with SAP ERP LES, TPVS
- Understand hybrid models with TM and LES
- Focused implementation patterns, e.g. Planning, Ocean Booking, Tendering, freight costing, etc. (RDS)
1. Introduction
2. Order Quotation and Order Management
3. Planning
4. Freight Costing and Invoicing
5. Wrap-up
1. Introduction
2. Order Quotation and Order Management
3. Planning
4. Freight Costing and Invoicing
5. Wrap-up
Presentation Acronyms

- SAP Transportation Management (TM)
- SAP Logistics Execution System (LES)
- SAP Advanced Planning and Optimization (APO)
- SAP Supply Chain Management (SCM)
  Transportation & Vehicle Scheduling (TP/VS)
- SAP Global Trade Services (GTS)
- SAP Event Manager (EM)
- SAP Global Available To Promise (gATP)
- SAP Ocean Carrier Booking (OCB)
- SAP Railcar Management (RCM)
- Freight Cost Extension (FCX)
- Rail Car Extention (RCX)
- SAP On-Site Event Management (OSEM)
- Distance Determination System (DDS)
- Strategic Freight Management (SFM)
- Transportation Management Solutions (TMS)
- Logistics Information Systems (LIS)
- Personal Object Worklist (POWL)
- Freight Unit (FU)
- Electronic Data Interchange (EDI)
- Service Oriented Architecture (SOA)
- (FTL)
- (LTL)
- Freight on Board (FOB)
- Full Container Load (FCL)
Continued Investment in Transportation
Deliver Best in class TM – key enabler for global fulfillment

Logistics Service Providers

<table>
<thead>
<tr>
<th>Year</th>
<th>Solution/Service</th>
</tr>
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<tbody>
<tr>
<td>1987</td>
<td>Transportation Solution in SAP R/2</td>
</tr>
<tr>
<td>1993</td>
<td>Transportation Solution in SAP R/3</td>
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<tr>
<td>2000</td>
<td>Transportation Optimization APO-TPVS</td>
</tr>
<tr>
<td>2001</td>
<td>Event Management Track &amp; Trace</td>
</tr>
<tr>
<td>2004</td>
<td>Real World Awareness - RFID</td>
</tr>
<tr>
<td>2006</td>
<td>Extended Planning &amp; Ocean Booking</td>
</tr>
<tr>
<td>2007</td>
<td>TM Operations</td>
</tr>
</tbody>
</table>

- Focus: Industries & Manufacturers 2008
- Focus: Industries & Collaboration 2009
- Focus: Industries & Collaboration 2010

Shipper, Retailer
Transportation Solutions

Plan | Optimize | Schedule | Execute | Report

SAP SCM

TP/VS
(Transportation Planning / Vehicle Scheduling)

OCB – Ocean-Carrier Booking (5.1)

SAP TM

SFM
Strategic Freight Management

SAP ERP

GATP
Global Available-To-Promise

SNC
Supply Network Collaboration – Responsive Replenishment

SAP Event Management

LES
(Logistics Execution System)

GTS

EH&S

RCM (Railcar Management)
FCX, OSEM, RCX, DDS

Bulk Transportation Scheduling
TSW – Trader’s Scheduling Workbench

Direct Store Delivery
DSD

Real Experience. Real Advantage.
LES > TPVS > TM: Evolving - Adapting
Today - Enterprise Centric and Supply Chain Processes

Supply Network Solution

Transportation Planning & Enhanced Supply Network Solutions
- Vehicle Scheduling, Routing Guide and Optimization
- Enhanced Carrier Selection and Continuous Move Optimization
- Analytics and Supply Chain Event Management

Enterprise Centric Transportation Solution

Covers Core Logistics offers
- Planning, Freight Costing and Settlement
- Self-Billing and Freight Auditing, Parcel XSI, Analytic Application
- Oil & Gas Trader Scheduler Workbench, Direct Store Delivery, Waste Management
- Railcar Management, Freight Cost Extension
- GTS (Global Trade Services)

Generic Processes, Mode Specifics, Industry Knowledge
Today - Enterprise Centric and Supply Chain Processes

Supply Network Solution - Covers Core Logistics

The add-on for SCM offers
- Booking of Ocean Vessel Capacity
- Business Process Collaboration
- Ocean Visibility and Security
- Compartments and Truck & Trailer Separation
- Enhanced constraints and planning
- High Volume Performance

Strategic Freight Management Pilot Solution

SAP SFM offers
- Strategic Collaborative Capacity and Contract Planning
- RFQs for Ocean and Land Contracts
- Web based Carrier collaboration for address and service profiles maintenance

Enhanced Planning and Carrier Connectivity
Roadmap – TM Operations Content Release

SAP TM Operations content
- Pull-Driven Demand and Distribution processes
- Carrier and Service Connectivity enhancement
- Driver Planning and Management (US, EU compliance digital tachograph)
- Logistics Service Provider’s Content and Shipper’s Content

Features
- Out of the box connectivity for important business partners in logistics (Ocean, Rail, Air, Land TL/LTL e.g.)
- Customs EAS, ATLAS, and compliance Enhancements
- Real World Awareness Network content with Partners
- Usability dynamic Geographic interaction enhancements
- Enhanced Supplier, Customer and Service Integration

For Distribution Intensive & Logistics Service Industries
Process Driven Solution Definition

**customer focused investment strategy**

**Content**

- Define Core Processes/Process Steps/Industry Scenarios/Variants
- Determine coverage of processes with planned features, including enhanced features in FBS

**Purpose**

- To analyse level of completeness by process step
- To determine roadmap, by goal on how to increase coverage
- To determine future processes or industry processes

**Method**

- Align requirements, define test cases based on processes
- Assemble processes and variants to end to end scenarios and implementable packages

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**Shipper and Logistics Service Provider Scenarios**

- **Settlng Freight Orders**
  - Outbound Domestic
  - Inbound Domestic
  - International Export
  - International Import
  - Outsourcing

- **Managing Transportation Requirements**

- **Managing Forwarding Orders**

- **Managing Freight & Bookings**
  - Air Freight
  - Sea Freight
  - Land Freight
  - Parcel/Small Package
  - Freight Forwarding
  - Postal Services

- **Tendering Freight**

- **Execution & Monitoring Freight**

- **Planning Freight & Selecting Carriers**
Overview SAP Transportation Management 8.0
Solution Coverage

Order Management
- SAP ERP integration - Order-to-Cash, Procure-to-Pay
- Freight Orders
- Forwarding Orders
- Freight Bookings

Freight Planning & Tendering
- Resource & Carrier Selection
- Carrier Tendering
- Ocean Booking

Freight Execution & Monitoring
- Logistics Execution
- Transportation Status Visibility & Monitoring

Freight Settlement
- Freight Agreement Management
- Charge & Tariff Management
- Forwarding Order Settlement
- Freight Order Settlement

Analytics & Reporting

Event Management

Import / Export, Dangerous Goods & Compliance

Document & Output Management

Integration & Connectivity

Real Experience. Real Advantage.
### Quick Chart – Differences of SAP TM vs TP/VS & LES

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combines Planning and Execution</td>
<td>Extends current TPVS capabilities to include Freight Costing and Execution</td>
</tr>
<tr>
<td></td>
<td>- Can manage the buy and sell side of transportation</td>
</tr>
<tr>
<td></td>
<td>- Includes important shipment documents such as the bill of lading, order and quote receipt and confirmation</td>
</tr>
<tr>
<td>Stand-Alone</td>
<td>Independent of backend system landscape</td>
</tr>
<tr>
<td></td>
<td>- Does not require SAP ERP</td>
</tr>
<tr>
<td></td>
<td>- Standard message format for receiving and sending order information</td>
</tr>
<tr>
<td></td>
<td>- Standard integration to SAP ERP will be provided</td>
</tr>
<tr>
<td>Split Organizational Responsibilities</td>
<td>Supports split organizational responsibilities</td>
</tr>
<tr>
<td></td>
<td>- Multiple planning departments for a single movement. For example, an international movement could have multiple distribution management responsibilities – domestic, ocean, international domestic</td>
</tr>
<tr>
<td>Visibility</td>
<td>Greater visibility on the logistical, financial, and informational aspects of transportation</td>
</tr>
<tr>
<td>Enterprise SOA</td>
<td>Logistical capabilities can be ‘pieced’ together based on requirements.</td>
</tr>
<tr>
<td></td>
<td>♦ Planning, carrier selection, freight costing, …</td>
</tr>
<tr>
<td></td>
<td>Services can be developed for improved partner collaboration</td>
</tr>
<tr>
<td></td>
<td>♦ Track/trace, tendering, equipment allocations, …</td>
</tr>
</tbody>
</table>
SAP TM – Planning & Tendering Only
Outbound Shipper Scenario – sales order based
Outbound Shipper Scenario – sales order based

**Shipper (SAP ERP)**
- Create Sales Order
- Create Delivery Creation
- Update Delivery Pick, Pack etc
- Freight Audit, ERS, Accounts Payable
- Cost Allocation

**Shipper (SAP TM)**
- Receive Order Based Trans. Requirement
- Plan, Split, Consolidate, Optimize, Freight Costing, Carrier Selection
- Create Freight Order
- Trigger Delivery Creation
- Create Delivery based Trans. Requirement
- Prepare Freight Invoice

**Carrier (3rd Party)**
- Receive Shipment
- Confirm, Reject, Change

**Consumption Logic**

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Real Experience. Real Advantage.
1. Introduction

2. Order Quotation and Order Management

3. Planning

4. Freight Costing and Invoicing

5. Wrap-up
Transportation Order Management

- **Order management**: to create, edit, and confirm the transportation requests from your ordering parties
- **Ability to support order quotation**
  - Be able to reference quote ‘shipment request’ number when the actual order is entered
  - Shows that an order can be based on a quotation and that the both can reference each other.
    - Provides ability to compare quoted costs to actual
- **Access transportation options directly via the Routing Guide/Shipment Proposal**
## Order Management

<table>
<thead>
<tr>
<th>Feature</th>
<th>LES</th>
<th>TP/VS</th>
<th>TMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Freight Quote</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Take Freight Request</td>
<td>Created via Delivery</td>
<td>Created via SO/Delivery</td>
<td>ERP - Created via SO*/Delivery or independently in TM</td>
</tr>
<tr>
<td>Ability to change Shipment Order</td>
<td>Limited. Shipment Created in LES manually or in batch.</td>
<td>Created in TP/VS via manual/planning then limited once transferred</td>
<td>Flexible changes allowed even during execution</td>
</tr>
<tr>
<td>Estimate Shipping Charges</td>
<td>Yes, in SO but not saved. Or in Shipment via Shipment cost document</td>
<td>Yes, after carrier tendering – but can’t store/change values until transferred to ERP</td>
<td>Yes, fully calculate and change values</td>
</tr>
<tr>
<td>Profitability Analysis</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Ad Hoc Shipments</td>
<td>Limited</td>
<td>None</td>
<td>Yes</td>
</tr>
<tr>
<td>Routing Guide Options</td>
<td>Yes – with FCX available extension</td>
<td>Yes</td>
<td>Yes- Enhanced features to TP/VS – but not during OE.</td>
</tr>
<tr>
<td>Create Shipment Requests/Quotes</td>
<td>No</td>
<td>No</td>
<td>Yes – as well as templates</td>
</tr>
<tr>
<td>Combine Inbound &amp; Outbound Shipments</td>
<td>No</td>
<td>Only in TPVS – can’t transfer to ERP</td>
<td>Yes</td>
</tr>
<tr>
<td>Flexible Query</td>
<td>LIS</td>
<td>Interactive</td>
<td>POWL</td>
</tr>
</tbody>
</table>
User Experience: SAP Business Client
simplify user interaction, automate key processes
Order Management
By Processes, Qualification and Means of Transport

- **Out of the box processing**
  - Integrates seamlessly with Sales, Procurement and replenishment
  - Order changes are managed in the downstream TM processes through dynamic, user-defined rules.
  - Order and Delivery based integration or manual order capturing (LSP)

- **Usability, Configurability, Security**
  - User, Role, Mode, Process...
  - Document type
  - Drag & Drop for packaging, loading
**SAP TM Sales Order Scheduling Service – Process Flow**

**ERP**

1. Identify relevance of TM based scheduling
2. Suppress ATP by line items
3. Group Call for all line items
4. Preprocessing

- **TM provides MBDATs**
- **Requested Delivery Dates**
- **Corresponding Material Staging Dates**
- **Schedule lines may be split**
- **Material Staging Dates**

- **6. Availability Checks (in ERP, APO or both)**
- **7. In case ATP shifted MBDATs, TM postprocessing:**

- **TM provides LFDATs**
- **Corresponding Delivery Dates**

- **9. Save Sales Order**

**TM 8.0**

- **5. Backward Scheduling:**
  - Build Freight Units
  - Calculate Transportation Proposal(s)
  - Schedule MBDATs

- **8. Forward Scheduling:**
  - Build Freight Units
  - Schedule LDDATs
  - Calculate Transportation Proposal(s)

**Asynchronous Order Integration**

MBDAT = Material Staging Date
LFDAT = Delivery Date
LDDAT = Loading Date
1. Introduction
2. Order Quotation and Order Management
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5. Wrap-up
SAP Transportation Planning supports...

- **Dynamic Route Determination (Routing Guide)**
  - Interactive and powerful decision support Order by Order
  - Prepare complex shipment execution

- **Vehicle Scheduling and Routing**
  - Consolidate orders, optimize routing and sequencing of deliveries
  - Optimize resource utilization and minimize workload
  - Plan and revise – focus on exceptions

- **Carrier Optimization**
  - Optimize Carrier assignment for selected orders
  - Identify continuous moves across multiple shipments
  - Revise and reconsider continuously

- **Collaborative Capacity Planning with Carriers**
  - Exchange expected daily number of shipments with Carriers
  - Give Carriers access to your mid-term planning via the Web
  - Information used during Carrier Optimization

- **Collaborative Tendering of shipments**
  - Tender via the Internet or via EDI or via…
  - Carrier to adjust pick-up times and delivery times of shipments

- **Graphical Planning and Visibility**

- **Ocean Carrier Booking**
  - Ocean Carrier Assignment
<table>
<thead>
<tr>
<th>Feature</th>
<th>LES</th>
<th>TP/VS</th>
<th>TMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic Route Determination</td>
<td>Yes with FCX</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Vehicle Scheduling &amp; Routing</td>
<td>Yes - Static</td>
<td>Yes – Dynamic &amp; optimized</td>
<td>Yes – Dynamic &amp; optimized based</td>
</tr>
<tr>
<td>Carrier Optimization</td>
<td>No</td>
<td>Yes</td>
<td>Yes - expanded</td>
</tr>
<tr>
<td>Collaborative capacity planning with Carrier</td>
<td>No</td>
<td>Yes</td>
<td>Yes - Expanded</td>
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<tr>
<td>Collaborative Tendering</td>
<td>Limited</td>
<td>Yes, but limited data for collaboration</td>
<td>Yes. Can manage dates, times, costs, etc.</td>
</tr>
<tr>
<td>Tendering supported</td>
<td>EDI – peer to Peer</td>
<td>Peer-to-peer</td>
<td>Peer-to-peer, Broadcast</td>
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<tr>
<td>Composite Applications</td>
<td>Rail Car Management (RCM), TSW, EM, SAP II, GRC, …</td>
<td></td>
<td>SAP II (Powered by Crossgate), GRC, …</td>
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<tr>
<td>Map based Planning</td>
<td>No</td>
<td>Yes</td>
<td>Yes, enhanced</td>
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<tr>
<td>Driver Resource</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>ReRoute Shipment</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>GTS integration</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>EM Integration</td>
<td>Yes</td>
<td>Yes – limited</td>
<td>Yes</td>
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### Transportation Proposals

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<th>Sektion 1</th>
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<td>Sektion 1</td>
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<td>Sektion 2</td>
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<td>Sektion 3</td>
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<td>Sektion 4</td>
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<tr>
<td>Sektion 5</td>
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</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Destination</th>
<th>Earliest Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH_PL</td>
<td>New York</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Hamburg</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Rotterdam</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Boston</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Rotterdam</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Rotterdam</td>
<td>00:00:00</td>
</tr>
<tr>
<td>HH_PORT</td>
<td>Rotterdam</td>
<td>00:00:00</td>
</tr>
</tbody>
</table>

**Notes:**
- The table lists transportation proposals with columns for source, destination, and earliest request.
- Each proposal includes details for different locations and times.

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**Real Experience. Real Advantage.**
SAP TM Transportation Cockpit
Highly Flexible Role & User-specific User Interface

Power User (Transportation Manager) layout
Rich UI content and functionality

Simplified Transportation Clerk layout
2 frame layout with worklists
Real Experience. Real Advantage.

**Tendering**

**Truck sub-contracting**

- **Best-in-class functionality**
  - Integrated with rating
  - Template based
  - Automated Processing
  - Excellent visibility
  - Best-practice requirements

- **Use Case**
  - Peer to Peer, Broadcast, Direct Tendering
  - North American Trucking
  - European Trucking

- **Carrier Portal**
  - Pricing, Appointments
  - Planning
  - Event Management, Analytics
1. Introduction
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5. Wrap-up
Transportation Charge Management

- **Freight Cost Management**
  - Powerful freight costing engine driven through our proven condition technique
  - Manages complex shipping scenario costing
  - All modes

- **Freight Agreement**
  - Storage of contractual agreements between shippers and service providers.
  - Manage multiple tariffs

- **Financials**
  - Manage Customer Freight Invoicing, including credit checking
  - Manage Supplier Freight Invoicing
  - Reconciliation of accounts purchased (A/P) and accounts received (A/R) in ERP
  - Real time information
## Transportation Charge Management

<table>
<thead>
<tr>
<th>Feature</th>
<th>LES</th>
<th>TP/VS</th>
<th>TMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine Inbound &amp; Outbound Shipments for costing.</td>
<td>No</td>
<td>Yes – but can’t send to ERP</td>
<td>Yes</td>
</tr>
<tr>
<td>Flexible Creation of tariff conditions</td>
<td>Yes (enhanced with Freight Cost Extension – FCX)</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>External Freight Rate Integration</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Detailed Cost during planning</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Inter/Intra Company Costing &amp; Revenue Distribution</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Requires LES Freight Rates for payments</td>
<td>Yes, if not using TM.</td>
<td>Yes, if needed for carrier selection</td>
<td>Not required, but could use rates in ERP as opposed to TM.</td>
</tr>
</tbody>
</table>
Execution & Settlement - Rail Car Management

Features

- **DDS – Distance Determination Service**
  - Retrieve distance from 3rd party distance providers

- **FCX – Freight Costing Extension**
  - Tariff Reference Data
  - Routing Guide
  - Customer Freight Invoicing
  - Inter-company Settlement of Freight Costs

- **RCX – Rail Fleet Management**
  - Railcar Tracking
  - Railcar Management Tools
  - Railcar Status Reporting
  - Detention Billing, Mileage Credits, Lease/Sub-Lease Reporting
  - Interface with Plant Maintenance (mySAP PLM)

- **OSEM – Onsite Yard Management for Railcars**
External Rate Integration – Tariff Planning

Business Requirement:

There are rates that are complex and difficult to implement and maintain. These rates may be supported through a 3rd party and made available to users of those rates.

Solution:

- SAP co-developed integration with a North American LTL rate content provider – SMC³.
- The solution allows to plan based on tariffs in SAP TM or from any 3rd party rating engine.
- SMC³ is a standard in the marketplace as the founders of CzarLite and providing access to thousands of carrier tariffs.
- SAP recognized the opportunity to provide integration to external rating engines while simplifying the application.
- Consistent with SAP’s goal to support a carrier collaboration platform.
Detailed cost information during planning

Business Requirement:
During different planning scenarios it is necessary for the planner to view detailed cost information to make informed decisions based on contractual agreements.

Solution:
- Transportation proposal provides cost details and not only the total cost.
- TSP/carrier selection provides cost details within the shipment order and not only the total cost.
- Direct navigation possible to the underlying freight agreements and tariffs.
1. Introduction
2. Order Quotation and Order Management
3. Planning
4. Freight Costing and Invoicing
5. **Wrap-up**
<table>
<thead>
<tr>
<th>Feature</th>
<th>LES</th>
<th>TP/VS</th>
<th>TMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Flow</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>eSOA</td>
<td>No</td>
<td>No</td>
<td>Yes – allow for greater flexibility in deployment</td>
</tr>
<tr>
<td>EDIFACT Message Standard</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Support Multiple Backend systems</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Supports all means of transport</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Master data independent</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Analytics</td>
<td>LIS / BI</td>
<td>BI</td>
<td>BW/BI</td>
</tr>
<tr>
<td>Standalone Deployment</td>
<td>No</td>
<td>Possible</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Document Flow

Business Requirement:
Transportation processes branch across sub processes like order management, planning, subcontracting and execution. TM users need to have access to all relevant document types from different entry points.

Solution:
- Visibility of all related documents in a document flow and possibility to branch into the related documents.
- The document flow can be shown as a list or in a graphical way.
In SAP—Standard Adobe Forms are the successor of SmartForms.

- Within SAP Transportation Management Print Documents are created in the Portable Data File (PDF).

Examples

- **VICS* Road Waybill**
  - The standard VICS BOL is intended for U.S. LTL and TL ground transport

- **CMR* Road Waybill**
  - The standard CMR Road Waybill is intended for European ground transport

* CMR = Convention relative au contrat de transport
Analytics – Business Context Viewer

Edit North America OB - GRP03 100000165

Carrier: US-CAR-01 POI Truck Lines / Pittsburgh PA 15204
Continuous Move ID: 
Subcontracting Relevance: Relevant for Subcontracting

Carrier Ranking

Carrier Acceptance Rate

Items

Insert Product

Real Experience. Real Advantage.
SAP TM Base Reporting Capabilities

1. Standard Ad-Hoc Queries (POWL)

2. SAP TM Analytics

3. SAP TM SAP NetWeaver Business Intelligence Reports
Deployment Flexibility
<table>
<thead>
<tr>
<th><strong>Selected Transportation Management Projects</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAP Transportation Management 6.0, 7.0 &amp; 8.0</strong></td>
</tr>
</tbody>
</table>

### Consumer
- **Company:**
  Consumer packaging for beverage, personal care, healthcare, food
- **Implementation:**
  SAP TM 6.0
- **Goal:**
  Complete automation of the tendering process (subcontracting)
- **Implementation Scope:**
  Transportation optimization - freight unit building, truck planning, carrier selection.
  Sales order processing in SAP ERP.
  Transportation planning in SAP TM.
  Logistics execution in SAP LES (ERP-Logistic Execution System).

### Chemicals
- **Company:**
  Chemicals company specializing in silicone-based materials
- **Implementation:**
  SAP TM 7.0
  ca. 50 sites with 300 shipping points
- **Goal:**
  Efficient, accurate transportation settlement and invoicing
- **Implementation Scope:**
  Transportation charge management, with extensive charge calculation, invoice creation and verification.
  Shipment creation in SAP ERP.
  Charge calculation with carrier verification & freight settlement in TM.
  Automated invoicing in SAP ERP.

### Consumer
- **Company:**
  World leading company for food and beverages, health & performance nutrition
- **Implementation:**
  SAP TM 8.0
- **Goal:**
  A common transportation mgmt. system to eliminate legacy TM systems. Transportation spend reduction & operational efficiency increase.
- **Implementation Scope:**
  Full TM implementation across freight order mgmt., transportation planning & carrier selection, tendering, subcontracting and freight settlement.
Possible Process Flow – Orchestrate according to business needs

1. **Create Sales Order**
2. **Order based Transportation Request in TM**
3. **Check business rules (planning light)**
4. **External freight Rating (optional), e.g. SMC3**
5. **Create Freight Order**
6. **Subcontract, Print, Send…**
7. **Delivery based Transportation Request in TM**
8. **Verify or Re-Plan**
9. **Update Freight Order**
10. **Create Delivery (triggered by TM)**
11. **Track & Trace (SAP EM)**
12. **Carrier & Customer Invoicing**

---

**Key Notes:**
- **ERP**
- **TM**
- **3rd Party**

---

**Real Experience. Real Advantage.**
Business Suite and Ecosystem – Expand, leverage, grow

1. **Create Sales Order**
   - Sales Order Scheduling

2. **Create Freight Order**
   - Rate Shopping (e.g. XPS)
   - Hazardous Goods

3. **Create Delivery (triggered by TM)**
   - Manifesting (e.g. XPS)

4. **Order based Transportation Request in TM**

5. **Check business rules (planning light)**

   - External freight Rating (optional), e.g. SMC3

6. **Verify or Re-Plan**
   - Optimize/Consolidate

7. **Update Freight Order**

8. **Track & Trace (SAP EM)**

9. **Carrier & Customer Invoicing**

10. **Subcontract, Print, Send…**

11. **Delivery based Transportation Request in TM**
Process Flow – Planning - Leverage ERP Investment

1. Managing Transportation Requirements
2. Managing Forwarding Orders
3. Managing Freight & Bookings
4. Planning Freight and Selecting Carriers
5. Tendering Freight
6. Execution & Monitoring Freight
7. Settling Freight Orders
8. Settling Forwarding Orders

Real Experience. Real Advantage.
Process Flow – Domestic Freight Tendering

1. Managing Transportation Requirements
2. Managing Forwarding Orders
3. Managing Freight & Bookings
4. Planning Freight and Selecting Carriers
5. Execution & Monitoring Freight
6. Tendering Freight
7. Settling Freight
8. Settling Forwarding Orders
Process Flow – Freight Costing / Settlement

1. Managing Transportation Requirements
2. Managing Forwarding Orders
3. Managing Freight & Bookings
4. Planning Freight and Selecting Carriers
5. Tendering Freight
6. Execution & Monitoring Freight
7. Settling Freight Orders
8. Optional - View Shipment in ERP
9. Managing Freight & Bookings
Mitigating Risks – RDS for TM 8.0
Shape Demand – Efficiency, focus for Vanilla Implementations

Key messages
- Rapid Deployment Solutions to support successful “new product introduction”
- Shape market interest along vanilla implementation scenarios
- Accelerate Time to Value, increase efficiency by providing content
  - Integration Configuration
  - Output Content
  - Configuration Content
  - Focused Education
- Draw attention on preferred implementation patterns with clear value

Transportation Planning – Q3
- Advanced planning and optimization, carrier determination
- Order and Delivery driven
- Extending and innovating ERP logistics execution
- Geographical Content and Map Based Planning

Domestic Freight Tendering – Q3
- Extending and innovating ERP order processing and logistics execution
- Automate Carrier communication and collaboration
- Based on ERP Orders, Deliveries or Shipments via TM
- Connectivity via Crossgate

International Container Shipping – Q4
- Booking Ocean Vessel capacity
- Order and Delivery assignment to bookings and containers
- Cross Reference visibility to orders and deliveries
- Container Monitoring and Tracking
- Out-of-the-box connectivity with major e-commerce platforms via Crossgate

Standard Product Launch
Resources

- **SCM Solution Map**
  http://www.sap.com/solutions/businessmaps/B9D2FC530BA440AD685D2CD39BA1E53/index.epx

- **RDS FOR CUSTOMERS AND PARTNERS**
  - Service Market Place: [LINK]

- **Product Availability Matrix**
  https://websmp208.sap-ag.de/~form/handler?_APP=00200682500000002212&_EVENT=DISPLAY

- **SAP Help**
  - SAP Business Suite → Transportation
    http://help.sap.com/saphelp_tm70/helpdata/en/78/3cc7974cdd4edaabcc68254301c80b/frameset.htm

- **SAP Service Marketplace**
  https://websmp106.sap-ag.de/scm
7 Key Points to Take Home

- TP/VS - SCM 7.0 is currently supported through March 2014 Standard Maintenance and 2016 for Extended Maintenance
- TM can extend current TPVS capabilities to include Freight Costing and Execution
- SAP TM is independent of backend system landscape and master data.
- Future development and roadmap Investments to be done in TM.
- Planning can be based on external rate tables - Rate structures like LTL (Less-Than-Truckload) are oftentimes complex in nature and difficult to maintain.
- Logistical capabilities can be ‘pieced’ together based on requirements
- Services can be developed for improved partner collaboration
Thank you for participating.

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