SAP TM Executive Presentation

The Next Generation of Transportation Management

Solution Management
Supply Chain Management
Macro-economic challenges
   Expanding globalization and outsourcing including company acquisitions drive more complex logistical requirements

Limited partner and customer collaboration
   Limited cross ecosystem collaboration leading to decreased visibility to critical logistical information

Increased regulations and International policy considerations
   Energy costs vs. asset utilization, SOX, increased security regulations, regional conflicts, driver shortages, embargos, tariffs

Increasing customer demands
   Smaller and more frequent orders force more complex distribution channel requirements to maintain customer loyalty

You need the ability to manage constant change.
Operational Business Challenges
Cross-company transparency and communications limit your Fulfillment success

- Pain: Disparate System Landscape
- Pain: Globalization requires sophisticated LSP support.
- Pain: No Enterprise-wide Visibility
- Pain: Antiquated LSP IT infrastructure
- Pain: Synchronizing Finance and Operations
- Pain: No Single system process enablement
- Pain: Increased Workload
- Pain: Disparate System Landscape
- Pain: Increased Workload
- Pain: Managing Equipment Shortages
- Pain: Lack of Automation
- Pain: Uncontrolled Freight Spend

You need solutions designed around your business processes
Adaptive Collaboration Infrastructure – End to End
It's a New Generation

Solution: Single Source of truth is key to Business wide visibility

Solution: Complete end-to-end processes

Solution: Single platform architecture

Solution: Embedded standard communication protocols

Solution: Back-end system agnostic, transportation solutions

Solution: Cross-Enterprise Collaboration

Solution: Enterprise SOA by Design

It’s a challenging environment and you need a new generation approach
Adaptive Fulfillment Networks
Enabling companies to compete profitably in a global economy

- **Integration** – Planning and Execution integrated by design to each other and your back-end systems

- **Innovation** - Leverage Enterprise SOA to enable the adaptability to respond to ever changing fulfillment challenges and opportunities

- **Collaboration** – Business processes that span departmental, company, and partner boundaries
Adaptive Fulfillment Networks
Fulfillment and Logistics enable you to sense, respond, learn, and adapt

Transportation Management
- Plan, optimize and execute the complete transportation processes
- Designed from the ground up to support the complex Logistics Service Provider’s buy and sell transportation processes

Warehouse Management
- Manage all warehouse activities to maximize process efficiencies
- RFID enable sense and respond processes

Order Fulfillment (ATP)
- Track and monitor the entire fulfillment process
- Promise based on availability in DC’s, production, warehouses, and in-transit

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Adaptive Fulfillment Networks
Worldwide enterprise operational control and visibility

Global Trade Management
- Enforce global compliance and regulatory requirements and seamlessly manage customs communications

Real World Awareness
- Leverage sensory technologies to capture and turn real time data into information

Supply Chain Analytics
- Monitor and analyze the performance of your network in real time with pre-defined KPI’s
Why SAP’s Transportation Solution

- Next Generation of Transportation Management end-to-end transportation solution built on a future proof platform
- Extends existing functionality and fully enables the shipper and logistics service provider users
- SAP TM goes beyond existing solutions in the market today according to customers and the analyst community
- SAP focuses on end-to-end business solutions such as book-to-bill, order-to-cash, procure-to-pay, and international multi-modal scenarios
- Enables customers to continue to leverage their existing SAP investment
A significant amount of SAP R&D Investment is benefiting the SCM Discipline:
- Transportation Management
- Warehouse Management
- Supply Chain Event Management
- Supply Chain Collaboration
- RFID
- Global Trade Services
- Business Intelligence
- Customer Relationship Management
- Master Data Management

**SAP Charts New Frontiers in Transportation Management**

*SAP’s Transportation Management Applications to Help Companies React Profitably to Change Across Global Supply Chain Networks Through Adaptive and Automated Processes*

BERLIN, Germany - October 19, 2005 - SAP AG (NYSE: SAP) today announced it is gearing its comprehensive transportation management applications to help companies further optimize revenue across the operations that currently account for up to 60 percent of overall logistics spending. Building on its best-in-class supply chain applications and road map for adaptive business networks, SAP is embedding its existing transportation software with new capabilities enabling companies to sense and respond quickly and profitably to the fast pace of change in today’s competitive transportation environment....
Transportation Platform for Growth and Flexibility

Transportation Proposals - Optimized and manual load planning, scheduling, routing, dispatching, tour building, and carrier selection for all modes and mode combinations.

Capacity and Equipment Allocations - Collaborate with carriers for equipment availability.

Order Quotation, Booking, and Confirmation - including shipment and freight requests, orders, and house shipments.

Financial and Operation KPIs, Metrics, and Analysis - to measure delivery performance, carrier scorecards, and standard metrics like SCOR models.

Carrier Connectivity - for broad based integration, enablement, and synchronization of business partners.

Freight Contract Management - Negotiate, procure, and monitor freight contracts.

Capacity Agreements - for mid and long term contracting of transport capacity.

Freight Costing, Invoicing, and Profitability Management - including freight cost calculation, supplier and customer invoice calculations. Audit, Payment, and Billing performed by ERP.

Enterprise-Wide Visibility - Complete visibility to end-to-end business processes and critical events. Track & Trace, Pick-up & Delivery and adaptive processes.

Event Management

Order Management

Transportation Activities

Transportation Planning & Dispatch

Transportation Execution

Carrier Communication

Supply Chain GATP, EWM

Extended Warehouse Management - for enterprise-wide warehouse and storage processes. Global Available to Promise provides real-time visibility to inventory, resource constraints and shipment schedules simultaneously.

Freight Subcontracting and Tendering - manifesting, documentation, and collaboration.

Customs and Global Trade - Import and Export compliance and customs collaboration platform.

Freight Contract Management - Negotiate, procure, and monitor freight contracts.

Capacity Agreements - for mid and long term contracting of transport capacity.

Customs and Global Trade

Freight Contract Management

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Transportation Platform for Growth and Flexibility

ERP
(Order Mgmt, Material Mgmt, Production, Logistics Execution, Warehouse Management, Finance and Costing, Rail Car Management, Human Resource Mgmt, Asset Maintenance)

Functional Enrichment
- others
- Dock Door Scheduling
- Container Management
- Chartering Leasing
- Rail yard Management

Possible Future Composite Applications

Processes supported by Standard Software

GTS
Transportation Charge Management
Event Management
Carrier Communication
Supply Chain GATP, EWM

xCarrier

SAP NetWeaver
SAP: 20 Years of Transportation Expertise
Extending the Scope of Transportation

Logistics Service Provider

1987: Transportation Solution in SAP R/2
1993: Transportation Solution in SAP R/3
1999: Transportation Optimization APO-TPVS
2001: Event Management Track&Trace
2004: Railcar Management RFID handling
2006: Extended Planning & Ocean Booking
2007: SAP TM for LSPs & Shippers
2008+: SAP TM Continuous Improvement

Shipper
Main Advantages of SAP TM

- Multiple deployment options for your transportation solution either stand-alone or part of core ERP
- Complete process support for freight contract management, order management, planning, execution, documentation, and freight costing
- Designed to support requirements across all industries including the logistics service provider (LSP), manufacturing, and distribution markets
- Increased transparency on profitability for both the buying and selling side of transportation services
- Enables global visibility of all transportation and product movement events
- Is the platform for loosely coupled extensible applications through the Enterprise Service Object Architecture (eSOA)
Key Challenges

Alimentos Polar needed to develop an integrated supply chain planning capability to fully capitalize on further market opportunities while reducing operations costs and taking full advantage of its size and the resources available in their supply chain. Transportation was one of the resources that could potentially deliver significant improvements in productivity and service.

Alimentos Polar is the largest food manufacturer in Venezuela. It has an annual revenue of $600 million and recently acquired Mavesa, another food manufacturer with an annual revenue of US$ 500 million.

Project Results

- 133% improvement in transport fleet productivity
- Reduced the fleet from 430 vehicles to 180 vehicles
- Truck productivity as key driver in freight rate negotiations resulted in:
  - 33 % transportation costs reduction vs. plan
  - $ 2.6 Million annual savings
- Full exploitation of potential backhauling opportunities at reduced rates - 10 % of shipments
**Agrium Challenges**

**Key Challenges**

Agrium needed to optimize their railcar fleet management throughout the complete life cycle as well as automate manual processes. The challenges included a lack of full visibility into railcar movements, high costs for support and training, and a desire to improve overall efficiency.

**Agrium Inc.**, one of the world’s foremost suppliers and retailers of agricultural nutrients and other crop inputs, uses SAP software to automate and optimize management of its railcar fleet. Since the implementation, the Calgary, Alberta-based company has realized many improvements across the business, including reduced costs and time savings.

**Project Objectives**

- Replace legacy railcar management system with a state-of-the-art customizable solution
- Enhance solution to include all functionality from legacy system
- Develop and customize solution to meet all key challenges

**Why SAP Solutions and Services**

- The software’s strong integration with existing SAP solutions and its ability to meet company requirements
- The SAP Custom Development organization’s commitment to implement needed functions
- Excellent relationships with SAP personnel
Agrium Benefits

“… with SAP Software – we have the potential to experience enormous savings… Credit for our success can be attributed to the close working partnership between Agrium’s experts and the consultants from SAP Custom Development.”

Gordon Ingham, Team Leader IT Sales and Transportation, Agrium, Inc

Implementation Highlights

- All developments completed on schedule
- Overlap in use of new and old solutions for 6 weeks
- No disruption to operations
- Enthusiastic welcome from user community

Key Benefits

- Time savings – operations that used to take 1 hour now accomplished in 5 minutes, with hundreds of working hours saved annually
- Potential to improve railcar utilization by 10%, resulting in significant cost savings
- Greater ability to plan how to fulfill customer commitments most quickly and cost-effectively
- Reduced support and training costs
Siemens A&D was faced with the integration of multiple ERP systems. They needed to consider many different constraints as well as a dynamic delivery time window across a geographically distributed project.

**Targets**

- Central global transportation planning for 2 plants
- Improve In-time delivery and reduce the overall transportation costs
- Identification of full direct truck loads based on address information for both direct and x-dock deliveries
- Implementation in a short period and with tight budget (<100 days including developments)
Strategic & Tactical Goals

- Move from de-centralized to centralized Transportation Management processes
- Re-engineer the integrated Supply Chain management end-to-end process (ERP, SCM, CRM,..)
- Focus on reduction of transportation costs, a significant component for Paper Industry
Project Value

- Ability to select low cost transportation modes while meeting customer delivery dates
- Analysis to determine most cost-effective transport mode is possible: this enables mode shift from truck to rail and back
- Reduce freight cost through automatic truck carrier selection
- Improved vehicle utilization: less vehicles required, more efficient vehicle loading
- Visibility of in-transit shipments
- Improved overall management of the carriers
- Improvements in tendering and the transportation execution processes
- Matching payments with freight delivered yields savings
- The use of SAP forced IP to re-think the business processes and enabled the realization of global deliver processes
- Centralize transportation processes and carrier selection
- Fewer local ad-hoc changes to transportation, better adherence to plan
- Manage carrier performance using reliable data
- More efficient loading and shipments across facilities
- Shipment demand and supply is in better balance from improved planning
- Less disruption and less expediting

Business Processes

- Transportation Planning
- Carrier Selection
- Transportation Execution

SAP Solutions

- R/3 Transportation
- AOP-TPVS
- Event Manger
- Implemented APO at end of 2004
- Continues to roll out to most of IP
- Currently on R/3 4.7 and SCM 4.0
- Upgrading to 5.0
Appendix
## SAP TM Value Proposition Details

<table>
<thead>
<tr>
<th>Transportation Process</th>
<th>Savings Potential</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidation and Routing</td>
<td>1.0% to 25%</td>
<td>Creating routes from multiple origins or destinations while balancing the trade-offs between cost and service for LTL and full trailer; the potential savings is based on the freight cost that is Multi-Stop Truckload per Consolidation %</td>
</tr>
<tr>
<td>Selection, Tendering Booking</td>
<td>1.0% to 10.0%</td>
<td>Selecting carriers, private fleet for transportation services for specific o/d criteria. Savings Based on Total Transportation Expense and reducing the Maverick Spend</td>
</tr>
<tr>
<td>Continuous Move Execution</td>
<td>1.5% to 5.0%</td>
<td>Automatically identifying and executing continuous moves invoking savings contracted with each carrier. Savings Based on Shipments Available for Continuous Moves</td>
</tr>
<tr>
<td>Mode Selection</td>
<td>0.5% to 1.0%</td>
<td>Selecting the appropriate mode of travel: TL, LTL, Parcel, Rail, Ocean, Air, Flatbed, Bulk, or parcel and subject to the service requirements and costs will generate savings from the current total transportation spend</td>
</tr>
<tr>
<td>Performance Tracking</td>
<td>0.5% to 1.0%</td>
<td>The capability to capture detailed performance metrics of carriers capabilities and internal execution of transportation operations. Gaining the ability to capture tender rejects and service failures will generate savings from the current total transportation spend</td>
</tr>
</tbody>
</table>
## SAP TM Value Proposition Details Continued

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<tr>
<td>Shipment Tracking and Tracing</td>
<td>50% to 75%</td>
<td>Internet enabled tracking and tracing will save additional manual activities to find shipments/product in transit</td>
</tr>
<tr>
<td>Reporting, Performance and Event Management</td>
<td>25% to 50%</td>
<td>Conversion of data into information resulting in the calculation of metrics used to manage operations on a summary level and operations level as changes occur. Based only on Administrative Costs</td>
</tr>
<tr>
<td>Load Tendering</td>
<td>25% to 50%</td>
<td>The administration efforts required to manage inbound/outbound shipments. Interfacing with carriers to obtain transportation services Based only on Administrative Costs</td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>1.0% to 5.0%</td>
<td>Systemically matching invoices to actual spend and automatically approving invoices within the prescribed tolerance will decrease administrative costs</td>
</tr>
</tbody>
</table>
Importance of Transportation - Hard Benefits

Four primary benefit areas …

--- Opportunity Area ---

Better Accuracy & Carrier Selection Adherence

Better Transportation Planning

Better Transportation Execution

Enhanced Visibility & Monitoring Capabilities

--- Representative Value Range ---

4% to 12%

5% to 15%

4% to 12%

4% to 10%

--- Source ---

1 Source: Competitive Benchmarking Statistics from Publicly Available Sources