WHITE PAPER

SAP® Transportation Management (TM) 6.0

A Next Generation TMS

ABOUT THE AUTHOR

Since 1998 Catalyst has delivered high quality supply chain execution solutions to multi-national SAP® customers with complex, high volume and business critical logistics requirements. Catalyst focuses its unrivalled knowledge and understanding of supply chain management to deliver advanced solutions for SAP customers.

Catalyst is a key SAP Partner focusing on Supply Chain Management (SCM) and Supply Chain Execution (SCE) applications. The company has a very close working relationship with SAP, which it leverages to ensure customers running on SAP platforms benefit from enhanced product functionality and performance. Catalyst delivers full lifecycle implementation support for SAP’s SCM and SCE applications and exploits its world-wide presence to ensure consistent, comprehensive and reliable service for all its customers.

Catalyst is a regular contributing partner to SAP’s pre-release acceptance testing programs. This exposure to new applications ensures Catalyst gains knowledge of new products as soon as possible and is able to use this knowledge to enhance its solution delivery to customers.
EXECUTIVE SUMMARY

This white paper has been designed to provide an in-depth overview of the architecture and capabilities of SAP TM 6.0. This white paper will further focus on how SAP TM 6.0 tackles the latest trends and challenges in the transportation industry. This paper will also discuss the technological advances in SAP TM 6.0, compare to its earlier product offerings, to provide the customers with enough tools and mechanisms to configure the system to meet their unique and complex business scenario.

The paper includes the following sections:

- Transportation Industry Trends and Demands
- Evolution of SAP TM 6.0
- SAP TM 6.0 - Product Overview
  - Scope
  - Architecture
  - Components
  - Process Flow
  - Integration with SAP ERP (master data & transactional data)
  - Installation
- Differences between SAP APO TP/VS & ERP LES and SAP TM 6.0
- Roadmap of SAP TM 6.0
- Frequently Asked Questions (FAQ)

The following product abbreviations are used in this paper:

**SAP APO TP/VS:** SAP Advanced Planning & Optimization - Transportation Planning & Vehicle Scheduling  
**SAP ERP LES:** SAP Enterprise Resource Planning - Logistics Execution System  
**SAP TM:** SAP Transportation Management  
**SAP EM:** SAP Event Management  
**SAP CRM:** SAP Customer Relationship Management  
**SAP GTS:** SAP Global Trade Services  
**SAP EH&S:** SAP Environmental Health & Safety  
**SAP NetWeaver BI:** SAP NetWeaver Business Intelligence (formerly SAP Business Intelligence; Includes the functionality of the predecessor component SAP Business Information Warehouse SAP BW).

The SAP TM that will be released in 2007 will be called SAP TM 6.0.
TRANSPORTATION INDUSTRY TRENDS AND DEMANDS

In the current business environment transportation can no longer be considered as an afterthought or a standalone function. It has evolved into a holistic and collaborative tool for the information flow between multiple business partners in the supply chain. It is more important than ever to control supply chain activities and have end-to-end visibility of events influencing your logistics performance.

Transportation plays an integral role especially as companies have begun to outsource their operations - working with domestic carrier scheduling, customs, freight forwarders, ocean liners, and managing longer lead times have become more important. Companies face many challenges now, due to the rising fuel surcharges & freight costs, increasing demands vs. capacity planning/constraints and a lack of real-time visibility of the events. The new battleground for the transportation industry is IT innovation combined with service efficiencies.

Increasing awareness of the cost and service impact of transportation on overall supply chain performance is what most motivates companies to take a closer look at transportation management. This trend of examining and reorganizing transportation strategies to deal with increased challenges and global competition has helped demand for TMS applications to flourish.

According to the 2006 Transportation Management Benchmark Report by Aberdeen Group, a Boston based technology research firm:

Figure 1. Areas to improve transportation management

![Figure 1](image1.png)

Figure 2. Top reasons for improving transportation processes

![Figure 2](image2.png)
LG Electronics deployed a commercial transportation management system and focused on using its order consolidation, dynamic hub selection, and continuous move planning capabilities, leveraging the system’s service-oriented architecture toolkit. Access to real-time information has led to better planning, execution, and exceptions management.

**End Result:** 8% reduction in overall transportation and distribution costs, resulting in $3.2 million annual savings (recurring)

A European pharmaceutical company has 180 users worldwide that use an on-demand international visibility system to monitor 750 trade lanes on six continents. By effectively mining the information collected, the company found significant opportunities for consolidating shipments, lowering transportation spend, reducing expediting costs, and addressing potential shipping issues before they impact customer service.

**End Result:** In total, the company cut its inventory costs by $55 million and lowered its total logistics costs by 5% through its international visibility initiative.

The following are some of the must-have features of any TMS for companies to optimize their investments in the software:

- **Optimized Load and Carrier Transportation Service Provider (TSP) Selection**
  - Application should have powerful optimization tools to select the lowest cost and most efficient transportation activities, independent of the modes and carriers in the consideration. It should be able to utilize the vehicle capacity to the fullest (e.g. full Truck Load (TL) compared to Less than Truck Load (LTL) to further reduce the freight expenses.

PPG Industries, a $10 billion diversified manufacturer, saw $1 million to $2 million annual freight savings; typical per-load savings of $40 to $70 for motor freight; and a 50% increase in shipments per planner; after implementing a TMS to power its load control center to improve load consolidation, carrier interactions and enhanced visibility. *(Source: Aberdeen Group, Sep 2006)*

- **Information Flow and Analytics**
  - Applications should have powerful embedded analysis tools for companies to be able to analyze enterprise-wide key performance indicators (KPI) and strategic freight management data. Visibility and ability to handle events like delivery, exceptions, pick ups etc should also be part of a TMS to allow users to take necessary proactive steps.

One company found that by simply creating more competition on certain lanes from its major distribution hub it was able to achieve a 12.9% freight savings. *(Source: Aberdeen Group, Sep 2006)*
- **Flexibility and Integration**
  Companies are moving towards a single business process platform. You should be able to integrate the TMS into your other enterprising applications. Application should be flexible to incorporate all your business rules and scenarios, minimizing the requirements for manual intervention.

- **Powerful Freight Cost/Contract Management**
  Application should be able to provide accurate and detailed costs based on the negotiated contracts, planned activities and actual shipping activities to enable you in making better-informed business decisions. It should also be used for the actual invoicing and freight reconciliation.

- **Enabling Corporate Responsibility for the Environment**
  Many multinational organizations are faced with a corporate responsibility to become more environmentally aware and to reduce their “carbon footprint”. Transportation is potentially a heavy polluter, but with more efficient planning and routing systems, many journeys can be reduced and even eliminated.

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**EVOLUTION OF SAP TM**

Over the past 20 years, SAP has come a long way in offering the transportation capabilities within its suites of applications. SAP has been constantly adding new capabilities and add-on modules to meet with the growing industry challenges.

Figure 3. Evolution of SAP TM

The above diagram illustrates a brief evolution pattern, in terms of expanding the scope of its product offerings.
Figure 4. Evolution of SAP TM

The diagram below illustrates a brief evolution pattern, in terms of product capabilities and enhancements.

- **Enterprise Centric Transportation Solution**
  - Planning, Freight Costing and Settlement
  - Sell-Billing and Freight Auditing, Parcel XSI, Analytic Application
  - Oil & Gas TD, Direct Store Delivery, Waste Management
  - Railcar Management, Freight Cost Extension

- **Supply Network Solution**
  - Vehicle Scheduling, Routing Guide and Optimization
  - Enhanced Carrier Selection and Continuous Move Optimization
  - Analytics xApps and Supply Chain Event Management
  - GTS

- **Supply Network Solution - Covers Core Logistics**
  - Booking of Ocean Vessel Capacity, Ocean Visibility and Security
  - Business Process Collaboration
  - Compartments and Truck & Trailer Separation
  - Enhanced Constraints & Planning; High Volume Performance

- **Strategic Freight Management - Pilot Solution**
  - Strategic Collaborative Capacity and Contract Planning
  - RFQs for Ocean and Land Contracts
  - Web Based Carrier Collaboration for Address & Service Profiles Maintenance

- **Key Improvements and Features**
  - Integrated Planning, Execution with Focus on 3PL/LSP Capabilities
  - Ability for Centralized and Decentralized TM
  - Tighter Event Management, Adaptive Planning and Execution (re-planning), and Embedded Carrier Allocation Control
  - Activity Based Logistics Management and Costing
  - Complete eSOA Architecture
  - Single and Multi-step Planning Routing and Scheduling Optimization
  - Freight Costing, Billing, and Payment with Cost, Revenue, and Profit Distribution and Transparency
  - WebDynPro User Interface for Improved User Experience
  - Greater Visibility to 3PL Based Activities Such as Freight Quotation and Buying/Selling Side Process Visibility
SAP TM 6.0 - PRODUCT OVERVIEW

SCOPE

Figure 5. Architecture for improved business value
SAP TM 6.0 is designed to drive, manage and operate transportation across multiple enterprises, companies and warehouse management systems, including end-to-end process steps that are executed by retailers, manufacturers, and logistics service providers.

From a business perspective, it provides the following functionalities:

- Optimize the utilization of existing resources (e.g. own fleet, freight space etc.)
- Identify the cost and time saving opportunities (e.g. determine best carrier, means of transport etc.)
- Determine the most efficient transportation plan for the given constraints
- Ability to modify the initial planning based on the real world interaction and events

SAP TM can be discussed in the following different processes:

- **Transportation Request Processing**
  Transportation requests are the basis for the transportation planning and execution. Within SAP TM, transportation requests can be received, updated and confirmed. The processing of transportation requests pertains to their screening (validation), adjustment (error correction or additional information) and confirmation.

  A transportation request represents a customer order to move goods from one location to another. It contains the business data sent by the customer including information on how the customer expects the handling of this request. It also contains the necessary information for the planning and execution of the transportation chain, that is the pick-up address, the delivery address, the quantities, product group being transported, expected delivery date window, expected pick-up date window and so on.
- **Planning & Executing Transportation Requests**
  Based on the transportation requests, next step is to create the shipments. For creating the shipments, SAP TM considers the freight agreements, freight space capacity, resources (drivers, vehicles, equipments etc.), and carrier availability at the same time. This process is known as Planning & Executing Transportation Requests.

  SAP TM offers multiple tools to create and manage the various planning processes like optimization, dynamic routing & scheduling and continuous move optimization. It also maintains and allows users to view planned as well as executed transportation dispatching and scheduling.

- **Tendering (Peer-to-Peer, Broadcast, Open) & Subcontracting of Carriers**
  If a certain stage of the transportation proposal needs to be serviced by an external TSP, it needs to be subcontracted.

  A tendering process starts if the user or the system determines more than one possible TSP. This process results in one TSP being selected for carrying out the transportation activity. Once the TSP has been selected, outgoing transportation orders are created. Furthermore, outgoing orders for the same TSP are consolidated to get a better rate with the TSP and for a continuous move discount.

  Tendering process can use a mixture of different modes of tendering (peer-to-peer, broadcast or open tendering). System can be configured with a timeout to re-tender the transportation activity to another TSP or switch from one mode to the next mode of tendering.

  **Peer-to-peer**: Sequential tendering to pre-defined pool of transportation service providers (TSP)
  **Broadcast**: Simultaneous tendering to pre-defined pool of transportation service providers (TSP)
  **Open**: Simultaneous tendering to all the transportation service providers (TSP) in the system

- **Managing Supplier Transportation Charges**
  This business process is carried out to evaluate, calculate and distribute the transportation charges (based on the outgoing transportation orders) for the supplying side (business partners are supplying parties, such as the transportation service providers and/or carriers).

  This enables the financial transactions for supplier invoicing. The Supplier Freight Invoice Request supports the integration with any ERP system by providing data in an Exchange Infrastructure (XI) message. Accruals expecting invoices from the suppliers are posted and invoice creation and verification or the supplier self-billing takes place.
Managing Customer Transportation Charges
This business process is carried out to evaluate, calculate and distribute the transportation charges (based on the incoming transportation requests) for the ordering side (business partners are ordering parties, consignees and/or shippers).

This enables the financial transactions for customer billing. The Customer Freight Invoice Request supports the integration with any ERP system by providing data in an XI message. For instance, the SAP ERP SD integration layer uses the transferred data to account and bill the freight services with complete integration to FI/CO.

ARCHITECTURE

In order to keep up with the constantly changing industry trends and to provide its customers the most technologically advanced solution, SAP went back to the whiteboard and re-designed its TMS offerings with a completely new architecture. SAP also modeled the new solution on the Freight Forwarders / Third Party Logistics Providers (3PL’s) / Logistics Service Providers (LSP’s) business case because according to ARC’s study, manufacturers, retailers, and other shippers have traditionally been the key users of TMS applications, but third-party logistics providers (3PLs) now have the fastest-growing adoption rates. If a solution can fulfill all the business requirements for a 3PL, it can relatively easily be adapted/configured to other distribution intensive shipper industries.

Some of the key points to drive these architectural changes are:

Eliminate the dependence on the master data
A TMS should be flexible enough for user to manually enter an address dynamically, rather than a necessity to be maintained in the system as master data. Similarly, a TSP does not need to know, in many cases, the detailed information about the product being shipped and entering a generic set of information should be sufficient to carry out the transportation activities.

SAP TM has been designed to function without users having to maintain all of the master data in it. This is a big change compared to previous TMS solutions from SAP where transportation activities required the master data to be maintained and were tightly integrated/dependent on it.

Service-Oriented & Future-Proof Architecture
SAP TM has been designed using flexible and extendable service-oriented software architecture based on eSOA. ABAP WebDynpro user interface provides improved usability, portal integration and role based dashboards. This architecture allows users to integrate their existing web interfaces or any ERP other than SAP for order entry for example, with SAP TM backend. This eliminates the requirement to have SAP ERP as an order entry system and thus targeting a broader range of business spaces.
This concept also allows you to easily communicate with other SAP solutions like e.g. SAP GTS, SAP CRM, SAP EH&S, SAP BI and many others. Add-ons being provided by SAP or its partners can easily leverage the same platform and provide enhanced capabilities and processes on top of the core solution, driven by your customer specific requirements or by industry specific solutions.

- **Independent & Self-Contained Business Objects**

  Different business aspects of transportation (legal, contractual, execution, etc.) will be represented by dedicated business objects, processes and interfaces; for example Order Taking, Tendering, Freight Space Booking and Tour Building etc.

  This allows the integration of different partners for different relevant processes rather than giving control to all the partners for the complete system and hence enabling the de-centralized control with respect to business partners involved in the process.

  ![Figure 6. Independent Self-contained Business Objects](source: SAP)

- **EDI Communication based on Industry Standards**

  SAP TM has been designed based on the open international industry standards EDIFACT/EDIFOR for data communication. This minimizes the custom development required for integration with different transportation service providers.

- **Enhanced and more powerful Transportation Charge Management**

  Transportation Charge Management (TCM) component has been completely re-designed to handle even the most complex costing business scenario. ERP Freight Costing is not usable for SAP TM because;
  - it is based on Shipper scenario
  - it is tightly coupled with the ERP and is not available as a separate software layer
There are no restrictions regarding the transportation change calculation for customers or suppliers. Following operations are part of the TCM component in SAP TM:

- Costing and Rating Engine
- Customer Freight Agreement
- Carrier Freight Agreement
- Billing Preparation
- Settlement Preparation

**Capability to Combine Inbound and Outbound Data for Transportation Planning**
This was one of limitations in ERP TM. SAP TM eliminates this restriction and allows users to combine inbound (returns, stock orders, intra-company transfer) and outbound data for transportation planning and execution.

**COMPONENTS**

**Figure 7. SAP TM Engine Model**
The core components and business objects of SAP TM are illustrated.

- **Shipment Request / Freight Request (SRQ / FRQ)**
  - Request to create one or more shipments
  - Based on EDIFACT IFTMIN (SRQ) and EDIFACT IFCSUM (FRQ)
  - SRQ can also be a basis for Quotation

- **Freight Unit Builder (FUB)**
  - Freight Units are non-separable logical cargo units that are transported together over the whole transportation chain.
  - Freight Units can be created from Shipment Requests based on cargo split or cargo consolidation.
  - FUB supports automatic rule (like maximum order size, available vehicle capacity, product incompatibilities etc.) based creation of Freight Units.

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- **Routing Guide**
  - Evaluate possible routes though the transportation network considering all the optimizer constraints
  - Display a list of all possible routes evaluated with real transportation costs
  - Manual vs. Automatic Selection
  - Supports Adaptive Planning as well as Iterative Planning.

*Adaptive Planning* - Capability to revise existing plans rapidly and systematically, as circumstances required.
- Allows user to change or extend an existing transportation plan, for example:
  - Location sequence can be changed
  - Addition freight units can be added to an activity or resource
- If multiple freight units are input for the planning, then they are considered as one group while determining the planning.
- Only the best solution is determined and displayed to the user.

*Iterative Planning* - An iterative process where user can control the constraints (or incompatibilities) that should be considered in the planning.
- Allows user to only extend an existing transportation plan.
- If multiple freight units are input for the planning, then each one is considered independently, while determining the planning.
- Multiple solutions are determined and displayed to the user.

- **Shipment Order / Freight Order Builder**
  - Purchase Order for the transportation services from a TSP
  - Based on EDIFACT IFTMIN (shipment order) and EDIFACT IFCSUM (freight order)
  - Single consignment (shipment order) or pre-consolidated load for a combination of multiple pick-ups and destinations
PROCESS FLOW

Figure 8. A typical process for a shipper using SAP TM
INTEGRATION WITH SAP ERP

This integration can be divided into two categories: master data and transactional data.

**Master Data** - SAP TM offers the three different options when it comes to working with master data:

- Work without certain master data elements. This feature was one of the core requirements for 3PL’s / freight forwarders business processes.
- Create master data directly in SAP TM, independently of any existing data in the existing ERP system (SAP or any other).
- Out of the box integration of the existing master data from SAP ERP (applicable to only SAP ERP 2005 or ERP 2005S). This integration takes place via CIF (Core Interface) and can be either real time or as a batch processing. Figure 8 illustrates the relationship of different entities between SAP ERP and SAP TM.

![Figure 9. Master data integration between SAP ERP and SAP TM](image)

**Transaction Data** - Delivery and Shipment from SAP ERP can be (applicable to only SAP ERP 2005 or ERP 2005S) can be configured to create Shipment Request and Freight Request respectively in SAP TM. This integration is achieved via XI, illustrated in figure 9.

![Figure 10. Transaction data integration between SAP ERP and SAP TM](image)
Since SAP TM offers a wide variety of transportation functionalities, depending on the capabilities of your ERP system, SAP TM can be used for all or some of the processes in the transportation life cycle process. Some sample scenarios can be described as:

**Case 1:** ERP as an order entry system and TM for all the transportation processes  
- Create delivery in ERP  
- Create Shipment Request / Freight Request in TM using XI  
- Perform Transportation Planning, Execution, Carrier Selection and Costing in TM

**Case 2:** ERP as an order entry & execution system and TM for only transportation planning  
- Create delivery in ERP  
- Transportation Execution and Costing in ERP  
- Create Shipment Request / Freight Request in TM using XI  
- Perform Transportation Planning in TM

**Case 3:** ERP as an order entry, planning & execution system and TM as a tendering engine  
- Create delivery in ERP  
- Transportation Planning, Execution and Costing in ERP  
- Message based direct integration between ERP and TM (IDoc from/to)  
- Perform Carrier Selection and Tendering in TM

**INSTALLATION**

SAP TM will need to be deployed as a standalone system i.e. SAP TM cannot run on the same system as SAP ERP, or an existing SAP SCM system (EWM, APO). Following components will be installed with SAP TM:

- NetWeaver 2004s  
- SCMB 5.1  
- SCM 5.1 EM-Add-On  
- Exchange Infrastructure (XI 7.0)  
- Business Intelligence (BI)  
- J2EE for Adobe Document Services  
- Optimization server on Windows  
- GIS Server (optional)
**WHAT ARE THE MAIN DIFFERENCES BETWEEN SAP APO TP/VS & ERP LES AND SAP TM?**

In addition to the functionalities of SAP APO TP/VS and ERP LES the SAP TM provides the following functionalities:

- One combined system for transportation planning / execution and transportation charge calculation (freight costing)
- Transportation planning and execution for multiple ERP systems
- Tendering allows peer-to-peer, broadcast and open tendering
- Combined inbound and outbound transportation execution possible
- One-step optimization is possible
- Transportation Proposal / Routing Guide supports the same constraints as in planning, e.g. compartments, truck and trailer
- Support of master data for standard routes, container and driver
- Adaptive planning even after the execution of the transportation activities has started
- Delta planning, e.g. ability to plan new transportation demands into existing shipments
- No limitation regarding the number of hubs used in one shipment
- SAP TM does not support the simulation/modeling (as in APO). It is designed for running the full transportation activities. It is not a tool for simulating alternative transportation network models. For simulation and subsequent evaluations, using SAP BW is recommended.

Following architectural differences are there:

- Open eSOA based architecture
- Independent of existing product, location and partner master data
- Based on global industry EDIFOR standards
- New Transportation Charge Management (TCM) component

**ROADMAP OF SAP TM**

SAP will continue to take the initiatives to meet the constantly changing industry trends and demands. To strengthen the capabilities of its SAP TM product, following are some of the items that are scheduled to be released with the next few releases, either as a version upgrade or add-ons for the current version. This list is not comprehensive and provides insight on some of the items that are currently being discussed. Some of these tasks can be implemented now with the help of various xApps and tools provided by SAP like xMII, XI, BADi etc; however, SAP plans to make these standard features within TM.

- Expand integration with core suite, for example
  - EWM
  - GATP (Routing Guide)
  - ERP Sales Order
  - GTS
  - EH&S
- Driver Planning and Management
- Additional LSP and Shipper’s contents
- Out of the box connectivity for important business partners in logistics e.g. Ocean, Rail, Air, Land TL/LTL
- Customs EAS, ATLAS and compliance enhancements
- Enhanced supplier, customer and service integration
- Different UI based on mode of transport, compare to one generic user interface
- Transportation Charge Management
- Enhanced integration with SAP ERP; for example credit limit check
- Extended Profitability Calculation / Reporting
- Addition of the transportation cost to the material value in MM

FREQUENTLY ASKED QUESTIONS

- **What processes of CRM will be integrated with SAP TM?**
  There is currently no direct integration planned between SAP CRM and SAP TM. CRM can be integrated to SAP ERP as normal. SAP ERP will then get integrated to SAP TM.

- **How will SAP ERP transactional data be integrated into SAP TM?**
  SAP ERP and SAP TM will be integrated via the SAP ERP delivery and the SAP ERP shipment. Sales Orders, Purchase Orders, Purchase Requisitions, Stock Transfer Orders and Stock are currently not supported. Sales Order however can be integrated using XI.

- **How will SAP GTS be integrated into SAP TM?**
  There is currently no direct integration planned between SAP GTS and SAP TM. SAP GTS can be integrated to SAP TM via BAdI.

- **How will SAP EH&S be integrated into SAP TM?**
  There is currently no direct integration planned between EH&S and SAP TM. EH&S can be integrated to SAP TM via BAdI.

- **Can I upgrade from SAP APO TP/VS to SAP TM?**
  No, you have to migrate. With SAP TM, SAP makes a big step forward from a solution and from an architecture perspective. It offers not only planning, but also transportation execution, freight management and costing / rating functionalities.

  The underlying processes for transportation in ERP and APO are heavily driven and determined by the existing solution concept of operating one solution for one enterprise. SAP TM is designed to drive, manage and operate transportation across multiple enterprises, companies and warehouse management systems, including process steps that are executed by retailers, manufacturers, and logistics service providers.
Which SAP ERP release is required to integrate to SAP TM?
Integration out-of-the-box will be provided for Release ERP 2005 and ERP 2005S / ERP Public Service Edition. In addition to these ERP requirements a separable installable add-on will required (for ERP 2005 this add-on will be called ECC-ESA 602 add-On, for ERP 2005S the name is not defined yet). This add-on will be responsible for the account determination based on the logistical data coming from SAP TM.

CONCLUSION

With the release of SAP TM 6.0, SAP is targeting to become the market leader in the transportation field with its vision and strategy, after leading the ERP and WMS verticals. Analysts from Forrester and Gartner, also reverberate this fact.

Figure 11. Forrester Wave™ Transportation Management Solutions, Q1 ’06
To establish SAP TM 6.0 as one of the best TMS available in the market, SAP concentrated on the following aspects for its TMS:

Figure 12. Most important actions for transportation management success

![Graph showing the most important actions for transportation management success]

Figure 13. Interest level in managed services for transportation

![Graph showing interest level in managed services for transportation]

In addition to providing the best possible planning and optimization tools, it has the following main advantages:

- Enables seamless integration covering all the core transportation activities, including planning, execution, freight management, tracking and tracing, financials etc., in one central system.
- Based on Enterprise Service Object Architecture (eSOA). The concept allows you to easily connect and interact with other SAP solutions like SAP GTS, SAP EH&S, Strategic Freight Procurement or Analytics.
- Standard message based EDI communication based on international standards
- Multi-backend system support
- Higher transparency on profitability on both the buying and selling side
- Supports all modes and means of transport (sea, air, land, train)

We know that transportation is becoming more important to the bottom line and we need to consider it in the context of the whole business process. To keep up with the shrinking global boundaries and constantly changing transportation industry trends, SAP has released its most comprehensive TM offering to date in SAP TM 6.0. Catalyst can help customers by providing consultancy, design and implementation services for SAP TM 6.0. Through its expert assistance, companies can generate significant business process improvements and gain greater profitability through increased transportation efficiency.