

RAIL SERVICE PROVIDERS

Moving People, Packages and Freight



HCL AXON
Bringing you Rail Solutions

INTRODUCTION



Whether moving people, packages or freight by rail, Service Providers face major challenges that inhibit efficient and effective business operation. As market dynamics constantly change and operating costs fluctuate wildly, an organization’s ability to transform into a “best run business” – one that operates efficiently and adapts rapidly – is crucial to long-term success.

Some of the common challenges faced by Rail Service Providers and their impact on operations are highlighted below.

Common Challenges Faced by Rail Service Providers

Industry Challenges	Business Impact
<p>Asset Intensive Operations</p>	<ul style="list-style-type: none"> ■ Large capital investments in property, infrastructure, and equipment ■ Aging assets ■ High maintenance costs, both planned and unplanned ■ Aging workforce requires investment in trained and “qualified” workforce ■ Drive to optimize workforce ■ Asset availability impacts service delivery and revenue generation ■ Complex asset accounting
<p>Highly Regulated Environment</p>	<ul style="list-style-type: none"> ■ Increased operational complexity ■ Increased reporting needs driven by legislation ■ High compliance costs ■ Use of smart technologies minimizes environmental impact
<p>Unionized Workforces</p>	<ul style="list-style-type: none"> ■ Complex human capital management and payroll processes ■ Increased administrative costs
<p>Geographically Dispersed Operations</p>	<ul style="list-style-type: none"> ■ Complex asset tracking requirements ■ Maintaining optimal inventory levels at multiple locations ■ Complex workforce scheduling requirements ■ Planning and scheduling constrained maintenance resources ■ Increase of cross company and cross border collaborations
<p>Aging and “Siloed” Legacy Applications</p>	<ul style="list-style-type: none"> ■ High application and integration maintenance costs ■ Aging and difficult to maintain applications introduce business risk ■ Data inconsistency and variable data quality ■ Difficult to exploit new information technologies ■ Constrain ability to produce meaningful analytics

SERVICE TRANSFORMATION

Organizations that can transform their operations and service delivery processes will realize significant opportunities to deploy more efficient travel, transportation and logistics management solutions.

HCL AXON has significant experience across different modes of transport and the challenges therein. There is a significant opportunity to leverage common best practices. HCL AXON's deep vertical expertise in the rail industry, comprehensive understanding of global best practices and project accelerators, and proven implementation approach ensure that the solutions delivered to our customers leverage the most appropriate elements of the SAP solution suite.

HCL AXON's covers core rail processes as well as supporting areas such as maintenance and back office functions. The chart below also illustrates the importance of considering the Business Network and entire ecosystem of a Railroad in order to meet the business transformation objectives.

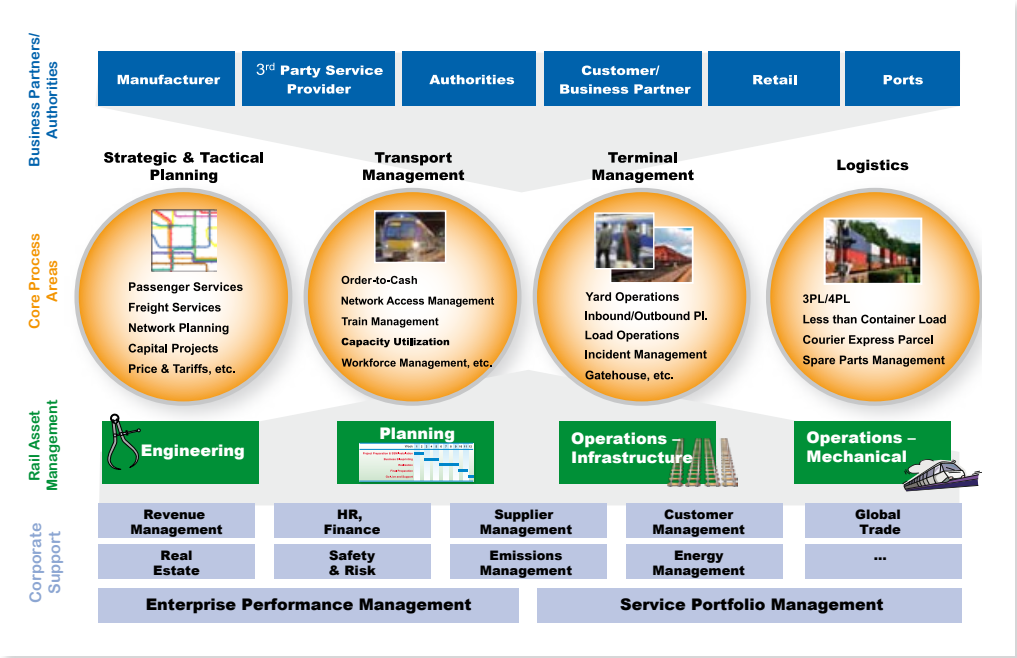
HCL AXON's transformative consulting approach has proved effective in delivering integrated business solutions and business benefits across the transportation industry around the world.



Today's difficult economic environment increases the focus on business cases which highlight benefits measurements such as:

- Efficiency of locomotive operation
- Accurate billing of demurrage charges
- Accuracy of ratings and less invoice disputes
- Improvement of freight availability
- Rolling stock utilization
- Planned maintenance cycles
- Compliance of infrastructure
- Dangerous goods incident count
- Accurate crew payment

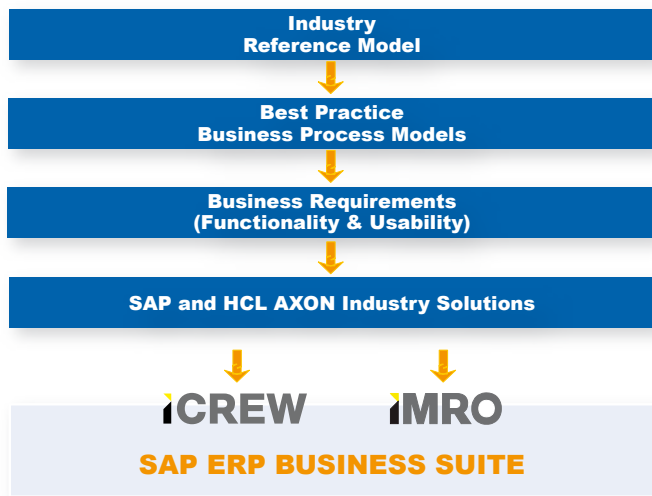
The Rail Ecosystem



HCL AXON's Business Benefits Realization Approach proves effective in delivering immediate value during project implementations

INDUSTRY SOLUTIONS FOR THE RAIL INDUSTRY

Industry reference models define high level end-to-end processes for key business functions. HCL AXON has developed detailed best practice business process models that enable the processes in the industry reference model. These process models are designed and adapted to meet our customers' business requirements and as dictated by both functional and usability requirements in the enabling technology. The requirements are mapped to the SAP Business Process Platform and HCL AXON's industry solution to ensure a best fit for our customers.



“SAP chose HCL AXON for this co-development agreement for MRO because of their proven track record in SAP solution implementation and development at aviation and aerospace MRO organizations around the world. SAP is committed to this co-development and intends to work with HCL AXON to increase customers' return on investment realized through deployment of SAP solutions and iMRO”

Klaus Heimann
SVP, Industry Solutions
SAP AG



iMRO is HCL AXON's industry solution for Maintenance, Repair and Overhaul (MRO). It is a software product which builds on, extends and enhances the SAP ERP application. iMRO addresses the transportation industry driven requirements by providing enhanced user interfaces and built-in best practices for key processes such as:

- Asset induction
- Asset inspection
- Linear asset Management
- Maintenance planning and resource balancing
- Paperless maintenance execution

Together, SAP solutions for MRO and iMRO integrate as a commerce off-the-shelf application that brings end-user benefits and operational efficiencies resulting in increased asset utilization, improved material availability, greater cost transparency and built-in compliance support.

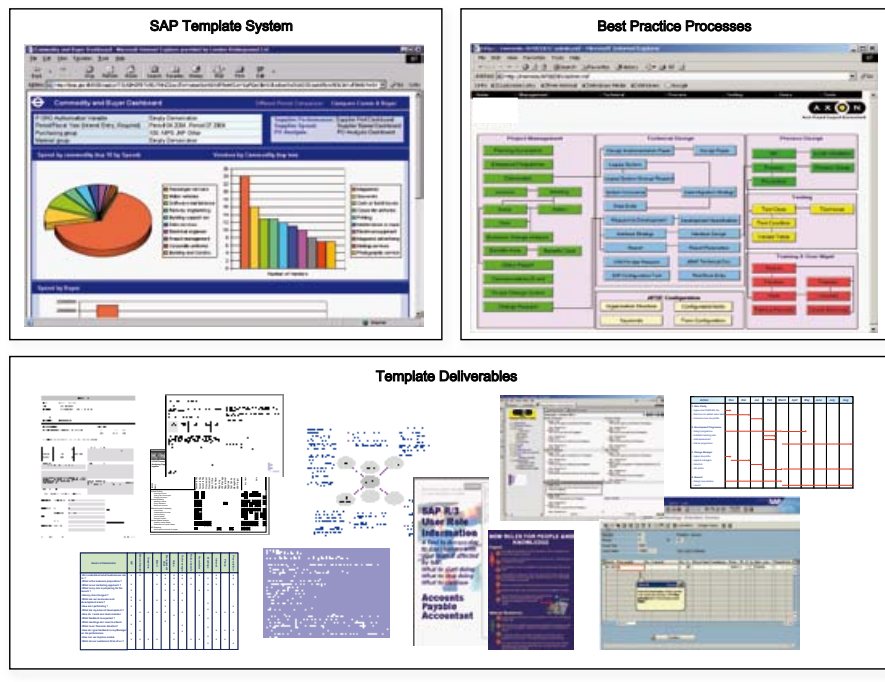
Linear asset management addresses the unique requirements of linear assets that can stretch across thousands of miles requiring regular inspection and both planned and unplanned maintenance, while maintaining detailed labor, material and other cost information as well as work order details to enable financial and compliance reporting.



iCREW is HCL AXON's end-to-end solution for administering, assigning, planning, dispatching and paying crews. iCREW expands the SAP ERP functionalities of Human Capital Management to tackle unique workforce management challenges of transportation service providers, thus improving operational efficiency and reducing overall operating costs.

EFFECTIVE PROCESS AND DELIVERY TOOLS

All of our Projects Leverage Proven Templates and Accelerators



Whether you transport people, packages, or freight, by air, land or sea, SAP has a range of technologies that can drive efficient and integrated end-to-end business scenarios. Whether it is strategic sourcing, track and trace, compliance reporting, asset maintenance, electronic POD, revenue management, activity based costing, or fleet management, HCL AXON provides the tools customers need to leverage the most effective elements of the SAP business process platform to deliver enhanced service and financial performance.

Our projects are delivered using our integrated Global Delivery Methodology (iGDM). iGDM provides a robust integrated methodology with templates and accelerators underpinned by our project support tool (APSE) to ensure efficient and effective project delivery. iGDM incorporates our experience and best practice from hundreds of SAP based implementation and ensures an integrated project approach that addresses technology, change management, business operating model and realization of your program benefits and business outcomes.

Despite the breadth and depth of the SAP business process platform, HCL AXON's implementation experience with Transportation Service

Providers has shown that gaps still exist and innovative solutions are required. Where functionality and usability enhancements are required to fill white spaces in the SAP business process platform or to make the solutions more accessible to the end-user, HCL AXON has developed industry solutions in collaboration with SAP and our customers.

The first examples of these industry solutions are **IMRO**, an industry solution for maintenance, repair and overhaul of complex assets and **iCREW**, an end-to-end industry solution for administering, planning, dispatching and paying crews. As part of our program of continuous development of innovative solutions for the transportation industry, HCL AXON revolutionary solution to linear asset management will deliver significant benefits to any organization requiring a solution for maintaining all types of linear assets such as rail tracks and roadways.

HCL AXON's proprietary industry solutions utilize the SAP technology stack, comply with SAP development standards, and fully integrate with the core functionality of SAP. These products demonstrate HCL AXON's thought leadership and commitment to our customers' success.

“HCL AXON was recommended to us by SAP's Railway Industry Business Unit based on their knowledge and background in developing and implementing SAP solutions within the railroad sector. HCL AXON mobilized a very strong team quickly and we were immediately impressed with their depth of SAP knowledge. The partnership approach has been very effective and a joint team of HCL AXON consultants, CN business and IT resources remains”

Len Podgurny
Canadian National

WORLD CLASS TRANSFORMATION CAPABILITIES



HCL AXON transformation services in the transportation industry cover a broad range of business challenges and opportunities including, but not limited to:

Enterprise Asset Management

HCL AXON has a deep, diverse, and successful track record of delivering enterprise asset management solutions across multiple segments of the transportation industry. We are recognized by SAP as the industry leader because of our deep experience from implementing over seventy-five maintenance, repair and overhaul solutions for all types of transportation and infrastructure assets. After a thorough industry review, SAP selected HCL AXON as its exclusive development partner for its industry solution for MRO (iMRO) which is based upon the SUGAIR MRO reference model and HCL AXON's preconfigured MRO solution. As part of HCL AXON's process of continuous improvement iMRO has been improved to address the linear asset maintenance needs of many of our clients in the transportation industry and beyond.

Workforce Deployment and Optimization

HCL AXON has extensive experience with both scheduled and unscheduled deployment models using various SAP technologies. HCL AXON is currently configuring and developing a comprehensive SAP-based Crew Management solution, iCREW, for a Tier 1 North American railroad. In conjunction with this program, HCL AXON is also managing a research program with Cornell University to find an optimization algorithm for crew bidding and deployment for North American freight carriers.

Revenue and Cost Management

HCL AXON's industry experience and close relationship with SAP's Industry Business Unit for Travel and Logistics Services has led to HCL AXON testing SAP Transportation Management 7.0 and other cutting edge transportation solutions from SAP. HCL AXON is working closely with SAP and customers in its ramp-up of this new technology.

Corporate Performance

Business Intelligence is a crucial aspect of the travel, transportation and logistics industry. HCL AXON has the largest team of experienced OutlookSoft consultants in the industry and has successfully delivered a diverse range of Business Planning and Consolidation (BPC) programs. As track and trace technologies advance, the amount of key business information to be analyzed increases. HCL AXON works closely with its customers to identify true key performance indicators and ensure the right data is measured in a timely manner.

Global Trade and Compliance

Compliance and Governance in strongly regulated sectors does not have to mean process inefficiency. HCL AXON's proven implementation methodology ensures the effective use of tools and appropriate process controls to realize significant savings and efficiency gains.

Enterprise Resource Planning

HCL AXON has implemented and developed SAP ERP solutions for all of its 15 years at over 800 organizations. Our success has led to HCL AXON becoming the largest "SAP only" consultancy in the world and the partner of choice for business transformation programs.

“At the time of the “go-live” HCL AXON’s consultants demonstrated the kind of SAP expertise and industry knowledge that will help us to leverage our business systems investment to achieve substantial business benefits across the enterprise. HCL AXON’s consultants impressed us with their work ethic and teamwork”

Brian Cawley
Director, IT Consulting
Goodrich Corporation

ABOUT HCL AXON

HCL AXON is a global pioneer in leveraging leading technologies to drive value realization. Our value management approach accelerates the realization of benefits from your investments by aligning IT to your clients' required business outcomes. We provide the complete range of consulting, hosting and Business Process Outsourcing (BPO) services, necessary to define, realize and sustain real business change. Our unique delivery model integrates on-site business transformation consulting services with near-shore and off-shore technical development and support capabilities, to ensure that our clients receive the optimal solution at the right price point.

Accelerate Value

We recognize that different organizations require differing outcomes from their ERP investment, and as such we provide different solutions to best address these needs:

- **Consulting** – Design, deployment and optimization of world-class business practices
- **Transformation** – Delivering fundamentally improved levels of operational performance through the implementation of world-class ERP platforms
- **Refresh** – Rapid implementation of pre-configured industry specific business solutions based on world-class ERP platforms
- **Re-platforming** – Migrating legacy solutions onto today's leading technology platforms
- **Sustainment** – Complete heterogeneous systems applications management capabilities from remote system monitoring through to Information Technology Outsourcing (ITO)

In all of these approaches, HCL AXON combines unrivalled experience in deploying the world's leading enterprise application software with significant industry experience to ensure that our programs deliver value for our customers, faster and more cost effectively than any of our competitors.

True Global Delivery

HCL AXON operates as a single global organization allowing us to deploy consulting teams which leverage proven industry and solution best practices from our offices around the world. We fully understand that successful implementation projects require both on-site client engagement to drive process design and business change while simultaneously leveraging the significant cost and time zone benefits associated with cost effective off-shore and near-shore, round-the-clock delivery centers. Our global delivery model does not treat off-shore as an afterthought; we fully integrate our off-shore capabilities into our implementation and application management methodologies to ensure that the value of the integrated on-shore/off-shore model is fully optimized.

IT is all about certainty of outcomes

Ultimately our engagements are driven by the need to deliver certainty to our clients:

- **On Value**
- **On Time, To Budget**
- **Guaranteed Service Levels**
- **Committed Cost Reductions**
- **Realized, Cashable Benefits**
- **Achieved Business Metric Improvements**

HCL AXON regularly contracts to the delivery of specific outcomes – whether it is a reduction in a call center's average call handling time, guaranteed infrastructure management cost-reductions or a particular cost saving or performance improvement.

Financially Stable and Respected

HCL AXON is a wholly owned subsidiary of HCL Technologies, a \$6 billion global technology leader with over 90,000 employees. HCL is not only financially robust; it is also globally recognized for its revolutionary management practices which focus on trust, integrity and the empowerment of our employees. This approach, which we call Employee First, is the subject of one of the most frequently taught Harvard Business School Case Studies.



CASE STUDY TRANSPORT FOR LONDON

The Client

Transport for London (TfL) is responsible for providing transport services for over 10 million passengers every day. TfL was formed by incorporating ten different organizations that had been separately responsible for administering and maintaining the different transportation modes in the metropolitan area, including highways, buses, trains, and subways.

TfL employs over 19,500 employees and supports a transport infrastructure valued at over fifty billion dollars.

The Business Need

- Weak or non-existent integration between the ten different component businesses, which included over 30 separate back office systems
- Uncertain overall vision for transformation and limited change management abilities

Solution Components

SAP ECC 6.0, Finance, Facilities Management, Human Capital Management, Real Estate Management, Project Management, BI, SRM, and CRM

Outcomes

- Over \$400 million dollars in benefits realized through cost savings and efficiencies, exceeding original business case of \$50 million
- The most comprehensive HR and Payroll implementation in Europe was delivered on time and to budget and is considered to be one of the leading examples of shared services
- Greater organizational visibility due to faster access to higher quality data
- Accelerated integration of disparate businesses



“The SAP implementation across Finance, Procurement and Human Resources will have delivered over \$400 million in savings to Transport for London in the first five years following the initial implementation”

David Snowden
Business Improvement Director
London Underground



“The introduction of the new integrated system will lead to a business change across Transport for London organizations and that will dramatically improve our efficiencies and benefit all of London’s commuters and visitors”

Jay Walder
Managing Director, Finance and Planning
Transport for London

CASE STUDY FIRST SCOTRAIL

Integrated Fleet Management Solution

The Client

First ScotRail (FSR) are a Train Operating Company (TOC) in the UK that operate the franchise for commuter rail operations in Scotland. First ScotRail are part of First Group who operate Bus and Train fleets throughout the world.

Summary

- 5000 Employees
- 500 Maintenance staff
- 500 vehicles across 8 different types
- 6 Main Depots across Scotland

The Business Need

HCL AXON was engaged as the SAP Implementation partner to deliver this Integrated Fleet Management System extending across a number of strategically important functional areas and processes.

Project Goals

- Support the harmonization of Fleet maintenance process across TOC and Depot
- Enable the retirement of disparate legacy systems – RAVERS/IMACS
- Enable the tracking of major components by serial number
- Support optimized maintenance plan management
- To enable the planning of depot staff to meet maintenance requirements.
- Consolidated data source for management/performance reporting
- Intuitive/easy to use operational user interface

Solution Components

The SAP footprint encompassed the following functional areas:

- PM - Plant Maintenance
- MM/IM – Materials Management/ Supply Chain Management/Inventory Management
- BI/BPS – Business Information (BW)
- HR – Human Resource Management
- Portal – User Front end Engineering operations
- XI – Interface & Integration layer
- SRM – e-procurement implemented in parallel by HCL AXON but not part of HCL AXON's SAP based Fleet Management Solution

Target Outcomes

- A reduction in the quantity of outstanding defects and in the average time to rectify a reported defect
- An increase in fleet miles per casualty
- A reduction in average vehicle downtimes and an increase in availability
- Reduce reliance on legacy mainframe systems and exposure to increasing maintenance costs
- Increase operational efficiency around data entry and system use resulting in better data quality
- To support processes in order to improve supplier and material performance
- Realize improvements in materials ordering, inventory control and stock management
- Improved visibility of life cycle costs
- One system/one set of data in support of the key Business drivers
- One Integrated Data set in support of Full Asset Life Cycle Management & reporting. Subsequent improvement in data quality, consistency
- Consolidated System landscape

First 
transforming travel



CASE STUDY PORT AUTHORITY TRANS-HUDSON CORPORATION

The Client

The Port Authority Trans-Hudson Corporation (PATH) was established in 1962 as a subsidiary of The Port Authority of New York and New Jersey (PANYNJ). The heavy rail transit system serves as the primary transit link between Manhattan and neighboring New Jersey urban communities and suburban railroads.

PATH presently carries 242,000 passengers each weekday and nearly 72 million annually. In mid 2008, PATH began taking delivery of new trains for testing and in 2009 these trains will be put into service on PATH. PATH is taking this opportunity to dramatically transform its entire operations with a particular focus on revamping its maintenance planning.

The Business Need

- Inefficient maintenance planning and management systems
- Limited reporting abilities make compliance with regulations and inspection requirements burdensome
- Inability of present systems to manage introduction of new fleet while maintaining five different current types of cars

Solution Components

SAP Finance, Plant Maintenance, Project Systems, Materials Management (IM and Purchasing), Capital Asset Management and Asset Commissioning.

Outcomes

- Significant improvements in maintenance planning
- Complete support for federal inspection requirements and reporting
- Improved tracking of hardware will support the introduction of the new fleet and retirement of the old fleet
- Tighter integration with the Port Authority of NY/NJ PATH



CASE STUDY UNION PACIFIC

The Client

Union Pacific (UP) is one of America's leading transportation companies with the largest railroad in North America covering two-thirds of the United States.

UP operates SAP in 23 different states with 300 professional users, 15 manager users, and 50,000 employee users.

The Business Need

- Increasing costs associated with supporting thousands of employees across multiple states while maintaining compliance with federal, state and workplace regulations
- Unreliable and slow financial reporting system impeding the deployment of company strategy

Solution Components

SAP ECC 6.0, Finance, EAM, Sales and Distribution, Payroll, and Project Systems, Business Warehouse, Business Planning and Consolidation

Outcomes

- Improved business planning through greater financial transparency and controls
- Reduced costs for adherence to industry specific requirements such as STB
- Reliable and real time financial reporting





HCL AXON delivers significant business value to leading organizations through the innovative implementation of SAP technologies.

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