Symphony Services partnered with a leading European Telematics services provider to add robust Business Intelligence capability to its flagship web-based Integrated Telematics Portal and optimized its performance for real-time data processing environment.

## The Client

The client is one of the Europe's longest established Telematics providers. They cover a unique portfolio of vehicle tracking, fleet management, and mobile data solutions and provide wireless vehicle management technology for monitoring large and small fleets of vehicles. They also provide consulting services to fleet and risk management markets across Europe. Some of their prominent customers include BAe Systems, Network Systems, Homeserve, Areva etc.

## The Challenges

The client's vision was to simplify the decision-making process for fleet managers so that they have access to genuine business relevant management information for making informed decisions. The challenge was to add data analytics solution for its flagship web-based fleet management application.  The application had capability to collect large volume data - with growth rate of 10,000 rows per second – from:

- Multiple geographical location of the vehicles round the clock at the rate of every 2 seconds
- Multiple sources to get diversified real-time data – data parameters involve identify the speeding behaviors on all types of roads, manage fuel consumption, velocity, load balancing, vehicle positioning etc

## The Solution

Symphony's solution to the client included designing ServiceOriented Architecture based Business Intelligence for the integrated Telematics portal using Microsoft SQL Server and SQL Server 2005 Reporting Services.

## Data Integration & Analytics

### Platform
MS SQL Server

### Industry / Domain
Transportation

### Technology and Tools Used
- SQL Server 2005 and SQL Server Reporting Services 2005
- Telerik.NET controls for sleek UI
- Dundas Chart for SQL Reporting Services
- Dundas Chart for ASP. Net 2.0
- Mapsolute
- DBGhost for Database synching
- Microsoft Enterprise Library 2007

### Major Major Product Features
The Business Intelligence features for Integrated Telematics application includes
- Extensive and rich reporting options to generate reports dynamically and on-demand
- Enhanced real-time data processing capability -  2.5 million rows/hour
- Customizable Dashboard to provide  up-to-date and accurate information, with improved data presentation by 'track and trace'

The stored procedures of SQL Server database were fine-tuned to improve large volume data handling capability. This resulted in enhanced data processing capability at the rate of 2.5M rows per hour. Further, using third party charting tools resulted in improved data presentation.

A dedicated administration panel provided unique and completely customizable dashboard having 15-20 widgets at a time. The innovative dashboard contains visual graphics to present business-pertinent key performance indicators for management in all functions of client business.

Extensive use of SQL Server 2005 Reporting Services helped to build rich reporting options and incorporate drill down functionality in the Dashboard. Exception-reporting option allowed instant comparisons of actual performance against planned, thereby highlighting exceptions for further investigation to achieve maximum efficiency.

Symphony's QA team performed extensive performance improvements using best test practices in both mirror and live environments to ensure consistent performance even during peak load scenario.

## The Benefits

Symphony's BI expertise helped bring the following benefits to the client:
- Optimized portal performance for real-time data processing environment
- Advance dashboard-driven KPI-based reporting solutions helped serve its clients better by maximizing ROI - deliver green fleet benefits and cost savings, reducing fuel consumption and lowering carbon emissions
- Adding BI solution to the portal enabled the client to repackage their integrated Telematics solution more effectively and gain market leadership through strategic partnerships