

PTV TrafficInformationServices

Traffic information in all its facets



Providing better traffic information

How can up-to-date traffic information be provided quickly and accurately? Our team of traffic and mobility experts will help you deal with this issue. PTV's wide range of services covers acquisition, refinement and processing of traffic data – exactly tailored to fit your planned application.

Your aim is to implement an attractive mobility service with up-to-date traffic information for your customers. The major challenge now is to ensure highly efficient data processing – from the collection of the original message to its delivery as part of a traffic information service.

Benefit from an integrated approach and use PTV TrafficInformationServices to make implementation easier!

First, we will collect and license high quality real-time raw data from various sources and from leading local providers. Based on proven PTV methods and algorithms, we provide you with traffic messages, traffic flow (level of service) and traffic forecasts for many European countries.

Traffic conditions and map services

The traffic data can be used for traffic maps, commuter services providing journey times, and traffic alerts. Users can access these services on the Internet, on mobile

PTV TrafficInformationServices provides traffic information for mobile services:

- ▶ Traffic condition service
- ▶ Route planning
- ▶ Navigation

devices in the form of location-based services (LBS) or as an extension of social network services.

Call centre services

With traffic information, call centre operators can help end-users minimise their journey time and reach their final destination more quickly. This feature is of particular benefit for breakdown assistance providers (bCall), emergency services (eCall) or concierge services providing points of interest along the route, such as hotels.

Route and trip planning

Dynamic routing considering actual traffic conditions optimises the selection of routes, the expected time of arrival and the calculation of alternative routes.

Real-time messages and computed traffic forecasts contribute to improved travel planning in the consumer sector, in the logistics industry and in the tracking&tracing business.

Navigation / Connected Navigation

For the first time, intelligent navigation systems can offer new individual, cross-border traffic services thanks to PTV Traffic-InformationServices.

Particularly popular is the delivery of traffic forecasts or level of service (LOS), where traffic flows are visualised in different colours.

The services can be integrated into any type of navigation solution, regardless of whether it is based on on-board or off-board technology. They can be used for all navigation platforms:

- ▶ Automotive Embedded
- ▶ PND
- ▶ Smartphone



Traffic forecasts

PTV has developed a unique level of expertise in the field of traffic forecasting. We can provide you with short-, medium- and long-term traffic forecasts covering a period of a few minutes up to 12 months.

PTV uses various technologies and covers several dimensions, from individual route segments to complete road networks:

- Automatic calculation of tailbacks for individual route segments

- Creation of typical traffic flows within a road network by using demand-orientated models
- Automatic generation and update of traffic flows and forecasts by combining traffic models with real-time data

PTV's message management

Importing messages

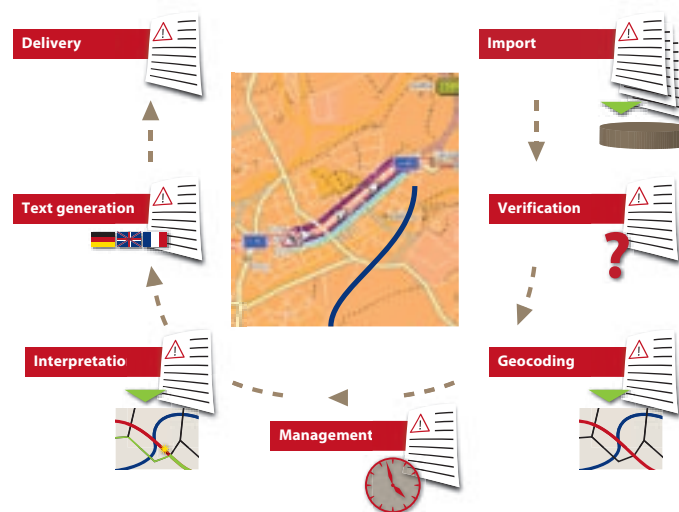
PTV collects traffic messages from different providers and turns provider-specific formats into an internal standard data format. In particular standard formats such as Alert C (TMC) are decoded and the content is interpreted with regard to its impact on traffic. All standardised messages will be verified, and if necessary, rectified and aggregated.

Generating messages

Our traffic and mobility experts can derive traffic information from data collected by mobile or stationary devices. This data is then used to create messages and to merge them with existing, imported messages. During this process, each message will be weighted in terms of reliability and currency, which means that users are provided with top quality and up-to-date information: this will prove particularly important for queuing and the dispersion of traffic jams.

Based on proven methods, traffic data are analysed and converted into traffic flows which are then used to generate traffic messages.

Mobile traffic data, such as floating car data, is also an important source for PTV's traffic information services. To this end, time-related vehicle positioning data



All message processing services at a glance

(GPS) and incidents detected by the vehicle, such as starting and end point of traffic jams, will be processed.

Preparing messages

The messages are versionised and translated into the most commonly used foreign languages. Additional coding based on standards opens up new fields of application such as Alert C in navigation systems. Moreover, messages used for dynamic routing will be interpreted regarding their impact on traffic and turned into speed-time graphs for each road segment.

Delivering traffic data

We will supply your data in a cross-border standard format. Depending on the

customer's specific requirements, the following state-of-the-art standards will be used:

- ▶ Alert C (RDS/TMC)
- ▶ TPEG
- ▶ RSS
- ▶ GeoRSS
- ▶ Web Map Service (WMS)

LOS (Level of Service)

PTV also provides a graphical presentation of the traffic flow in different colours which correspond to the actual level of service (LOS) along a specific route. The basis for this service is comprehensive information of a network, which can for example be derived from processed loop and floating car data.

▶ Traffic Software
Logistics Software
Transport Consulting

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PTV TrafficInformationServices – for improved traffic information

Take advantage of our competence: PTV will gladly take over all tasks that relate to traffic data acquisition, refinement and processing – always tailored to fit your planned application.

Your benefits

- ▶ Traffic information on the international networks from one source, using a single format and channel
- ▶ No effort involved in raw data acquisition
- ▶ Independence from individual suppliers, as PTV will select and license the best data available for each territory
- ▶ Access to raw data using different technologies and sources
- ▶ Implementation of state-of-the-art processes
- ▶ Easy integration into existing applications

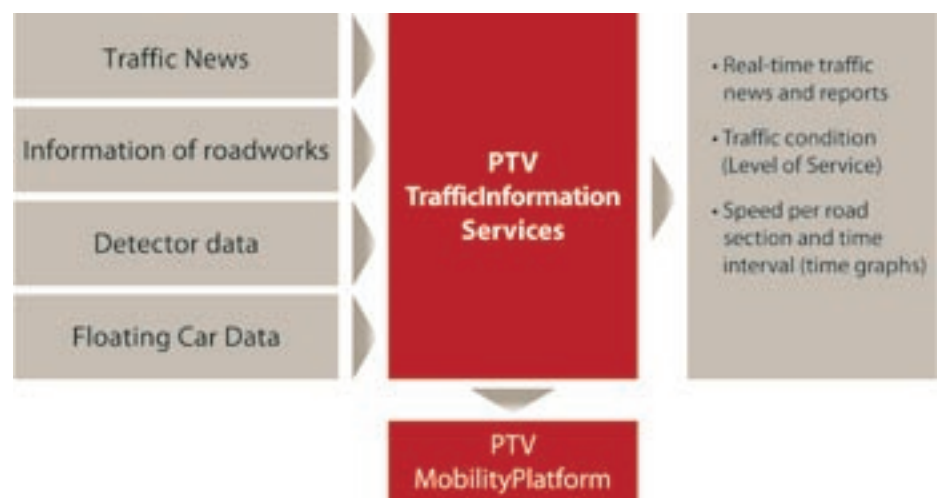
PTV TrafficInformationServices are available as ready-to-use solutions with predefined business models.

To discuss your specific requirements or for a quote, please contact us and we'll be glad to help you.

The target group

Mobility service providers offering:

- ▶ Navigation solutions
- ▶ Map services, e.g. location-based services, such as social network services, traffic alerts
- ▶ Route planning portals
- ▶ Software applications with traffic information, e.g. tracking & tracing services in the field of transport planning
- ▶ Call centre services



The PTV Group provides cutting-edge software technology and consulting to enable customers to meet their mobility needs. It helps people plan and manage traffic and transportation, provides them with the latest traffic reports and assists them in optimising their long-term resource allocation.

The ITS division sees to an efficient and sustainable use of the traffic infrastructure by supplying intelligent traffic management tools. PTV aims to optimise traffic by offering solutions for analysis and simulation in real-time and for forecasts.