



TRANSIT OnRoute

Frequently Asked Questions

What is Transit OnRoute?

Transit OnRoute is a computer aided dispatch and automatic vehicle location (CAD/AVL) software system designed expressly for public transit agencies. It includes a mobile component installed in each vehicle and a central server component that supports user workstations. Currently, it is designed for managing fixed-route public transit fleets.

What can Transit OnRoute do for me?

Transit OnRoute enables a transit agency to monitor and manage its fleet in real time, reacting to, and sometimes anticipating, events that can affect service quality, operating efficiency and safety. This allows you to provide better service to your customers using fewer vehicles, operators and supervisors. Transit OnRoute can also feed high-resolution fleet performance data to schedule planning systems, enabling the creation of more accurate, flexible and efficient schedules.

How can Transit OnRoute improve service quality?

Transit OnRoute enables centralized fleet controllers to see where each vehicle is at any time and how well it is adhering to its assigned schedule. Headway views allow controllers to monitor where all buses on a route are relative to each other. With this information, controllers can issue instructions to vehicle operators or insert new trips in order to manage headway.

Transit OnRoute indicates to each vehicle driver how they are performing in relation to their assigned schedule. This constant feedback enables them to initiate corrective action earlier, minimizing the magnitude of the deviation. In particular, slowing early vehicles can eliminate a major source of frustration for transit users.

The Transit OnRoute mobile software can automate the operation of traffic signal priority emitters, ticket printers, destination signs, fare signs and voice annunciators based on vehicle location, schedule adherence status and passenger volume. This allows the vehicle operator to focus on driving the vehicle and reduces the probability of errors.

How can Transit OnRoute increase operating efficiency?

Transit OnRoute enables centralized fleet controllers to see where each vehicle is at any time and what its status is with respect to mechanical condition. This additional knowledge reduces the need for extra operators, standby vehicles and supervisors on the street. A Transit OnRoute system typically pays for itself within three years based on efficiency improvements alone.

Transit OnRoute can also be used for monitoring other municipal vehicles such as Works trucks. This enables different municipal departments to see where each other's vehicles are, facilitating the coordination of overlapping activities (e.g. buses and snow clearing vehicles).

How can Transit OnRoute improve safety?

Transit OnRoute alerts controllers whenever a safety-related alarm is activated in any vehicle. Transit controllers know where each transit vehicle is at all times and can direct emergency personnel directly to the vehicle location when an emergency occurs. When transit vehicles are equipped with video cameras or microphones, signals from these devices can be transmitted to the control center in real-time, enabling transit controllers to monitor an emergency event in detail as it unfolds.

Does Transit OnRoute include a traveler information system?

An advanced traveler information system (ATIS) is available as a Transit OnRoute option. The ATIS predicts the future departure times of buses on each route for each bus stop, based on real-time schedule adherence performance (providing accurate departure estimates even when traffic or weather conditions are causing delays). It provides a web services interface that processes queries from web servers and interactive voice response (IVR) systems. It can also drive electronic display signs and kiosks located adjacent to bus stops.

Does Transit OnRoute include a trip planning system?

A trip planning module is available as an option to the Transit OnRoute traveler information system. It supports queries specifying an origin and destination, returning a list of recommended itineraries. The itineraries include directions for walking and making transfers. The query can also contain requests to include/exclude service features such as bicycle carrier, wheelchair access, kneeling bus, ferry, etc.

Why should I consider Transit OnRoute?

Transit OnRoute is a full-featured transit CAD/AVL product available for a very reasonable price. Transit OnRoute was developed by xwave, a leading system integrator who can customize Transit OnRoute to meet your specific requirements. Transit OnRoute provides industry-standard interfaces and is highly configurable, enabling you to adapt it to your needs as they evolve.

Who is Transit OnRoute designed for?

Transit OnRoute is designed for municipal and regional public transit agencies that have up to 3,000 transit vehicles. The vehicles may include buses, trains, trams, ferries, service trucks and passenger cars. Transit OnRoute is not intended for use with underground subway trains.

What wireless network technologies does Transit OnRoute work with?

Transit OnRoute works with IEEE 802.11 wireless local area networks (WLAN) and cellular data networks (CDMA 1xRTT, EV-DO or GSM GPRS). A WLAN is used whenever coverage is available (normally within garages); otherwise a cellular network is used. Non-urgent information is automatically held for transmission until WLAN coverage is available.

How is vehicle position calculated?

Transit OnRoute uses Global Positioning System (GPS) receivers to determine vehicle locations.

What geographic information systems (GIS) is Transit OnRoute compatible with?

Transit OnRoute can import geographic data from any GIS system that supports industry-standard file formats such as ESRI Shape file format and MapInfo MID/MIF.

What transit scheduling systems is Transit OnRoute compatible with?

Transit OnRoute can automatically import schedule data from the GIRO HASTUS transit scheduling system. Other transit scheduling systems can be supported on request.

What types of mobile computers does Transit OnRoute work with?

The Transit OnRoute mobile component can be easily adapted to run on any computer that runs the Microsoft Windows CE or XP operating systems. This includes handheld, laptop and vehicle-specific computers. We recommend the Mobile Knowledge Series 9000 MDT, a rugged, compact unit with a colour touch screen that is competitively priced.

What computer platforms does Transit OnRoute run on?

The Transit OnRoute server runs on computers that run the industry-standard Microsoft Windows Server family of operating systems. High-availability configurations are supported. The Transit OnRoute server uses an Oracle database.