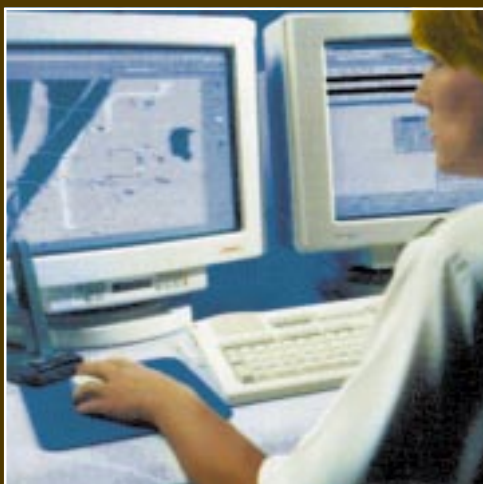


BETTER SERVICE

SAFER SERVICE



**Transit
Management
for Fixed-Route
Systems**

Advanced Public Transportation Technologies Offer Many Advantages for Transit Agencies

"It is apparent that the installation and use of the Computer Assisted Dispatching/Automatic Vehicle Location system has resulted in significant improvements in the operation of the Milwaukee County Transit System. The ability to monitor bus location and schedule status from a central dispatch office has improved on-time performance, reduced street supervision, improved response time to emergencies, and reduced the number of schedule-related public complaints."

—Michael Giugno, Director of Transportation, Milwaukee County Transit System, Wisconsin

"The Ride has been greatly enhanced due to the technology utilized with our Advanced Operating System. Technology is the key to our operation as we seek a greater ridership to ease the congestion in Ann Arbor. I believe public transit must embrace technology to keep pace with people's needs and expectations."

—Greg Cook, Executive Director, Ann Arbor Transportation Authority, Michigan

Automatic Vehicle Location Is a Valuable Resource for Improving Service

The vast quantity of operational data that the automatic vehicle location system provides can be used by many transit agency departments including planning, scheduling, dispatching, maintenance, and customer relations to offer better service to the public.

"I strongly believe that we will use the new bus dispatch system to improve the quality of our service and the cost-effectiveness of its delivery. We are developing performance measures, based on automatic vehicle location data, which will allow us to make more informed decisions on how to allocate resources and deliver service."

—Kenneth Turner, Senior Manager, Operations Project Development, Tri-County Metropolitan Transportation District (TRI-MET) Portland, Oregon



Dispatchers Have Better Knowledge of What Is Happening on the Street

For transit agencies operating automatic vehicle location-equipped buses, the dispatch workstations normally have two monitors plus the radio console with which they can:

- See where the buses are
- Observe bus schedule adherence condition
- Obtain a host of items of information regarding each bus and operator
- Communicate with operators and street supervisors via radio and mobile data terminals
- Receive emergency request messages

This greatly enhances their ability to respond to service abnormalities and emergency situations.

"Automatic vehicle location is an incredible tool to see how the entire system or pieces of it are working. It helps us put buses on schedule. Before, it was like working with blinders on."

—Keith Sherry, Dispatcher, King County Metro, Washington

"We find it very helpful that the system is able to prioritize the incoming text messages for urgency of response. With the previous system, we had no idea which calls were more important."

—Ronald Jagow, Lead Dispatcher, King County Metro, Washington

Mobile Data Terminal Usage Has Proven More Effective and Reliable Than Voice Communications

Transit agencies have found it more beneficial for operators to send text data messages rather than talk to dispatchers. This has been effective in reducing congested voice radio traffic, up to 70 percent in some cases, and improving the response to important calls. Calls to dispatchers are no longer being lost, as was sometimes the case with older radio systems.

"Being able to send text messages is great. I know that Dispatch knows what I want before I have even talked to them."
—Larry Chartier, Bus Operator, Tri-County Metropolitan Transportation District (TRI-MET) Portland, Oregon

"A bus operator had a medical emergency on board and sent the Emergency/Medical message. The bus was in an area where voice radio contact was not possible. But the data message went through and we were able to send medical help to the precise location."
—Ronald Dockter, Dispatcher, TRI-MET Portland, Oregon

Emergency Response Has Been Substantially Improved by Knowing Exact Bus Locations

The ability to precisely locate a bus that is involved in a serious situation and send assistance quickly to the scene is one of the major benefits of automatic vehicle location from the bus operator's perspective. When an emergency alarm is activated, bus position is updated on the dispatcher's screen every few seconds. The dispatcher can also listen via a covert microphone to determine the nature of the problem in order to send the appropriate help.

"A big advantage of automatic vehicle location is during emergencies—it can send transit supervisors, transit police, regular police, or fire department to the scene quickly. Previously, we had to talk to the driver. Now we know where they are without them having to tell us."
—Keith Sherry, Dispatcher, King County Metro, Washington

"Medical emergency—excellent response time—arrived within three minutes of call to dispatcher . . . WOW!!!"
—David Vestal, Bus Operator, King County Metro, Washington

On-Board Surveillance Helps Reduce On-Board Incidents

Video cameras have been placed on buses in some of the more recent modernization implementations. While the main objective is to identify individuals committing criminal acts or creating disturbances on the buses, and ultimately reducing these occurrences, there have also been maintenance benefits.

"A three-camera video surveillance system has enhanced safety on AATA's buses. AATA has also discovered dramatic improvements in the cleanliness of the vehicles."
—Greg Cook, Executive Director, Ann Arbor Transportation Authority, Michigan

Customer Relations Have Been Improved with Automatic Vehicle Location

The knowledge of current and historical bus locations has provided customer service departments with the ability to give potential riders current bus service information as well as investigate customer complaints for validity or resolution.

"Automatic vehicle location data helps us give the customer better transit information more quickly."
—Carole Douglass, Capital Projects Coordinator, King County Metro, Washington

"The playback capability is used to investigate schedule-related customer complaints. About 50% of the complaints have been found to be invalid."
—Michael Giugno, Director of Transportation, Milwaukee County Transit System, Wisconsin

INTELLIGENT TRANSPORTATION SYSTEMS



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