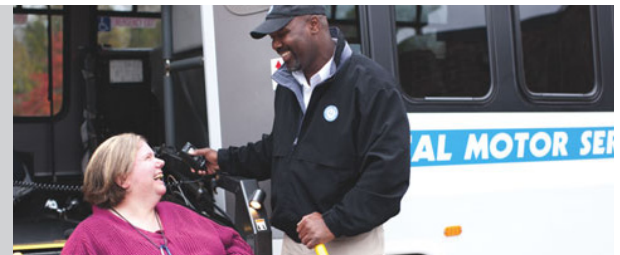


Case Study



“Not only has Medical Motor Service achieved cost efficiencies and maximized driver productivity (since implementing RouteMatch TS), it has also improved the accountability of the driving staff and thus ensured the safety of its passengers and drivers alike.”

- William P. McDonald, Executive Director, Medical Motor Service



Medical Motor Service

Medical Motor Service is Rochester, N.Y., and Monroe County's only not-for-profit transportation agency whose sole purpose is the provision of specialized transportation services. Medical Motor Service (MMS) collaborates with a broad range of other not-for-profit agencies to ensure that people with disabilities and older adults gain access to needed health and social services. Originated by the Public Health Nursing Association in 1919 during the international influenza epidemic, the agency originally drew upon volunteer drivers to transport doctors and nurses to area flu victims.

The first full-time driver was hired in 1922 and for many years the agency was supported exclusively by charitable donations, as government aid for specialized transportation was simply unheard of. Medical Motor Service was formally incorporated in 1931 and expanded its mission to serve area hospitals, clinics and social service agencies.

Medical Motor Service **became a United Way Agency in 1946** and has continued to receive support from that source for the non-emergency transportation needs of children, adults and senior citizens. In 1965, MMS dedicated a vehicle to provide oncology transportation and in 1965 the agency began the area's first wheelchair-accessible service.

In 1978, Medical Motor Service began the **first “coordinated” transportation service** through a contract with the Monroe County Office for the Aging. This service, still in effect today, transports older persons to area senior centers for meals and social services. The contract was unique in that it unified the transportation services of many local senior centers with one operator to improve efficiency and streamline management.

In early 1998, Medical Motor Service opened a full-service vehicle maintenance garage that services all the MMS fleet as well as vehicles from other not-for-profit agencies. By providing onsite repairs and preventative maintenance, the agency is better able to control the cost, quality and safety of its fleet.

In June 1999, Medical Motor Service **launched a limited brokerage service** to manage Medicaid-funded transportation services for behavioral health clients through Coordinated Care Services, Inc. Later, in the fall of 1999, the agency expanded the brokerage service to include Medicaid-managed care recipients enrolled through Blue Cross/Blue Shield (Excellus).

Medical Motor Service provides an average of approximately 500,000 trips a year to over 9,000 area residents who are disabled and/or unable to use traditional transit services. The agency operates a fleet of 120 cars, mini-vans and accessible buses.

Medical Motors Service

Headquarters: Rochester, NY

Solutions: RouteMatch TS

Challenge:

Rising costs for insurance and fuel, more demand for trips and flat-lined reimbursement.

Solution:

A more efficient routing/scheduling solution.

Results:

12% improvement in trips per hour; annual payroll savings of \$200,000.

Future Plans:

RouteMatch Mobile Data System.

Business Challenge

In 2006, MMS began examining ways to **automate scheduling and dispatch** functions in response to increased service demand, and escalating fuel and insurance costs. At the time, fuel and insurance costs were rising 25% or more each year, and overall trip cost was increasing 6% or more. To remain financially viable and to provide a service that was affordable for passengers, it was imperative to **introduce new and real cost-saving technology** to the agency's operations. The complexity of manually scheduling an annual volume of over 435,000 one-way trips (at that time) had become overwhelming and inefficient.

The top customer concern has always been for on-time performance, and the escalating demands for service caused greater scheduling inefficiencies. A second customer concern was to shorten the advance time requirements for scheduling a trip. Requests for next-day and even same-day trips were becoming more commonplace and these time frames could only be accommodated through real-time scheduling and dispatch technology.

As with many not-for-profits, reimbursement rates had become stagnant due to the economic conditions associated with the agency's largest funders -- state and local government.

So with the combination of rising costs for insurance and fuel, more demand for trips and flat-lined reimbursement; it was a business necessity to **explore the use of technology to create the most efficient routing/scheduling of vehicles and drivers.**

Solution

In July 2006, Medical Motor Service chose RouteMatch Software, Inc. as its technology solution. In 2005-06, the base year before implementation, MMS provided a total of 436,637 one-way trips using 232,058 paid driver hours. At that time the trip/hour ratio was 1.88 and MMS employed 112 full-time driver equivalents. At implementation, MMS set a goal of 2.0 trips per hour as a desirable outcome for technology improvements. While this was an arbitrary metric, it represented a **6% efficiency improvement** that would correspond with the agency's annual growth. The agency also surveyed other community transportation providers and 2.0 trips per hour represented the most optimistic outcome—most were below this ratio.

Results

Medical Motor Service has experienced **dramatic improvements in efficiency** over the 4 years since RouteMatch was installed.

While there are a number of variables that contribute to these improvements, the type of trips provided (group versus individual) has not changed dramatically over time.

In 2009-10, MMS provided 484,553 one-way trips using 229,257 driver hours at a ratio of 2.11 trips per hour. This represents a **12% improvement** in trips per hour over the base year 2005-06.

In 2007-08, it took 248,131 driver hours to produce 485,711 trips. Because of better routing and dispatch, MMS essentially provided the same number of trips last year with almost 19,000 fewer driver hours. A conservative estimate of **annual payroll savings would be \$200,000!**

The cost per trip has dropped from \$15.35 in 2007-08 to \$14.50 in 2009-10—largely due to reduced labor costs and more trips per hour. During this time frame, MMS was still able to provide annual pay raises averaging 4% to drivers.

Future Plans

Since the original RouteMatch routing and scheduling program was acquired, MMS has added RouteMatch's AVL-GPS module and now more than half the fleet uses AVL-GPS. Future plans are to expand this technology to more of the fleet. The AVL-GPS was first installed in those vehicles that were operating primarily in a demand-responsive environment in order to maximize the dispatch efficiency for hospital and medical discharges and returns. It has enhanced the agency's ability to provide same-day service because dispatchers are able to work in a real-time environment versus a prescheduled fixed-route environment. The AVL-GPS component also provides excellent real-time and historical data on vehicle driving patterns, locations, actual routes driven, and speed. **So not only has Medical Motor Service achieved cost efficiencies and maximized driver productivity, it has also improved the accountability of the driving staff and thus ensured the safety of its passengers and drivers alike.**