

A Kiessling Transit/GATRA Case Study

GATRA's Goals:

Reduce: Paper consumption of GATRA's vendors

Reuse: Existing vendor services more efficiently

Recycle: Vendor administrative resources

Marching Towards a Paperless System

Moving People, Saving Trees

Running a transportation system without paper, once unthinkable, is now a reality. Under a project sponsored by Greater Attleboro Taunton Regional Transit Authority (GATRA), Kiessling Transit, Inc. has implemented a Fixed Route and Complimentary ADA/Dial-A-Ride service in the Norfolk-Foxboro, Wrentham, Franklin region, that is completely web based, MDT/AVL driven and with electronic billing. The technology has been provided by HBSS, Inc.

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GATRA relies on private vendors to provide service on their behalf and as such GATRA has little control over the operational efficiencies of the vendor. In an effort to increase efficiencies GATRA has sponsored use of ITS technologies in one of its areas where service is provided by Kiessling Transit Inc (KTI).

Under the sponsorship of GATRA, for the past 2+ years, Kiessling Transit, Inc. in partnership with HB Software Solutions, Inc. has perfected a totally paperless Fixed Route and ADA/Dial-A-Ride system comprising of 2 Fixed Routes, and 4 Paratransit routes that cover an area of approximately 400 sq. miles, in the rural and semi-urban setting of Southern Massachusetts.

Web Based Scheduling System: The trips are booked on a hosted, web based system and scheduled, 24 hours in advance. Once scheduled the clients are called back with an pick up time. On the day of the travel the manifests are loaded on portable Mobile Data Terminals (called ePad™) which the drivers take with them to the vehicle. Once in vehicle these ePads are mounted and drivers use them to record mileage and arrive/perform timings. The schedule changes during the day, cancellations and no-shows are all handled by a web based messaging system.

Portable MDTs: GATRA and KTI have implemented industry's first portable MDT called ePad. This device has 1 GHz CPU, 1 GB RAM, and 60 GB Hard-disks. A broadband (EVDO technology) modem is used to communicate with the base office, and a Sirf-III chipset based (NMEA protocol) GPS receiver is used to record the location of the vehicle. The device is stored in the office and as such does not need to be ruggedized – though it can easily handle operating conditions of the vehicle. The operating system is Windows XP and the device has an on-board database, so the ePad can operate on its own without a Modem connection.

Online Billing: KTI submits all the reports and bills to GATRA via an online billing system. GATRA staff reviews the bills online and issues payments, eliminating the need for paper based invoicing and reporting.

As a result of this project KTI has reduced paper consumption by 60% on average and a reduction of 50% of radio traffic. The implementation of automated scheduling has increased the optimization and created the following efficiencies: Reduced drive time and Reduced carbon foot-print.

About Kiessling Transit, Inc: Kiessling Transit was established in 1989. The company contracts with regional transit authorities, local municipalities and state agencies to transport passengers throughout Massachusetts and from Massachusetts' locations to facilities in neighboring states. Daily trips to and from residences to work sites, schools, medical appointments, and social events are provided for ambulatory and non-ambulatory customers with a wide range of disabilities.

About Greater Attleboro/Taunton Regional Transit Authority (GATRA) : GATRA provides for the human service and general public transportation needs through out 26 Massachusetts communities. GATRA services ~ 921,466 trips/year traveling approximately ~ 13,047,539 miles/year. Services include fixed-route buses, and paratransit (Dial A Ride).

About HB Software Solutions, Inc: HB Software Solutions is an Intelligent Transport Solutions Company. Established in 1997 with its international headquarters at North Andover, MA. HB Software Solutions has chartered itself to provide solutions built around state-of-the-art technology for Regional Transport Authorities & for the transportation industry in general.