Building A Smarter

SANTA MONICA'S BIG BLUE BUS IMPROVES SERVICE THROUGH TECHNOLOGY



our years ago Santa Monica's Big Blue Bus made a decision to use new technology to make its operations and customer service better than ever. It was a big commitment that required shifting existing personnel, adding new positions and spending over 7 million dollars. The four-year process of implementing an Advanced Fleet Management System (AFMS) had its share of issues, but the end result is a system that is creating highly improved customer service and better internal operations. "The Big Blue Bus wanted to commit to offering the best service available and this new technology has allowed us

to move forward in new and exciting ways," says Stephanie Negriff, Big Blue Bus director of transit services.

BY DAN DAWSON

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Santa Monica's Big Blue Bus is a medium sized transportation system surrounded by Los Angeles on three sides and the blue Pacific Ocean on the other. Covering a service area of over 51 square miles and providing over 22 million annual passenger trips the system has an extremely strong positive brand recognition with over 90 percent of residents having a favorable image of the Big Blue Bus. Always wanting to stay ahead of the curve the Big Blue Bus knew technology could make service even better.

ON-BOARD RADIO EQUIPMENT

"In a word, the AFMS is all about communication, making it better, faster, and having more of it," says Colin Probert, the Big Blue Bus project manager of the AFMS project. The Big Blue Bus contracted with Siemens VDO

Corporation to manage and implement the system. The project began with the installation of new radio equipment on 200 buses, the upgrading of two radio towers and the associated infrastructure. It is this new equipment that creates the infrastructure that allows the new onboard radio equipment to function.

"The new radios have added reliability to our system that we just did not have with the old system," says Benjamin Steers, transit software systems analyst. A two-tower system ensures that if one radio system goes down, coverage is still available through the second tower. The new radios are an improvement over the old ones as they provide two voice-channels and one data channel simultaneously. This data channel is especially important as it creates the ability to collect information and transmit information for mechanical alarms, schedule adherence, vehicle location, passenger counts, and text messages to Motor Coach Operators (MCO's).

REAL-TIME INFORMATION

The radio system allows for each operator to sign-on to their bus giving both the dispatch office and customer service staff instant information about each trip. With the click of a mouse, dispatchers and customer service representatives are able to view details such as who is driving the bus, its schedule adherence, and the exact location on the route. Since customer service staff has had access to this realtime information, complaints have dropped dramatically. Customers can be given specific information about the bus they are waiting for and appreciate the accuracy of the information that is now provided. Rather than saying "The bus is (continued on next page) scheduled to be there at 10 a.m.," we can now say, "The bus is four blocks away and will be there in four minutes," reports Jose Barba, customer service supervisor.

In addition to the radios, trip planning software and real-time onstreet information signs will make riding the Big Blue Bus easier and less stressful for customers. Most everyone has seen people, while waiting at a bus stop, stretch their necks to see if the bus is coming down the street. Real-time signs will soon be placed at the busiest of the Big Blue Bus stop locations and will continuously show the time of the next bus arrival. This information will also be connected to an Ontira Communications interactive voice response system (IVR), which will allow passengers to get the same information over the phone. Soon customers will be able to call from their home or office to see when their bus will arrive at their stop. Trip planning software will allow customers to easily plan their travel on the Big Blue Bus system through the existing website.

TIME AND MONEY SAVED

The basis of all this information is the scheduling software from Trapeze. The Trapeze program enables schedulers to experiment with various schedules (runcuts) and choose the most productive one. What used to be a time-consuming process that took weeks to complete by hand and on spreadsheets now takes only hours and is exceedingly more efficient, saving time and money. A simple download of timetables will be another time saver for our customers and ensure even greater accuracy of our printed materials and can be sent directly to the printing company without having to go through a layout process by a designer saving the Big Blue Bus time and money.

The AFMS also brought several other tools that assist with planning and customer service. The automated voice annunciation system announces each stop making time on the bus better for new riders and visitors, and meets all ADA requirements. The automatic passenger counter tracks boarding's and alighting at each stop, and the computer-aided dispatch system improves communications and safety between the dispatch office and the buses.

CHALLENGES ALONG THE WAY

As with many new technologies, creating this complicated system did not come without challenges. More equipment on the buses means more items to maintain and that translates to new staff with new skill sets. Updating

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the information such as the voiceannouncements when stops are moved or routes are changed, and the collection and interpretation of the new data means new job functions and more time. Perhaps the largest issues were technologies that were promised that in reality were not ready for installation. Connecting the farebox to the system came with many problems and the real-time signs are still not working properly and have not been put on the streets as of this writing. Delays in contract negotiations and changes in project management lengthened the project from the estimated 18 months to over three years.

In the end, the AFMS at the Big Blue Bus still has a way to go to be totally complete, but even the partially completed system has made the operations and customer service better than it was before. Says Negriff, "The implementation of our AFMS has been an enormous team effort that has involved every department and staff at all levels. As we move forward, it is becoming ever clearer that this system has fundamentally transformed our organization at almost every level." •

