Clever Devices

WMATA AUTOMATES ITS DEPOTS WITH SMARTYARD®

Creating efficiencies that improve on-time performance

SUMMARY

CUSTOMER
WMATA
Washington D.C. Metropolitan area including D.C, Maryland and Virginia

ABOUT WMATA
WMATA provides both rapid transit service (Metrorail) and fixed bus service (Metrobus) as well as paratransit services (MetroAccess) coverage across a 1500 square mile area.

BUS FLEET SIZE

- 1500+ buses
- 325 bus routes serving
- 11,500 stops per day
- ~400,000 trips per year
- 10 Depots

CHALLENGE

With its ten garages, WMATA employees spent considerable time manually recording parking positions in each depot. At various times during the night, a dispatcher was required to walk the yard and register the location of every parked bus. Using this information, he or she would then manually assign buses according to assignment information from the scheduling system. This system was not only time consuming; it required in-depth garage-specific knowledge to ensure that the right type of bus was assigned to each route and made more complicated by the fact that WMATA operates 30', 40' and 60' buses and some are branded for particular routes.

Another time-consuming process included the way bus operators received their assignments at the start of a shift. The drivers were required to stand in line to check-in at the dispatch booth where they were verbally informed of the location of their bus by the dispatcher. This often meant drivers were waiting for the information about their bus instead of heading straight to their vehicle to begin their shift.

SOLUTION

Real-time visibility of every vehicle in the depots and automated yard management

In 2015, WMATA began to roll out SmartYard, Clever Devices Automated Yard Management solution, to improve the efficiency of their depot operations and reduce the time consuming manual processes that were creating significant inefficiencies.

With SmartYard, WMATA can now track the exact location of all their vehicles *in real-time* and run reports to review past depot performance.

RESULTS

Reduced Manpower Requirements

Because dispatchers no longer spend many hours each day walking the entire yard manually recording parking positions and mapping those positions to bus types, their time is freed up for other tasks. In fact, fewer employees are needed to complete the dispatch process reducing labor costs.

More Efficient Assignment of Vehicles

With SmartYard, dispatchers no longer require the level of in-depth garage-specific knowledge they previously did and dispatch can be done remotely when possible. The SmartYard Pull-Out module automatically recommends vehicles to be assigned to routes, so dispatchers do not have to manually determine the best vehicle for assignments. This saves an enormous amount of time and ensures that the correct bus is assigned while providing accountability and transparency throughout the operation.

Improved On-Time Performance

Drivers no longer need to wait in line for their vehicle assignments. They simply look at an LCD display board which gives them their assigned bus and its exact location within the yard, so they can head to their bus to begin their shift.

Vehicle locations are tracked and updated in real-time, ensuring that an operator will not go to the wrong area or vehicle. WMATA has found that many operators take advantage of this information and go to their buses earlier than they did previously to perform pre-trip inspections to achieve an on-time pullout. SmartYard visually identifies vehicles that should have left the depot already allowing WMATA to quickly respond with any necessary changes.

Real-time Visibility of Exact Parking Locations

At any time, anyone with access to SmartYard can look at the system to see the precise location and status of a vehicle because the information is continuously updated and accurately displayed. Operators spend less time looking for their buses than they did before because the vehicle's location is always accurate.

If a maintenance worker takes a bus for repair, that information is flagged, and that bus isn't assigned to a driver. Additionally, SmartYard can integrate with Clever Devices' AVM solution to identify vehicles that have potential maintenance issues. This helps ensure that vehicles with known maintenance issues don't make their way onto the road resulting in a preventable road call.

About SmartYard®
Advanced Depot Management Solution

Locate vehicles anywhere in the depot, schedule vehicle and maintenance assignments, and run performance and inventory reports from an intuitive, user-friendly display that makes vehicle assignment more efficient and ensures the right vehicle is assigned to the proper work.

- **Eliminate Manual Reporting**

- **Improve On-Time Performance**

- **Simplified Dispatcher Vehicle Assignment**

- **Reduced Road Calls**

- **Optimize Pull-Out and Pull-In**

SmartYard® can be used as a standalone solution providing real-time visibility for all the vehicles in your depot.

When powered by our Intelligent Vehicle Network, IVN®, and paired with AVM Vehicle Monitoring Solution, SmartYard becomes your "CAD for the Depot", providing deeper visibility into all your depot operations and enhancing collaboration among operators, dispatchers and maintenance crews.

For more information on how to automate your depots with SmartYard
Visit www.cleverdevices.com/product/smartyard