



CITY OF DENVER

SMART CITY FINALIST CITY OF DENVER DEPARTMENT OF PUBLIC WORKS DRIVES SMART FLEETS WITH ZONAR

Customer:

City of Denver,
Department of Public
Works Fleet Management
Division

Industry:

City/State

Location:

Denver, CO

Organization Size:

180 employees

Business Impact:

Zonar helped the City of Denver Department of Public Works Fleet Management Division smarten its fleet by helping it achieve the following:

- Decreased vehicle idling time
- Improved visibility and tracking for fleet maintenance
- Improved operator care standards
- Increased uptimes for vehicles and drivers
- Form-based messaging
- Improved City and driver accountability

Zonar Solutions Involved:

- Zonar 2020® Android tablet, including EVIR® and ZForms™, on all snow plows and gas trucks
- Zonar 2010™
- V3™ for GPS and telematics

“With Zonar, we have been able to better track our vehicles, keep them up and running, and streamline our pre- and post- trip inspections with verified reports. If I ever have a problem, Zonar’s customer service is phenomenal. One of the biggest things when you work with a company is how fast you can get them to deal with an issue.”

– Doug Legg, manager of street maintenance, Denver Public Works Department

BUSINESS CHALLENGE

The city of Denver is a finalist to become the nation’s first “smart city” according to the U.S. Department of Transportation. Part of becoming a smart city is implementing connected vehicles into a city’s transportation network. For the City of Denver’s Department of Public Works Fleet Management Division, as part of this connected fleet implementation, the goal is to provide the highest quality service at a reasonable cost while ensuring safety and reliability. The department is responsible for the maintenance, repair, specification, rental, and retirement of more than 1,900 vehicles and pieces of equipment. As part of this goal, Public Works Fleet Management is continually pursuing new opportunities to “green the fleet.”

To help the city achieve these objectives, which are in line with the smart city initiatives, the Department of Public Works Fleet Management Division identified three areas for enhancement. First, they wanted connected vehicles in their fleet enabled with a solution that had GPS and verified inspection reporting. Second, the department wanted to help the fleet reduce vehicle idle times, contributing to a “greener” fleet and reducing the city’s environmental footprint. Third, the department wanted to improve its efficiency and accuracy by transitioning its fleet from paper and two-way radio transmissions for communication and reporting to a modernized telematics platform. The city’s existing use of paper reporting for pre- and post-trip inspections made verifying and documenting these reports nearly impossible. Subsequent vehicle uptime and maintenance issues were an ongoing concern because the operational needs of the fleet were not always met. In one instance, a vehicle’s \$30K engine became irreparable because it did not have any oil in it.

Additionally, for data-specific information, the chatter on a two-way radio made it difficult to articulate and record information clearly. This communication process was a particular issue with the snow plow fleet, which relays information back to supervisors regarding what roads had been plowed.

In 2014, the City of Denver deployed its telematics solution from Zonar. This began with the implementation of Zonar’s V3 for GPS location paired with the Zonar 2020 or 2010, both enabled with Electronic Vehicle Inspection Reports (EVIR®). Most recently, the 2020s have been loaded with ZForms, which is a form-based messaging application. The Zonar solution provides real-time updates on vehicle location and verified inspection reports, and it has the ability to transmit forms-based data.

SOLUTION AND RESULTS

The City of Denver Department of Public Works was able to smarten its fleet by deploying its Zonar-based telematics solution across its fleet with the Zonar 2010 and Zonar 2020 tablets with EVIR, ZForms, and additional commercial navigation tools, thus achieving the following:

- **Maintained strong driver service records and accountability:** Drivers and fleet managers could easily show the data gathered from the Zonar solution to show when and where its vehicles were as well as how they were operating. This not only made them accountable, but also provided the opportunity to alleviate any concerns the public might have about the use of city vehicles
- **Eliminated error-prone paper reporting for verified electronic reports:** The department was able to move from pencil-and-paper-based inspections to verified electronic reports with EVIR. This increased vehicle uptime and lowered maintenance costs significantly. Drivers also embraced the use of EVIR because its drop-down menus for inspections streamlined their ability to accurately inspect vehicles and submit verified reports.
- **Monitor idling, speeding, and hard brakes:** Alerts in the system were set up to identify behaviors such as idling, speeding, and hard brakes. The team previously had trucks idling as much as 6 hours a day. Using the Zonar solution with built-in idling alerts, the department has reduced its idling by 50% with the goal of further decreases.
- **Improved fleet and driver communications:** The ability to report directly from their own devices by working with the Zonar 2020 tablet enabled employees to better manage their equipment care and service while maintaining the supervision and tracking required for overall operational efficiency. Data-based communications are moving to forms-based transmissions on the 2020 via the ZForms application. Previously, this information was spoken over a two-way radio. With ZForms, the information is more accurately transmitted and received.

For more information about Zonar solutions, visit: zonarsystems.com

For more information about The City of Denver Department of Public Works, visit: <https://www.denvergov.org/content/denvergov/en/denver-department-of-public-works>

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877-843-3847