

CASE STUDY

WHERE SAFETY MEETS SANITATION

WASTE CONNECTIONS WORKS WITH VELOCITI TO UPGRADE CAMERA SYSTEMS



TRASH. We all produce it. In the United States, the average person produces 4.9 pounds of trash in a single day. That adds up to 292.4 million tons of trash generated by the entire country in just a year. But do you know where it goes after it's picked up from the curb? That's where Waste Connections comes in.

Since 1997, Waste Connections has provided non-hazardous waste collection, transfer, and disposal services, along with resource recovery primarily through recycling and renewable fuel generation across the U.S. and Canada. The company also provides non-hazardous oilfield waste treatment, recovery and disposal services in several basins across the U.S. as well as intermodal services for the rail haul movement of cargo and solid waste containers in the Pacific Northwest.

For Waste Connections, an integrated solid waste service company that operates over 10,000 vehicles at approximately 500 facilities in the U.S. and Canada, working to ensure the safety of employees, customers, and communities is ongoing and all-encompassing. However, what happens when the technology needs an upgrade? That is where Velociti comes in.

WASTE CONNECTIONS BY THE NUMBERS:

19,000

EMPLOYEES

10₀000₽ TRUCKS

43 MILLON HOURS WORKED IN A YEAR

43 MILLON LANDFILL TONS DISPOSED

1.7 MILLON TONS OF RECYCLED COMMODITIES



THE PROJECT: A SIGNIFICANT INVESTMENT FOR SAFETY

As a waste services company, Waste Connection's #1 value is safety. The company strives to ensure the complete safety of its employees, customers, and the public in all of its operations and protection from accident and injury is paramount in all it does.

That's why in 2020, Waste Connections set a goal to achieve a 25% reduction in its already below industry average incident rates. With 5G technology available in most markets, along with Lytx new Advanced Technology, the decision to embark on a fleet-wide upgrade was easy. This allows the company to leverage technology and enhance its behavioral-based approach to safety.

This led to a \$10 million investment, with state-of-the-art technology replacing the onboard camera and event recording technology systems, which are one of the foundations of minimizing risk in Waste Connections' day-to-day operations. Given the complexity of the installs along with the volume of vehicles to upgrade, it made the most sense to collaborate with a well-equipped company like Velociti to execute and lead the process.

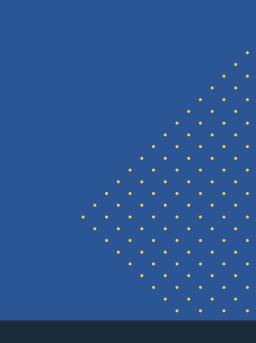
"This initiative was the single biggest conversion we've done on our fleet since the company's inception."

- Greg Thibodeaux, Vice President of Maintenance and Equipment Management for Waste Connections.

RISK FACTORS TO WATCH OUT FOR:

When it comes to waste service trucks, there are a number of risks to monitor. The new camera systems installed by Velociti ensured common risks were monitored and mitigated, such as:

- > UNBELTED DRIVERS
- DISTRACTED DRIVING FROM THE USE OF HANDHELD DEVICES, EATING AND SMOKING
- > LANE DEPARTURE
- > ROLLING STOPS
- > UNSAFE FOLLOWING DISTANCES





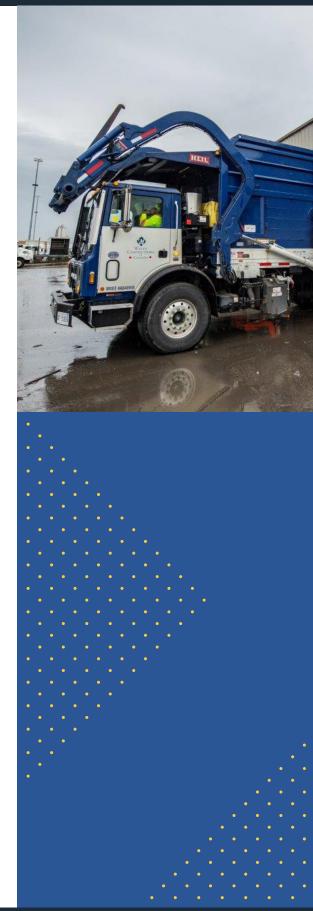
THE PROBLEM: OUTDATED CAMERAS POSTED FLEET-WIDE CONCERNS

When Waste Connections began working with Velociti, the core focus was updating its onboard camera and event recording technology systems. While the older system could only track inertial movements in vehicles, the updated systems provide artificial intelligence and "Machine Vision" to identify additional risks both inside and outside of the trucks.

"Prior to the upgrade, the fleet had forward-facing cameras and a different solution for the interior of the trucks," said Drew Wilson, Account Manager, Velociti. "Many of the cameras were using 3G technology which at times created challenges retrieving data and lacked the ability to record views on additional auxiliary cameras. Our goal was to update those systems in the most efficient and effective way possible."

Waste Connections will be the first national company in the industry to fully deploy the new MV/AI (Machine Vision and Artificial Intelligence) technology and multi-camera platform. This added visibility into at-risk behaviors will allow Waste Connections to improve their drivers' skills, reduce potential liability, and most importantly, increase safety for their employees and the public.

Velociti's expertise in customized technology solutions helped the team as they looked for ways to integrate older technology to work hand in hand with the new solution. Rather than just installing a new camera, Velociti was able to work with Waste Connections and the technology provider to integrate the new system into the cameras currently in the trucks.





THE INSTALL: THOUSANDS OF TRUCKS, THOUSANDS OF CAMERAS, ONE TEAM

With over 10,000 individual installs planned across all 44 states in the U.S. and six provinces in Canada, the Velociti and Waste Connections teams were in for a challenge. Each truck required multiple cameras to complete the upgrade, which meant more than 20,000 cameras had to be integrated across the fleet.

"The main challenge when we began was the complexity of the communication," said Thibodeaux. "The project was large and complex. But as soon as Velociti stepped in, everything was streamlined. If an issue arose in the field, Velociti would reach out to me immediately and we could solve it quickly. Everyone was more productive as a result."

In order to ensure a successful install throughout the entire fleet, quality control at the site level was paramount. Velociti allocated resources to call each installation site on a daily basis to create clear and open communication about potential concerns and to address any issues that arose immediately. "The Velociti team was able to quickly report on completed work and worked with Waste Connection's corporate and local teams to respond to any roadblocks along the way, it was important to us to communicate with Waste Connections and keep them informed of the status of the project throughout the entire process."

- Drew Wilson Account Manager, Velociti







THE RESULTS: **A partnership built to last**

As of this writing, the project is 75% complete and already positively impacting the business – capturing more near miss incidents than ever before. The implementation of the new technology allows Waste Connections to leverage behavioralbased technology to provide coaching on key safety factors, such as preventing rolling stops and increasing following distances.

And what started as a relationship between Velociti and the camera vendor grew into a partnership between Velociti and Waste Connections. As a result of the consistent and effective communication between Velociti and Waste Connections, the two teams have formed a relationship that will last long beyond the completion of this project.

"Waste Connections has been a true partner to Velociti throughout this project," said Wilson. "We look forward to continuing this partnership in future endeavors." As the team wraps up this project, they're looking towards the next project - installing event recorders and cameras on all new trucks as they exit the assembly line through various vendors. This will allow Waste Connections to provide consistency of installations across the entire fleet and maintain the level of quality that comes from the team at Velociti.

"This was my first experience with Velociti, and it was an extremely large project for our team, but they couldn't have made the process easier," said Thibodeaux. "Prior to Velociti, I had never worked with a group of people as like-minded as our team at Waste Connections. We built a great relationship in a short period of time. We can joke and banter, and at the end of the day, they get the job done."

For more information on Velociti, its fleet technology capabilities and more, visit **velociti.com**. For more information on Waste Connections, visit **wasteconnections.com**