

## Construction Company Uses Integrated MPulse-NexTraq IIoT Solution to Drive Vehicle Maintenance Improvement

### Organization Bio

Since 1985, Brothers Paving & Concrete has provided expert services in all areas of asphalt and site concrete construction for more than 2,500 customers in the Washington, D.C. metropolitan area. The Manassas, Virginia-based organization specializes in retail, institutional, office, and residential concrete and asphalt paving projects. The 200-employee company works on an average of 1,000 projects every year. Brothers also performs restoration, retrofit, and seal coating services.

Brothers' fleet includes 60 pickups, flatbeds, and tractor trailers, plus more than 50 pieces of construction and heavy equipment like milling machines, pavers, rollers, and skid steers. All this equipment is maintained by four mechanics, plus fleet manager, Dorthy Battista, and the maintenance coordinator, George Booth.



### Integrating MPulse and NexTraq

The integration of MPulse and NexTraq is an example of two companies working together in the best interest of their mutual customer.

For this integration, NexTraq's web services team shared their software's API information with MPulse's technical team, and MPulse did the programming.

The whole process was up and running in just 30 days.

### Organizational Challenge

Paul Battista, founder and CEO of Brothers Paving and Concrete, has one primary goal: to make customers happy. "Our guiding value," he says, "is an obsession for perfection and ultimate customer satisfaction."

Paul knows firsthand that busy construction companies need reliable equipment to deliver quality work on budget and on schedule. Staying on top of planned maintenance and performing repairs quickly on critical assets is key for any company that wants to delight customers and compete effectively.

In 2018, Paul identified an opportunity to improve how Brothers tracked its equipment deployed to work sites and other locations in the field. He wanted to know where his valuable capital assets were in real time, and he wanted to find a solution that would tell him when that equipment needed maintenance attention. With this information, Brothers could significantly increase equipment uptime and be one step closer to "ultimate customer satisfaction."

Fleet manager Dorthy Battista saw the opportunity, but recognized that it would be tough to achieve with the company's original system. "Everything was on paper," Dorthy explained. "It was difficult—or impossible—to get the information we wanted out of the old system. So, we had to do something different."



***"It was a smooth process  
for us and for the customer.  
Both parties shook hands  
and got it done."***

—Vishal Suchdeve,  
Director of Field Sales, NexTraq

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### Solution

In March 2018, Brothers implemented MPulse Maintenance Software to streamline maintenance operations. MPulse is cloud-based computerized maintenance management system (CMMS) software that provides a powerful suite of features to plan, schedule, track, and report on the maintenance of major capital assets in construction, manufacturing, and facilities environments.

At the same time, Brothers invested in NexTraq vehicle and asset tracking software, which uses GPS technology in vehicles to help fleet managers track mobile assets and monitor driver behavior. NexTraq records vehicle usage hours and mileage, as well as information like who's driving what vehicles, location, speed, sharp cornering, and other safety data.

Both software platforms offered big advantages to Brothers, and the company realized it could get even more value by integrating the two solutions. The first step was to use NexTraq to collect mileage data from the truck fleet and deliver it in real time to the MPulse CMMS database.

By doing so, Dorothy and the maintenance team could trigger work orders automatically and get trucks in from the field for maintenance on a more reliable schedule—one driven by actual mileage, not driver-reported mileage or time intervals. Tire rotations, oil changes, lubrication, and other critical maintenance activities would get done when they should, reducing breakdowns due to overdue maintenance. The integrated system would also keep low-mileage equipment in the field and working, instead of sitting in the shop for maintenance that wasn't yet necessary.

The integrated solution Brothers had envisioned was a terrific opportunity to use MPulse's Industrial Internet of Things (IIoT) capabilities. As defined by the TechTarget.com...

***IIoT is the use of smart sensors and actuators to enhance manufacturing and industrial processes. Also known as the industrial internet or Industry 4.0, IIoT leverages the power of smart machines and real-time analytics to take advantage of the data that dumb machines have produced in industrial settings for years.***

***The driving philosophy behind IIoT is that smart machines are not only better than humans at capturing and analyzing data in real time, they are better at communicating important information that can be used to drive business decisions faster and more accurately.***

NexTraq was the perfect sensor solution to capture vehicle mileage data. MPulse could then connect to that data in real time through its DataLink Integration Adapter IIoT solution. DataLink Integration Adapter provides an intuitive "drag-and-drop" user interface that allows non-technical users to map data connections between applications and data stores.

At Brothers Paving and Concrete, Dorothy was able to use DataLink to easily map to NexTraq mileage data to the mileage fields in MPulse. And with that data coming in automatically, MPulse could trigger work orders and notify drivers when vehicles needed to come in for scheduled maintenance.

"It just took a phone call to MPulse," she said. "It was such a smooth process, and it only took an hour or so to get the integration working, which kind of surprised me. I'd heard so many integration horror stories, but this was really easy. Randy Brous (MPulse CTO) was a huge help."



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### Benefits

MPulse CMMS software helps maintenance managers like Dorothy organize and make sense of what to do with large volume of data gathered by IIoT devices. It alerts her to take action when conditions on assets show problems or when the assets need routine maintenance. By connecting automatically to sensors and storing readings, it also gathers a detailed historical record of all the readings taken by those sensors over time. This allows managers to understand normal and out-of-range readings on vehicles and other assets and provides a basis of comparison between assets of similar type.

"The biggest benefit for us is not having to worry about the mileage because the data is automatically updated," Dorothy explained. "Everything has been super easy with both programs. I don't have to worry about it."

### IIoT Drives Vehicle Maintenance Improvement

The integration of MPulse and NexTraq via the MPulse DataLink Integration Adapter has changed the way Dorothy and her team manage their maintenance operations—from work orders to service requests to inventory. This real-world application of the IIoT has provided Dorothy and her maintenance team with peace of mind about their maintenance operations.

"I don't have to trust the driver to tell me when a vehicle needs an oil change," she explained. "I can sleep at night knowing my trucks are going to be maintained."

But more than anything, the business intelligence that Brothers gathers from the MPulse and NexTraq integration holds a great deal of value for driving the company's future growth.

"We are excited about our partnership with MPulse and NexTraq and how it's improved our fleet management processes," Paul said. "Own the process. Own the outcome."

### Reap Data Integration Rewards

Tight integration between MPulse Maintenance Software and other business-critical applications like NexTraq will do more than reduce hassle. You'll enjoy these benefits too...

- ✓ Fewer errors due to manual data entry
- ✓ Reduced data input redundancy
- ✓ Faster response times to maintenance problems
- ✓ Near real-time monitoring of critical data
- ✓ The ability to grow with your company's changing technologies

With MPulse DataLink Integration Adapter, data sharing complexity is a thing of the past. Contact us to find out how easy data integration can be.

### MPulse Maintenance Software

MPulse's world-class solutions provide reliable scheduling, tracking, and reporting tools for equipment and facilities maintenance organizations. With our easy-to-use CMMS software, MPulse customers reduce maintenance expenses, minimize downtime, extend equipment life, and boost productivity throughout their organizations.

### NexTraq

NexTraq, a Michelin group company, offers a telematics product line with everything you need to start getting more from your vehicles, drivers, and teams—from tracking and reporting to routing and scheduling. Headquartered in Atlanta, GA, NexTraq's history of ongoing design innovation and industry firsts matches perfectly with Michelin's vision, "A better way forward."

