

**FIRE RESCUE 1**



# PAPER DIGITAL TRANSFORMATION

eBook

## Enhance Efficiency, Reduce Costs: Digitizing Inventory Management for Fire Departments

Every second counts in the fire service. Fire departments face relentless demands to respond faster, minimize risk, and ensure crew safety. Explore how PStrax equips your team to achieve peak performance by streamlining checks and inventory management.

Sponsored by

**PS  TRAX**

MAXIMIZE EMERGENCY READINESS

# EDITOR'S NOTE

In January 2009, a Boston Fire Department ladder truck returning from a medical call experienced brake failure while maneuvering down a steep hill, crashing into an apartment building and killing a 30-year veteran firefighter who was riding in the front seat.

Braking system deficiencies with the apparatus itself and in the apparatus maintenance program contributed to the fatal crash. This tragic accident highlighted the critical need for improved maintenance procedures and record-keeping in fire departments. This led The National Institute for Occupational Safety and Health to recommend fire departments implement a comprehensive set of preventative measures and to use a checklist system for inspection procedures and fleet record tracking to improve vehicle upkeep.

Most fire departments have firefighters do vehicle maintenance and inventory checks at the end of their shift and keep these maintenance checklists on paper or a computer spreadsheet.

While paper checklists and analog systems have been the norm, many Fire and EMS agencies are facing the need to modernize. Traditional methods are time-consuming and lack transparency, making it difficult to track equipment history and proactively address issues.

The eBook discusses how transitioning from paper to digital checks and inventory management saves time, improves accuracy, enables departments to be alert to expired or damaged gear and helps ensure that when the next call comes in, fire crews have the tools they need to do their jobs safely and effectively.

— *The FireRescue1 Team*

# CONTENTS

## 03

### HOW SWITCHING TO DIGITAL ASSET MANAGEMENT CAN SIGNIFICANTLY IMPACT THE DAILY WORK OF FIRE AND EMS CREWS

By Laura Neitzel

## 07

### 8 TIPS FOR MOVING FROM PAPER TO DIGITAL CHECKS AND INVENTORY MANAGEMENT

By Laura Neitzel

## 11

### VOLUNTEER FIREFIGHTERS ARE DUMPING PAPER CHECKLISTS AND UPGRADING TO DIGITAL INVENTORY MANAGEMENT

By Tom Mangan

### About the authors

**Laura Neitzel** is Director of Branded Content for Lexipol, where she produces written and multimedia branded content of relevance to a public safety audience, including law enforcement, fire, EMS and corrections. She has over 25 years' experience writing and producing branded and educational content for nationally-recognized companies, government agencies, non-profits and advocacy organizations.

**Tom Mangan** is a technology writer who has worked with top brands across the state and local government sector. He spent more than two decades as a newspaper editor before switching to technology writing.

Sponsored by

**PS»TRAX**

A photograph of the open equipment compartment of a red fire truck. The compartment is filled with various firefighting tools and equipment, including hoses, nozzles, and a fire pump. The text is overlaid on the left side of the image.

How switching  
to digital asset  
management  
can significantly

# IMPACT THE DAILY WORK OF FIRE AND EMS CREWS

# FROM VEHICLE CHECKS TO INVENTORY, REPAIR, AND MAINTENANCE TRACKING, DIGITAL READINESS SAVES VALUABLE TIME

WRITTEN BY  
Laura Neitzel

Like many innovations in the fire service, PSTrax was born out of tragedy.

In January 2009, a [Boston Fire Department ladder](#) truck returning from a medical call experienced brake failure while maneuvering down a steep hill. It barreled through an intersection and crashed into a high-rise apartment building, killing Lt. Kevin Kelley, a 30-year veteran firefighter, who was riding in the front seat.

An [investigation by the National Institute for Occupational Safety and Health \(NIOSH\)](#) identified that braking system deficiencies, both with the apparatus itself and in the apparatus maintenance program, contributed to the fatal crash.

NIOSH recommended that fire departments implement a comprehensive set of preventative measures to avoid similar incidents in the future. The report further advised using a checklist system for inspection procedures and fleet record tracking to improve vehicle upkeep and stated that qualified personnel should undertake these measures. The NFPA 1911 standard for maintenance and inspection of emergency vehicles was cited as a resource for example forms and procedures to the department.

This tragic accident highlighted the critical need for improved maintenance procedures and

record-keeping in fire departments, and many fire departments took that to heart.

“At the time, everybody in the entire fire industry was trying to shore up their inspection processes to make sure that they didn’t have something like the Boston tragedy happen again,” said Scott Bergeron, chief executive officer and co-founder of PSTrax.

One of those looking for a better way to keep up with apparatus maintenance was the maintenance captain of the Black Hawk Fire Department (FD) in Black Hawk, Colorado. In the station, shared with the county paramedics, he wondered aloud why there wasn’t a system that could digitally keep track of truck checks. As it just so happened, Bergeron’s daughter Nicole, a paramedic, overheard the captain’s musings – and called her father, who was working in the cloud-based software industry. “She called me up and asked if we could look at ways to develop a digital system to track vehicle checks,” recalls Bergeron. “I immediately called my colleague at the time, Cliff Long, and said, ‘Hey you, let’s go up to Black Hawk and see what they want us to do.’”

Black Hawk FD loaded them with a stack of books “about eight inches thick,” and Bergeron and Long started diving into the details of a cumbersome paper-based fire department checks process.

After a month, Bergeron and Long returned to Black Hawk with a solution.

**“I had no idea it was like an 18,000-piece puzzle. But there are so many pieces that go along with gear checks, equipment checks, air pack checks, and controlled substance handoffs.”**

— Scott Bergeron, CEO, PSTrax

The platform recorded every check and every handoff in real-time, so at any given point, any department member had access and could

instantly know what repairs were needed and which were done.

“Maybe it was a benefit for us that we knew what we didn’t know, and we would just ask questions,” said Bergeron. “‘Exactly how do you want this to work?’ So, we tried to make it work exactly like they wanted it to work.”

## Replacing paper with digital efficiency

Fast forward to today, PSTRax is a full-fledged, purpose-built, cloud-based software solution that enables Fire and EMS agencies to automate checklists and inventory management. From any internet-connected device, departments can manage all their checks, from apparatus maintenance checks to equipment inspections, EMS and station supply inventories, station maintenance, controlled substance monitoring, and even crew chores and shift schedules.

Moving to a digital system helps Fire and EMS agencies save time, optimize resource allocation, improve accuracy, streamline replenishment processes, and save money. However, among its most important benefits is ensuring Fire and EMS crews have the gear, tools, and supplies they need to do their jobs effectively and safely.

Beyond tracking where gear, tools, and supplies are on the truck or the station, PSTRax helps ensure they are fully functional. This means SCBA checks to ensure the cylinders are full and working properly and that EMS supplies are stocked up and locked up and not expired. Critical assets like radios, thermal imaging cameras, and PPE are regularly inspected and pulled out of service, and repaired when needed, so crews are confident their mission-critical assets work as intended every single time.

“This is not exciting, sexy stuff,” said Bergeron. “This is asset management. But it’s important because it takes care of the gear and equipment that ensure the protection and safety of our first responders.”

## Improved data collection

Cloud-based software enables fire departments to record and collect a tremendous amount of data, which can be incredibly valuable for various departmental data needs. However, an ongoing challenge lies in filtering and presenting this data in the most relevant and actionable way for individual users and minimizing information overload and noise.

## “Really solid software is at the heart of good data collection.”

— Scott Bergeron

“It’s good to know I did 150 checks on a fire truck yesterday morning, but what specific details from those checks are most relevant?” He emphasized the importance of “collecting good data and extracting meaningful insights, like ensuring the crew’s air packs are functioning properly and the air is safe to breathe.”

## Saving valuable time with greater visibility

Checks are an integral part of every fire department to ensure safety and readiness. However, performing fire department checks and inventories can be time-consuming and labor-intensive, often involving complex processes and detailed record-keeping. Yet, an estimated 65% of fire departments still track checks and inventory using paper or spreadsheets.

With a digital asset management system like [PSTRax](#), any crew member can send an alert to the maintenance captain or chief mechanic if a piece of equipment on the apparatus fails inspection. This facilitates greater visibility into the repair process, allowing the individual to order the repair and track the equipment’s progress from the moment it leaves the station until its return. This streamlines the process and expedites the equipment’s return to service.

Being on the fireground and needing a chainsaw is not the time to realize the chainsaw is out for repair. Unlike a spreadsheet or binder full of paper, PSTRax is available to any crew member at any time.



## Managing community resources wisely

A fire department or EMS agency that serves the public has an obligation to maintain the sizeable and often hard-won investment in equipment and gear entrusted to them. Misplacing expensive gear or losing track of controlled substances can lead to financial losses, steep fines, and a loss of public trust.

With [PSTrax](#), departments can quickly and easily pull a report that tracks every item – from tools to EMS expendables to PPE and SCBA. Importantly, PSTrax also enables departments to collect data like registration numbers and gear expiration dates so leaders can make informed decisions, take proactive steps to replace critical items before they expire – and avoid a surprise expense or inability to fully serve their community.

## The importance of time

Fire and EMS crews witness some of the most challenging moments imaginable, and every second counts. “The last thing you want when you come back from a difficult call is to be bogged down by paperwork that doesn’t make an impact,” said Bergeron.

Unfortunately, many departments still rely on cumbersome processes like paper checklists and manual equipment checks between calls. This steals valuable downtime from the crews, hindering their ability to fully recharge physically and mentally before the next response. With its solution, PSTrax aims to free up at least 15 minutes daily for every Fire and

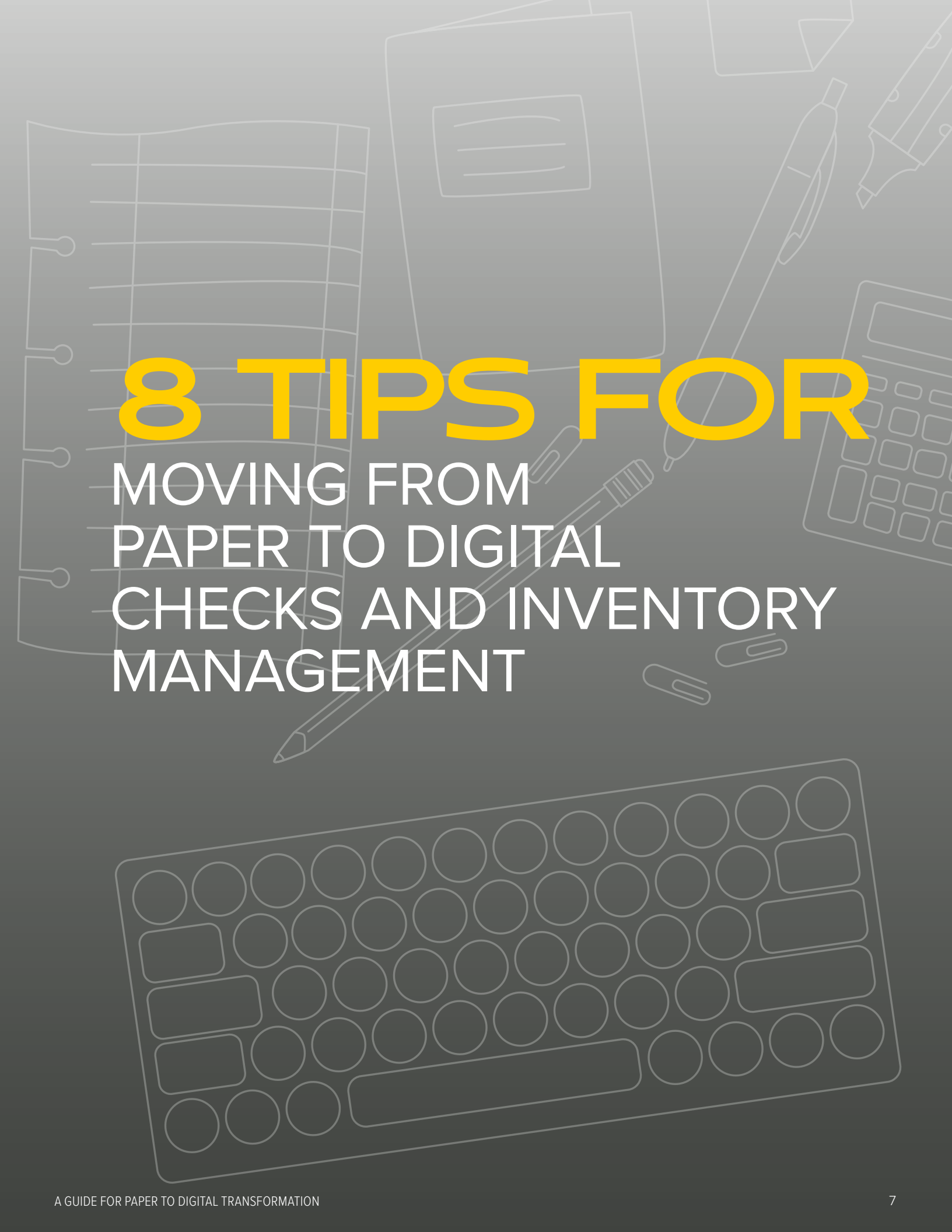
EMS member, allowing them more significant opportunities to focus on what matters.

## Built to serve

### The platform Bergeron and Long built for Black Hawk FD is still the foundation for PSTrax’s much-expanded suite of offerings.

For over 15 years, PSTrax has remained a family-owned business with a deep understanding of Fire and EMS teams’ challenges. Many PSTrax employees are former Fire and EMS veterans, bringing their real-world experience and a deep understanding of first responders’ operational challenges. This commitment to their core mission – enabling first responders to do their jobs safely and effectively – drives them to provide solutions that make a real difference in the daily lives of firefighters.

“The number one asset of a fire department is their people. Second is the equipment, apparatus and facilities that serve those people. There’s a lot more riding on this than just doing a truck check,” said Bergeron. “You can’t leave anything to chance. Having a more efficient way to conduct checks has a big impact on a department’s day. Fifteen minutes every shift, every day, can add up to meaningful time. Knowing fire crews have everything they need to conduct their missions safely is priceless.”



# 8 TIPS FOR

## MOVING FROM PAPER TO DIGITAL CHECKS AND INVENTORY MANAGEMENT

# DIGITAL VEHICLE MAINTENANCE, CHECKS, AND INVENTORY SOFTWARE SAVE VALUABLE TIME AND LIVES

WRITTEN BY  
Laura Neitzel

Fire and EMS crews face emergencies every day, and their success often depends on having the right equipment, tools, and supplies stocked and ready to go. Even a single malfunction can cost precious time and endanger lives.

Imagine responding to a fire call only to discover that tire pressure is low, a hydraulic rescue tool is faulty, or critical equipment is missing when you get to the scene. Firefighters rely on readily available and functional rescue tools, equipment, and protective gear. When firefighters battle a toxic, raging fire, their lives depend on their SCBA being functional and full of breathable air.

Similarly, paramedics rely heavily on having access to well-stocked and properly functioning medical supplies. Expired medications, depleted IV fluids, or a defibrillator with a dead battery can have catastrophic consequences. It is crucial to ensure that all medical supplies are up-to-date and functioning properly to prevent potential harm or risk to the patient's health.

When lives are on the line – which is every day for Fire and EMS agencies – the only way to ensure first responders will have what they need for the next call is to conduct thorough vehicle maintenance checks and inventory. Every. Single. Day. And sometimes more than once a day if a demanding call uses virtually every tool on the truck or depletes their supplies.

With paper-driven checklists and inventory management, fire and EMS crews are exposed to inherent risks like human error, lost records, and delayed identification of critical equipment issues, all of which can have serious consequences in the field.



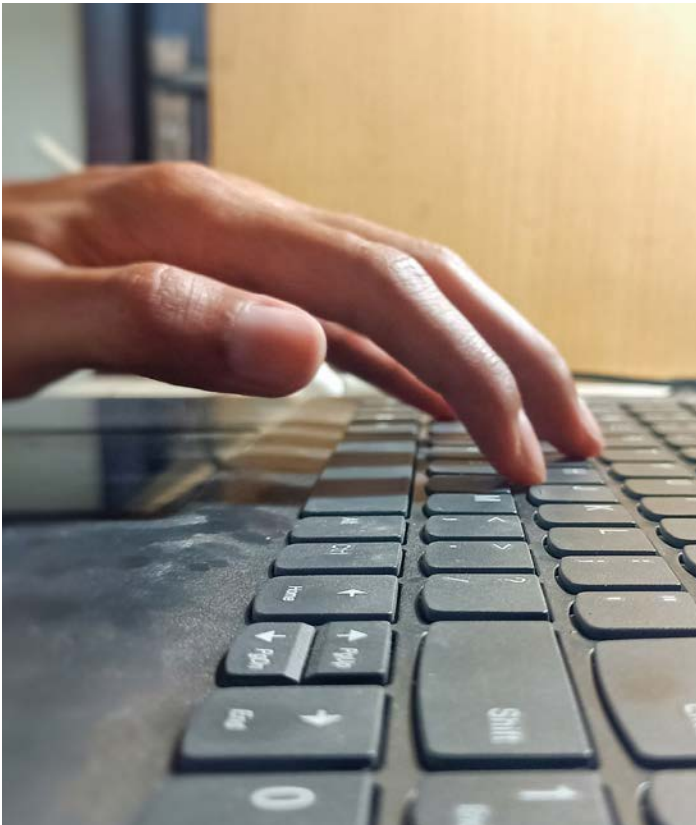
## Benefits of going digital

Vehicle maintenance and inventory checks are a routine part of every shift. Many Fire and EMS agencies still rely on paper-and-pen checklists, whiteboards and even sticky notes posted on the fire chief's door to convey critical information about needed repairs or what items have moved from one vehicle to another.

Some departments have computerized spreadsheets or emails. Others are reluctant to move from a manual system they know to a digital system they are skeptical of.

## If paper and pen works, why change?

After a shift, would you prefer to spend 45 minutes doing a truck check or taking inventory? Or would you rather spend some of that time recovering



from the call you just finished before heading to the next one?

While paper checklists and analog systems have been the norm, many Fire and EMS agencies are facing the need to modernize. Traditional methods are time-consuming and lack transparency, making it difficult to track equipment history and proactively address issues. Modern software solutions offer a single, user-friendly platform accessible on laptops, phones, and tablets for real-time inventory checks, maintenance schedules, and comprehensive equipment history tracking. This shift allows crews to save valuable time, enhance operational efficiency, improve communication, and ultimately, ensure they are fully prepared for the next emergency.

While the transition from paper-based checklists and inventory systems to a digital application offers significant benefits like increased efficiency and accuracy, the digital shift can be a daunting cultural change. Fortunately, comprehensive solutions exist to ease the process. Look for providers who offer more than just software. Choose a company like PSTrax, that supports

the entire implementation process and provides ongoing assistance to ensure your team feels comfortable using the system.

To help your agency navigate the shift from paper-based systems to digital checks and inventory management, consider these 8 essential tips that will ensure a seamless and successful transition.

## **8 tips for a smooth and efficient digital inventory management transition**

Transitioning from paper-based systems to digital inventory management can be a significant shift, but with the right approach, Fire and EMS agencies can streamline operations, enhance safety, and improve accountability. These eight tips will guide your agency through the process, ensuring a smooth adoption of digital systems that empower your teams, boost efficiency, and align with your specific needs.

### **1. Understand your agency's needs**

Start by identifying the biggest pain points in your current process. Are paper logs being lost? Are assets not being tracked properly? Understanding these challenges will help you choose the right solution that addresses your agency's specific needs.

### **2. Choose a turnkey solution that aligns with your processes**

Not all digital systems are created equal. Some require complex customization, while others impose rigid workflows that don't reflect the realities of Fire and EMS operations. The right digital solution should fit naturally into your agency's existing processes, not force you to reinvent them. Look for a system designed specifically for first responders, one that can be easily tailored to your needs, integrates smoothly with your current workflows, and minimizes the setup and training required. This approach ensures a faster, more effective transition and long-term operational success.

### **3. Ensure the system is easy to use**

Adoption hinges on ease of use. If the system is too complicated, crews won't use it consistently, and it could become 'shelfware'—software that

gets purchased but not implemented. Choose a system with an intuitive interface that minimizes training time and simplifies daily tasks.

#### **4. Start small and expand (“crawl, walk, run”)**

Going fully digital overnight can be overwhelming. Instead, start with the most critical area—like vehicle checks—before expanding to equipment, supplies, and controlled substances. This phased approach ensures a smoother transition and higher adoption rates.

#### **5. Maintain familiarity by replicating paper checklists first**

Selecting a system purpose-built for Fire and EMS operations is crucial. Systems like PSTrax are designed to seamlessly integrate into your existing workflows. Whether it’s vehicle checks, equipment, or other assets, PSTrax modules follow a consistent format, making it easier for crews to adopt across different areas. This standardization reduces training time and simplifies expanding to other modules, ensuring a smooth and effective transition as your agency digitizes more processes. A system tailored to your operational needs helps support long-term success.

#### **6. Stay ahead of compliance requirements with actionable insights**

Regulations for Fire and EMS agencies are constantly evolving, making compliance a moving target. Digital solutions simplify compliance by automating documentation and tracking for NFPA, OSHA, DEA, and state-level requirements. With a platform like PSTrax, agencies can ensure that PPE, SCBA, controlled substances, and vehicles remain compliant—without relying on manual paperwork.

Beyond compliance, digital systems unlock valuable data that helps agencies make better decisions and increase safety. Real-time reports on inventory levels, maintenance needs, and compliance statuses allow leadership to identify trends, allocate budgets more effectively, and reduce risk. By ensuring that critical equipment is always in optimal condition, agencies can enhance the safety of their crews, proactively address

issues, and avoid the risks of equipment failure during emergency operations.

#### **7. Leverage additional modules for a unified system**

One of the key advantages of a centralized system like PSTrax is the ability to manage all your checks and inventory—whether for vehicles, SCBA, equipment, or supplies—in one cohesive platform. Unlike juggling multiple disparate systems, a unified solution streamlines operations, reduces the need for extensive training, and ensures consistency across all modules. This seamless integration allows your agency to monitor and manage everything from one central point, improving efficiency and minimizing the risk of errors that can occur when using separate systems.

#### **8. Choose a partner who provides ongoing support and flexibility**

A successful transition doesn’t end after implementation. Ensure your provider offers ongoing training, customer support, and system updates to continuously improve efficiency and adapt to your agency’s evolving needs. Be cautious about getting locked into complex systems that don’t align with your current processes, or upgrades that don’t support your agency’s specific needs. The right partner will provide flexibility and responsive support, helping you optimize system usage while avoiding costly disruptions and ensuring the system grows with your operations.

By following these tips and partnering with the right provider, your agency can successfully transition to a digital inventory management system that enhances operational efficiency, safety, and accountability. Technology is always evolving, and partnering with a customer-centric, innovation-driven company ensures that your system remains up-to-date and aligned with the latest advancements.

A well-integrated, user-friendly system—backed by ongoing support and flexibility to adapt to your evolving needs—ensures your agency remains agile, compliant, and prepared for any situation, ultimately enhancing crew safety and operational readiness.



# Volunteer firefighters are dumping paper checklists

and upgrading to digital inventory  
management

# HOW MOVING TO A DIGITAL CHECKS AND INVENTORY MANAGEMENT SYSTEM PREVENTED COSTLY MISTAKES FOR THE DELRAN TOWNSHIP VOLUNTEER FIRE DEPARTMENT

WRITTEN BY

Tom Mangan

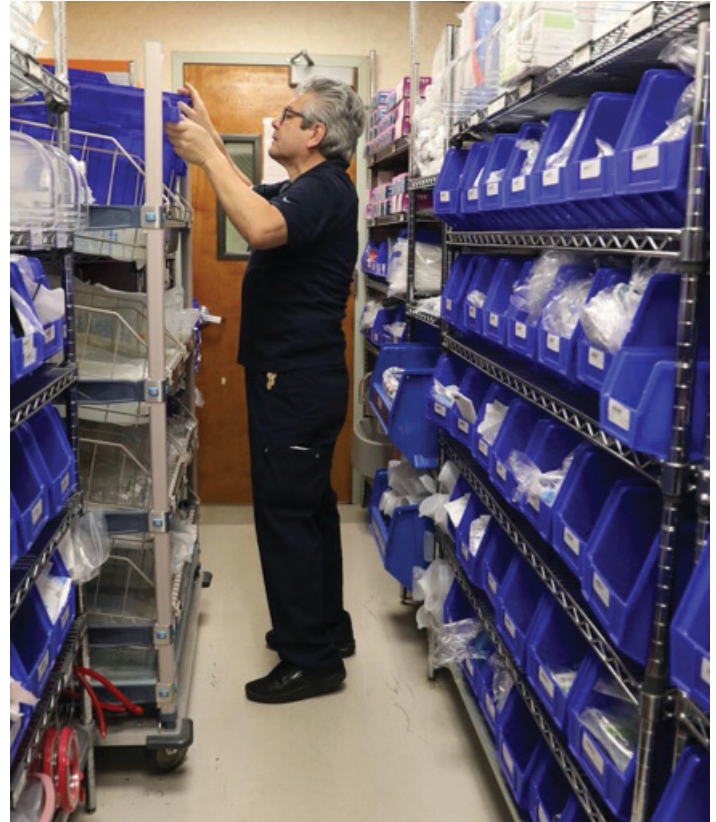
Tracking inventory with clipboards and spreadsheets was bogging things down for the Delran Township Fire Department. The department's top brass knew they needed an automated solution to improve inventory accuracy and streamline operations.

Delran is a suburban community of about 18,000 in western New Jersey, about 15 miles northeast of Philadelphia, Pennsylvania. Keeping the department's apparatus inventory current was a job that had to be done, but nobody relished the idea of doing the inventory on paper.

Aside from two full-time Fire Marshals, the department's fire crews are all volunteers who serve 12-hour shifts at one of two firehouses. The crews usually arrive at a firehouse after working eight or more hours at their full-time jobs. While they're keen to battle blazes and rescue people, they're less excited about paperwork like inventory tracking for the department's eight apparatus.

"The last thing they want to do when they come into the firehouse is have somebody throw them a clipboard and say 'hey, go do another hour's work to check the truck,'" said Joseph Cunningham Jr., Battalion Chief and Fire Marshal with the Delran Township Fire Department.

Digitizing inventory with the [PSTrax](#) platform helped Delran Township address both issues, improving firefighter efficiency while reducing inventory oversight risks. "It gets us ahead of the curve and makes sure we're not behind the ball with our equipment," Cunningham added.



## Challenges: too much paper, painstaking tracking

Inventories account for every hook, ladder, saw, oxygen tank, and other equipment within each storage section of a firefighting apparatus. Inventory management is essential because an inaccurate or out-of-date inventory could put firefighters in a life-or-death crisis if they lack crucial equipment.

Traditionally, the inventory was a paper checklist. In the digital age, inventories are often moved to spreadsheets, but they still involve a time-consuming abundance of manual processes. Cunningham was keenly aware of the shortcomings of conventional inventory management.

"We used paper for everything," he recalled. Excel spreadsheets containing inventory data were

printed out and hung up on a clipboard. A crew member would click checkmarks to show that the apparatus had been inspected. “We found guys were just going through the motions, and things were being missed,” Cunningham said.

Doing the same job day after day this way made people complacent, he added. “We had times where we knew that a tool was out of service and taken off the truck,” he said. But the checkmarks didn’t necessarily say where the tool was or when it would be back on the job.

The bedlam of a fire scene or car crash makes it even harder to track equipment. “People pick up equipment and set it back down, and forget where they put it,” Cunningham said. Gear that arrived on the scene in one truck might get stowed in another truck on the way home.



Paper and spreadsheets were unequal to the challenge — especially in light of a new generation of cloud-based inventory tracking software that works via mobile in any location.

## **Solution: Never lose track of vital equipment again with the PSTrax system**

Delran Township Fire Department partnered with [PSTrax](#), which puts all inventory-management tasks into an easy-to-use system. Because all data is in the cloud and updated in real-time, every user in the department can learn the status of a piece of equipment quickly and easily.

Cunningham’s teams now use PSTrax to conduct a quick once-over of all the equipment at a scene. The system knows where each piece of gear belongs, which helps ensure that items go back to their proper location.

“The system helps us make sure we’re hitting every item that’s in the compartment,” Cunningham said. This pays dividends when inspections are made back at the firehouse and again at the next emergency scene. “You open up the compartment and everything’s there.”

The system also shows who conducted the previous check, so firefighters on each shift will know who to contact if a piece of gear gets misplaced. A messaging feature lets firefighters tell each other about quirks with gear that might have cropped up in the past 24 hours.

## **Implementation: Getting the new software up and running**

Cunningham helped lead the push to update the township’s inventory management system. [PSTrax](#) introduced the system, and Cunningham’s team liked what they saw.

“Initially, we started out with only the truck checks to get that off paper,” Cunningham said. Installing the software on people’s phones and configuring everything to meet the firefighters’ needs was mostly straightforward.

The greater hurdle was getting veteran firefighters to change their work habits. “It was a little difficult in the beginning, because it was a bit of a culture shock,” Cunningham recalled. After training sessions helped them master the contours of the



app's functions and processes; however, they quickly embraced it.

Inventory isn't a grit-your-teeth-and-get-it-done chore anymore. "It's enjoyable now," Cunningham said.

### **Results: Better organization, precision tracking, strong ROI**

Both of the township's firehouses have PSTrax up and running, documenting all their equipment, including PPE. Missing equipment is more accessible to track down because the staff has a window on all the places the gear has been.

"Every firefighter's gear is logged in a system," Cunningham said. "We can be proactive and get the SCBA bottles rehydrated before they're expired."

Maintenance and repair schedules are much easier to monitor. "It gives us the tools to prepare

for upcoming services when they're needed, and not six months down the line when somebody realizes, hey, these are past due," Cunningham added.

Best of all, conducting checks happens much faster. Instead of one firefighter spending an hour tracking a single truck's inventory, four of them can divide the tasks evenly and finish up in 15 minutes. This saves at least 360 hours a year, Cunningham estimated.

The department's Fire Marshals can use analytics to predict budgeting for new PPE and air packs.

The benefits in productivity and risk reduction made [PSTrax](#) a worthwhile investment, Cunningham concluded: "The cost is pennies compared to what the product gives the fire department and firefighters the ability to do."

# ABOUT THE SPONSOR

PSTrax is a cloud-based operations management platform built for Fire & Rescue, EMS, Law Enforcement, and Department of Defense (DoD) agencies. The platform digitizes routine checks and automates inventory tracking across key operational areas including Vehicles, Stations, PPE, SCBA, Supplies, Assets, Controlled Substances, and Blood Products. Each module is tailored to meet the unique demands of the agency type it supports, ensuring relevance across diverse mission sets.

The platform reduces administrative workload and supports operational readiness by replacing paper checks and spreadsheets with intuitive digital tools. Agencies can adapt each module to their needs, stay aligned with evolving standards, and maintain full visibility and accountability, freeing more time to focus on public safety and protecting the communities they serve.



## RESOURCES



### LEARN MORE ABOUT PSTRAX

Get to know [PSTrax](#) and learn about the benefits of using a "Best of Breed" solution for fire department checks and inventory.



### REQUEST INFORMATION

[Schedule a brief demo](#) of PSTrax to experience the benefits firsthand, and discover why PSTrax is the #1 inventory management software for first responders.



### THE HIDDEN CHALLENGES OF ALL-IN-ONE SOLUTIONS

Learn [how to spot and avoid](#) the hidden pitfalls of All-in-One software solutions.



### FIRE & RESCUE DEPARTMENT CUSTOMER REVIEW VIDEO

[Watch customer review video](#) and learn how one agency simplified checks & controls with PSTrax.